



AELCLIC Pathfinder project **DELIVERABLE 3**

**Programmatic documents or inputs
for future LACAPs**

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Climate-KIC

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Introduction

The AELCLIC-Pathfinder project defines, tests and disseminates proactive and catalysing models for the configuration of regional/local consortia with the social, financial, administrative and technical capacity to co-define in the future Landscape Adaption Plans to Climate Change (LACAPs hereafter). The present deliverable provides an overview of all the “programmatic documents or inputs” for future Landscape Adaptation Plans to Climate change (LACAPs)” developed and agreed between all the members of each local network. The AELCLIC project, as a pathfinder project, among other results has developed an integrated and inclusive path to inform and enable administrations, stakeholders and citizens in general, to adapt and integrate the policies and planning tools in force with strategies and indications regarding landscape adaptation to climate change or to generate new ones focused in Landscape Adaptation to Climate Change. This has been done in an innovative way according to a systemic and common perspective of the landscape, which plays the essential role of interface both to analyse and to prefigure shared scenarios of sustainable adaptation to the new conditions imposed by the climate change. The results of the pathfinder process, conducted by AELCLIC in parallel in each pilot case, have been condensed into “programmatic documents or inputs” for Landscape Adaptation Plans to Climate change, which indicate the structure that future plans for adapting landscapes to climate change might have. They include the agreed goals, the main themes, the implementation plans and the structures defined so far as well as the contribution, commitment and role of each member of the local network in this endeavour. This deliverable presents a descriptive synthesis of these plans, in the various forms they have assumed in the various pilot landscapes of the project.

The first chapter describes the key contents and structures of the LACAPs developed in each work package and highlighting particularly important aspects characterizing the different documents of each pilot landscape. For ease of consultation, it is divided into 4 sub-chapters, each one dedicated to a specific work package.

The conclusions of this deliverable provide a final reflection on the nature and potential of this tool, in order to prefigure the scalability and exportability of the AELCLIC experience. After the critical-comparative analysis carried out on the various LACAPs in the different work packages, the conclusions also develop a synthetic evaluation of the extent of LACAPs’ impact on the local/regional governance, about their integration with the EU directives and regional and/or local planning, and influence on society.

The appendix contains all the reports and the materials produced during the AELCLIC project in each pilot landscape, which relate to the illustration of the planning documents of the LACAPs.

It is divided into four sections according to the relevant AELCLIC Work Packages (WP):

- WP2: Northern Europe
- WP3: Atlantic and Alpine Europe
- WP4: South-Western Europe
- WP5: South-Eastern Europe

This deliverable is also displayed in the WEB of the project (<https://aelcllicpathfinder.com/>).

Programmatic Documents or Inputs for future LACAPs.

The AELCLIC project has proved capable of producing the programmatic documents or inputs for the future preparation of the LACAPs in each one of the 15 pilot landscapes. The different structures and specific subjects/features of these documents faithfully reflect the process carried out in each context, that has been always influenced by a combination of important factors. These main factors are the cultural context, the level of knowledge of the local network with respect to climate change issues, the level of updating of the policies and the governance system in this regard, the direct involvement of the administrations in charge in the project, the perceived magnitude and severity of the effects of climate change on the pilot landscapes, the composition of each single network and, finally, the facilitation processes developed during the AELCLIC project in each Pilot Landscape and with each Local Network.

Work Package 2 | Northern Europe

The programmatic documents or inputs for the LACAPs in the work package 2, Northern Europe, show the completion of AELCLIC project in a shared, consistent and synthetic way. The process has been characterized by a good homogeneity in all the pilots as the methods employed and tested in the leading and in the multiplier landscapes, have proven to be effective. All the local networks have been able to develop and agree on the key contents and structure for the future LACAP, precisely identifying the main goals, the themes, the opportunities, the solutions/actions, but also the expected impacts and the actual barriers. This systematic approach to identify problems and foresee shared solutions has been repeated for every pilot landscape by employing clear guidelines and effective methods, and reflects the design thinking that connotes the AELCLIC landscape approach as well as the importance of accurate critical revisions and synthesis phases that followed each collective work (workshops 1, 2 and 3). All the proposed structures for a LACAP provide the key contents and, depending on the Pilot Landscape, some interesting elements, such as the attitudes/ways-of-thinking to be promoted by the LACAP and the shared landscape values, which have been deemed necessary to inform the future LACAPs. Moving from this accurate framing, the final articulations and typology of the LACAPs could then be properly adapted to each regulatory and planning framework as the process to build the LACAPs has been properly defined and has considered the most relevant existing planning frameworks.

PRELIMINARY CONTENTS, PROCESS & ACTORS OF A LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (MALMI DISTRICT (HELSINKI))

VALUES/ GOALS	THEMES/TOPICS	EXPECTED IMPACTS	OPPORTUNITIES	SOLUTIONS/ACTIONS	BARRIERS
GOALS FOR CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> SUSTAINABLE MOBILITY & TRANSPORT COMPACT AND LIVELY NEIGHBOORHOODS DIFFERENT URBAN FABRICS AND DIVERSE COMMUNITY UPGRADING MALMI IMAGE AND IDENTITY GREEN-BLUE INFRASTRUCTURE GOALS FOR CLIMATE CHANGE ADAPTATION & MITIGATION: <ul style="list-style-type: none"> ADAPTATION OF BUILDINGS, INFRASTRUCTURES AND OPEN SPACES COMPACT, MULTIFUNCTIONAL AND LIVELY NEIGHBOORHOODS ADAPTATION AND IMPROVEMENT OF GREEN INFRASTRUCTURE, GREEN FACTORS AND ECOSYSTEM SERVICES PROMOTION OF URBAN AND CULTURAL DIVERSITY AND CONSIDERATION OF HISTORICAL LAYERS FLEXIBLE AND DEMOGRAPHICALLY BALANCED DISTRICT STORM WATER MANAGEMENT AND SOIL PERMEABILITY 	THEMES FOR CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> SUSTAINABLE MOBILITY CIRCULAR ECONOMY FLEXIBILITY AND TRANSPARENCY THEMES FOR CLIMATE CHANGE ADAPTATION & MITIGATION: <ul style="list-style-type: none"> SUSTAINABLE FLUIT AND NATURAL ENVIRONMENT SOCIAL SUSTAINABILITY, WELLBEING, AND SUSTAINABLE WAYS OF LIVING GREEN-BLUE AND BIODIVERSE INFRASTRUCTURES 	IMPACTS FOR CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> FUNCTIONALITY OF URBAN SPACE, PUBLIC SPACE AND URBAN STRUCTURE VITALITY OF LOCAL ECONOMY EFFECT OF URBAN DENSIFICATION IMPACTS FOR CLIMATE CHANGE MITIGATION AND ADAPTATION: <ul style="list-style-type: none"> SUSTAINABLE BUILT AND NATURAL ENVIRONMENT SOCIAL SUSTAINABILITY, WELLBEING, AND SUSTAINABLE WAYS OF LIVING GREEN INFRASTRUCTURE AND BIODIVERSE INFRASTRUCTURES IMPACTS FOR CLIMATE CHANGE ADAPTATION: <ul style="list-style-type: none"> PSYCHOLOGICAL AND PHYSICAL HEALTH WELLBEING AND SOCIAL & CULTURAL DIVERSITY FUNCTIONALITY OF EXISTING BUILDINGS STORM WATER MANAGEMENT AND EFFECT OF DENSIFICATION QUALITY AND FUNCTIONALITY OF GREEN-BLUE INFRASTRUCTURE/SPACES IMAGE OF THE DISTRICT 	OPPORTUNITIES FROM CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> INTRODUCTION OF NEW TECHNOLOGIES & MOBILITY SYSTEMS IMPROVEMENT OF URBAN STRUCTURE, OPEN SPACES & BUILDINGS NEW WAYS OF LIVING MALMI BECOMES A REFERENCE IN CLIMATE CHANGE MITIGATION (Carbon Neutral District) OPPORTUNITIES FROM CLIMATE CHANGE ADAPTATION AND MITIGATION: <ul style="list-style-type: none"> TRANSFORMATION OF LOCAL ECONOMY (GREENER & MORE CIRCULAR) GENERATION OF A MORE COMPROMISED, SAFE & LIVELY DISTRICT IMPROVEMENT OF BLUE-GREEN INFRASTRUCTURE IMPROVEMENT OF PUBLIC SPACES & SERVICES SOIL, WATER, AND ECOLOGY GAIN RELEVANCE IN PLANNING AGENDAS SMALL CHANGES PROMOTE A BIGGER & SYSTEMIC CHANGE 	SOLUTIONS/ACTIONS FOR CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> DENSIFICATION CENTRALIZATION NEW MOBILITY SYSTEMS DESIGN OF THE PUBLIC SPACE UPGRADING OLD BUILDINGS SOLUTIONS/ACTIONS FOR CLIMATE CHANGE ADAPTATION AND MITIGATION: <ul style="list-style-type: none"> CLIMATE CHANGE FRIENDLY AND FLEXIBLE URBAN PLANNING AND DESIGN ADJUSTMENT AND IMPROVEMENT OF GREEN-BLUE INFRASTRUCTURES, GREEN FACTORS AND ECOSYSTEM SERVICES (e.g. in the Langsjö valley, natural meadow) UPGRADING OLD BUILDINGS & INFRASTRUCTURES FINANCIAL SUPPORT FOR IMPLEMENTING ADAPTATION ACTIONS NEW MOBILITY SYSTEMS AND PRACTICES: Public transport, shared vehicles, carpooling NEW HYBRID BUILDINGS AND INFRASTRUCTURES 	BARRIERS FOR CLIMATE CHANGE MITIGATION: <ul style="list-style-type: none"> MONEY AND RESOURCES UNCERTAINTY ABOUT NEW TECHNOLOGIES RESISTANCE AND FEAR TO CHANGE BARRIERS FOR CLIMATE CHANGE ADAPTATION AND MITIGATION: <ul style="list-style-type: none"> MONEY AND RESOURCES LAND OWNERSHIP: FRAGMENTATION AFFECTS CHANGES & MAINTENANCE RESISTANCE AND FEAR TO CHANGE CLIMATE CHANGE IS NOT INCLUDED IN PLANNING INCREASE OF POPULATION

PRELIMINARY CONTENTS for a potential LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE in the Hyypä River Valley (#=adaptation; @=mitigation)

ATTITUDES	THEMES	EXPECTED IMPACTS	OPPORTUNITIES	SOLUTIONS/ACTIONS	BARRIERS
<ul style="list-style-type: none"> • CO-OPERATION • ENTREPRENEURSHIP • POSITIVITY 	<ul style="list-style-type: none"> • AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT & RURAL TRADES (#, @) • PEOPLE, WAYS OF LIVING & ENERGY (#, @) • PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES (#, @) 	<p>ON AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • IN TOURISM • IN AGRICULTURE, CATTLE BREEDING AND FORESTRY • IN NATURAL ECOSYSTEMS • IN RURAL ECONOMY AND RURAL TRADES • IN CARBON EMISSIONS • IN LANDSCAPE <p>ON PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • IN ENERGY CONSUMPTION • NEED OF NEW ENERGY SOURCES • IN CARBON EMISSIONS • IN ECONOMIC ACTIVITIES <p>ON PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • IN THE LANDSCAPE • IN THE OBJECTIVES OF LAND USE PLANNING • IN THE FUNCTIONALITY OF EXISTING AND NEW BUILDINGS • IN PERSONAL LIFE AND SAFETY • IN INFRASTRUCTURE AND MOBILITY 	<p>IN AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • DIGITAL SOCIETY • DEVELOPMENT OF BETTER AGRICULTURAL PLANS • INCREASE OF GREEN ECONOMY • AGRICULTURE AS A SOLUTION TO CLIMATE CHANGE • CATTLE BREEDING IS LESS SENSITIVE <p>IN PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • RENEWABLE ENERGIES • NEW ENERGY AND TRANSPORT • NEW ENERGY SOURCES DIGITAL SOCIETY • NEW INHABITANTS <p>IN PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • RETRO-SPATIAL AND LAND-USE PLANNING • NEW ARCHITECTURE 	<p>SOLUTIONS/ACTIONS FOR AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • RESTORING/AVOIDING NATURAL ENVIRONMENTS (E.G. RIVER, RECREATIONAL ROUTES, MIXED FORESTS, ETC.) • CARBON SEQUESTRATION THROUGH AGRICULTURE & FORESTS • NEW AGRICULTURAL TECHNIQUES (DRAINAGE, SOIL MANAGEMENT, CROP ROTATION, MEADOWS) • ORGANIC FARMING • MONITORING LANDSCAPE MAINTENANCE • SOIL AND GROUNDWATER RESEARCH & IMPROVEMENTS • IMPROVING AND DEVELOPING NEW TOURISM SERVICES • MORE INFORMATION AND MORE INNOVATIONS <p>FOR PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • TOWARDS A CARBON NEUTRAL HYYPÄ RIVER VALLEY • SUSTAINABLE & GREEN ECONOMY + SHARING ECONOMY • FINANCING GOOD PROJECTS • PROMOTING HEALTH AND WELLBEING • REVITALIZATION OF TRADITIONS • NEW TECHNOLOGIES: ENERGY, REMOTE WORK, ETC. • MORE INFORMATION AND MORE INNOVATIONS • MORE COMMUNICATION & MARKETING <p>FOR PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • NEW BUILDING REGULATIONS • NEW AGRICULTURAL PRACTICES & PLANS • TECHNICAL AND DIGITAL DEVELOPMENT • JOINT USE, SHARED VEHICLES AND SHARING ECONOMY • NEW STRATEGY FOR THE NATURAL ENVIRONMENT & NEW RECOMMENDATIONS FOR LANDSCAPE MAINTENANCE • DEVELOPMENT OF TRAFFIC SERVICES, LANDSCAPE ROUTES • MORE INFORMATION AND MORE INNOVATIONS 	<p>BARRIERS</p> <p>IN AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • LACK OF READY INNOVATION SOLUTIONS • MONEY & RESOURCES (COST-EFFECTIVENESS) <p>IN PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • LACK OF INFORMATION <p>IN PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • BUREAUCRACY

PRELIMINARY CONTENTS for a potential LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE in the Tornio River Valley

VALUES	THEMES	EXPECTED IMPACTS	OPPORTUNITIES	SOLUTIONS/ACTIONS	BARRIERS
<ul style="list-style-type: none"> • ON THE PEACEFUL BORDER IN THE NORTH • CULTURE AND NATURE • TRANSPARENCY • SUSTAINABILITY • SAFETY 	<ul style="list-style-type: none"> • TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO • CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH) • WATER SYSTEM, FLOODS AND TORNIO RIVER • SUSTAINABLE ECONOMY • SUSTAINABLE ENVIRONMENT • IMPROVING ENERGY PRODUCTION AND USE 	<p>ON TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> • TOURISM <p>ON CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> • ENERGY • PEOPLE & SOCIO-CULTURAL STRUCTURE • WAYS OF LIVING, TOURISM AND SUMMERS • HEALTH & SAFETY <p>ON WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> • FLOODS AND DAMAGES • SEASONAL CHANGES, SNOW, SOILS AND RIVER • BUILDINGS, CONSTRUCTIONS AND INFRASTRUCTURES • TIME SCALE AND SPEED OF CHANGE? • RIVER ECOLOGY AND ECOSYSTEMS <p>ON SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> • AGRICULTURE & FORESTRY • FISHERIES AND FISHING • WATER QUALITY, QUANTITY & DROUGHTS • ALIEN SPECIES, DISEASES AND PESTS • RIVER ECOSYSTEMS & FISHING • LANDSCAPE CHANGES: RIVER, FARMING, ROADS, BUILDINGS <p>ON ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> • EXISTING INFRASTRUCTURES & SAFETY 	<p>IN TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> • SUMMER TOURISM <p>IN CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> • NEW CLIMATE AND REDISTRIBUTION OF SPECIES • AGRICULTURE & FORESTRY • RESTORATION OF RIVER BASIN AND RURAL OPENNESS • TOURISM • NEW PEOPLE & SOCIO-CULTURAL STRUCTURE <p>IN WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> • LESS ICE DAM FLOODS & MORE FLOOD CONTROL • RIVER ECOSYSTEMS AND FISHING <p>IN SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> • GREEN ECONOMY • MORE NUTRIENTS AND SOIL FERTILITY <p>IN ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> • ECONOMIC DEVELOPMENT • NEW TECHNOLOGIES 	<ul style="list-style-type: none"> • LAND USE AND CONSTRUCTION MANAGEMENT AND CONTROL > SUSTAINABLE AND CONSERVING BUILDING • REDUCTION OF THE EMISSIONS OF SUBSTANCES HAZARDOUS TO THE ENVIRONMENT • IMPROVED AGRICULTURE • RESEARCH • STORM WATER CONTROL/DELAY • FLOOD WALLS • PROTECTION OF RIVER SIDES • FLOOD CONTROL • DEVELOPMENT OF ENVIRONMENTAL PROGRAMS • INCENTIVES, TAXATION, CERTIFICATION FOR INDUSTRY AND OTHER COMPANIES 	<ul style="list-style-type: none"> • POLITICS • EU-DIRECTIVES • REGULATIONS /RESTRICTIONS FOR FISHING AND AGRICULTURE • LACK OF RESOURCES, NEW IDEAS • NEW THINKING AND PEOPLE, YOUNG PEOPLE NEEDED! • MONEY AND RESOURCES, LACK OF TIME • WEAK INVOLVEMENT OF PRIVATE AND PUBLIC SECTOR • ARE WE MISSING OUR CULTURE IDENTITY? • EXISTING STRUCTURES AND SYSTEMS (FOR EX. THE FOSSIL FUELS)

Fig. 1 | Composition of the three structures of potential LACAP elaborated in WP2-Northern Europe. *Preliminary contents for a potential landscape adaptation plan for climate change in Malmi district, in Hyypä River Valley and in Tornio River Valley* (See Appendix WP2 for further information). These tables can provide a valuable bottom-up input for the definition of the final structure of a future LACAP.

The search for integration with local policies and plans for adaptation to climate change, as well as the link to EU directives, has particularly marked the activity carried out in the whole Work Package, where regional and local administrations have proved immediately very receptive and supportive with respect to the inputs and results of the project. In each of the three pilots the strategic plans in force or ongoing, as well as the more specific planning or regulatory tools regarding climate adaptation, have played both the role of reference for the analysis and envisioning activity, and of interesting and desirable "beneficiaries" of the final results of the AELCLIC process. This, for instance, happened in the district of Malmi, where the *Helsinki Programme For Climate Change Adaptation And Mitigation* and the *Malmi Vision* (Plan for the renovation of the Malmi District Center) have actually incorporated ideas produced in the AELCLIC activities (namely the Values, Goals, Themes and Actions were combined, and there were interesting influences on the structures of these planning instruments) testifying a high impact of AELCLIC activity in climate change Governance as well as a proof of legitimacy of the ideas produced by the local network within the AELCLIC Project. Regarding the implementation plan for the LACAPs, each context has reached a different level of formalization. It is ascertained that everywhere the AELCLIC project has correctly fulfilled its pathfinder objective by creating proactive and well-balanced networks, for which possibilities and ways of expansion have been also prefigured, and by acting as a trigger for a work that all pilot landscapes intend to concretize in the future.

On the one hand, in the Malmi district the City of Helsinki will be the leader and official representative of the Malmi_AELCLIC-Network in future actions connected to the AELCLIC project (Climate-KIC) and a preliminary plan has been defined and shared, articulated in very precise phases, as follows:

- Expand the network including some crucial stakeholders
- Develop a deeper ad-hoc analysis to understand the Impacts and Opportunities of Climate Change in the district;
- Define more precisely specific Solutions, Actions and even pilot/demonstrative interventions;
- Provide the plan with an Implementation plan and a Monitoring Plan.

The whole development of a LACAP and its implementation should be accompanied with a Participation Process. On the other hand, in the rural contexts of Tornio and Hyypä the interest and the direct involvement of the administrations (City of Tornio and city of Kauhajoki) is confirmed, however, at the moment, without a shared action plan defining the future operational phases.



Fig. 2 | Implementation plan for the LACAP and possible distribution of roles, duties, contributions,etc. in the Malmi district pilot landscape.

Work Package 3 | Atlantic Alpine Europe

Within the work package 3, Atlantic and Alpine Europe, the planning documents for future LACAPs present a high degree of variety, both for the structure and contents, since they reflect a flexible and diversified approach able to cope with the huge differences and specificities of the considered pilot landscapes and the climate change governance in force. Structures that move from the identification of the problem to the definition of solutions capable of paying attention to the landscape quality, as it happens with the case of Holland Lowland Peat and Bertra dune system, alternate with examples that move directly from the identification of solutions, emphasizing the strategic approach and the centrality of a vision, in Haute Tarentaise.

The process that led to the identification of the main contents of the LACAP in these pilot cases has found its core in the envisioning phase and the analysis of network's needs and desiderata, with respect to the landscape of the near future. The prefiguration of shared scenarios takes place first through the dialogue and comparison between the singular visions expressed by the representatives of the network's interest groups. The systemic approach with which this phase of the process is conducted stimulates complex visions in which each stakeholder demonstrates a good level of awareness of her/his role as a landscape actor.

Then the clustering of the main shared themes for a future LACAP has allowed to define specific solutions and actions covering each point.

	 Verstedelijking en gezonde leefomgeving	 Landbouw en natuur	 Landschap en recreatie	 Infrastructuur en vitale objecten
 WINTER OVERLAST	<ul style="list-style-type: none"> • Gevolgen afvoeren van (overtollig) water uit stedelijk gebied en opvangen in landelijk gebied inventariseren. • Klimaat robuust inbreiden en transformeren. 	<ul style="list-style-type: none"> • Potentieel kwetsbare fruitteelt. Verdiepend onderzoek naar duur wateroverlast. • Tijdelijke waterberging op veengrond toestaan (grasland). 	<ul style="list-style-type: none"> • Leidende principes voor inpassing van een klimaat robuust watersysteem. 	<ul style="list-style-type: none"> • Aanpakken onbegaanbaarheid verbindingen en tunnels. • Robuuste netwerken gas, water, elektriciteit, internet. • Energie terugwinnen uit water.
 HITTE	<ul style="list-style-type: none"> • Watercirculatie inzetten voor verkoeling van het stedelijk gebied. • Operatie streembreek in stedenband. • Vergroenen kwetsbare verzorgingslocaties. • Klimaat robuust inbreiden en transformeren. 	<ul style="list-style-type: none"> • Hittestress vee en planten. 	<ul style="list-style-type: none"> • Aandacht voor zwemwaterlocaties ten aanzien van waterkwaliteit (blauwalg) en veiligheid (zwemmen in rivieren). • Bomen langs de wegen: 'linten' planten. • Groene rand langs stedenband en het groene hart inzetten voor verkoeling. 	<ul style="list-style-type: none"> • Nadelige effecten op infrastructuur (spoor en bruggen) inventariseren en in kaart brengen.
 DROOGTE	<ul style="list-style-type: none"> • Regionale aanpak voor kwetsbare niet onderheide panden opstellen. • Rekening houden met toename in ontwikkelingskosten door bodemdaling. 	<ul style="list-style-type: none"> • Mogelijkheden voor zoetwateraanvoer vergroten. • Gewasschade door watertekort beperken. • Meer onderzoek naar de onttrekking van water uit veen door bomen in natuurgebieden en stedelijk gebied. • Grootchalig onderzoek naar regiospecifieke oplossingen voor bodemdaling. • Waterkwaliteit verbeteren voor veedrenking. 	<ul style="list-style-type: none"> • Link bodemdaling en weidevogelbeheer onderzoeken. 	<ul style="list-style-type: none"> • Rekening houden met bodemdaling • Kabels en leidingen gevoelig voor zettingsverschillen.
 OVERSTROMING	<ul style="list-style-type: none"> • Stedenband ASH: Wat kan je voor een crisisfase aanpassen in de infrastructuur en bebouwing voor ontruiming en overleving? Onderzoek Meerlaagse Veiligheid (MLV) / Flood Resilient Areas by Multi-layer Safety (FRAMES). 	<ul style="list-style-type: none"> • Levende have kwetsbaar bij overstroming. Evacuatie van levende have bij een overstroming is belangrijke factor. 	<ul style="list-style-type: none"> • Oude linten en dijken inzetten voor hulpdiensten. 	<ul style="list-style-type: none"> • Veilige uitvalswegen bij overstroming • Informatie: wat moeten we doen bij overstromingen? • Risicovolle industrie en aanwezigheid gevaarlijke stoffen. Hoe ga je hier mee om en hoe sla je deze op? • Nieuwe energie infra op hoogte aanleggen.

Fig. 3 | Scheme developed in the framework of the Stress Test in the Holland Lowland Peat pilot landscape. In the matrix to the main (ordered) impacts correspond solutions and actions which in turn are ascribed to categories of actions (abscissa) aimed at guaranteeing the quality of the landscapes.

In these stages of envisioning, the activity focuses on strengthening the cohesion of the network. The definition of the contents of the LACAP becomes the tool through which the network identifies and legitimizes itself. Thus, all the local networks have been able to develop and agree on the key contents for the future LACAP, suitable for counterbalancing the main impacts that could alter the characters of their landscapes.

Each local network searched for the integration of the results of the AELCLIC project with the ongoing policies and climate adaptation plans. An example of such synergy can be found in the case of Holland Lowland Peat Landscape, where the LACAP implementation plan finds a perfect alignment with that of the Delta Plan on Spatial Adaptation (2018) and further visions and programs, such as Landbouwvisie Alblasserwaard-Vijfheerenlanden 2030; the "Green Deal Connect Area Deal" (<http://www.gebiedsdeal.nl>) and the vision developed by Rivierenland Water Board. A still different and important example in this sense is that of the pilot case of Bertra's dune system. Here the AELCLIC project has been included since the beginning of the process within an ongoing research project (promoted by Murrisk Development Association, Geography Dept of NUI Galway and Climate Action Office of the Mayo County Council) on the adaptation to climate change of this portion of territory exposed to severe threats. The project during its development foresaw a perfect fit and timing for a new national level initiative for regional to local action, helping with its programmatic document for a LACAP to determine both Short-Term and Long-Term Solutions, that will be further implemented during 2020.

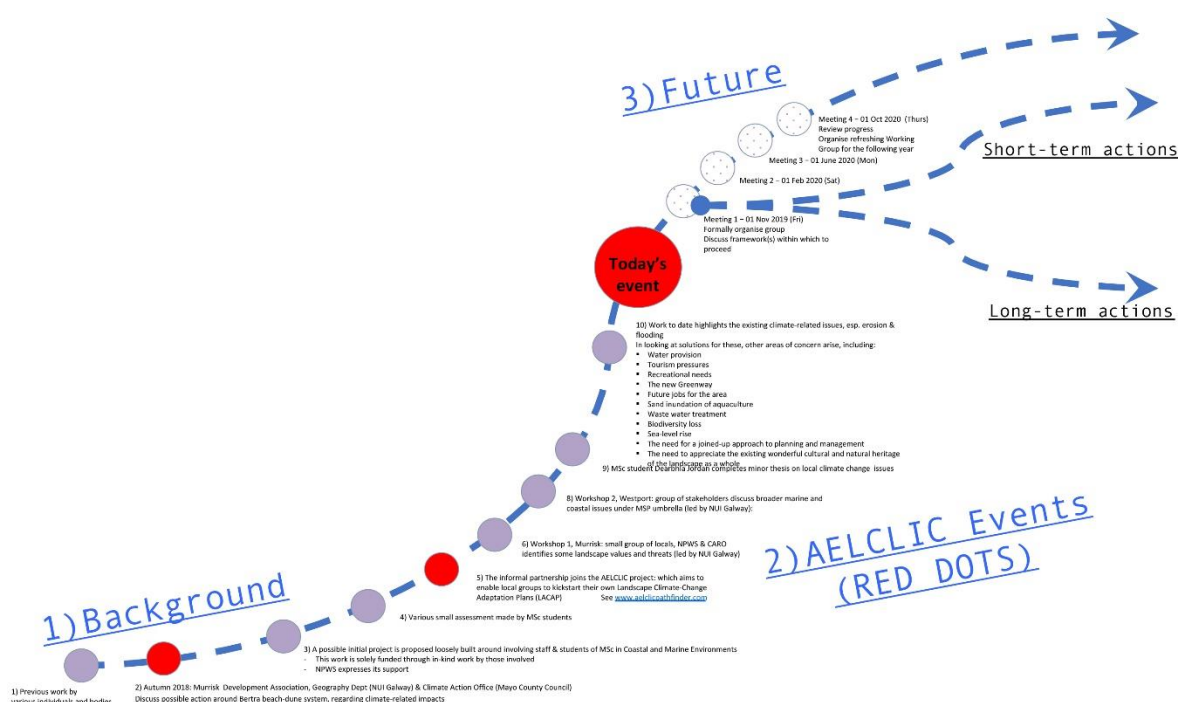


Fig. 4 | Diagram describing the level of integration of the AELCLIC project with the policies and projects already in force at the local level and description of the phases of implementation of the work.

This level of implication demonstrates an excellent influence of the project on local governance with regard to climate change, also offering a perspective for the implementation of the project's outlines within the planning tools and consequently the legitimacy of the ideas and results produced within the AELCLIC process.

Work Package 4 | South Western Europe

The LACAP's programmatic documents or inputs for the work package 4, South Western Europe, are the product of an adaptive and flexible approach with respect to the outlines of different contexts. The outcome of the process conducted by AELCLIC in the various pilot cases provided different results responding to the diversity of needs formulated, explicitly or implicitly, from every context of the work package. In fact, although the pilot cases are all concentrated in the Iberian Peninsula, they present a very high variety of landscapes and concerns to deal with. However, all the local networks have been able to develop and agree on the key contents for future LACAPs, precisely identifying main goals, themes, opportunities, solutions/actions, actual barriers and threats and even landscape values and expected climate change impacts. This synthetic approach to identify problems and co-define solutions, repeated in every pilot landscape by employing proven and inclusive methods, both for group work and for critical synthesis phases, reflects the design thinking as well as the participatory attitude that connotes the AELCLIC landscape approach. The AELCLIC process in this work package puts also a particular emphasis on "team building", by fostering the cohesion and making the most of the characteristics and potential of each group. The implementation plans of the AELCLIC project have in fact been mainly aimed at ensuring the integrity and stimulating the proactivity and potential continuity of the local networks. This choice, conducted homogeneously for all the pilot landscapes, testifies to the adaptive capacity of the pathfinder model to meet real needs and solve the main problems emerged from each landscape. It also demonstrates the importance

of ensuring full legitimacy of the local networks, ideas and results they produce so that they can continue to play an effective and autonomous role even after the pathfinder project is completed.

In this regard, a specific final activity was developed in every landscape to evaluate the potential levels of stakeholder involvement in the future development of a LACAP. Potential key stakeholders could be identified in this task even if they were not present at the workshop. Therefore, this stakeholder analysis aimed not only at assessing the potential interest and resources of the members of the local network to continue working beyond the AELCLIC project, but also to identify some potentially significant additions to the network. Approaching these potential new members with the previous endorsement of the existing local network, obtained via this activity, was also considered important to reinforce the appeal of the project to the potential entrants. Key actors for each of the established categories were also identified at a later stage based on their contributions during the AELCLIC workshops and in the Bologna International AELCLIC meeting, or their potential future involvement in the project (see fig. 5).

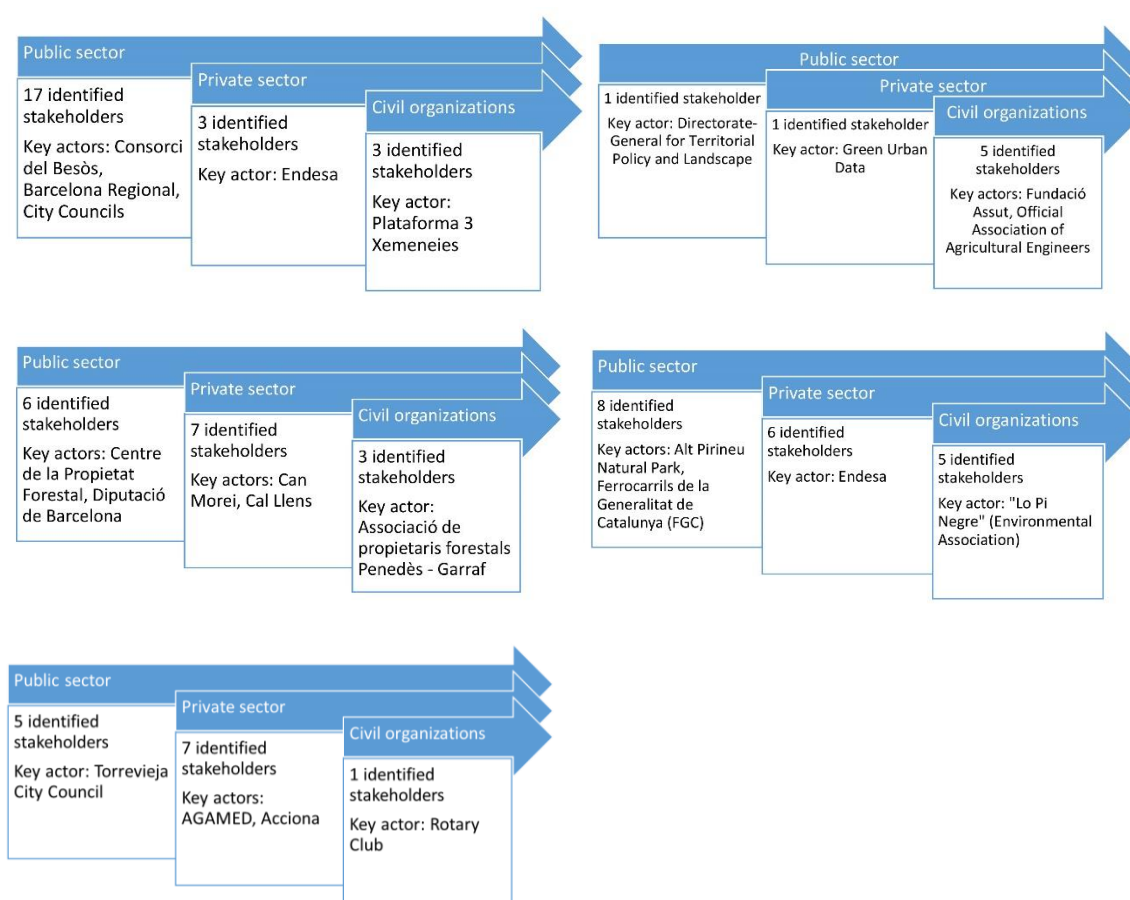


Fig. 5 | Stakeholder analysis results. (from top left: River Besòs, Huerta de Valencia-Alboraya, Serres d'Ancosa, Parc Natural de l'Alt Pirineu and La Mata - Torrevieja pilot landscapes).

All the produced planning documents provide the necessary elements to inform future LACAPs, focusing on detailed actions and solutions required to adapt the pilot landscapes to climate change and find the necessary coordination with planning instruments (see fig. 6). In this case, there are no direct or specific indications on the "structures" that these LACAPs will actually have to assume. However, it has been understood that the form of the plan will be the most suitable to guarantee an effective implementation of the provisions, rules and measures agreed, and, when applicable, in accordance with the regulations regarding the implementation of the specific legal instrument adopted for the LACAP.

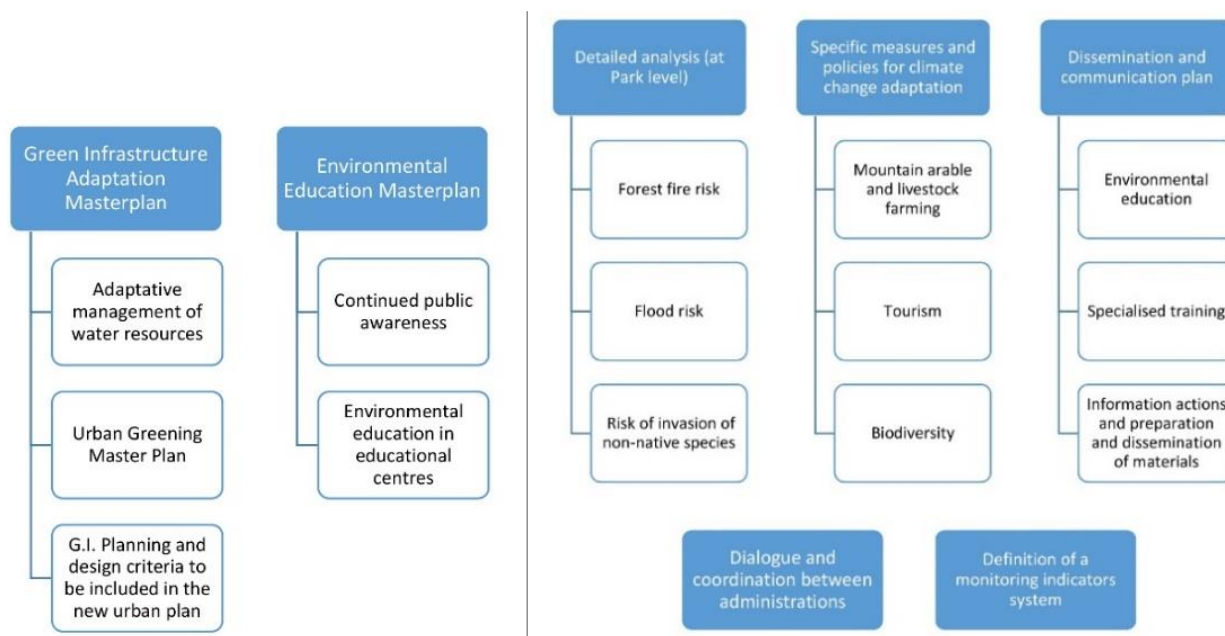


Fig. 6 | Acting on commonly agreed objectives and issues, these diagrams present some possible system of integration of the LACAP results within the current and future planning instruments in la Mata-Torre Vieja (left) and Alt Pirineu Natural Park (right) pilot landscapes.

The search for integration with national, regional and local policies and plans for Climate Change adaptation, as well as the link to EU directives, to local and regional strategic plans and to masterplans (as the case of la Mata-Torre Vieja pilot landscape), has marked the analysis activities carried out in the work package. In some cases it resulted in particularly profitable and promising moments of integration foreseen in the envisioning phases, as it happened in the Huerta de Valencia-Alboraya pilot landscape (with a very complex planning framework, which comprises the Huerta Law, Huerta Regional Plan, Agricultural Activities Plan and also the two Local Sustainable Energy and Climate Action Plans - SECAPs), where a path for the implementation of the LACAP outlines has been set.

It is clear that everywhere the AELCLIC project has correctly fulfilled its pathfinder objective by acting as a trigger for a work that all pilot landscapes intend to undertake concretely in the future.

Work Package 5 | South Eastern Europe

The programmatic documents or inputs of the LACAPs included in the Work Package 5, South Eastern Europe, show a very articulated situation and different typologies of planning documents responding to the different needs and specificity of each pilot landscape. The variety of results reflects the differences that characterize each local network and each pilot landscape within the Work Package. Accordingly, each local network has been able to develop and agree on the key contents for their future LACAP, always identifying the main scopes and themes, the goals, the expected impacts, the opportunities, the solutions/actions and the main current obstacles. Therefore, the format of the AELCLIC pathfinder process has been changed to adapt to the specificity of each case according to the relationship of circular implementation set between the leading and the multiplier landscapes, and always following the same landscape-centred approach. In general, this work package has offered very different and stimulating case studies and conditions for the experimentation of the AELCLIC approach and for the codification of a procedural model.

The programmatic document for the leading pilot landscape of the Urban Fringe of Bologna, contains precise indications regarding both the key contents that the LACAP will have to deal with, and the form that it should have in terms of typology, articulation and hierarchy of its parts (see the final diagram shown in fig. 6), to ensure the integration and complementarity with respect to the Climate change governance tools already in force in the city of Bologna.

It is the result of a progressive refinement, in which the search for integration with national and local policies and plans for adaptation to climate change (PNACC, 2017 and BlueAp Plan, 2015), as well as the link to EU directives, have constituted important inputs both in the analysis and in the envisioning and design phases, ensuring a full consistency. Moreover, the results of the AELCLIC project have allowed to outline the structure and preliminary contents of a future detailed plan for the pilot landscape, capable of covering its main specific challenges in an integrated and systemic way, and in a cross-sector and cross-actor public-private alliance perspective. These characteristics of the programmatic document will allow to further develop, detail and specify the existing climate adaptation policies and strategies of the city, as well as to fine-tune and experiment climate adaptation solutions tailored for the specific region.

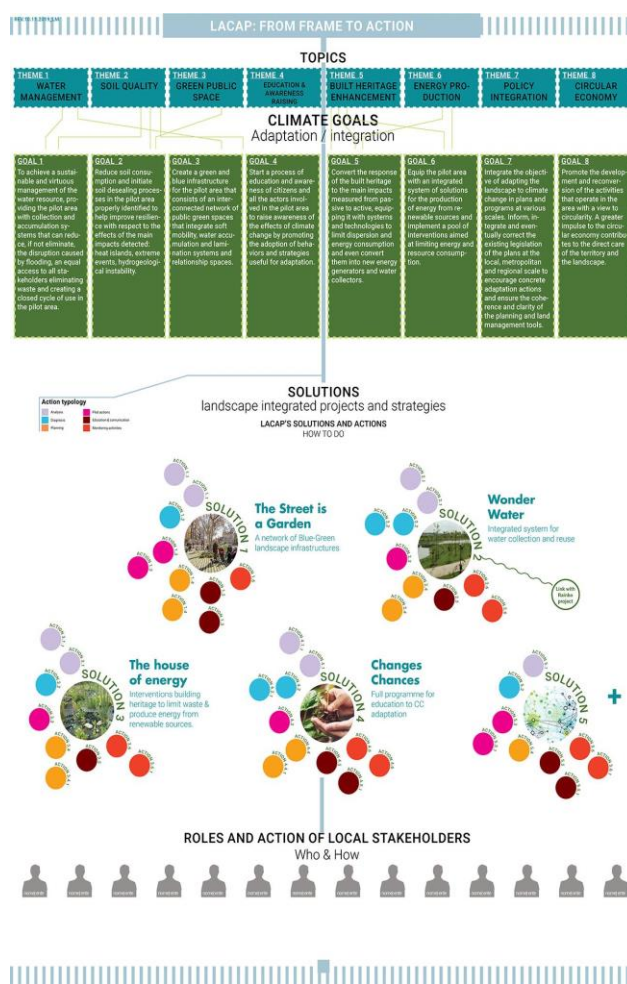


Fig. 7 | Scheme of the planning document for the LACAP in Bologna leading landscape.

Given the direct involvement of the municipality of Bologna as a partner of the AELCLIC project, the legitimacy of the ideas produced by the local network is ensured even though it will have to find a correct formalization in the future drafting phase of the LACAP. The same approach and criteria, in different ways,

have characterized the drafting of the LACAP's planning document in the Mantua pilot case, a context that also presents a high advancement with respect to the topic of adaptation to climate change (ref. to the recently adopted guidelines: *Resilient Mantova: Guidelines for climate adaptation, 2018*) and the leading role of the Mantua municipality in the local network. Here the influence on climate change governance as well as the integration with the current policies and planning instruments and the legitimacy of the ideas produced under AELCLIC have emerged positively. Especially and regarding the implementability of a future LACAP, in Mantua an important field of action has been identified in the connection between the adaptation strategy set with the Resilient Mantova guidelines and implemented by the AELCLIC project, and the regional landscape policies, intensifying the synergy between the Municipality, the Region and the rest of the stakeholders belonging to the local network. In Bologna, instead, the commonly desired implementation was in the direction of a strategic/detailed plan and/or pilot projects, on the format defined by AELCLIC.

Different results were achieved in the other two multiplier pilot landscapes, where the programmatic documents or inputs include the precise identification of contents for a local LACAP according to the aforementioned articulation. However, the form and type of instrument that the final LACAP should have, its connection with other planning frameworks and its implementation plan would be the subject of future development, in parallel with a stronger involvement of the local/regional administrations. In the case of Bucharest as well as in that of the Etna landscapes, the action of AELCLIC had a strong bottom-up connotation (see the deliverable 1 for further information), succeeding in a full commitment of the local networks, that identified also their possible roles for the future development of a LACAP, and in influencing the local Climate Change Governance, here absent or less advanced than in other contexts.

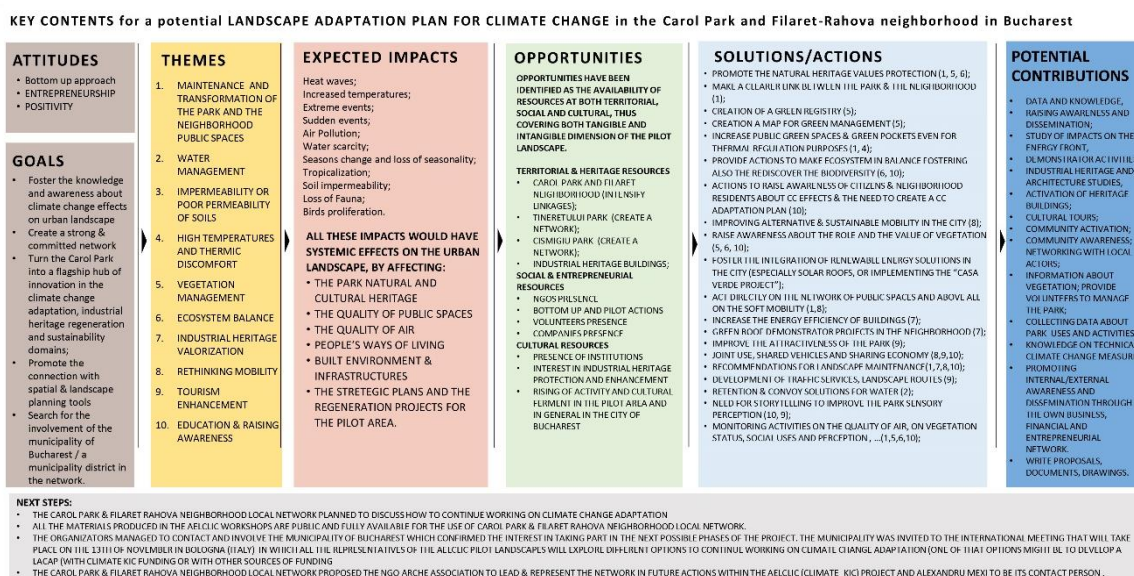


Fig. 8 | Scheme resuming all the key contents of the planning document for the LACAP in Carol Park and Filaret-Rahova neighbourhood multiplier pilot landscape.

The AELCLIC project and its alignment with EU directives, produced already relevant information for local policies and planning, and raised the interest of municipal administrations (of Bucharest, Romania, and Giarre and Catania, Italy) to be part of the AELCLIC local networks and to take a pivotal and legitimizing role in the development of new ideas. It is ascertained that everywhere the AELCLIC project has correctly fulfilled its pathfinder objective by acting as a trigger for a work that all pilot landscapes intend to undertake more concretely in the future.

Conclusions

From the gained experience and comparative analysis of all the programmatic documents or inputs for future LACAPs (landscape adaptation plans to climate change), some main findings have been deduced and distilled (see Deliverable 5, dedicated to the critical synthesis of all the main findings of the AELCLIC project). Some important considerations must be made regarding the nature of LACAPs, which, as was expected, benefited enormously from the AELCLIC process. The process has in fact allowed to test the approach in parallel and to verify the congruity of the contents and purposes, thus influencing the definition of the LACAPs themselves and their most appropriate and effective "form". As emerges from the discussion carried out above, the programmatic documents or inputs for future LACAPs produced in each pilot landscape within the AELCLIC project clearly present all the elements deemed crucial by the local networks for the creation of adequate plans to adapt landscapes to climate change. All the local networks have reached the definition of the fundamental contents (themes, objectives, solutions and actions), while further specifications and elements, useful for the future definition of the LACAP, have variously characterized some of the pilots, determining an interesting and profitable diversity and richness of results. The variety of contents of each of these planning documents reflects the biogeographic, cultural and socio-economic diversity of the 15 pilot landscapes and local networks, which are remarkably influenced by the factors illustrated in the introduction of this document. The mutual comparison of the ongoing experiences carried out by the partners during the meetings also allowed the exchange of knowledge, the sharing of strategies, the implementation of methods, and finally the sharing of a procedural model. The richness and variety expressed in the programmatic documents or inputs for LACAPs testifies to the flexibility and scalability of the approach, able to adapt to the specific needs of each context, while ensuring common and comparable results, which are also consistent with the objectives set at the beginning of the project.

In drawing a picture of the general validity of future LACAPs, we have been able to detect that in the various pilot landscapes, taking into account their previous situation in relation to sustainability and mitigation and adaptation policies to climate change (CC), as well as their landscape and socio-economic characteristics, and the magnitude of the ongoing or expected CC impacts, the LACAP can acquire changing and adaptive forms, also configuring itself as an innovative type of instrument. One of these forms is that of a thematic "layer" capable of informing and sometimes correcting/improving the current programs and planning tools that regulate territorial, sectoral and landscape transformations. The LACAP can also be configured as a tool capable of linking different documents, sectorial and strategic plans, or be an informative document, supporting territorial and sectorial planning, as well as a reference for public or private initiatives on adaptation and mitigation of climate change. Even more, the LACAP can be also configured as a master plan or a detailed plan, in some cases also with the identification of pilot and/or demonstrative actions.

It can therefore be described as a tool capable of optimally fitting the needs of individual cases or landscapes (regulatory framework, action plan,...), with no restrictions or imposed structures, but with the priority objective of assuming the most streamlined, effective, incisive and inclusive form possible, since time is a decisive factor in the challenge of adapting landscapes to climate change. Avoiding an emergency approach that in most cases causes a loss and obliteration of values and landscape heritage, the process codified by AELCLIC and materialized in the various outlines for LACAPs, provides a model of transcalar, inclusive and effective action.

Implementation of the outlines of the LACAPs

The flexibility that characterizes the LACAP as a tool is therefore an essential quality to guarantee the implementation and real assimilation of the results or outcomes that the AELCLIC project has produced in each pilot landscape. As presented in previous chapters, in some pilot landscapes this step of connection and

transfer of results, has already been initiated. This is the case of Malmi pilot landscape, of Huerta de Valencia pilot landscape, of Holland lowland & peatland pilot landscape and of the urban fringe of Bologna Pilot landscape, just to cite a few. The implementation of the outcomes produced in the AELCLIC project is also closely connected to the networks' proactivity and cohesion. For this reason, the project has paid special attention to the creation, strengthening and transfer of knowledge and operational tools to local networks. Mixed and transdisciplinary analysis and design methodologies combined with group management and team building techniques were key ingredients of all the collective and participatory work conducted during the AELCLIC workshops in each pilot landscape. The two fundamental criteria that guided the formation of the networks were those of balance and diversity. Two essential aspects in order to guarantee a fair and faithful representation of the main actors that inhabit and manage the considered pilot landscapes. Starting from this point, an inclusive character defined the work of all the local networks and all members were encouraged to define and search in and out of the network the subjects and resources necessary for the future development of the LACAP. This process of empowerment stimulated the resourcefulness and autonomy of local networks, reaching in some cases very high levels of commitment that are already turning into concrete actions, just as it was possible to learn directly at the international meeting held in Bologna last November 13th, 2019. The cases of the pilot landscapes of the Tornio River valley, of the cities of Mantua, Bologna and Helsinki, of the Besòs River in the metropolitan area of Barcelona and of the Haute Tarentaise Valley and Alt Pirineu Natural Park are good examples. The empowerment, transparency, inclusivity, identity and recognition of the network are therefore deemed important factors to ensure the legitimacy of the results obtained so far.

The information produced in the AELCLIC workshops and furthermore in the whole AELCLIC project was an activator for the development of future LACAPs or for the incorporation of Climate Change inputs in other spatial or sectorial plans that, subsequently, will follow the official participation processes foreseen in the local or regional planning system. The AELCLIC project, with the application of its inclusive procedural model, has proved to be able to demonstrate the importance and usefulness of integrating participatory processes for the preparation of landscape adaptation plans, at least for three crucial reasons:

- **Consistency, transversality and local identification:** Through a process aimed at sharing and defining the themes, objectives, actions and solutions, a shared scenario of sustainable development is envisaged, a common vision in which all the actors feel themselves represented.
- **Legitimacy and implementability:** If the network of stakeholders is well balanced and representative of the landscape where it acts (see for this Deliverable 1), the legitimacy of the taken decisions increases and the timing of the implementation or bureaucratic approval of LACAPs shortens.
- **Open and democratic governance:** Multidirectional (both vertical and horizontal) decisions and actions are promoted and a broader engagement and control is ensured both in the implementation phase and in the management of the transformations and initiatives envisaged by the LACAP, since the actors directly involved are multiple and participate in an active dialogue around a common goal (Landscape adaptation to Climate Change).

While satisfactory results and positive signs were collected in terms of human and technical resources and availability and active involvement of local administrations, the major criticalities emerged from the financial feasibility point of view. A fact that emerged clearly in every pilot landscape concerns the uncertainties related mainly to the funding opportunities suitable to support the future development of a LACAP. Also for this reason, in various cases it was difficult to require the members of the local networks to sign a formal or symbolic agreement for further implementations, while a broader availability to sign letters of interest in further developing the project has been found.

Impact and influence in climate change governance

As emerged from the discussion carried out within each Pilot Landscape, the programmatic documents or inputs outlining the contents of potential LACAPs as well as the entire experience of the AELCLIC process, have generally had a positive influence on the existing governance models, in some cases generating synergies already explicitly formalized, while in other cases facilitating promising relationships. One of the factors that most certainly influenced this specific result was the widespread presence of administrations (being them local, regional, metropolitan administrations) and authorities (park authorities or basin/River authorities) within the local networks (see deliverable 1). In most cases, in fact, administrations and authorities supported AELCLIC activities. Where this relationship has been weaker, the networks had to be activated through additional and time-consuming methods in order to achieve the expected results. In general, from the testimonies collected during the local workshops developed in each Pilot Landscape, and more clearly at the international meeting held in Bologna on November 13, 2019, AELCLIC and the results produced in it have been considered a precious reservoir of data, tools, visions and strategies able to inform current governance models and flow into local planning.

Consistency with EU directives and regional, local plans for climate change adaptation

As it can be verified from the critical analysis presented in the previous chapter and from the consultation of the documents included in the appendix to this document, in each pilot landscape an alignment and consistency with the European directives was sought from the initial analysis phases. Moreover, one of the main goals in the AELCLIC project was to contribute in achieving the sustainability goals set at the community level. The analysis of the ongoing planning at different scales (European, National, Regional and Local) was a fundamental moment of investigation that informed the AELCLIC project from its first steps, together with the community objectives, appropriately linked to the fundamental principles of the European Landscape Convention.

In each pilot landscape the existing directives or plans have been carefully studied in order to understand their potential connections to a future LACAP and to facilitate their synergic implementations (as an example, see some of the integration schemes of the planning tools with the LACAPs present in the WP2-Northern Europe reports). Where those directives or plans are already in force, and even better where they are ongoing, one of the greatest merits and potentials of the AELCLIC project and of the results contained in the outlines of the LACAPs lies precisely in their integration with the landscape dimension as it has been defined by the European Landscape Convention. This means on the one hand the integration of territorial policies from a systemic point of view, and on the other hand the implementation of the convention itself in order to reach a deserved effectiveness, almost 20 years after its signature.

However, in those pilot landscapes lacking local or regional adaptation plans to climate change, the work conducted by AELCLIC has been considered of great importance and inspiration. It stimulated interest in developing plans including adaptation strategies focused on the landscape. Overall, the integration of the landscape approach in the definition of Adaptation Plans to Climate Change can guarantee the simultaneous achievement of a broad range of objectives, which amongst others, and in addition to the environmental ones, include sustainable economic development, the promotion of circular economy models, the protection and promotion of landscape and cultural heritage and values, the advancement in social inclusion, participation and innovation as well as an improvement in civic and environmental education. In summary, the analysis of the AELCLIC outcomes proves the potential of the landscape concept to strengthen the EU identity by approaching Climate Change Adaptation as an opportunity to advance in our diversity, to bridge past and future and to promote new models of governance based in deep democracy and the combination of local and global values.



Appendix



WP2

Northern Europe

ACTIVITY: Workshop3_MALMI DISTRICT CENTER_PILOT LANDSCAPE

DATE and TIME: 29.8.2019, 9:00-12:30

PLACE: Malmi Talo (Malmi District)

ORGANIZERS:

- Juanjo Galan / Aalto University
- Susanna Kankaanpää / Helsinki City
- Antti Mentula / Helsinki City
- Kirsi Hutri-Weintraub / Aalto University

PARTICIPANTS (11+2):

- Hanna Maidell /resident
- Sauli Rouhinen / Finnish Association of Landscape Industries
- Sirpa Lamminluoto / Special Investment Fund eQ Finnish Real Estate, Malmin Nova
- Merja Carlander / Entrepreneurs of Helsinki, North Helsinki
- Tiina Antila-Lehtonen / Helsinki City, resident
- Maria Laurila / Malmi association, resident
- Satu Tarula / Helsinki City
- Niina Kylliäinen /HSY
- Antti Mentula / Helsinki City
- Hossam Hewidy / Aalto University
- Susanna Kankaanpää / Helsinki City
- *Juanjo Galan / Aalto University*
- *Kirsi Hutri-Weintraub / Aalto University*

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the district of Malmi (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)
 - Co-definition of a process for the definition of the potential LACAP and co-identification of required actors
 - Co-definition of next steps in Malmi and future works of the constituted Local Network
-

AGENDA:

- **09:00 – 09:05 WELCOME** – Antti Mentula & Susanna Kankaanpää (City of Helsinki) and Juanjo Galan & Kirsi Hutri-Weintraub (Aalto University)
- **09:05 – 09:10 PRESENTATION OF PARTICIPANTS**
- **09:10 – 09:25 RESULTS OF THE WORKSHOP 2**– Aalto University
- **09:25 – 09:40 TOWARDS A CLIMATE-KIC DEMONSTRATOR AND A LACAP** – Aalto University
 - What can be a LACAP? Examples of other Strategic Plans (Structure / Phases / Participants)
 - Key contents of an application for a Climate-KIC Demonstrator: Table of Contents & Key ideas; possible ways to contribute
- **09:40 – 10:00 KEY FINDINGS AND OPPORTUNITIES OF THE AELCLIC PROJECT IN RELATION TO THE MALMI VISION AND THE HELSINKI PROGRAMME FOR CLIMATE CHANGE ADAPTATION AND MITIGATION** – City of Helsinki
- **10:00 – 12:15 TEAMWORK A + COFFEE** (approx. 20 min/task)
 - TASK 1: WHAT – Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP
 - TASK 2: Structure of a potential LACAP

- TASK 3: HOW – Process, Key phases and schedule (e.g. identification and involvement of key stakeholders, analysis and diagnosis of critical issues, development of strategies & plan, definition of pilot actions...)
- TASK 4: WHO – Partners: Possible distribution of roles, duties, contributions, etc.
- TASK 5: Critical diagnosis of the existing Local Network and its capacity to promote the development of a Demonstrator application and a LACAP (administrative, financial, social, scientific)
- TASK 6: Next steps?
- **12:15 – 12:30 SUMMARY AND CONCLUSIONS**

1. WELCOME

- Welcoming words by Susanna Kankaanpää and Antti Mentula (City of Helsinki) and Juanjo Galan and Kirsi Hutri-Weintraub (Aalto University)

2. PRESENTATION OF PARTICIPANTS

NAME OF CONTACT	INSTITUTION	TYPE OF STAKEHOLDER
Susanna Kankaanpää	Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION
Antti Mentula	Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION
Satu Tarula	Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION
Niina Kylliäinen	HSY	LOCAL/REGIONAL ADMINISTRATION
Tiina Anttila-Lehtonen	Urban Environment Division	LOCAL/REGIONAL ADMINISTRATION
Hossam Hewidy	Aalto_Department of Architecture	RESEARCH
Sauli Rouhinen	Viherympäristöliitto	PRIVATE SECTOR
Sirpa Lamminluoto	Malmi Nova shopping centre/Entrepreneur	PRIVATE SECTOR
Merja Carlandr	Pohjois-Helsingin yrittäjät/Entrepreneur	PRIVATE SECTOR
Maria Laurila	Malmi-seura	SOCIETAL GROUP
Hanna Maidell	Local resident	SOCIETAL GROUP

CONCLUSIONS:

- The local network remains stable and all the required sectors are represented (governmental, economic, social and academic). However, it would be important to increase in the future the presence of residents, cultural and ethnical minorities, youth associations, local businesses, etc.

3 RESULTS of the WORKSHOP2

- Juanjo Galan (Aalto University) summarizes the results of the WORKSHOP2 and the evolution of the AELCLIC-Pathfinder project in the 3 Pilot Landscapes located in Finland until the date of the workshop.
 - **TOPIC 1: BUILT AND NATURAL ENVIRONMENT**
 - 1) IMPACTS
 - 1.1. BUILDINGS: Consider new climatic conditions in the renovation and construction of new buildings
 - 1.2. PUBLIC SPACE: Need of adapting public space (e.g. permeable soils and storm water management)

- 1.3. GREEN SPACES: Need of adapting blue-green spaces, consider the effect of densification
 - 1.4. PUBLIC SERVICES: Use of public buildings may change (heat, sick people)
 - 2) OPPORTUNITIES
 - 2.1 BUILDINGS: Strategic and smart densification, new technologies, regulations and hybrid buildings
 - 2.2. PUBLIC SPACE: More permeable surfaces
 - 2.3. GREEN SPACE: Increasing the value of green areas
 - 2.4.URBAN STRUCTURE: Denser city, high buildings (in the center)
 - 2.5. NEW TECHNOLOGIES: Technological development
 - 3) SOLUTIONS:
 - DENSIFICATION
 - CENTRALIZATION OF SERVICES
 - RAISING OLD BUILDINGS
 - GREEN AREA FACTOR
 - NATURAL MEADOWS
 - DEPAVE AREAS
 - LONGINOJA VALLEY
 - 4) BARRIERS:
 - MONEY & RESOURCES
 - INCREASE OF POPULATION
 - TOO MUCH EMPHASIS IN ENERGY EFFICIENCY
 - LOW USE OF NEARBY AREAS
 -
- **TOPIC 2: SOCIO-CULTURAL ENVIRONMENT, WELLBEING, WAYS OF LIVING AND IDENTITY**
 - 1) IMPACTS
 - 1.1. URBAN ENVIRONMENT: Densification, Quality of the public space
 - 1.2. PSYCHOLOGICAL AND PHYSICAL HEALTH: Heat, Darkness > depression, insecurity, anxiety > people don't move, Black ice, new diseases
 - 1.3. SOCIAL & CULTURAL DIVERSITY: Increasing immigration, Climate refugees
 - 2) OPPORTUNITIES
 - 2.1 URBAN & GREEN ENVIRONMENT: More diverse district and more quality in green areas
 - 2.2. NEW WAYS OF LIVING: A compact, lively and functional neighborhood, More efficient land use; Communality, neighbor support, diversity
 - Environmental regulations & requirements rise, recycling, etc.
 - 2.3. NEW IMAGE FOR MALMI: Defining the Malmi Image "I'm x"
 - 2.4. NEW TECHNOLOGIES: Technological development
 - 3) SOLUTIONS:
 - CLIMATE –CHANGE FRIENDLY DESIGN OF THE PUBLIC SPACE
 - LIGHTING
 - NO DANGEROUS AREAS
 - FLEXIBLE & VERSATILE SPACES
 - HYBRID BUILDINGS: "Forum", "Think Corner" for all
 - 4) BARRIERS:
 - LAND OWNERSHIP AND MAINTENANCE.
 - FRAGMENTATION OF OWNERSHIP (FRAGMENTATION)
 - ANONYMOUS PUBLIC SPACE
 - MONEY
 -
- **TOPIC 3: SMART MOBILITY AND LOCAL ECONOMY**
 - 1) IMPACTS

- 1.1. MOBILITY: Need of less cars and CO2 emissions, Need of better public and light transport
- 1.2. URBAN SPACE & STRUCTURE: Need of defining a more compact and flexible urban structure as the mobility changes
- 1.3. LOCAL ECONOMY: Need of changes in Consumption and purchase patterns; New economic crises?
- 2) OPPORTUNITIES
 - 2.1 MOBILITY: Traffic and transport are developing , Rail & express tram > full benefit!, Cycling center
 - 2.2. LOCAL ECONOMY: Sharing economy, The importance of Malmi increases – e.g.. a traffic hub, Changes in Consumption and purchase patterns
 - 2.3. NEW TECHNOLOGIES: Technological development
- 3) SOLUTIONS:
 - FINANCIAL SUPPORT
 - IMPROVED PUBLIC TRANSPORT
 - COMMUTING CULTURE (INCLUDING BYCICLES)
 - MALMI "RIDESHARING"
 - PLANNING
 - ENTREPREUNERSHIP & COOPERATION
- 4) BARRIERS:
 - PEOPLE'S ATTITUDES / DESIRE FOR COMFORT / RESISTANCE TO CHANGE
 - WHICH VEHICLES WILL BE DEVELOPED?
 - TECHNOLOGICAL CHANGES MIGHT FRIGHTEN
 - MONEY & FUNDING
 - CLIMATE CHANGE NOT INCLUDED IN THE MALMI VISION

4.1 TOWARDS A CLIMATE-KIC DEMONSTRATOR AND A LANDSCAPE ADAPATION PLAN TO CLIMATE CHANGE (LACAP) FOR THE MALMI DISTRICT? (Juanjo Galan, Aalto University)

- Short lecture about the differences between Climate Change ADAPTATION and MITIGATION (This separation is quite clear in the Helsinki Programme for Climate Change Adaptation and mitigation)
- Short lecture about the basic contents and structure of a Strategic Plan
- Short introduction about the contents and structure of one application for a CLIMATE-KIC Demonstrator (possible future step for the AELCLIC in the Malmi District?).

4.2. KEY FINDINGS AND OPPORTUNITIES OF THE AELCLIC PROJECT IN RELATION TO THE MALMI VISION AND THE HELSINKI PROGRAMME FOR CLIMATE CHANGE ADAPTATION AND MITIGATION (Antti Mentula, Susanna Kankaanpää (City of Helsinki)

- Antti Mentula (Coordinator of the Malmi Visio, City of Helsinki) explains the potential connections between the AELCLIC-PATHFINDER and the Malmi Visio (plan for the renovation of the district center). In addition, Antti presents different options to integrate in the future the findings of the AELCLIC project and the Climate Change topic in the existing chapters of the Malmi Visio or in a specific one. In addition, Antti indicates that the City of Helsinki might consider the possibility of leading future actions of the AELCLIC project in Malmi.
- Susanna Kankaanpää (representative of the Helsinki programme for climate change adaptation and mitigation, City of Helsinki) summarizes the potential connections between the AELCLIC-PATHFINDER PROJECT IN Malmi and the Helsinki Programme. This actions would provide an opportunity to develop and apply in details some of the principles of the programme.



5 TEAMWORK

5.1. TASK 1: WHAT? – Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP

- This task involved:
 - The incorporation of key values, goals and actions included in the Malmi Visio and in the Helsinki programme for climate change adaptation and mitigation to those proposed in the Workshops 1 and 2 of the AELCLIC project in Malmi
 - A critical revision of all the included Values, Goals, Themes/Topics, Impacts, Opportunities, Solutions and Barriers.
 - An analysis of the above mentioned Values, Goals, Themes/Topics, Impacts, Opportunities, Solutions and Barriers from the Climate Change MITIGATION and/or ADAPTATION point of view (in order to connect better the AELCLIC project with the Helsinki Programme on those issues)

CO-DEFINITION OF KEY VALUES-GOALS for a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION	Concerning Climate Change ADAPTATION
Transport & connections (A) Compact center, shops (A) Defining a network of local stakeholders (A) Dense housing to Malmi (HEL) Ecological (MV) Easily reachable (MV) Cozy structure with different kind of housing (MV) Center with strong identity (MV) Famed and attracted (MV) Malmi-vision (MV) (Improving the development of attraction and image of Malmi with comprehensive actions) City plan (MV) (The center of Malmi will be developed into the center of northeastern Helsinki: dense structure with concentration of services and a hub of public transport (including the new tramline), serves surroundings including the new airport area.)	Urban nature, Longinoja, Vantaa river (A) Urban and cultural diversity (A) Services adjust slowly (A + NEW) Climate change and changing conditions will be take taken account in building (HEL) Adequate green elements (HEL) Green factor (HEL) Changing conditions will be taken account, infrastructure, materials (HEL) Social justice (HEL) Public and private services (MV) Flexible (MV) Center with jobs and trades (MV) Diverse (MV) Exciting (MV) Demographical balance (MV) Attractive (MV)	History (A) Natural treatment of storm waters (HEL) Preserving and increasing of permeable surfaces (HEL) Construction of Malmi emphasize climate change adaptation and solutions (HEL) Environment with historical layers (MV) Green (MV)
GOALS for Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> • SUSTAINABLE MOBILITY & TRANSPORT • COMPACT AND LIVELY NEIGHBORHOODS • DIFFERENT URBAN FABRICS AND DIVERSE COMMUNITY • UPGRADING/DEFINING MALMI IMAGE AND IDENTITY • GREEN-BLUE INFRASTRUCTURE 	GOALS for Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> • ADAPTATION OF BUILDINGS, INFRASTRUCTURES AND OPEN SPACES TO CLIMATE CHANGE • COMPACT, MULTIFUNCTIONAL AND LIVELY NEIGHBORHOODS • ADAPTATION AND IMPROVEMENT OF GREEN-BLUE INFRASTRUCTURE, GREEN FACTORS AND ECOSYSTEM SERVICES • PROMOTION OF URBAN AND CULTURAL DIVERSITY AND CONSIDERATION OF HISTORICAL LAYERS • FLEXIBLE AND DEMOGRAPHICALLY BALANCED DISTRICT • STORM WATER MANAGEMENT AND SOIL PERMEABILITY 	



CO-DEFINITION OF KEY THEMES/TOPICS for a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION
Smart mobility and local economy (A) Mobility (HEL) Circular economy: identity, interesting buildings NEW Shared information and fast transmission, flexibility NEW	Built and natural environment (A) Socio-cultural environment, wellbeing, ways of living and identity (A) Maintenance (HEL) Greenery (HEL) Promoting biodiversity (HEL) New kind of infrastructure (HEL) Coziness, attractiveness (HEL) Safe environment (HEL) Social cohesion NEW
VALUES for Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> • SUSTAINABLE MOBILITY • CIRCULAR ECONOMY • FLEXIBILITY AND TRANSPARENCY 	VALUES for Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> • SUSTAINABLE BUILT AND NATURAL ENVIRONMENT • SOCIAL SUSTAINABILITY, WELLBEING, AND SUSTAINABLE WAYS OF LIVING • GREEN-BLUE AND BIODIVERSE INFRASTRUCTURES

CO-DEFINITION OF KEY CLIMATE CHANGE IMPACTS to be considered in a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION	Concerning Climate Change ADAPTATION
Urban space and structure (A) Local economy (A) Mobility (A) Public space (A) Crossing tubes over railway (A) Dense building → urban heat island phenomena increases (HEL)	Green areas (A) Public services (A)	Psychological and physical health (A) Lack of visibility / bad image (A) Urban environment (A) Buildings (A) Social and cultural diversity (A) Dense building → Control of storm waters comes difficult (HEL) Cooling of buildings increases (HEL) Humidity in buildings increases (HEL) Drought: Drying of Longinoja, need of watering NEW Outdoor spaces, especially in the winter NEW Social-economical demographic change NEW
IMPACTS to be considered in Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> • FUNCTIONALITY OF URBAN SPACE, PUBLIC SPACE AND URBAN STRUCTURE • VIABILITY OF LOCAL ECONOMY • EFFECT OF URBAN DENSIFICATION 	IMPACTS to be considered in Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> • SUSTAINABLE BUILT AND NATURAL ENVIRONMENT • SOCIAL SUSTAINABILITY, WELLBEING, AND SUSTAINABLE WAYS OF LIVING • GREEN-BLUE AND BIODIVERSE INFRASTRUCTURES 	IMPACTS to be considered in Climate Change Adaptation in Malmi: <ul style="list-style-type: none"> • PSYCHOLOGICAL AND PHYSICAL HEALTH • WELLBEING AND SOCIAL & CULTURAL DIVERSITY • FUNCTIONALITY OF EXISTING BUILDINGS • STORM WATER MANAGEMENT AND EFFECT OF DENSIFICATION • QUALITY AND FUNCTIONALITY OF GREEN-BLUE INFRASTRUCTURE/SPACES • IMAGE OF THE DISTRICT



CO-DEFINITION OF KEY CLIMATE CHANGE OPPORTUNITIES to be considered in a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION	Concerning Climate Change ADAPTATION
Mobility(A) New technologies (A) Urban structure (A) Urban and green environment (A) Buildings (A) New ways of living (A) Malmi as an example of climate friendly refurbishment ANDrenovation building (HEL) Crossings (better than pedestrian underpass) NEW	Green space (A) Public services (A) Utilizing the existence green structure (HEL)	New image to Malmi (A) Local economy (A) Comfortable, high-quality, safe environment with help of adaptation solutions (HEL) Circular economy NEW Flexibility: small steps in change of urban structure NEW Preserving the soil: adapts better, cost-effective NEW Regional attraction: people coming from elsewhere NEW
OPPORTUNITIES to be considered in Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> INTRODUCTION OF NEW TECHNOLOGIES AND MOBILITY SYSTEMS IMPROVEMENT OF URBAN STRUCTURE, OPEN SPACES AND BUILDINGS NEW WAYS OF LIVING MALMI BECOMES A REFERENCE IN CLIMATE CHANGE MITIGATION (Carbon Neutral District) 	OPPORTUNITIES to be considered in Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> TRANSFORMATION OF LOCAL ECONOMY (GREENER & MORE CIRCULAR ECONOMY) ADAPTATION AND MITIGATION ACTIONS HELP TO GENERATE A MORE COMFORTABLE, SAFE AND LIVELY DISTRICT ADAPTATION AND MITIGATION ACTIONS LEAD TO THE IMPROVEMENT OF BLUE-GREEN INFRASTRUCTURE ADAPTATION AND MITIGATION ACTIONS LEAD TO THE IMPROVEMENT OF PUBLIC SPACES AND SERVICES SOIL, WATER AND ECOLOGY GAIN RELEVANCE IN PLANNING AGENDAS SMALL CHANGES PROMOTE A BIGGER AND SYSTEMIC CHANGE 	

CO-DEFINITION OF KEY SOLUTIONS/ACTIONS to be considered in a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION	Concerning Climate Change ADAPTATION
Centralization of services (A) Densification (A) Raising old buildings (A) Malmi's ridesharing (A) Improved public transport (A) Climate-change friendly design of the public space (A)	Entrepreneurship & cooperation (A) Planning (A) Commuting culture (including bicycles) (A) Green factor (A) Longinoja valley (A) Natural meadows (A) Financial support (A) Flexible and versatile spaces (A)	No dangerous areas (A) Lightning (A) Delay areas (A) Hybrid buildings: "Forum", "Think corner" for all (A)
SOLUTIONS/ACTIONS to be considered in Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> DENSIFICATION CENTRALIZATION NEW MOBILITY SYSTEMS: Public transport, shared vehicles, commuting, CLIMATE-CHANGE FRIENDLY DESIGN OF THE PUBLIC SPACE UPGRADING OLD BUILDINGS 	SOLUTIONS/ACTIONS to be considered in Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> CLIMATE CHANGE FRIENDLY AND FLEXIBLE URBAN PLANNING AND DESIGN ADJUSTMENT AND IMPROVEMENT OF GREEN-BLUE INFRASTRUCTURES, GREEN FACTORS AND ECOSYSTEM SERVICES (e.g. in the Longinoja valley, natural meadows) UPGRADING OLD BUILDINGS & INFRASTRUCTURES FINANCIAL SUPPORT FOR IMPLEMENTING ADAPTATION ACTIONS NEW MOBILITY SYSTEMS AND PRACTICES: Public transport, shared vehicles, commuting NEW HYBRID BUILDINGS AND INFRASTRUCTURES 	

CO-DEFINITION OF KEY BARRIERS to be considered in a POTENTIAL LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE (LACAP) IN THE MALMI DISTRICT: A = from AALTO/AELCLIC-workshops 1 & 2, HEL= from CITY OF HELSINKI Programme for Climate Change Adaptation & Mitigation, MV= from MALMI-VISION

Concerning Climate Change MITIGATION	Concerning Climate Change MITIGATION + ADAPTATION	Concerning Climate Change ADAPTATION
Which vehicles will be developed? (A) Money and resources (A) Technological changes might frighten (A) Too much emphasis in energy efficiency (<i>indoor temperature rises</i>) (A + NEW)	Fragmentation of ownership (fragmentation) (A) Property ownership and maintenance (A)	Low use and value of nearby areas (A) Anonymous public space(A) People's attitudes / desire for comfort / resistance to change (A) Money & funding (A) Climate change not included in the Malmi vision (A) Increase of population (A)
BARRIERS to be considered in Climate Change Mitigation in Malmi: <ul style="list-style-type: none"> • MONEY AND RESOURCES • UNCERTAINTY ABOUT NEW TECHNOLOGIES • RESISTANCE AND FEAR TO CHANGE 	BARRIERS to be considered in Climate Change Mitigation + Adaptation in Malmi: <ul style="list-style-type: none"> • MONEY AND RESOURCES • LAND OWNERSHIP: FRAGMENTATION AFFECTS CHANGES & MAINTENANCE • RESISTANCE AND FEAR TO CHANGE • CLIMATE CHANGE IS NOT INCLUDED IN PLANNING YET • INCREASE OF POPULATION 	

5.2. TASK 2: Structure of a potential LACAP: This task involved a deep synthesis of the information generated in the TASK1

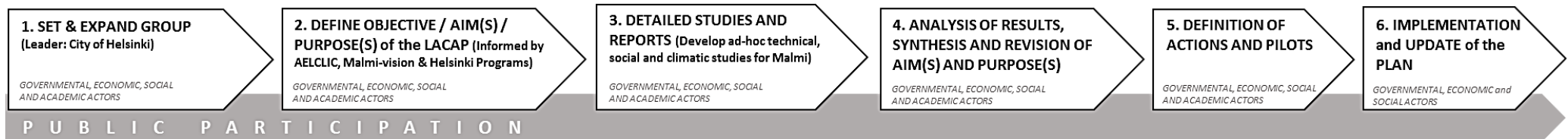


5.3. TASK 3: HOW? Process, Key phases and schedule (e.g. identification and involvement of key stakeholders, analysis and diagnosis of critical issues, development of strategies & plan, definition of pilot actions...)

- This task involved the definition of the key steps that should be followed to produce a LANDSCAPE ADAPATION PLAN to CLIMATE CHANGE (LACAP) according to the contents defined in the TASK2

5.4 TASK 4: WHO?– Partners: Possible distribution of roles, duties, contributions, etc.

- This task involved the identification of the key actors, experts and collectives that would be needed to develop the envisioned LACAP as well as the possible contribution of the persons or organizations represented in the AELCLIC local network



5.5 TASK 5: Critical diagnosis of the existing Local Network and its capacity to promote the development of a Demonstrator application and a LACAP (administrative, financial, social, and scientific)

- This task involved a critical analysis of the capacity of the existing AELCLIC local network to initiate the production of a future LACAP

5.6 TASK 6: Defining next steps

- Considering the existing uncertainties affecting funding, resources, timeframes, etc., it is agreed not to develop a formal or symbolic agreement to advance towards the production of a LACAP. However, all the participants express their interest in continuing working in a future LACAP.
- It is decided that the City of Helsinki will be the leader and official representative of the Malmi_AELCLIC-Network in future actions connected to the AELCLIC project (Climate-KIC) and that the City of Helsinki will study the different alternatives to advance in future funding applications connected to the Climate Change Adaptation of the District and its connection to other municipal plans or programmes. In the Malmi case the designated representative of the local network will be Antti Mentula (City of Helsinki). The Information produced in the AELCLIC_pathfinder project will be fully available to the Local Network lead by the City of Helsinki and to the general public

SUMMARY:

- **Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):**
- **CONNECTIONS WITH OTHER PLANS & PROGRAMMES:** The AELCLIC project in Malmi is now more clearly aligned with the **Helsinki Climate Change Adaptation & Mitigation Programme (HCCAMP)** and with the Plan for the renovation of the Malmi District Center (**Malmi Vision**). This alignment was based in the combination of the Values, Goals, Themes and Actions promoted by all these plans and in the subsequent definition of the structure of a future LACAP (Landscape Adaptation Plan to Climate Change) for the Malmi district. In particular the division between Mitigation and Adaptation Goals, Impacts, Solutions, etc. became crucial in this process due to its importance in the Helsinki Programme. / **ACTIONS:** the city of Helsinki will consider how to connect the findings and proposals of the AELCLIC project in their own plans (Malmi Visio and Helsinki Climate Change Adaptation & Mitigation Programme).
- **STRUCTURE for a potential LANDSCAPE ADAPTATION FOR TO CLIMATE CHANGE (LACAP) for Malmi:**
 - o The strategic topics proposed in the Workshop2 were kept since they can frame a holistic discussion about Climate Change Adaptation and are also valid to address the Goals and Values promoted by the Malmi Visio and the HCCAMP / **ACTIONS:** Use the 3 defined topics to advance in the definition of a LACAP
 - o The co-defined Values, Goals and Topics and the co-identified Climate Change Impacts and Opportunities were divided according to their connection to Climate Change Mitigation or/and Adaptation. This division will facilitate the connection of a potential LACAP with the HCCAMP. The co-identified impacts and opportunities are highly based in generic data and in personal opinions / **ACTIONS:** the City of Helsinki will consider how to connect the findings and proposals of the AELCLIC project in their own plans (Malmi Visio and HCCAMP). A potential LACAP should incorporate specific studies to identify adequately the expected Impacts and Opportunities in order to identify the most adequate Solutions and Actions
 - o The co-defined Solutions and Barriers were highly based j personal opinions and are not or systematically connected to the co-identified Impacts and Opportunities. These solutions and Barriers were classified according to their connection to Climate Change Mitigation or/and Adaptation. This division will facilitate the connection of a potential LACAP with the HCCAMP / **ACTIONS:** A potential LACAP should define the most relevant Solutions after identifying more consistently the expected Impacts and Opportunities of Climate Change in Malmi. However, the AELCLIC project includes some valuable ideas and detects adequately some of the principal barriers for the development and implementation of a LACAP.
 - o In a general level, the final table including values, goals, topics, impacts, opportunities, solutions and barriers for a potential LACAP, looks complete and consistent. This table can provide a valuable bottom-up input for the definition of the final structure of a future LACAP and is the consequence of a participation (although quite limited) process within the Malmi community / **ACTIONS:** the City of Helsinki will consider how to connect the findings and proposals of the AELCLIC project in their own plans (Malmi Visio and Helsinki Climate Change Adaptation & Mitigation Programme).
 - o **PROCESS AND ACTORS FOR THE DEFINITION AND IMPLEMENTATION OF A LACAP IN MALMI:** The proposed process for the elaboration of a LACAP for the Malmi District would start with the involvement of a wider group of stakeholders from the governmental, economic and social sectors. It would be equally essential to develop some specific studies to understand the Impacts and Opportunities of Climate Change in the district (during the AELCLIC project only general data or predictions from the EU, Finnish Government or City of Helsinki were used). Only after this ad-hoc analysis, it would be possible to define more precisely specific Solutions and Actions. The future LACAP should include an Implementation Plan and a Monitoring Plan with the capacity to retrofit the Plan. Finally, the whole development of a LACAP ad its implementation should be accompanied of a Participation Process. Regarding the involvement of the members of the AELCLIC network in the development of a LACAP, it becomes obvious that the City of Helsinki should take the lead and that new key actors are needed. However, all the members of the AELCLIC network in Malmi express their willingness to participate actively in some of the studies and works that should lead to the development of the envisioned LACAP/ **ACTIONS:** Expand the local network, analyze different funding possibilities to develop a LACAP
- **NEXT STEPS:** It is decided that the City of Helsinki will be the leader and official representative of the Malmi_AELCLIC-Network in future actions connected to the AELCLIC project (Climate-KIC) and that the City of Helsinki will study different alternatives to advance in future funding applications connected to the Climate Change Adaptation of the District and its connection to other municipal plans or programmes. The Information produced in the AELCLIC_pathfinder project will be fully available to the Local Network lead by the City of Helsinki and to the general public. Considering the existing uncertainties affecting funding, resources, timeframes, etc., it is agreed not to develop a formal or symbolic agreement to advance towards the production of a LACAP. However, all the participants express their interest in continuing working in a future LACAP / **ACTIONS:** The City of Helsinki would lead the development of a potential LACAP for the district and would connect it with other plans affecting the whole city or the district. The conclusions of the AELCLIC-Pathfinder project in Malmi would be used to define the Contents, Process and Actors for a potential LACAP as well as the

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the district of Malmi (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Co-definition of a process for the definition of the potential LACAP and co-identification of required actors). LEVEL OF ACHIEVEMENT: 3-4
 - o OUTCOME 3 (Co-definition of next steps in Malmi and future works of the constituted Local Network). LEVEL OF ACHIEVEMENT: 4
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The production of the OUTCOME1 was highly based in the works developed during the Workshops 1 and 2 and therefore its achievement was easier
 - o The OUTCOME2 added a completely new task to the AELCLIC project (process and actors to develop a Landscape Adaptation Plan to Climate Change (LACAP) in Malmi. Although the objective was to produce a very basic proposal, the allocated time was insufficient. Perhaps, this task should have been included partially in the Workshops 1 and 2
 - o The OUTCOME3 implied future actions after the AELCLIC-PATHFINDER project and it was difficult for the members of the Local network to commit themselves in those actions without knowing the implication, resources and timeframes. However, the political and administrative support to the project guaranteed its continuity. In addition, the organization of an International Meeting with the local representatives of all the European Pilot Landscapes will provide an opportunity to work more in the OUTCOME3.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement and commitment of the participants
 - o Organization of tasks for the allocated time (specially tasks 1 and 2)
 - o Clear guidelines and effective methods
 - o Increasing leadership from the City of Helsinki (Antti Mentula and Susanna Kankaanpää)
 - o Critical revision and synthesis of materials produced in the Workshops 1 and 2
 - o Generation of one group for the final discussions
- **Learnt lessons and recommendations for similar activities in other places:**
 - o See Shortcomings and Barriers and See main reasons for the successful achievement of the expected Outcomes.
 - o The use of the Mitigation and Adaptation concepts provided a useful and fruitful lens to analyze the multiple implications of Climate Change
 - o Eliminate or keep more time for the Tasks 3, 4 (How to develop a LACAP and Who should be involved), for the Task 5 (Critical analysis of the existing local network to lead the preparation of a LACAP), and for the Task 6 (Next Steps)
 - o Considering the uncertainties affecting the future development of a LACAP (funding, resources, timeframes, etc) it was difficult to require the members of the local network to sign a formal or symbolic agreement. However, a symbolic act was developed instead. Probably, in other cultural contexts the end of the AELCLIC project could be signified or celebrated in a more official manner.
 - o It would be advisable to give to the local network the possibility to designate an official representative for future actions or ventures within the AELCLIC (Climate-KIC) project. This local representative will be in most cases be a person from the local or regional administration. That was the case in Malmi, where Antti Mentula was designated for that position
- **Learnt lessons and recommendations for future activities in the same place:**
 - o After the designation of an official representative of the local network within the AELCLIC project, all the discussions and initiatives to advance towards a LACAP (e.g. funding applications) will be developed in direct collaboration with the local representative.
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o The urban character of the area creates a different connection between local inhabitants and their landscape. They concentrate more in abstract and functional qualities since their capacity or agency to modify or manage their physical environment is relatively limited in comparison with people living in rural areas. This situation generates also bolder proposals since the participants feel that they are basically transmitting their ideas to the authorities rather than implementing them themselves. These remarks could be probably applied to other urban areas but in the Malmi case are intensified by the ongoing transformation and by the expectation of upgrading the image of Malmi and making of the district a national reference in sustainable urban planning. The decision of not signing a formal Letter of Commitment or Letter of Understanding could be explained by the importance given in the Finnish context to such types of documents (perceived as legal and binding documents).

ACTIVITY: Workshop3_HYYPÄ RIVER VALLEY_PILOT LANDSCAPE

DATE and TIME: 6.9.2019, 9:00-12:30

PLACE: Kauhajoki town hall, Hallintoaukio 1

ORGANIZERS:

- Juanjo Galan / Aalto University
- Linda Leinonen / Kauhajoki town
- Marketta Nummijärvi / ELY, Etelä-Pohjanmaa
- Kirsi Hutri-Weintraub / Aalto University

PARTICIPANTS (14+2):

- Linda Leinonen / Kauhajoki town
- Marketta Nummijärvi / ELY, Etelä-Pohjanmaa
- Jussi Parviainen / Metsänhoitoyhdistys Lakeus
- Jeremias Laitamäki / Kauhajoki Youth Council
- Matti Seppälä / MTK, Kauhajoki
- Neea Leppälä / 4H Kauhajoki
- Timo Lakso / Regional Council of South Ostrobothnia
- Niina Tuovinen / The Suupohja Area Health and Social Services Joint Municipal Board / Environmental protection
- Asko Ojala / MTK Kauhajoki, Hyypä Village Association
- Laura Koivumäki / LH-Geopark
- Riikka Asunmaa / ProAgria, South Ostrobothnia
- Mikko Rotola-Pukkila / Neuvottelukunta/ Kauhajoki town
- Sulevi Riukulehto / University of Helsinki, Ruralia-insitute
- Aune Waronen / Ilkka / Pohjalainen
- Kirsi Hutri-Weintraub / Aalto University
- *Juanjo Galan / Aalto University*
- *Kirsi Hutri-Weintraub / Aalto University*

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the Hyypä river valley (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)
 - Co-definition of a process for the definition of the potential LACAP and co-identification of required actors
 - Co-definition of next steps in the Hyypä river valley and future works of the constituted Local Network
-

AGENDA:

AGENDA / OHJELMA

- **09:00 – 09:05 Welcome** – Linda Leinonen (Kauhajoen kaupunki) & Marketta Nummijärvi (ELY) ja Juanjo Galan & Kirsi Hutri-Weintraub (Aalto University)
- **09:05 – 09:10 Presentation of participants**
- **09:10 – 09:25 RESULTS of the WORKSHOP2** – Juanjo Galan (Aalto University)
- **09:25 – 09:40 Towards a Climate-KIC Demonstrator and a LACAP** (Landscape Adaptation plan to Climate Change)– Juanjo Galan (Aalto University)
 - What can be a LACAP? Examples of other Strategic Plans (Partners & Roles / Topic & Goals / Phases / Schedule / Outputs)
 - Key contents of an application for a Climate-KIC Demonstrator: Table of Contents & Key ideas; possible ways to contribute

- **09:40 – 10:00 Key findings and opportunities of the AELCLIC project in relation to the Kauhajoki Strategic Plan and the Hyypänjoki Cultural Landscape Conservation & Management Plan + Suggestions for a future LACAP** (Marketta Nummijärvi (ELY) and Linda Leinonen (Town of Kauhajoki))
- **10:00 – 12:15 TEAMWORK + Coffee** (n. 20 min/tehtävä)
 - TASK1: WHAT: Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP
 - TASK2: Structure of a potential LACAP
 - TASK3: HOW: Process, Key phases and schedule (e.g. identification and involvement of key stakeholders, analysis and diagnosis of critical issues, development of strategies & plan, definition of pilot actions...)
 - TASK4: WHO: Partners: Possible distribution of roles, duties, contributions, etc.
 - TASK5: Critical diagnosis of the existing Local Network and its capacity to promote the development of a Demonstrator application and a LACAP (administrative, financial, social, scientific)
 - TASK6: Defining next steps
- **12:15 – 12:30 SUMMARY and CONCLUSIONS**

1. WELCOME

- Welcoming words by Juanjo Galan (Aalto University), Linda Leinonen (Kauhajoki town), Marketta Nummijärvi (ELY, Etelä-Pohjanmaa) and Kirsi Hutri-Weintraub (Aalto University)

2. PRESENTATION OF PARTICIPANTS

NAME OF CONTACT	INSTITUTION	TYPE
Linda Leinonen	Major Kauhajoki town	LOCAL/REGIONAL AUTHORITY
Marketta Nummijärvi	ELY/South-Bothnia, Seinäjoki	LOCAL/REGIONAL AUTHORITY
Timo Lakso	Etelä-Pohjanmaan liitto	LOCAL/REGIONAL AUTHORITY
Niina Tuovinen	Suupohjan peruspalveluliikelaitoskuntayhtymä	PUBLIC SECTOR
Sulevi Riukulehto	Ruralia-instituutti	RESEARCH
Jeremias Laitamäki	Kauhajoki Youth Council	SOCIETAL ORGANIZATION
Neea Leppälä	4H	SOCIETAL ORGANIZATION
Aune Waronen	Ilkka/Pohlainen	PRIVATE SECTOR / SOCIETAL ORGANIZATION
Riikka Asunmaa	Pro Agria	PRIVATE SECTOR
Asko Ojala	Farmer, Hyypä village society	PRIVATE SECTOR / SOCIETAL ORGANIZATION
Mikko Rotola-Pukkila	Farmer, Hyypä valley conservation board	PRIVATE SECTOR / SOCIETAL ORGANIZATION
Matti Seppälä	farmer - coming to workshop	PRIVATE SECTOR / SOCIETAL ORGANIZATION
Jussi Parviainen	Metsänhoitoyhdistys LAKEUS	PRIVATE SECTOR
Laura Koivumäki	LH-Geopark	PRIVATE SECTOR

CONCLUSIONS:

- The local network remains stable and all the required sectors are represented (governmental, economic, social and academic). However, it would be important to increase in the future the presence of more regional research institutions and local businesses

3 RESULTS of the WORKSHOP2

- Juanjo Galan (Aalto University) summarizes the results of the WORKSHOP2 and the evolution of the AELCLIC-Pathfinder project in the 3 Pilot Landscapes located in Finland.

TOPIC 1: AGRICULTURE, FORESTRY & NATURAL ENVIRONMENT

- 1) IMPACTS
 - o 1.1. ECONOMIC IMPACTS: Extreme weather phenomena and impact in agriculture, forestry and other economic activities
 - o 1.2. ECOLOGICAL IMPACTS: Leaching of nutrients, biodiversity, alien species
 - o 1.3. LANDSCAPE IMPACTS: Floods, less snow, drought new species.
- 2) OPPORTUNITIES
 - o 2.1. IMPROVE SPATIAL & LAND-USE PLANNING: More ecological planning
- 3) SOLUTIONS:
 - o 3.1. RESTORING/FAVORING NATURAL ENVIRONMENTS
 - o 3.2. CARBON SEQUESTRATION THROUGH AGRICULTURE & FORESTS
 - o 3.3. AGRICULTURAL TECHNIQUES (DRAINAGE, SOIL MANAGEMENT, CROP ROTATION, MEADOWS, ORGANIC FARMING)
 - o 3.4. MIXED FORESTS
 - o 3.5. MORE INFORMATION
- 4) BARRIERS:
 - o 4.1. FINANCE & RESOURCES
 - o 4.2. LACK OF INFORMATION
 - o 4.3. LACK OF UNDERSTANDING OF THE CARBON CYCLE AND WHAT CARBON NEUTRALITY MEANS

TOPIC 2: PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES

- 1) IMPACTS
 - o 1.1. LAND-USE PLANNING: Need of more effective land use planning
 - o 1.2. INFRASTRUCTURES & MOBILITY: Transport, energy & electricity
 - o 1.3. BUILDINGS: new challenges and requirements
 - o 1.4 CARBON EMISSIONS: Need to reduce carbon emissions
- 2) OPPORTUNITIES
 - o 2.1. SPATIAL & LAND-USE PLANNING: Network of nature and green areas
 - o 2.2. NEW ARCHITECTURE AND BUILDING REGULATIONS
 - o 2.2. NEW ENERGY AND TRANSPORT SYSTEMS: Biogas, hybrid, robot bus
- 3) SOLUTIONS:
 - o 3.1) CONSTRUCTION and BUILDING REGULATIONS
 - o 3.2) AGRICULTURAL PRACTICES & PLANS
 - o 3.3) STRATEGIC PLAN FOR THE NATURAL ENVIRONMENT
 - o 3.4) TECHNICAL AND DIGITAL DEVELOPMENT
- 4) BARRIERS:
 - o 4.1) FINANCE & RESOURCES
 - o 4.2) ATTITUDES

TOPIC 3: ENERGY, PEOPLE & WAYS OF LIVING

- 1) IMPACTS
 - o 1.1. NEW SOURCES AND DEMANDS OF ENERGY
 - o 1.2. PERSONAL LIFE & SAFETY: Darkness, floods, less skiing, vegetarianism as a trend is a consequence of preparing to climate change, new diseases, power cuts, Need of renovating buildings
- 2) OPPORTUNITIES
 - o 2.1 RENEWABLE ENERGIES: solar, geothermal, production, wood, energy crops, biogas, Energy self-sufficiency and zero CO2 emissions
 - o 2.2 DIGITAL SOCIETIES: Remote work and Digitalization
- 3) SOLUTIONS:
 - o 3.1. NEW ENERGY TECHNOLOGIES
 - o 3.2. REMOTE WORK
 - o 3.3. DIGITALIZATION

- 3.4. SHARED VEHICLES AND SHARING ECONOMY
- 4) BARRIERS:
 - 4.1. FINANCE & RESOURCES
 - 4.2. ATTITUDES & PREJUDICES
 - 4.3. LIMITATIONS OF REMOTE WORK, DIGITALIZATION AND SHARED VEHICLES

TOPIC 4: NEW ECONOMIES, INDUSTRY AND SERVICE SECTOR

- 1) IMPACTS
 - 1.1. AGRICULTURE, CATTLE BREEDING & FORESTRY
 - 1.2. NEED OF NEW ENERGY SOURCES: carbon neutral Hyypä river valley?
 - 1.3. TOURISM: No more Hyypä-skiing > affects to community
 - 1.4. NEED OF NEW ECONOMIC ACTIVITIES: Need of Logistical services, Define targets!, Green Economy & Ecology, How to maintain the industry and service sector?
- 2) OPPORTUNITIES
 - 2.1. NEW ENERGY SOURCES: Carbon neutral Hyypä river valley co-operation
 - 2.2. GREEN ECONOMY: eco-tourism, environmental services
- 3) SOLUTIONS:
 - 3.1. GREEN ECONOMY
 - 3.2. COMMUNICATION & MARKETING
 - 3.3. INNOVATIONS
 - 3.4. FINANCING GOOD PROJECTS
 - 3.5. CARBON NEUTRAL HYYPÄRIVER VALLEY
- 4) BARRIERS:
 - 4.1. FINANCE & RESOURCES
 - 4.2. LACK OF INNOVATION
 - 4.3. REMOTE LOCATION
 - 4.4. BUREAUCRACY
 - 4.5. EGO, FEARS, ENVY (positive or negative?)

4.1 TOWARDS A CLIMATE-KIC DEMONSTRATOR AND A LANDSCAPE ADAPATION PLAN TO CLIMATE CHANGE (LACAP) FOR THE HYYPÄ RIVER VALLEY? (Juanjo Galan, Aalto University)

- Short lecture about the differences between Climate Change ADAPTATION and MITIGATION
- Short lecture about the basic contents and structure of a typical Strategic Plan
- Short introduction about the contents and structure of one application for a CLIMATE-KIC Demonstrator (possible future step for the AELCLIC in the Hyypä river valley?).

4.2. Kauhajoki Strategic Plan and the Hyypänjoki Cultural Landscape Conservation & Management Plan + Suggestions for a future LACAP (Marketta Nummijärvi (ELY) and Linda Leinonen (Town of Kauhajoki)).

- Marketta Nummijärvi (ELY) explains the connections between the AELCLIC project and the Hyypänjoki Cultural Landscape Conservation & Management Plan. Marketta also suggests some potential topics to be addressed in the AELCLIC project.
- Linda Leinonen (Town of Kauhajoki) explains the connections between the AELCLIC project and the General/Strategic Plan of Kauhajoki. Linda also suggests some potential topics to be addressed in the AELCLIC project.



5 TEAMWORK

5.1. TASK 1: WHAT? – Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP

- This task involved:
 - The incorporation of key values, goals and actions included in the Municipal/Strategic Plan of Kauhajoki and in the Hyypänjoki Cultural Landscape Conservation & Management Plan to those proposed in the Workshops 1 and 2 of the AELCLIC project in Hyypä
 - A critical revision of all the included Values, Goals, Themes/Topics, Impacts, Opportunities, Solutions and Barriers.

STEP1: Inputs from the 3 documents framing the Workshop3 of the AELCLIC project in Hyypä:

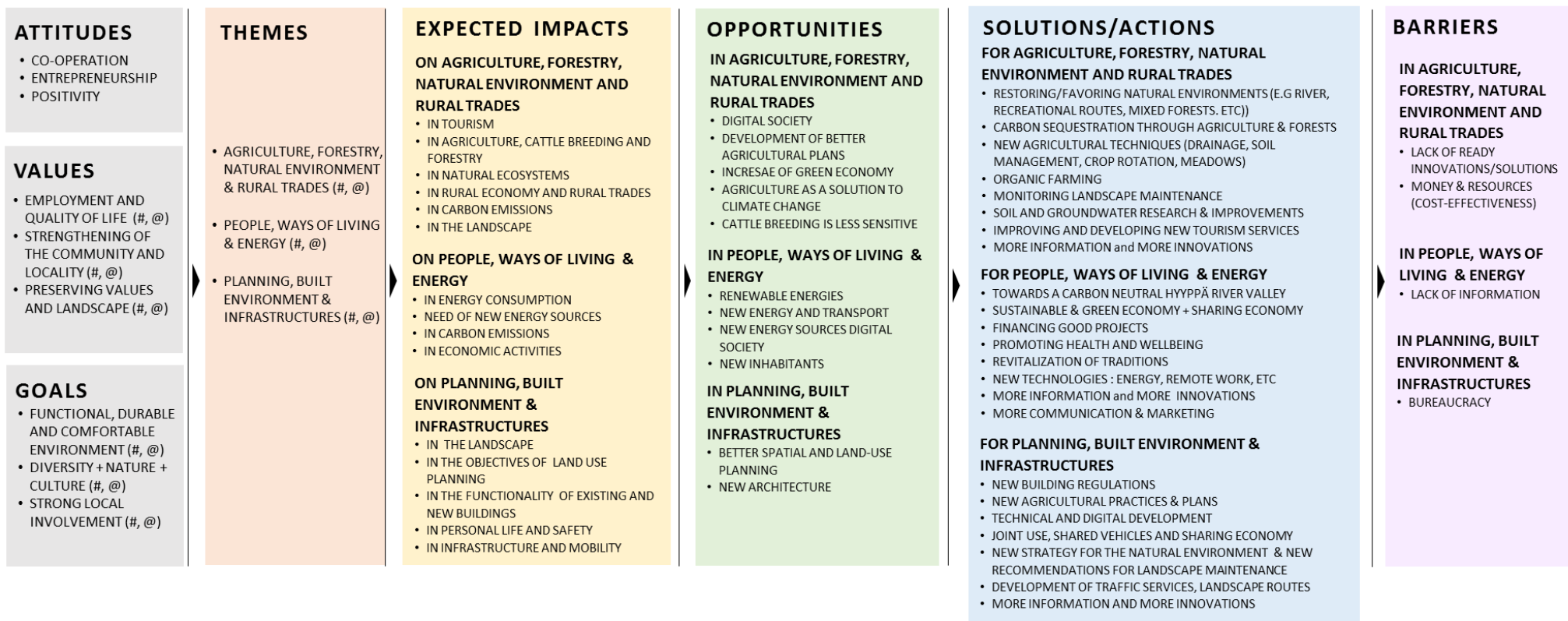
	VALUES	GOALS	THEMES	IMPACTS	OPPORTUNITIES	SOLUTIONS	BARRIERS
From AELCLIC WORKSHOPS 1+2	<ul style="list-style-type: none"> CULTURAL HERITAGE DIVERSITY + NATURE + CULTURE AGRICULTURE BUILDINGS & SETTLEMENTS GEOLOGY VALLEY AND RIVER CLEAN AND TIDY LANDSCAPE 	<ul style="list-style-type: none"> DEFINING A NETWORK OF LOCAL STAKEHOLDERS (AELCLIC-PROJECT) 	<ul style="list-style-type: none"> AGRICULTURE AND FORESTRY & NATURAL ENVIRONMENT PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURE ENERGY, PEOPLE & WAYS OF LIVING NEW ECONOMIES, INDUSTRY AND SERVICE SECTOR 	<ul style="list-style-type: none"> ECONOMIC IMPACTS LANDSCAPE IMPACTS BUILDINGS ENERGY AGRICULTURE, CATTLE BREEDING AND FORESTRY TOURISM ECOLOGICAL IMPACTS LAND USE PLANNING INFRASTRUCTURE AND MOBILITY CARBON EMISSIONS PERSONAL LIFE AND SAFETY NEED OF NEW ENERGY SOURCES NEED OF NEW ECONOMIC ACTIVITIES 	<ul style="list-style-type: none"> AGRICULTURE AS SOLUTION AGRICULTURAL PLANS CATTLE BREEDING IS LESS SENSITIVE SPATIAL AND LAND-USE PLANNING NEW ARCHITECTURE NEW ENERGY AND TRANSPORT SYSTEMS RENEWABLE ENERGIES DIGITAL SOCIETY GREEN ECONOMY NEW ENERGY SOURCES 	<ul style="list-style-type: none"> RESTORING/FAVORING NATURAL ENVIRONMENTS CARBON SEQUESTRATION THROUGH AGRICULTURE & FORESTS AGRICULTURAL TECHNIQUES (DRAINAGE, SOIL MANAGEMENT, CROP ROTATION, MEADOWS) ORGANIC FARMING MIXED FORESTS MORE INFORMATION CONSTRUCTION REGULATIONS AGRICULTURAL PRACTICES & PLANS STRATEGY FOR THE NATURAL ENVIRONMENT REMOTE WORK TECHNICAL AND DIGITAL DEVELOPMENT DIGITALIZATION SHARED VEHICLES AND SHARING ECONOMY COMMUNICATION & MARKETING NEW ENERGY TECHNOLOGIES GREEN ECONOMY INNOVATIONS FINANCING GOOD PROJECTS CARBON NEUTRAL HYYPÄ RIVER VALLEY 	<ul style="list-style-type: none"> BUREAUCRACY MONEY & RESOURCES LACK OF INFORMATION LACK OF UNDERSTANDING OF THE CARBON CYCLE AND WHAT CARBON NEUTRALITY MEANS LIMITATIONS OF REMOTE WORK, DIGITALIZATION AND SHARED VEHICLES MONEY & RESOURCES ATTITUDES EGO, FEARS, ENVY (POS. OR NEG.) MONEY & RESOURCES ATTITUDES & PREJUDICES
From KAUAJOKI TOWN	<ul style="list-style-type: none"> CO-OPERATION ENTREPRENEURSHIP POSITIVITY STRONG LOCAL INVOLVEMENT FUNCTIONAL, TIME-LASTING AND COMFORTABLE ENVIRONMENT MAINTENANCE OF ENVIRONMENTAL QUALITY FACTORS AND STRENGTHS 	<ul style="list-style-type: none"> ASSERTION OF LOCAL IDENTITY PRESERVATION OF VALUABLE NATURAL AND CULTURAL ENVIRONMENTS POSITIVE COMMUNITY DEVELOPMENT HOUSING: COMPACT CENTER, HOUSING OPTIONS ECONOMIC LIFE: SCALE, RURAL TRADES ETC. TRAFFIC AND TRANSPORT: DEVELOPMENT OF DIFFERENT WAYS OF MOBILITY AND NETWORKS ETC. GREEN ENVIRONMENTS AND ROUTES: DEVELOPING A GREEN IMAGE VALUES AND SUSTAINABLE DEVELOPMENT: HISTORY, NATURE VALUES, CONSERVATION OF ARABLE LAND ETC. DYNAMIC CENTER OF THE SOUTH OSTROBOTHNIA 2025 	<ul style="list-style-type: none"> AGRICULTURE AND FORESTRY, NATURAL RESOURCES GEOLOGY NATURE ENVIRONMENTS, BIODIVERSITY WATER, AIR, CLIMATE CONSTRUCTION/ BUILDINGS IN CENTER/OUT-OF-TOWN CONSERVATION OF CULTURAL ENVIRONMENTS INFRASTRUCTURE, TRAFFIC, SMART MOBILITY & ENERGY IMAGE OF THE TOWN AND LANDSCAPE WAYS OF LIVING HOUSING OF SENIOR CITIZENS PUBLIC SERVICES AND SPACES TOURISM TRADE AND INDUSTRY 			<ul style="list-style-type: none"> PROMOTING OF HEALTH AND WELLBEING COMMUNICATION & MARKETING INNOVATIONS SUSTAINABLE ECONOMY 	
From HYYPÄNJOKE CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN	<ul style="list-style-type: none"> IMPRESSIVE LANDFORMS, OPEN CULTURAL LANDSCAPE, DISTINCT GEOLOGY, BIRD FAUNA, BIODIVERSITY 	<ul style="list-style-type: none"> PRESERVING THE VIABILITY OF VILLAGES AND THE STRUCTURE OPENNESS AND NATURE VALUES OF TRADITIONAL CULTURAL LANDSCAPE 	<ul style="list-style-type: none"> WATER CONSERVATION AND EROSION CONTROL AREAS WITH NATURAL VALUES OPEN LANDSCAPE WITH RURAL CHARACTER RECREATION SEMI NATURAL GRASSLANDS AND GRAZED AREAS CLEARANCE OF THE RIVER AND RIVERSIDE LAND USE BUILDINGS ROADS 			<ul style="list-style-type: none"> RECOMMENDATIONS FOR LANDSCAPE MAINTENANCE DEVELOPMENT OF TRAFFIC SERVICES, LANDSCAPE ROUTES GUIDELINES FOR BUILDINGS REVITALIZATION OF TRADITIONS MONITORING AND MAINTENANCE OF THE LANDSCAPE SOIL AND GROUNDWATER RESEARCH RESTORATION OF RIVER RECREATIONAL ROUTE IMPROVING AND DEVELOPING OF NEW TOURISM SERVICES 	

STEP2: CO-DEFINITION OF KEY LOCAL ATTITUDES, VALUES, GOALS, THEMES, IMPACTS, OPPORTUNITIES, SOLUTIONS AND BARRIERS FOR CLIMATE CHANGE ADAPTATION IN THE HYYPÄ RIVER VALLEY (LIST INFORMED BY AELCLIC-workshops 1 & 2 (A), by the STRATEGIC PLANS OF THE TOWN OF KAUHAJOKI (KAU), by the HYYPÄJOKI CULTURAL LANDSCAPE CONSERVATION & MANAGEMENT PLAN (HCP) and by NEW proposals (NEW):

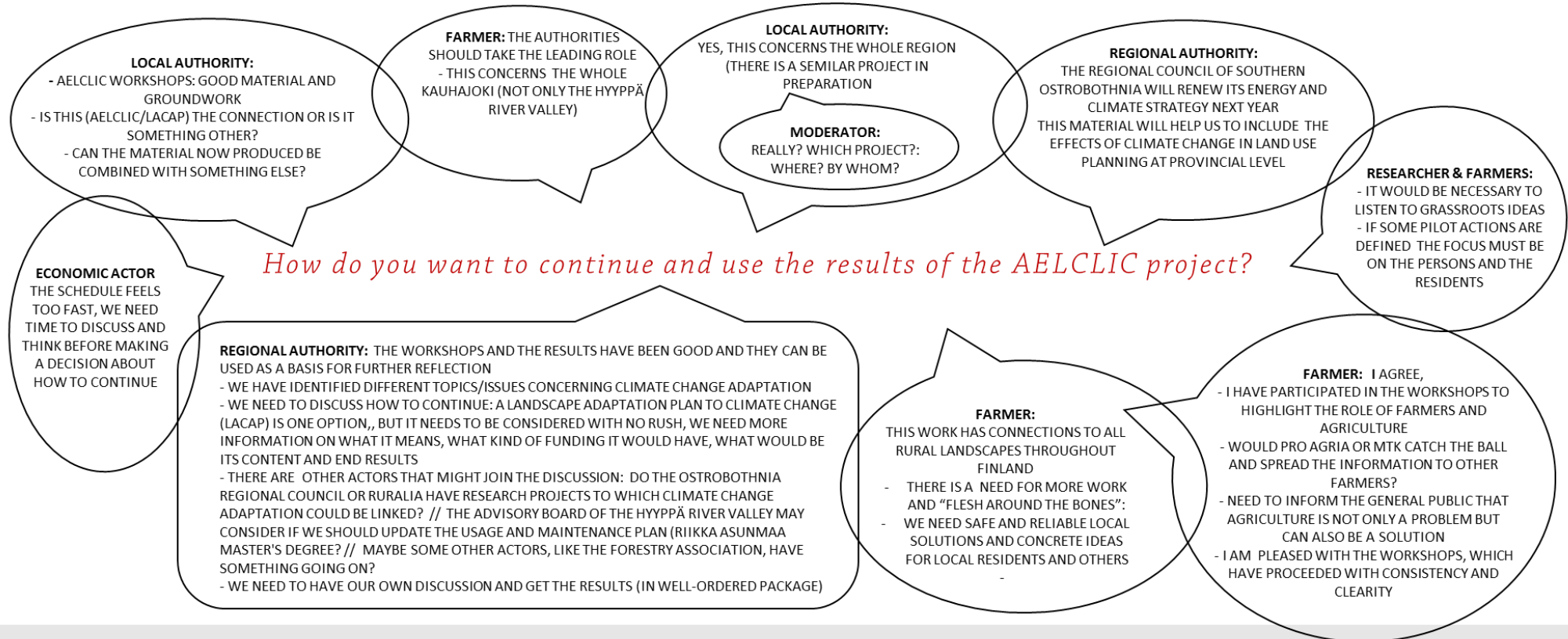
ATTITUDES	VALUES	GOALS	THEMES	IMPACTS	OPPORTUNITIES	SOLUTIONS	BARRIERS
<ul style="list-style-type: none"> • CO-OPERATION (KAU) • ENTREPRENEURSHIP (KAU) • POSITIVITY (KAU) 	<ul style="list-style-type: none"> • EMPLOYMENT AND QUALITY OF LIFE (NEW) • STRENGTHENING OF THE COMMUNITY AND LOCALITY (NEW) • PRESERVING VALUES AND LANDSCAPE (NEW) 	<ul style="list-style-type: none"> • FUNCTIONAL, TIME-LASTING AND COMFORTABLE ENVIRONMENT (KAU) • DIVERSITY + NATURE + CULTURE (A) • STRONG LOCAL INVOLVEMENT (KAU) 	<ul style="list-style-type: none"> • AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES (A + NEW) • PEOPLE, WAYS OF LIVING & ENERGY (A) • PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES (A) 	<p>AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL</p> <ul style="list-style-type: none"> • Tourism (A) • Agriculture, cattle breeding and forestry (A) • Ecological impacts (A) • Need of new economic activities (A) • Carbon emissions (A) • Economic impacts (A) • Landscape impacts (A) <p>PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • Energy (A) • Need of new energy sources (A) • Carbon emissions (A) • Economic impacts (A) <p>PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • Landscape impacts (A) • Land use planning (A) • Buildings (A) • Personal life and safety (A) • Infrastructure and mobility (A) 	<p>AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • Digital society (A) • Agricultural plans (A) • Green economy (A) • Agriculture as solution (A) • Cattle breeding is less sensitive (A) <p>PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • Renewable energies (A) • New energy and transport (A) • New energy sources (A) • Digital society (A) • New inhabitants NEW <p>PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • Spatial and land-use planning (A) • New architecture (A) 	<p>AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • Restoring/favoring natural environments (A) • Carbon sequestration through agriculture & forests (A) • Agricultural techniques (drainage, soil management, crop rotation, meadows) (A) • Organic farming (A) • Mixed forests (A) • Monitoring of the landscape maintenance (HCP) • Soil and ground water research (HCP) • Restoration of river (HCP) • Recreational routes (HCP) • Improving and developing new tourism services (HCP) • More information (A) • Innovations (A), (KAU) <p>PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • Communication & marketing (A), (KAU) • New energy technologies (A) • Green economy (A) + sharing economy (NEW) • Financing good projects (A) • Carbon neutral Hyypä river valley (A) • Remote work (A) • Revitalization of traditions (HCP) • Promoting of health and wellbeing (KAU) • Sustainable economy (KAU) • More information (A) • Innovations (A), (KAU) <p>PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • Construction regulations (A) • Agricultural practices & plans (A) • Technical and digital development (A) • Digitalization (A) • Shared vehicles and sharing economy (A) • Strategy for the natural environment (A) • Recommendations for landscape maintenance (HCP) • Development of traffic services, landscape routes (HCP) • Guidelines for building (HCP) • Joint use (NEW) • More information (A) • Innovations (A), (KAU) 	<p>AGRICULTURE, FORESTRY, NATURAL ENVIRONMENT AND RURAL TRADES</p> <ul style="list-style-type: none"> • Lack of ready innovations/solutions (not lack of ability or willing to innovate) (A + NEW) • Money & resources (cost-effectiveness) • (A + NEW) <p>PEOPLE, WAYS OF LIVING & ENERGY</p> <ul style="list-style-type: none"> • Lack of information (A) <p>PLANNING, BUILT ENVIRONMENT & INFRASTRUCTURES</p> <ul style="list-style-type: none"> • Bureaucracy (A)

5.2. TASK 2: Structure of a potential LACAP: This task involved a deep synthesis of the information generated in the TASK1

PRELIMINARY CONTENTS for a potential LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE in the Hyypä River Valley (#=adaptation; @=mitigation)



5.3. TASK 3+4+5: Discussion about how to continue working with Climate Change Adaptation within the Hyypä local network generated during the AELCLIC-Pathfinder project:



CONCLUSIONS:

- THE HYYPÄ LOCAL NETWORK MIGHT DISCUSS IN THE FUTURE (WITH MORE TIME AND INFORMATION), HOW TO CONTINUE WORKING ON CLIMATE CHANGE ADAPTATION
- ALL THE MATERIALS PRODUCED IN THE AELCLIC WORKSHOPS ARE PUBLIC AND FULLY AVAILABLE FOR THE USE OF HYYPÄ LOCAL NETWORK
- THE HYYPÄ LOCAL NETWORK DESIGNATES THE CITY OF KAUHAJOKI TO LEAD & REPRESENT THE NETWORK IN FUTURE ACTIONS WITHIN THE AELCLIC (CLIMATE_KIC) PROJECT AND MARKETTA NUMMIJÄRVI TO BE ITS CONTACT PERSON .
- MARKETTA WILL BE INVITED TO THE INTERNATIONAL MEETING THAT WILL TAKE PLACE ON THE 13TH OF NOVEMBER IN BOLOGNA IN WHICH ALL THE REPRESENTATIVES OF THE AELCLIC PILOT LANDSCAPES WILL EXPLORE DIFFERENT OPTIONS TO CONTINUE WORKING ON CLIMATE CHANGE ADAPTATION (ONE OF THAT OPTIONS MIGHT BE TO DEVELOP A LACAP (WITH CLIMATE KIC FUNDING OR WITH OTHER SOURCES OF FUNDING

5.4 TASK 6: Defining next steps

- The Hyyppiä local network might discuss in the future (with more time and information), how to continue working on climate change adaptation
- all the materials produced in the AELCLIC workshops are public and fully available for the use of Hyyppiä local network
- The Hyyppiä local network designates the city of Kauhajoki to lead & represent the network in future actions within the AELCLIC (CLIMATE_KIC) project and Marketta Nummijärvi to be its contact person.
- Marketta will be invited to the international meeting that will take place on the 13th of November in Bologna (Italy) in which all the representatives of the AELCLIC pilot landscapes will explore different options to continue working on climate change adaptation (one of that options might be to develop a LACAP (with CLIMATE KIC funding or with other sources of funding)

Coverage of the Workshop in Regional and Local newspapers:



Ilmasto tarvitsee maaseutua

Kauhajan Hyyppiä-työryhmä on ollut kahdeksan viikkoa maaseutu- ja elämyskeskuksessa, jossa on pidetty useita kokouksia ja on käyty maaseutu- ja elämyskeskuksessa. Kokouksissa on käyty läpi maaseutu- ja elämyskeskuksen toimintaa ja on käyty läpi maaseutu- ja elämyskeskuksen toimintaa. Kokouksissa on käyty läpi maaseutu- ja elämyskeskuksen toimintaa ja on käyty läpi maaseutu- ja elämyskeskuksen toimintaa.

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SUMMARY:

- **Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):**
- **CONNECTIONS WITH OTHER PLANS & PROGRAMMES:** The AELCLIC project in Hyypä is now more clearly aligned with the *Municipal/Strategic Plan of Kauhajoki* and with the *Hyypänjoki Cultural Landscape Conservation & Management Plan (HCLP)*. This alignment was based in the combination of the Values, Goals, Themes and Actions promoted by all these plans and in the subsequent definition of the structure of a future LACAP (Landscape Adaptation Plan to Climate Change) for the Hyypä river valley / **ACTIONS:** the Town of Kauhajoki will consider how to connect the findings and proposals of the AELCLIC project with their own plans (Municipal/Strategic Plan of Kauhajoki and with the Hyypänjoki Cultural Landscape Conservation & Management Plan (HCLP)).
- **STRUCTURE for a potential LANDSCAPE ADAPTATION FOR TO CLIMATE CHANGE (LACAP) for the Hyypä river valley:**
 - o The 4 strategic topics proposed in the Workshop2 were reduced to 3 in order to simplify a holistic discussion about Climate Change Adaptation. These topics were also found valid to address the Goals and Values promoted by the Municipal/Strategic Plan of Kauhajoki and with the Hyypänjoki Cultural Landscape Conservation & Management Plan (HCLP) / **ACTIONS:** Use the 3 defined topics to advance in the definition of a LACAP
 - o Most of the values, goals and themes considered for a potential LACAP were considered valid to address both Climate Change Adaptation and Mitigation / **ACTIONS:** Differentiate more clearly in the LACAP actions and solutions for Climate Change Adaptation, Mitigation and for both (the ideal situation)
 - o The co-defined Solutions and Barriers covered well the identified impacts and opportunities but were highly based on personal opinions. / **ACTIONS:** A potential LACAP should define the most relevant Solutions after identifying more consistently the expected Impacts and Opportunities of Climate Change in the Hyypä river valley. However, the AELCLIC project includes some valuable ideas and detects adequately some of the principal barriers for the development and implementation of a LACAP.
 - o In a general level, the final table including values, goals, topics, impacts, opportunities, solutions and barriers for a potential LACAP, looks complete and consistent. This table can provide a valuable bottom-up input for the definition of the final structure of a future LACAP and is the consequence of a participation (although quite limited) process within the Hyypä river valley community / **ACTIONS:** the Town of Kauhajoki might consider how to connect the findings and proposals of the AELCLIC project in their own plans (Municipal/Strategic Plan of Kauhajoki and with the Hyypänjoki Cultural Landscape Conservation & Management Plan (HCLP)).
- **NEXT STEPS:** It is decided that the Town of Kauhajoki will be the leader and official representative of the Hyypä_AELCLIC-Network in future actions connected to the AELCLIC project (Climate-KIC) and Marketta Nummijärvi will be its contact person. The Hyypä local network might discuss in the future (with more time and information), how to continue working on climate change adaptation. All the materials produced in the AELCLIC workshops are public and fully available for the use of Hyypä local network. Marketta will be invited to the international meeting that will take place on the 13th of November in Bologna (Italy) in which all the representatives of the AELCLIC pilot landscapes will explore different options to continue working on climate change adaptation (one of that options might be to develop a LACAP (with CLIMATE KIC funding or with other sources of funding) / **ACTIONS:** The Town of Kauhajoki would lead the development of a potential LACAP for the area and would connect it with other plans affecting the municipality or the region. The conclusions of the AELCLIC-Pathfinder project in Hyypä would be used to define the Contents, Process and Actors for a potential LACAP as well as the development of funding applications or fund raising processes.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the Hyyppä river valley (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Co-definition of a process for the definition of the potential LACAP and co-identification of required actors). LEVEL OF ACHIEVEMENT: This TOPIC was postponed and will be discussed internally by the AELCLIC_Hyyppä network.
 - o OUTCOME 3 (Co-definition of next steps in Hyyppä and future works of the constituted Local Network). LEVEL OF ACHIEVEMENT: This TOPIC was postponed and will be discussed internally by the AELCLIC_Hyyppä network.
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The production of the OUTCOME1 was highly based in the works developed during the Workshops 1 and 2 and therefore its achievement was easier
 - o The OUTCOME2 and OUTCOME 3 were not addressed in the Workshop3. The production of these two Outcomes added a completely new task to the AELCLIC project in Hyyppä (process and actors to develop a Landscape Adaptation Plan to Climate Change (LACAP). Although the objective was to produce a very basic proposal, the members of the local networks considered that they needed more time and information to discuss the potential process and actors for the production of a LACAP.
 - o The OUTCOME3 implied future actions out of the AELCLIC-PATHFINDER project and it was difficult for the members of the Local network to commit themselves in future actions without knowing the implication, resources and timeframes. However, the political and administrative support to the project might guarantee its continuity. In addition, the organization of an International Meeting with the local representatives of all the European Pilot Landscapes will provide an opportunity to the Town of Hauhajoki to reflect a little more on the OUTCOME3.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement and commitment of the participants
 - o Organization of tasks for the allocated time (specially tasks 1 and 2), clear guidelines and effective methods
 - o Increasing leadership from the Town of Kauhajoki and ELY, Etelä-Pohjanmaa
 - o Critical revision and synthesis of materials produced in the Workshops 1 and 2
 - o Generation of one group for the final discussion, open and fluid final discussion
- **Learnt lessons and recommendations for similar activities in other places:**
 - o See Shortcomings and Barriers and See main reasons for the successful achievement of the expected Outcomes.
 - o The use of the Mitigation and Adaptation concepts provided a useful and fruitful lens to analyze the multiple implications of Climate Change
 - o Eliminate or keep more time for the Tasks 3, 4 (How to develop a LACAP and Who should be involved) for the Task 5 (Critical analysis of the existing local network to lead the preparation of a LACAP)
 - o Give more time for the development of the Task 6 (Next Steps)
 - o Considering the uncertainties affecting the future development of a LACAP (funding, resources, timeframes, etc) it was difficult to require the members of the local network to sign a formal or symbolic agreement. However, a symbolic act was developed instead. Probably, in other cultural contexts the end of the AELCLIC project could be signified or celebrated in a more official manner.
 - o It would be advisable to give to the local network the possibility to designate an official representative for future actions or ventures within the AELCLIC (Climate-KIC) project. This local representative will be in most cases be a person from the local or regional administration. That was the case in Hyyppä, where Marketta Nummijärvi was designated for that position
- **Learnt lessons and recommendations for future activities in the same place:**
 - o After the designation of an official representative of the local network within the AELCLIC project, all the discussions and initiatives to advance towards a LACAP (e.g. funding applications) will be developed in direct collaboration with the local representative.
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o The rural character of the area might explain the special emphasis on productive processes associated to the landscape (agriculture, farming and rural heritage concentrate many of the comments about Climate Change Impacts, Opportunities, Solutions and Barriers). This can apply probably to other rural areas but in the Hyyppä case might be intensified by the official recognition of the Hyyppänjoki valley as one of the valuable cultural landscapes of Finland since this gives to the local community a role of stewards of a unique landscape. The decision of not signing a formal Letter of Commitment or Letter of Understanding could be explained by the importance given in the Finnish context to such types of documents (perceived as legal and binding documents).

ACTIVITY: Workshop3_TORNIO RIVER VALLEY_PILOT LANDSCAPE

DATE and TIME: 8.10.2019, 12:30 -16:00

PLACE: Bothnian Business house (meetingroom Kaari), Pakkahuoneenkatu 1, Tornio

ORGANIZERS:

- Juanjo Galan / Aalto University
- Sampo Kangastalo/ Tornio city
- Kirsi Hutri-Weintraub / Aalto University

PARTICIPANTS (12+2):

- Niina Karjalainen / ELY
- Katri Hendriksson / Lapland's school for applied sciences
- Sampo Kangastalo/ Tornio city
- Aapo Mäenpää / Tornio city
- Virve Sallialmi / Transboundary River Commission
- Pekka Pelttari / Tornio, fishing, Karunki
- Minna Heljala / Museum of Tornio river valley
- Robert Ekholm / Haparanda City
- Sofia Rosendahl /Haparanda municipality
- Martti Isto / MTK-Tornio, farmer
- Teija Ylimartimo / Museum of Tornio river valley
- Anne-Mari Söderström / MTK-Tornio (farmer)
- *Juanjo Galan / Aalto University*
- *Kirsi Hutri-Weintraub / Aalto University*

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the Tornio river valley (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)
 - Co-definition of a process for the definition of the potential LACAP and co-identification of required actors
 - Co-definition of next steps in the Tornio river valley and future works of the constituted Local Network
-

AGENDA:

12:30 – 12:35 Welcome words – *Sampo Kangastalo (Tornio city) and Juanjo Galan & Kirsi Hutri-Weintraub (Aalto University)*

12:35 – 12:40 Presentation of participants

12:40 – 12:55 Results of the WORKSHOP 2 – *Juanjo Galan (Aalto University)*

12:55 – 13:10 Towards a Climate-KIC Demonstrator and a LACAP (Landscape Adaptation plan to Climate Change) – *Juanjo Galan (Aalto University)*

- What can be a LACAP? Examples of other Strategic Plans (Partners & Roles / Topic & Goals / Phases / Schedule / Outputs)
- Key contents of an application for a Climate-KIC Demonstrator: Table of Contents & Key ideas; possible ways to contribute

13:10 – 13:30 Key findings and opportunities of the AELCLIC project in relation to the City Plans of Tornio & Haparanda – *Sampo Kangastalo (Tornio City)*

- Suggestions for a future LACAP?

13:30 – 15:45 Teamwork around a big table + coffee (2 hours, approximately 20 min/task)

- TASK1: WHAT: Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP
- TASK2: Structure of a potential LACAP
- TASK2: HOW: Process, Key phases and schedule (e.g. identification and involvement of key stakeholders, analysis and diagnosis of critical issues, development of strategies & plan, definition of pilot actions...)
- TASK3: WHO: Partners: Possible distribution of roles, duties, contributions, etc.
- TASK5: Critical diagnosis of the existing Local Network and its capacity to promote the development of a Demonstrator application and a LACAP (administrative, financial, social, scientific)
- TASK6: Celebrating the end of the AELCLIC_pathfinder in Tornio

15:45 – 16:00 *Summary and conclusions*

1. WELCOME

- Welcoming words by Juanjo Galan (Aalto University), Sampo Kangastalo (City of Tornio), and Kirsi Hutri-Weintraub (Aalto University)

2. PRESENTATION OF PARTICIPANTS

NAME OF CONTACT	INSTITUTION	TYPE
Sampo Kangastalo	Tornio City	REGIONAL/LOCAL ADMINISTRATION
Aapo Mäenpää	Tornio City	REGIONAL/LOCAL ADMINISTRATION
Sofia Rosendahl	Haparanda City	REGIONAL/LOCAL ADMINISTRATION
Robert Ekholm	Haparanda City	REGIONAL/LOCAL ADMINISTRATION
Niina Karjalainen	ELY-centre	REGIONAL/LOCAL ADMINISTRATION
Minna Heljala	The Museum of Tornio Valley	PUBLIC BODY
Teija Yli-Martimo	The Museum of Tornio Valley	PUBLIC BODY
Virve Sallialmi	Transboundary river commission	PUBLIC BODY
Katri Hendriksson	Lapland University of Applied Sciences	RESEARCH
Anne-Mari Söderström	MTK	ECONOMY SECTOR
Martti Isto	Farmer	ECONOMY SECTOR
Pekka Pelttari	Fishers/Tornio City	ECONOMY SECTOR

CONCLUSIONS:

- The local network remains stable and all the required sectors are represented (governmental, economic, social and academic). However, the number of participants has decreased in this last workshop and the presence of civil/societal institutions, local businesses, and companies from the industry and energy sector needs to be reinforced.

3 RESULTS of the WORKSHOP2

- Juanjo Galan (Aalto University) summarizes the results of the WORKSHOP2 and the evolution of the AELCLIC-Pathfinder project in the 3 Pilot Landscapes located in Finland.

TOPIC 1: NATURE AND BIODIVERSITY

1) IMPACTS

- 1.1. SEASONAL CHANGES, SNOW, SOILS AND RIVER: Run-off and impact in water quality, Reduction of snow cover and effect in permanent frost (route) / no permanent frost, No more distinct seasons, the river may stay unfrozen even in the winter
- 1.2. ECOLOGY AND ECOSYSTEMS: Arctic species are receding, Distribution areas of plants will change, Forest growth accelerates
- 1.3. ALIEN SPECIES, DISEASES AND PESTS

- 1.4. FISHES: Survival of salmonids
- 1.5. REINDEERS: Reindeer food, pasture of lichens
- 2) OPPORTUNITIES
 - 2.1 AGRICULTURE & FORESTRY: The growing season is getting longer, New crops, Forest growth is accelerating
 - 2.2 RESTORATION OF RIVER BASIN AND RURAL OPENESS: restoration of the river basin, Rural openness will be restored
 - 2.3 NEW CLIMATE AND REDISTRIBUTION OF SPECIES
- 3) SOLUTIONS
 - 3.1. ELECTION OF CROPS, TECHNIQUES AND MACHINES
 - 3.2. SUPPLEMENTARY FEEDING FOR REINDEERS
 - 3.3. SEAL HUNTING
 - 3.4. CONTROL OF ALIEN SPECIES
- 4) BARRIERS
 - 4.1. REGULATIONS /RESTRICTIONS FOR FISHING
 - 4.2. SMALL FARMS
 - 4.3. LACK OF RESOURCES

TOPIC 2: SUSTAINABLE ECONOMY & TRADES

- 1) IMPACTS
 - 1.1. AGRICULTURE & FORESTRY: More flexibility in farming (changes in crop varieties or harvest season depending on weather conditions), Pests / attacks, Forestry - pests, storms, soft, wet forestland and roads, harvest/cutting time shortens
 - 1.2. NEW CLIMATIC CONDITIONS: Less seasonal changes: warmer summers and winters, also the soil and its vegetation and organisms will change..
 - 1.3. INFRASTRUCTURES & SAFETY: Damage to infrastructure / costs, The need for deepening the sea-lane is diminished due to rising sea levels, More and bigger floods
 - 1.4. BUILDINGS AND CONSTRUCTION: Construction and maintenance becomes more difficult on the riverside, Regulations of construction become tighter
 - 1.5. FISHING: Fish does not rise the river) / Salmon are affected by warmer water
 - 1.6. TOURISM: Fishing tourism?, Less winter tourism?
- 2) OPPORTUNITIES
 - 2.1. TOURISM: "Cooling" tourism, Summer travel >> incomes
 - 2.2. GREEN ECONOMY: Green trades, "new" business and existing ones, Agriculture increases >> open landscape
- 3) SOLUTIONS
 - 3.1. RESEARCH
 - 3.2. REDUCE EMISSIONS OF SUBSTANCES HAZARDOUS TO THE ENVIRONMENT
 - 3.3. REDUCE NUTRIENT RUNOFF: LANDS, SWAMPS, FORESTS, AGRICULTURE > DITCHES, TECHNOLOGY
 - 3.4. ENVIRONMENTAL FRIENDLY BIOLOGICAL CONTROL METHODS
 - 3.5 AGRICULTURE NEEDS INFORMATION ON NEW CROPS AND THEIR POSSIBILITIES (CROP/HECTARE) + EU REGULATION TO BE MORE FLEXIBLE IN ORDER TO MAKE CHANGES POSSIBLE DURING THE HARVEST SEASON
- 4) BARRIERS
 - 4.1. LACK OF RESOURCES, FOR EXAMPLE FINANCING
 - 4.2. EU DIRECTIVES

TOPIC 3: CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)

- 1) IMPACTS
 - 1.1. LANDSCAPE CHANGES: RIVER, FARMING, ROADS, BUILDINGS: New construction techniques required, Built places/buildings to high places, Damage in roads, Impacts in farming, shorter snow season and the river may stay unfrozen even in the winter
 - 1.2. WAYS OF LIVING, TOURISM AND WARMER SUMMERS: Change in fish species: tourism, diet, hobby, changes in daily activities: walking, living, dressing, The ski season becomes shorter – a horrible idea
 - 1.3. HEALTH & SAFETY: Floods, Diseases and pests, more slippery streets and paths, Snow season shortens - The amount of light does not increase - mental nausea
 - 1.4. PEOPLE & SOCIO-CULTURAL STRUCTURE: Immigration?, Languages and dialects as nature information (meä-language, Saami), Climate refugees >> multicultural environment

- 1.5 DOUBTS: TIME SCALE AND SPEED OF CHANGE: What is the time scale?, risk of taking absurd decisions, changes have also occurred in Finland due to climate change.
- 2) OPPORTUNITIES
 - 2.1 PEOPLE & SOCIO-CULTURAL STRUCTURE: Climate refugees >> population growth and more multicultural environment
 - 2.2. SUMMER TOURISM: Summer travel >> incomes and new infrastructures
 - 2.3. ECONOMIC DEVELOPMENT: Agriculture increases >> open landscape
- 3) SOLUTIONS
 - 3.1 FLOOD WALLS
 - 3.2. BIOLOGICAL PEST CONTROL
 - 3.3. ARTIFICIAL SPAWNING PLACES
 - 3.4. ELIMINATION OF ALIEN SPECIES
 - 3.5. PROVISION: STRATEGY, MORE EUROPEAN CO-OPERATION, OPENNESS
 - 3.6. TRAVELLING OVER LAND
 - 3.7. DEVELOPMENT OF TRAIN SERVICES
- 4) BARRIERS
 - 4.1. MONEY & RESOURCES
 - 4.2. ENDLESS TASKS
 - 4.3. POLITICS

TOPIC 4: WATER SYSTEMS, FLOODS AND TORNIO RIVER

- 1) IMPACTS
 - 1.1. FLOODS AND DAMAGES: Erosion of the river banks, floods become more extreme and unpredictable, Beach construction becomes more difficult
 - 1.2. WATER QUALITY, QUANTITY & DROUGHTS: Nutrient runoff >> water quality, Water supply, drinking water, clean water, Regional drought
 - 1.3. RIVER ECOSYSTEMS & FISHING: Water temperature rises >> e.g. ice formation, Less fishing, Less biodiversity is changing., more alien species
 - 1.4. INFRASTRUCTURES: Damages in existing infrastructure, water and wastewater management
- 2) OPPORTUNITIES
 - 2.1 LESS ICE FLOODS & MORE FLOOD CONTROL
 - 2.2. HYDROPOWER AND NEW TECHNOLOGIES: Floating constructions, Flood power station, New innovations and technologies
 - 2.3. RIVER ECOSYSTEMS AND FISHING: More fishing, new biodiversity?
 - 2.4. RECREATION: The bathing season becomes longer
 - 2.5 NUTRIENTS AND SOIL FERTILITY
- 3) SOLUTIONS
 - 3.1. DEVELOPMENT OF (TOURISM) TRADE
 - 3.2. DEVELOPMENT OF ENVIRONMENTAL PROGRAMS
 - 3.3. AGRICULTURE
 - 3.4. PROTECTION OF RIVER SIDES + FLOOD CONTROL
 - 3.5. WATER AND WASTE WATER MANAGEMENT
 - 3.6. STORM WATER CONTROL/DELAY
 - 3.7. NEW INNOVATIONS & TECHNOLOGIES
- 4) BARRIERS
 - 4.1. MONEY
 - 4.2. POLITICS
 - 4.3. REACTION SPEED
 - 4.4. NORMS
 - 4.5. SLOWNESS

4.1 TOWARDS A CLIMATE-KIC DEMONSTRATOR AND A LANDSCAPE ADAPATION PLAN TO CLIMATE CHANGE (LACAP) FOR THE TORNIO RIVER VALLEY? (Juanjo Galan, Aalto University)

- Short lecture about the differences between Climate Change ADAPTATION and MITIGATION
- Short lecture about the basic contents and structure of a typical Strategic Plan



- Short introduction about the contents and structure of one application for a CLIMATE-KIC Demonstrator (possible future step for the AELCLIC in the Tornio river valley?).

4.2. Strategic Plans for the City of Tornio (Sampo Kangastalo (Town of Tornio)).

- Sampo Kangastalo (Town of Tornio) explains the connections between the AELCLIC project and the Strategic Plan of Tornio. Sampo also suggests some potential topics to be addressed in the AELCLIC project.



5 TEAMWORK

5.1. TASK 1: WHAT? – Main Values, Key Goals & Themes/Topics (+ some IMPACTS & SOLUTIONS/ACTIONS) for a potential LACAP

- For task 1 there was a poster made beforehand with the goal/objective of the AELCLIC project (A) and values, goals, themes, impacts, opportunities, solutions and barriers identified earlier in the AELCLIC-workshops 1 & 2 (A). In addition, the included also the most important values, goals and topics/themes of the strategy of Tornio city (TOR) and Tornio-Haaparanta vision 2021 (TOR-HAP).
- The participants made a critical revision of all the included Values, Goals, Themes/Topics, Impacts, Opportunities, Solutions and Barriers.

STEP1: Inputs from the 3 documents framing the Workshop3 of the AELCLIC project in Tornio:

	VALUES	GOALS	THEMES	IMPACTS	OPPORTUNITIES	SOLUTIONS	BARRIERS
From AELCLIC WORKSHOPS 1+2	<ul style="list-style-type: none"> OPEN- AND NATURAL LANDSCAPE SEA BETWEEN BORDERS RIVER & WATER TOWNS & VILLAGES CULTURE & NATURE LIVING IN THE FAR NORTH 	<ul style="list-style-type: none"> DEFINING A NETWORK OF LOCAL STAKEHOLDERS (AELCLIC-PROJECT) 	<ul style="list-style-type: none"> Topic1: NATURE AND BIODIVERSITY Topic2: SUSTAINABLE ECONOMY Topic3: CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH) Topic4: WATER SYSTEM, FLOODS AND TORNIO RIVER 	<p>On Topic1: NATURE AND BIODIVERSITY:</p> <ul style="list-style-type: none"> SEASONAL CHANGES, SNOW, SOILS AND RIVER ECOLOGY AND ECOSYSTEMS ALIEN SPECIES, DISEASES AND PESTS REINDEERS FISHES <p>On Topic2: SUSTAINABLE ECONOMY:</p> <ul style="list-style-type: none"> AGRICULTURE & FORESTRY INFRASTRUCTURES & SAFETY BUILDINGS AND CONSTRUCTION: TOURISM FISHING <p>On Topic3: CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH):</p> <ul style="list-style-type: none"> LANDSCAPE CHANGES: RIVER, FARMING, ROADS, BUILDINGS WAYS OF LIVING, TOURISM AND WARMER SUMMERS DOUBTS: TIME SCALE AND SPEED OF CHANGE PEOPLE & SOCIO-CULTURAL STRUCTURE HEALTH & SAFETY <p>On Topic4: WATER SYSTEM, FLOODS AND TORNIO RIVER:</p> <ul style="list-style-type: none"> FLOODS AND DAMAGES WATER QUALITY, QUANTITY & DROUGHTS RIVER ECOSYSTEMS & FISHING INFRASTRUCTURES 	<p>On Topic1: NATURE AND BIODIVERSITY:</p> <ul style="list-style-type: none"> AGRICULTURE & FORESTRY RESTORATION OF RIVER BASIN AND RURAL OPENNESS NEW CLIMATE AND REDISTRIBUTION OF SPECIES <p>On Topic2: SUSTAINABLE ECONOMY:</p> <ul style="list-style-type: none"> GREEN ECONOMY TOURISM <p>On Topic3: CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH):</p> <ul style="list-style-type: none"> PEOPLE & SOCIO-CULTURAL STRUCTURE SUMMER TOURISM ECONOMIC DEVELOPMENT <p>On Topic4: WATER SYSTEM, FLOODS AND TORNIO RIVER:</p> <ul style="list-style-type: none"> NEW TECHNOLOGIES LESS ICE DAM FLOODS & MORE FLOOD CONTROL RECREATION NUTRIENTS AND SOIL FERTILITY RIVER ECOSYSTEMS AND FISHING 	<p>For Topic1: NATURE AND BIODIVERSITY:</p> <ul style="list-style-type: none"> SELECTION OF CROPS, TECHNIQUES AND MACHINES PROTECTION OF RIVER SIDES + FLOOD CONTROL SUPPLEMENTARY FEEDING FOR REINDEERS SEAL HUNTING CONTROL OF ALIEN SPECIES <p>For Topic2: SUSTAINABLE ECONOMY:</p> <ul style="list-style-type: none"> RESEARCH AIM TO REDUCE EMISSIONS OF SUBSTANCES HAZARDOUS TO THE ENVIRONMENT REDUCE NUTRIENT RUNOFF: LANDS, SWAMPS, FORESTS, AGRICULTURE > DITCHES, TECHNOLOGY ENVIRONMENTAL FRIENDLY BIOLOGICAL CONTROL METHODS AGRICULTURE NEEDS INFORMATION ON NEW CROPS AND THEIR POSSIBILITIES (CROP/HECTARE) + EU-REGULATION TO BE MORE FLEXIBLE IN ORDER TO MAKE CHANGES POSSIBLE DURING THE HARVEST SEASON ARTIFICIAL SPAWNING PLACES <p>For Topic3: CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH):</p> <ul style="list-style-type: none"> FLOOD WALLS DEVELOPMENT OF TRAIN SERVICES TRAVELLING OVER LAND PROVISION: STRATEGY, MORE EUROPEAN CO-OPERATION, OPENNESS ELIMINATION OF ALIEN SPECIES BIOLOGICAL PEST CONTROL <p>For Topic4: WATER SYSTEM, FLOODS AND TORNIO RIVER:</p> <ul style="list-style-type: none"> DEVELOPMENT OF (TOURISM) TRADE NEW INNOVATIONS & TECHNOLOGIES DEVELOPMENT OF ENVIRONMENTAL PROGRAMS WATER AND WASTE WATER MANAGEMENT AGRICULTURE STORM WATER CONTROL/DELAY 	<ul style="list-style-type: none"> POLITICS ENDLESS TASKS MONEY & RESOURCES LACK OF RESOURCES, FOR EXAMPLE FINANCING REGULATIONS /RESTRICTIONS FOR FISHING SMALL FARMS LACK OF RESOURCES EU DIRECTIVES MONEY POLITICS REACTION SPEED NORMS SLOWNESS
From TORNIO CITY STRATEGY	<ul style="list-style-type: none"> SAFETY CONTINUOUS RENEWAL CUSTOMER ORIENTED APPROACH SUSTAINABILITY TRANSPARENCY 	<ul style="list-style-type: none"> CULTURE INFRASTRUCTURE BUSINESS AND TOURISM VITALITY OF TORNIO RIVER VALLEY INTERNATIONAL TWIN CITY CREATIVITY FUNCTIONAL CITY GROUP HAPPY AND ENGAGED RESIDENTS FUNCTIONAL AND INNOVATIVE SERVICES ATTRACTIVE BORDER CITY FUNCTIONAL = SUSTAINABLE: ENVIRONMENT, SOCIAL/COMMUNITY, CULTURE, ECONOMY CIRCULAR ECONOMY SUSTAINABLE TOURISM FISHING LAND USE AND FLOODS DENSE URBAN STRUCTURE 	<ul style="list-style-type: none"> TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO HABITS AND STORIES BORDER OF LIGHT AND DARKNESS STARTING POINT OF LAPLAND'S TOURIST EXPERIENCES 				
From TORNIO-HAAPARANTA -VISION 2021		<ul style="list-style-type: none"> EDUCATION & KNOWLEDGE 	<ul style="list-style-type: none"> SUSTAINABLE ENVIRONMENT DYNAMIC ENTREPRENEURSHIP AND BUSINESS LOGISTIC CENTER BORDERLESS EDUCATION LAND USE FLOOD PROTECTION EXCITING SHOPPING AND VISITING STOP SUSTAINABLE ENERGY 				

STEP2: CO-DEFINITION OF KEY LOCAL ATTITUDES, VALUES, GOALS, THEMES, IMPACTS, OPPORTUNITIES, SOLUTIONS AND BARRIERS FOR CLIMATE CHANGE ADAPTATION IN THE TORNIO RIVER VALLEY (LIST INFORMED BY AELCLIC-workshops 1 & 2 (A), by the strategy of Tornio city (TOR), by the Tornio-Haaparanta vision 2021 (TOR-HAP) and by NEW proposals (NEW)):

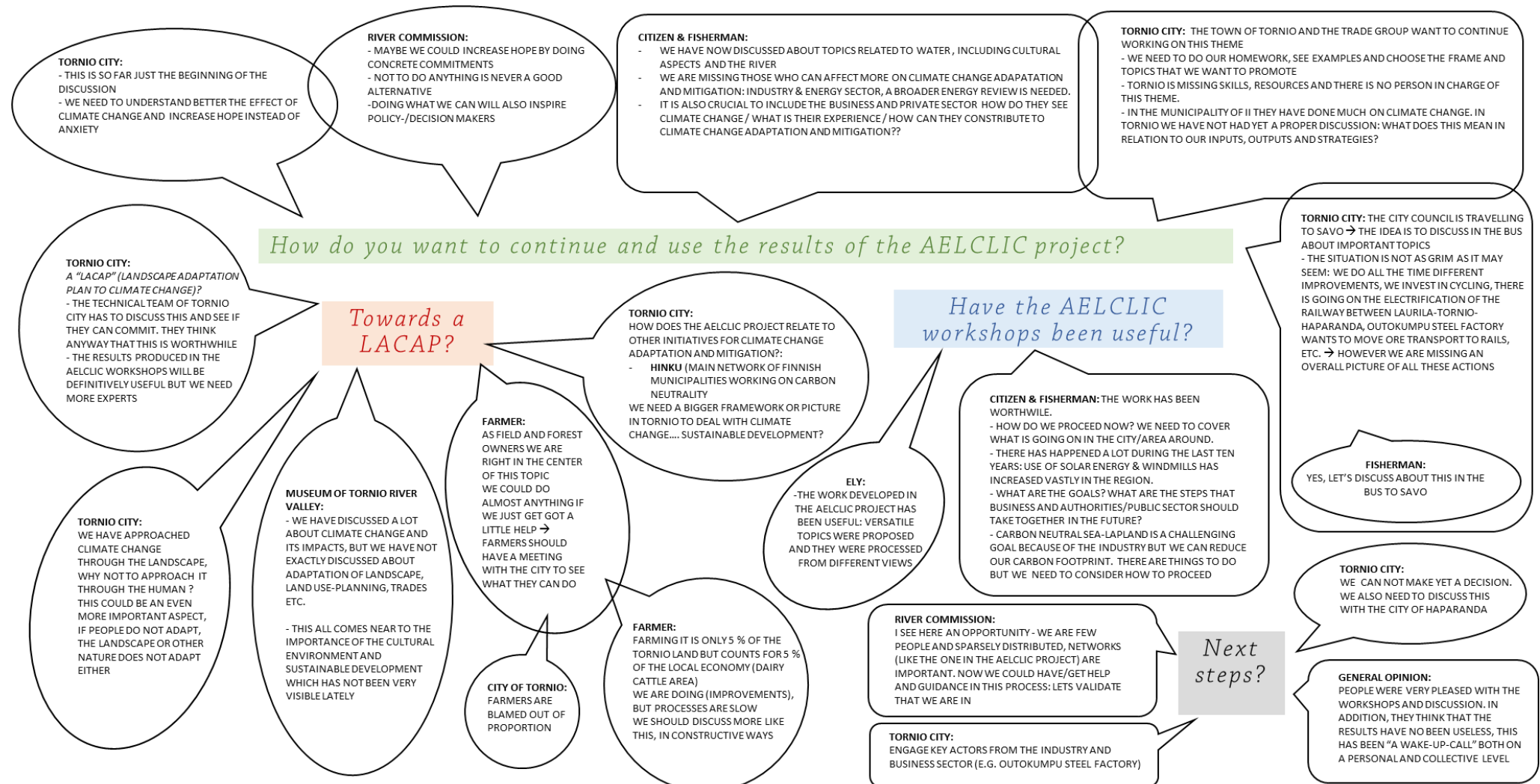
VALUES	GOALS	THEMES	IMPACTS	OPPORTUNITIES	SOLUTIONS	BARRIERS
<ul style="list-style-type: none"> ON THE PEACEFUL BORDER IN THE NORTH (A+NEW) CULTURE AND NATURE (A) TRANSPARENCY (TOR) SUSTAINABILITY (TOR) SAFETY (TOR) 	<ul style="list-style-type: none"> WORKING WITH LOCAL STAKEHOLDERS (A) CIRCULAR ECONOMY (TOR) EDUCATION AND KNOWLEDGE (TOR-HAP) FUNCTIONAL = SUSTAINABLE: ENVIRONMENT, SOCIAL/COMMUNITY, CULTURE, ECONOMY (TOR) PROMOTING AGRICULTURAL ACTIVITY (NEW) 	<ul style="list-style-type: none"> TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO (TOR) CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH) (A) WATER SYSTEM, FLOODS AND TORNIO RIVER (A) SUSTAINABLE ECONOMY (A) SUSTAINABLE ENVIRONMENT (TOR-HAP) IMPROVING ENERGY PRODUCTION AND USE (NEW) 	<p>On TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> Tourism (A) <p>On CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> Energy (A) People & socio-cultural structure (A) Ways of living, tourism and warmer summers (A) <p>On WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> Health & safety (A) Floods and damages (A) Seasonal changes, snow, soils and river (A) Buildings and construction (A) Doubts: time scale and speed of change (A) Ecology and ecosystems (A) <p>On SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> Agriculture & forestry (A) Fishes (A) Fishing (A) Water quality, quantity & droughts (A) Alien species, diseases and pests (A) River ecosystems & fishing (A) Landscape changes: river, farming, roads, buildings (A) <p>On IMPROVING ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> Infrastructures & safety (A) 	<p>In TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> Summer tourism (A) <p>In CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> New climate and redistribution of species (A) Agriculture & forestry (A) Restoration of river basin and rural openness (A) Tourism (A) Recreation (A) People & socio-cultural structure (A) <p>In WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> Less ice dam floods & more flood control (A) River ecosystems and fishing (A) <p>In SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> Green economy (A) More nutrients and soil fertility (A) <p>In IMPROVING ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> Economic development (A) New technologies (A) 	<ul style="list-style-type: none"> Land use and construction management and control > sustainable and conserving building (NEW) Reduction of the emissions of substances hazardous to the environment (A) Improved Agriculture (A) Research (A) Storm water control/delay (A) Flood walls (A) Protection of river sides (A) Flood control (A) Development of environmental programs (A) Incentives, taxation, certification for industry and other companies (NEW) 	<ul style="list-style-type: none"> Politics (A) EU-directives (A) Regulations /restrictions for fishing and agriculture (A+NEW) Lack of resources, new ideas (A+NEW) New thinking and people, young people needed! (NEW) Money and resources, lack of time (A+NEW) Weak involvement of private and public sector (NEW) Are we missing our culture identity? (NEW) Existing structures and systems (for ex. the fossil fuels) (NEW)

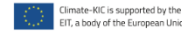
5.2. TASK 2: Structure of a potential LACAP: This task involved a deep synthesis of the information generated in the TASK1

PRELIMINARY CONTENTS for a potential LANDSCAPE ADAPTATION PLAN FOR CLIMATE CHANGE in the Tornio River Valley

VALUES	THEMES	EXPECTED IMPACTS	OPPORTUNITIES	SOLUTIONS/ACTIONS	BARRIERS
<ul style="list-style-type: none"> ON THE PEACEFUL BORDER IN THE NORTH CULTURE AND NATURE TRANSPARENCY SUSTAINABILITY SAFETY 	<ul style="list-style-type: none"> TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH) WATER SYSTEM, FLOODS AND TORNIO RIVER SUSTAINABLE ECONOMY SUSTAINABLE ENVIRONMENT IMPROVING ENERGY PRODUCTION AND USE 	<p>ON TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> TOURISM <p>ON CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> ENERGY PEOPLE & SOCIO-CULTURAL STRUCTURE WAYS OF LIVING, TOURISM AND SUMMERS HEALTH & SAFETY <p>ON WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> FLOODS AND DAMAGES SEASONAL CHANGES, SNOW, SOILS AND RIVER BUILDINGS, CONSTRUCTIONS AND INFRASTRUCTURES TIME SCALE AND SPEED OF CHANGE? RIVER ECOLOGY AND ECOSYSTEMS <p>ON SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> AGRICULTURE & FORESTRY FISHES AND FISHING WATER QUALITY, QUANTITY & DROUGHTS ALIEN SPECIES, DISEASES AND PESTS RIVER ECOSYSTEMS & FISHING LANDSCAPE CHANGES: RIVER, FARMING, ROADS, BUILDINGS <p>ON ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> EXISTING INFRASTRUCTURES & SAFETY 	<p>IN TWIN CITY BY THE RIVER, THE SEA AND THE ARCHIPELAGO</p> <ul style="list-style-type: none"> SUMMER TOURISM <p>IN CULTURAL ENVIRONMENT, PEOPLE AND WAYS OF LIVING (LIFE IN THE NORTH)</p> <ul style="list-style-type: none"> NEW CLIMATE AND REDISTRIBUTION OF SPECIES AGRICULTURE & FORESTRY RESTORATION OF RIVER BASIN AND RURAL OPENNESS TOURISM RECREATION NEW PEOPLE & SOCIO-CULTURAL STRUCTURE <p>IN WATER SYSTEM, FLOODS AND TORNIO RIVER</p> <ul style="list-style-type: none"> LESS ICE DAM FLOODS & MORE FLOOD CONTROL RIVER ECOSYSTEMS AND FISHING <p>IN SUSTAINABLE ECONOMY AND ENVIRONMENT</p> <ul style="list-style-type: none"> GREEN ECONOMY MORE NUTRIENTS AND SOIL FERTILITY <p>IN ENERGY PRODUCTION AND USE</p> <ul style="list-style-type: none"> ECONOMIC DEVELOPMENT NEW TECHNOLOGIES 	<ul style="list-style-type: none"> LAND USE AND CONSTRUCTION MANAGEMENT AND CONTROL > SUSTAINABLE AND CONSERVING BUILDING REDUCTION OF THE EMISSIONS OF SUBSTANCES HAZARDOUS TO THE ENVIRONMENT IMPROVED AGRICULTURE RESEARCH STORM WATER CONTROL/DELAY FLOOD WALLS PROTECTION OF RIVER SIDES FLOOD CONTROL DEVELOPMENT OF ENVIRONMENTAL PROGRAMS INCENTIVES, TAXATION, CERTIFICATION FOR INDUSTRY AND OTHER COMPANIES 	<ul style="list-style-type: none"> POLITICS EU-DIRECTIVES REGULATIONS /RESTRICTIONS FOR FISHING AND AGRICULTURE LACK OF RESOURCES, NEW IDEAS NEW THINKING AND PEOPLE, YOUNG PEOPLE NEEDED! MONEY AND RESOURCES, LACK OF TIME WEAK INVOLVEMENT OF PRIVATE AND PUBLIC SECTOR ARE WE MISSING OUR CULTURE IDENTITY? EXISTING STRUCTURES AND SYSTEMS (FOR EX. THE FOSSIL FUELS)

5.3. TASK 3+4+5: Discussion about how to continue working with Climate Change Adaptation within the Tornio local network generated during the AELCLIC-Pathfinder project:





5.4 TASK 6: Defining next steps

- The results of the AELCLIC workshops were found useful and the City of Tornio and the Tornio local network might discuss in the future (with more time and information), how to continue working on climate change adaptation
- Some essential economic actors were missing (e.g. industry and energy sector) and more specific information /studies are needed. It would be essential to include climate change adaptation/mitigation in a broader regional or local framework: (Sustainable/Resilient Tornio?)
- the AELCLIC project has provided an open and transparent platform for discussion and some economic/social sectors were especially pleased with that
- all the materials produced in the AELCLIC workshops are public and will be fully available for the Tornio local network
- The Tornio local network designates the cities of Tornio (Finland) and Haparanda (Sweden) to lead the network in possible future actions within the AELCLIC (CLIMATE_KIC) project. Sampo Kangastalo and Göran Wigren would be their contact persons
- Sampo and Göran will be invited to the international meeting that will take place on the 13th of November in Bologna (Italy) in which all the representatives of the AELCLIC pilot landscapes will explore different options to continue working on climate change adaptation (one of that options might be to develop a LACAP (Landscape Adaptation Plan to Climate Change) with CLIMATE-KIC funding or with other sources of funding.
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SUMMARY:

- **Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):**
- **CONNECTIONS WITH OTHER PLANS & PROGRAMMES:** The AELCLIC project in Tornio is now more aligned with the **strategy of Tornio city and the Tornio-Haparanta vision 2021**. This alignment was based in the combination of the Values, Goals, Themes and Actions promoted by all these plans and in the subsequent definition of the structure of a future LACAP (Landscape Adaptation Plan to Climate Change) for the Tornio river valley. However, it is still unclear the **geographical scope of the work** (cities of Tornio and Haparanta? Urban areas and adjacent areas, mouth and last part of the Tornio river valley?). In addition, it would be important to frame a potential Climate Change Adaptation (and Mitigation) Plan in a wider framework (local or regional Plan for Sustainable and Resilient Development?) / **ACTIONS: the towns of Tornio and Haparanta might consider how to connect the findings and proposals of the AELCLIC project with their own plans. They might also consider how the Climate Change Adaptation topic could be framed in a wider vision or plan and the regional scope for it.**
- **STRUCTURE for a potential LANDSCAPE ADAPTATION FOR TO CLIMATE CHANGE (LACAP) for the Tornio river valley:**
 - o The 4 strategic topics proposed in the Workshop2 were increased to 5 in order to include the Twin-City vision and to incorporate the Energy concept more clearly in the discussion. These topics were also found valid to address the Goals and Values promoted by the strategy of Tornio city and the Tornio-Haparanta vision 2021. / **ACTIONS: Use the 5 defined topics to advance in the definition of a LACAP**
 - o Most of the values, goals and themes considered for a potential LACAP were considered valid to address both Climate Change Adaptation and Mitigation but this two different challenges were not considered separately/ **ACTIONS: Differentiate more clearly in the LACAP actions and solutions for Climate Change Adaptation, Mitigation and for both (the ideal situation)**
 - o The co-defined Solutions and Barriers covered well the identified impacts and opportunities but were highly based on personal opinions. / **ACTIONS: A potential LACAP should define the most relevant Solutions after identifying more consistently the expected Impacts and Opportunities of Climate Change in the Tornio river valley. However, the AELCLIC project includes some valuable ideas and detects adequately some of the principal barriers for the development and implementation of a LACAP.**
 - o In a general level, the final table including values, goals, topics, impacts, opportunities, solutions and barriers for a potential LACAP, looks complete and consistent. This table can provide a valuable bottom-up input for the definition of the final structure of a future LACAP and is the consequence of a participation (although quite limited) process within the Tornio river valley community / **ACTIONS: the towns of Tornio and Haparanta might consider how to connect the findings and proposals of the AELCLIC project in their own strategic, spatial or sectoral plans.**
- **STAKEHOLDERS** in the developed Workshops: Some essential economic actors did not participate in the workshops (e.g. industry, Outokumpu steel factory and energy sector. It must be noted that there were two specific conditions that became more relevant as the workshops in Tornio progressed: the transboundary character of the landscape and the importance of the industry sector in Tornio (despite its small population, Tornio, together with Helsinki, Jämsä and Lappeenranta, is one of the four Finnish municipalities consuming more than 3TWh, basically due to the presence of the Outokumpu steel factory), source Statistics Finland 2015) / **ACTIONS: Incorporate these actors in further discussions**
- **SCIENTIFIC EVIDENCE AND TORNIO-BASED INFORMATION:** In order to advance more it would be essential to get scientific evidence supporting decision making processes / **ACTIONS: Gather and generate more site-specific information about Climate Change. It is important to remember that the AELCLIC project was not expected to generate new scientific information but to share existing one and, mostly and mainly, to generate a local debate and joint commitment between different social, economic and governmental actors.**
- **NEXT STEPS:** The results of the AELCLIC workshops were found useful and the City of Tornio and the Tornio local network might discuss in the future (with more time and information), how to continue working on climate change adaptation / Some essential economic actors were missing (e.g. industry and energy sector) and more specific information /studies are needed. It would be essential to include climate change adaptation/mitigation in a broader regional or local framework: (Sustainable/Resilient Tornio?) / The AELCLIC project has provided an open and transparent platform for discussion and some economic/social sectors were especially pleased with that. / All the materials produced in the AELCLIC workshops are public and will be fully available for the Tornio local network / The Tornio local network designates the cities of Tornio (Finland) and Haparanta (Sweden) to lead the network in possible future actions within the AELCLIC (CLIMATE_KIC) project. Sampo Kangastalo and Göran Wigren would be their contact persons / Sampo and Göran will be invited to the international meeting that will take place on the 13th of November in Bologna (Italy) in which all the representatives of the AELCLIC pilot landscapes will explore different options to continue working on climate change adaptation (one of that options might be to develop a LACAP (Landscape Adaptation Plan to Climate Change) with CLIMATE-KIC funding or with other sources of funding.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Co-definition of key contents for a potential LACAP (Landscape Adaptation Plan for Climate Change) for the Hyyppä river valley (values to promote, goals to achieve, impacts to address, opportunities to consider, solutions & actions to propose, barriers to overcome)). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Co-definition of a process for the definition of the potential LACAP and co-identification of required actors). LEVEL OF ACHIEVEMENT: This TOPIC was postponed and will be discussed internally by the AELCLIC_Tornio network.
 - o OUTCOME 3 (Co-definition of next steps in Tornio and future works of the constituted Local Network). LEVEL OF ACHIEVEMENT: This TOPIC was postponed and will be discussed internally by the AELCLIC_Tornio network.
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The production of the OUTCOME1 was highly based in the works developed during the Workshops 1 and 2 and therefore its achievement was easier
 - o The OUTCOME2 and OUTCOME 3 were not addressed in the Workshop3. The production of these two Outcomes added a completely new task to the AELCLIC project in Tornio (process and actors to develop a Landscape Adaptation Plan to Climate Change (LACAP). Although the objective was to produce a very basic proposal, the members of the local networks considered that they needed more time and information to discuss the potential process and actors for the production of a LACAP. During the Workshop3 it was also detected that some crucial regional and local actors had not participated in the discussions (mainly from the industry and energy sector).
 - o The OUTCOME3 implied future actions out of the AELCLIC-PATHFINDER project and it was difficult for the members of the Local network to commit themselves in future actions without knowing the implication, resources and timeframes. However, the political and administrative support to the project might guarantee its continuity and the participation of the local representatives in the AELCLIC International Meeting (Bologna, 13.11.2019) will give them the possibility to reflect a little more on the OUTCOME3.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement and commitment of the participants
 - o Organization of tasks for the allocated time (specially tasks 1 and 2), clear guidelines and effective methods
 - o Increasing leadership of the towns of Tornio and Haparanda
 - o Critical revision and synthesis of materials produced in the Workshops 1 and 2
 - o Generation of one group for the final discussion, open and fluid final discussion
- **Learnt lessons and recommendations for similar activities in other places:**
 - o See Shortcomings and Barriers and See main reasons for the successful achievement of the expected Outcomes.
 - o The use of the Mitigation and Adaptation concepts provided a useful and fruitful lens to analyze the multiple implications of Climate Change
 - o Eliminate or keep more time for the Tasks 3, 4 (How to develop a LACAP and Who should be involved) for the Task 5 (Critical analysis of the existing local network to lead the preparation of a LACAP)
 - o Give more time for the development of the Task 6 (Next Steps)
 - o Considering the uncertainties affecting the future development of a LACAP (funding, resources, timeframes, etc) it was difficult to require the members of the local network to sign a formal or symbolic agreement. Probably, in other cultural contexts the end of the AELCLIC project could be signified or celebrated in a more official manner.
 - o It would be advisable to give to the local network the possibility to designate an official representative for future actions or ventures within the AELCLIC (Climate-KIC) project. This local representative will be in most cases be a person from the local or regional administration. That was the case in Tornio and Haparanda, where Sampo Nangastalo (and Göran Wigren) were designated for that position
- **Learnt lessons and recommendations for future activities in the same place:**
 - o After the designation of an official representative of the local network within the AELCLIC project, all the discussions and initiatives to advance towards a LACAP (e.g. funding applications) will be developed in direct collaboration with the local representative.
- **Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity:**
 - o The importance of the river and its dynamics, together with the highly natural character of the area might explain the special emphasis on natural processes and productive processes associated to the natural landscape (agriculture, forestry, fishing, etc.). This remark can be probably applied to other highly natural areas but in the Tornio case, this situation might be intensified by the wild character of the Tornio River and the connection of this wild character to the local identity. However there were two specific conditions that became more relevant as the workshops in Tornio progressed: the transboundary character of the landscape and the importance of the industry sector in Tornio (despite its small population, Tornio, together with Helsinki, Jämsä and Lappeenranta, is one of the four Finnish municipalities consuming more than 3TWh, basically due to the presence of the local steel factory)



WP3

Atlantic Alpine Europe

ACTIVITY: Workshop2/3_Holland Lowland Peat Landscape_PILOT LANDSCAPE

DATE and TIME: Autumn 2019 (no physical workshop could be realised; several smaller meetings were held)

PLACE: Head Office of the Province of Zuid-Holland, The Hague (NL), and other places

ORGANIZERS:

- Bas Pedroli / Wageningen University *¹
- Caroline Ammerlaan *

PARTICIPANTS:

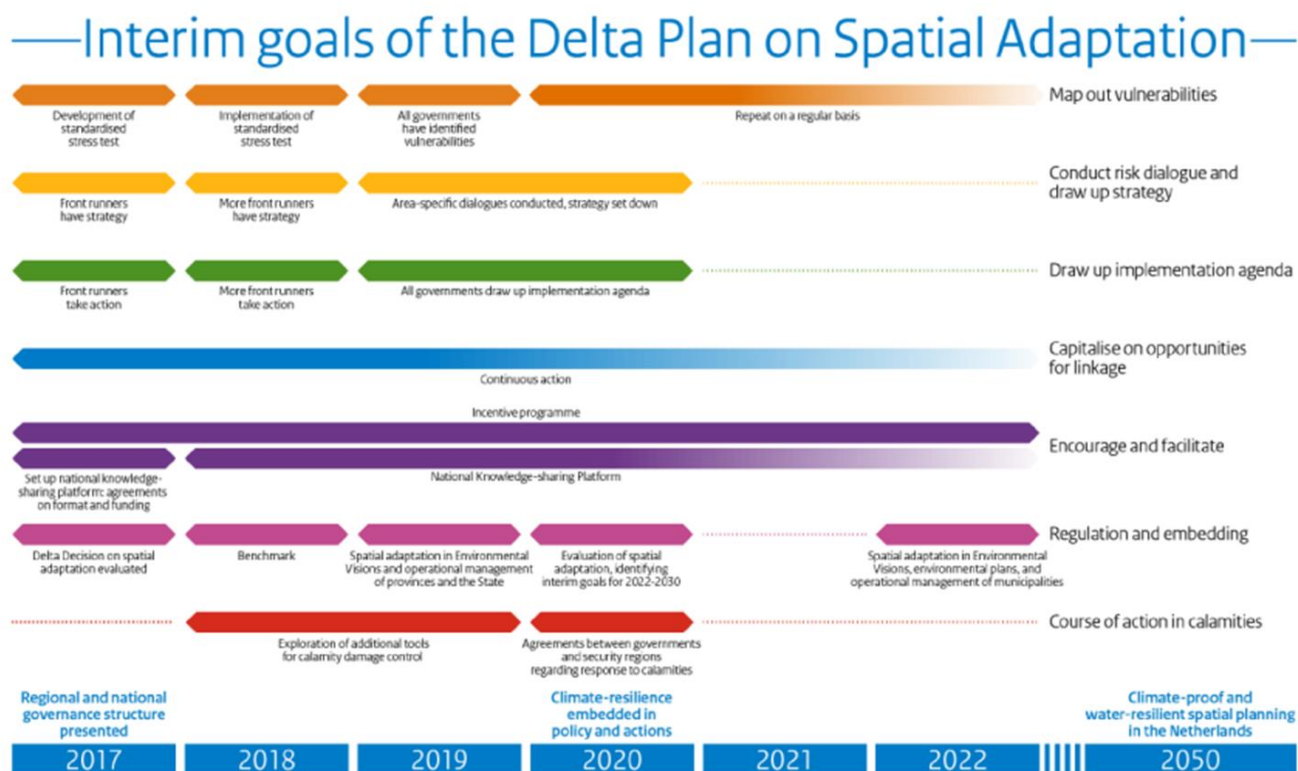
- Caroline Ammerlaan / Province of Zuid-Holland *
- Werncke Husslage / Province of Zuid-Holland *
- Daan Willems / Water Authority Rivierenland *

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Assessment of Climate change impacts and Development of a Landscape Climate Adaptation Plan for the implementation of the AELCLIC-pathfinder project in the Holland Lowland Peat Landscape

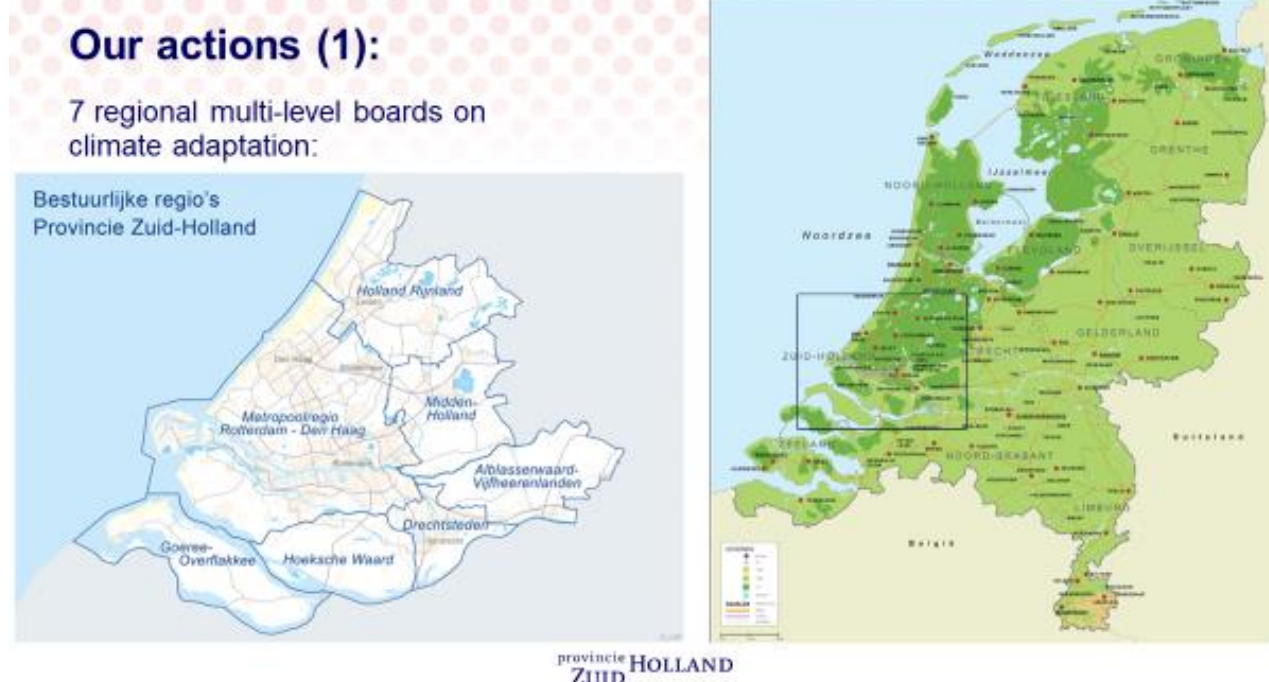
SPECIAL FOCUS: ALBLASSERWAARD - VIJFHEERENLANDEN

Based on existing developments in the process of Climate Stress Tests (the first interim goal of the Delta Plan on Spatial Adaptation, see figure below), the Alblasserwaard-Vijheerenlanden is chosen as the pilot area in the Holland Lowland Peat Area, because of the topicality of the adaptation challenges in this area.



* Names of persons and logos of their affiliations may be used on the AELCLIC website

Location of Alblasserwaard-Vijfheerenlanden (easternmost region of the Province of Zuid-Holland)



STRESS TEST ALBLASSERWAARD -- VIJFHEERENLANDEN²

1. Starting points

In order to retain its character and make the area more resilient to the effects of a changing climate, deliberate choices must be made. As a client the Alblasserwaard-Vijfheerenlanden Regional Council indicated that it wants to take steps to ensure that the region's climate is robust. This command is one of the first steps to this ambition to achieve and align with national agreements made in the Delta Plan on Spatial Adaptation. In the Delta Plan on Spatial Adaptation (2018), all municipalities, water boards, provinces and central government agreed to have the vulnerabilities for climate and extreme weather mapped by 2019 at the latest. Climate change has consequences for the working region Alblasserwaard-Vijfheerenlanden (A5H). In addition to the sea level rise, we are faced with higher temperatures, wetter winters, more intense rain showers and drier summers. This entails risks such as rainwater nuisance, groundwater problems, heat stress, additional subsidence and problems with the freshwater supply. In line with the Delta Plan on Spatial Adaptation the A5H region wants to look at where challenges and opportunities will arise in the future, so that it can prepare for this. The Alblasserwaard work region Vijfheerenlanden includes the municipalities of Alblasserdam, Gorinchem, Hardinxveld-Giessendam, Molenlanden, Papendrecht, Sliedrecht and Vijfheerenlanden in cooperation with the Rivierenland Water Board, the provinces of Utrecht and South Holland.

2. Objectives

The purposes of the Climate Stress Test, together with the Alblasserwaard-Vijfheerenlanden work region and the main stakeholders of the area, are:

- To identify the bottlenecks and opportunities within the region for the four climate themes of flooding, heat, drought and floods.
- To formulate a first draft of the climate challenge, with which the ambition discussion can be conducted administratively.

² Translated from "Resultaten klimaatstresstest Alblasserwaard-Vijfheerenlanden. Eindrapportage Stresstest Alblasserwaard-Vijfheerenlanden. In opdracht van: Gebiedsraad Alblasserwaard-Vijfheerenlanden Uitgevoerd door: Nelen & Schuurmans. Datum: 21 mei 2019"

- To develop an equivalent level of knowledge among the area partners and key stakeholders involved.

3. Threats and Opportunities

TOO MUCH WATER

Major bottlenecks and tasks:

- There is flooding in many urban centre locations.
- Heavy showers in urban areas often lead to water on the street (> 10 cm) and flooded tunnels. This plays a big part in the cores.
- Accessibility of emergency services.
- Water in homes and buildings with a social function in many centres.
- Potentially vulnerable fruit growing. Sequel research into expensive flooding desirable.
- Not all model results are recognized by based on current practical experience. If need is present, model update in certain cores with sewage.

Greatest opportunities:

- Lots of knowledge and experience with municipalities and water board about flooding in built-up areas surroundings. How to deal with provincial policy around housing? Extension and necessity for a climate-robust urban environment.
- In what way can the available storage capacity in urban and rural be used to prevent nuisance to go?
- A lot of 'unutilized' water due to extreme showers. Opportunities for energy extraction from, for example, water basins.
- Water storage on peaty soil in combination with e.g. meadow bird management (watering of lots).
- Change of use on peat soils to recreational areas and wet nature.

HEAT STRESS

Major bottlenecks and tasks:

- Industrial areas and compacted city centres most sensitive to heat stress. Point of attention for e.g. labour productivity.
- In residential areas based on public health attention for vulnerable population groups (elderly).
- Adverse effects on infrastructure (track / bridges).
- Attention to bathing water locations of water quality (blue-green algae) and safety (swimming in rivers).
- Heat stress for humans, livestock and plants.

Greatest opportunities:

- Trees along the roads: "cooling ribbons".
- Water circulation to cool the city area.
- Greening of roofs on business parks.
- Operation crushing stone in city link.
- Creating green structures at locations with transformation task from working to live.
- Cooling down the edge of the city link, the green heart of A5H and rivers to three sides of the area.
- Have a conversation with care locations, shopping centers and schools about greening.

DROUGHT

Major bottlenecks and tasks:

- Inclination and lowering of undefended houses.
- Water shortage for water level management, falling groundwater levels, subsidence and settlement.
- Higher salinity of river water with limited water inlet from the Lek.
- Worse harvests due to drought. Grass in particular vulnerable to drought in growing months (April until September).
- Poor quality surface water in relation to Watering.
- Validate soil subsidence with practice.

- Increase in development costs subsidence. Cables and pipes sensitive to settlement differences.

Greatest opportunities:

- New polder inlet at Groot Ammers. Opportunities for sufficient water.
- Large-scale research into region-specific solutions for subsidence. Connect to current RMA statement subsidence
- More research into the extraction of water from peat through trees in nature reserves and urban area.
- Opportunities for innovative due to subsidence pilots, such as pressure drainage, housing and natural water treatment.
- Use change: Opportunities for meadow bird management and recreation.

FLOOD RISK

Bottlenecks and tasks:

- Effects with a dyke breach from a river is very large at maximum flood depth. The chance is small to very small.
- Effects in the event of a breach of the quay can be overseen (up to 50 cm of water). The chance is small.
- Vulnerable to evacuation from the area (number roads), many livestock and vital infrastructure outage. Evacuation strategy known (time / duration)?
- Accessibility and recovery time.
- High-risk industry and hazardous presence fabrics. How do you handle this and how do you save it on?
- Supra-regional effects in the event of a flood of drinking water and energy infrastructure unclear.

Greatest opportunities:

- City link A5H: What can you do for a crisis phase adapt in infrastructure and buildings for evacuation and survival? Investigation Multi-layer Safety (MLV) / Flood Resilient Areas by Multi-layer Safety (FRAMES).
- Evacuation strategy: + 50 KV stations 2 meters raise up. New energy infrastructure at height and climate adaptive installation.
- Old ribbons and dikes. Opportunity for emergency services. Further research desirable.
- Flooding is mainly in rural areas conceivable.

4. From climate Issue towards Spatial Quality

For each of the four climate stress issues Spatial Quality issues can be targeted:

- Urbanisation and healthy environment
- Agriculture and Nature
- Landscape and Recreation
- Infrastructure and vital objects

	Verstedelijking en gezonde leefomgeving	Landbouw en natuur	Landschap en recreatie	Infrastructuur en vitale objecten
WATER OVERLAST	<ul style="list-style-type: none"> • Gevolgen afvoeren van (overtollig) water uit stedelijk gebied en opvangen in landelijk gebied inventariseren. • Klimaat robuust inbreiden en transformeren. 	<ul style="list-style-type: none"> • Potentieel kwetsbare fruitteelt. Verdiepend onderzoek naar duur wateroverlast. • Tijdelijke waterberging op veengrond toestaan (grasland). 	<ul style="list-style-type: none"> • Leidende principes voor inpassing van een klimaat robuust watersysteem. 	<ul style="list-style-type: none"> • Aanpakken onbegaanbaarheid verbindingswegen en tunnels. • Robuuste netwerken gas, water, elektriciteit, internet. • Energie terugwinnen uit water.
HITTE	<ul style="list-style-type: none"> • Watercirculatie inzetten voor verkoeling van het stedelijk gebied. • Operatie streembreek in stedenband. • Vergroenen kwetsbare verzorgingslocaties. • Klimaat robuust inbreiden en transformeren. 	<ul style="list-style-type: none"> • Hittestress vee en planten. 	<ul style="list-style-type: none"> • Aandacht voor zwemwaterlocaties ten aanzien van waterkwaliteit (blauwalg) en veiligheid (zwemmen in rivieren). • Bomen langs de wegen: 'linten' planten. • Groene rand langs stedenband en het groene hart inzetten voor verkoeling. 	<ul style="list-style-type: none"> • Nadelige effecten op infrastructuur (spoor en bruggen) inventariseren en in kaart brengen.
DROOGTE	<ul style="list-style-type: none"> • Regionale aanpak voor kwetsbare niet onderheide panden opstellen. • Rekening houden met toename in ontwikkelingskosten door bodemdaling. 	<ul style="list-style-type: none"> • Mogelijkheden voor zoetwateraanvoer vergroten. • Gewasschade door watertekort beperken. • Meer onderzoek naar de onttrekking van water uit veen door bomen in natuurgebieden en stedelijk gebied. • Grootchalig onderzoek naar regiospecifieke oplossingen voor bodemdaling. • Waterkwaliteit verbeteren voor veedrenking. 	<ul style="list-style-type: none"> • Link bodemdaling en weidevogelbeheer onderzoeken. 	<ul style="list-style-type: none"> • Rekening houden met bodemdaling • Kabels en leidingen gevoelig voor zettingsverschillen.
OVERSTROMING	<ul style="list-style-type: none"> • Stedenband A5H: Wat kan je voor een crisisfase aanpassen in de infrastructuur en bebouwing voor ontruiming en overleving? Onderzoek Meerlaagse Veiligheid (MLV) / Flood Resilient Areas by Multi-layer Safety (FRAMES). 	<ul style="list-style-type: none"> • Levende have kwetsbaar bij overstroming. Evacuatie van levende have bij een overstroming is belangrijke factor. 	<ul style="list-style-type: none"> • Oude linten en dijken inzetten voor hulpdiensten. 	<ul style="list-style-type: none"> • Veilige uitvalswegen bij overstroming • Informatie: wat moeten we doen bij overstromingen? • Risicovolle industrie en aanwezigheid gevaarlijke stoffen. Hoe ga je hier mee om en hoe sla je deze op? • Nieuwe energie infra op hoogte aanleggen.

5. The Risk Dialogue



A dialogue was conducted during the climate workshop on the basis of 32 examples of negative climate effects. A negative climate effect of drought is for example: "Management area subsidence > 2 cm per year" and of a flood: "Failure main stations vital infrastructure (gas, electricity, communication) > 1 week". Those present indicated in four groups which climate effects they find the most serious, and how often they think that such effects should occur.

Result

A diagonal pattern is created on all four tables,

which establishes a relationship between seriousness and display the desired repeat time:

- The consequences of flooding are considered the most serious and lie all within the red circle. About this category you will find when depositing the cards relatively little discussion takes place.
- Climate effects that result in natural and economic damage considered average and are within the orange circle. Within this circle shows the most variation in assessment when placing the cards relative to each other.
- "inconveniences" such as "poor sleep", "low labour productivity" and "noise nuisance" least serious. There is limited insight into the, often indirect, consequences of these climate effects. In addition, it is indicated that with some effects (such as "Sleeping problems due to heat") can be handled differently, such as loving "Siesta" and work longer in the evening. In other words, instead of the physical environment, behaviour can also be adjusted to the circumstances. Think here of tropical timetable at schools. With different climate effects, there is a lively discussion about the seriousness and scope of the effect, such as:
 - An increased national death rate for vulnerable people due to a heat wave.
 - The consequences of water inflow into homes.

In addition to the dialogue, the parties present have indicated which climate risk they find, in the moment, the most relevant and where they themselves can possibly contribute to thinking along in opportunities or looking for solutions with regard to this risk. This is an indication overview and is in no way exhaustive because one could only choose one risk and one person does not represent a complete organization.

At the end of the climate workshop, all parties were asked what they considered important and with which parties they would like to talk. The answer to this provides insight into which parties should not be missing in a subsequent climate studio and is a first step and a first exploration of ambitions at parties and whoever wants to fight for it. It is important to invite other stakeholders to the discussions.

6. Recommendations

The purpose of this stress test is to gain joint insight into the greatest opportunities and bottlenecks within the region. For this we have made a first step with the first climate workshop where a broad group of stakeholders from the A5H region was present. The bottlenecks and opportunities have got outlines. This overview is not yet exhaustive, but it is a good start. Also environmental themes have been defined and an incentive for climate ambitions has been formulated. Finally retrieve information about which stakeholders to engage, and which dialogues.

Recommendations working region A5H

After the first regional risk dialogue (the climate workshop) we recommend:

- Look for administrative coordination on the results described in this memorandum and the start to use climate ambitions to conduct the ambition discussion.
- From there, continue to work on linking the climate bottlenecks and opportunities with current ones spatial visions and ambitions for the area. In this way a connection is made with environmental policy.
- Make connections with other developments in the area. A first step, which is not exhaustive, is made below:
 - In the Regional Social Agenda of the Alblasserwaard-Vijfheerenlanden Region (municipalities of Molenlanden, Gorinchem and Vijfheerenlanden), 15 assignments have been named. Some of the tasks from this agenda have a relationship with climate adaptation. For the elaboration of the subsidence, energy transition and landscape developments tasks, there is close cooperation coordination of importance on both process and content.
 - The Alblasserwaard-Vijfheerenlanden department of LTO-Noord has drawn up a new agricultural vision last year (Landbouwwisie Alblasserwaard-Vijfheerenlanden 2030) with ambitions in the field of landscape, soil and water, among other things. In discussions about regional opportunities and risks and an adaptation strategy to be formulated, the agricultural sector is a crucial link.
 - The Rivierenland Water Board has drawn up a vision for the future with regard to the regional water system (storage basin system) and makes this concrete in an Area Program. The calls for close coordination with the water board to determine the substantive points and moments at which the elaboration of an adaptation strategy and the area program meet could affect.
 - The "Green Deal Connect Area Deal" (<http://www.gebiedsdeal.nl>) contains a multi-year program in which opportunities are mentioned with regard to climate adaptation. There is one in this project included under the name "Blue-green foundation" in which connections are made between education, business and governments. This project is being drawn by the water working group of the Blauwzaam Foundation.
 - In the context of the "Water safety and space 2017 - 2018" project, innovation tables have been organized to raise water awareness among businesses and to build an innovation network. This can be a valuable network for the risk dialogues to be conducted.

As a follow-up to the stress test:

- Collect regional strategies in a second climate studio, focusing on parts where climate effects conflict with the intended visions and ambitions for the area.
- To summarize the result in a regional adaptation strategy and regional (spatial) implementation agenda, for administrative determination (see figure below).



ACTIVITY: Workshop 1

PLACE: Croagh Patrick Visitor Centre

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES OF THE ACTIVITY:

The purpose of this scoping workshop was: 1) to bring Bertra community members together with other stakeholders; 2) to discuss visions for Bertra Beach and, more broadly, Clew Bay; 3) to identify various possible opportunities as well as challenges.

STRUCTURE:

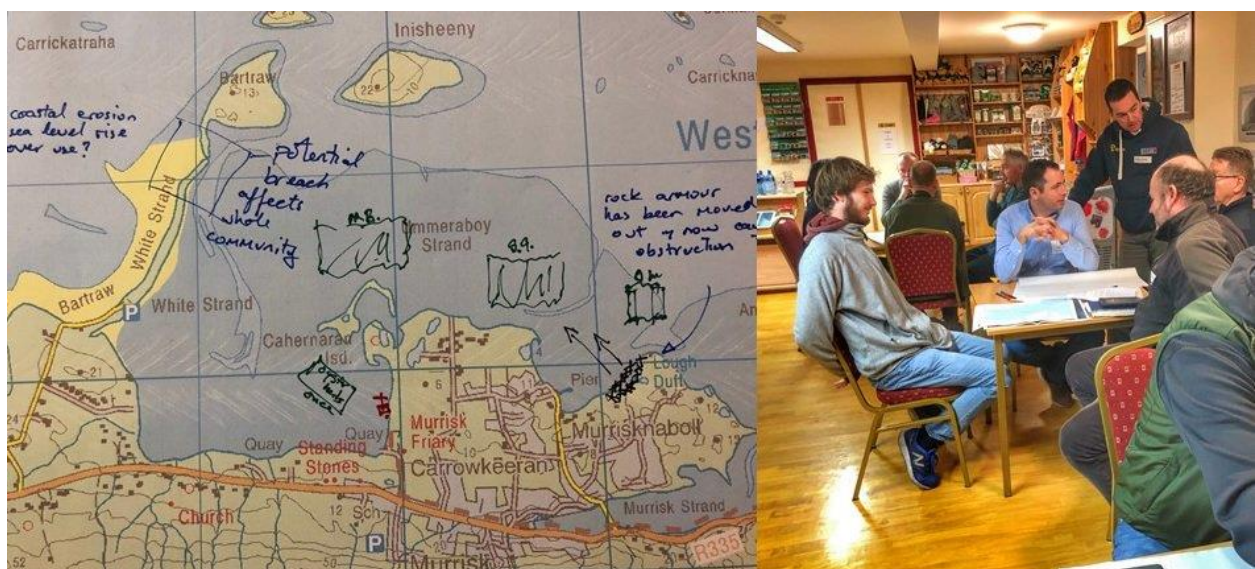
The workshop consisted of a series of facilitated “meeting tables” where participants were encouraged to share their thoughts on a number of linked themes. Representatives from NUI Galway facilitated each table, allowing participants (a mix of stakeholder groups at each table) to engage on the subject matter as they saw fit. The themes discussed were:

Clew Bay Area

- What do you like about the area? / Why do you like living or working in the area? / What makes the area special?

Long-Term Vision for Clew Bay and Bertra

- What will the Clew Bay area will look like 10-years' time? What *should* it look like?
- How might it be used? How might it be managed?
- How might your vision for Clew Bay area affect Bertra's future?

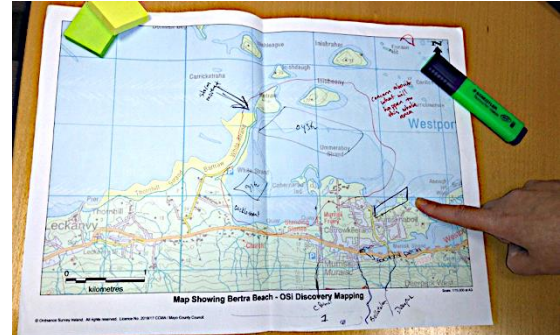


Challenges to the hopes and expectations for the future

- How might threats from the natural environment affect Bertra / Clew Bay?
- In what way might economic issues be important to Bertra / Clew Bay?
- What social & cultural issues may be relevant to the area's future?
- Are there any other issues that might affect Bertra / Clew Bay future?

Human and other resource needs for ensuring Bertra's and Clew Bay's communities and environment are healthy and prosperous in the future

- What resources are necessary for achieving your vision(s)?
- What opportunities are there to fund your ideas?
- How should your vision(s) be funded?
- What are the necessary partnerships for achieving your vision?
 - Which stakeholders are currently active and helpful?
 - Which stakeholders are currently not active, but should be?
 - (or active but maybe not as effective as they could be)



SUMMARY:

The discussion of each topic is summarised below using a *wordle*. The larger words are those that were used most frequently in the conversations across the four tables. The workshop and the points it raised should be considered another layer in the information/knowledge contributing to the process, rather than being statistically representative of the views of all the local communities and stakeholders.

Landscape value:



ACTIVITY: Workshop 2

DATE and TIME: May 2019

PLACE: Clew Bay Hotel Westport

ORGANIZERS:

Liam Carr & Kevin Lynch / National University of Ireland Galway (NUI Galway)

Laura Dixon & David Mellett / Climate Action Regional Office (CARO)

PARTICIPANTS:

Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service

KEY OBJECTIVES AND STRUCTURE:

This workshop had a broad scope, looking at the marine side of the pilot landscape site. It consisted two talks: one on aspects of Marine Spatial Planning (MSP) for the area and one on how the Regional Climate Action Office (CARO) was implementing the national Adaptation Framework. These were followed by an informal discussion of the issues in the area in light of climate change. It was primarily run by the students and staff of NUI Galway's MSc in Coastal & Marine Environments. It extended the stakeholders engaged in the project's work, including a local sailing club, outdoor activity centre and aquaculture operations.

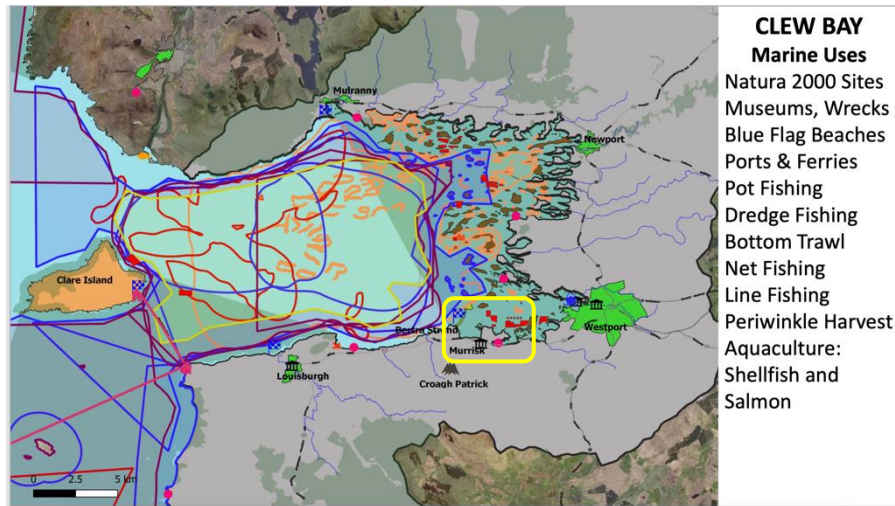
The stated objectives were to learn from stakeholders what they think regarding Clew Bay and its positive attributes? Where they see potential for economic growth? Where they would like to see further environmental conservation efforts? How you would like to see Clew Bay managed in the future, giving regard to climate change effects?

SAMPLES SLIDES FORM THE TALK:

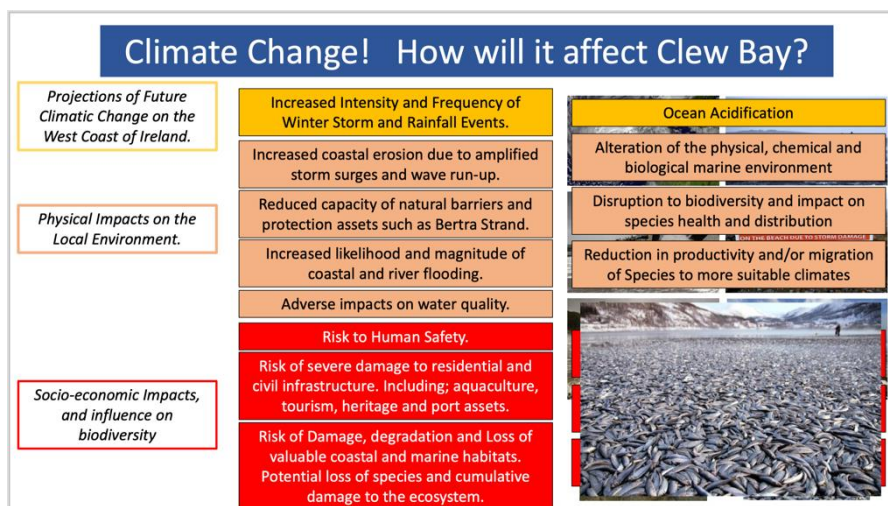
The interaction between climate action, MSP and terrestrial planning:



The complex overlapping activities that take place in the bay, with land-sea interactions an important aspect. The study site for the AELCLIC project is marked with a yellow box.



The projected climate change effects for Clew Bay.



The cover slide for the talk.

Understanding MSP in a Changing Climate

Dearbhla Jordan and Eoin Ó Fátharta
With Dr. Liam Carr

MSc Coastal & Marine Environments: Physical Processes, Policy & Practice
Class of 2018-2019
Clew Bay, Co. Mayo, Ireland

MSc Coastal & Marine Environments
NUI Galway

SUMMARY: The focus group consisted of 13 participants, with discussion focussed around how the implementation of a MSP for Clew Bay may compliment or duplicate any climate change adaptation actions. Participants were particularly interested in how the perspective of the academics differed, or aligned, with the views of the CARO staff present. In particular the main themes that arose from the event were around how to move forward:

- 1) Short-term action: What possible actions could be taken in the near future while more long-term plans were being developed?
- 2) Available support: In trying to develop community-led actions to what degree could academic institutions (NUI Galway in particular) and local government (the CARO in particular) be expected to support the work?
- 3) Communication: In developing any actions what *lines of communication* were best suited to facilitate a partnership approach between communities and local government.

The output from Workshops 1 & 2 (looking at two separate geographical scales) informed the design of Workshop 3 as an event that looked to solidifying the *trust* that had been built up between all the stakeholders over the period of the project's work. It was also intended to address the immediate needs of identifying 1) viable short-term actions, 2) a dedicated group of stakeholders to continue the project's work past its end in December 2019.

ACTIVITY: Workshop 3

PLACE: The Tavern, Murrisk, Co Mayo

ORGANIZERS:

Kevin Lynch / National University of Ireland Galway (NUI Galway)

Murrisk Development Association

PARTICIPANTS:

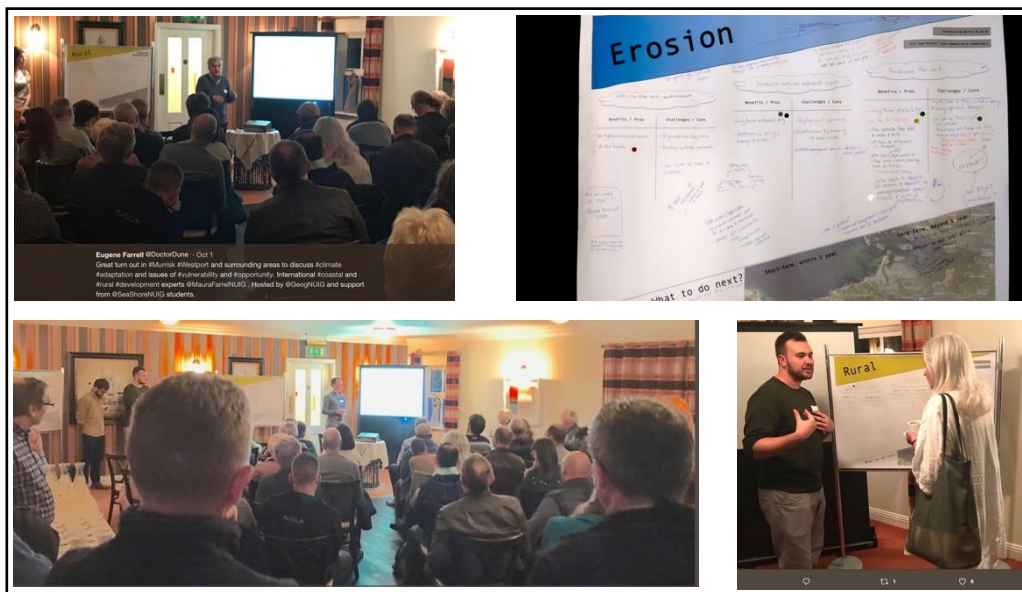
54 participants; 44 signed in: Murrisk Development Association / Non-affiliated local residents / NUI Galway / CARO / National Parks and Wildlife Service/ Westport Tidy Towns / Coastal Communities for Climate Action/ Public Participation Network/ Community Futures Louisburgh/ Extinction Rebellion

KEY OBJECTIVES OF THE ACTIVITY:

The purpose of the event was: 1) a greater awareness of possible solutions and 2) a solid commitment from those interested to work together to take action.

STRUCTURE:

There were four 5-minute talks by the visiting speakers, with plenty of time for questions. Discussion following each talk was recorded as annotations on related posters. There were posters for each thematic area on which attendees could write notes directly. After the talks the speakers went to their posters where they chatted informally to attendees.



SUMMARY:

The event on Oct 1st focused on international good practice experiences from Prof Enzo Pranzini (University of Florence), Prof Bas Pedroli (Wageningen University) and Dr Maura Farrell (NUI Galway). The goal was to demonstrate that climate adaptation solutions do exist that can be beneficial to the communities and the natural environment at the same time, with thematic areas covered being: Landscape change; Coastal flooding; Rural development; Coastal erosion. Additionally, attendees

contributed ideas via a series of boards around the room, and through one-on-one conversations with the visiting academics. The combined ideas from the speakers and attendees are summarised in Table 1 & 2 below. These represent possible option to investigate rather than being a proposal upon which to make a decision.

The second stated goal of the event was to formalise a commitment by stakeholders and individual citizens to build on the work of the Aelcllic Project. 21 people agreed to form a Working Group to continue for 1 year after which progress would be reviewed. This local consortium is comprised of 6 from local representative groups; 5 members of local government departments; 4 local residents; 2 local farmers; 2 academics; 2 from a national government agency. The group has already met once and has prioritised the following areas for immediate action:

- **Awareness:** Raise awareness regarding 1) the work of the WG and 2) wider issues
- **Data:** Gather existing data, knowledge & reports; conduct studies where possible (possibly using University or Local students). *A need for a study to gather local knowledge on climate related risks and impacts to supplement other scientific work was identified as a priority*
- **Plan:** Develop action that will work towards using the existing climate adaptation guidelines framework to produce a draft local climate adaptation plan, while at the same time see if a Communities Future methodology can be followed in parallel (combining all communities in the 'Working' area (Lecanvey to Belclare))
- **Options:** 1) compiling a robust list of short-term options (implementable within a year) and long-term options 2) as a priority, specifically developing a plan of action to look at fencing & educational boards (with due process and need for community support implicit).

Table 1: Adaptation options for coastal risk management in the Bertra area (these are ideas & comments, not to be taken as options up for decision)

Thematic Area	Solutions to facilitate climate adaptation	Benefits	Challenges	Possible short-term Action	Possible long-term Action
EROSION	Hold the line with nourishment	No "Big" environmental impacts Wider beach Produce sediment input for this area and other areas	High cost over long time Finding suitable sediments Can Bertra be looked out in isolation Needs maintenance, which will pose a problem for people in the future	Protect sand dunes at all costs	Retreat Need to think to 2030-2050, and with a scenarios of 2.5m sea level rise UK example: No more coastal defences, abandonment. Wave attenuation for intertidal sandflats East of Bertra strand. Need to conduct a
	Increase natural sediment input	Long term sustainability Aesthetics: brings beauty to the area Produce sediment input for this area and other areas	Higher soil erosion Continuous bypassing of sediments		

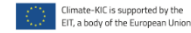
		Helps tourism Allows sediment movement	Artificial management may not restore natural processes		hydrographic modelling for 2m sea level rise.
	Reshape the spit	Long term stability We have the technology Offers protection from tides to houses and lands Closest to Westport for children and families Walking/Recreation area Flood and wind protection!	Complete waste of money: Need to build a walkway Finding optimal design Can spit be stabilised? Is it possible? Morphology can change over time Can we accept that it will change? Let environment evolve... solutions must be flexible May create long term issues Will there be consequences for insurances A number of years ago, after storms, people wanted to reshape the beach and to restore blue flag beach for tourism: Maybe not the only strategy.		
LANDSCAPE	Organise community hikes to everyday landscapes and exchange perceptions	Discover your own landscape Increases awareness among diverse groups Visitor experience of Crough Patrick → It's not all about the summit Re-imagine	Discuss differing perceptions (based on history or experience) Natural / Man-made? Protection of Westport and all area	Identify problem(s)	Landscape development plan
	Prioritise actions and share them with decision-makers	Clear steps to be followed	Risk of losing joint focus Risk of being played a part/conflicting interests		

			(landscape vs. people) Must find balance between protecting landscape and population		
	Develop a landscape adaptation plan with realistic, largely shared, action points	Clear vision for a reference baseline for all actions High Nature Value Farming Re-wilding	Assess the feasibility of the actions Settle on restoration or improvement Multi "party": All stakeholders (OPW, NPWS, Local Authority)		
RURAL	LEADER programme	Environment Call Long-term funding Community or individual Start-up fund Links community to the council Greater number backing a voice	Red tape" Long application	Develop community strategy (LEADER funds)	Community Futures
	EIP - AGRI	Multi-Actor Farmer Led Shared community vision for Bertra	Large projects Next call: post 2020		
	Examples of places (e.g. The Burren)	Wonderful example Tried and tested	Long term projects Full community commitment Coastal areas changing most rapidly Insurance risks		
FLOODING	Let it flood	Reduce floods in priority areas Increases biodiversity Natural process	No mechanism to compensate land owners Need to decide what's most valuable How much money to put into abandoned lands	Organise locally → Lead action	Develop vision for future → Use vision to inform funding (e.g. Community Futures) Model all aspects of climate change

	Small flood renovation	Every event doesn't need to be catastrophic Keeps things/structures/places the way they are now	Little or no mechanism to fund at the moment Issue of insurance Fear/Uncertainty Too much money spend on short term solutions		over 50-100 years: Sea level rise + changing landscape Local economy Transports, infrastructures
	Combine methods	Don't have to fix everything at once No regrets options Flexibility → Find shared vision Collaboration No one-size fits all win won Community-based solutions	Risk Analysis Relocation costs? Insurance cost? Must plan for long-term Consistent and Effective cost-benefit solutions Waste of money		

Table 2: Summary of short-term and long-term adaptation actions

Short-term	----->		Long-term
Collaboration: All parties at the table			More community orientated meetings
Clear old wire + fencing from Betra (because it is dangerous and ugly)	Stop wasting money on what should not be “preserved”		Actively involve ALL members of the community
Working with local schools to raise awareness and to include the young generation in future community projects	Innovative participatory events		Hold the line with nourishment
Gather any evidence of erosion in the area	Build a regulated walkway, so that people can enjoy their walk while preserving nature		Increase natural sediment input
Collect old images, documents, drawings, paintings representing local landscapes of the area			Reshape the spit
Identify how locals value and perceive their natural landscape	Propose solutions to address the issue of insurance and compensation for relocation schemes		Need to think towards 2030-2050, and with a scenarios of 2.5m sea level rise
Identify best practice of flood insurance in other countries (e.g. France)			Conduct a hydrographic modelling for 2m sea level rise (SLR)
Look at best practices of coastal management in other countries (e.g. UK)	Small flood renovations: renovate households to handle minor flood events		Let it flood: Use appropriate areas to reduce flood height
			Combine methods for flood risk management
Organise and plan actions locally	Develop a shared vision for the future → Use vision to inform funding (e.g. Community Futures)		Relocation: Managed retreat
Organise community hikes to everyday landscapes and exchange perceptions	Identify priorities for action and share them with decision-makers		Model all aspects of climate change over 50-100 years: SLR + changing landscape, Local economy, Transports and infrastructures
			Develop a landscape adaptation plan with realistic, largely shared, action points
			High Nature Value Farming
			Rewilding
Looking for best-practice examples of sustainable rural development (e.g. The Burren)	Develop community strategy (LEADER funds)		Funding: Community Futures
			Funding: EIP – AGRI → Multi-actor, farmer-led, shared community vision of Bertra



	<i>“No regrets’ options”: Deliver net social or economic benefits irrespective of whether or not climate change occurs as well as across a range of possible climate futures</i>
	<i>Option with minor consequences/impacts: This type of solution may result in minor costs with limited, or no short term benefits for individuals, communities or ecosystems</i>
	<i>Option with moderated to important consequences/impacts: Options that can result in important and non-reversible effects on ecosystems and/or communities</i>

ACTIVITY: Workshop3_Haute Tarentaise_PILOT LANDSCAPE

DATE and TIME: 22 Octobre 2019 | 10 :00 – 12 :30

PLACE: Bourg St Maurice, Haute Tarentaise. Premises of the of the Dairy Cooperative (Coopérative Laitière de Haute Tarentaise) in Bourg St. Maurice.

ORGANIZERS:

- Bas Pedroli / Wageningen University
- Agnès Patuano / Wageningen University
- Léonie Viallet, Chargé du Service Qualité, Coopérative Laitière de Haute Tarentaise

PARTICIPANTS

- Céline Bourgeois, conseillère municipale
- Guillaume Desrues, conseiller municipal
- Marie-Thérèse Reinaud, conseillère municipale
- Amélie Viallet, chargée de projet de développement territorial agricole
- Éméline Daumard, mairie du Val d'Isère
- Michel Giraudy, Maire de Bourg Saint Maurice
- Alexandre Daum, Office National des Forêts (ONF)
- Anthony Derighi, ONF
- Wilfried Guidet, ONF
- Vivek Kirpelani, MTB Consulting
- Cathy Naveaux, MTB Consulting
- Léonie Viallet, Coopérative Laitière

KEY OBJECTIVES and EXPECTED OUTCOMES of THE ACTIVITY (expected outcomes):

- Formalisation of a local network interested in working in Climate Change Adaptation.
- Definition of an internal Work Plan for the implementation of the AELCLIC-pathfinder project in the Haute Tarentaise Multiplier Landscape (LACAP)
- Co-Identification of KEY ACTIONS for a Landscape Climate Adaptation Plan (LACAP) in the Haute Tarentaise



Workshop 3 – next to the milk heating basins in the Cheese factory of the Coopérative Laitière de Haute Tarentaise, Bourg St. Maurice

Main Issues Defined

The results of the previous workshop are verified and confirmed by the participants present. Water insecurity and extreme and sudden weather events are considered priorities.

Primarily, streams are described as narrower and with less flow, which has consequences for biodiversity. In forests, spruce is mentioned as a particularly vulnerable species, having more or less disappeared from high altitudes and suffering from the spread of diseases such as the spruce bark beetle (an epidemic is currently recorded in Europe). This spread is favoured by plots left to ecological succession after the abandonment of agriculture. The forest is now more extensive but poorly maintained, especially on private plots where the ONF can not intervene. The problem is therefore related to the environment as well as to agricultural practices and resource management.

The composition of forests has changed significantly in the last 50 years. If the conifers disappear from the heights, they are replaced by ash-like hardwoods that come up from the valley.

Interests of stakeholders

Tourist industry

For participants of MTB Consulting who are trying to implement a mountain bike activity in the Haute Tarentaise Valley, one of the major challenges is the development of summer tourism, but also to establish collaboration with other stakeholders such as alpine pastures, guides and hunters to achieve a fair and consistent sharing of space. In general, workshop participants are in favour of reducing winter sports addiction for the valley economy.

Local governance

For local elected officials, the important thing is to maintain or improve the quality of life for the inhabitants of the valley and their children, by prioritizing exchanges with the community and promoting responsible adaptation. Another important interest is in the energy transition to move towards energy autonomy through local micro-plants. For the Mayor of Bourg Saint Maurice, it is important to remain optimistic and forward looking by mobilizing the existing wealth of the valley.

farmers

Local farmers especially want to maintain the activity and promote practices that are part of a sustainable development of the profession.

National Forestry Office (ONF)

For the ONF, which deals mainly with the management of the territorial heritage of the elected representatives, an anticipation of ecological changes, potentially supported by the mobilization of regional or departmental aids for the management of diseases would be desirable. Collaboration with private landowners would also help to limit the spread on the ground.

Elements of an Action Plan: LACAP Haute Tarentaise

The objectives and wishes mentioned by the participants can be grouped into four categories:

- **Transport and energy:** To address the issue of transport in the valley and its effect on pollution as mentioned in the first workshop, several participants expressed wishes regarding the disappearance of cars in the valley or at least to the use of clean transport. At the same time, the subject of energy autonomy is mentioned as a priority by at least three participants.
- **Landscape / Public Participation:** Participants are generally proud of their landscape heritage and wish to protect their ecology and diversity. However, this objective is also linked to the participation of the populations to create natural landscapes that the inhabitants can also enjoy.
- **Agriculture:** Local agriculture is an important economic, physical and cultural driver for this landscape.
- **Tourism:** Tourism is also one of the indispensable drivers of the valley 's economy and currently in transition from a seasonal model to year - round tourism.

1. Transport and Energy

Participants cite as potential actions:

- Re-operation of the rail network by putting pressure on the regional council and the SNCF through a hotel / tourism lobby
- Improved station-funicular connection thanks to shuttles or treadmill
- Energy: the installation of a wood boiler fuelled by the Bourg Saint Maurice communal forest for public energy with a short cycle and local. It would also be a possibility of collaboration with private owners of abandoned plots to revalue their property.
- The promotion of micro (public) power stations for the production of local energy is hydro-energy, photovoltaic or heat-cold pump.
- Installation of self-service electric bike parks (and cars?) (Type V-lib)

2. Collaboration Landscape / Population

Participants cite as potential actions:

- A reconnection with nature for the (urban) population
- A development of the empowerment of the populations encouraged by the creation of federations days of maintenance of paths by the users (any user)
- Pollution awareness through the organization of mountain cleaning days
- Build on Success stories from surrounding landscapes: What initiatives are in place that can be inspired?
- Prioritize simple and everyday actions
- The creation of a referent committee on participatory approaches at the valley level
- Valorisation of the local economy and local products

3. Agriculture

Participants cite as potential actions:

- Make the maintenance of private land compulsory agricultural and forestry
- Develop non-polluting and sustainable production practices that respect biodiversity
- Using the roofs of farm buildings for solar energy by installing local transformers (pre-existing study), and inventing a way to use it (because transport is too expensive)
- Limiting construction (limits already formulated in the PLU and SCOT, but are they sufficient?) To leave space for biodiversity
- The reconnection of actors to develop cooperation around agriculture
- The valorisation / communication of the participation of farmers for tourism, which joins the last point of the preceding group
- Develop a public utility agriculture, for example by using goats for the maintenance of green spaces.
- A resolution of land parcelling

4. Tourism

Participants cite as potential actions:

- Develop co-operation guide / tourist / owner actors to improve communication
- The creation of local committees
- Protection of dynamic non-tourist areas (forests, mountain pastures)
- The development of an agrotourism system
- For winter tourism: maintain the existing, promote the energy transition, limit the use of water
- For Summer tourism: develop with minimal impact on the landscape (local committees) and improve summer transport (train)

Possible financial partners:



The participants cite as potential financial partners ski resort owners who want to neutralise their carbon footprint.



WP4

South Western Europe

ACTIVITY: Workshop2_HUERTA DE VALENCIA-ALBORAYA_PILOT LANDSCAPE

DATE and TIME: 17.10.2019, 16:00-19:00

PLACE: Valencia (Spain), Universitat Politècnica de València Vera Campus Site

ORGANIZERS:

- Lidia García / Las Naves
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Celsa Monrós / Conselleria de Agricultura, Desarrollo Rural, Emergencia Climática y Transición Ecológica
- Rosa Pardo / Conselleria de Política Territorial, Obras Públicas y Movilidad
- Marilda Azulay / Universitat Politècnica de València
- Antonio Lidón / Universitat Politècnica de València
- José Miguel Ferrer / Green Urban Data
- Raquel Aguilar / Colegio Oficial de Ingenieros Agrónomos de Levante
- Regina Monsalve / Colegio Oficial de Ingenieros Técnicos Agrícolas de Valencia y Castellón
- Raquel Álvarez / Justicia Alimentaria
- Josep Gavalda / Per L'Horta
- Vicente Sales / Fundació Assut
- Lola Vicente Almazán / CERA

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Discussing the potential role of the AELCLIC Project in the adaptation of the Huerta de Valencia-Alboraia landscape to Climate Change.
- Definition of key actions or contents that should be included in a Huerta de Valencia-Alboraia Landscape Adaptation Plan to Climate Change (LACAP)
- Identification of main stakeholders and available resources towards the development of a Huerta de Valencia-Alboraia LACAP.

AGENDA:

1. Welcome and presentation.
 2. Introduction to the AELCLIC project. Workshop 1 results summary.
 3. Huerta de Valencia-Alboraia regional land planning framework
 4. Huerta de Valencia-Alboraia climate change planning framework
 5. Objectives and contents of a climate change adaptation plan
 - Coffee break*
 6. Workshop presentation and organization. Presentation of participants.
 7. TEAMWORK
 - a. TASK 1: Identification of the potential role of the AELCLIC Project in the adaptation of the Huerta de Valencia-Alboraia landscape to Climate Change.
 - b. TASK 2: Identification of main contents and actions within a Huerta de Valencia-Alboraia LACAP.
 - c. TASK 3: Identification of main actors and resources towards the development of a Huerta de Valencia-Alboraia LACAP.
 8. Acknowledgment and closing remarks.
-

1. WELCOME

- Welcoming words by Marilda Azulay (UPV).

2. INTRODUCTION TO THE AELCLIC PROJECT. WORKSHOP 1 RESULTS SUMMARY.

- Francisco Galiana (Universitat Politècnica de València) reminds the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Huerta de Valencia-Alboraya Pilot Landscape. The updated AELCLIC web page is presented. The main conclusions obtained after the 1st Workshop in the Pilot Landscape are summarized.

CONCLUSIONS:

- The AELCLIC project is reminded as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project.
- The Workshop has been delayed for over a month with regards to the initially scheduled date because the WP4 has been drastically reorganized since the Huerta Workshop 1 took place in June. The 3 original multiplier landscapes which were presented on the first workshop couldn't be activated, and instead were substituted by 4 other multiplier pilots. The whole WP4 workplan had to be reorganized following these changes, and priority was given to developing Workshops 1 at every pilot landscape before starting to organize Workshops 2.
- Every organized activity during Workshop 1 was successfully developed.
- The AELCLIC local network is comprehensive and knowledgeable
- Materials from Workshop 1 were made available to the local network in advance of Workshop2 and are also already available on the AELCLIC web
- Detailed results from each teamwork task developed during Workshop 1 are presented and will be disseminated through the corresponding report and other relevant resources, which will be available on the AELCLIC web. The local network will be notified as soon as the reports are finished, which is taking longer than expected due to the concentration of WP4 workshops.

3. HUERTA DE VALENCIA-ALBORAIA REGIONAL LAND PLANNING FRAMEWORK

- Lidia García (Las Naves) summarizes the current and future regional land use planning framework in the Huerta.

CONCLUSIONS:

- The current basic land planning framework for the whole Huerta is being rearranged during the past two years
- The Huerta Law (Ley 5/2018 de 6 de marzo, de la Generalitat, de la Huerta de València) was the first step of this new whole framework for the Huerta and is the basic instrument over which the whole framework is established. It also set the need to approve the rest of instruments and organisms already approved or in process of creation.
- A Regional Plan for the Huerta of Valencia has been approved. This is a land use planning instruments which established a new legal regime for the Huerta land. It also includes a very detailed analysis of the Huerta and its landscape, among other sections, mapping and describing its most important values.
- The "Consell de l'Horta de València" is a consortium (council) created based on the Huerta Law requirements, and which is currently being established after the signature in July 30th of a memorandum by the Regional Government, Valencia Province Council,

and the Valencia City Council. The consortium structure includes an advisory body, an executive body and a technical-operational body.

- An Agricultural Activities Plan has also been approved. This is the strategic instrument aimed at improving the incomes of farmers and agricultural businesses in order to ensure the Huerta financial profitability and survival.

4. HUERTA DE VALENCIA-ALBORAIA CLIMATE CHANGE PLANNING FRAMEWORK

- Emilio Servera (UPV) presents the main plans and strategies related to climate change that should be taken into account for the development of a Huerta de Valencia-Alboraya LACAP.

CONCLUSIONS:

- At the national level, there is a National Adaption to Climate Change Plan, in force since 2006. Several works and reports developed in the frame of this national plan are relevant to the pilot landscape, e.g. in relation to adaptation in the agriculture sector, or the Spanish strategy for coastal adaptation.
- Some available funding opportunities at a national level for adaptation to climate change are also presented.
- The regional climate change strategy was recently revised and updated. Its structure and main linkages and synergies to the potential LACAP are presented. The “Landscape Program” instrument (established by the Land Planning and Landscape Regional Law) is presented by the strategy as an adequate tool for the development of adaptation measures at landscape level.
- At a regional level, other current plans such as the PATIVEL (Coastal Green Infrastructure Regional Plan) also take climate change into account, and should be considered in the development of a LACAP.
- At the local level, the main links to the Valencia Sustainable Energy and Climate Action Plan (SECAP, developed in the frame of the Covenant of Mayors initiative) are shown. The Alboraya SECAP is currently being prepared.
- In conclusion, the development of a Huerta de Valencia-Alboraya LACAP is considered as fully lined up with the current climate change planning framework.

5. OBJECTIVES AND CONTENTS OF A CLIMATE CHANGE ADAPTATION PLAN

- Emilio Servera (UPV) summarizes the goals, expected outcomes and structure of a climate change adaptation plan.

CONCLUSIONS:

- Some basic climate change adaptation concepts, priorities and needs are presented.
- The definition of adaptation measures to climate change can be developed at different working scales and from different perspectives. Some examples are shown.
- The development of a LACAP for the Huerta de Valencia-Alboraya pilot landscape should be based on already existing plans and agendas, which have been shown in the previous presentation.
- Defining adaptation measures through a plan would allow to improve and monitor their effectiveness and a better integration with existing programs and plans.

6. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.

- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- Given the existing backlog regarding the planned schedule, Task 1 (Identification of the potential role of the AELCLIC project in the landscape adaptation to climate change) would be omitted, and the teamwork session would focus on Task 2 (Definition of the potential LACAP contents and actions).
- The major opportunities and barriers for the development of climate change adaptation actions, which were identified in Workshop1 and presented during the Workshop 1 Results Summary slideshow, could be considered the framework or basic structure for Task 2. Those potential main lines of work were previously written in the flipchart, in order to serve as a reference during this task. The main parts of a potential plan (diagnosis, actions, monitoring, etc...) were also written in the flipchart to help to organize the discussion. Stakeholder inputs are organized in this report following the aforementioned sections, although the very high number of inputs caused the sticky notes to overlap between areas. Therefore, this has required of further analysis and some contributions might not be presented in the section where they were originally located.
- Potential key stakeholders could be identified in the Task 3 even if they were not present at the workshop.

7. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Celsa Monrós	LOCAL/REGIONAL AUTHORITY	Conselleria de Agricultura, Desarrollo Rural, Emergencia Climática y Transición Ecológica
Rosa Pardo	LOCAL/REGIONAL AUTHORITY	Conselleria de Política Territorial, Obras Públicas y Movilidad
Marilda Azulay	RESEARCH	Universitat Politècnica de València
Antonio Lidón	RESEARCH	Universitat Politècnica de València
José Miguel Ferrer	PRIVATE SECTOR	Green Urban Data
Raquel Aguilar	SOCIETAL ORGANIZATION	Colegio Oficial de Ingenieros Agrónomos de Levante
Regina Monsalve	SOCIETAL ORGANIZATION	Colegio Oficial de Ingenieros Técnicos Agrícolas de Valencia y Castellón
Raquel Álvarez	SOCIETAL ORGANIZATION	Justicia Alimentaria
Josep Gavalda	SOCIETAL ORGANIZATION	Per L'Horta
Vicente Sales	SOCIETAL ORGANIZATION	Fundació Assut
Lola Vicente Almazán	SOCIETAL ORGANIZATION	CERAI

CONCLUSIONS:

- As agreed in the Workshop 1, a Doodle Poll was set by UPV in order to set the preferred possible date and time by the stakeholders. However, it was only possible to choose between two different options, given the very tight workshop schedule and other commitments by UPV/Las Naves.

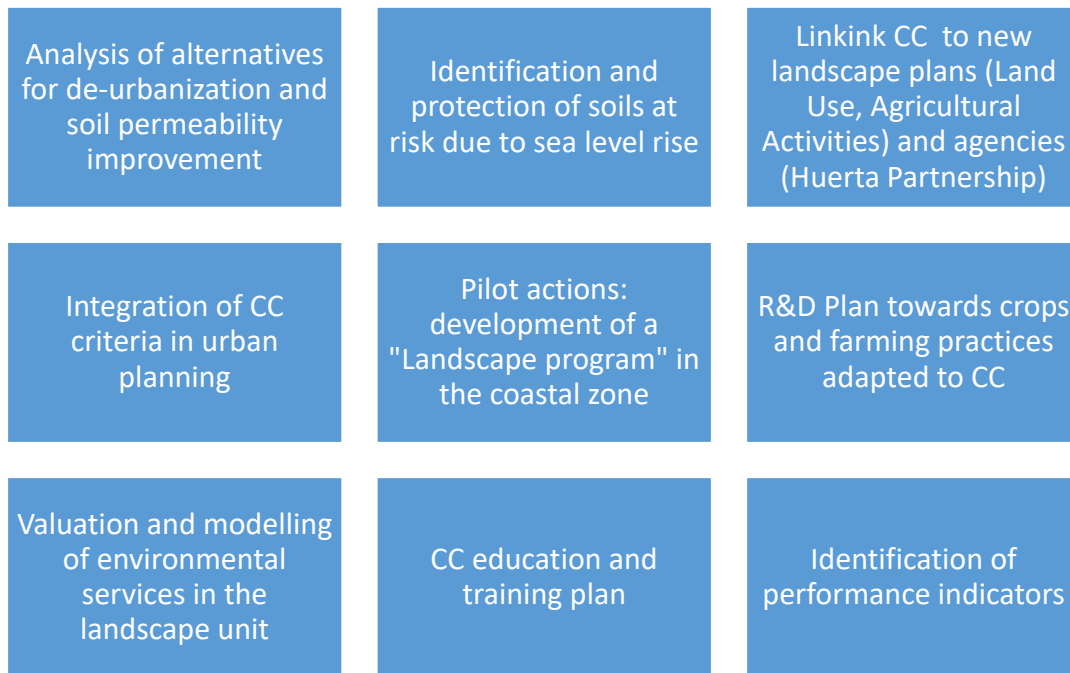
- The local network was significantly different from the one that participated in the first workshops. There were 8 new attendants, and only 3 of the participants had previously taken part in Workshop 1.
- There was a high-level representation from the regional government, since two general directors of the regional departments responsible for climate change and landscape were present at the workshop.
- Local authorities or organisms were not present. It was also not possible to count on the presence of the appointee Technical Secretary of the “Consell de l’Horta de València” consortium, who had been present on the first Workshop, and which is considered one of the key stakeholders.
- There was a very diverse and interesting representation from civil groups.
- Again, it was not possible to involve farmers in the workshop, and there was only one representative from the private sector. There was also a reduced attendance from the research sector due to previous commitments, such as the development in the UPV of a congress related to climate change in the same day.
- Some confirmed stakeholders couldn’t attend, including a representative from Climate-KIC Spain, one from the private sector, and one from the Alboraya local council.
- Remote participation was not allowed due to the lack of time to organize it.

8. TEAMWORK

- **Task 1: Which is the possible role of the AELCLIC project in the Adaptation to Climate Change of the Pilot Landscape?**
- **Task 2: Which actions should be included in the Landscape Adaption Plan of the Pilot Landscape in order to achieve its intended objectives?**
 - **DETAILED ANALYSIS/DIAGNOSIS**
 - Involvement of agricultural engineers in plans and studies
 - Do not evaluate the environmental services in Euros. Change paradigm!
 - University → Valuation of ecosystem services (in Euros and in "Joules") integrated).
 - University + Institutes → microclimate modelling
 - **PLAN ACTIONS**
 - Promotion of research on crops adapted to climate change
 - Analysis of the evolution of uses and land property in La Huerta
 - Measurement of emissions across the area and how to reduce them (UPV/UV/IVIA)
 - System balance → not only emissions
 - Mapping of areas under sea level (protection)
 - Comprehensive analysis of the multi-functionality of the landscape unit and proposal + sustainable mobility (+ measures).
 - Sizing to convince
 - Motivating civil society → example: Southern Huerta
 - Vulnerability ↔ opportunity
 - Promotion of short distribution channels. Direct sale
 - 1. Corporate Social Responsibility → Companies → Capital → Huerta Recovery
 - 1. Avoid occupying more orchard land (Not even one additional m²) due to irreversibility and value (No regret measure)

- 1. Less Productive resources. Taking care of the soil through agro-ecology (Plant cover management; biodiversity increase; closing cycles)
- 1. Less productive resources → less animal sourced food → Less food waste
- 1. Less productive resources + Increasing environmental services → Territorial policies (avoid some urban land development plans “PAI Benimaclet” or “PGOU Alboraya”)
- 2. Demographic problem → Young people technology-motivated
- 2. Un-develop built up areas. To ensure a transition Huerta-city, adaptation to climate change and life quality improvement.
- 2. Un-develop built up areas (Geoengineering). Wetlands → Huerta → dry land → mountains → rainfall
- 2. Un-develop built up areas (Reclaim built-up areas for green infrastructure)
- 2. Marketing, promotion of short distribution channels. To link Huerta - city.
- 2. Programmed and joint sale with certification-→ added value
- 2. Favourable regulatory framework → Public food procurement → Public procurement law with sustainable and climate change criteria
- 3. Biodiversity → abandoned land
- 3. Mediterranean alternative crops → imminent dangers
- 3. Make farmer lives viable → to make a living from their production
- 3. Support scheme for new farmers → Integral and training Plan
- 3. Governing body of the Agricultural Activities Plan (ensure commercialization, collective canteens)
- 3. Contracts with clauses in collective canteens (public or private)
- 3. Municipal markets: coordinated action by “Consell de l'Horta” + City councils
- 4. To restrict private motorized transport. Facilitate agricultural vehicles and not motorized transit in the Huerta.
- 4. Place value on the green belt benefits
- 5. Environmental services (drainage)
- 5. Uncover all irrigation channels. 1st in rural areas, 2nd in urban areas
- 5. Environmental services (drainage → reduction of sewage treatment plants).
- 6. Include buffer areas (green infrastructure in urban land, and built-up areas transformable into green infrastructure).
- Landscape program in the coastal area (outside of the workshop area)
- Implementation of the Huerta Law (Start-up of the use expropriation of abandoned crops) (5 years after the Consell de l'Horta de València is operational)
- Maintaining irrigation by surface flooding (maintenance of the irrigation channel network)
- Need for actions outside the landscape unit and outside the technical productive sphere
- Food policy as an energy policy
- Implementation of the “Consell de l'Horta” (joint enforcement of the Regional Plan (PAT) and the agricultural activities plan (PDA)) and climate strategies
- Contribution by the agricultural activities plan (PDA)(pending!)
- Global economic viability (legislative change)
- Linking Climate Change with the Huerta Management board (“Consell de l'Horta”)
- Urbanism→ to demand a more logic sequence for urban development (1st urban plots and 2nd land with agricultural production capacity...). Preserving the Huerta in the meantime.
- Options to unseal some areas (enclaves). Urban planning discipline

- Plan for the maintenance and improvement of the irrigation ditches channels (uncover if possible)
 - Avoid fragmentation of the Huerta
 - Improving Infrastructure permeability (stop new ones)
 - Implementation of non-motorized mobility (in all the agriculture area and very limited complementary to agrarian networks)
 - Adapt the waste tax to the amount generated by each citizen
 - To move towards a Huerta based on crops less demanding in water
 - “Bank” of soil → Prevent deterioration by use
 - Restoration of traditional architecture (circular economy, reuse)
 - Deployment of the regional land use plan “PAT de l’Horta”. Central purchasing body for short market municipalisation.
 - Creation of common infrastructure (warehouses, shared spaces for food processing,...)
 - Creation of a quality seal
 - To increase the farm size without changing the plot structure
- RESULTS COMMUNICATION AND DISSEMINATION
- Awareness of school canteens: school canteens and school vegetable gardens
 - Involve civil society in mitigation (measurement and communication)
 - Environmental education plans at the citizenship level
 - Promotion of agricultural professional training. Professionalising → opportunity
 - Inclusion of environmental education as a cross-cutting element in compulsory education
 - Integrated health education campaigns (Food, "recreational" use for walking and sport)
 - University: Open data
- MONITORING AND ASSESSMENT
- Developing of a set of performance indicators
 - Monitoring tools
 - To measure climate change impacts
 - Measure targets
 - To assess impacts



- **Task 3: Evaluation of potential levels of stakeholder involvement**

- **PUBLIC SECTOR**

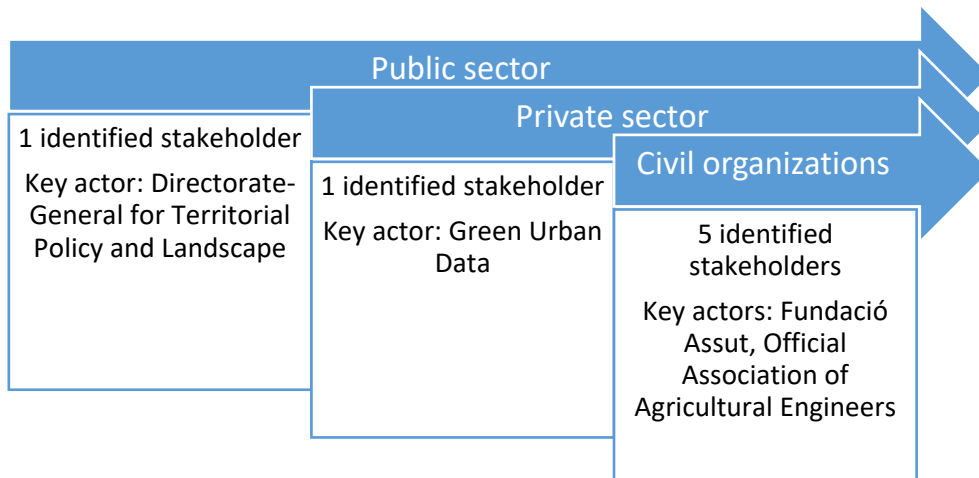
- Conselleria de Política Territorial, Obres Públiques i Mobilitat (Territorial Policies, Public Works and Mobility Regional Department).

- **PRIVATE SECTOR**

- Green Urban Data

- **CIVIL ORGANIZATIONS**

- Per l'Horta (NGO).
 - Justicia Alimentaria (NGO)
 - CERAI (NGO)
 - Fundació ASSUT (NGO). Highly qualified human resources
 - Colegio Oficial de Ingenieros Agrónomos de Levante (Official Association of Agricultural Engineers of Eastern Spain)



9. ACKNOWLEDGMENT AND CLOSING REMARKS

- Francisco Galiana (UPV) thanks the participants for their contributions.

CONCLUSIONS:

- The local network will be notified when the workshops reports are available on the AELCLIC webpage
- Some new participants in the workshop authorized adding their organizations to the already existing local network in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The workshop date and time was set by means of a Doodle Poll, scheduled by the UPV. However, only two possible options could be offered to the invited stakeholders. The local network in Valencia-Alboraya was significantly different from the one that participated in the first workshop. There was a high-level representation from the regional government, and participation from key social groups which were able to provide very interesting inputs to the discussion. However, the private sector was still underrepresented, and local councils or organisms, among other key stakeholders, were not present. Some confirmed stakeholders didn't attend. The attendants were collaborative, knowledgeable, and very interested in the initiative. They were able to contribute with a wide range of proposals of contents and actions for a future potential LACAP, and the debate was really intense and interesting. / **ACTIONS:** Universitat Politècnica de València / Las Naves will send a letter of appreciation to all attendants including the links to download the reports and materials presented in both workshops.
- The workshop started with some delay. Since there was also some extra accumulated backlog because the presentations in the first part of the session took longer than scheduled, the coffee break took place significantly later than scheduled. Therefore, it was decided to skip Task 1 during the Teamwork and focus on Task 2. **ACTIONS:** Universitat Politècnica de València took into account the experience gained during this workshop in order to plan better the rest of Workshops 2 developed in the Work Package.
- The main contents to consider in a potential Landscape Adaptation to Climate Change Plan in the Huerta de Valencia-Alboraya landscape were identified. The potential LACAP should add some climate change adaptation criteria to the new plans and organisms being commissioned. Some contents that should be developed included, for instance, an analysis of alternatives for de-urbanization and soil permeability improvement or the valuation and modelling of environmental services in the landscape unit. Specific climate change related education and training was also considered essential / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.
- There was not enough time to develop successfully the last task, and only 7 main actors who could take part in the development of a LACAP or support any potential funding application were identified. / **ACTIONS:** Any potential partnership interested in developing the Huerta de Valencia-Alboraya LACAP in the future would be able to benefit from the evaluation of potential levels of stakeholder involvement. Additional actors were also identified during Task 2, since some inputs in relation to the LACAP contents included suggestions regarding the landscape agents which could develop them. Furthermore, UPV / Las Naves identified many other stakeholders during the organizing phase and could provide that information to anybody interested.
- Some stakeholders who didn't attend the 1st workshop confirmed their interest in being included in the AELCLIC web as part of the already existing Huerta de Valencia-Alboraya Local Network. / **ACTIONS:** Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to update the local network structure in the AELCLIC web.

- No press release was prepared this time before or after the workshop due to the lack of time to do it. However, in the time between the first workshop and this one, the UPV and Las Naves were reached by a daily TV show (Terra Viva) in the public regional TV channel (À punt) who were interested in covering the activities taking place in the pilot landscape. UPV/Las Naves also contacted some of the members of the local network so they could also take part in the news piece contributing with their own points of view regarding climate change adaptation in the Huerta landscape. UPV also contributed with some of the materials from the Workshop 1 so they could be included in the piece. The AELCLIC TV Report aired on August and is also available via web (<https://www.youtube.com/watch?v=ua8BIF2HRgg>). / ACTIONS: Universitat Politècnica de València will circulate the TV piece, and include it in further reports regarding the societal impact of the project.
- The Bologna International AELCLIC Meeting took place after the Workshop 2. The new Huerta Management board ("Consell de l'Horta") was initially identified as the key member of the local network, but since it was precisely at its inception phase, it was not possible to count on them to attend the meeting. Therefore, the Directorate-General for Territorial Policy and Landscape of the regional government was invited to designate a representative who could attend the Bologna Meeting. Universitat Politècnica de Valencia / Las Naves would sponsor the travel expenses, at least partially. Although there was very strong interest from the Directorate to send a representative to the Meeting, finally it was not possible to do it since there was not enough time to make the necessary travel arrangement internally required to allow a public officer to travel abroad. However, they agreed to prepare an excellent slideshow to contribute to the International Meeting with their perspective of the AELCLIC Project and the potential future development of a LACAP in the Huerta de Valencia-Alboraya / ACTIONS: UPV was in charge of presenting the excellent slideshow prepared by the Directorate-General for Territorial Policy and Landscape in Bologna. The Huerta pilot landscape was therefore introduced to the representatives from other local networks from around Europe, and subsequently taken into account in the further teamwork developed in the meeting. The Directorate-General for Territorial Policy and Landscape was thanked for their outstanding work and received a draft version of the International Meeting Report, allowing them to make any comments or suggestions if appropriate. They will also be informed of any future news and be considered a key actor regarding potential funding applications to develop the Huerta de Valencia-Alboraya LACAP.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - OUTCOME 1 (Identification of the potential role of the AELCLIC Project in the adaptation of the Huerta de Valencia-Alboraya landscape to Climate Change). LEVEL OF ACHIEVEMENT: Activity not developed
 - OUTCOME 2 (Definition of main contents and actions to be included in a potential Huerta de Valencia-Alboraya LACAP). LEVEL OF ACHIEVEMENT: 4
 - OUTCOME 3 (Evaluation of potential levels of stakeholder involvement for the development of a Huerta de Valencia-Alboraya LACAP). LEVEL OF ACHIEVEMENT: 2
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - Lack of planning time due to the concentration of WP4 workshops during September and October. Only 2 different options could be chosen in the Doodle Poll established to set the preferred date and time for the workshop, which was sent only 10 days ahead of the event. Despite the strong effort by UPV/Las Naves to mobilize the local network, it was difficult to achieve it in such a short time span. Some confirmed guests didn't finally show up without notice.
 - There was no representation from any of the two municipalities where the pilot landscape is located. All the contacted representatives of the Valencia local council and related organisms excused their presence due to previous appointments, such as the kick-off of a new European climate change project in which the city is involved, and which was taking place in Brussels the next day. There was one confirmed attendant from the Alboraya city council, but finally didn't show up. There were no representatives from Alboraya in the first workshop either, so the perspectives or priorities of one of the involved municipalities couldn't be heard at any of the workshops.
 - A key stakeholder, the Consell de l'Horta consortium, is still at a very early working stage. This has been a real challenge during the whole Project, since the Consell de l'Horta will be, according to the new normative framework, the key organism regarding decision making and actions in the Huerta.
 - The local network was significantly different from the one that participated in the first workshop. There were 8 new attendants, and only 3 of the participants had previously taken part in Workshop 1. This added some extra difficulties, since a wide majority of the stakeholders were not familiar to the project, which led to some parts of the teamwork being focused on topics which were already treated in the first Workshop, or were out of the scope of the project.
 - The workshop started after the scheduled time and the presentations in the first half also took longer than expected, and therefore the accumulated backlog at the time of the coffee break made it necessary to readjust the objectives and activities of the teamwork section of the session.
 - Being the first Workshop 2 developed in the WP4, there was no previous experience with regards to the development of the planned activities, and this caused an excessive delay and bad adjustment to the schedule, for instance not making possible to develop the 1st task. This was taken into account for the rest of Workshops 2 in the Work Package
 - Due to the very busy WP4 schedule, it was not possible to organize any remote participation, which could have been very interesting

- **Main Reasons for the successful achievement of the expected outcomes:**
 - Highly participative, interested and knowledgeable stakeholders. Even though the number of participants was not very high, they were all experts in their respective fields of knowledge and therefore able to contribute from different and complementary angles. Their effort to attend to an activity at short notice despite their very busy agendas is really appreciated. Some of them had to leave early due to previous commitments, but still made the effort to take part in the activity for as long as they could.
 - Significant effort by UPV/Las Naves to mobilize more stakeholders to attend to the workshop given the short time available to organize the session, and its coincidence with other events.
 - Ability to modify the initial workplan for the session, leaving Task 1 out due to the accumulated backlog.
 - Some of the inputs which could have been received during Task 3 were already incorporated during Task 2, since some of the contents or actions proposed for the LACAP included information regarding a potential stakeholder which could develop them.
 - Very fruitful, vibrant debate during Task 2.
 - Very useful reference materials from other AELCLIC workshops
 - Adequate selection of workshop location and preparation of materials
- **Learnt lessons and recommendations for similar activities in other places:**
 - The process of setting a date for any similar activity should start much earlier than 10 days ahead of the potential options, in order to be able to achieve a higher participation. Offering more than 2 options when organizing a poll in order to select the most appropriate moment for the workshop might also be advisable.
 - Very careful time planning is needed when some activities are developed for the first time. It can be useful to include extra time in some of the activities in the official schedule in order to potentially use it later as a “buffer time” to compensate for any potential delay.
 - Maintaining network continuity between complementary activities, such as the two workshops developed, is desirable but not essential.
- **Learnt lessons and recommendations for future activities in the same place:**
 - See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - Medium. As already mentioned, some of the main barriers faced were more related to the extremely busy agenda in the Work Package than to the local characteristics.

ACTIVITY: Workshop2_RIU BESÒS_PILOT LANDSCAPE

DATE and TIME: 30.10.2019, 16:00-19:00

PLACE: Sant Adrià del Besòs (Spain), Consorci del Besòs headquarters

ORGANIZERS:

- Carme Ribas / Consorci del Besòs
- Carmen Gómez / Consorci del Besòs
- Joaquim Calafí / Consorci del Besòs
- Marc Montlleó/ Barcelona Regional
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Gloria Viladrich / Ajuntament Sant Adrià de Besòs
- Jordi Català / Ajuntament Montcada i Reixac
- Rafael Argelich / Ajuntament Badalona
- Aurora Lòpez / Ajuntament Barcelona
- Núria Bayó / Ajuntament Barcelona
- Núria Parpal / Diputació Barcelona
- Carles Passarell / Diputació Barcelona
- Francesc Llimona / Parc Natural Collserola
- Carme Ribas / Consorci Besòs
- Begoña Bellette / Consorci Besòs
- Marc Montlleó / Barcelona Regional
- Ioanna Spanou / Barcelona Regional
- Manuel Isnard / Consorci Besòs-Tordera
- Xavier Sancho / Barcelona Cicle de l'Àigua (BCASA)
- Juan R. Obon / Endesa
- Marta Hernández / Endesa
- Xavier Larruy / Freelance Biologist
- Roger Hoyos / Plataforma 3 Xemeneies
- Pedro Sánchez / Plataforma 3 Xemeneies
- Alfredo Almanza / La Horda

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Discussing the potential role of the AELCLIC Project in the adaptation of the Riu Besòs landscape to Climate Change.
 - Definition of key actions or contents that should be included in a Riu Besòs Landscape Adaptation Plan to Climate Change (LACAP)
 - Identification of main stakeholders and available resources towards the development of a Riu Besòs LACAP.
-

AGENDA:

1. Welcome and presentation.
2. Introduction to the AELCLIC project. Workshop 1 results summary.
3. Objectives and contents of a climate change adaptation plan
4. Workshop presentation and organization. Presentation of participants.
5. TEAMWORK
 - a. TASK 1: Identification of the potential role of the AELCLIC Project in the adaptation of the Riu Besòs landscape to Climate Change.
Coffee break
 - b. TASK 2: Identification of main contents and actions within a Besòs river LACAP.
 - c. TASK 3: Identification of main actors and resources towards the development of a Besòs river LACAP.
6. Acknowledgment and closing remarks.

1. WELCOME

- Welcoming words by Carme Ribas (Consorti del Besòs).

2. INTRODUCTION TO THE AELCLIC PROJECT. WORKSHOP 1 RESULTS SUMMARY.

- Francisco Galiana (Universitat Politècnica de València) reminds the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the Riu Besòs Pilot Landscape. The updated AELCLIC web page is presented. The main conclusions obtained after the 1st Workshop in the Pilot Landscape are summarized.

CONCLUSIONS:

- The AELCLIC project is reminded as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project
- Every organized activity during Workshop 1 was successfully developed.
- The AELCLIC local network is comprehensive and knowledgeable
- Materials from Workshop 1 were sent to the local network in advance of Workshop2 and are also already available on the AELCLIC web
- Detailed results from each teamwork task are presented and will be disseminated through the corresponding report and other relevant resources, which will be available on the AELCLIC web. The local network will be notified as soon as the reports are finished, which is taking longer than expected due to the concentration of WP4 workshops and the organization of the International AELCLIC Meeting in Bologna.

3. OBJECTIVES AND CONTENTS OF A CLIMATE CHANGE ADAPTATION PLAN

- Emilio Servera (UPV) summarizes the goals, expected outcomes and structure of a climate change adaptation plan.

CONCLUSIONS:

- The development of a LACAP for the area surrounding the final stretch of the Besòs river should be based on already existing plans and agendas.
- Defining adaptation measures through a plan would allow to improve and monitor their effectiveness and a better integration with existing programs and plans.
- Grey, green and hybrid approaches to climate change adaptation in urban environments are introduced.
- The potential LACAP could be an opportunity to optimize the implementation of Nature Based Solutions in the Besòs Area, to integrate adaptation into urban planning,

and to address through a joint and coordinated action the shared challenges of the involved municipalities. Even additional resources could be potentially provided, enabling the common deployment of already planned actions.

4. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- The major opportunities and barriers for the development of climate change adaptation actions, which were identified in Workshop1 and presented during the Workshop 1 Results Summary slideshow, could be considered the framework or basic structure for Tasks 1 and 2 (Identification of the potential role of the AELCLIC project in the landscape adaptation to climate change, and the Definition of the potential LACAP contents and actions). Those potential main lines of work were previously written in the flipchart, in order to serve as a reference during those tasks, and are also made explicit within this report. The main parts of a potential plan (diagnosis, actions, monitoring, etc...) were also written in the flipchart to help to organize the discussion. The part in which every input was allocated is also explicitly mentioned in this report.
- Potential key stakeholders could be identified in the Task 3 even if they were not present at the workshop.

5. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Gloria Viladrich	LOCAL/REGIONAL AUTHORITY	Ajuntament Sant Adrià de Besòs
Jordi Català	LOCAL/REGIONAL AUTHORITY	Ajuntament Montcada i Reixac
Rafael Argelich	LOCAL/REGIONAL AUTHORITY	Ajuntament Badalona
Aurora Lòpez	LOCAL/REGIONAL AUTHORITY	Ajuntament Barcelona
Núria Bayó	LOCAL/REGIONAL AUTHORITY	Ajuntament Barcelona
Núria Parpal	LOCAL/REGIONAL AUTHORITY	Diputació Barcelona
Carles Passarell	LOCAL/REGIONAL AUTHORITY	Diputació Barcelona
Francesc Llimona	LOCAL/REGIONAL AUTHORITY	Parc Natural Collserola
Carme Ribas	PUBLIC SECTOR	Consorti Besòs
Begoña Bellette	PUBLIC SECTOR	Consorti Besòs
Marc Montlleó	PUBLIC SECTOR	Barcelona Regional
Ioanna Spanou	PUBLIC SECTOR	Barcelona Regional

PARTICIPANT	SECTOR	INSTITUTION
Manuel Isnard	PUBLIC SECTOR	Consorci Besòs-Tordera
Xavier Sancho	PUBLIC SECTOR	Barcelona Cicle de l'Àigua (BCASA)
Juan R. Obon	PRIVATE SECTOR	Endesa
Marta Hernández	PRIVATE SECTOR	Endesa
Xavier Larruy	PRIVATE SECTOR	Freelance Biologist
Roger Hoyos	SOCIETAL ORGANIZATION	Plataforma 3 Xemeneies
Pedro Sánchez	SOCIETAL ORGANIZATION	Plataforma 3 Xemeneies
Alfredo Almanza	SOCIETAL ORGANIZATION	La Horda

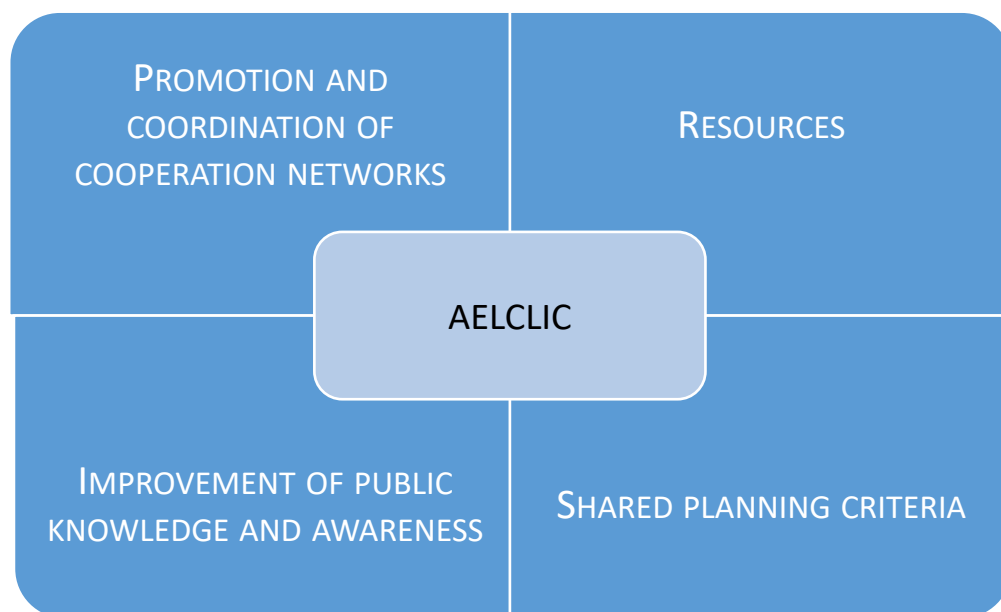
CONCLUSIONS:

- The local network established by the Consorci del Besòs was again highly comprehensive and knowledgeable. The smooth workflow showed once more that the main stakeholders from the final stretch of the Besòs river share a history and culture of networking and cooperation that optimizes teamwork activities.
- Again, representatives from the regional government were missing. In comparison with the attendants to Workshop 1, it can be seen how the research sector lost its representatives. The Barcelona Institute for Global Health, ISGlobal, was especially missed, given the relevance of their main lines of action for the development of a potential LACAP in an area where health impacts due to climate change have been identified as some of the key elements that should be addressed. On the other hand, the local network had also some very interesting additions, such as the representative from the Barcelona Province Council in charge of the Besòs river park maintenance and management, or the representative from the "La Horda" association.
- Remote participation was not promoted given the success of the meeting.

6. TEAMWORK

- **Task 1: How could the AELCLIC Project contribute towards the adaptation of the Besòs River landscape to Climate Change?**
 - **VERY HIGH URBAN DENSITY**
 - Identification of shared challenges
 - Benchmarking similar experiences (process + design).
 - Shared planning criteria in terms of climate action. Basin or final stretch
 - **INFRASTRUCTURES IMPROVEMENT**
 - Coordination among local and global administrations
 - AELCLIC Project as the voice and umbrella of local level sensitivities. With feedback based on technical criteria
 - **INADEQUATE GOVERNANCE FOR ADAPTATION**
 - Elaborate on the study and problem solving
 - Securing resources
 - Address problems from a more academic point of view or aim, less constrained by social pressure or lack of budget
 - Coordination among local and general administrations
 - Coordination for adaptation
 - Promotion of participation, information and shared management with citizens and entities
 - Education function for citizens

- Educational project and global vision. Coordinating project.
- COORDINATION AND INVOLVEMENT OF PUBLIC ADMINISTRATIONS AND CITIZENS
 - Coordination among authorities
 - Promotion of fluvial volunteerism
 - Opportunity for coordination of authorities over the municipal level, and for funding
 - Handbook/Framework towards the inclusion of climate change in urban planning for municipalities
- LACK OF FUNDING FOR ADAPTATION MEASURES
 - To find solutions for critical points such as: railway bridge, walkable link between the riverside path and the coastline, urban density in the coastal area.
- PRESERVATION AND RESTORATION OF ITS COASTAL SPACE CHARACTER
 - Catalyst for environmental measures (implementation) that increase biodiversity in the river and its surroundings, and that are currently paused.
 - Definition of strategic themes that can be addressed by pilot projects



- **Task 2: Which actions should be included in the Landscape Adaption Plan of the Pilot Landscape in order to achieve its intended objectives?**
 - DETAILED ANALYSIS/DIAGNOSIS
 - Accounting (implications of one type of measure or another).
 - At pilot area level
 - Definition of "Landscape". Essential to define the study themes and area
 - Design guidelines with suggestions/requirements for storm water, permeable paving, storm tanks, etc.
 - Creation of indicators of environmental benefits to be applied in projects, pilot projects, etc.

○ PLAN ACTIONS

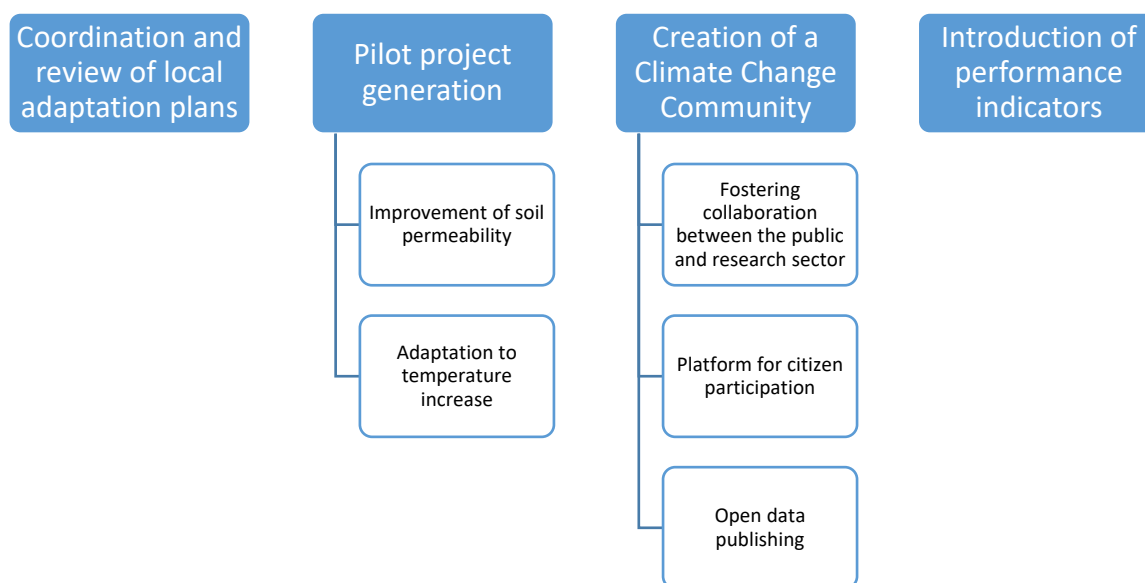
- To coordinate, complement, integrate and interrelate plans. Overall view and common protocols
- To coordinate to unify planning and landscape criteria
- Pilot project: Increase of the permeable pavement surfaces around the river
- Pilot project: Adaptation of the river park regarding temperature rise
- Creation of flood control zones to reduce flood impacts in the low and middle Besòs sections. Example: marginal space between the Besòs river and the La Roca road in Montcada
- Analysis of the most tolerant vegetation which can fix more CO₂ (invasive species shouldn't be considered).
- Monitoring fauna and flora which can assess the implemented measures (use of bioindicators)
- Barcelona Province Council: Besòs river park, because of the resilience and maintenance of the last stretch of the Besòs river
- Reviewing local plans and pending projects, and providing guidelines
- Design criteria for the public space or places of refuge
- Dissemination and public engagement in plans by public organisms
- Dissemination. Awareness raising. Public engagement.
- Design actuation protocols.
- Micro-reserves (tertiary wastewater treatment wetlands, former gravel pits and quarries)
- River as a biological corridor. Need to improve its transversal connectivity.

○ RESULTS COMMUNICATION AND DISSEMINATION

- Benefit from the SDG for dissemination and communication
- Creation of a participatory / consultation space via web and app (similar to the "Decidim" platform)
- Creation of Besòs community for networking between the academia (degree/master/PhD theses) and public authorities (real challenges, case studies)
- Creation of a results and projects database
- Educational function: dissemination
- Climate smart practices
- Creation of a Climate Change Board
- Increased citizen engagement in the climate change effects and solutions. Risks – Health.
- Collection of project proposals
- Open publishing of climate and Besòs river data

○ MONITORING AND ASSESSMENT

- Monitoring, indicators and measures
- Monitoring at landscape level (data are usually from Barcelona) in relation to climate change
- River park monitoring committee expanded to citizens
- Open the river park monitoring committee to the citizens (once per year)



• Task 3: Evaluation of potential levels of stakeholder involvement

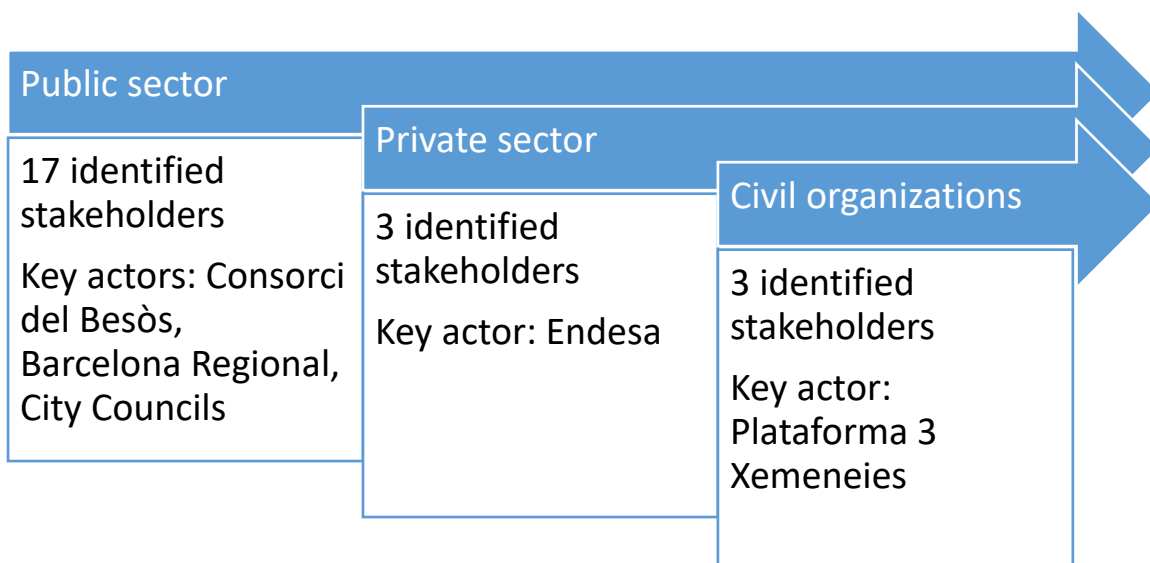
○ PUBLIC SECTOR

- Badalona
- San Adrià del Besòs city council (Environmental department / Technical resources)
- Barcelona city council (Sant Andreu district)
- Barcelona city council (Technical resources. Economic resources)
- Catalan Office for Climate Change. Regional Government
- General Directorate for Environmental Quality and Climate Change. Regional Government.
- Barcelona Regional (Technical resources)
- Consorci del Besòs (Technical resources. Low financial capacity. Strong conceptual commitment. As a public authority, the interest is high but resources are scarce. Could be an officer part-time)
- Environmental Science and Technology Institute, Universitat Autònoma de Barcelona (ICTA-UAB)
- School of Architecture at the Technical University of Catalonia UPC. (Technical resources, courses)
- FEHM LAB (Ecology). Universitat de Barcelona (UB)
- TERSA (public company)
- IS Global (public-private partnership)
- Barcelona Provincial Council. Besòs river park (human resources, management and economic resources)
- Barcelona Metropolitan Area (AMB). Urban Ecology Area (economic and technical resources, via european funding)
- Catalan Water Agency (ACA)
- Department of Environment and Sustainability. Regional Government.

○ PRIVATE SECTOR

- ENDESA (Interest in learning. Interest in collaborative work)

- Xavier Larruy (Freelance biologist). Fauna and flora monitoring. Deep knowledge of the final stretch of the Besòs River for more than 20 years. Also management measures to favour biodiversity
 - Industrial Parks Maintenance Entities (some are at flood risk areas)
- CIVIL ORGANIZATIONS
- Plataforma 3Xemeneies (3 Chimneys Platform) (Knowledge of the area, its associative network and industrial heritage)
 - “La Horda” environmental association (Human resources. Workers, facilitators, Project design)
 - Ecologistas en Acción



7. WORKPLAN, CLOSURE AND NEXT STEPS

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the workshop results.
- Carme Ribas (Consorci del Besòs) thanks the participants for their contributions and the AELCLIC project for choosing the Besòs river to be one of its pilot landscapes.

CONCLUSIONS:

- The local network will be notified when the workshops reports are available on the AELCLIC webpage
- The Workshop 2 materials will be sent to the local network in advance
- Some new participants in the workshop authorized adding their organizations to the already existing local network in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The constituted Besòs local network was, again, very comprehensive and knowledgeable. Representatives from the regional government once more didn't participate in the workshop. There were some minor changes in the composition of the network, but the discussion and work were as smooth and efficient as in the first Workshop. / **ACTIONS: Consorci del Besòs will again send a letter of appreciation and the materials presented to all guests.**
- The organization of the Workshop by Consorci del Besòs was again exemplary. The members of the local network were thanked via e-mail after the first workshop and sent the link to download the presented slideshows. They were later reminded of the Workshop 2 and invited again to join it. The event took place in the same excellent facilities than Workshop 1. Consorci del Besòs again organized and sponsored the catering service for the coffee break. / **ACTIONS: UPV thanked Consorci del Besòs for their essential role in the development of the activities in the pilot landscape.**
- In the organizational meeting prior to the workshop, it was suggested by representatives from Barcelona Regional and Consorci del Besòs, based on their knowledge of the local network, to minimize the amount of time spent on presentations, leaving most of the time for team work / **ACTIONS: UPV only provided the minimum background for the workshop with two short presentations, and left most of the session time for teamwork and discussion.**
- The stakeholders identified several ways in which the AELCLIC project could contribute to the adaptation of the Besòs river landscape to climate change. The promotion and coordination of joint work and communities of knowledge arose as key topics in the discussion. The topics identified during this activity were mostly also included during the next task. / **ACTIONS: All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.**
- The main contents to consider in a potential Riu Besòs Landscape Adaptation to Climate Change Plan were identified. A LACAP should be based on the coordination and review of local adaptation plans, include some pilot projects, for instance regarding the improvement of soil permeability, and include the creation of a Climate Change Community aimed at fostering collaboration, citizen participation and open data publishing. A system of performance indicators should provide the basis for monitoring the results of the plan / **ACTIONS: All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.**
- The identification of the main actors who could take part in the development of a LACAP or support any potential funding application was also successful. 23 stakeholders were identified within the specific activity developed / **ACTIONS: Any potential partnership interested in developing the Riu Besòs LACAP in the future or any other kind of climate change adaptation plan in the area would be able to benefit from the evaluation of potential levels of stakeholder involvement .**
- Several new stakeholders confirmed their interest in being included in the AELCLIC web as part of the already existing Riu Besòs Local Network. / **ACTIONS: Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to update the local network structure in the AELCLIC web.**

- Another press release was prepared by the Consorci del Besòs after the workshop and uploaded into their web page (<https://consorcibesos.cat/el-consorci-del-besos-continua-amb-els-treballs-de-col-laboracio-amb-el-projecte-europeu-aelcllic-pathfinder-sobre-ladaptacio-dels-paisatges-europeus-al-canvi-climatic/>). Besides, The Besòs River pilot landscape was mentioned in a press release by the Land and Sustainability Regional Departament regarding the development of Workshop 2 in the Parc Natural de l'Alt Pirineu landscape (<https://govern.cat/govern/docs/2019/10/30/10/27/733ac2c3-3278-4b57-ba1d-a277596ef8c9.pdf>). This press release had a high impact, and was distributed by many different media and other regional government agencies. / **ACTIONS:** Universitat Politècnica de València will circulate the press release and articles, and include it in further reports regarding the societal impact of the project.
- The Bologna International AELCLIC Meeting took place two weeks after the Besòs Workshop 2. Consorci del Besòs and Barcelona Regional were both identified as the key, leading members of the local network, and invited to represent it in the Bologna Meeting. Universitat Politècnica de Valencia / Las Naves would sponsor the travel expenses, at least partially. Finally, one representative from each organization attended the meeting and together contributed with an excellent presentation with their joint perspective of the AELCLIC Project and the potential future development of a Besòs LACAP / **ACTIONS:** The Besòs pilot landscape was introduced to the representatives from other local networks from around Europe, and took part in the further teamwork developed in the meeting. Consorci del Besòs and Barcelona Regional were thanked for their outstanding work and received a draft version of the International Meeting Report, allowing them to make any comments or suggestions if appropriate. They will also be informed of any future news and be considered key actors regarding potential funding applications to develop the Riu Besòs LACAP.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Identification of the potential role of the AELCLIC Project in the adaptation of the Riu Besòs landscape to Climate Change). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 2 (Definition of main contents and actions to be included in a potential Riu Besòs LACAP). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 3 (Evaluation of potential levels of stakeholder involvement for the development of a Riu Besòs LACAP). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Task 1 had a slightly slow start and needed some additional clarification from UPV in order for the stakeholders to understand the activity
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Excellent work by the Consorci del Besòs in giving continuity to the local network, maintaining the contact with the stakeholders and quickly providing them with the used resources after Workshop 1 in order to keep up the momentum.
 - o The suggestion by Consorci del Besòs and Barcelona Regional to keep the presentations time short, in order to prioritize teamwork, was very appropriate. Given the profile of the local network, it became clear that time was best spent discussing and working together as a group.
 - o Highly participative and knowledgeable stakeholders. Very high level of expertise and interest on the matter, which again led to a fruitful discussion during the teamwork.
 - o Satisfying results from Workshop 1 which led to a high degree of continuity in the local network. Adequate time between Workshops.
 - o Good preparation of materials by UPV. Contribution from Consorci del Besòs, who sent some useful reference materials after Workshop 1.
 - o Clear definition of the expected outcomes
 - o Good time planning and subsequent adjustment to the schedule
 - o Very useful reference materials from other AELCLIC workshops
 - o Excellent facilities.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Working with local counterparts with the experience, knowledge and resources needed to take the lead and excel in the organization of this kind of activity maximizes the success and return of the workshop
 - o Working with a knowledgeable, strong network, where a significant proportion of the attendants had taken part in the Workshop 1, made it easier to reach the expected goals.
 - o Keeping an adequate time period between gatherings of the same local network is important in order to avoid saturation or disengagement
- **Learnt lessons and recommendations for future activities in the same place:**
 - o See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - o High. As already mentioned, the level of involvement and expertise showed by the leading members of the local network, and the experience and culture of participatory work of the attendants, was key in the successful design and development of the activity.

ACTIVITY: Workshop2_LA MATA-TORREVIEJA_PILOT LANDSCAPE

DATE and TIME: 23.10.2019, 16:00-19:00

PLACE: Torre Vieja (Spain), "Virgen del Carmen" Culture Centre

ORGANIZERS:

- Carmen Gómez / Torre Vieja City Council
- Juan Antonio Pujol / Torre Vieja City Council
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Carmen Gómez / Ayuntamiento Torre Vieja
- Victor M. Costa / Ayuntamiento Orihuela
- Carmen Morate / Ayuntamiento Torre Vieja
- Jesús Sánchez / Empresa Mixta Aguas del Arco Mediterráneo, S.A. (AGAMED)
- Angel Gilí / Acciona Servicios Urbanos
- Jesús Hernández / Acciona
- Manuel J. Pérez / Actúa, Servicios y Medio Ambiente
- Delfina Giménez / Criterio Verde
- Pedro D. Garcia / N.C.D. Salinas de Torre Vieja

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Discussing the potential role of the AELCLIC Project in the adaptation of the La Mata-Torre Vieja landscape to Climate Change.
- Definition of key actions or contents that should be included in a La Mata-Torre Vieja Landscape Adaptation Plan to Climate Change (LACAP)
- Identification of main stakeholders and available resources towards the development of a La Mata-Torre Vieja LACAP.

AGENDA:

1. Welcome and presentation.
 2. Introduction to the AELCLIC project. Workshop 1 results summary.
 3. Torre Vieja urban planning framework
 4. Torre Vieja climate change planning framework
 5. Objectives and contents of a climate change adaptation plan
 - Coffee break*
 6. Workshop presentation and organization. Presentation of participants.
 7. TEAMWORK
 - a. TASK 1: Identification of the potential role of the AELCLIC Project in the adaptation of the La Mata-Torre Vieja landscape to Climate Change.
 - b. TASK 2: Identification of main contents and actions within a La Mata-Torre Vieja LACAP.
 - c. TASK 3: Identification of main actors and resources towards the development of a La Mata-Torre Vieja LACAP.
 8. Acknowledgment and closing remarks.
-

1. WELCOME

- Welcoming words by Carmen Gómez (Torrevejeja City Council)

2. INTRODUCTION TO THE AELCLIC PROJECT. WORKSHOP 1 RESULTS SUMMARY.

- Francisco Galiana (Universitat Politècnica de València) reminds the goals, expected outcomes and structure of the project, as well as the location and reasons for the selection of the La Mata-Torrevejeja Pilot Landscape. The updated AELCLIC web page is presented. The main conclusions obtained after the 1st Workshop in the Pilot Landscape are summarized.

CONCLUSIONS:

- The AELCLIC project is reminded as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project
- Every organized activity during Workshop 1 was successfully developed.
- The AELCLIC local network is comprehensive and knowledgeable
- Materials from Workshop 1 were made available to the local network in advance of Workshop2 and are also already available on the AELCLIC web
- Detailed results from each teamwork task developed during Workshop 1 are presented and will be disseminated through the corresponding report and other relevant resources, which will be available on the AELCLIC web. The local network will be notified as soon as the reports are finished, which is taking longer than expected due to the concentration of WP4 workshops and the organization of the International AELCLIC Meeting in Bologna.

3. TORREVEJEJA URBAN PLANNING FRAMEWORK

- Victor M. Costa / Ajuntament Orihuela summarizes the current and future urban planning framework in Torrevejeja

CONCLUSIONS:

- The current Torrevejeja Urban Masterplan dates from 1988 and was revised in 1999. It's already thirty years but shows certain environmental awareness which could be considered ahead of its time
- Several new regulations have been overlapped to the Urban Masterplan, in many cases related to the "Lagunas de La Mata y Torrevejeja" Natural Park
- The status of different local planning areas is carefully analyzed in detail
- The future development of a new Urban Masterplan, which is currently in its early stages, is a huge opportunity to link urban development with climate change, which can be done in several ways, i.e. "sponging" the city

4. TORREVEJEJA CLIMATE CHANGE PLANNING FRAMEWORK

- Emilio Servera (UPV) presents the main plans and strategies related to climate change that should be taken into account for the development of a La Mata-Torrevejeja LACAP.

CONCLUSIONS:

- At the national level, there is a National Adaption to Climate Change Plan, in force since 2006. Several works and reports developed in the frame of this national plan are relevant to the pilot landscape, e.g. in relation to adaptation in the tourism sector, biodiversity or urban environments.
- Some available funding opportunities at a national level for adaptation to climate change are also presented.

- The regional climate change strategy was recently revised and updated. Its structure and main linkages and synergies to the potential LACAP are presented.
- At a regional level, other current plans such as the PATIVEL (Coastal Green Infrastructure Regional Plan) also take climate change into account, and should be considered in the development of a LACAP.
- At the local level, there isn't any approved climate change plan. The Covenant of Mayors initiative as a possible path towards the development of climate change and energy plans at a local level.

5. OBJECTIVES AND CONTENTS OF A CLIMATE CHANGE ADAPTATION PLAN

- Emilio Servera (UPV) summarizes the goals, expected outcomes and structure of a climate change adaptation plan.

CONCLUSIONS:

- The development of a LACAP for the La Mata-Torre Vieja pilot landscape should be based on already existing plans and agendas, which have been shown in the previous presentation.
- The definition of adaptation measures to climate change can be developed at different working scales and from different perspectives
- Defining adaptation measures through a plan would allow to improve and monitor their effectiveness and a better integration with existing programs and plans.
- Grey, green and hybrid approaches to climate change adaptation in urban environments are introduced.
- It is possible, and even necessary, to include specific standards regarding climate change mitigation and adaptation in urban planning

6. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- The major opportunities and barriers for the development of climate change adaptation actions, which were identified in Workshop1 and presented during the Workshop 1 Results Summary slideshow, could be considered the framework or basic structure for Tasks 1 and 2 (Identification of the potential role of the AELCLIC project in the landscape adaptation to climate change, and the Definition of the potential LACAP contents and actions). Those potential main lines of work were previously written in the flipchart, in order to serve as a reference during those tasks. The main parts of a potential plan (diagnosis, actions, monitoring, etc...) were also written in the flipchart to help to organize the discussion. The part in which every input was allocated is explicitly mentioned in this report.
- Potential key stakeholders could be identified in the Task 3 even if they were not present at the workshop.

7. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Carmen Gómez	LOCAL/REGIONAL AUTHORITY	Ajuntamiento Torre Vieja
Victor M. Costa	LOCAL/REGIONAL AUTHORITY	Ajuntament Orihuela
Carmen Morate	LOCAL/REGIONAL AUTHORITY	Ajuntamiento Torre Vieja
Jesús Sánchez	PRIVATE SECTOR	Empresa Mixta Aguas del Arco Mediterráneo, S.A. (AGAMED)
Angel Gilí	PRIVATE SECTOR	Acciona Servicios Urbanos
Jesús Hernández	PRIVATE SECTOR	Acciona
Manuel J. Pérez	PRIVATE SECTOR	Actúa, Servicios y Medio Ambiente
Delfina Giménez	PRIVATE SECTOR	Criterio Verde
Pedro D. Garcia	PRIVATE SECTOR	N.C.D. Salinas de Torre Vieja

CONCLUSIONS:

- The local network showed a high degree of continuity with the one established by the Torre Vieja City Council for the Workshop 1. The only missing stakeholders were the 4 attendants from the private sector who left in the coffee break during Workshop 1.
- The local network added two new representatives. A key private actor (the operating company in the salt mines), which was invited but did not take part in the workshop 1, was present at Workshop 2, in a very interesting addition to the network. The other new attendant was an additional, highest positioned, representative from a company which was already present in the first Workshop. This was also considered a very positive sign, since the representative who attended the first Workshop was also present again, and therefore it is understood that he gave a positive feedback from the session.
- Despite telephone contacts by the Torre Vieja City Council and UPV with the “Lagunas de La Mata y Torre Vieja” Natural Park director, once again no representative from the protected area attended the workshops. This was considered the key absence in the local network. There were again no representatives from the research sector and societal organizations.
- Remote participation was not promoted based on the limited success of the previous experience in the Huerta Pilot Landscape.

8. TEAMWORK

- **Task 1: How could the AELCLIC Project contribute towards the adaptation of the La Mata-Torre Vieja landscape to Climate Change?**
 - Key actors are missing
 - This kind of workshops is important. We need to talk about climate change.

- **Task 2: Which actions should be included in the Landscape Adaption Plan of the Pilot Landscape in order to achieve its intended objectives?**

- **DETAILED ANALYSIS/DIAGNOSIS**

- Analysis of local economic activity
- Pilot landscape analysis: protected areas, developed areas, green areas
- Geographic analysis: soils, aspect, groundwater, etc.
- Search of public spaces for potential green spaces
- Green walls
- Green roofs

- **PLAN ACTIONS**

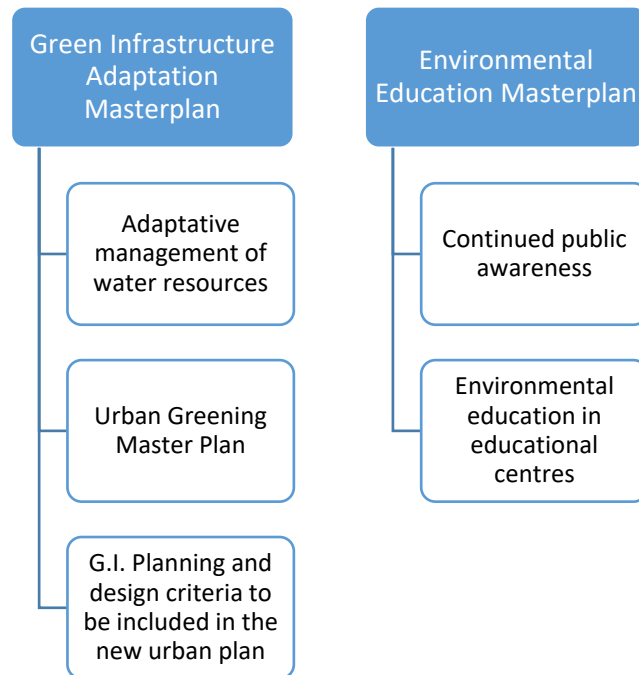
- New urban masterplan to free some soil
- Urban height growth
- Finding solutions for waterfront buildings
- Net-Zero Energy Buildings
- Promote less polluting transport methods
- Promote no pollution mobility (streets adjustment)
- Increase in green areas or finding sustainable alternatives
- Storm water plan (urban – natural park)
- Irrigation with reused water
- Use of rainwater
- Use of water storage systems
- Stop sea level rise in beaches and waterfront

- **RESULTS COMMUNICATION AND DISSEMINATION**

- Frequent public awareness campaigns
- The Lagoon, public awareness and knowledge
- Environmental education in education centres
- Environmental education
- Environmental education workshops
- Awareness on greenhouse gases
- Authorities awareness regarding climate change

- **MONITORING AND ASSESSMENT**

- Quick implementation of the selected measures



- **Task 3: Evaluation of potential levels of stakeholder involvement**

- **PUBLIC SECTOR**

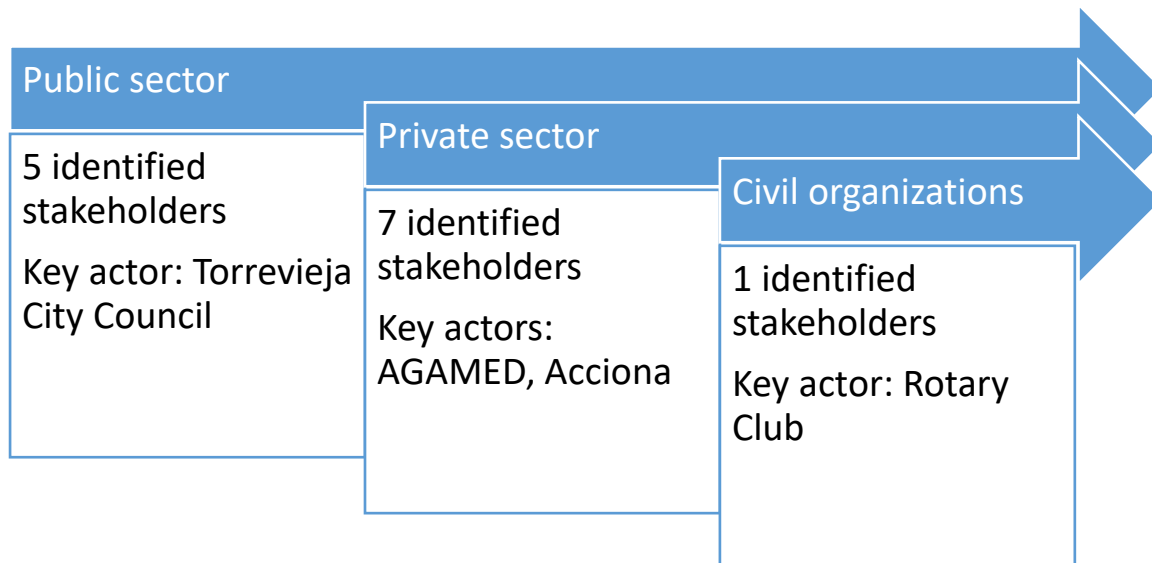
- Patrimonio Nacional (public organisation responsible for formerly Crown-owned goods and property. They are the owners of the La Mata and Torre Vieja Lagoons)
- Natural Parks Area. Regional Government
- Regional Environmental Department
- AGAMED. Aguas del Arco Mediterráneo (Public-private partnership)
- City Council of Torre Vieja
- Provincial Council of Alicante

- **PRIVATE SECTOR**

- ACCIONA
- Actúa, Servicios y Medio Ambiente
- Salins Group (Torre Vieja Salt Mines operating group)
- Criterio Verde Torre Vieja (Projec design, green areas, environmental education)
- Irrigation Association "Torre Miguel"
- MERCADONA
- CARREFOUR

- **CIVIL ORGANIZATIONS**

- Rotary Club Torre Vieja



9. ACKNOWLEDGMENT AND CLOSING REMARKS

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the workshop results.

CONCLUSIONS:

- The local network will be notified when the workshops reports are available on the AELCLIC webpage
- Some new participants in the workshop authorized adding their organizations to the already existing local network in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The local network in La Mata-Torrevejeja was increased with one of the previously detected missing key representatives from the private sector (the operating company in the salt mines), and another representative from one of the private companies which was already present. The contacts to involve any representative from the Natural Park were not successful. Teamwork took place again in a very pleasant environment and the attendants showed their interest in the project once more. / **ACTIONS:** Universitat Politècnica de València will send a letter of appreciation to all guests including the links to download the reports and materials presented in both workshops.
- The Torrevejeja City Council played again a key role in the organization of the Workshop by repeating the invitation to the main local stakeholders. The Workshop took place in the same well-suited local facilities, and the Council once more organized and sponsored the catering service for the coffee break. / **ACTIONS:** UPV thanked Torrevejeja City Council for their essential role in the development of the activities in the pilot landscape.
- It was agreed with the local network to move Task 1 (identification of ways in which the AELCLIC Project could contribute to the adaptation of the La Mata-Torrevejeja landscape to climate change) to the end of the teamwork part of the session. It was finally reformulated as an open discussion (not using post-its) regarding the AELCLIC experience as well as a moment for suggestions and criticism to the project. The stakeholders considered the AELCLIC project as dynamic and participatory. The experience of simultaneously sharing the points of view of many different relevant stakeholders was also positively highlighted. The need for awareness raising and environmental education was emphasized. It was also discussed the potential ways in which a project like this one could be promoted. The attendants agreed that climate change is already happening, and that action must start in the short term or the Natural Park will disappear / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.
- The main contents to consider in a potential Landscape Adaptation to Climate Change Plan in La Mata-Torrevejeja were identified. Two main components were identified: a green infrastructure adaptation masterplan, and an environmental education masterplan. Some contents that should be developed included, for instance, and urban greening master plan, or some green infrastructure planning and design criteria which could be included in the new urban plan / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project. They could also be directly included in the design of the new urban plan.
- The identification of the main actors who could take part in the development of a LACAP or support any potential funding application was also successful. 13 stakeholders were identified within the specific activity developed / **ACTIONS:** Any potential partnership interested in developing the La Mata-Torrevejeja LACAP in the future or any other kind of climate change adaptation plan in the area would be able to benefit from the evaluation of potential levels of stakeholder involvement.
- The new stakeholder confirmed their interest in being included in the AELCLIC web as part of the already existing La Mata-Torrevejeja Local Network. / **ACTIONS:**

Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to update the local network structure in the AELCLIC web.

- Another press release was prepared by the Torrevieja City Council before the workshop and uploaded into their web page (<http://www.torrevieja.es/sal/noticias/2019/10/Segundo%20taller%20estudio%20frente%20costero/index.aspx>). Some media distributed the news (e.g. <https://www.elperiodic.com/torrevieja/esta-tarde-celebra-segundo-taller-para-estudio-frente-costero-torrevieja-como-paisaje-piloto-representativo-suroeste-europa-646055>) and a local TV recorded a brief section of the workshop and showed it during a short report in the evening news (<https://www.torreviejaip.tv/politica/2019102326599/taller-para-el-estudio-del-frente-costero-de-torrevieja.html>). There was also presence in the workshop by another local web magazine, which took a small photographic report (<https://objetivotorrevieja.wordpress.com/2019/10/24/el-frente-costero-de-torrevieja-paisaje-piloto-representativo-del-suroeste-de-europa/>) / **ACTIONS:** Universitat Politècnica de València will circulate the press release, articles and media coverage, and include it in further reports regarding the societal impact of the project.
- The Bologna International AELCLIC Meeting took place after the La Mata – Torrevieja Workshop 2. The Torrevieja Local Council was identified as the key, leading member of the local network, and invited to represent it in the Bologna Meeting. Universitat Politècnica de Valencia / Las Naves would sponsor the travel expenses, at least partially. Finally, it was decided that Victor M. Costa, former municipal architect, would attend the meeting, where he made a brilliant presentation. / **ACTIONS:** The La Mata - Torrevieja pilot landscape was introduced to the representatives from other local networks from around Europe and took part in the further teamwork developed in the meeting. Víctor M. Costa was thanked for his outstanding work and interest and received a draft version of the International Meeting Report, allowing him to make any comments or suggestions if appropriate. He and the Torrevieja City Council will also be informed of any future news and be considered key actors regarding potential funding applications to develop the La Mata-Torrevieja LACAP.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Identification of the potential role of the AELCLIC Project in the adaptation of the La Mata-Torre vieja landscape to Climate Change). LEVEL OF ACHIEVEMENT: 3
 - o OUTCOME 2 (Definition of main contents and actions to be included in a potential La Mata-Torre vieja LACAP). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 3 (Evaluation of potential levels of stakeholder involvement for the development of a La Mata-Torre vieja LACAP). LEVEL OF ACHIEVEMENT: 4
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Despite telephone contacts by the Torre vieja City Council and UPV with the “Lagunas de La Mata y Torre vieja” Natural Park director, once again no representative from the protected area attended the workshop
 - o The Task 1 from the teamwork was re-scheduled and re-designed. However, it was also interesting to see the way it finally unfolded and the provided results.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Deep involvement by the Torre vieja City Council in organizing the workshop.
 - o Attendance from a new key stakeholder, e.g. representative from the operating company in the salt mines.
 - o Highly participative stakeholders with deep knowledge of the local landscape and genuinely interested in the project. High degree of continuity with the local network established by the Torre vieja City Council for the Workshop 1, and very interesting additions.
 - o Clear definition of the expected outcomes
 - o Good time planning
 - o Very useful reference materials from other AELCLIC workshops
 - o Adequate workshop location and preparation of materials
 - o Very good public dissemination of results, including TV and other local media.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Keeping the workshop length at 3 hours is considered the best option for this kind of workshop.
 - o Keeping a high degree of continuity from a workshop to the other increases the success of the activities. The local network was highly motivated after workshop 1, and kept their interest and positive mindset during workshop 2. Most of them were already familiar with the project and methodologies, and having attended the previous workshop avoided addressing again issues which were discussed in Workshop 1.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - o High. As mentioned in the Workshop 1 report, the stakeholders were knowledgeable about the municipality details, and therefore the discussion took place in both workshops from a very local perspective.

ACTIVITY: Workshop2_PARC NATURAL DE L'ALT PIRINEU_PILOT LANDSCAPE

DATE and TIME: 31.10.2019, 09:00-15:00

PLACE: Llavorsí (Lleida, Spain)

ORGANIZERS:

- Marc Garriga Lujan / Director of Parc Natural de l'Alt Pirineu (Territory and Sustainability Department, Catalunya Government)
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Marc Garriga Lujan / Alt Pirineu Natural Park
- Ramon Baulina / Observatori Meteorològic de Pallars
- Araceli Colomé Abrié / Municipality of Lladorre
- Cristina Simó / Ecomuseu Valls d' Àneu
- Lluís Pla / Meteopirineu
- Cristófol Cuadras / MeteoValldameu
- Raquel Conill Artigas / Universitat Autònoma de Barcelona
- Ramón Pérez Obiel / Universitat Autònoma de Barcelona
- Bernat Baylina / FGC Esport i Port Ainé
- Miquel Prat Sagalés / Sant Joan de L'Erm
- Jaume Comas Ballester / Volunteer
- Jesús Martín Martín / Lo Pi Negre (NGO)
- José Angel López López / Alt Pirineu Park Natural Volunteer (Geologist)

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing.
- Discussing the potential role of the AELCLIC Project in the adaptation of the Parc Natural de l'Alt Pirineu (PNAP) landscape to Climate Change.
- Definition of key actions or contents that should be included in a Parc Natural de L'Alt Pirineu Landscape Adaptation Plan to Climate Change (LACAP)
- Identification of main stakeholders and available resources towards the development of a Parc Natural de L'Alt Pirineu LACAP.

AGENDA:

1. Welcome and presentation
2. Introduction to the AELCLIC project
3. Potential local climate scenarios.
4. Workshop presentation and organization. Presentation of Participants
5. TEAMWORK SESSION 1
 - a. TASK 1: Identification of the Parc Natural de L'Alt Pirineu core values.
 - b. TASK 2: Identification of climate change effects on the Parc Natural de L'Alt Pirineu landscape.
 - c. TASK 3: Brainstorming about possible solutions to the identified effects and barriers.*Coffee break.*
6. Parc Natural de L'Alt Pirineu climate change adaptation planning framework
7. Objectives and Contents of a Climate Change Adaptation Plan.

8. TEAMWORK SESSION 2

- a. TASK 1: Identification of the role of the AELCLIC Project in the adaptation of the Parc Natural de L'Alt Pirineu landscape
- b. TASK 2: Identification of main contents and actions within a Parc Natural de L'Alt Pirineu LACAP.
- c. TASK 3: Identification of main actors and resources towards the development of a Parc Natural de L'Alt Pirineu LACAP

9. Acknowledgment and closing remarks.

1. WELCOME

- Welcoming words and introduction by Marc Garriga Lujan (Director of Parc Natural de l'Alt Pirineu)

2. INTRODUCTION TO THE AELCLIC PROJECT

- Francisco Galiana (UPV) summarizes the goals, expected outcomes, and structure of the project, as well as the location and reasons for the selection of the Parc Natural de L'Alt Pirineu Pilot Landscape. The AELCLIC web page is presented.

CONCLUSIONS:

- The AELCLIC project is presented as a project with a strong focus on the user needs at each of the 16 selected pilot landscapes
- The main objective of the current project is the definition of a series of strong local networks, in order to co-define the structure and content definition for future Landscape Adaptation Plans to Climate Change (LACAP), which would be developed in a future project.
- The participation of the PNAP in the AELCLIC-PATHFINDER project, and therefore the development of the current workshop, was approved by the Natural Park Governing Board on its regular meeting which took place on October 4th 2019.

3. POTENTIAL LOCAL CLIMATE SCENARIOS

- Emilio Servera (UPV) briefly reviews some existing datasets, which already show some observed climate change effects in the Pyrenees and the Natural Park. Global and regional climate change scenarios are then introduced, and the most important expected changes over temperature, rainfall, snow depth, snow water equivalent and flood risk in the Parc Natural de L'Alt Pirineu pilot landscape are presented.

CONCLUSIONS:

- Climate change effects are already significant in the Pyrenees, in general, and the Natural Park, in particular.
- The PNAP will be warmer and snow will reduce. Flood risk will increase but the change magnitude is not significant. The rainfall regime will change too.
- Those expected changes should be considered in deciding the future of the Natural Park.
- At this work scale, the potential influence regarding the magnitude of the climate change that will happen in the Parc Natural de L'Alt Pirineu is very small. However, starting to work on adaptation on a local/regional level can be key regarding the way such change is answered.

4. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes would be later placed on several large paper sheets, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- Potential key stakeholders could be identified in the Task 2 even if they were not present at the workshop.
- The large paper sheets were placed on a wide cork wall, which made it possible to keep them visible simultaneously during both teamwork sessions.
- This workshop included most of the activities which were developed in two different workshops in the rest of the pilot landscapes of the Work Package 4 of the AELCLIC Project due to the reasons explained in the Workshop 1 report.
- The main parts of a potential plan (diagnosis, actions, monitoring, etc...) were written in the flipchart to help to organize the discussion around the main LACAP contents. The part in which every input was allocated is also explicitly mentioned in this report.

5. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Marc Garriga	LOCAL/REGIONAL AUTHORITY	Parc Natural de l'Alt Pirineu
Araceli Colomé	LOCAL/REGIONAL AUTHORITY	Ajuntament de Lladorre
Cristina Simó	PUBLIC SECTOR	Ecomuseu Valls d' Àneu
Raquel Cunill	RESEARCH	Universitat Autònoma de Barcelona
Ramón Pérez	RESEARCH	Universitat Autònoma de Barcelona
Bernat Baylina	PRIVATE SECTOR	FGC Espot i Port Ainé
Miquel Prat	PRIVATE SECTOR	Sant Joan de l' Erm
Jesús Martín	SOCIETAL ORGANIZATION	Lo Pi Negre Associació Ambientalista
José Angel López	SOCIETAL ORGANIZATION	Volunteer at Parc Natural de l'Alt Pirineu
Lluís Pla	SOCIETAL ORGANIZATION	Meteopirineu
Cristòfor Cuadras	SOCIETAL ORGANIZATION	Meteo Valls d'Àneu
Ramón Baylina	SOCIETAL ORGANIZATION	
Jaume Comas	SOCIETAL ORGANIZATION	

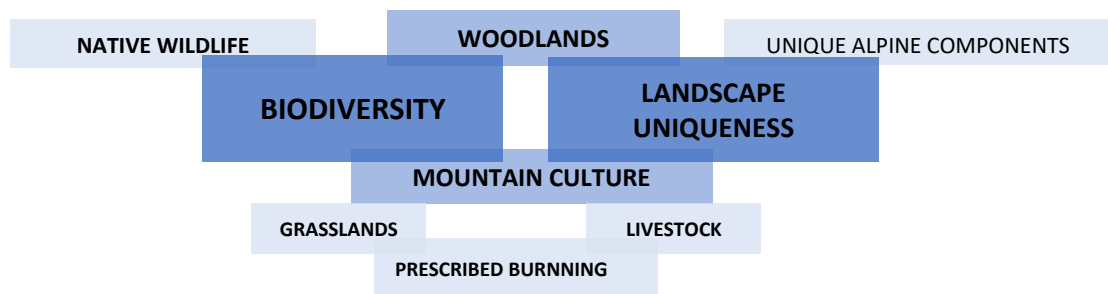
CONCLUSIONS:

- The local network was again contacted and invited, as in Workshop 1, by the Director of Parc Natural de l'Alt Pirineu (Territory and Sustainability Department, Catalunya Government)
- The composition of the local network changed from Workshop 1 because, as already mentioned in the relevant report, the Governing Board who acted as local network for the activation of the pilot landscape won't meet again until next year. The Natural Park Director, based on inputs by the UPV, invited for this workshop a local network more suited to the objectives of the activity, including private sector representatives (tourism and other leisure activities) and local specialists with a high level of knowledge regarding the area, the activities that take place there, and relevant local issues. There is also presence from the research sector, and therefore the local network is considered as highly appropriate, balanced and knowledgeable.
- Remote participation was not allowed since the workshop took place in a very late date, due to the specific approval process of the participation in the AELCLIC project of this pilot landscape, and therefore there was no additional available time.

5. TEAMWORK SESSION 1

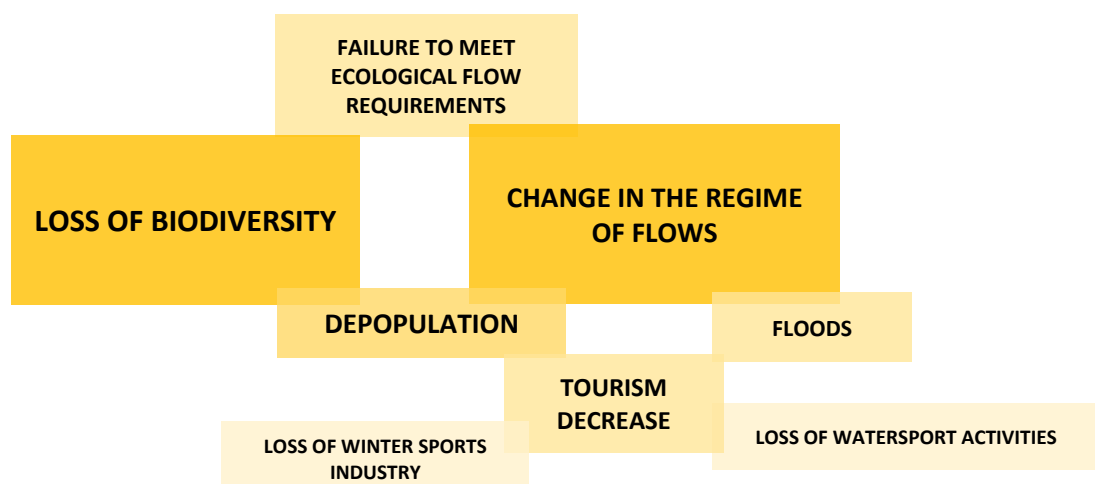
- **Task 1: Which are the values that better represent the landscape of Parc Natural de L'Alt Pirineu?**
 - ENVIRONMENTAL
 - Biodiversity due to climatic differences
 - Vegetation cover diversity both in altitude and latitude (climate conditions)
 - Pyrenean wildlife and flora endemisms
 - Black pine (*Pinus uncinata*) woods
 - Black pine forests
 - Birch forests
 - Large silver fir populations of the southern Pyrenees
 - Large areas of woodland never seen before showing sustained growth
 - Species, population and natural systems conservation
 - Wild fruits
 - Glacial lakes
 - Rock glaciers
 - Streams
 - Boxwood
 - Native wildlife
 - Bearded vulture
 - Grouse
 - Brown bear
 - Muskrat of the Pyrenees
 - SOCIAL
 - Quality of Pyrenean rural life
 - Culture of fire (Prescribed burning)
 - Protected local livestock breeds
 - CULTURAL- PAISAJÍSTICA
 - Culture of fire management
 - Dynamic millenary cultural landscape
 - Ancestral symbiosis between man and the environment
 - Historically manmade mountain landscape

- Mosaic landscape of forest, pastures and thickets
- Landscape well marked by the seasons
- **ECONOMIC**
 - Glacial lakes
 - Forest policy
 - The uniqueness of the forests is a growing attraction highly valued by visitors.
 - Economic changes caused by external factors (misrepresentation of isolation)
 - Adventure activities in rivers and ravines
 - Hiking
 - Snow tourism awareness
 - High economic value of the landscape
- **OTHER**
 - Balance between human economic activity and natural values
 - Rural tracks and roads



- **Task 2: Which are the Climate Change effects on the landscape of the Parc Natural de L'Alt Pirineu?**
 - **TEMPERATURE**
 - Change in the diversity of plant and animal species
 - Invasive plants
 - Loss of ecosystems
 - Extinction of sensitive species
 - Disappearance or depletion in the most sensitive animal populations
 - Wildlife retreat
 - Increase of forest pests, especially pine processionary
 - Change in the behavior of insects, their function as a principal source of feed for other species (pine processionary)
 - Pests impacts at a higher altitude (pine processionary and other)
 - Displacement of unique species to higher areas
 - Displacement of forest and non-forest altitudinal clines
 - Pastures increase and anticipation
 - Polluted water in high altitude glacial lakes (because of the southern winds)
 - Temperature increase in river water
 - Risk of catastrophic Wildfires
 - Snowmaking at ski resorts
 - Severe impacts in the tourism sector
 - Impacts on high-altitude hiking (excessive heat)
 - Avalanches increase
 - Changes in food production such as mushrooms, berries and orchards
 - Increase in the number of visitors due to the temperature increase

- **RAINFALL**
 - Increase in erosion and landslides as a result of changes in vegetation cover
 - Impacts on pasture areas
 - Impacts due to the increase in vegetation cover (lack of forest extraction)
 - Changes in food production such as mushrooms, berries and orchards
 - Failure to comply with the ecological flows due to excessive use of water
 - Death of aquatic species as a result of the decrease in flows
 - Impacts on whitewater activities (decrease and irregularity of flows)
 - Lack of water in the villages and water pollution
- **FLOOD RISK**
 - Floods
 - Increase in flood risk
 - Immediate landscape changes (even faster than wildfires)
 - Rafting and water sports
- **SNOW DEPTH DECLINE**
 - Total loss of snow cover
 - Winter Sports Industry instability
 - Ski areas
 - End of skiing
 - Loss of ski resorts
 - Change of the snow tourism system
 - Decrease in snow season length
 - Loss of glaciers
 - Not enough water flow for river sports at August (snowmelt)
 - Difficulty of hydroelectric production (snowmelt)
- **OTHER**
 - Paradoxical population increase
 - Human depopulation
 - Forest revaluation
 - Snow revaluation
 - Changes in cultural paradigms
 - Strong winds



Task 3a: Which are the potential answers to the identified Climate Change effects?

○ TEMPERATURE

- Forestry activities improvement
- Need for changes in forest policy
- Agreed forest policy in order to facing threats (invasive species, fires, economic exploitation, avalanches, floods,)
- Coordination of authorities competences based on common objectives
- Alternative plans from ski resorts and administration
- Opportunity to plan and anticipate
- Burning plans
- Changes in the agricultural model. Promotion of agriculture in abandoned grasslands. Subsidies and advice
- No solution: leave it to nature

○ RAINFALL

- Lengthening of the summer season
- Lengthening of mountain grassland season.
- Lengthening of the tourism season (hiking)
- Shades on the streets and squares of the villages

○ FLOOD RISK

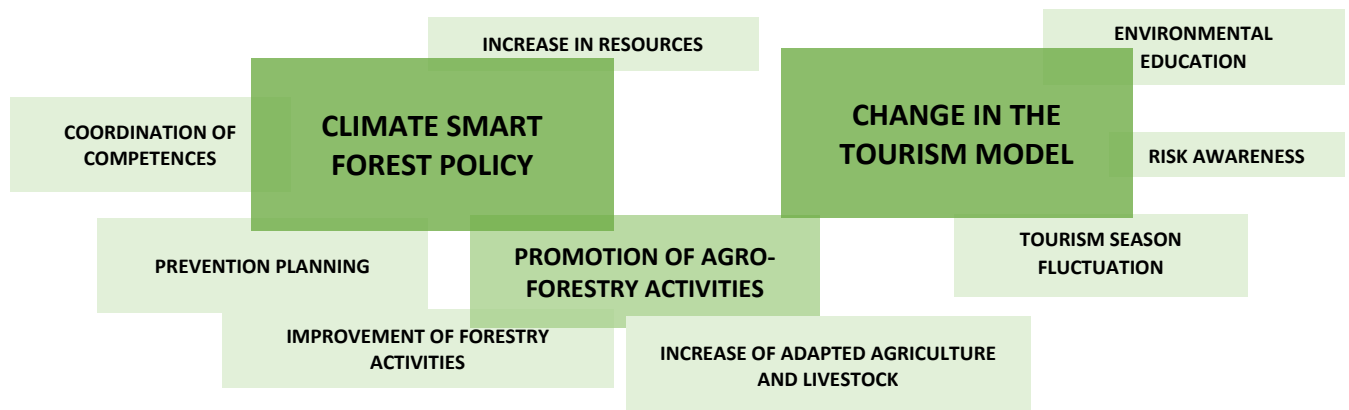
- Landslides due to the lack of retaining walls and embankments
- Tourist awareness, risk warning

○ SNOW DEPTH DECLINE

- Rural repopulation
- Involvement of local population
- Environmental education
- Change of the tourism industry in the Pyrenees (mild temperatures in winter)
- Forget tourism. The Pyrenees will have to be recovered as a priority agriculture and livestock area

○ OTHERS

- Improvement of grassland irrigation systems. Water saving
- Increase of agricultural areas: orchards, vineyards, etc.
- Herds of goats. Forest underbrush clearing.
- Municipally-owned herds
- To recover the most adapted sheep and goat breeds
- Electric transportation promotion
- Increase in renewable energy
- To obtain economic resources for conservation purposes
- R&D investment. Opting for proximity tourism (lower CO2 emissions)



- **Task 3b: Which are the threats or weaknesses that could prevent the implementation of those opportunities for resolution?**

- **TEMPERATURE**

- Lack of government support
 - Greater involvement by ACA (Catalan Water Agency) and CHE (Ebro River Basin Authority) in the area
 - Greater involvement of EU organisms in adaptation policies and reducing climate change impacts
 - National and regional centralist policies
 - Not really a priority objective of the political class
 - Trying to conserve the primary forest can be a threat to the ecosystem
 - Capitalist system

- **RAINFALL**

- Plans and protocols regarding floods, and defining risks

- **FLOOD RISK**

- **SNOW DEPTH DECLINE**

- **OTHERS**

- Depopulation. Lack of human activity in the forest
 - Rural depopulation
 - High dependence on tourism
 - Overcrowded tourist destination in peak times
 - Lack of environmental awareness by people and politicians (Education)
 - Lack of awareness of the local population ("change is far away from here")
 - Decrease in livestock activity over time
 - Loss of traditional activities (primary sector)
 - Exploitation of natural resources. Mining operations, wind energy, hydro energy
 - Irreversible climate change (change of tourism model of ski resorts)
 - Lack of cleaning in the riverbed, riverine forests
 - Excessive forest undergrowth
 - Overpopulation of invasive-alien species
 - Park fire risk prevention plan



6. PARC NATURAL DE L'ALT PIRINEU CLIMATE CHANGE ADAPTATION PLANNING FRAMEWORK

- Emilio Servera (UPV) presents the main plans and strategies related to climate change that should be taken into account for the development of a PNAP LACAP.

CONCLUSIONS:

- At the national level, there is a National Adaption to Climate Change Plan, in force since 2006. Several works and reports developed in the frame of this national plan are relevant to the pilot landscape, e.g. in relation to adaptation in the winter sports sector, biodiversity or extensive farming.
- Some available funding opportunities at a national level for adaptation to climate change are also presented.
- The structure of the regional climate change strategy is reviewed. Its and main linkages and synergies to the potential LACAP are presented.
- The regional climate change law is also quickly analyzed. It includes relevant sections such as the need to update protected areas plans in order to include adaptation to climate change.
- At a regional level, other current plans such as the PATIVEL (Coastal Green Infrastructure Regional Plan) also take climate change into account, and should be considered in the development of a LACAP.
- At the local level, there are some climate plans approved or in the drafting stage.
- The Natural Park already considers climate change adaptation within its biodiversity monitoring plan. The PNAP doesn't have any management plan yet.

7. OBJECTIVES AND CONTENTS OF A CLIMATE CHANGE ADAPTATION LANDSCAPE PLAN.

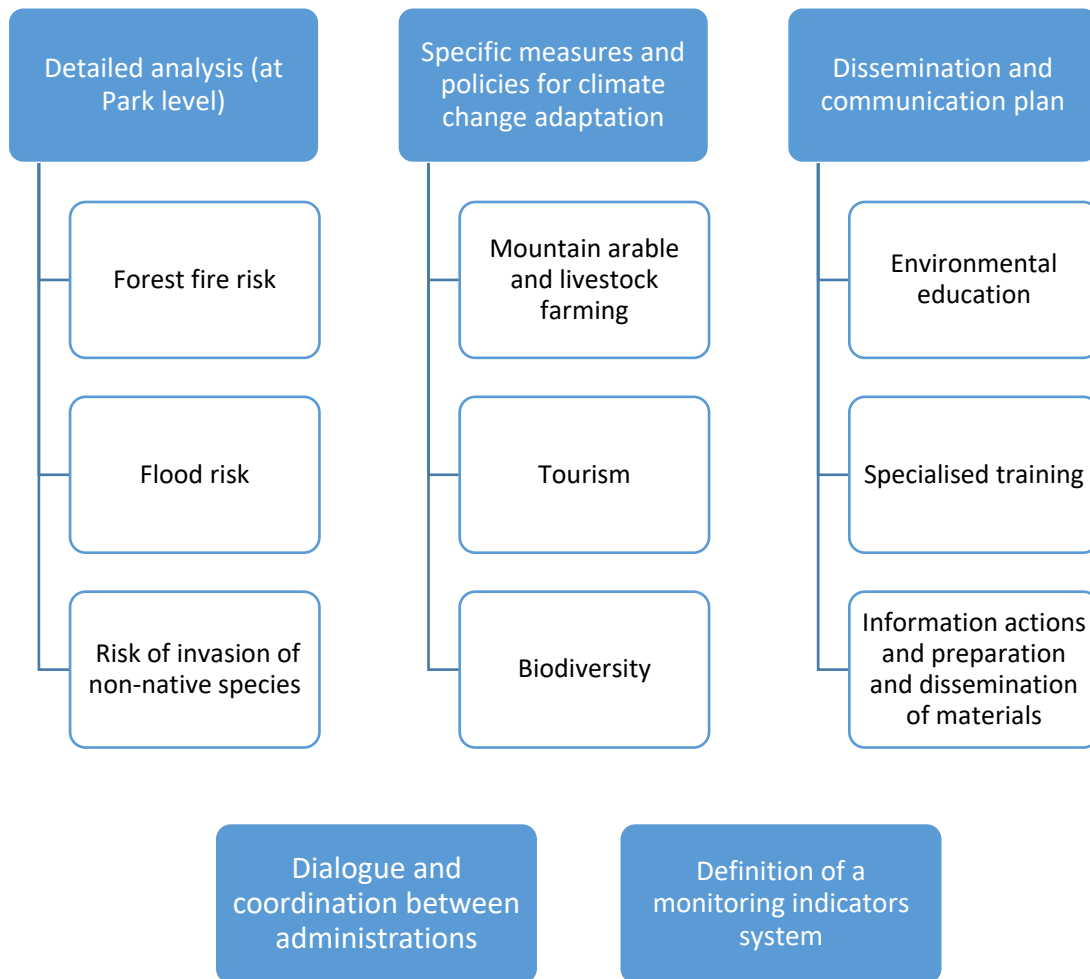
- Emilio Servera (UPV) summarizes the goals, expected outcomes and structure of a climate change adaptation plan

CONCLUSIONS:

- The definition of adaptation measures to climate change in Parc Natural de L'Alt Pirineu can be developed at different working scales and from different perspectives
- Defining those measures through a plan would allow to improve and monitor their effectiveness and a better integration with existing programs and plans
- A consortium approach is a good option for developing and executing adaptation plans

8. TEAMWORK SESSION 2

- **Task 1: How could the AELCLIC Project contribute towards the adaptation of the PNAP landscape to Climate Change?**
 - Coordination among every landscape. Communication?
- **Task 2: Which actions should be included in the Landscape Adaption Plan of the Pilot Landscape in order to achieve its intended objectives?**
 - **DETAILED ANALYSIS/DIAGNOSIS**
 - Good synthesis of every study at the park scale
 - Inventory of what might disappear
 - Hidrologic risks Identification. Floods
 - Fire risk zoning.
 - Diagnosis of key attack points in case of forest fire
 - Assessment of risk zones of invasion of alien species
 - Flood risk mapping in inhabited areas (impacts on infrastructures)
 - Better understanding of the climate in the park and its assessment on a local scale
 - Gathering scientifically robust empirical data on the evolution of climate in the PNAP
 - Project at county escale
 - Fire prevention in fir forests
 - **PLAN ACTIONS**
 - Mapping of high value agricultural areas which shouldn't be developable
 - Coordination of climate change and global change (socio-cultural)
 - Dialogue with the political class. To pursue commitments
 - Optimization of tourism management.
 - Better control on human impact
 - Changes in livestock management. New livestock policies (goats)
 - Climate adaptation policies in other recreational and agricultural activities
 - Mapping of specific special areas and their risks (glaciers, wetlands)
 - Impacts on the unique species of the NP
 - **RESULTS COMMUNICATION AND DISSEMINATION**
 - Share results (Schools, town halls, agricultural cooperatives, civil society, Hospitality / tourism)
 - Environmental education on the consequences of climate change in the Pyrenees
 - Environmental education. Project Explanation
 - Environmental education and interpretation (permanent education for the whole population
 - Business training, brigades, teaching
 - Publication of demonstrative adaptation and mitigation actions and dissemination through seminars
 - **MONITORING AND ASSESSMENT**
 - Permanent assessment of every action

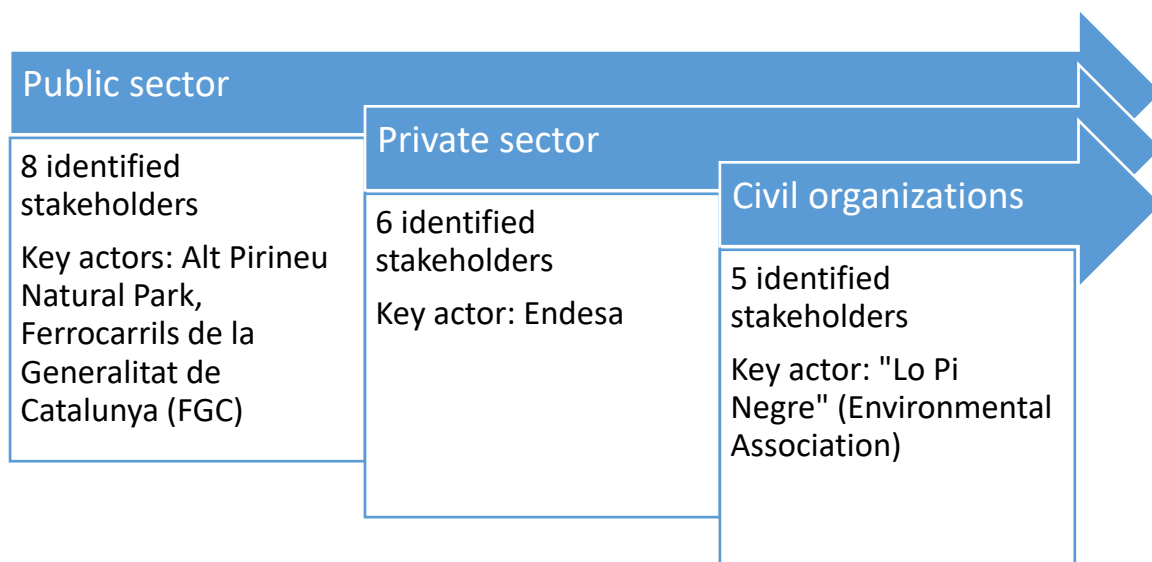


• Task 3: Evaluation of potential levels of stakeholder involvement

○ PUBLIC SECTOR

- Parc Natural de L'Alt Pirineu / Generalitat (own budgets and outsourcing if territorial support is reached)
- Regional Government of Catalonia. New resources from 2021 from the vehicle CO2 tax for "climate change and biodiversity actions"
- National Park
- Lleida Provincial Council
- County Council
- Railways of the Government of Catalonia (skiing resort infrastructures)
- GRAMP-UAB. Research Group in Mountain and Landscape Areas - Autonomous University of Barcelona (Contribution of scientific data on the evolution of climate and plant landscape).
- Local councils
- La Caixa Foundation
- IDAPA. Institute for the development and promotion of l'Alt Pirineu i Arán. Department of Territory and sustainability. Government of Catalonia.

- ACA. Catalan Water Agency. Government of Catalonia
- CHE. Ebro River Basin Authority. Spanish Government.
- PRIVATE SECTOR
 - ENDESA
 - Logging enterprises association
 - Catering Association
 - Sort Lottery Administration.
 - Adventure sports companies
 - Baqueira Beret ski resort
- CIVIL ORGANIZATIONS
 - Catalonia La Pedrera Foundation
 - Lo Pi Negre (NGO, environmental association of Pallares Sobirà)
 - Catalan Fishing and Casting Federation
 - Catalan Hunting Federation
 - Nature Conservation Network



9. ACKNOWLEDGMENT AND CLOSING REMARKS

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the workshop results.

CONCLUSIONS:

- The local network will be notified when the workshops reports are available on the AELCLIC webpage
- Some participants in the workshop authorized adding their organizations to the PNAP local network in the AELCLIC webpage.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- The inclusion of the Alt Pirineu Natural Park landscape in the AELCLIC project required the previous approval by the Governing Body of the Natural Park, as previously explained in the Workshop1 report. This workshop, according to the workplan selected by the PNAP Governing Board in the Workshop1 of this Pilot Landscape, bundled tasks pertaining to the Workshops 1 and 2, in the other pilot landscapes of the AELCLIC WP4, or in Workshops 2 and 3, in other Work Packages of the AELCLIC Project. / **ACTIONS:** The timing and methodology of the tasks was adjusted by UPV in order to be able to develop all of them in a single morning. Results from all those activities are compiled in this report.
- The organization of the Workshop by the Parc Natural de l'Alt Pirineu was again excellent. Contacts with local stakeholders and other invited experts were successful even if the available time to organize the workshop was much shorter than with the First Workshop (less than one month in advance). There were constant contacts with the UPV during the organizational phase in order to agree a program for the session. The UPV was also informed at different points as the list of confirmed attendants was being filled. The Workshop took place again in the same excellent facilities in the pilot landscape as Workshop 1 (local social welfare centre in Llavorsí, kindly made available by the local council). The PNAP also sponsored some tea/coffee, drinks and excellent local sweets for the attendants coffee-break. / **ACTIONS:** UPV thanked the Parc Natural de l'Alt Pirineu Director and staff for their essential role in the development of the activities in the pilot landscape.
- The Parc Natural de l'Alt Pirineu local network was very comprehensive and knowledgeable through both morning workshop sessions. The stakeholders showed especially very high interest at the initial presentations. For instance, during the slideshows regarding "Potential local climate scenarios", questions were constantly raised, leading to a very constructive debate around the need for more detailed data, given the significant climate differences among the different PNAP areas. Even if the number of stakeholders was not too high, they were able to successfully develop the main tasks, providing a wide perspective to adaptation to climate change in the area. / **ACTIONS:** UPV thanked the attendants for their intense work during the morning, and the Parc Natural de l'Alt Pirineu Director for successfully achieving a more diverse network, with balanced representation between all the main relevant sectors.
- Several stakeholders confirmed their interest in being included in the AELCLIC web as part of the Parc Natural de l'Alt Pirineu Local Network. / **ACTIONS:** Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to include the local network structure in the AELCLIC web.
- Landscape singularity and high biodiversity were at the center of the wide variety of landscape values identified by the stakeholders. The existence of a mountain culture and the importance of woodlands in the landscape were also highlighted. The presence of agro-forestry activities increases the importance of preserving resources such as livestock and grasslands, which are essential to the character of the pilot landscape. It is remarkable that all these values were also considered as the potential basis for the development of new economic opportunities based on the landscape. / **ACTIONS:** Any future LACAP should take into account not only the climate change impacts in the natural values, but also the socio-cultural values which are directly linked to the local population and their economic activities.

- The main potential identified climate change impacts focused on losing the high biodiversity value and the risk of changes in the regime of flows, and the subsequent cascading impacts, from depopulation to the tourism activities. There is a high uncertainty in relation to the winter sports industry, due to potential dramatic changes in snow cover and depth. Other activities in the area such as rural tourism were highlighted, focusing the discussion on the potential negative impacts on the area economy / **ACTIONS:** Universitat Politècnica de València addressed many of the identified impacts from a planning perspective in the presentations that took part in the second half of the morning.
- The main answers to the identified climate change impacts clustered around the development of climate-smart agro-forestry policies, and the required changes in the tourism model. The need for improved environmental education and risk awareness was also highlighted, following a common trend among every WP4 pilot landscape / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP or a similar plan in a future project.
- The lack of implication by authorities and the loss of traditional activities were considered the main barriers in order to advance towards the potential answers to climate change identified in the landscape pilot project. Some stakeholders insisted on the excessive dependence on tourism and the lack of permanent population / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP or a similar plan in a future project.
- The presentations during the second part of the workshop were again remarkable. They covered in detail every identified main topic which should be addressed through a LACAP in the Parc Natural de l'Alt Pirineu. They were a perfect supplement to the presentations developed during the first part of Workshop. / **ACTIONS:** UPV will upload every presentation to the AELCLIC Webpage, within the "Materials" file of the Workshop.
- Given the high number of activities and the limited time, the stakeholders decided to focus on Tasks 2 and 3 in the Teamwork session 2. The only proposal made regarding the Task 1 was to assign a coordination and communication role to the AELCLIC project. / **ACTIONS:** The potential contribution of the AELCLIC project to the adaptation of the PNAP landscape to climate change can be indirectly inferred from the results of Task 2.
- The main contents to consider in a potential Parc Natural de l'Alt Pirineu Landscape Adaptation to Climate Change Plan were identified. The stakeholders established the main scope of the diagnosis, which should not adjust to the strict Park boundaries, but include its socio-economic influence area as well. Some priorities (such as establishing detailed analysis at Park level and related with main risk threats, promoting specific measures and policies for climate change adaptation or achieving a real dialogue and coordination between administrations), as well as the need to develop some pilot projects and establish a monitoring indicators system were also identified. / **ACTIONS:** All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.
- The identification of the main actors who could take part in the development of a LACAP or support any potential funding application was also successful. 19 stakeholders were identified within the specific activity developed, but most of them

were not present. / **ACTIONS:** Any potential partnership interested in developing the Parc Natural de l'Alt Pirineu LACAP in the future would be able to benefit from the evaluation of potential levels of stakeholder involvement.

- The Parc Natural de l'Alt Pirineu Direction asked UPV for a draft press release in order to disseminate the pilot landscape participation in the AELCLIC project. The draft press release was provided by the UPV and vastly improved by the press and communication office of the Regional Land Management and Sustainability Department. The press release was issued on the day before the workshop (<https://govern.cat/govern/docs/2019/10/30/10/27/733ac2c3-3278-4b57-ba1d-a277596ef8c9.pdf>) and had a high impact. It was distributed by many of the main Spanish and Catalan media (i.e. <https://www.europapress.es/epagro/noticia-cambio-climatico-parc-lalt-pirineu-participa-plan-europeo-contra-efectos-cambio-climatico-20191030131934.html> or <https://www.lavanguardia.com/local/lleida/20191030/471290681288/catalunya-el-parc-de-lalt-pirineu-participa-en-un-plan-europeo-contra-los-efectos-del-cambio-climatico.html>) and also by many other departments of the regional government (<https://canviclimatic.gencat.cat/ca/actualitat/noticies/Noticia/AELCLIC>) or even the Barcelona European Comission Office (<https://ec.europa.eu/spain/barcelona/news/el-parc-natural-de-l%E2%80%99alt-pirineu-participar%C3%A0-en-un-projecte-europeu-estudiar-els-efectes-del-ca>). The press release was also included later in the monthly environmental newsletter published by the regional government (http://territori.gencat.cat/es/01_departament/documentacio/medi_ambient_i_sostenibilitat/publicacions_periodiques/butlletins_electronics/butlleti_ma/any-2019/numero-475)/ **ACTIONS:** Universitat Politècnica de València will include the press articles in further reports regarding the societal impact of the project.
- The Bologna International AELCLIC Meeting took place two weeks after the Workshop. The PNAP Director was identified as the key, leading member of the local network, and invited to represent it in the Bologna Meeting. Universitat Politècnica de Valencia / Las Naves would sponsor the travel expenses, at least partially. Finally, prior commitments prevented the Director or any other representative from the Parc Natural de l'Alt Pirineu board to attend the meeting. However, the Park Director was able to prepare an excellent slideshow to contribute to the International Meeting with their perspective of the AELCLIC Project and the potential future development of a LACAP in the Parc Natural de l'Alt Pirineu / **ACTIONS:** UPV was in charge of presenting the excellent slideshow prepared by the Parc Natural de l'Alt Pirineu in Bologna. The Parc Natural de l'Alt Pirineu pilot landscape was therefore introduced to the representatives from other local networks from around Europe, and subsequently taken into account in the further teamwork developed in the meeting. The Parc Natural de l'Alt Pirineu board was thanked for their outstanding work and received a draft version of the International Meeting Report, allowing them to make any comments or suggestions if appropriate. They will also be informed of any future news and be considered a key actor regarding potential funding applications to develop the Parc Natural de l'Alt Pirineu LACAP.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Diagnosis and co-identification of Climate Change impacts and opportunities in the local economy, ways of living, environment, cultural heritage and levels of wellbeing). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 2 (Identification of the potential role of the AELCLIC Project in the adaptation of the PNAP landscape to Climate Change). LEVEL OF ACHIEVEMENT: 2
 - o OUTCOME 3 (Definition of main contents and actions to be included in a potential Parc Natural de l'Alt Pirineu LACAP). LEVEL OF ACHIEVEMENT: 5
 - o OUTCOME 4 (Evaluation of potential levels of stakeholder involvement for the development of a LACAP in Parc Natural de l'Alt Pirineu). LEVEL OF ACHIEVEMENT: 4
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o The work session was quite long and two of the stakeholders from the private sector excused their presence at the end of workshop.
 - o Including Task 1 (Identification of the potential role of the AELCLIC Project in the adaptation of the PNAP landscape to Climate Change) in the Teamwork session 2 was too ambitious. However, this was quickly detected in order to move on to the following tasks without further delay.
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o Excellent organizing work by the PNAP. As mentioned in the previous report, it was decided that the Natural Park Director, based on inputs by the UPV, would invite for this workshop a local network more suited to the objectives of the activity, including private sector representatives (tourism and other leisure activities) and local specialists with a high level of knowledge regarding the area, the activities that take place there, and relevant local issues. This was successfully accomplished, and the local network included highly participative and knowledgeable stakeholders, which were very interested in the topic and made a significant effort in order to successfully develop a very intensive work session.
 - o Good preparation of materials by UPV. Ability to adjust to the workplan selected in Workshop 1, which was very intensive and demanding.
 - o Teamwork sessions and presentations by the UPV were alternated in order to make the workshop more dynamic and reduce tiredness by the attendants. The coffee break, based on local, high-quality products, organized and sponsored by the PNAP, was also key in order to provide a needed boost for the second half of the workshop.
 - o Ability by the UPV to re-adjust a very busy workshops schedule in order to be able to find a new date for this workshop, after the initially agreed date was discarded by the PNAP.
 - o Clear definition of the expected outcomes.
 - o Very useful reference materials from other AELCLIC workshops. Some materials from the Workshop 1 in this same landscape were used again too, due to the unique workplan that was followed in this pilot landscape due to its singularities.
 - o Attending to the whole PNAP Governing Board meeting which took place in the beginning of the same month was very useful in terms of gaining inside knowledge of the Natural Park management and priorities.
 - o Excellent facilities.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Organizing and facilitating a workshop 6 hours long is a very challenging activity. However, it is possible to develop it successfully based on good planning and materials, and provided that the local network shows a very high level of interest and effort.

- **Learnt lessons and recommendations for future activities in the same place:**
 - See previous section.
- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - High. As already mentioned, developing successfully a workshop so intense and demanding can only be achieved if the local network shows a very high commitment.

ACTIVITY: Workshop2_SERRES D'ANCOSA_PILOT LANDSCAPE

DATE and TIME: 8.11.2019, 11:00-14:00

PLACE: Orpí (Spain), Can Morei

ORGANIZERS:

- Teresa Cervera / Centre de la Propietat Forestal
- Francisco Galiana / Universitat Politècnica de València
- Emilio Servera / Universitat Politècnica de València

PARTICIPANTS:

- Daniel Gutiérrez / Consell Comarcal de l'Anoia
- Silvia Escolano / Diputació de Barcelona
- Teresa Cervera / Centre de la Propietat Forestal
- Joaquim Garcia / Centre de la Propietat Forestal
- Teresa Baiges / Centre de la Propietat Forestal
- Asier Larrañaga / Bombers GenCat
- Robert Savé / IRTA
- Santiago Cerdà / Cal Llenç
- Georgina Saumell / Cellar Mas Rodó
- Rosa María García / Masia Sopera
- Lluís Cuadras / Can Morei
- Marc Talavera / Col·lectiu Eixarcolant
- Joan Amado / Agrupació de Defensa Forestal Castellví de la Marca
- Lluís Vich / Associació de propietaris forestals Serralada Prelitoral Penedès
- Ferran Roses / Associació de propietaris forestals Serralada Prelitoral Penedès
- Jaume Olivella / Associació de propietaris forestals Serra Miralles-Orpinell
- Francesc Sabaté / Associació de propietaris forestals Serra Miralles-Orpinell
- Jordi Reixach / Associació de propietaris forestals Serra Miralles-Orpinell

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

- Definition of key actions or contents that should be included in a Serres d'Ancosa Landscape Adaptation Plan to Climate Change (LACAP)
- Identification of main stakeholders and available resources towards the development of a Serres d'Ancosa LACAP.

AGENDA:

1. Welcome and presentation.
2. Wildfire prevention strategies adjusted to forest fires generations
3. Drylands, highly uncertain landscapes
4. Forest management contribution to the adaptation of Serres d'Ancosa
5. Landscape values and sustainable tourism
6. Workshop 1 results summary
7. Objectives and contents of a climate change adaptation plan
8. Workshop presentation and organization. Presentation of participants.
9. TEAMWORK
 - a. TASK 1: Identification of main contents and actions within a Serres d'Ancosa LACAP.
 - b. TASK 2: Identification of main actors and resources towards the development of a Serres d'Ancosa LACAP.
10. Closure.

1. WELCOME

- Welcoming words by Teresa Cervera (Centre de la Propietat Forestal)

2. WILDFIRE PREVENTION STRATEGIES ADJUSTED TO FOREST FIRE GENERATIONS

- Asier Larrañaga (Regional Fire Department) explains the main identified “fire generations” and provides multiple examples:

CONCLUSIONS:

- 6th generation fires are related to climate change, and have catastrophic consequences, due to elements such as “firestorms”
- This kind of 6th generation fire has not taken place in Catalonia yet
- An example of 6th generation fire in June 2017 in Portugal is reviewed.

3. DRYLANDS, HIGHLY UNCERTAIN LANDSCAPES

- Robert Savé (IRTA) summarizes potential climate change impacts on drylands with a special focus on the area:

CONCLUSIONS:

- The IRTA institute is working on several projects on the area, mainly regarding potential impacts of climate change in vineyards, such as CIEN GLOBALVITI.2017
- Highly detailed regionalized climate change scenarios have been developed, including the prediction of changes in very specific events such as hail or fog frequency
- Some potential adaptation strategies for vineyards and olive trees are presented
- A basic framework for the development of 21st century agriculture is proposed

4. FOREST MANAGEMENT CONTRIBUTION TO THE ADAPTATION OF SERRES D'ANCOSA

- Teresa Baiges (Centre de la Propietat Forestal) describes some potential contributions of forest management to the adaptation of the Serres d'Ancosa landscape unit to climate change:

CONCLUSIONS:

- The main forest values in the area, such as biodiversity or job creation, are summarized
- Some forestry guidelines towards adaptation (increasing resistance and resilience) are presented
- The role of forests in the adaptation of other sectors, such as water or tourism, is also analyzed.
- Forest adaptation in Serres d'Ancosa must provide incentives to private owners as well as benefit from existing planning instruments.

5. LANDSCAPE VALUES AND SUSTAINABLE TOURISM

- Daniel Gutiérrez (Anoia County Council) reviews the main links between landscape values and sustainable tourism:

CONCLUSIONS:

- The ways in which sustainable tourism can contribute to the Sustainable Development Goals are summarized
- The Anoia County Council strategy regarding cultural heritage, landscape in galvanizing the territory is presented
- Some local and regional experiences on sustainable tourism are described

6. WORKSHOP 1 RESULTS SUMMARY

- Francisco Galiana (Universitat Politècnica de València) summarizes the main conclusions obtained after the 1st Workshop in the Pilot Landscape:

CONCLUSIONS:

- Every organized activity was successfully developed.
- The AELCLIC local network is comprehensive and knowledgeable
- Materials from Workshop 1 are already available on the LIFE CLIMARK web
- Detailed results from each teamwork task were presented and will be disseminated through the corresponding report and other relevant resources

7. OBJECTIVES AND CONTENTS OF A CLIMATE CHANGE ADAPTATION PLAN

- Emilio Servera (UPV) summarizes the goals, expected outcomes and structure of a climate change adaptation plan

CONCLUSIONS:

- The definition of adaptation measures to climate change in Serres d'Ancosa can be developed at different working scales and from different perspectives
- Defining those measures through a plan would allow to improve and monitor their effectiveness and a better integration with existing programs and plans
- A consortium approach is a good option for developing and executing adaptation plans

8. WORKSHOP PRESENTATION AND ORGANIZATION.

- Francisco Galiana (UPV) presents the workshop structure and work dynamics.

CONCLUSIONS:

- A single working group was established.
- Stakeholders would work individually, but dialogue and debate between the participants was encouraged.
- Each person will write in sticky notes their contributions to each Task. Notes will be later placed on several flipcharts, divided in several pre-defined areas.
- Repetition of sticky notes with the same or similar texts by different stakeholders was allowed since it would be used as an indicator of the relevance of the topic.
- The main parts of a potential plan (diagnosis, actions, monitoring, etc.) were previously written in the flipchart to help organize the discussion for Task 1 (Definition of the potential LACAP contents and actions). The part in which every input was allocated is also explicitly mentioned in this report.
- Potential key stakeholders could be identified in the Task 2 even if they were not present at the workshop.

9. PRESENTATION OF PARTICIPANTS.

PARTICIPANT	SECTOR	INSTITUTION
Daniel Gutiérrez	LOCAL/REGIONAL AUTHORITY	Consell Comarcal de l'Anoia
Silvia Escolano	LOCAL/REGIONAL AUTHORITY	Diputació de Barcelona
Teresa Cervera	PUBLIC SECTOR	Centre de la Propietat Forestal
Joaquim Garcia	PUBLIC SECTOR	Centre de la Propietat Forestal
Teresa Baiges	PUBLIC SECTOR	Centre de la Propietat Forestal
Asier Larrañaga	PUBLIC SECTOR	Bombers GenCat
Robert Savé	RESEARCH	IRTA
Santiago Cerdà	PRIVATE SECTOR	Cal Llens
Georgina Saumell	PRIVATE SECTOR	Celler Mas Rodó
Rosa María García	PRIVATE SECTOR	Masia Sopera
Lluís Cuadras	PRIVATE SECTOR	Can Morei
Marc Talavera	SOCIETAL ORGANIZATION	Col·lectiu Eixarcolant
Joan Amado	SOCIETAL ORGANIZATION	Agrupació de Defensa Forestal Castellví de la Marca
Lluís Vich	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serralada Prelitoral Penedès
Ferran Roses	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serralada Prelitoral Penedès
Jaume Olivella	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serra Miralles-Orpinell
Francesc Sabaté	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serra Miralles-Orpinell
Jordi Reixach	SOCIETAL ORGANIZATION	Associació de propietaris forestals Serra Miralles-Orpinell

CONCLUSIONS:

- The local network was again contacted and invited, as in Workshop 1, by the Centre de la Propietat Forestal. As agreed after the 1st Workshop, Centre de la Propietat Forestal successfully involved some new stakeholders and experts with different interests and perspectives in order to enrich the discussions regarding economic activities different than forestry that are taking place in the area, such as tourism and agriculture.
- The constituted local network in Serres d'Ancosa was again rich, diverse and knowledgeable. There were less representatives from the local and regional governments, but it had a broader representative of other major sectors in the area, besides forestry, thanks to the excellent work by the Centre de la Propietat Forestal. There was again a very strong presence of associations of private forests owners.
- Remote participation was not promoted given the success of the meeting.

10. TEAMWORK

- **Task 1: Which actions should be included in the Serres d'Ancosa LACAP in order to achieve its expected outcomes?**

- **DETAILED ANALYSIS/DIAGNOSIS**

- Set local preferences (economic, city planning)
- Profitable actions
- Creation of a management group. Facilitating.
- Identification of existing instruments (Plans, ruled) which could be used
- Diagnosis as a tool to search for alternatives
- Identification of traditional local uses and knowledge as source of adaptation and development of innovative actions for the future
- Actions adaptable to technology
- Urban and rural conservation and restoration. By economic activity and support to administration
- Analysis at the basin scale
- Holistic land vision: diagnosis, infrastructures, society, economy
- Joint prioritization of climate change strands of work for the landscape unit
- To reach an agreement among every stakeholder: forest fighters, vegetation cover – wine growing, public preferences (consumer)
- Design the plan with regards to a wider territorial scope, in connection to the socio-economic and demographic regional networks
- Analysis of effects of climate change on vineyards (To validate the actions with highest benefits)
- If crops and livestock are to be used to manage forests, these jobs need to be promoted

- **PLAN ACTIONS**

- To showcase climate change opportunities
- Joint prioritization of climate change strands of work for the landscape unit
- To reach an agreement among every stakeholder: forest fighters, vegetation cover – wine growing, public preferences (consumer)
- Creation of a list of committed stakeholders, in order to know who can be counted on, and which tools are available to implement actions and enable networking among them
- Actions must be crosscutting or holistic
- Integration of the plan within the existing land-use planning instruments. Management plan for protected areas, natural resource management plans, etc.
- Agricultural – cultural planning by means of the Agricultural Land Law
- To secure local populations staying in the area and living on the land, because without people developing economic activities there won't be any heritage management or conservation
- Land laws supportive of land use change regarding buildings in rural areas
- Shared residence
- Housing policies supportive of young people arriving to the area
- Facilitating agro-forestry projects to young people with land and housing support
- Linking actions to European policies

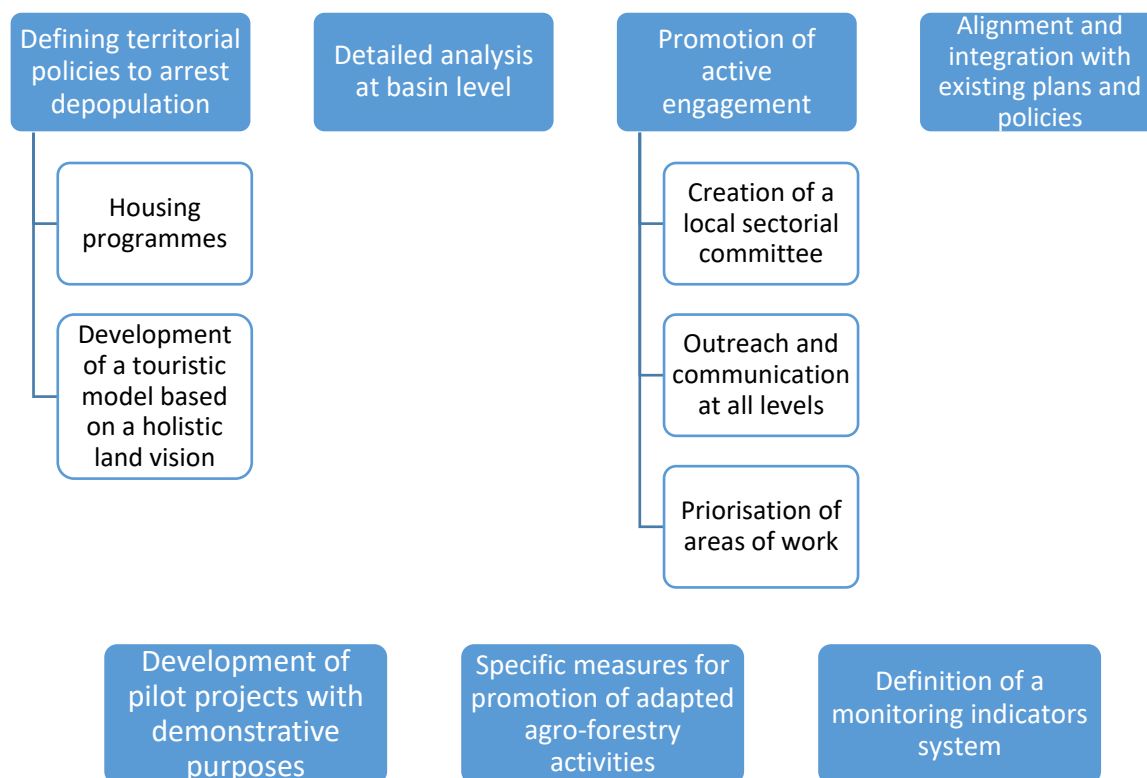
- Promotion of administrative parties: Local Councils, County Council, Regional Government, etc
- Promotion of a model focused on the recognition of land value, not only based on its productivity, but also on leisure and ecosystem services
- Development of agricultural activities with tourist appeal (wine, ...)
- Development of livestock activities with tourist appeal (beekeeping, cheese, ...)
- Promotion of shared energy resources (heating, etc) regarding biomass, zero-mile consumption
- Comprehensive eco-tourism: catering, accommodation, cultural activity
- Tour packages for small groups and customizable
- Promotion of an economic model based on local products which are currently existing but underused resources
- Identification of sites or areas for pilot tests
- Promotion of pilot projects

○ RESULTS COMMUNICATION AND DISSEMINATION

- Communication to generate consistency
- Civil and school dissemination at the grass-roots level
- Not only information, but also training
- Marketing and communication. People only acts when information arrives closer. Take scientific data to the public.
- Count on the education sector (not only universities) as transmission and implementation channel
- Involvement of local administration
- Engaging the citizens (land) and active participatory measures
- Demonstrative pilot project to enhance communication
- Creation of a handbook on best management practices to improve dissemination and replication

○ MONITORING AND ASSESSMENT

- Dynamic (Related to other inputs, weighted over time since social changes appear)
- Defining and agreeing on useful indicators towards the monitoring and assessment of the plan. Timing.
- Integration of a sectoral local board, with political, economic, social and local representativeness
- The future of these changes is so uncertain that I consider that more emphasis should be placed on the assessment of the changes we are moving towards with more realistic data, and I hope that humankind will, as ever, know the ways to adapt. I don't reckon human intervention can fix it, rather the contrary.



- **Task 2: Evaluation of potential levels of stakeholder involvement**

- **PUBLIC SECTOR**

- Anoia County Council. Tourism area
- Barcelona Provincial Council. Climate Change and Sustainability Technical Office (Technical resources, meeting spaces)
- IRTA: as a research center, provides knowledge connected to people to generate information and training
- DARP- Department of Agriculture, Livestock, Fishing and Food. Regional Government.
- CPF. The Forest Ownership Centre. Regional Government
- The Landscape Observatory of Catalonia. Regional Government.

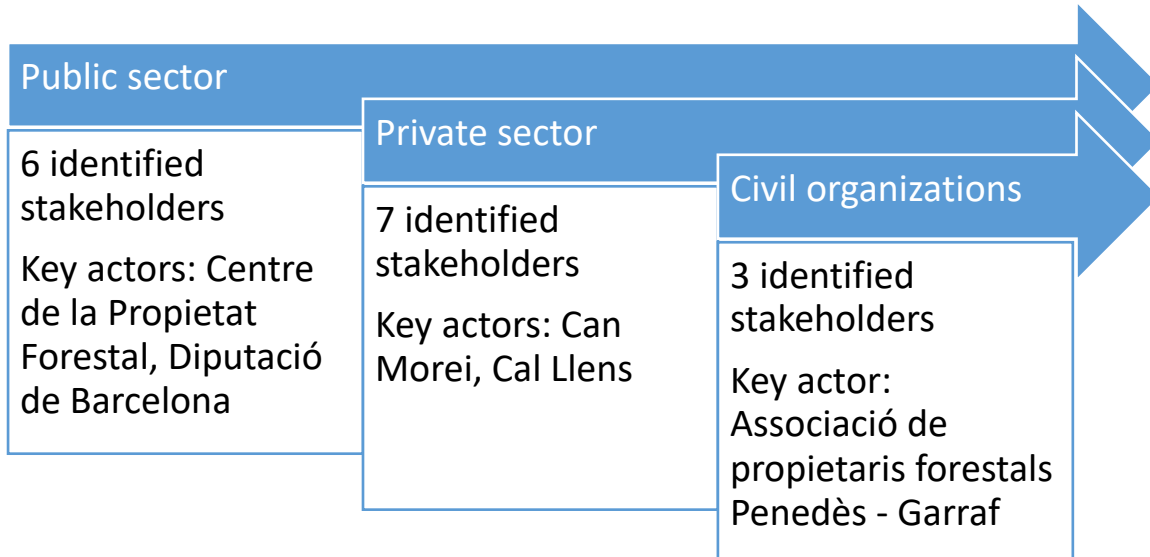
- **PRIVATE SECTOR**

- ALBETI NOIA (Wineries, organic vineyards)
- Caves Vilarnau (Wineries highly aware regarding climate change, already have taken part in some LIFE projects)
- Anoia Business Union
- Banking social foundations (Caixabank)
- “Call Llens” farm (Works and state availability)
- Can Morei (Facilities, Taking part in landscape and heritage restoration).
- Mas Rodó (Penedés) (Availability of spaces for meetings and workshops could be assessed)

- **CIVIL ORGANIZATIONS**

- Forest Owners Association Penedés – Garraf (commitment)
- Association of small wine-producers “Cuenca d’Odena”

- Unió de Pagesos (Farmers union)



11. CLOSURE

- Francisco Galiana (UPV) thanks the participants for their contributions and summarizes the obtained results.

CONCLUSIONS:

- The local network will be notified when the workshops reports and other materials are available on the AELCLIC webpage
- Many participants in the workshop authorized the inclusion of their organizations in the AELCLIC webpage.
- A catered lunch was served at the same premises where the workshop took place to end the session.

SUMMARY:

- Key CONCLUSIONS, Key DECISIONS and NEXT ACTIONS (By Whom and When):

- This workshop, as the first one, was conceived as a joint, networking action between the LIFE CLIMARK and AELCLIC projects.
- The organization of the Workshop by the Centre de la Propietat Forestal was again excellent. Contacts with local stakeholders and other invited experts were successful even if the available time to organize the workshop was much shorter than with the First Workshop (one month in advance). There were constant contacts with the UPV during the organizational phase in order to agree a program for the session. The UPV was also informed at different points as the list of confirmed attendants was being filled. The Workshop took place again in the same excellent facilities in the pilot landscape as Workshop 1 ("Can Morei" country house), whose owner was highly collaborative and participative during the event and sponsored some coffee and drinks for the attendants reception. The Centre de la Propietat Forestal also organized and sponsored the catering service for the lunch. / **ACTIONS: UPV thanked Centre de la Propietat Forestal and Can Morei for their essential role in the development of the activities in the pilot landscape.**
- The Serres d'Ancosa local network was again very comprehensive and knowledgeable. New stakeholders were invited by the Centre de la Propietat Forestal in order to broaden the perspective around adaptation to climate change in the area. / **ACTIONS: UPV thanked Centre de la Propietat Forestal for successfully achieving a more diverse network, less focused on forestry than during Workshop 1.**
- Several stakeholders confirmed their interest in being included in the AELCLIC web as part of the Serres d'Ancosa Local Network. / **ACTIONS: Universitat Politècnica de València will provide the AELCLIC web administrator with their contact details in order to include the local network structure in the AELCLIC web.**
- The presentations during the first part of the workshop were again remarkable. They covered in detail every identified main topic which should be addressed through a LACAP in Serres d'Ancosa. They were a perfect supplement to the presentations developed during Workshop 1. / **ACTIONS: UPV will upload every presentation to the AELCLIC Webpage, within the "Materials" file of the Workshop 2.**
- The main contents to consider in a potential Serres d'Ancosa Landscape Adaptation to Climate Change Plan were identified. The stakeholders established the main scope of the diagnosis (at basin level), some priorities (such as establishing territorial policies to arrest depopulation, promoting active engagement or defining specific measures for the promotion of adapted agro-forestry activities) as well as the need to develop some pilot projects and establish a monitoring indicators system. / **ACTIONS: All the information provided could be taken into account in any potential funding application aimed at developing the LACAP in a future project.**
- The identification of the main actors who could take part in the development of a LACAP or support any potential funding application was also successful. 16 stakeholders were identified within the specific activity developed, and some other could also found within the attendants to the first workshop. / **ACTIONS: Any potential partnership interested in developing the Serres d'Ancosa LACAP in the future would be able to benefit from the evaluation of potential levels of stakeholder involvement.**
- The Serres d'Ancosa pilot landscape was mentioned in a press release by the Land and Sustainability Regional Departament regarding the development of Workshop 2 in the Parc Natural de l'Alt Pirineu landscape (<https://govern.cat/govern/docs/2019/10/30/10/27/733ac2c3-3278-4b57-ba1d->

[a277596ef8c9.pdf](#)). This press release had a high impact, and was distributed by many different media and other regional government agencies. Some local media even focused on the Serres d'Ancosa participation in the AELCLIC project (<http://infoanoia.cat/serra-dancosa-paisatges-europeus-escollits-estudiar-efectes-canvi-climatic/>) / ACTIONS: Universitat Politècnica de València will include the press articles in further reports regarding the societal impact of the project.

- The Bologna International AELCLIC Meeting took place in the week following the Workshop 2 in Serres d'Ancosa. The Centre de la Propietat Forestal was identified as the key, leading member of the local network, and invited to represent it in the Bologna Meeting. Universitat Politècnica de Valencia / Las Naves would sponsor the travel expenses, at least partially. Finally, prior commitments prevented any representative from the CPF to attend the meeting. However, they were able to prepare an excellent slideshow to contribute to the International Meeting with their perspective of the AELCLIC Project and the potential future development of a LACAP in Serres d'Ancosa / ACTIONS: UPV was in charge of presenting the excellent slideshow prepared by the CPF in Bologna. The Serres d'Ancosa pilot landscape was therefore introduced to the representatives from other local networks from around Europe, and subsequently taken into account in the further teamwork developed in the meeting. The CPF was thanked for their outstanding work and received a draft version of the International Meeting Report, allowing them to make any comments or suggestions if appropriate. They will also be informed of any future news and be considered a key actor regarding potential funding applications to develop the Serres d'Ancosa LACAP.

DIAGNOSIS:

- **Level of Achievement of the expected outcomes (from 1 (min) to 5 (maximum)):**
 - o OUTCOME 1 (Definition of main contents and actions to be included in a potential Serres d'Ancosa LACAP). LEVEL OF ACHIEVEMENT: 4
 - o OUTCOME 2 (Evaluation of potential levels of stakeholder involvement for the development of a LACAP in Serres d'Ancosa). LEVEL OF ACHIEVEMENT: 5
- **Main Shortcomings or barriers for the full achievement of the expected outcomes:**
 - o Achieving a higher prioritization in the LACAP contents could have been desirable
- **Main Reasons for the successful achievement of the expected outcomes:**
 - o The workshop benefitted from an already established great local network and new additions that complemented it nicely. As in Workshop 1, it would have been impossible to assemble a network like this without joining forces with the LIFE CLIMARK Project and its coordination team.
 - o Excellent organizing work again by the Centre de la Propietat Forestal. As mentioned in the previous report, initially this Second Workshop was going to take place earlier due to the busy Workshop agenda in the AELCLIC WP4. Even in that case, where the time remaining to organize the sessions would have been around one third of the time that was available to organize Workshop 1, the CPF was still willing to contribute.
 - o Great presentations by the invited experts during the first half of the session, which provided a very good entry point to the teamwork.
 - o Highly participative and knowledgeable stakeholders. Very high level of expertise and interest on the matter, which led to a fruitful, diverse discussion during the teamwork.
 - o Continuity on a significant proportion of the Workshop 1 Local Network, which made the work easier, and also simplified the onboarding of new members.
 - o Great contribution from the new Local Network members, who made it possible a better examination of important topics for a future LACAP such as agriculture and tourism.
 - o Shorter session than the first one. Better time planning and subsequent adjustment to the schedule
 - o Good preparation of materials by UPV.
 - o Clear definition of the expected outcomes
 - o Very useful reference materials from other AELCLIC workshops
 - o Excellent facilities and support by the owner.
- **Learnt lessons and recommendations for similar activities in other places:**
 - o Working with local counterparts with the experience, knowledge and resources needed to take the lead and excel in the organization of this kind of activity maximizes the success and return of the workshop
 - o Working with a knowledgeable, strong network, where a significant proportion of the attendants had taken part in the Workshop 1, made it easier to reach the expected goals.
 - o Knowing beforehand the attendance list allowed for preparing and presenting materials suited to the level and interests of the audience.
 - o Keeping the workshop duration at 3 hours is being considered the best option during this project.
- **Learnt lessons and recommendations for future activities in the same place:**
 - o See previous section.

- **Level of influence of the local characteristics (social, geographical, etc) in the development of the activity:**
 - High. As already mentioned, the activity benefitted greatly from the contribution of the Centre de la Propietat Forestal, with important previous ties to the area, and also from the number of people who had already taken part in the first workshop. The composition of the network was also quite specific, i.e. the associations of private forest owners play a particularly prominent role in the area.



WP5

South Eastern Europe



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: September 18, 2019 - from 3.30 p.m. to 6.30 p.m.

PLACE: Fondazione Innovazione Urbana, Piazza Maggiore 6, Bologna

ORGANIZERS: University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana

PARTICIPANTS:

Organizers

- University of Bologna: Daniele Torreggiani, Patrizia Tassinari, Ludovica Marinaro, Giulia Gatta
- Municipality of Bologna: Giovanni Fini
- Fondazione Innovazione Urbana: Valeria Barbi, Federico Salvarani, Marta Bertolaso

Stakeholders who accepted to join the network of stakeholders:

- Giuseppe De Togni, Municipality of Bologna
- Julia Colver, Nomisma
- Marco Spinedi: Interporto Bologna
- Marco Caliceti: Confagricoltura Bologna
- Claudio Cervellati, Confagricoltura Bologna ed Emilia Romagna
- Michele Solmi: Consorzio Bonifica Renana
- Silvia Bergami: EmilBanca
- Marco Odaldi: AESS (Agenzia Energia e Sviluppo Sostenibile) Modena
- Andrea Bruini: Granarolo Group
- Mirella Di Stefano: Granarolo Group
- Lucia Fresa: Agenzia del Pilastro
- Chloy Vlamidis, Agenzia di Sviluppo Pilastro

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Fondazione FICO
- CAAB
- Orogel
- Inalca
- Coldiretti Bologna, Carlo Cavallina
- Quartiere San Donato - San Vitale, Simone Borsari
- Orti Salgari, Patrizia Preti
- Francesco Palmieri: Bologna Welcome
- Carmine Preziosi: ANCE Bologna (Board of Builders)

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop, co-organized by University of Bologna, Municipality of Bologna and Fondazione Innovazione Urbana, is the second one organized in the “north-eastern fringe areas of Bologna”, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this second workshop aims at consolidating the network of the local stakeholders connected, at different levels, with the pilot area. It defines the diagnosis of impacts of the climate change on the pilot area, and co-identifies the possible structure and the contents (themes, goals, solutions, actions and roles) for the future definition of a Landscape Adaptation Plan to Climate Change.



The workshop, attended by 20 persons, representatives of the local stakeholder's ecosystem and the event organizers, has been hosted at the headquarters of Fondazione Innovazione Urbana, whose staff provided specialized support aimed to facilitate the participatory process.

The main objectives of the workshop could be summarized as follows:

- Summarize the results of the first workshop and implement them;
- Evaluate the interest of the stakeholders who were not present at the first workshop, in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Consolidate the networking between the stakeholders and with the project's partners;
- Map the perception and awareness of the network about climate change issues, carrying out a co-identified diagnosis of climate change impacts in the pilot area;
- Trigger a landscape centered approach to cope the goals of climate change adaptation starting from a landscape characterization of the pilot area and an overview of projects and programs carried out both locally and internationally.
- Co-define the structure and the contents (in terms of themes, goals, solutions, actions and roles) for the definition of a Landscape Adaptation Plan to Climate Change;
- Discuss about the opportunity to apply for a follow-up EU project after this pathfinder (e.g. Climate KIC Demonstrator call for proposals).

All the stakeholders invited to the discussion declared and confirmed their interest in collaborating, with different modalities and contributions, to the projects. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

3.30 – 3.40 p.m. | Welcoming speech and synthesis of the first workshop's results

- Valeria Barbi – Fondazione Innovazione Urbana: welcoming of the participants and description of the agenda.
- Daniele Torreggiani – professor of the Department of Agricultural and Food Sciences of the University of Bologna: brief summary of the results of the first workshop and description of the objectives of the work to be carried out in the first phase of the workshop.

3.40 – 4.30 p.m. | PHASE 1: Implementing the impact diagnosis: definition of the hierarchy of climate change impacts in the various areas of the pilot area.

- The **first group work** (led by Valeria Barbi and prof. Daniele Torreggiani) involves the use of an online application (Mentimeter) for the simultaneous management of data and the creation of graphs that allow identifying the relevance attributed by the stakeholders to the various impacts of climate change on the different homogeneous areas of the pilot area (see annex 1 to the present document).
- Ludovica Marinaro (University of Bologna) - Illustration of the characterization of the various spatial units of the pilot landscape.
- The **second group work** (led by Valeria Barbi and prof. Daniele Torreggiani) using Mentimeter, is aimed at identifying the relevance attributed by stakeholders to the various impacts of climate change on the various structural landscape units of the pilot area, whose



definition derives from the landscape characterization previously introduced (see annex 1 for the related graphs).

4.30 – 5.30 p.m. PHASE 2 | Suitable adaptation solutions for the pilot area

- Ludovica Marinaro – University of Bologna. Illustration of plans, projects and solutions carried out at local and international level in the climate change's adaptation field, with reference to the main structural units of the pilot landscape.
- **Third group work** carried out on aerial images, aimed at mapping and outlining desirable strategies, solutions, opportunities and projects for adapting the pilot landscape to climate change. The stakeholders are invited to think about the evolution of the landscape starting from the identified structural units. The organizers to define the inputs for the third phase of the workshop systematize the brainstorming of this group work.

5.30 - 6.30 p.m. PHASE 3 | THEMES, OBJECTIVES AND ACTIONS of the plan for the adaptation of the pilot area to climate change and ROLES of the stakeholders

- Brief illustration of the group work for defining the structure and contents of the Plan. A draft version of the structure and contents of the Plan, prepared by the organizers based on the outputs of the first workshop and further implemented in real time using the outputs of the brainstorming sessions of the previous phases of this second workshop, is showed in a large paper format.
- Focus group with all the stakeholders (led by University of Bologna with the support of the Municipality of Bologna and FIU) aimed at:
 - Sharing the structure of the future LACAP;
 - Co-identifying the contents of the various parts of the Plan: THEMES, OBJECTIVES, SOLUTIONS, ACTIONS and ROLES of the stakeholders.
 The outputs of the focus group are implemented in the draft structure of the Plan.
- Daniele Torreggiani – University of Bologna. Summary of the results of group work and sharing of the results achieved for the future LACAP.

6.30 Closing of the works and networking cocktail

Daniele Torreggiani – University of Bologna. Closing and general thanks

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

PHASE 1 | Implementing the impacts diagnosis: Starting from the results of the impact analysis carried out in the first workshop, the stakeholders are asked to verify the number and the level of perceived importance and relevance of the various climate change impacts on the pilot landscape.

The climate change impacts that have been confirmed by the network have been grouped into three main impacts. This result is also consistent with the results of the Climate Change Adaptation Plan of Bologna – BlueAp. The key impacts identified are as follows:

- Drought and water scarcity;
- Extreme events;
- Increased temperatures and heat waves.

After confirming the main perceived impacts on the pilot landscape, the work has been carried out with the help of the Mentimeter app. Each stakeholder has been asked to assess (very low, low,



medium, strong, and very strong) the perceived importance and severity of each CC impact on the main regions of the pilot landscape.

After the illustration of the characterization of the landscape of the pilot area (UniBo), and the identification of its structural units, the stakeholders have then been asked to rate the severity of each CC impact on the various structural units of the pilot landscape (very low, low, medium, strong, and very strong).

Summary of Results:

All the stakeholders have participated actively, contributing to sum up the common perception of the severity of climate change impacts. The results of this focus group are in annex 1 to this report. Temperature increase is perceived as severe problem on average over the entire pilot area, especially on parking areas, on paved areas in general, and on agricultural areas. The consequences of drought are perceived especially on green and cultivated areas, while the effects of heat waves especially on green areas, agricultural areas and pedestrian ways.

PHASE 2 | Suitable adaptation solutions for the pilot area

The first part of this section was aimed at illustrating a selection of projects and programs both at a local and international scale, which can be assumed as reference for the definition of CC adaptation solutions. Examples of projects carried out in the Municipality of Bologna and other European and international contexts have been presented. This is followed by an excursus of the most important, recent and innovative climate adaptation plans implemented in different European and international metropolitan contexts to offer useful examples about possible structures and visions.

Discussion: The work was conducted using aerial images of the pilot area and stickers of 7 different colors (1 for solutions and 6 for actions), to allow the stakeholders to differentiate the Solutions and the different types of actions. UNiBO maps on the areal images the solutions and actions identified in the focus group. To trigger a fruitful discussion the organizers prepared some examples of solutions derived from the results of the first AELCLIC workshop, the analysis of the climate change adaptation plan of Bologna and inspired by the most relevant CC adaptation plans at the international level. Each stakeholder has been invited to think about the suitable solutions and relative actions for the future LACAP.

The solutions and actions identified are as follows:

The opportunity to perform some data analysis and assess the real dimension and evidence of CC impacts on the pilot area and to assess the economic impact of CC. This proposal can be considered a preliminary action for each solution proposed.

One of the solutions should address the improvement of the quality of the built heritage and architecture. It would be useful to consider bioclimatic, traditional and sustainable technologies that can help to improve the energetic efficiency of the built heritage of the pilot area, as for instance some wind towers, green walls, green roofs, etc.

It would be important to provide some solutions integrating the production of energy from renewable sources. The network proposes to integrate photovoltaic panels inside the parking areas and on the roofs of industrial and commercial buildings, balancing these last potential interventions with green roofs (always considering their maintenance costs).

All the stakeholders converge on the proposed solution of creating a **linear system of green areas** including a slow mobility network (bike lanes). In the perspective of increasing the amount of high-



quality green areas, it is important to pay attention to the maintenance costs and tasks. Some green areas of the pilot area, which already represent an attraction in themselves, could be connected and increase their degree of accessibility. In general, the pilot area is already well equipped with gardens, especially the Pilastro neighborhood, hence the supposed interventions must act to better connect the urban tissue with green infrastructure. The design will have to pay specific attention to the choice of plant species able to withstand extreme events in order to reach conditions of continuous safety of users as well as of movable and immovable property.

The stakeholder agree with the necessity and the opportunity to create a solution for the **water management** for the entire pilot area. Water management in fact could be considered as one of the major themes for the pilot area. The solution of creating an interconnected system for the storage, treatment and distribution of rainwater may help in mitigating extreme events and reusing water when/where it becomes a scarce resource. The solution aims at creating a virtuous water cycle in the neighborhood. If the excess of water gives problems to urbanized areas and the lack of water gives problems to green/agricultural areas, close to each other in the pilot area, the LACAP should plan a solution to establish a virtuous connection.

In general, the network agrees to identify solutions related to water storage, which could be performed through systems for micro-accumulation in the rural territory or larger reservoirs, retention basins which could also have a naturalistic value; and through bios wales, raingardens and road-related blue infrastructures in the urban areas. Unused areas may be used for the creation of retention basins.

Industrial water storage and treatment would call for different solutions. The reclamation consortium is working to find water from wastewater treatment plants, especially for agriculture. Therefore, the LACAP may focus on solutions related to water recycling for green areas.

To address drought in agricultural areas, according to the stakeholders it is necessary to combine a reduction in the use of water, accumulation, precision agriculture, and the adoption of draught-resistant cultivars.

One of the other complementary solutions that the LACAP should address concerns **education and communication**. This is necessary not only to provide dissemination of the pilot projects and solutions, but also to increase awareness about climate change effects on the landscape. Platforms, awareness raising campaigns, training about green areas and urban health should be considered.

Summary of Results: The discussion was lively and full of ideas. Each stakeholder has actively contributed to the definition of the solutions and the subsequent definition of many of the information necessary to support their implementation. It clearly emerges the need to establish priorities not only for the plan, but also more generally for the prospects of use and transformation of the pilot area. It is therefore necessary to establish priorities and avoid conflicting actions in the plan, which can therefore inspire the solutions, share a hierarchy of interventions and guide the transformation of the landscape of the pilot area.

PHASE 3 | THEMES, OBJECTIVES AND ACTIONS of the plan for the adaptation of the pilot area to the CC and ROLES of the stakeholders

Discussion:

After a brief explanation of the work for the third phase of the workshop, the organizers illustrate the draft structure of the Plan taking prepared considering the results of the first workshop and previous



brainstorming sessions of this second workshop, and the analysis of examples and models at international level. The structure that is presented constitutes the strategic and design framework for the future creation of the LACAP. It identifies the THEMES; the OBJECTIVES, which can be linked to more than one theme; the SOLUTIONS formulated to face the major impacts of climate change detected in the pilot area, and the ACTIONS needed to implement them, subdivided into 6 types (analysis, diagnosis, project, pilot actions, monitoring and communication). The LACAP structure also contains a section about the roles of the members of the network, to be linked to specific actions. The group shares and confirms the themes identified by the basic structure of the plan.

The discussion then focuses on the part dedicated to solutions and actions to summarize and give concrete expression to the proposals that emerged in the second phase. The network agrees on the solutions of the draft version prepared by the organizers based on the elaboration and development of the previous results, configured as “integrated landscape strategies”. Some additional solutions are discussed and added, as follows:

- A water management solution aimed at creating a closed-cycle water system for the neighborhood.
- The creation of a linear system of green public spaces that include the soft mobility network, improve the climatic comfort of existing roads, connect existing green areas and provide better services for the neighborhood in general. This solution, aimed to give greater impulse to the circular economy, must be calibrated to consider the authorization procedures and regulation-related issues. According to the network, various bottlenecks related to the current legislation system reduce the implementation of innovative projects in the rainwater reuse or renewable energy auto production field at the neighborhood or block level. The LACAP may thus focus on those bottlenecks to facilitate the implementation of adaptation solutions. This task may be included for each solution or may be defined as a specific solution. The actions may facilitate the creation of energy communities with the active involvement of the population.
- The third solution may focus on the built environment, to increase its resilience in terms of energy efficiency and energy production.
- A fourth solution may focus on education and communication about climate change effects on landscapes. This solution would include information campaigns, training courses, open construction sites and concrete demonstration actions of adaptation projects as well as the effects of climate change.

Summary of Results

The LACAP may be defined as a masterplan defining the specific adaptation scenario of the pilot area. The future steps of development of the LACAP should address the necessary preliminary analytical and diagnostic phases, analyze the technical and economic feasibility of the various solutions, and study and design them in detail, within a general and coordinated vision, and considering the relationships and mutual connections among the various solutions and landscape systems.

The stakeholders agree that a follow-up project should focusing both on developing a masterplan (that would provide guidelines for future public and private developments and actions in the pilot area), and on real demonstration actions. Pilot actions should be considered as part of a broader unitary strategy, and as innovative actions planned and conceived within a more general framework allowing to demonstrate the potential beneficial effects of various scenarios where those solutions can be scaled-up.

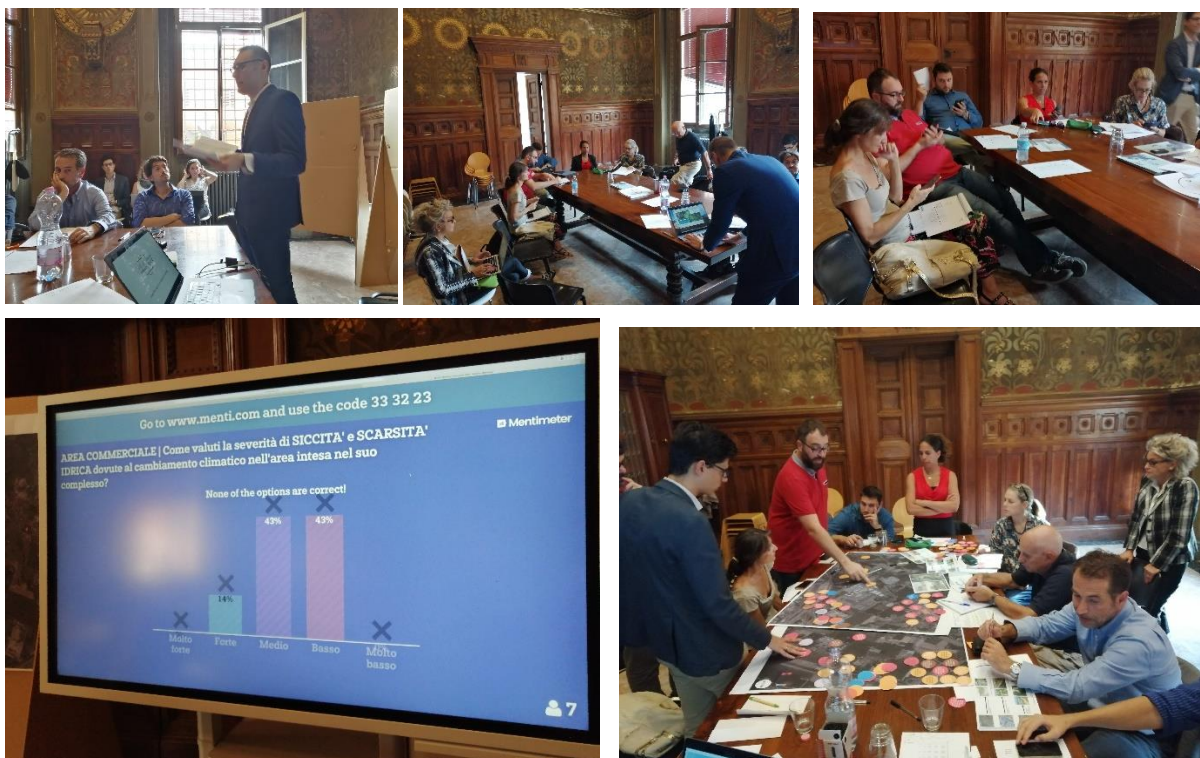
The organizers will integrate the draft LACAP structure resulting from this workshop and circulate it to the network of stakeholders, in order to allow them to send any further comment and suggestion and to confirm/express their potential contribution (in terms of knowledge, skills, activities, synergies, etc.) related to a future project for the development of the Landscape Adaptation Plan to Climate Change. The potential contributions identified by the stakeholders so far are as follows:

- Territory Analysis (Data/knowledge);
- Risk analysis and risk evaluations;
- Data and knowledge, raising awareness and dissemination in the agricultural world;
- Supply of historical data on crops and irrigation. CAP data;
- Study of impacts on the energy front;
- Community awareness;
- Constructive Support in identifying building and infrastructure solutions to respond to environmental and functional problems;
- Contribute with analysis results/pilot projects on mobility, water, waste;
- Triggering virtuous processes for circular economy;
- Sharing of the experience gained in environmental assessment and certification;
- Networking and involving other actors also for potential regeneration projects;
- Promoting internal/external awareness and dissemination through the own business, financial and entrepreneurial network.

Closure

The organizers thank all the stakeholders for their active participation. The stakeholders confirm their interest in further developing the activities on the pilot landscape and in the future development of the LACAP.

Picture(s) of the activity, presentation, raw outputs, etc.





SUMMARY:

- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in being involved in a next workshop or meeting;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions. They are also interested in being promoters of a new approach with concrete actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: The stakeholders and the group in general want to achieve a concrete result and have shown interest in continuing the experience towards its realization. They aim to create a coherent, organic and innovative plan that can be configured as a model experience in urban areas and beyond.
- Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
Fondazione Innovazione Urbana



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 16, 2019 - from 3.00 p.m. to 6:00 p.m.

PLACE: Biblioteca Comunale Teresiana, Sala Teresiana, Via Ardigò 13, Mantova

ORGANIZERS: University of Bologna, University IUAV of Venice

PARTICIPANTS:

Organizers

- University of Bologna (AELCLIC partner): Daniele Torreggiani, Ludovica Marinaro
- University IUAV of Venice (AELCLIC Third Party): Francesco Musco, Denis Maragno

Stakeholders who accepted to join the network of stakeholders:

- Professional association of agronomists of Mantova: Marco Goldoni;
- Lombardy Region: Luisa Pedrazzini;
- Municipality of Mantova: Sandra Savazzi; Elisa Parisi; Sofia Salardi; Mariangela Busi; Roberta Marchioro;
- Consorzio di Bonifica Territori del Mincio: Barbara Schiavinato;
- Mantova Ambiente, gruppo MEA Spa: Simone Massari;
- Labter Crea Mantova: Sandro Sutti;
- Gazzetta di Mantova: Monica Viviani;
- Aerodron Srl: Romeo Broglia.

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- **Municipality of Mantova:** Giulia Moraschi; Monica Bedini; Gabriella Montanarini; Iva Tiziana Silvestrin; Francesca Paini; Marcella Ghidoni
- **Centro studi PIM:** Cristina Alinovi
- **Mantova Ambiente, gruppo TEA Spa:** Giorgio Grossi

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This is the second workshop organized in the “city of Mantova”, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this second workshop, attended by 16 persons, representatives of the local stakeholder’s ecosystem and the event organizers, aims at defining and mapping the relevant impacts of climate change for the study area and at co-defining the contents and structure of a future Landscape Adaptation Plan to Climate Change (LACAP).

The main objectives of the workshop could be summarized as follows:

- Providing a brief explanation and description of the project, mainly for the benefit of those who did not attend the first workshop;
- Facilitating the contact and the networking between the stakeholders and with the project’s partners;
- Co-identifying a diagnosis of climate change impacts known/perceived by the stakeholders in the pilot area;



- Evaluating the interest of the new stakeholders and confirm that of the already existing network in collaborating in the project, and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Co-defining the possible contents of a future plan for adapting the pilot landscape to climate change and how it may be connected to spatial and land use plans and other sector plans.

All the stakeholders invited to the discussion, new participants included, have confirmed their interest in collaborating in the project. They have also welcomed to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

3.00-3.15 p.m. The AELCLIC project: towards a Landscape adaptation plan to climate Change, the second Workshop.

- Opening welcome, brief presentation of the project and presentation of the agenda
- Summary of the results of the 1st workshop
- The stakeholders introduce themselves

3.15 – 4.00 p.m. | Changing landscapes and shared strategies to inhabit them.

Implementation of the results of the first workshop, both for the diagnosis of the impacts of climate change on the landscape, and for the future definition of the plan for adapting the landscape to climate change.

- Coding and mapping of climate change impacts on the pilot area, understanding their potential effect on the landscape. The group work has been based on some thematic maps illustrating some of the main effects of climate change detected during the first workshop (eg. Temperature rise and heat waves - See the report of the first workshop).
- Definition of adaptation opportunities and strategies, also referring to the different types of urban areas.

4.00 – 5.15 p.m. | The future Plan: Content and structure.

- Open discussion focused on the co-definition of the possible structure and contents of the future LACAP. The project activities, benefitting of the previous work carried out in the pilot area by the city of Mantova and IUAV, aim at creating added-value by co-defining the contents of a future Landscape Climate-Change Adaptation Plan, intended as a systemic and cross-sector document lending support to spatial and sector planning, also based on some examples and best practices in the international context.

5.15 – 6.00 p.m. | A roadmap for the plan.

Since the goal of the project is the creation of *“regional/local consortia with the **social, financial, administrative and technical capacity** to co-define in the future Landscape Adaptation Plans to Climate Change”*, this last part is aimed at defining what will be needed to create the plan in terms of knowledge, activities and resources (already available or to be acquired), as well as at exploring how the future plan may be connected to spatial and land use plans and other sector plans.

6.00 p.m. | Closure



KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Definition of climate change impacts on the pilot area and understanding their potential effect on the landscape.

2. Initial draft of the contents and the structure of the future LACAP

1. Defining the climate change impacts on the pilot area and understanding their potential effect on the landscape: Starting from the results of the previous workshop and looking at an aerial image of the city and at a thematic map representing the summer heat wave effects, the participants discuss about the perceived impacts in the various parts of the city.

The workshop has allowed to confirm the main perceived impacts of climate change on the city of Mantova emerged during the first workshop. From this discussion, the list of perceived impacts has been confirmed/implemented. This updated list now thus reflects a hierarchy of importance attributed to each climate change effect. The proposals outlined to face these effects are then divided by themes and areas that help defining the adaptation strategies.

The key impacts confirmed are:

- Increased temperatures;
- Heat waves;
- Air quality;
- Extreme events;
- Water scarcity;
- Flooding;
- Invasion of alien species;
- Eutrophication of lakes;
- Increasing number of insects and seasonal allergies;
- Sudden events;
- Hydrogeological instability;
- Negative impacts on tourism industry.

2. Proposal of strategies for the adaptation plan. Starting from the identification of the main critical issues and obstacles detected on the territory both on the administrative, regulatory, cultural and infrastructural level, the key themes and approaches identified during the first workshop have been confirmed and led to the further formulation of the contents of the future LACAP.

The key themes identified are:

- Policy integration:
- Policies and actions for the transformations of urban public spaces
- Mobility
- Water Use and management
- Soil consumption
- Communication and awareness raising

Discussion: the key impacts and critical issues identified by the group work contribute to define the framework of the effects of climate change on the pilot case of the city of Mantova. The results of



the first workshop have been confirmed and the discussion has allowed to investigate the main impacts on the landscape of the main climate change drivers, such as the increase in temperatures and urban heat island effects. Some thematic maps, portraying the main impacts identified, have allowed the stakeholders to evaluate how the urban fabric and the configuration of the public space currently facilitates or complicates an effective adaptation. The attention has been focused, for example, on the important role of vegetation in public spaces and open spaces in general, making it clear its effective contribution in reducing air pollution and improving air quality, thermal well-being and increasing sociality and use of places. This work has also allowed to discuss more clearly some impacts that had been treated less extensively during the first workshop. In particular, the effects of high-speed winds and the important role of vegetation in screening winds and affecting air circulation have been discussed. It also allowed to further stimulate the critical awareness of the network, inviting the participants to work in a landscape scenario perspective. This step, far from aiming at an exhaustive mapping, has proved useful to trigger the second part of the workshop.

2. Initial draft of the contents and structure of the future LACAP

In the second part of the workshop, the discussion has been aimed at outlining the fundamental contents and a possible structure of the future LACAP. Some fundamental characteristics of the LACAP and the role it may play in connection with the spatial planning tools have also been discussed.

The LACAP will have a systemic and cross-scale nature. Although it will be calibrated for the urban scale of the city of Mantua, it will have a particular impact on ecosystems, this calling for the need to define consistent strategies capable of interacting with even wider territorial systems.

The plan will therefore provide complementary strategies both on the urban and broader scale.

The institutional and regulatory framework

- **Agreements with the authorities responsible for territorial governance and landscape protection.** One of the general and priority criteria for drafting the plan concerns the need to establish the necessary synergies with the bodies responsible for the protection and government of the territory and the landscape at the various scales: Region, Superintendence of Cultural Heritage, Basin Authority and local administrations. The relationships that must be established with the region and with the superintendence are of particular importance, so that the adaptations to climate change foreseen are always consistent with the need to protect, conserve and promote the urban, architectural and in general cultural heritage of the city.
- **Integration and complementarity with existing plans and instruments.** Consequently, there is the need to formulate a general strategy of integration and dialogue with the urban planning instruments in force at the various scales and with the various sector plans. The future LACAP will have to constitute an integrative and corrective level of the transformation and protection policies of the urban landscape of Mantova. The LACAP may act as a layer connecting the various sector plans, through landscape as a linking key, with particular reference to the connections with:
 - the new Landscape Plan: relevant in-depth studies to be carried out at higher scales. Possibility that the plan contributes to influence the criteria of attribution of the classes of landscape sensitivity.
 - the PGT (urban land management plan) under revision, the maintenance of its knowledge framework, and its monitoring.
 - all the relevant sector plans: mobility, vegetation and green areas, energy etc.



- the CAP and biodiversity and landscape quality goals.
- the emergency management plan, for what concerns earthquakes, extreme events and severe climate conditions, etc.

Systemic actions on a broad territorial scale

- **Strengthening the ecological network**

The plan will have to act on the existing ecological network by promoting actions aimed at strengthening it and recreating/mending /implementing it where necessary. The LACAP should take advantage of the opportunities related to the potential synergies with the new multifunctional green network under definition by the Lombardy region, based on the ecologic network and its further development with reference to cultural, naturalistic and agricultural aspects. The network is drawn at the regional level and will need to be detailed at the municipal level. The LACAP should deal with this point, addressing the multi-functionality of these networks and the related ecosystem services and resilience also in a social key, also focusing on the development of the finer elements of the network that have been becoming poorer and poorer over time.

- **Urban regeneration and green systems**

The LACAP should aim at promoting urban regeneration (including densification, if/where possible), at increasing the quantity and quality of green areas and green systems (including vertical green), and at improving the resilience of areas under development (industrial areas, etc.).

- **Promote a conscious and sustainable water management**

"If water changes, Mantova changes". The future plan will have to address the theme of water and its management, enhancing the systemic and multi-semantic declinations with respect to the landscape. Water must be conceived primarily as a precious resource. Water management must be understood by the plan as an important preventive and defense strategy against hydrogeological risk; as an identifying character of the urban landscape; as a resource for the production of new services including tourism. Water management can affect water quality, impacting on the aesthetics and amenity values of the river and lake, and thus on the tourism sector.

- **Promote sustainable land use**

The LACAP should promote a zero soil consumption scenario, improve the quality of urban soils to increase resilience and limit hydrogeological risks, and define strategies to improve soil permeability;

Systemic actions on the urban scale

- **Work on public space to increase resilience**

The network of urban public spaces can also become a laboratory for the experimentation of new technological and compositional solutions, working on pavings and on green systems (trees, shrubs, turfgrass) of the roads, on the choice of materials, on water disposal and collection devices, lighting, etc.

- **Rethink urban mobility with greater regard to public mobility.** To encourage the use of public transport and multimodality in order to promote greater use of bicycles.

Systemic actions on the built heritage

- **Promote targeted actions on the built heritage.** The LACAP should promote the implementation of a program aimed at increasing the energy efficiency of public and private

buildings, to improve their performance and contribute to limiting energy consumption. The contents of the LACAP must also provide complementary guidelines and tools to promote and encourage urban regeneration interventions.

Awareness raising, education and communication.

The LACAP should include adequate communication and raising awareness strategies on the subject of climate change, so that the adaptation strategies are understood by the citizens. This kind of educational and informative action plays a crucial role since it lays the necessary foundations for the development of a collective critical awareness related to the theme of landscape adaptation.

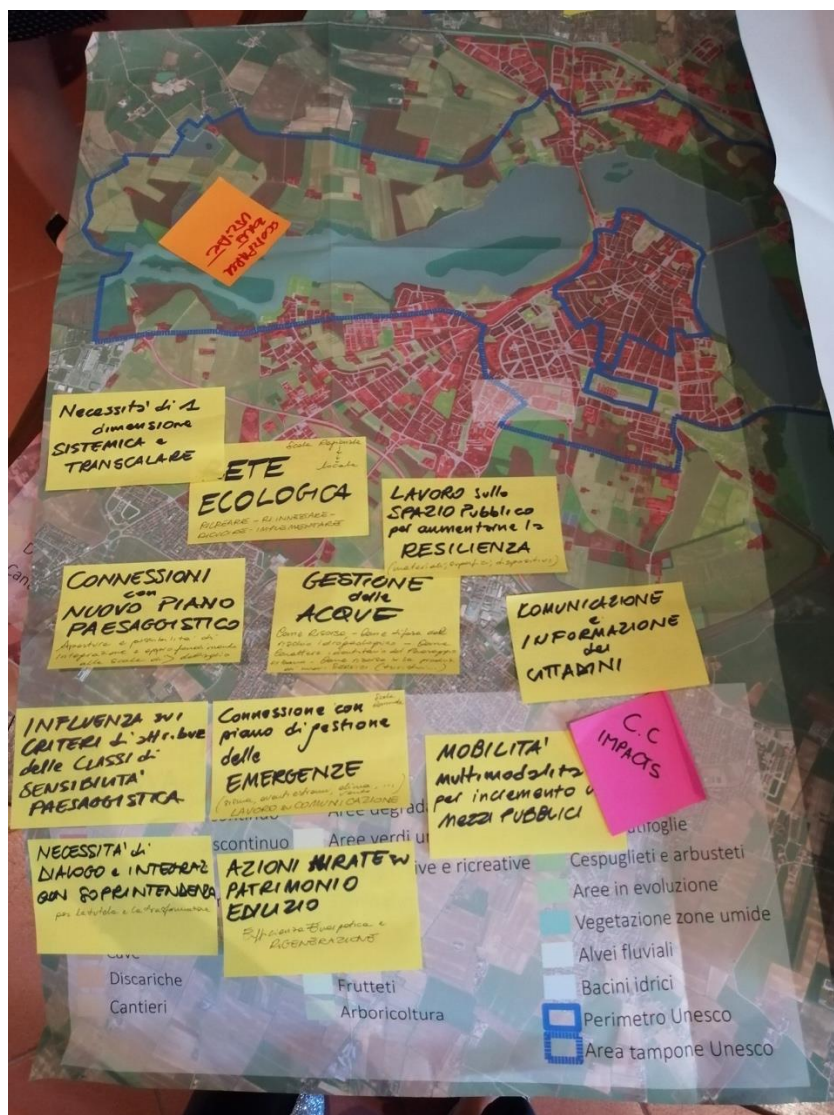
- Promote campaign to raise citizens' awareness on climate change issues.
- Promote an educational project that is suitable for various types of users (both for schools, professionals, and adults in general).
- Provide an adequate continuous communication strategy.

Summary of Results:

The local stakeholders have proved to participate in the discussion actively intervening and identifying both the problems caused by climate change and the possible strategies to cope with them. The has fruitful discussion and good interaction has allowed to identify a list of impacts and key issues and proposals for the creation of the future LACAP.

Picture(s) of the activity, presentation, raw outputs, etc.







SUMMARY:

- Participants agree on being part of the local network of stakeholders;
- Participants agree on being updated on the project's phases and development;
- Participants agree on using their logos on the project website;
- Participants confirm their interest in being involved in a future project for the definition of the LACAP;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability to participate to AELCLIC project. Opportunity of deepening specific aspects of synergy between public bodies at different levels, and of strengthening synergies between public and private stakeholders.
- Level of influence of the local characteristics (social, geographical, etc.) in the development of the activity: 5 out of 5.

Authors of the Report:
University of Bologna
University IUAV of Venice



23ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 19th, 2019 - from 10.00 p.m. to 15:30 p.m.

PLACE: Fondazione Radice Pura, Strada 17, N. 19. Fraz. di S. Leonardello – Giarre (CT)

ORGANIZERS: University of Bologna, Fondazione RadicePura, Piante Faro

Organizers

- University of Bologna (AELCLIC partner): Daniele Torreggiani, Ludovica Marinaro
- Piante Faro, Fondazione Radice Pura (AELCLIC Third Party): Giusi Monti, Sergio Cumitini

Stakeholders who accepted to join the network of stakeholders:

- IN/Arch Sicilia, Dott. Ignazio Lutri;
- Donnafugata and Coldiretti Sicilia: Francesco Ferreri;
- Associazione Musicale Etnea: Luca Recupero;
- Fondazione Piccolo and Agenzia per il Mediterraneo: Michele Germanà;
- Garden club ETNA: Giovanna Cosentino; Maria Carmela Vagliasindi

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Garden of Villa Borghese: Virginia Borghese;
- Councilor for Culture of the Municipality of Catania, Barbara Mirabella;
- Director of ecology and environment Municipality of Catania: Lara Riguccio;
- Legambiente Catania: Dott. Sandro Di Bella; Dott. Alfredo Tamburino ;
- Municipality of Giarre, Cultural Office
- FAI section of Catania, LIONS Club of Catania: Mandalà Prof.ssa Antonella
- Fondazione La Verde La Malfa, Art Park
- IDEATTIVA
- Garden of Kolimbetra
- Garden Club of Taormina: Ilde Tomassetti
- Garden Club of Messina: Flora Bombarda
- Orto Botanico of Catania: Prof. Gianpietro Giusso
- Le stanze In fiore
- ITALIA NOSTRA section of Messina

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop is the first one organized in the area called after Etna Landscapes, selected as one of the 16 pilot landscapes where the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this first workshop, to whom participated 10 persons, representatives of the local stakeholder's ecosystem and the event organizers, aims at determine and map the relevant impacts of climate change for the study area and then to co-define the contents and structure of a future Landscape Adaptation Plan to Climate Change.

The main objectives of the workshop could be summarized as follows:



- Explain and describe the project to the local stakeholders ecosystem;
- Ease the contact and the networking between the stakeholders and with the project's partners;
- Carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate the interest of the stakeholders in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Co-define the possible contents of a future plan for adapting the pilot landscape to climate change and the operational methodology with which this document / tool should be created and interact with the existing urban planning instruments.

All the stakeholders invited to the discussion confirmed their interest in collaborating in the project, and have shown interest and availability in a second workshop to be held hopefully in September. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

9.30- 9:45 a.m. | Welcome coffee

9:45 - 10:30 a.m. | The AELCLIC project: toward a landscape adaptation plan to climate change

Introduction and presentation of the AELCLIC project

- Opening greeting and presentation of the organization of the afternoon's work
- Presentation of the AELCLIC project and workplan + Climate change in a nutshell
- The participating stakeholders briefly introduce themselves
- Presentation of the pilot area: brief overview

10.30 - 11:45 a.m. | Changing landscapes. Perceived impacts on local plan.

Group work to assess the existing and most perceived impacts of climate change on the pilot area.

- Brief illustration of the purpose of the work to be conducted.
- Group work - A diagnosis of critical issues and impacts related to climate change is made, describing the already tangible and predictable consequences (guiding themes: extreme events, drought, desertification, temperature increase).
- During the work the impacts and criticalities are displayed aerial photo of the area in large format (coordination and visualization by UniBO).

11:45 a.m. – 1:00 p.m. | Visions to nourish the plan.

Focus groups to identify themes and possible solutions for the future plan for adapting the local landscape to climate change.

- Brief illustration of the purpose of the work to be conducted.
- Table tour: based on the results of the diagnosis of the first part of the morning, the stakeholders are invited to reflect on the possible adaptation solutions that could be implemented in the specific context, on the objectives that the adaptation plan should be and on the issues and the contents that the plan should deal with.



- During the work, the proposed objectives, themes and contents are displayed on a blackboard / aerial photo of the area in large format. This first brainstorming will be the subject of further implementation during the subsequent phases of the workshop.

1:00 – 2:00 p.m. lunch

2:00 – 3:00 | The Future Plan: first hypothesis of possible contents and structure of the plan.

- Brief illustration of the purpose of the work to be conducted.
- Open discussion among all stakeholders on possible contents of the future plan

3:00 - 3:30 p.m. | Conclusions - A ROADMAP for the plan.

Due to the strategic objective of the project, which in each pilot area aims to create "networks of local actors with the social, financial, administrative and technical capabilities to co-define in the future the adaptation plan of their own landscape to climate change", the workshop closes with a group discussion aimed at defining what it will take to create the plan for adapting to climate change in the Etna landscapes, in terms of knowledge, activities and resources (already available or to be acquired), in order to explore the feasibility (also in terms of connections with formally established institutions) and the most effective training process for the future creation of the plan.

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Definition of climate change impacts on the pilot area foreshadowing their potential effect on the landscape.

2. Initial draft of the contents and the structure of the future landscape adaptation plan to climate change.

1. Definition of climate change impacts on the pilot area foreshadowing their potential effect on the landscape: Starting from the introduction made by the organizers and a general overview of climate change impacts on the region, participants communicate their perception by applying on a cartographic support. Participants have started from an analysis of general and widespread climate change impacts and have then focused on the pilot area.

Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Which critical issues are related to climate change?
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. They also proved to be proactive in thinking about the possible contribution they could make to the project for the implementation of the adaptation plan.

The workshop allowed to identify the principal perceived impacts of climate change on the area of Etna landscapes. From this discussion, a list of perceived impacts has been created and it now reflects



a hierarchy of importance attributed to each climate change effect. The imagined proposals to face these effects are then divided by themes and areas that help define the adaptation strategies.

The key impacts confirmed are:

- Increased temperatures;
- Heat waves;
- Desertification;
- Climate tropicalization
- Extreme events;
- Water scarcity;
- Flooding;
- Sudden events;
- Hydrogeological instability;
- Abandonment;

2. Proposal of strategies for the adaptation plan. Starting from the identification of the main criticalities and obstacles detected on the territory both on the administrative, regulatory, cultural and infrastructural level, the key themes and approaches identified during the workshop has been created and led to the further formulation of the contents of the climate adaptation plan of the landscape.

The key themes identified to focus on within the project are:

- Policy integration;
- New models of governance;
- Financial incentives and new regulatory system;
- Reuse strategies;
- Circular Economy;
- Link with production chains;
- Recovery of traditional trades and knowledge;
- Care and protection of the territory;
- interventions on the green in urban areas;
- Renewable energies;
- Water Use and management;
- Soil consumption and impermeabilization;
- Agriculture as a testing laboratory of adaptation techniques;
- Tourism promotion;
- Communication and sensibilization of the citizenship;

Discussion: the key impacts and critical issues identified by the group work concur to define the framework of the effects of climate change on the pilot case of the Etna Landscapes. The discussion was able to investigate the effects on the landscape caused by the main impacts detected, such as the increase in temperatures, climate tropicalization and heat islands. Working on maps allowed the stakeholders to examine the impacts localizing them in the territorial context. This exercise conducted on the pilot area has enabled the critical awareness of the network to be stimulated, inviting the stakeholders to develop reasoning that started from landscape scenarios. This step, far from having an intent of exhaustive mapping, was instead the trigger necessary for the second part of the workshop, of a more projective and proactive nature.



2. Initial draft of the contents and the structure of the future adaptation plan of the landscape to climate change.

The second part of the workshop, which was also the one on which the most substantial part of the activity was concentrated, saw a discussion aimed at outlining the fundamental contents and a possible structure of the future plan to adapt the landscape to climate change. During the work group, a further in-depth discussion has been operated by the organizers with the illustration of international examples of climate adaptation plans promoted by various cities and metropolitan contexts, to feed the discussion and provide new ideas for the co-definition of the contents and the structure of the plan. The discussion then took place on the basis of the inputs provided and the results of the diagnosis of the impacts, outlining a first draft of desirable contents. In general, have been established some fundamental characteristics of the plan and the role it can play in concert with the existing urban planning instruments in order to make it effectively concrete and maximize the correspondence and the positive effects on the landscape.

GENERAL SCOPE AND CONSTITUTION

SYSTEMIC APPROACH TO COPE WITH LANDSCAPE DIVERSITY

The case of Etna landscapes is applied to a vast area whose borders are often blurred and which presents above all a great variety of landscapes in a relatively small territory. This marked diversity and variety has the effect of presenting a varied series of impacts found which are reflected in as many possible strategies and actions to deal with them. Therefore, the plan to adapt the landscape to climate change will have a systemic and transcalar dimension capable to adapt to a conspicuous landscape variety, which includes: urban areas, coastal areas, agricultural areas, mountain areas (the slopes of Etna). The plan will therefore provide complementary strategies for the various landscape unities.

LANDSCAPE AS A COMMON GOOD

The network, although there were many interested in the meeting, showed a good level of awareness of the problem covered by the AELCLIC project and more generally of the value and importance of the landscape. We can speak of a network that already possesses an adequate conception of the landscape. The widespread awareness that the landscape is a "common good" has emerged from the discussion. The plan will therefore start from this principle of sharing and attribution of value.

CIRCULAR ECONOMY

The network has shown a keen awareness that the effects of climate change will produce significant changes for the production activities of the territory, with particular reference to agricultural, nursery and wine-making activities in the area but not only, both in positive and in negative. It is therefore important that the adaptation strategies also include business strategies, in the sense that they involve the stakeholders of the territory in order to carry out their activities to assist adaptation, for the common good and for a landscape that continues to be representative of the identity and culture of the whole community. The plan with its strategies must therefore encourage the creation of a circular economy model.

REDISCOVER TRADITIONS

The plan to adapt the landscape to climate change can be an opportunity to rediscover and find new and modern application to all the rich wealth of experiences, technologies, ancient design solutions and traditional knowledge that have made these landscapes an expression harmonious of their communities, balanced systems. Informing the plan with this knowledge makes the site specific and cultural specific strategies and is configured as a good strategy for strengthening the identity as well as for communicating the project.



The institutional and regulatory framework

- **Agreements with the authorities responsible for territorial governance and landscape protection.** One of the general and priority criteria for drafting the plan concerns the need to establish the necessary synergies with the bodies responsible for the protection and government of the territory and the landscape at the various scales: Region, Superintendence of Cultural Heritage and local administrations. The relationships that must be established with a leading Municipality, for example the municipality of Catania, and with some virtuous municipalities are of particular importance. In fact, the group highlights the importance of having an institutional reference that can take charge of the future promotion and implementation of the plan, due to its proven importance.
- **Promote new governance models.**
- **Integration and complementarity with existing urban planning instruments.** Consequently, there is the need to formulate a general strategy of integration and dialogue with the urban planning instruments in force at the various scales. The future adaptation plan to climate change will have to constitute an integrative and corrective level of the transformation and protection policies.
- **Updating the existing planning instruments**
There is in general the need for the updating of programming and regulatory tools that could be also enriched with the creation of matrices of planning solutions and guidelines that can help the implementation of climate adaptation strategies at various levels.

Systemic actions on a vast territorial scale

- **Use Agriculture as a sector for experimenting with innovative techniques for adapting to climate change**
- **Improve and make explicit the direct link between supply chains and landscape.**
The enhancement of production chains, especially in the agricultural sector but also in the wine and nursery sector, appears as a strategy of synergetic adaptation of the territory and its operators to the changes that are affecting landscapes. Applying adaptation strategies that directly involve local companies with a range of solutions ranging from economic and financial incentives to concrete projects for transforming the territory, means making explicit and fully exploiting what the ELC has defined as "economic value of the landscape".
- **Promote a conscious and sustainable water management**
The future plan will have to take on the theme of water and its management, enhancing the systemic and multi-semantic declinations with respect to the landscape. Water must be conceived primarily as a precious resource. Water management must be understood by the plan as an important preventive and defense strategy against hydrogeological risk; as an identifying character of the urban landscape; as a resource for the production of new services including tourism.
- **Promote sustainable land use**
Stop soil consumption and improve the quality of urban soils to increase resilience and limit hydrogeological risk. Find strategies to stem the impermeability or poor permeability of soils;
- **Promote the connection with the coastal areas**
The plan must also be charged with improving communication between the hinterland and the coast, by acting on the mobility system that must be secured by extreme events and the numerous floods that occur during the latter.

Systemic actions on the urban scale

- **Work on public space to increase resilience**



The network of urban public spaces can also become a laboratory for the experimentation of new technological and compositional solutions, through work on the paving and on the arboreal shrubby system of the roads, on the choice of materials, on water disposal and collection devices, lighting etc ..

- **Improve the mobility**

it is necessary to implement a series of initiatives for the improvement of public transport and to create an efficient network that allows the development of soft mobility, an alternative to the massive use of private cars.

Systemic actions on the built heritage

- **Increase the use of energy from renewable sources.**

The use of renewable energy sources is generally felt as a priority adaptation strategy.

- **Promote targeted actions on the built heritage.** Implement a program for the energy efficiency of buildings to improve their performance and contribute to limiting energy consumption.

Awareness raising, education and communication.

The plan must also include adequate communication strategies and raising awareness of the citizenry on the subject of climate change, so that the adaptation strategies are understood and internalized by the citizens. This kind of educational and informative action lays the necessary foundations for the development of a collective critical awareness related to the theme of landscape adaptation and is of great importance.

- Promote campaign to raise awareness of citizenship on the issue of climate change.
- Promote a related educational project that is suitable for various types of users (both for schools, for professionals, and for adult citizenship in general).
- Provide an adequate continuous communication strategy.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying both the problems caused by climate change and the possible strategies to cope with them. Thanks to the contribution of the individual experiences of each of the stakeholders involved and of the suggestions that the organizers provided during the workshop, the discussion has been animated, producing a great and proactive level of interaction that led to shared results. In addition to the identification of a list of impacts, the outcome of the workshop is the definition of key issues and proposals for the creation of a climate change adaptation plan.

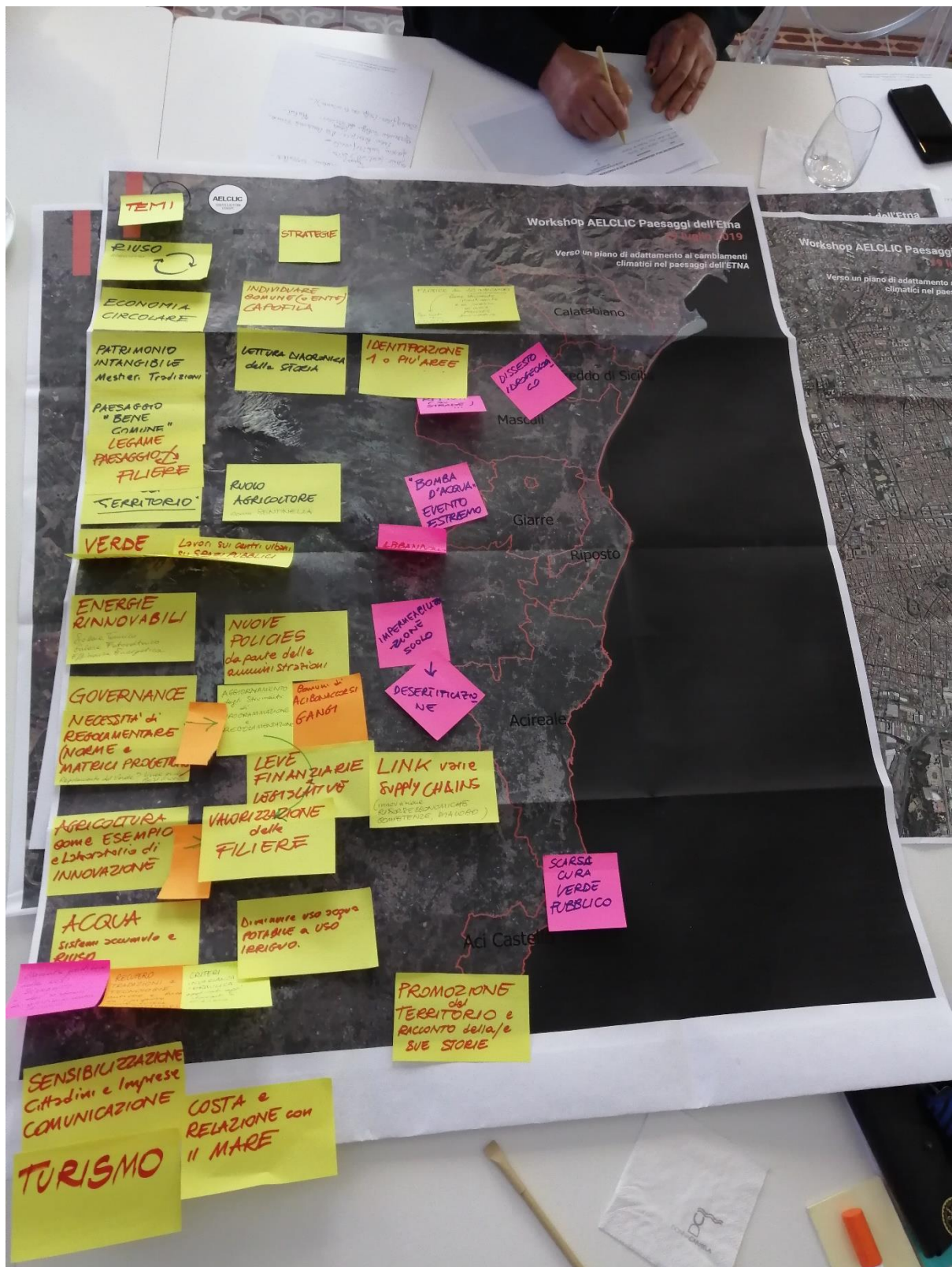
Closure

The organizers thank all the stakeholders for their active participation and recall that the elements that emerged in today's discussion will be the basis for the next step. All the stakeholders agree on the possibility of carrying out a new workshop to complete the projective part and the determination of the structure and contents of the plan.

Picture(s) of the activity, presentation, raw outputs, etc.







**SUMMARY:**

- Participants agree in being part of the local network of stakeholders;
- Participants agree in being updated on the project's phases and development;
- Participants agree in using their logos on the project official website;
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.
- Main Shortcomings or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- Main Reasons for the successful achievement of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- Learnt lessons and recommendations for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability to participate to AELCLIC project. Opportunity of deepening specific aspects of synergy between public bodies at different levels, and of strengthening synergies between public and private stakeholders.
- Level of influence of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

ECONOMIC REPORT:

TYPE OF COST	COST (€)
• Travel & Accommodation Costs for the partner(s) members	
• Goods, materials and external services	
• Sub-granting (e.g. Travel & Accommodation costs for Third Parties or collaborators)	
TOTAL	

Authors of the Report:
University of Bologna
Fondazione Radice Pura



ACTIVITY: workshop AELCLIC_PATHFINDER project

DATE and TIME: July 4, 2019 - from 9.30 a.m. to 13.30 p.m.

PLACE: Factory Hesper, 1st Dr. Constantin Istrati Street, Bucharest

ORGANIZERS: University of Bologna, EURODITE SRL

PARTICIPANTS:

Organizers

- University of Bologna: Daniele Torreggiani, Ludovica Marinaro
- EURODITE Srl: Joep Erik De Roo, Cristiana Stoian

Stakeholders who accepted to join the network of stakeholders:

- Alexandru Tararescu, Factory Hesper
- Adelina Stanoiu, National Institute of Materials Physics
- Iulia Laura Vasile, Architect, private citizen
- Sergiu Cruceanu, Senior advisor for Ministry of the environment,
- Miruna Draghia, Urbasofia (urban planning company)
- Anca Burcus, student landscape architecture, Fundatia Simetria NGO + Parcuri 360
- Irina Leca, National Heritage Institute and Vice-President of the ARCHÉ NGO

The following stakeholders accepted to join the network of stakeholders and planned to participate in the workshop but have not been able to attend due to unforeseen circumstances:

- Lavinia Andrei, president of Terra Mileniul III (NGO)
- Sorin Marin, researcher at the National Astronomical Institute (direct stakeholder in the area)

The following could not attend the workshop due to their schedule, but would like to be involved in the future in case the project continues:

- Miruna Trica, involved in several local organisations that deal with community activation in the Carol Park area

KEY OBJECTIVES of THE ACTIVITY (expected outcomes):

This workshop, co-organized by University of Bologna and Eurodite SRL, is organized in the multiplier pilot landscape of the city of Bucharest. In the area of "Parcul Carol and Filaret-Rahova neighborhood", which has been selected as one of the 16 pilot landscapes of the project, the AELCLIC project aims to create a network of local stakeholders with the capacity to co-define plans for the Adaptation of their landscape to Climate Change. In particular, this workshop is aimed at involving local stakeholders connected, at different levels, with the pilot area, presenting them the project, and allowing them to co-identify the impacts of climate change on the local landscape and opportunities for the future definition of a Landscape Adaptation Plan to Climate Change.

The workshop, attended by 11 people, representatives of local stakeholders' ecosystem and the event organizers, has been hosted at the headquarters of HESPER factory, located inside the pilot area.

The main objectives of the workshop could be summarized as follows:

- Explain and describe the project to the local stakeholders ecosystem;
- Ease the contact and the networking between the stakeholders and with the project's partners;



- Evaluate the interest of the stakeholders in the project, be they related or connected to inhabitants, businesses or institutions of the pilot area, or operating at a broader scale including the pilot area or parts of it;
- Explore their knowledge and awareness about climate change issues, and carry out a co-identified diagnosis of climate change impacts they know or perceive in the pilot area;
- Evaluate their interest in collaborating in the project and receive their expression of interest in appearing in the project website as a member of the network of stakeholders;
- Explore the opportunities and collect input on their potential involvement and contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change.

All the stakeholders invited to the discussion declared their interests in collaborating, with different modalities and different instruments, to the project. They also accepted to be updated on the project development and the future definition of a climate adaptation plan within the pilot area, intended as an integrated and systemic solution and as an information document supporting territorial and sector planning, as well as a reference for public or private initiatives on climate change adaptation.

AGENDA:

AELCLIC Bucharest workshop Agenda **July 4, 2019 – 9.30 am – 13.30 pm**

09:00 - 09:30 - coffee/ pastry welcome

09.30 - 10.15 | The AELCLIC project: Towards a climate change adaptation plan

Daniele Torreggiani, University of Bologna: Opening welcome, Description of the AELCLIC project, Work-plan and activities in the pilot area, Main climate change impacts in the region;

Presentation of the pilot area:

Joep Erik De Roo, Eurodite: Cultural heritage of area

Miruna Draghia, Urbasofia: spatial planning/planned development

Anca Burcus, Fundatia Simetria: Landscape analysis

10.15 - 11.15 | Changing Landscapes: Perceived impacts on local territories.

Group work on climate impacts, heritage values and urban planning aspects of the park

Participants work on the diagnosis of critical issues and impacts related to climate change, describing the already tangible and predictable consequences they notice or experience in the pilot area.

Impacts are visualized and mapped in real time.

Coffee break 11.15-11.30

11.30- 12.15 | Envisioning landscape to nourish the future plan.

Brainstorming based on the results of the diagnosis of the first part of the morning. The stakeholders are invited to reflect on the possible adaptation solutions that could be implemented in the specific context, on the objectives that the adaptation plan should take and on the themes and contents that the plan should deal with.

12.15 - 13.00 | Building the AELCLIC's local network.



Plenary discussion: each stakeholder is invited to discuss about the opportunities that can derive from a network collaboration between various local players, in terms of role and contribution in a future project that take care of creating an adaptation plan for the local landscape.

13.00 - 13.30 | A ROAD MAP for AELCLIC plan. Conclusions of the workshop.

KEY OBJECTIVE of THE ACTIVITY (expected outcomes)

1. Downscaling analysis of climate change impacts: participants have started from an analysis of general and widespread climate change impacts and have then focused on the pilot area.

Discussion:

Identification of the problem:

- What impacts derive from Climate Change?
- Critical issues related to climate change
- Impacts on the local landscape, in terms of life, environment, local productive and economic activities, cultural and natural heritage, wellbeing of inhabitants.

Summary of Results:

The local stakeholders involved at the table proved to participate in the discussion actively intervening and identifying various impact problems caused by climate change. They also proved to be proactive in thinking about the possible contribution they could make to the project for the implementation of the adaptation plan.

The key impacts identified are:

- Heat waves;
- Increased temperatures;
- Extreme events;
- Sudden events;
- Air Pollution;
- Water scarcity;
- Seasons change and loss of seasonality;
- Tropicalization
- Soil impermeability
- Loss of Fauna;
- Birds proliferation

The key themes identified to focus on within the project are:

- Maintenance of the park and the neighborhood public spaces network:
 - Ordinary maintenance (better knowledge of the urban landscape): water nets; maintenance of paths and roads; downstream problem with poor channeling; vegetation;



- Extraordinary maintenance: to face repeated flooding; destruction of trees; difficulty in managing utilities consumption; ...
- Water management
Lowering of ground level water
- Impermeability or poor permeability of soils;
- High temperatures and thermic discomfort
Lack of thermal comfort and consequent necessity to use of air conditioning;
Discomfort for weaker groups;
- Vegetation (there is no long term plan for vegetation in the Park and moreover in the neighborhood; need to understand vegetation's key role and issues;
- Ecosystem balance
Increasing number of insects and seasonal allergies;
Invasive species (crows)
- Industrial Heritage (mostly abandoned, needs to be protected and enhanced)
- Manage extreme events as Flooding (e.g. subway, watershed), umber of **summer storms**;
- Mobility: need to rethink mobility in order to reduce pollution and traffic;
 - Scarce appeal of slow mobility infrastructures;
- Tourism: impact on tourism
 - Facilities damaged for a lack of management of the park (paths, stairs, facilities for tourism);
 - Loss of seasonality;

2. Creation of a local ecosystem of stakeholders:

Discussion: the key impacts and critical issues identified by the group work are summarized by the facilitators. Each stakeholder is invited to think about the opportunities and potential contribution (knowledge, skills, activities, etc.) and possible synergies related to a future project for the definition of a Landscape Adaptation Plan to Climate Change.

Summary of Results

Opportunities of the territory

- The main cross-sector and transversal themes which have come out from the work-group are as follows:
 - Initiate actions to raise awareness of citizens and neighborhood residents about climate change effects and the need to create a climate change adaptation plan;
 - Foster a mature environmental awareness;



- Raise awareness about the role and the value of vegetation, in general and to face climate change, as people often see trees merely as objects;
 - Increase public green spaces even for thermal regulation purposes;
 - Promote the natural heritage values protection;
 - Provide actions to make ecosystem in balance again fostering also the rediscover the biodiversity;
 - Improving alternative and sustainable mobility in the city;
 - Act directly on the network of public spaces and above all on the soft mobility; system to improve the quality of the places;
 - Make a clearer link between the limits of the park and the surrounding tissue;
 - Foster the integration of renewable energy solutions in the city (especially solar roofs, or implementing the “Casa Verde Project”);
 - Act on the built heritage to increase the energy efficiency of buildings;
 - Create green pockets connected to the park in the neighborhood;
 - Create green roof demonstrator projects in the neighborhood;
 - Improve the attractiveness of the Park;
 - Turn the Carol Park into a flagship hub of innovation in the climate change and sustainability domains (similar to an exhibition center, a demonstrator of climate change adaptation and dialogue with the industrial heritage with educational purposes);
 - Retention solutions for water;
 - Need for storytelling to improve the park sensory perception;
 - Start a monitor activity on the quality of air, the vegetation status, social uses and perception , ...;
 - Importance of the connection with spatial and landscape planning tools and of the involvement of the municipality of Bucharest / a municipality district in the network.
- From the work group, different opportunities have been identified. They are directly identified with places or features whose involvement in the project could provide desirable adaptation conditions and synergic actions:
- Carol Park and Filaret neighborhood
 - Tineretului Park (provide links) ;
 - Industrial heritage buildings;
 - Cismigiu park (provide links) ;

Potential contribution related to a future project for the definition of a Landscape Adaptation Plan to Climate Change

The stakeholders identified the achievable goals and the possible synergies between the various participants. The main potential contributions can be summarized as follows:

- Data and knowledge, raising awareness and dissemination;
- Study of impacts on the energy front, knowledge about solar cells, demonstrator activities;
- knowledge on built heritage and especially on industrial heritage and architecture;
- heritage studies, activation of heritage buildings, linking partners (ICOMOS) for trying to get grants; Cultural tours; community activation;
- Community awareness; networking with local actors;
- information about vegetation, creation of a green registry, create a ASoP – map for green management; provide volunteers to manage the park;

- Collecting data about the uses and activities of the park;
- knowledge on technical climate change measures;
- Networking and involving other actors to build a strong network and also for potential regeneration projects;
- Promoting internal/external awareness and dissemination through the own business, financial and entrepreneurial network.
- Write proposals, documents, drawings

Picture(s) of the activity, presentation, raw outputs, etc.





SUMMARY:

- Participants express their wish to be part of the local network of stakeholders;
- Participants express their wish to be updated on the project's phases and development;
- Most participants express their wish to use their logos on the project official website;
- Participants agree on the opportunity of evaluating the possibility of organizing a second workshop with the aim to broaden the network and further develop the discussion
- Participants confirm their interest in being involved in a future project for the definition of the plan;
- Level of Achievement of the expected outcomes: 5 out of 5.



- **Main Shortcomings** or barriers for the full achievement of the expected outcomes: no barriers emerged during the workshop. Participants were proactive and sensitive to the topic.
- **Main Reasons for the successful achievement** of the expected outcomes: climate change regularly affect stakeholders' daily activities both from a personal and professional perspective. They probably perceive the urgency to tackle the challenge and to create a network of actions.
- **Learnt lessons and recommendations** for similar activities in the same place/other places: stakeholders have showed a great interest in sharing their own experience and have highlighted the availability and opportunity to connect other areas to the core area already identified, to benefit from networking at a broader scale. AELCLIC activities on the Bucharest pilot landscapes have thus proved effective also in promoting positive impact and possible connections with other sites in the metropolitan area of the capital.
- **Level of influence** of the local characteristics (social, geographical, etc) in the development of the activity: 5 out of 5.

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