



## **URBAN AGENDA FOR THE EU ORIENTATION PAPER**

### **Climate Adaptation Partnership DRAFT VERSION**

\*\*\* As the EU Urban Agenda has no legal basis and as participation is voluntary, the actions presented in this Orientation Paper are not compulsory. They are recommendations. \*\*\*

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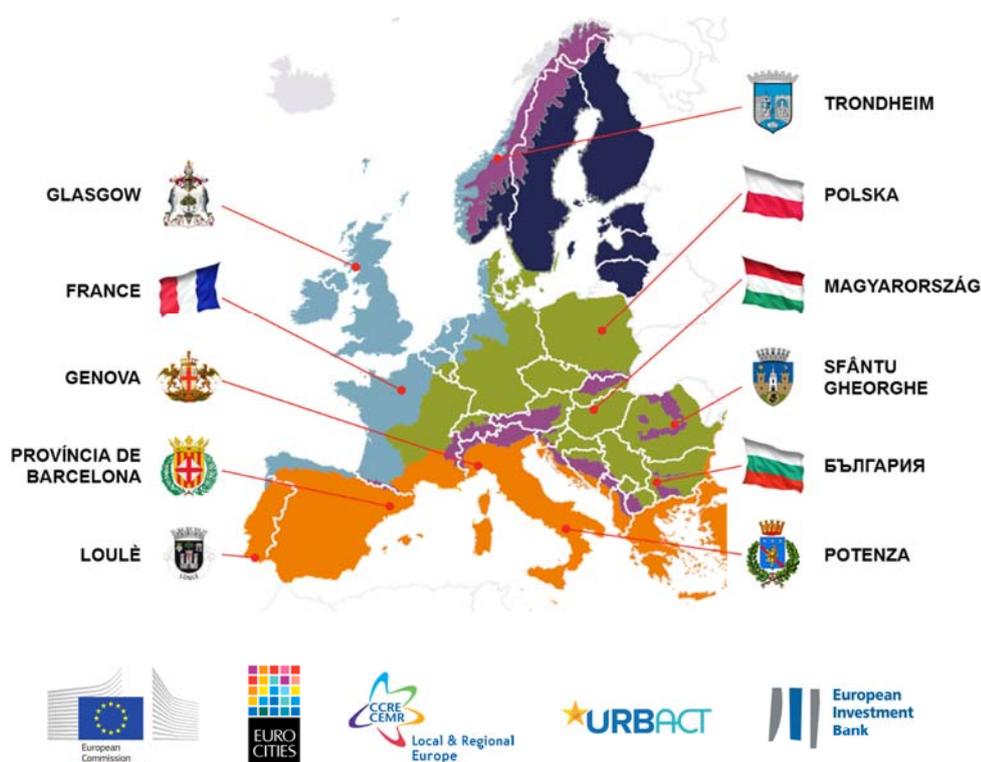
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## 1. PARTNERSHIP COMPOSITION

The Member States and the Local Authorities involved in the Climate Adaptation Partnership (named CA Partnership) represent 47.952 Local Administrative Units (LAU2) that consists in 40% of the municipalities or equivalent units, which form the European Union.

In the urban areas of these same States and Local Authorities live 94 million inhabitants, the 25% of the European Union population that lives in an urban environment.

The Partnership consists of:



Member States	Local Authorities	European Commission	Other EU Organizations
FRANCE	GENOVA (IT) - Coordinator	DG REGIO	EUROCITIES
POLAND	BARCELONA Diput. (ES)	DG CLIMA	CEMR
HUNGARY	GLASGOW (UK)	DG ENV	EIB
BULGARIA	TRONDHEIM (NO)	DG RTD	URBACT
	LOULÈ (PT)		
	POTENZA (IT)		
	SFANTU GHEORGHE (RO)		

## 2. OBJECTIVES OF THE PARTNERSHIP

### 2.1 Presentation of the issues

The severe impacts of *extreme weather* on many European *urban centres* which occurred in the last few years shows us some of the hazards, exposures and vulnerabilities (in one word: risks), which must be addressed by the urban communities.

The issues linked to the impacts of climate change in urban areas have been addressed in a number of reports and policy documents produced by European and international Organisations and Agencies. These include:

- *Climate Change impacts and vulnerability in Europe 2016* - European Environment Agency (EEA 2017);
- *The Global Risks* - World Economic Forum (WEF 2017);
- *Urban adaptation to climate change in Europe 2016 - Transforming cities in a changing climate* - European Environment Agency (EEA 2016);
- *Habitat III - New Urban Agenda* - United Nation Conference on Housing and Sustainable Urban Development (UN GA 2016);
- *Sendai Framework for Disaster Risk Reduction 2015-2030* - United Nations Office for Disaster Risk Reduction (UNISDR 2015);
- *Paris Agreement* - United Nations Framework Convention on Climate Change (UNFCCC - 2015);
- *Climate Change 2014 Impacts, Adaptation, and Vulnerability - Part A: Global and Sectoral Aspects* - Fifth Assessment Report - Intergovernmental Panel on Climate Change (IPCC 2014);
- *Adaptation in Europe - Addressing risks and opportunities from climate change in the context of socio-economic developments* - European Environment Agency (EEA 2013);
- *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation - Special Report* - Intergovernmental Panel on Climate Change (IPCC 2012);
- *Budapest Communiqué on European urban areas facing demographic and climate challenges* (the Directors General responsible for urban development 2011).

Analysing all the above-mentioned reports there are some key issues that would help to identify which are the better adaptation solutions to tackle the impact of climate change respect the urban context and the human being. Among the others:

- the lack of a unique definition and boundaries of Urban Area / Urban Centre considering climate changes impacts:
  - these areas may cover the range from small cities with a few thousand (or few hundred) inhabitants or can be metropolitan areas with millions of inhabitants with consequently differences in capacity to react to adverse conditions;
  - there are also differences in how urban boundaries are set taking into consideration different kind of risks to develop a successful approach to disaster risk reduction (DRR) and/or climate change adaptation (CCA). In some situations, basically, it will be useful to focus on the urban built up area or on the central urban core (e.g. respect to urban heat island, flash flood) but, in others situations, it will be important to consider the areas encompassing the built up areas as well as the bordering intermediate/rural areas, those devoted to agriculture and/or those

where the peripheral connecting infrastructures are located (e.g. respect to drought, water scarcity);

- the changing location, different nature, intensity and length of time of climate-related events call for appropriate knowledge on risks and vulnerabilities and need specific actions, e.g.:
  - in case of climate-related extreme “shock events”, such as floods, landslides or heat waves they have direct and unequivocal impacts on Urban Areas to tackle;
  - changing location of these shock events need long term perspectives but also flexible approaches, to learn from each other and use contemporary solutions, like green infrastructure approach;
  - in case of the named “stress events”, such as glacier melt, sea rise, drought, heat stress, it would be less easy to analyse and face the effects of the impact of the climate-related, because they may threaten building environment and its population through, for instance, a slow damaging of ecosystem services and the progressive decreasing on agricultural productivity.

## 2.2 Scope of the Partnership

In the main Urban Agenda Priority Themes the central scope of the Climate Adaptation Partnership is: *“the objectives to anticipate the adverse effects of climate change and take appropriate action to prevent or minimise the damage it can cause to Urban Areas. The focus will be on: **vulnerability assessments, climate resilience and risk management** (including the social dimension of climate adaptation strategies).”*<sup>1</sup>

The scope of the CA Partnership would be to translate the needs of Cities, Member States and EU Commission Organizations in a common awareness level of the criticality of climate change and related impacts in urban areas, to develop progressively city and people capacities in a medium-long term perspective through actions proposals of better regulation, funding and knowledge exchange.

To achieve the main goals defined above, the Partnership will check what has already been done, which strategies, actions and working groups/networks covering these issues at EU and National level has already been implemented to inventor and use them as a starting point to define scoping papers to focus what the partnership proposes to address. Scoping papers will be defined by the thematic working groups, as described in the chapters 3.1.1.

The Partnership will follow the recommendations of the Pact of Amsterdam, thus considering Climate Adaptation with respect of selected cross-cutting issues (see chapter 2.2.1 for further details), to find both the main existing bottlenecks (institutional, knowledge...) that limit the responsiveness of cities and people, and the potentials on which invest resources to improve resilience capacity to face impacts of climate-related events not only at local level, but at a multilevel governance scale.

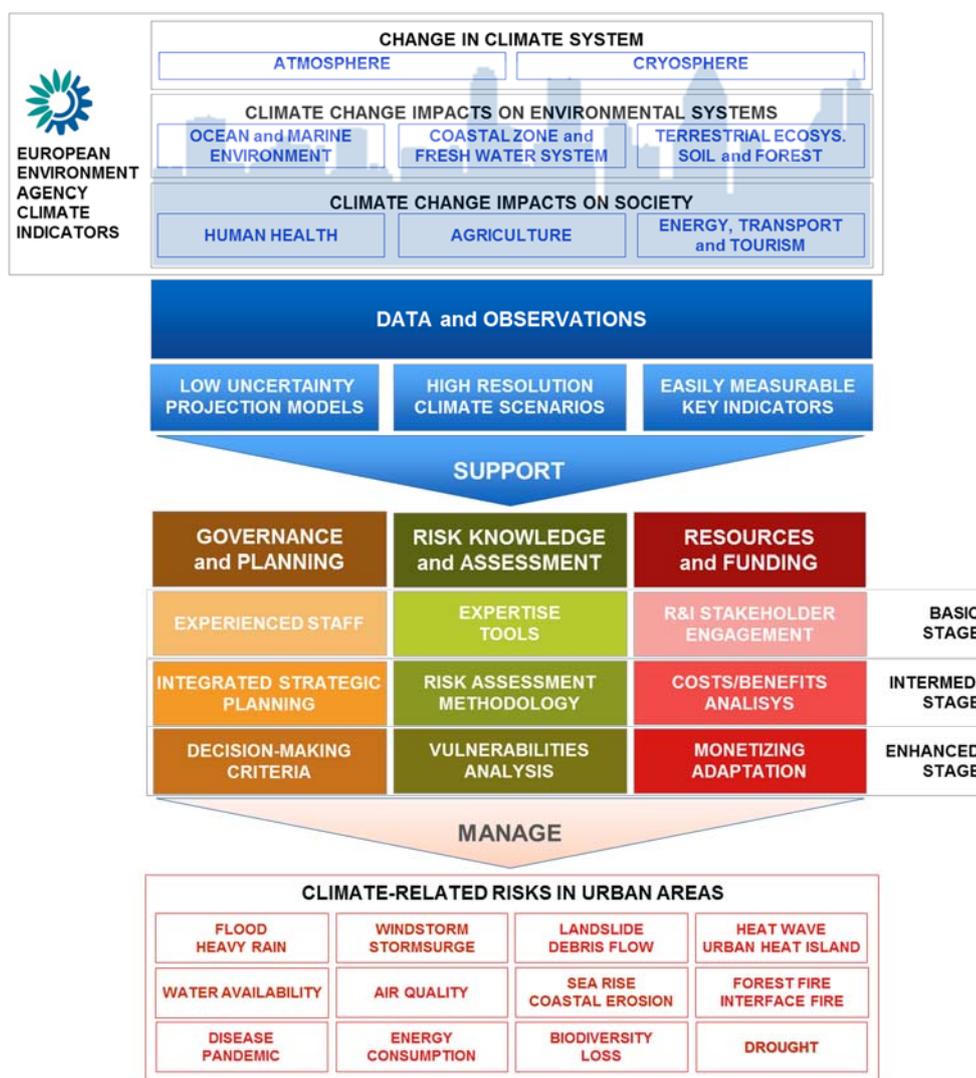
The concrete actions of the Partnership will be then defined in the Climate Adaptation Action Plan, that will contain a roadmap with useful climate-related actions and monitoring indicators; every action chosen to be implemented in urban areas will be assessed in an Adaptation Policy Cycle (see chapter 2.5) with the multilevel governance support and participation.

The indicators and the elements taken from the main references on Climate Change put in evidence that the Urban Area Administrations of different size need on one hand reliable, easy-to-read, useful data and information to increase their capacity to adapt to the effects of such

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<sup>1</sup> Urban Agenda for the EU – Pact of Amsterdam, B Initial list of Priority Themes

change in a more effective and timeliness way. On the other hand to establish a progressive enabler path, from basic to enhanced stage, would increase the capacity to manage risks that affect urban area/urban centres.



The figure shows a summary of indicators, parameters, progressive enabling path to face climate-related risks impacts in urban areas through adaptation actions.

During the Kick off meeting of the Urban Agenda Climate Adaptation Partnership, the partners participated in a workshop to identify research, practitioner decision-maker needs, links and relationship among matters on adaptation to climate changes.

This workshop produced final outcome that indicates the three main themes of the Partnership: **Governance**, **Knowledge** and **Resources** that become the focus of three dedicated working groups. Each one, after adoption of the Orientation Paper, will define more precisely the topics they will be working on, but an indication of potential areas to be explored is given here below:

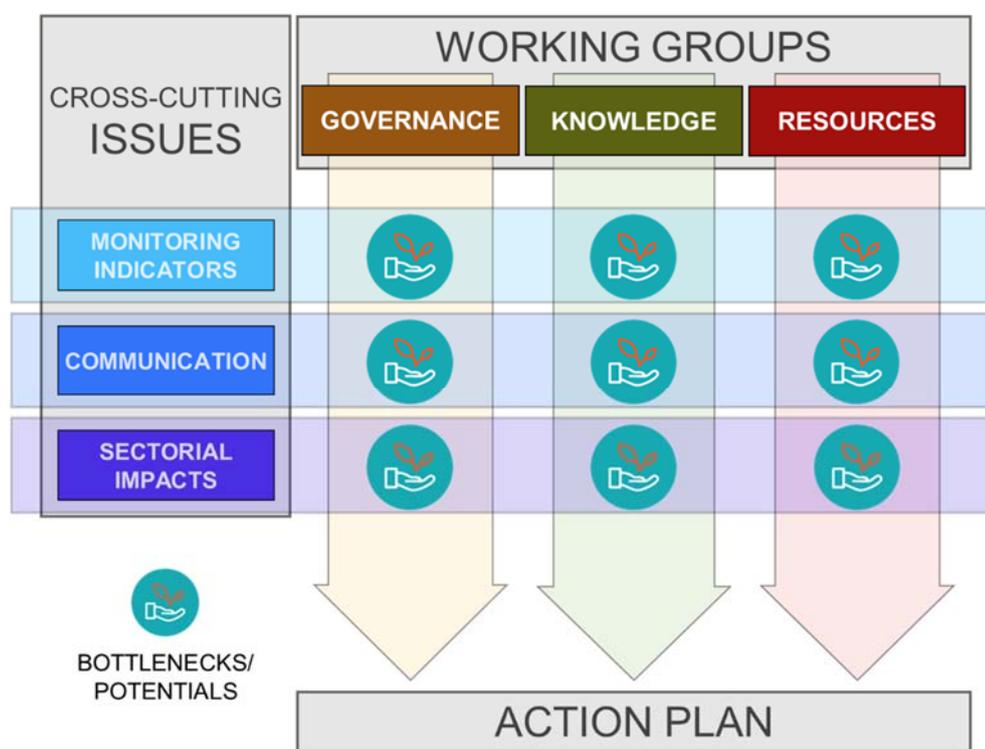
- **Working group Theme A - Governance** would deal e.g. with the topics of political cycle and mandates, integrated strategic planning in Climate Adaptation institutional barriers to implementation;

- **Working group Theme B - Knowledge** could cover, among others, the topics of data, expertise, capacity building and knowledge transfer, tools and methodology for climate-related risk assessment and 1) development of monitoring/indicators systems for Climate Adaptation or 2) indicators for monitoring climate adaptation measures;
- **Working group Theme C - Resources** could deal e.g. with topics of funding, people, cost-benefits analysis and monetizing Climate Adaptation Actions.

In addition, three cross-cutting **issues** were identified during the workshop and to be addressed by all working groups. The three cross-cutting issues, and examples of areas that could be addressed are provided here below:

- **Monitoring/Indicators** of Climate Adaptation tackling the use and application of indicators;
- **Communication** of Climate Adaptation including stakeholder engagement, local action groups, dissemination;
- **Sectorial Impact** of Climate Adaptation. This issue deals with sectoral focus (e.g. construction such as buildings and open spaces or health).

This way, the identified themes and related topics will be cross-analysed with the issues, so as to identify bottlenecks and potentials for each crossing which should be addressed by the relevant working group. This way of functioning is represented below:



### 2.2.1 Themes and Topics

The topics and elements described below will be covered by a category name that will represent the Theme and Working Group that will develop the bottlenecks/potential cross cutting analysis with the enablers/issues and the related forthcoming activities.

The contents of some of the proposed topics list are borrowed from the recommendations belonging to the Reports and Agreements mentioned as named references; each topic is qualified by selected elements referred to the urban areas (see reference list in section 2.1).

#### **Theme A - Working group Governance**

Strategies and planning developed at different timescales, competences, guidance and coordination are key factors of governance. This category/working group would focus the analysis on three topics referred to detailed possible climate adaptation solutions in Urban Area/Urban Centre.

##### *Topic 1 - Coordination and Organisational Structure*

References highlight the following elements and needs:

- to promote dedicated local structure to boost institutional interest and/or enhance involvement in urban climate adaptation, awareness and change, empowering the city skills' staff;
- to establish horizontal (i.e. across sectoral departments) coordination mechanisms and vertical (i.e. across governance levels) coordination mechanisms and planning, to promote strategic thinking, strengthen integrated and innovative approaches;
- to establish consultative and participatory mechanisms, fostering the multi-stakeholder engagement in the adaptation process;
- to facilitate the development of a framework for knowledge-exchange across experienced staff in different European Cities.

##### *Topic 2 - Political Cycle - Mandate*

Partnership highlight the following elements and needs:

- to rethink traditional approaches adding and/or integrating climate adaptation, green infrastructure planning, land use management and local regulatory frameworks to urban planning;
- to use Strategic Integrated Planning as common methodology to manage Urban area/Urban centre to cope with Climate Change Impacts;
- to ensure continued support of the public administration across several election cycles to maintain commitment to long-term actions and policies.

##### *Topic 3 - Decision making criteria*

References highlight the following elements and needs:

- to develop toolkits and decision frameworks that can effectively inform and support local policies and strategies on climate adaptation with multilevel governance coordination;
- to select reliable short-term and long-term socio-economic, environmental and spatial indicators to support decision-making drawing evaluating and connecting their interdependency on climate adaptation variables.

Summary of theme, topics and elements

THEME	TOPIC	ELEMENTS
GOVERNANCE & PLANNING	COORDINATION AND ORGANISATIONAL STRUCTURE	LOCAL STRUCTURES
		HORIZONTAL AND VERTICAL COORDINATION
		CONSULTATIVE AND PARTICIPATORY MECHANISMS
		KNOWLEDGE EXCHANGE
	POLITICAL CYCLE - MANDATE	URBAN PLANNING INTEGRATE CLIMATE ADAPTATION
		INTEGRATED STRATEGIC PLANNING
		COMMITMENT CONTINUITY
	DECISION MAKING CRITERIA	TOOLKIT & DECISION FRAMEWORKS
		RELIABLE INDICATORS TO SUPPORT DECISION MAKING PROCESS

**Theme B - Working group Knowledge**

Policies for Climate Adaptation and risk reduction should be sustained by the knowledge of the urban and natural environment, its related specific hazard characteristics, as well as the availability of reliable data on the vulnerability and exposure of population, infrastructures and assets. Work in this area will take stock of the many methodologies that already exist at European level to help cities plan their adaptation measures and evaluate risks and vulnerabilities, such as the Climate ADAPT platform, etc. and the monitoring and reporting framework of the Covenant of Mayors for Climate and Energy.

*Topic 1 - Risk Assessment*

References highlight the following elements and needs:

- to monitor, record and report damages associated to climate related extremes;
- to carry out local and sectoral risk assessments;
- to list, monitor, and evaluate adaptation actions at the local level;
- to adopt customized (Europe Region) UNISDR Scorecard Indicators - Sendai Framework for Disaster Risk Reduction in relationship with other climate adaptation tools to establish which are the thresholds of urban/local communities resilience.

*Topic 2 - Hazards and Exposures*

References highlight the following elements and needs:

- to identify expected impacts of all kind of hazards (because communities could be potentially affected by) in selected context (urban-rural, urban-urban and cross-border) to manage the risks and to contribute to Climate Adaptation Planning at medium-term and long-term periods.

*Topic 3 - Vulnerability analysis*

References highlight the following elements and needs:

- to analyse the vulnerabilities as pre-requirement that contribute to understand that climate-related events may become disaster occurrences;
- to define different vulnerability profiles which depend on economic, social, geographic, demographic, cultural, institutional, governance and environmental factors;

- to assess the role of stressful non-extreme events (e.g. drought, warm spells, etc.) on exposed populations and infrastructures vulnerability.

#### *Topic 4 - Data*

References highlight the following elements and needs:

- to gather standardized methodologies to compare data between different urban contexts;
- to compare, elaborate and represent data in a dynamic way, taking into account time as the main variable.

#### *Topic 5 - Expertise*

Partnership highlight the following elements and needs:

- to involve experts to present, according to their experience in the field, the best methodologies, tools and concrete experiences, solutions for climate adaptation, also for information management and knowledge dissemination (e.g. projects implemented in their countries);
- to promote debates on the impact of climate change and identify the most critical sectors.

#### *Topic 6 - Methodologies and Tools*

Partnership highlight the following elements and needs:

- to inventory tools and products to facilitate the preparation and implementation of strategies about climate change (e.g. presentation of Methodologic processes already carried out in the context of Climate Change);
- guidance for sustainable urban planning, climate change plans (including green infrastructure solutions);
- guidance on use of data and models for planning, implementation and monitoring;
- to develop and present innovative tools and products that facilitate the awareness and the dissemination among citizens (e.g. communication materials - brochures, websites, brands);
- to promote techniques to facilitate the active involvement of the different actors (in particular through the creation of local and national networks, the involvement of partners and key actors in the implementation of Climate Change Adaptation);
- to propose an integrated methodology to account for the climate adaptation contribution of urban grey and green infrastructure investments, including both individual investments and multi-sectoral investments under a city's long term capital expenditure programme; identify suitable indicators to be monitored by the local authorities – this would be particularly important to justify intervention by climate/green financing instruments or EU / IFI targeted interventions.

Summary of theme, topics and elements

THEME	TOPIC	ELEMENTS
KNOWLEDGE	RISK ASSESSMENT	MONITORING, RECORD AND REPORT DAMAGES
		LOCAL RISK ASSESSMENT
		LOCAL LEVEL ADAPTATION ACTION EVALUATION
		UNISDR SCORECARD CUSTOMIZED INDICATORS
	HAZARD AND EXPOSURE	EXPECTED IMPACTS IN SELECTED CONTEXT
	VULNERABILITY ANALYSIS	CLIMATE-RELATED EVENTS/ DISASTER OCCURENCES
		VULNERABILITY PROFILES DIFFERENCES
		STRESSFUL NON-EXTREME EVENTS ROLE
	DATA	STANDARD METHODOLOGIES
		TIME RESPONSIVENESS
	EXPERTISE	INVOLVEMENT ON CONCRETE SOLUTIONS
		CLIMATE CHANGE IMPACTS/SECTORS DEBATES PROMOTION
	METHODOLOGIES AND TOOLS	SUPPORT CLIMATE GHANGE STRATEGIES
		GUIDANCE URBAN PLANNING/CLIMATE ADAPTATION
GUIDANCE ON USE AND DATA MODELS		
INCREASED AWARENESS		
PROMOTION TECHNIQUE OF PROACTIVE INVOLMENT CITY'S LONG TERM CAPITAL EXPENDITURE PROGRAMME ON CLIMATE ADAPTATION		

**Theme C - Working group Resources**

The capacity of human and natural systems to adapt to climate change depends on their resources availability. Adaptation opportunities, constraints, and limits are connected to the context of social actors, which includes individuals, businesses, government agencies, or other informal social groups. Sometime, difficulty in allocating and assessing adaptation resources is related with the lack of specific indicators on costs and benefits analysis, resource depletion, environmental change, and distributional issues.

*Topic 1 – Funding*

Partnership highlight the following elements and needs:

- evidence of gap between adaptation needs and funds available for adaptation to achieve a better assessment of global adaptation costs, funding, and investment. Studies estimating the global cost of adaptation is characterised by shortcomings in data, methods, and coverage;
- different financial products for different types of interventions (e.g. grants, loans, guarantees, credit enhancement etc.) which may come from different sources (e.g. national budget, ESIF resources, loans from commercial banks and/or IFIs, investments by private sector companies, etc.);
- different financing sources and products to support studies (e.g. CR-Climate Resilience VA-Vulnerability Analysis), capacity building, and capital investment.

*Topic 2 – People*

Partnership highlight the following elements and needs:

- institutional capacity of cities (including smaller cities) to handle climate adaptation and potential support needs;
- human resources, for example staff training on economic adaptation issues.

*Topic 3 – Value of adaptation - social, economic.*

Partnership highlight the following elements and needs:

- to evaluate costs and benefits of adaptation options and interdependencies between adaptation policies and other policies;
- to extend cost-benefits analysis/cost effectiveness analysis;
- to evaluate non-monetary costs and benefits related to adaptation options;
- to recognize that soft measures (e.g. early warning systems, disaster preparedness plans, change in operations and management etc.) can generate significant results without necessarily requiring large infrastructure investments;
- to extend cost-benefit analysis to the no-acting respect to municipalities, citizens, businesses;
- information sources;
- monitoring costs;
- to assess co-benefits of adaptation options in terms of e.g. mitigation, health, wellbeing, property values.

*Topic 4 – Monetizing Climate Adaptation*

Partnership highlight the following elements and needs:

- to identify the types of climate adaptation interventions or actions that could generate revenues or savings/reduced losses. This could justify the use of repayable sources of finance (e.g. loans, financial instruments);
- to analyse the potential for private sector investment in climate adaptation if the benefits of such investments for businesses and economic activities are demonstrated;
- to assess the need for a dedicated blending facility encompassing technical assistance (e.g. for CRVAs - Climate Risk Vulnerability Analysis - feasibility studies, etc.) and potential financing from international financial institutions.

Summary of theme, topics and elements

THEME	TOPIC	ELEMENTS
RESOURCES	FUNDING	GAP - ADAPTATION NEEDS/FUNDS AVAILABILITY
		DIFFERENT FINANCIAL PRODUCTS FOR INTERVENTIONS
		DIFFERENT FINANCIAL SOURCES FOR STUDIES CRVA
	PEOPLE	CAPACITY OF CITIES
		HUMAN RESOURCES
	VALUE OF ADAPTATION	COSTS/BENEFITS OF ADAPTATION OPTIONS EVALUATION/INTERDEPENDENCES
	MONETIZING CLIMATE ADAPTATION	EXTENDED COST BENEFITS ANALYSIS
		NON MONETARY COST OF ADAPTATION OPTIONS
		SOFT MEASURE GIVE RESULTS WITHOUT LARGE INVESTMENTS ON INFRASTRUCTURES
		COST/BEFEFIT OF NO-ACTING
		INFORMATION SOURCES
		MONITORING COSTS

THEME	TOPIC	ELEMENTS
		ASSESS COST/BENEFIT ADAPTATION OPTIONS
		CLIMATE ADAPTATION OPTIONS/ACTIONS TO GENERATE REVENUE OR SAVING/REDUCING LOSSES
		ANALYSIS THE POTENTIAL FOR PRIVATE SECTORS INVESTMENTS IF BENEFITS ARE DEMONSTRATED
		DEDICATED BLENDING FACILITY/TECHNICAL ASSISTANCE FOR E.G. CRVA

## 2.2.2 Cross-cutting Issues

The horizontal **factors/issues** represent the comparative enabler to perform the cross analysis devoted to find concrete bottlenecks and potentials to be addressed by the definition of the Action Plan with specific actions. Each issue is defined by parameters and elements chosen by the Partnership as qualifying factors.

### **Monitoring Indicators**

Confidence is a key aspect since policy-decision-makers hesitation is often caused by the uncertainty still existing on climate trends and indicators. In order to better evaluate the expected local impacts and to implement more effective and focused measures cities would have at their disposal a flexible process, connected to a continuous monitoring of adaptation actions in order to be evaluated and revised on a constant basis. The topics' themes will be analysed respect to the following parameters and elements:

#### *1 – Models Uncertainty*

- best availability of climate data and information that describe scenarios of future radiative forcing and variables that describe climate impacts;
- uncertainty about the trends of ecological, societal, economic, spatial and technological change at local scale when introducing climate change factors as added variables.

#### *2 – High resolution and high-end climate scenarios*

- data resolution limits on climate scenarios to increase the geophysical, biological, and socioeconomic downscaling necessary to implement climate adaptation actions at local scale;
- critical system functionalities that are valuable to stakeholders and society (i.e., what are the urban adaptation requirements to face high-end Climate Change that can ensure the functionality of all networks, e.g. telecommunications, water, gas, electricity or transportation).

#### *3 – Local Level indicator - Use and Application*

- human deaths and injuries;
- number of permanently or temporarily displaced people and that ones directly and indirectly affected by climate events;
- impacts on properties, infrastructures, services, lifelines, ecosystem services, crops and agricultural systems and human health;
- impacts on psychological well-being and safety perception;
- financial or economic loss (including insurance loss).

Summary of issue, parameters and elements

ISSUE	PARAMETER	ELEMENTS
MONITORING INDICATORS	MODELS UNCERTAINTY	DATA AVAILABILITY ON FUTURE CLIMATE SCENARIOS UNCERTAINTY ON TRENDS VS CLIMATE VARIABLES AT LOCAL SCALE
	HIGH RESOLUTION & HIGH-END CLIMATE SCENARIOS	DATA RESOLUTION LIMITS CRITICAL SYSTEM FUNCTIONALITIES
	LOCAL LEVEL INDICATORS	HUMAN DEATH & INJURIES DISPLACED PEOPLE IMPACTS ON PROPERTIES IMPACT ON SAFETY PERCEPTION FINANCIAL & ECONOMIC LOSSES

**Communication**

This issue is linked to the wider problem of a modest public awareness and knowledge of Climate Change and his current and future impacts. The parameters are relevant to analyse how the public-private synergies could change and renew relationships between institutions and stakeholders and how to improve and increase the communication in order to find the dissemination tools and methods needed to be more effective and accessible to the general public. The topics' themes will be analysed respect to the following parameters:

*1 - R&I stakeholders' engagement*

- sharing learning and co-creation of knowledge between climate services providers (Universities, Research, Private sectors, etc.) and Institutions, and between Local government and communities to enhance the role of stakeholders;
- sharing lessons learnt on existing case studies among all actors;
- stakeholders' role and engagement methodology to rethink and effectively transfer cross-knowledge about identifying adaptation options and related selection criteria, contribute to decision-making frameworks design and integration of adaptation topics in traditional planning, improve cost-efficient combinations of measures;
- governance support and appropriate implementation timing of climate adaptation actions.

*2 - Dissemination and Public Education*

- communication and dissemination strategies and education models on climate change;
- risk communication tailoring to private sector and the general public, including local communities and specific social groups;
- characters of uncertainty and complexity of climate change and adaptation explanation.

*3 - Local Action Groups - Communities Involvement*

- gathering local population knowledge, data, information and capacities on reducing their exposure and vulnerability.

Summary of issue, parameters and elements

ISSUE	PARAMETER	ELEMENTS
COMMUNICATION	R&I STAKEHOLDERS' ENGAGEMENT	INTERLINK AMONG CLIMATE SERVICE PROVIDERS-LOCAL GOVERNMENT-COMMUNITIES
		LESSON LEARNED ON EXISTING CASE STUDIES
		ENHANCE STAKEHOLDER ROLE AS SHARING KNOWLEDGE ACTOR
		GOVERNANCE SUPPORT
	DISSEMINATION AND PUBLIC EDUCATION	STRATEGIES AND MODELS ON CLIMATE CHANGE
		TAILORED COMMUNICATION TO PRIVATE SECTOR/GENERAL PUBLIC
		EXPLANATION OF UNCERTAINTY OF CLIMATE CHANGE
LOCAL ACTION GROUPS - COMMUNITY INVOLVEMENT	LOCAL POPULATION KNOWLEDGE GATHERING	

**Sectorial Impacts**

Climate change impacts are expected to exacerbate existing climate-related risks and to create new risks for the biosphere and anthropic systems. Some of these risks may affect a particular European region and/or a particular sector. At the same time, in the same contexts, climate change could have some potential benefits. The sectors listed below summarize the most relevant to Urban Areas to assess methodologically concrete adaptation actions. The topics' themes will be analysed respect to the following sector/parameters:

*1 - Main sectors related to the biosphere:*

- freshwater resources (large fraction of species faces increased extinction risk, loss of biodiversity);
- terrestrial and freshwater ecosystems (habitat modification, over-exploitation, pollution, and invasive species. Irreversible regional-scale change in the composition, structure, and function of terrestrial and freshwater ecosystems, including wetlands);
- coastal systems and low-lying areas (submergence, coastal flooding, and coastal erosion);
- marine systems (marine-species redistribution, marine-biodiversity reduction, reduced fisheries productivity);
- landlocked systems (extra dry and hot terms, heavy rains and floods, extreme temperature fluctuation, unbalanced distribution of rainfall, desertification);
- sloping systems: mountains, hills (irreversible soil loss, loss of species, loss of snow covered areas).

*2 - Main sectors related to the anthropic systems:*

- food security and food production systems (negative impact on productivity, although individual locations may benefit);
- urban areas (heat stress, extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, and water scarcity pose risks in urban areas for people, assets, economies, and ecosystems);
- rural areas (water availability and supply, food security, and agricultural incomes, shifts in production areas of food and non-food crops);
- key economic sectors and services (changes in population, age structure, income, technology, relative prices, lifestyle, regulation, and governance);
- human health (increases in morbidity in many regions);

- human security (displacement of people, indirectly increase risks of violent conflicts);
- livelihoods and poverty (reduced economic growth, make poverty reduction more difficult, further erode food security).

Summary of issue, parameters and elements

ISSUE	PARAMETER	ELEMENTS
SECTORIAL IMPACT	BIOSPHERE	FRESHWATER RESOURCES
		FRESHWATER AND TERRESTRIAL ECOSYSTEMS
		COASTAL SYSTEM
		MARINE SYSTEM
		LANDLOCKED SYSTEM
		SLOPING SYSTEM
	ANTHROPIC SYSTEMS	FOOD SECURITY
		URBAN AREA
		RURAL AREA
		KEY ECONOMIC AREAS
		HUMAN HEALTH
		HUMAN SECURITY
		LIVELIHOODS AND POVERTY

## 2.3 General objectives of the CA Partnership

As underpinned in the Working Programme of the Urban Agenda for the EU, the main objectives of the Climate Adaptation Partnership are: *“to anticipate the adverse effects of climate change and take appropriate action to prevent or minimise the damage it can cause to Urban Areas. The focus will be on: vulnerability assessments, climate resilience and risk management (including the social dimension of climate adaptation strategies).”*<sup>2</sup>

The establishment of an institutional team with Partners of different legal and territorial dimensions that will work for three years on climate adaptation issues will be an important opportunity to cope thoroughly with the theme of natural hazards that threaten urban areas.

The CA Partnership will take into account the close relationship between the mentioned hazards with the different fields of disaster risk reduction, land use, local planning, environmental protection, natural resource management, insurance, communities’ involvement, stakeholders’ engagement and communication.

Moreover, the CA Partnership would demonstrate and promote the idea that a multilevel governance synergy and approach could empower Local Level Actors to put in place actions more effective to reduce vulnerability and to set up a successful climate adaptation process, staying focused on the long-term world climate change.

## 2.4 Specific objective(s) of the CA Partnership

The general objectives of the Partnership contribute to focus the actions that need an assessment set in an Adaptation Policy Cycle to feed the specific objectives foreseen in the Pact of Amsterdam definitions: Better Regulation, Better Funding and Better Knowledge.

<sup>2</sup> Urban Agenda for the EU – Pact of Amsterdam, B Initial list of Priority Themes

The reciprocity, consequentiality and cross cutting analysis of topics with issues will ensure that a set of bottlenecks and potentials would be indicated and investigated to choose the actions that will be implemented in the future works of the Partnership in coherence with the three pillars of EU policy making and implementation.

The results of the analysis and selected future implementing actions should be compliant with the general cross-cutting issues of the Pact of Amsterdam listed below (sustainable development of urban context):

- good urban governance;
- urban-rural, urban-urban and cross-border cooperation;
- sound and strategic urban planning;
- integrated approach;
- innovative approaches;
- impact on societal change, including behavioural change;
- challenges and opportunities of small- and medium-sized cities;
- urban regeneration;
- adaptation to demographic change;
- availability and quality of public services of general interest;
- international dimension (Habitat III and the Sustainable Development Goals).

#### **2.4.1 Better Regulation**

*“The Urban Agenda for the EU focuses on a more effective and coherent implementation of existing EU policies, legislation and instruments. Drawing on the general principles of better regulation, EU legislation should be designed so that it achieves the objectives at minimum cost without imposing unnecessary legislative burdens. In this sense the Urban Agenda for the EU will contribute to the Better Regulation Agenda. The Urban Agenda for the EU will not initiate new regulation, but will be regarded as an informal contribution to the design of future and revision of existing EU regulation, in order for it to better reflect urban needs, practices and responsibilities. It recognises the need to avoid potential bottlenecks and minimise administrative burdens for Urban Authorities.”<sup>3</sup>*

As recommended above, the CA Partnership should contribute to:

- analyse the Local/Regional implementation pathway of the existing EU regulations on Climate Adaptation to create a useful summary of the current state of them;
- cross analyse the summary results mentioned above with the better regulation analysis performed by the more interconnected Partnerships (in particular: Air quality; Circular economy; Energy transition; Sustainable use of land and NBS; Urban mobility), in order to check the correspondence of currently regulation framework with the urban needs and expectations;
- introduce and define the content of specific CA Better Regulation Actions as a starting point to gather and catalogue multi level and urban needs for better actions, recommendations and policies improvements.

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<sup>3</sup> Urban Agenda for the EU – Pact of Amsterdam, Article 5.1

## 2.4.2 Better Funding

*“The Urban Agenda for the EU will contribute to identifying, supporting, integrating and improving traditional, innovative and user-friendly sources of funding for Urban Areas at the relevant institutional level, including from European Structural and Investment Funds (ESIF) (in accordance with the legal and institutional structures already in place) in view of achieving effective implementation of interventions in Urban Areas. The Urban Agenda for the EU will not create new or increased EU funding aimed at higher allocations for Urban Authorities. However, it will draw from and convey lessons learned on how to improve funding opportunities for Urban Authorities across all EU policies and instruments, including Cohesion Policy.”<sup>4</sup>*

As recommended above, the CA Partnership should contribute to:

- analyse and classify the EU projects typologies (and their subsequent sustainability) that have benefited of funding sources allocated on the topics of Climate Adaptation;
- analyse the results of cross-cutting themes performed during the First stage, in order to define the which topics need more funding opportunities than other;
- introduce and define the content of specific CA Better Funding Actions as a starting point to suggest how the Urban Area could benefit from the funding policies consistent with their real needs.

## 2.4.3 Better Knowledge

*“The Urban Agenda for the EU will contribute to enhancing the knowledge base on urban issues and exchange of best practices and knowledge. Reliable data is important for portraying the diversity of structures and tasks of Urban Authorities, for evidence-based urban policy making, as well as for providing tailor-made solutions to major challenges. Knowledge on how Urban Areas evolve is fragmented and successful experiences can be better exploited. Initiatives taken in this context will be in accordance with the relevant EU legislation on data protection, the reuse of public sector information and the promotion of big, linked and open data.”<sup>5</sup>*

As recommended above, the CA Partnership should contribute to:

- analyse the current availability, reliability and user-friendliness of data sources, exchange networks, expertise, tools and methodology to share outcomes, policies and best practices on Climate Adaptation topics;
- cross analyse the expectations, wishes and needs of the communities and stakeholders investigated during the First Stage in order to draw new engagement strategies and knowledge sharing methods;
- introduce and define the content of specific CA Better Knowledge Exchange Actions as a starting point to suggest both traditional and unconventional communication models among institutional bodies, communities and stakeholders.

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<sup>4</sup> Urban Agenda for the EU – Pact of Amsterdam, Article 5.2

<sup>5</sup> Urban Agenda for the EU – Pact of Amsterdam, Article 5.2

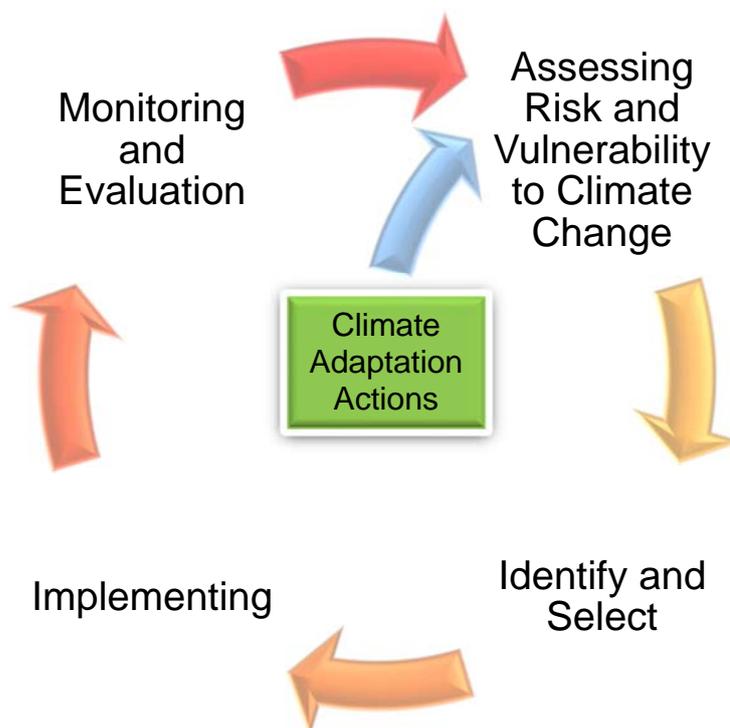
## 2.5 Condition for meeting the above objectives

The CA Partnership will ensure that the specific and general objectives will be reached according to the explanations, recommendations foreseen in the Pact of Amsterdam.

Clarifying the Roles and the Responsibilities of Partners and Coordinator (see section 3) will help in managing all the activities foreseen and their potential breaking points, gaps and general critical aspects. Moreover, several monitoring measures will be put in place to avoid mismatching.

General suggestion for the CA Partnership Working Groups is to analyse, check, choose concrete actions and to implement them using an Adaptation Policy Cycle to assess their efficiency and scalability. Main phases of the cycle could be:

- Assessing Risk and Vulnerability to Climate Change
- Select and Planning Adaptation Actions
- Implementing Adaptation Actions
- Monitoring and Evaluation



Workplan of this Orientation Paper will summarize activities, expected Outcome & Outputs following the Pact of Amsterdam timeline. The monitoring actions of the CA Partnership activities will be performed during both Stages of the Workplan, in particular they will be congruent with the milestone list proposed.

### 3. **FUNCTIONING**

#### 3.1 **Working arrangements**

The main objective of this working arrangement proposal is to foresee the better way to allow the Partner to contribute in a consistent manner both with their expectations and with the mandate of the Pact of Amsterdam.

The Pact mentioned above foresees that the work plan is divided in five steps. To ensure the achievements of the expected activities belonging to each of them and to have the Draft of the Action Plan defined at M12, it has been chosen to enclose Step 1 - Step 2 and Step 3 in a First Stage period, and Step 4 and Step 5 in a second one (see diagram below).



During the first year, many preliminary tasks should be concluded in order to provide a useful operational structure and the resources to sustain the CA Partnership, and to define the first draft of the Action Plan in later June 2018 (see *detailed workplan - 5.1 in Annexes section*).

The Partners will participate and collaborate in a balanced manner during both Stages, and they agree to create three WORKING GROUPS: **Governance, Knowledge** and **Resources** managed each one by a Team Leader that will coordinate the activities.

Team Building process will ensure that every Partner could choose the activities on which it will focus on. As common suggestion, the CA Partnership would take into account the importance of the multilevel governance during team building useful to the scalability of the actions.

Based on its skills and resources, every Partner could also be part of different working groups with the only constrain that all of them should be launched according to their definitions and rules.

As agreed among the Partnership the Working Groups will be named:

- **GOVERNANCE** dealing e.g. with political cycle, mandate, integrated strategic planning, decision-making, experienced staff topics;
- **RESOURCES** dealing e.g. with funding, people, cost-benefits analysis, climate adaptation monetizing topics;
- **KNOWLEDGE** dealing e.g. with data, expertise, methodologies, tools, risk assessment, monitoring indicator systems, capacity building, hazard/exposure, vulnerability analysis topics.

Each Working Group will identify and define the topics they will be working on within the agreed framework, as well as the specific objectives of the WG. Each working group will perform all activities foreseen in the workplan steps and, when necessary, could create thematic sub groups or inter-groups to better focus the analysis and describe the actions. As agreed by the Partnership an informal Local Authority Group will act as an advisory board during and in-between the meeting checking the activities from the cities' point of view. Each working group would ensure a close collaboration with the others to avoid mismatching such as duplications, similarities and gaps.

### **3.1.1 First Stage (July 2017 - June 2018 - December 2018) Workplan steps and activities**

**Step 1 - STOCKTAKING:** Five specific and thematic activities will be the first on which the working groups will focus on:

- **RESEARCH** - it would identify a summary of EU-wide existing works and activities on Climate Adaptation such as national and international regulations, strategies, networks, actions and best practices to establish a scientific-regulatory frame system to support the CA Partnership activities;
- **SCOPE** - it would define the limits of the activities of the CA Partnership; every working group will produce scoping papers related to the adaptation actions relative to the climate impacts that threaten urban areas;
- **ENGAGEMENT** - it would recognize the opportunities and organize the possibilities to participate actively in work-group, network, conferences and other initiatives to share and disseminate the work of the CA Partnership;
- **RESOURCE** - it would identify resources, people, facilities, funding and other opportunities to sustain the activities of the CA Partnership;
- **EXPERTISE** to invite/recruit experts, advisors and qualified stakeholders on climate Adaptation and other correlated scientific fields (socio-economic, communication, urban planning, etc.) to ensure the best outcomes of the CA Partnership.

These activities would be performed in 3 months (M4 - M7) during the first stage at Step 1.

### **Step 2 - PREPARATORY ACTIONS**

During this step the three work-groups will investigate the cross-cutting relationship among the topics and the issues described in section 2 to identify, research, analyse and report the main bottleneck/potentials on cross themes, to identify the areas on which the Action Plan should focus. This will require in depth-research and analytical work. These could be at EU, national or local level. It would lead to a list of preparatory actions that are needed to define the final actions to be implemented in Stage 2 Step 4.

- **GOVERNANCE** working group will cross-cut its topics such as political cycle, mandate, integrated strategic planning, decision-making, experienced staff with all elements belonging to each transversal issue finding bottlenecks/potentials.
- **RESOURCES** working group will cross-cut its topics such as funding, people, cost-benefits analysis, climate adaptation monetizing topics with all elements belonging to each transversal issue finding bottlenecks/potentials.

- **KNOWLEDGE** working group will cross-cut its topics such as data, expertise, methodologies, tools, risk assessment, monitoring indicator systems, capacity building, hazard/exposure, vulnerability analysis topics with all elements belonging to each transversal issue finding bottlenecks/potentials.

Every working group would elaborate draft reports named output where they list the bottlenecks that reduce cities' resilience capacities and the potentials that, on the contrary, would allow to reach **vulnerability assessments, climate resilience** and **risk management** main objectives of Climate Adaptation through better regulation, funding and knowledge exchange.

These teams will work for 6 months (since M5 to M10) during the First Stage at Step 2.

In the table shown below there is a summary of the main elements of the cross cutting analysis. The Partners divided in the Working groups will choose which ones would be the focus of their actions.

CROSS-CUTTING ANALYSIS		THEME	GOVERNANCE									
		TOPIC	COORDINATION AND ORGANISATIONAL STRUCTURE				POLITICAL CYCLE - MANDATE			DECISION MAKING CRITERIA		
ISSUE	PARAMETER	ELEMENTS	LOCAL STRUCTURES	HORIZONTAL AND VERTICAL COORDINATION	CONSULTATIVE AND PARTICIPATORY MECHANISMS	KNOWLEDGE EXCHANGE	URBAN PLANNING INTEGRATE CLIMATE ADAPTATION	INTEGRATED STRATEGIC PLANNING	COMMITMENT CONTINUITY	TOOLKIT & DECISION FRAMEWORKS	RELIABLE INDICATORS TO SUPPORT DECISION MAKING PROCESS	CLIMATE ADAPTATION PLAN
MONITORING INDICATORS	MODELS UNCERTAINTY	DATA AVAILABILITY ON FUTURE CLIMATE SCENARIOS										
		UNCERTAINTY ON TRENDS VS CLIMATE VARIABLES AT LOCAL SCALE										
	HIGH RESOLUTION & HIGH-END CLIMATE SCENARIOS	DATA RESOLUTION LIMITS										
		CRITICAL SYSTEM FUNCTIONALITIES										
	LOCAL LEVEL INDICATORS	HUMAN DEATH&INJURIES										
		DISPLACED PEOPLE										
		IMPACTS ON PROPERTIES										
IMPACT ON SAFETY PERCEPTION												
COMMUNICATION	R&I STAKEHOLDERS' ENGAGEMENT	FINANCIAL & ECONOMIC LOSSES										
		INTERLINK AMONG CLIMATE SERVICE PROVIDERS-LOCAL GOVERNMENT-COMMUNITIES										
		LESSON LEARNED ON EXISTING CASE STUDIES										
		ENHANCE STAKEHOLDER ROLE AS SHARING KNOWLEDGE ACTOR										
	GOVERNANCE SUPPORT											
		STRATEGIES AND MODELS ON CLIMATE CHANGE										

CROSS-CUTTING ANALYSIS		THEME	GOVERNANCE									
		TOPIC	COORDINATION AND ORGANISATIONAL STRUCTURE				POLITICAL CYCLE - MANDATE			DECISION MAKING CRITERIA		
ISSUE	PARAMETER	ELEMENTS	LOCAL STRUCTURES	HORIZONTAL AND VERTICAL COORDINATION	CONSULTATIVE AND PARTICIPATORY MECHANISMS	KNOWLEDGE EXCHANGE	URBAN PLANNING INTEGRATE CLIMATE ADAPTATION	INTEGRATED STRATEGIC PLANNING	COMMITMENT CONTINUITY	TOOLKIT & DECISION FRAMEWORKS	RELIABLE INDICATORS TO SUPPORT DECISION MAKING PROCESS	CLIMATE ADAPTATION PLAN
	DISSEMINATION AND PUBLIC EDUCATION	TAILORED COMMUNICATION TO PRIVATE SECTOR/GENERAL PUBLIC EXPLANATION OF UNCERTAINTY OF CLIMATE CHANGE										
	LOCAL ACTION GROUPS - COMMUNITY INVOLVEMENT	LOCAL POPULATION KNOWLEDGE GATHERING										
SECTORIAL IMPACT	BIOSPHERE	FRESHWATER RESOURCES										
		FRESHWATER AND TERRESTRIAL ECOSYSTEMS										
		COASTAL SYSTEM										
		MARINE SYSTEM										
		LANDLOCKED SYSTEM										
	ANTHROPIC SYSTEMS	SLOPING SYSTEM										
		FOOD SECURITY										
		URBAN AREA										
		RURAL AREA										
		KEY ECONOMIC AREAS										
		HUMAN HEALTH										
		HUMAN SECURITY										
		LIVELIHOODS AND POVERTY										

CROSS-CUTTING ANALYSIS		THEME	KNOWLEDGE																			
		TOPIC	RISK ASSESSMENT				HAZARD AND EXPOSURE	VUKNERABILITY ANALYSIS			DATA	EXPERTISE	METHODOLOGIES AND TOOLS									
ISSUE	PARAMETER	ELEMENTS	MONITORING, RECORD AND REPORT DAMAGES	LOCAL RISK ASSESSMENT	LOCAL LEVEL ADAPTATION ACTION EVALUATION	UNISDR SCORECARD CUSTOMIZED INDICATORS	EXPECTED IMPACTS IN SELECTED CONTEXT	CLIMATE-RELATED EVENTS/ DISASTER OCCURENCES	VULNERABILITY PROFILES DIFFERENCES	STRESSFUL NON-EXTREME EVENTS ROLE	STANDARD METHODOLOGIES	TIME RESPONSIVENESS	INVOLVEMENT ON CONCRETE SOLUTIONS	CLIMATE CHANGE IMPACTS/SECTORS DEBATES PROMOTION	SUPPORT CLIMATE CHANGE STRATEGIES	GUIDANCE URBAN PLANNING/CLIMATE ADAPTATION	GUIDANCE ON USE AND DATA MODELS	INCREASED AWARENESS	PROMOTION TECHNIQUE OF PROACTIVE INVOLVMENT	CITY'S LONG TERM CAPITAL EXPENDITURE PROGRAMME ON CLIMATE ADAPTATION		
MONITORING INDICATORS	MODELS UNCERTAINTY	DATA AVAILABILITY ON FUTURE CLIMATE SCENARIOS																				
		UNCERTAINTY ON TRENDS VS CLIMATE VARIABLES AT LOCAL SCALE																				
	HIGH RESOLUTION & HIGH-END CLIMATE SCENARIOS	DATA RESOLUTION LIMITS																				
		CRITICAL SYSTEM FUNCTIONALITIES																				
	LOCAL LEVEL INDICATORS	HUMAN DEATH&INJURIES																				
		DISPLACED PEOPLE																				
		IMPACTS ON PROPERTIES																				
		IMPACT ON SAFETY PERCEPTION																				
		FINANCIAL & ECONOMIC LOSSES																				
	COMMUNICATION	R&I STAKEHOLDERS' ENGAGEMENT	INTERLINK AMONG CLIMATE SERVICE PROVIDERS-LOCAL GOVERNMENT-COMMUNITIES																			
LESSON LEARNED ON EXISTING CASE STUDIES																						

CROSS-CUTTING ANALYSIS		THEME	KNOWLEDGE																			
		TOPIC	RISK ASSESSMENT				HAZARD AND EXPOSURE	VULNERABILITY ANALYSIS			DATA	EXPERTISE	METHODOLOGIES AND TOOLS									
ISSUE	PARAMETER	ELEMENTS	MONITORING, RECORD AND REPORT DAMAGES	LOCAL RISK ASSESSMENT	LOCAL LEVEL ADAPTATION ACTION EVALUATION	UNISDR SCORECARD CUSTOMIZED INDICATORS	EXPECTED IMPACTS IN SELECTED CONTEXT	CLIMATE-RELATED EVENTS/ DISASTER OCCURENCES	VULNERABILITY PROFILES DIFFERENCES	STRESSFUL NON-EXTREME EVENTS ROLE	STANDARD METHODOLOGIES	TIME RESPONSIVENESS	INVOLVEMENT ON CONCRETE SOLUTIONS	CLIMATE CHANGE IMPACTS/SECTORS DEBATES PROMOTION	SUPPORT CLIMATE CHANGE STRATEGIES	GUIDANCE URBAN PLANNING/CLIMATE ADAPTATION	GUIDANCE ON USE AND DATA MODELS	INCREASED AWARENESS	PROMOTION TECHNIQUE OF PROACTIVE INVOLVMENT	CITY'S LONG TERM CAPITAL EXPENDITURE PROGRAMME ON CLIMATE ADAPTATION		
		ENHANCE STAKEHOLDER ROLE AS SHARING KNOWLEDGE ACTOR																				
		GOVERNANCE SUPPORT																				
	DISSEMINATION AND PUBLIC EDUCATION	STRATEGIES AND MODELS ON CLIMATE CHANGE																				
		TAILORED COMMUNICATION TO PRIVATE SECTOR/GENERAL PUBLIC																				
	EXPLANATION OF UNCERTAINTY OF CLIMATE CHANGE																					
	LOCAL ACTION GROUPS - COMMUNITY INVOLVEMENT	LOCAL POPULATION KNOWLEDGE GATHERING																				
SECTORIAL IMPACT	BIOSPHERE	FRESHWATER RESOURCES																				
		FRESHWATER AND TERRESTRIAL ECOSYSTEMS																				
		COASTAL SYSTEM																				

CROSS-CUTTING ANALYSIS		THEME	KNOWLEDGE																		
		TOPIC	RISK ASSESSMENT				HAZARD AND EXPOSURE	VULNERABILITY ANALYSIS			DATA	EXPERTISE	METHODOLOGIES AND TOOLS								
ISSUE	PARAMETER	ELEMENTS	MONITORING, RECORD AND REPORT DAMAGES	LOCAL RISK ASSESSMENT	LOCAL LEVEL ADAPTATION ACTION EVALUATION	UNISDR SCORECARD CUSTOMIZED INDICATORS	EXPECTED IMPACTS IN SELECTED CONTEXT	CLIMATE-RELATED EVENTS/ DISASTER OCCURENCES	VULNERABILITY PROFILES DIFFERENCES	STRESSFUL NON-EXTREME EVENTS ROLE	STANDARD METHODOLOGIES	TIME RESPONSIVENESS	INVOLVEMENT ON CONCRETE SOLUTIONS	CLIMATE CHANGE IMPACTS/SECTORS DEBATES PROMOTION	SUPPORT CLIMATE GHANGE STRATEGIES	GUIDANCE URBAN PLANNING/CLIMATE ADAPTATION	GUIDANCE ON USE AND DATA MODELS	INCREASED AWARENESS	PROMOTION TECHNIQUE OF PROACTIVE INVOLMENT	CITY'S LONG TERM CAPITAL EXPENDITURE PROGRAMME ON CLIMATE ADAPTATION	
		MARINE SYSTEM																			
		LANDLOCKED SYSTEM																			
		SLOPING SYSTEM																			
	ANTHROPIC SYSTEMS	FOOD SECURITY																			
		URBAN AREA																			
		RURAL AREA																			
		KEY ECONOMIC AREAS																			
		HUMAN HEALTH																			
		HUMAN SECURITY																			
		LIVELIHOODS AND POVERTY																			

CROSS-CUTTING ANALYSIS		THEME	RESOURCES																	
		TOPIC	FUNDING			PEOPLE	VALUE OF ADAPTATION							MONETIZING CLIMATE ADAPTATION						
ISSUE	PARAMETER	ELEMENTS	GAP - ADAPTATION NEEDS/FUNDS AVAILABILITY	DIFFERENT FINANCIAL PRODUCTS FOR INTERVENTIONS	DIFFERENT FINANCIAL SOURCES FOR STUDIES CRVA	CAPACITY OF CITIES	HUMAN RESOURCES	COSTS/BENEFITS OF ADAPTATION OPTIONS EVALUATION/ INTERDEPENDENCES	EXTENDED COST BENEFITS ANALYSIS	NON MONETARY COST OF ADAPTATION OPTIONS	SOFT MEASURE GIVE RESULTS WITHOUT LARGE INVESTMENTS ON INFRASTRUCTURES	COST/BEFEFT OF NO-ACTING	INFORMATION SOURCES	MONITORING COSTS	ASSESS COST/BENEFIT ADAPTATION OPTIONS	CLIMATE ADAPTATION OPTIONS/ACTIONS TO GENERARE REVENUE OR SAVING/REDUCING LOSSES	ANALYSIS THE POTENTIAL FOR PRIVATE SECTORS INVESTMENTS IF BENEFITS ARE DEMONSTRATED	DEDICATED BLENDING FACILITY/TECHNICAL ASSISTANCE FOR E.G. CRVA		
			MONITORING INDICATORS	MODELS UNCERTAINTY	DATA AVAILABILITY ON FUTURE CLIMATE SCENARIOS															
UNCERTAINTY ON TRENDS VS CLIMATE VARIABLES AT LOCAL SCALE																				
HIGH RESOLUTION & HIGH-END CLIMATE SCENARIOS	DATA RESOLUTION LIMITS																			
	CRITICAL SYSTEM FUNCTIONALITIES																			
LOCAL LEVEL INDICATORS	HUMAN DEATH&INJURIES																			
	DISPLACED PEOPLE																			
	IMPACTS ON PROPERTIES																			
	IMPACT ON SAFETY PERCEPTION																			
	FINANCIAL & ECONOMIC LOSSES																			

CROSS-CUTTING ANALYSIS		THEME	RESOURCES																
		TOPIC	FUNDING			PEOPLE	VALUE OF ADAPTATION							MONETIZING CLIMATE ADAPTATION					
ISSUE	PARAMETER	ELEMENTS	GAP - ADAPTATION NEEDS/FUNDS AVAILABILITY	DIFFERENT FINANCIAL PRODUCTS FOR INTERVENTIONS	DIFFERENT FINANCIAL SOURCES FOR STUDIES CRVA	CAPACITY OF CITIES	HUMAN RESOURCES	COSTS/BENEFITS OF ADAPTATION OPTIONS EVALUATION/ INTERDEPENDENCES	EXTENDED COST BENEFITS ANALYSIS	NON MONETARY COST OF ADAPTATION OPTIONS	SOFT MEASURE GIVE RESULTS WITHOUT LARGE INVESTMENTS ON INFRASTRUCTURES	COST/BEFEFIT OF NO-ACTING	INFORMATION SOURCES	MONITORING COSTS	ASSESS COST/BENEFIT ADAPTATION OPTIONS	CLIMATE ADAPTATION OPTIONS/ACTIONS TO GENERARE REVENUE OR SAVING/REDUCING LOSSES	ANALYSIS THE POTENTIAL FOR PRIVATE SECTORS INVESTMENTS IF BENEFITS ARE DEMONSTRATED	DEDICATED BLENDING FACILITY/TECHNICAL ASSISTANCE FOR E.G. CRVA	
			COMMUNICATION	R&I STAKEHOLDERS' ENGAGEMENT	INTERLINK AMONG CLIMATE SERVICE PROVIDERS-LOCAL GOVERNMENT-COMMUNITIES														
LESSON LEARNED ON EXISTING CASE STUDIES																			
ENHANCE STAKEHOLDER ROLE AS SHARING KNOWLEDGE ACTOR																			
GOVERNANCE SUPPORT																			
DISSEMINATION AND PUBLIC EDUCATION	STRATEGIES AND MODELS ON CLIMATE CHANGE																		
	TAILORED COMMUNICATION TO PRIVATE SECTOR/GENERAL PUBLIC																		
	EXPLANATION OF UNCERTAINTY OF CLIMATE CHANGE																		

CROSS-CUTTING ANALYSIS		THEME	RESOURCES																
		TOPIC	FUNDING			PEOPLE	VALUE OF ADAPTATION							MONETIZING CLIMATE ADAPTATION					
ISSUE	PARAMETER	ELEMENTS	GAP - ADAPTATION NEEDS/FUNDS AVAILABILITY	DIFFERENT FINANCIAL PRODUCTS FOR INTERVENTIONS	DIFFERENT FINANCIAL SOURCES FOR STUDIES CRVA	CAPACITY OF CITIES	HUMAN RESOURCES	COSTS/BENEFITS OF ADAPTATION OPTIONS EVALUATION/ INTERDEPENDENCES	EXTENDED COST BENEFITS ANALYSIS	NON MONETARY COST OF ADAPTATION OPTIONS	SOFT MEASURE GIVE RESULTS WITHOUT LARGE INVESTMENTS ON INFRASTRUCTURES	COST/BEFEFIT OF NO-ACTING	INFORMATION SOURCES	MONITORING COSTS	ASSESS COST/BENEFIT ADAPTATION OPTIONS	CLIMATE ADAPTATION OPTIONS/ACTIONS TO GENERARE REVENUE OR SAVING/REDUCING LOSSES	ANALYSIS THE POTENTIAL FOR PRIVATE SECTORS INVESTMENTS IF BENEFITS ARE DEMONSTRATED	DEDICATED BLENDING FACILITY/TECHNICAL ASSISTANCE FOR E.G. CRVA	
	LOCAL ACTION GROUPS - COMMUNITY INVOLVEMENT	LOCAL POPULATION KNOWLEDGE GATHERING																	
SECTORIAL IMPACT	BIOSPHERE	FRESHWATER RESOURCES																	
		FRESHWATER AND TERRESTRIAL ECOSYSTEMS																	
		COASTAL SYSTEM																	
		MARINE SYSTEM																	
		LANDLOCKED SYSTEM																	
		SLOPING SYSTEM																	
	ANTHROPIC SYSTEMS	FOOD SECURITY																	

CROSS-CUTTING ANALYSIS		THEME	RESOURCES															
		TOPIC	FUNDING			PEOPLE	VALUE OF ADAPTATION						MONETIZING CLIMATE ADAPTATION					
ISSUE	PARAMETER	ELEMENTS	GAP - ADAPTATION NEEDS/FUNDS AVAILABILITY	DIFFERENT FINANCIAL PRODUCTS FOR INTERVENTIONS	DIFFERENT FINANCIAL SOURCES FOR STUDIES CRVA	CAPACITY OF CITIES	HUMAN RESOURCES	COSTS/BENEFITS OF ADAPTATION OPTIONS EVALUATION/ INTERDEPENDENCES	EXTENDED COST BENEFITS ANALYSIS	NON MONETARY COST OF ADAPTATION OPTIONS	SOFT MEASURE GIVE RESULTS WITHOUT LARGE INVESTMENTS ON INFRASTRUCTURES	COST/BEFEFIT OF NO-ACTING	INFORMATION SOURCES	MONITORING COSTS	ASSESS COST/BENEFIT ADAPTATION OPTIONS	CLIMATE ADAPTATION OPTIONS/ACTIONS TO GENERARE REVENUE OR SAVING/REDUCING LOSSES	ANALYSIS THE POTENTIAL FOR PRIVATE SECTORS INVESTMENTS IF BENEFITS ARE DEMONSTRATED	DEDICATED BLENDING FACILITY/TECHNICAL ASSISTANCE FOR E.G. CRVA
					URBAN AREA													
		RURAL AREA																
		KEY ECONOMIC AREAS																
		HUMAN HEALTH																
		HUMAN SECURITY																
		LIVELIHOODS AND POVERTY																

### Step 3 – DEFINE OBJECTIVES and DELIVERABLES

In the third step, the members of the CA Partnership would agree on a set of actions that address the issues of the Priority Theme, identify which one of them would be assessed by the Adaptation Policy Cycle, that would feed the Action Plan to match specific objectives. The Action plan definition would contain the Roadmap, the Deliverables, the target dates and Key indicators and the responsible organization.

The three working groups should perform their activities in a vertical way to select thematic actions to assess; at the same time their Team Leaders in close relationship with Coordinator would avoid duplications, similarities and gaps that would mismatch the final evaluation of the Partnership works.

This team will work for 12 months (since M6 to M12 + M18) during the first stage at Step 3 to deliver the draft of the Action Plan to submit in later June 2018. After the submission it would start the approval process that would take at least 6 months to have Final Action Plan Approved at the end of 2018 (see diagram below).



Below there is a general suggestion from the Technical Secretariat - Template for the Action Plan regarding Actions.

*“Actions should address a real need: an important issue, have real and visible impact and concern a larger number of Member States and cities;*

*Actions should be new: no ‘recycling’ of elements which have already been done or which would be done anyway;*

*Actions should be ready to be implemented: Clear, detailed and feasible; a study or a working group or a network is not considered an action (this is under evaluation case to case)”.*

#### 3.1.2 Second Stage (January 2019 - June 2020)

During the Second Stage period, the Partners will participate and collaborate in a balanced manner aimed at Better Regulation, Better Funding and Better Knowledge on the implementation of the Action Plan with partners of the partnership and other interested parties i.e. other Member States, Urban Authorities and existing Urban Networks concerned, etc.

It is important that the members of the Partnerships develop links with the relevant authorities/ organisations/ enterprises/stakeholders and work in full transparency.

The three working groups should perform their activities in a vertical way to implement thematic actions to be assessed in the Adaptation Policy Cycle; at the same time their Team Leaders in close relationship with Coordinator would avoid duplications, similarities and gaps that would mismatch the final evaluation of the Partnership works.

Each Working Group Leader will ensure a participative and proactive contribution to the implementation of the Action Plan through meetings and cross contacts with all Partners.

Moreover, it will define the contents of the final reports named in the work plan (see chapter 4.1 – Expected Output): CA Better Regulation, CA Better Funding and CA Better Knowledge Exchange Actions, in close relationship with CA Partnership Coordinator.

These teams will work for 18 months (since M18 to M36) during the Second Stage at Step 4.

### **3.2 Internal Communication**

The Coordinator of CA Partnership will establish a permanent contact point to monitor and feed the Futurium web site, to link the Partners during the activities and to ensure their cooperation during all stages and steps of the Workplan.

A web-based online project management tool will be available to share documents, information and meeting's agenda. Working groups email addresses will be created to facilitate internal communication workflow while a general official email address for the communication from CA Partnership Coordinator: [climadapt@comune.genova.it](mailto:climadapt@comune.genova.it) has been created.

To support the follow-up actions between the scheduled meetings, call-conferences, virtual meetings and/or thematic email contacts will be organized.

During Stage and Step periods, the Partnership will organize Meetings with a Modular Agenda that will foresee both plenary and parallel work sessions, with summary and long-time discussion. This co-working and co-operative approach will ensure the best exchange rate among Partners and proactive contribution to the Partnership activities

For those partner who requires, Coordinator could open a room in its Gotomeeting platform available to manage the "in between the Meetings" (one to one, one to more, technical, working groups, plenary, disseminations actions), to finalize all the activities and actions devoted to delivery the Orientation Paper to submit on 6th of October and the draft of the Action Plan to delivery in June 2018.

If necessary and on request by the Partners it could be scheduled a additional check point agenda to be managed by each Working Group Leader

As common workflow of communication issue, all partner are free to interact one to each other and with coordinator; when issues belong to a working group, it would be suggested that Working Group Leader will coordinate them and communicate directly with Coordinator. Coordinator itself will be responsible to manage the communication matters among the Partnership to the Technical Secretariat, the UDG and EC offices.

### **3.3 Role of the Secretariat**

The main role of the Secretariat is to provide technical support to the Partnership. The support consists in five tasks:

- *support the coordinator* - the Secretariat will assist the coordinator in setting up the CA Partnership, in organising mailing lists, in creating and update a calendar of events, assist the coordinator in organising meetings, participating in all meetings and drafting minutes;
- *provide expertise to the Partnership* - if needed, the Secretariat would mobilize additional external experts with EU experience on the topic, provide analytical work, review documents, draft documents, etc.;
- *outreach and communication* - the Secretariat will prepare information material (e.g. leaflets, brochures), maintain the collaborative platform (website), organize one-day workshop/ Partnership/ year, assist coordinators in a workshop at the EWRC (1 WS per Partnership);
- *reimburse travel costs* - the Secretariat might provide reimbursement of travel costs, but only in exceptional case;
- *support the Commission* - the Secretariat will monitor the progress of the Partnership (regular reports on the state of play), identify bottlenecks and the improvement needed (if needed), report back to the COM and to the UDG/ DGUM (probably a standard point in each UDG/DGUM meeting), draft guidelines and templates (if needed; e.g. for the reimbursement of travel costs), organize two coordinators' meeting per year, provide assistance to the COM in managing UA.

### **3.4 Role of the Partnership members**

The roles of the Partners described below are those provided by the *Working method of the Partnerships* chapter of the Pact of Amsterdam, with some additional provisions.

#### **3.4.1 Coordinators**

The coordinator is the key actor to make the Urban Agenda for the EU operational. He is the main contact for the members of the Partnership and other interested Urban Authorities, EU Commission and Member States. The Partnership may ask to the EU Commission to facilitate the process, among others concerning the coordination between Partnerships, and to provide assistance for Secretariat duties and for expertise at EU level.

The Partnership Coordinator has specific roles and responsibilities listed below. It has to:

- organize the CA Partnership meetings: prepare the agenda, send the invitations, provide meeting rooms (in their Ministry, City Hall, etc.), invite (external) keynote speakers when appropriate, draft the minutes, etc.;
- chair the Partnership Meetings;
- organize the work between CA Partnership Meetings (e.g. written consultation, ask for contributions, prepare documents, etc.);
- be the link between the CA Partnership and the Urban Authorities, the Commission and Member States. It will meet the UDG and DG, provide them with a draft and concise annual report. It will be also the interlink with a wider range of interested parties such

as Urban Authorities, Member States not involved in the specific partnership and other stakeholders (in particular inform on the progress and offer the possibility to contribute e.g. through consultations, e-mails, updates, conferences, etc.);

- cooperate with the other Partnerships, when deemed of added value;
- participate and contribute to other working groups/ networks;
- coordinate the drafting of the Action Plan;
- monitor and report on progress [through inter alia the website (see chapter III, paragraph 2 of the Working Programme)];
- coordinate the work (e.g. ensuring that the contributions are prepared on time and at a good quality, mediating if there are different positions with a view to arriving at an acceptable position, etc.);
- define rules for the Communication Strategy of the CA Partnership;
- coordinate the communication on actions and results (visibility);
- define rules for the Stakeholder Engagement of the CA Partnership;
- send results from the Partnership to the DG meeting.

### **3.4.2 Partners**

The Partners play specific roles and responsibilities to:

- contribute to the implementation of different actions foreseen in every step of the Workplan to define and implement the Action Plan;
- participate in the technical work of the CA Partnership with own resources;
- contribute to the CA Partnership through their own individual expertise but also through the wider knowledge of the organization they represent;
- promote and facilitate the debate about the CA Partnership within their territory.

#### 4. WORKPLAN

The tables shown below represent a summary of the main activities and expected output.

stage 1					stage 2				
Step 1 - Stocktaking		Step 2 - Preparatory actions (Identifying bottlenecks and potentials)		Step 3 - Define the objectives and deliverables		Step 4 - Implementation of the Action Plan		Step 5 - Evaluation of the Partnership	
N.	ACTIVITIES	N.	ACTIVITIES	N.	ACTIVITIES	N.	ACTIVITIES	N.	ACTIVITIES
1.0	<b>Orientation Paper</b>	2.1	Working group A would cross the identified topics to research, analyse and report the referred bottlenecks/potentials to baseline the Action Plan definition	3.1	Identification of a set of actions that would feed the Action Plan to match the three BETTER specific objectives	4.1	Implementation of the action to CA BETTER REGULATION, BETTER FUNDING, BETTER KNOWLEDGE EXCHANGE	5.1	DG meeting will coordinate the evaluation of the work of the Partnership
1.1	Identify the existing work carried out on the Priority Theme (strategies, actions and working groups/ networks covering these issues at EU level)	2.2	Working group B would cross the identified topics to research, analyse and report the referred bottlenecks/potentials to baseline the Action Plan definition	3.2	Action Plan Definition (and roadmap) indicating deliverables, target dates and the Partner responsible	4.2	Ensure the contribution to the Implementation of the Action Plan through meetings and crossing contacts - <i>by Coordinator</i>		
1.2	Limit the scope of the Partnership - Scoping papers	2.3	Working group C would cross the identified topics to research, analyse and report the referred bottlenecks/potentials to baseline the Action Plan definition	3.3	Key indicators, targets identification and definition (optional, but suggested)	4.3	Close reference with the expert and EU Commission support to guarantee the objectives achievement - <i>by Coordinator</i>		
1.3	Identify the sources and strategies of funding (people, time, facilities)			3.4	<b>Action Plan - Approval</b>	4.4	Interlinked sessions among partner to avoid mismatching of the general and specific objectives - <i>by Coordinator</i>		
1.4	Check expertise which could be made available for the functioning of the Partnership								
1.5	Check and arrangements to organise active participation to existing strategies, actions and working groups/ networks								
	<b>Deadline</b>		<b>Deadline</b>		<b>Deadline</b>		<b>Deadline</b>		<b>Deadline</b>
	<b>M01 - M04 - M07</b> 01/07/2017 01/10/2017 31/01/2017		<b>M05-M10</b> 01/11/2017 30/04/2018		<b>M06 - M12 - M18</b> 01/12/2017 30/06/2018 31/12/2018		<b>M19 - M36</b> 01/01/2019 30/06/2020		<b>M36</b> 30/06/2020

## Expected Output

stage 1						stage 2			
Step 1 - Stocktaking		Step 2 - Preparatory actions (Identifying bottlenecks and potentials)		Step 3 - Define the objectives and deliverables		Step 4 - Implementation of the Action Plan		Step 5 - Evaluation of the Partnership	
N.	OUTPUT	N.	OUTPUT	N.	OUTPUT	N.	OUTPUT	N.	OUTPUT
D1.0	Orientation Paper -Final	O2.1	WG Governance - Report on Identification of bottlenecks/potentials referred to cross topics analysis	D3.1	Draft Action Plan Roadmap for each action - Key Indicators	O4.1	First monitoring report on Action Plan Implementation Actions - <i>by Coordinator</i>		Final Evaluation Report
O1.1	Overview and State of the Art on CA	O2.2	WG Knowledge - Report on Identification of bottlenecks/potentials referred to cross topics analysis	D3.1*	Final Action Plan	O4.2	Second monitoring report on Action Plan Implementation Actions - <i>by Coordinator</i>		
O1.2	Scoping paper to focus the actions of the Partnership	O2.3	WG Resources - Report on Identification of bottlenecks/potentials referred to cross topics analysis			O4.3	Third monitoring report on Action Plan Implementation Actions - <i>by Coordinator</i>		
O1.3	Funding schema - Sources and Strategy					O4.4	Final report on Action Plan Implementation Actions - <i>by Coordinator</i>		
O1.4	Expert list								
O1.5	Tentative of meeting schedule and structure; engagement strategy in networking initiatives								
Deadline		Deadline		Deadline		Deadline		Deadline	
M04-M07 01/10/2017 31/01/2017		M05-M10 01/11/2017 30/04/2018		M12+M18 30/06/2018 31/12/2018		M19-M36 01/01/2019 30/06/2020		M36 30/06/2020	

## 4.2 Deliverables, Outputs, Milestones and timing

This proposed list of documents foreseen by the belonging to the CA Partnership is completed by a first proposal of additional informal documents that will support with their contents the requested ones and help to perform the monitoring reporting to the UDG and UDG-UM.

### 4.2.1 List of Technical Deliverables, Outputs, related Activities and Step Reference

Deliverable/ Output number	Description	Month	Step Reference	Who
D1.0	Orientation Paper - Final	M4	Step 1 - Stocktaking	Coordinator
D3.1	Draft Action Plan (Roadmap for each action - Key Indicators)	M12	Step 3 - Define the objectives and deliverables	Coordinator
D3.1*	Action Plan	M18	Step 3 - Define the objectives and deliverables	Coordinator
O1.1	Overview and State of the Art on CA	M7	Step 1 - Stocktaking	Working Groups Governance, Knowledge, Resources
O1.2	Scoping papers to focus the Partnership actions	M7	Step 1 - Stocktaking	Working Groups Governance, Knowledge, Resources
O1.3	Funding schema - Sources and Strategy	M7	Step 1 - Stocktaking	Working Groups Governance, Knowledge, Resources
O1.4	Expert list	M7	Step 1 - Stocktaking	Working Groups Governance, Knowledge, Resources
O1.5	Tentative of meeting schedule and structure engagement strategy in networking initiatives	M7	Step 1 - Stocktaking	Coordinator + WG

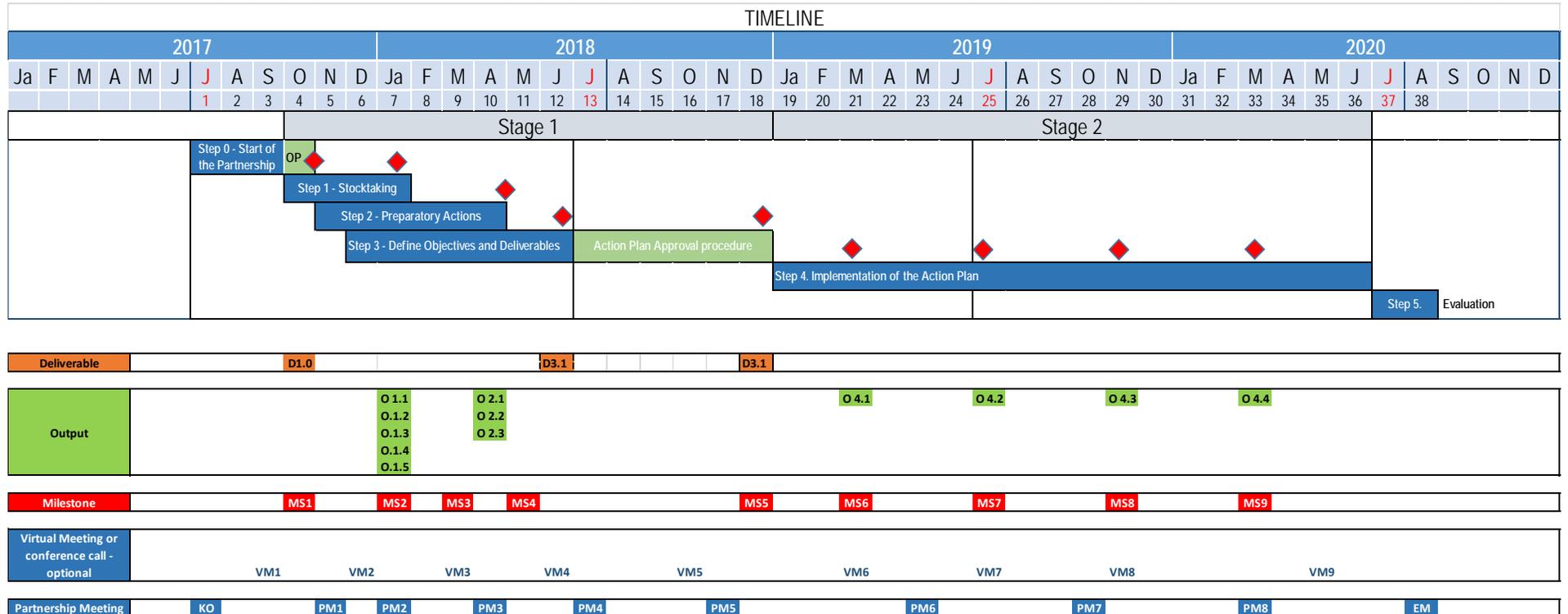
Deliverable/ Output number	Description	Month	Step Reference	Who
O2.1	WG Governance - Report on Identification of bottlenecks/potentials referred to cross topics analysis	M10	Step 2 - Preparatory actions	Working Groups Governance
O2.2	WG Knowledge - Report on Identification of bottlenecks/potentials referred to cross topics analysis	M10	Step 2 - Preparatory actions	Working Groups Knowledge
O2.3	WG Resources - Report on Identification of bottlenecks/potentials referred to cross topics analysis	M10	Step 2 - Preparatory actions	Working Groups Resources
O4.1	First monitoring report on Action Plan Implementation Actions	M21	Step 4 - Implementation of the Action Plan	Coordinator
O4.2	Second monitoring report on Action Plan Implementation Actions	M25	Step 4 - Implementation of the Action Plan	Coordinator
O4.3	Third monitoring report on Action Plan Implementation Actions	M29	Step 4 - Implementation of the Action Plan	Coordinator
O4.4	Final report on Action Plan Implementation Actions	M33	Step 4 - Implementation of the Action Plan	Coordinator

#### 4.2.2 List of Milestones, Actions and References for the Coordinator

N.	Month	Actions	Deliverable number	Output number
MS1	M4	Check on Orientation Paper delivery	D1.0	
MS2	M7	Check out Output foreseen in step 1 by WGroups;		O1.1-O1.2- O1.3-O1.4-O1.5
MS3	M09	Check Output foreseen in step 2 by WGroups;		O2.1-O2.2-O2.3
MS4	M11	Check out Draft Action Plan Deliverable	D3.1	
MS5	M18	Start Implementation of the Action Plan	D3.1*	
MS6	M21	First check on AP Implementation Activities		O4.1
MS7	M25	Second check on AP Implementation Activities		O4.2
MS8	M29	Third check on AP Implementation Activities		O4.3
MS9	M33	Final check on AP Implementation Activities		O4.4

### 4.2.3 Timeline

Below is the tentative timeline for the Activities, Deliverables, Output, Milestone, Virtual Meetings and scheduled Partnership Meetings foreseen in the Orientation Paper referred to Stage 1 and Stage 2



#### 4.2.4 Tentative Meeting Schedule

YEAR	MEETING	DATE	MONTH	WHERE	OTHER INITIATIVES
2017	Kick off Meeting Partnership	03-04/07/17	M1	Brussels	
	1st Partnership Meeting	.../11/2017	M5	Genoa	
2018	2nd Partnership Meeting	.../01/2018	M7		
	3rd Partnership Meeting	.../04/2018	M10		
	4th Partnership Meeting	.../07/2018	M13		
	5th Partnership Meeting	.../11/2018	M17		
2019	6th Partnership Meeting	.../05/2019	M23		
	7th Partnership Meeting	.../10/2019	M28		
2020	8th Partnership Meeting	.../03/2020	M33		
	Evaluation Meeting	.../.../2020			