



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

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act

Adapting to
Climate change
in Time

GUIDELINES FOR CLIMATE CHANGE ADAPTATION PLANS AT LOCAL LEVEL

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Resilient Cities: from the Plans to the actions of adaptation to climate change

Terra Futura 17 Maggio 2013

CLIMATE CHANGE SCENARIO AT 2100
(TEMPERATURE, PRECIPITATION, SEA LEVEL RISE)
REPORT "Climate trends and projections"

ESPOSIZIONE
Nature and degree to which a system is exposed to significant climate changes.

SENSITIVITY
degree to which a system is affected, either adversely or beneficially, by climate variability or change

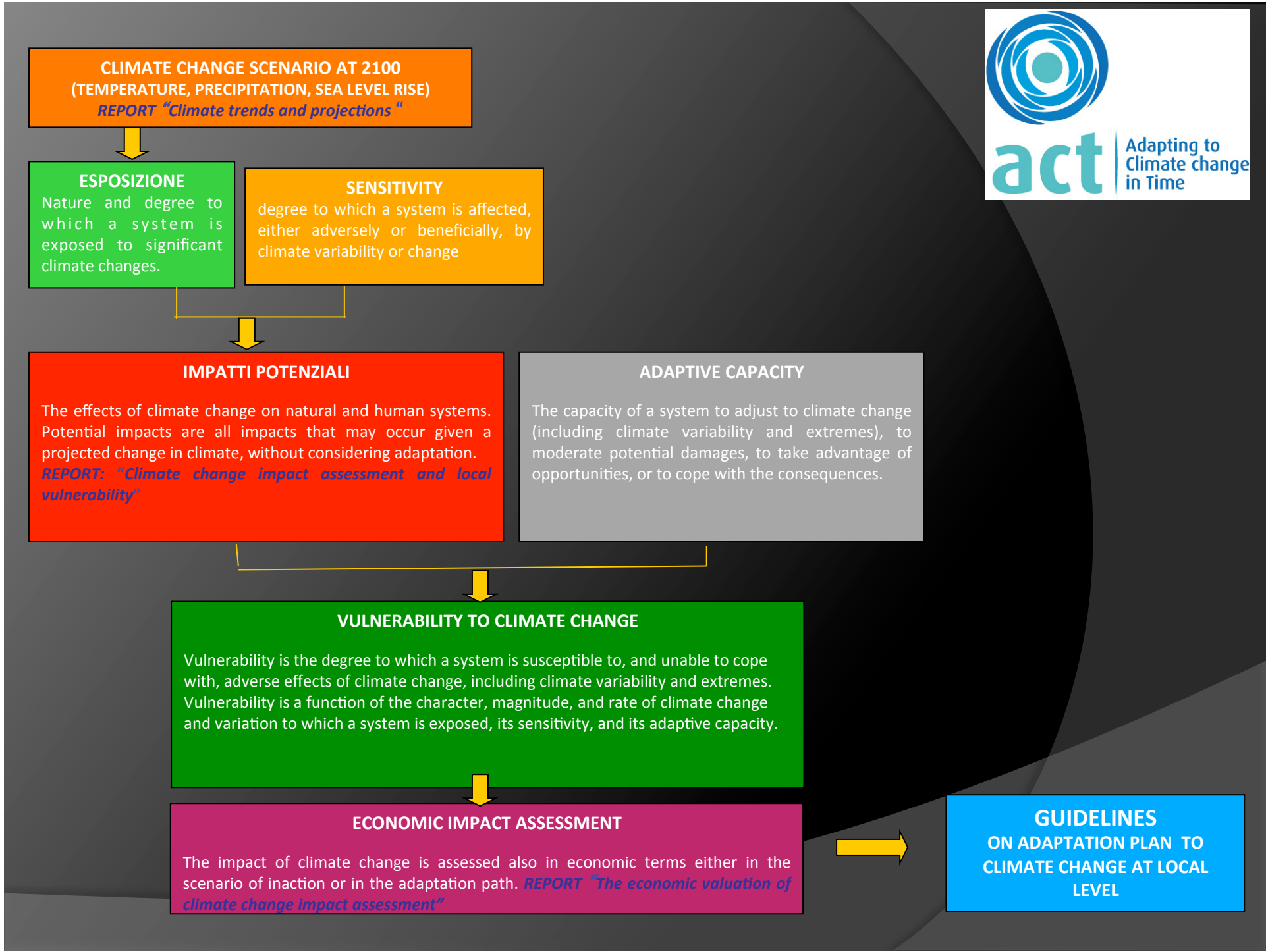
IMPATTI POTENZIALI
The effects of climate change on natural and human systems. Potential impacts are all impacts that may occur given a projected change in climate, without considering adaptation.
REPORT: "Climate change impact assessment and local vulnerability"

ADAPTIVE CAPACITY
The capacity of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

VULNERABILITY TO CLIMATE CHANGE
Vulnerability is the degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

ECONOMIC IMPACT ASSESSMENT
The impact of climate change is assessed also in economic terms either in the scenario of inaction or in the adaptation path. *REPORT "The economic valuation of climate change impact assessment"*

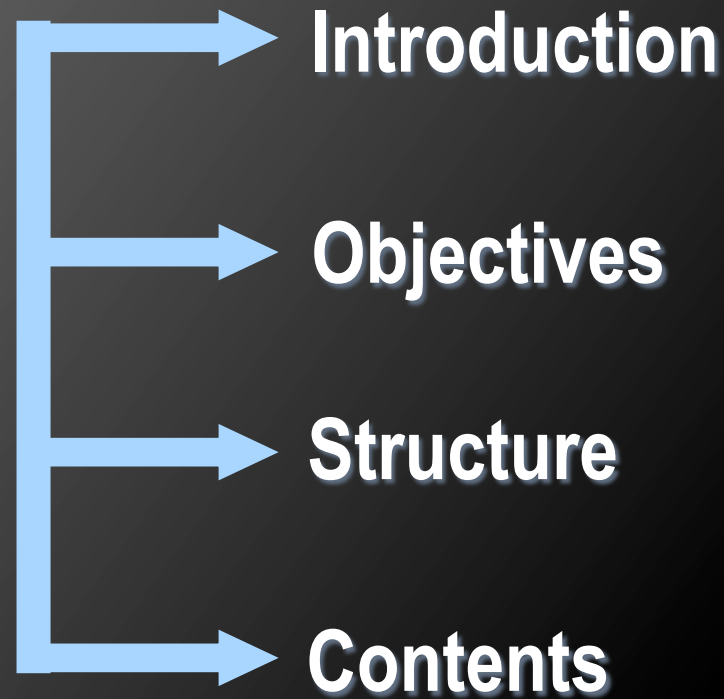
GUIDELINES ON ADAPTATION PLAN TO CLIMATE CHANGE AT LOCAL LEVEL



SUMMARY



GUIDELINES
for the
LAPs



WHY THE GUIDELINES? (1)



Climate is changing!



Climate change impacts are already occurring

Without action, the impacts of climate change will increase rapidly and some changes will be irreversible

Climate change impacts will occur long after the GHGs even in a stabilized scenario

Delaying action will only exacerbates the economic, environmental, social costs

Climate change impacts emerge locally



High vulnerability

City administration is closest to the population

Benefits of adaptation are at local level

Planning for the future can provide benefits to the present

WHY THE GUIDELINES? (2)



With these guidelines the Partners of the project ACT would like to give their contribution by making available to other communities their **EXPERIENCE**, as well as illustrating **STRENGTHS** and **WEAKNESSES** identified during their local adaptation process.

The Document was prepared by:

the **Institute for Environmental Protection and Research (ISPRA, Italy)**

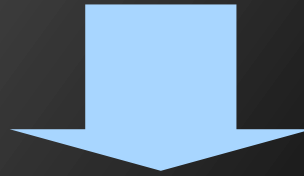
in cooperation with the local partners of the project:

the **Municipalities of Ancona (Italy), Bullas (Spain) and Patras (Greece)**

OBJECTIVES OF THE GUIDELINES

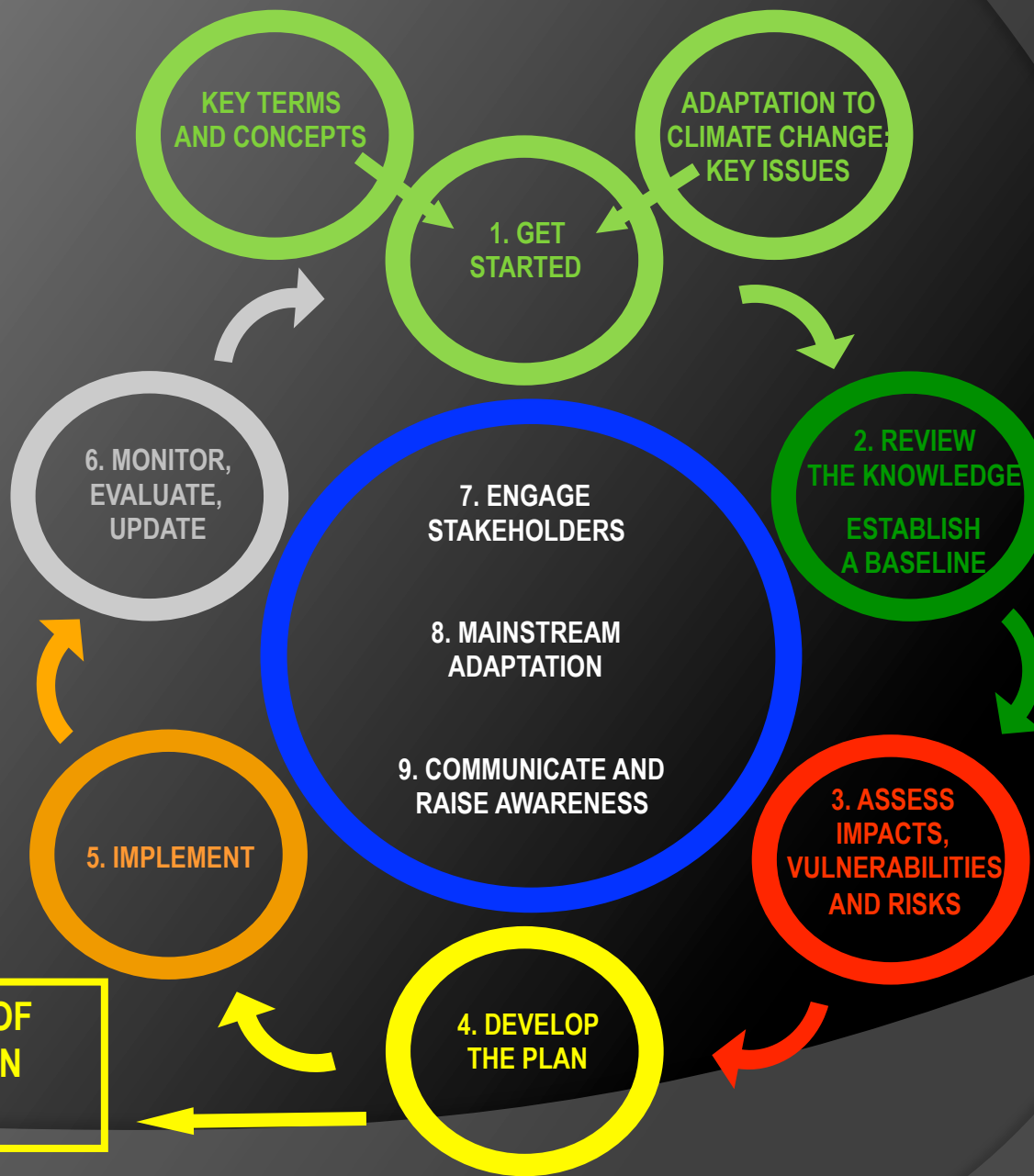


- to offer mayors and other city officials a **guidance** on how to respond to the challenges of **climate change adaptation** in their cities



- to assist local communities in formulating Local Adaptation Plans (LAPs) or implementing some steps of it, by providing useful **theoretical elements** together with **practical processes** deriving by empirical experiences.

STRUCTURE OF THE GUIDELINES

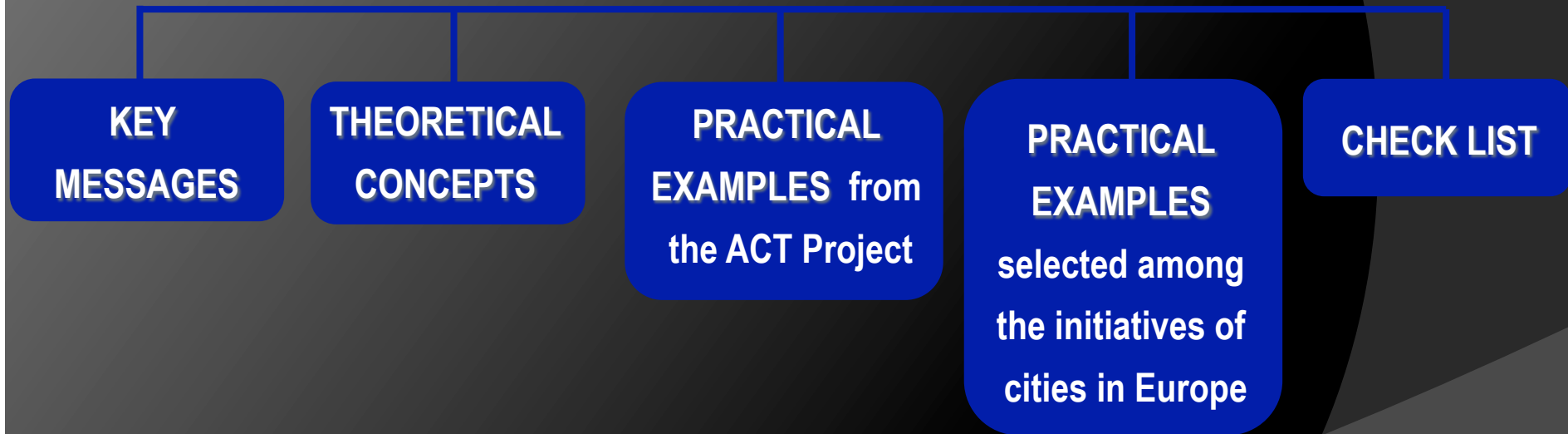


DATABASE OF ADAPTATION ACTIONS

STRUCTURE OF THE GUIDELINES



EACH CHAPTER:



1. GET STARTED

Before starting it is important to take the right **INITIAL DECISIONS** in order to pave the way to the further future steps and build the critical foundation on which the later stages of the adaptation effort will be based.

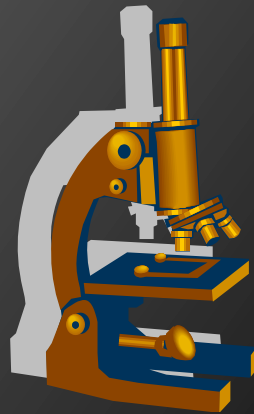


2. REVIEW THE KNOWLEDGE AND ESTABLISH THE BASELINE



Reviewing the available **KNOWLEDGE** and establishing a **BASELINE** will provide the basis for setting **PRIORITIES** and monitoring of **PROGRESS** in adaptation.

A **BASELINE** can be considered as a reference against which future data will be compared.

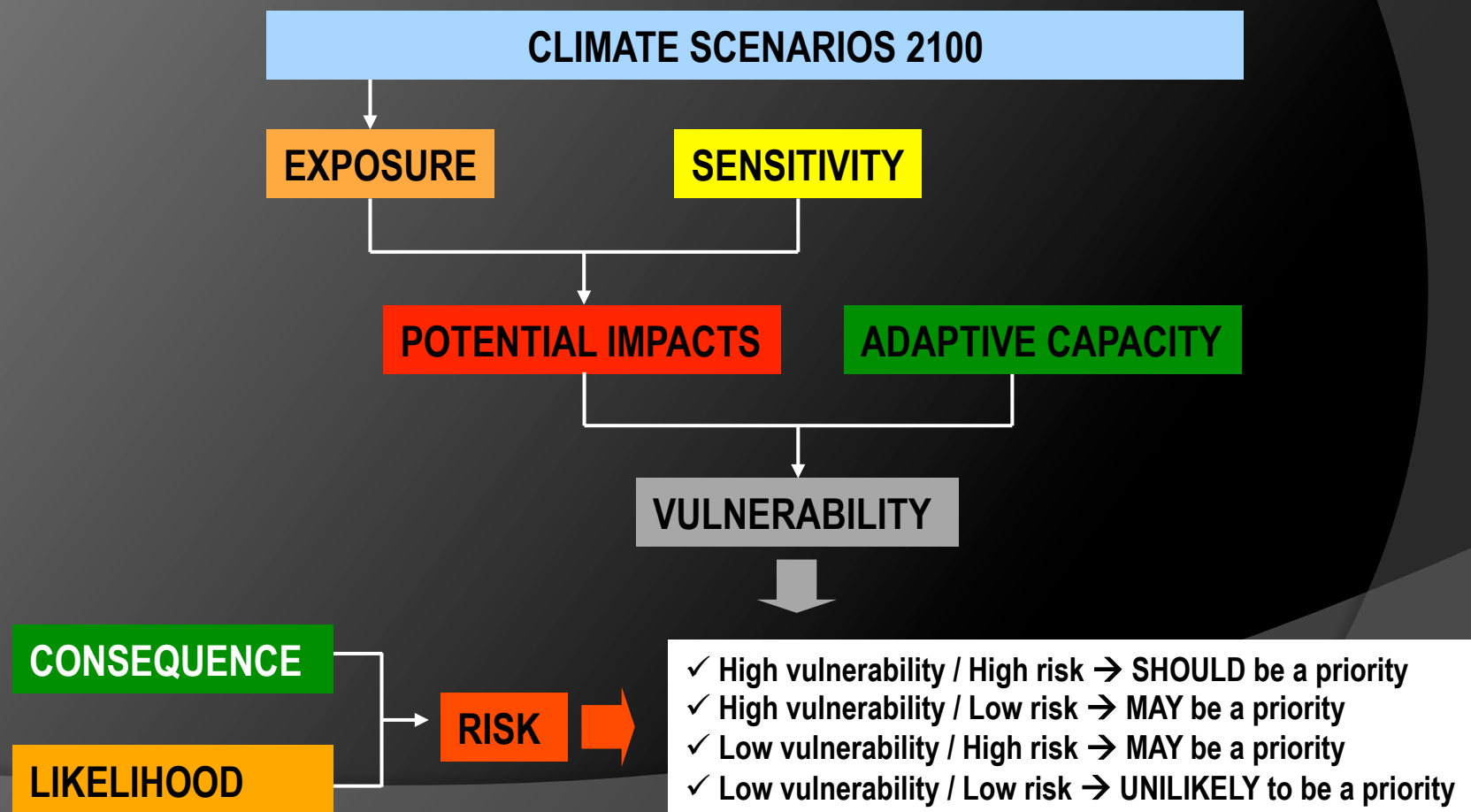


- local climate trends
- local climate change impacts including economic assessment
- local vulnerabilities
- risks and opportunities
- existing local policies, plans, programmes related to adaptation
- existing actions directly or indirectly related to adaptation

3. ASSESS IMPACTS, VULNERABILITIES AND RISKS



The extent to which climate change have an **IMPACT** on human and natural systems is strictly conditioned by the interaction between **VULNERABILITY** and **RISK** and represents the key input for targeting, formulating and evaluating adaptation policies.

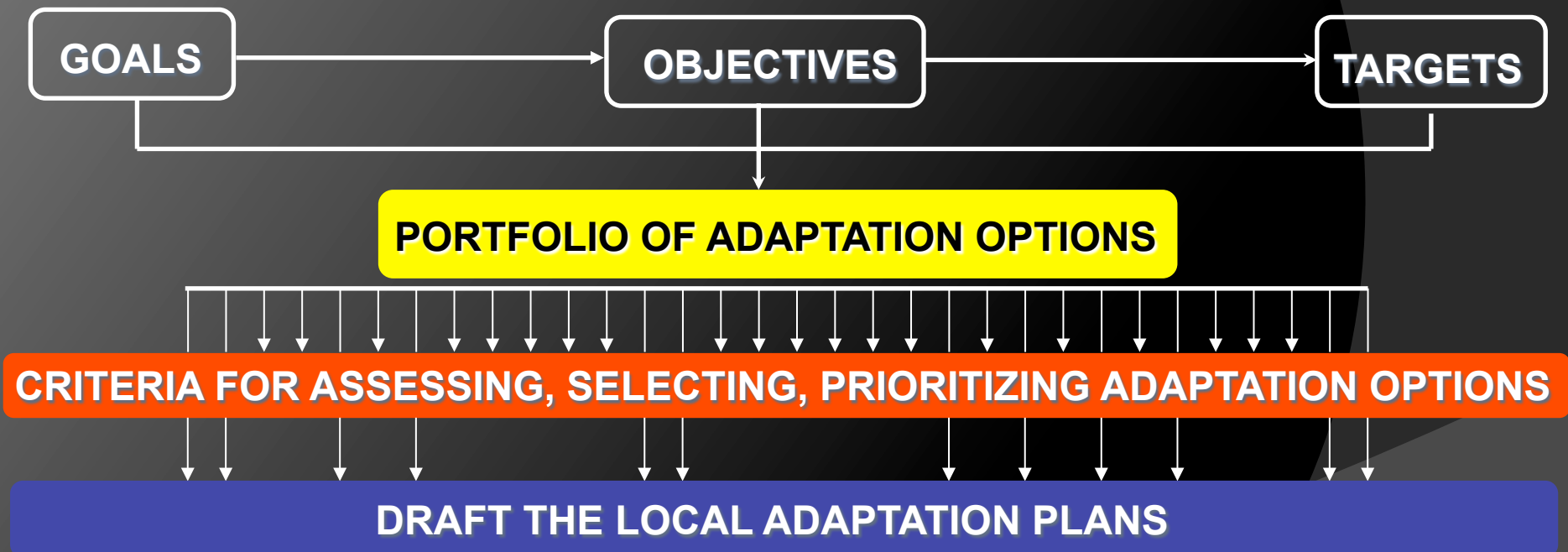


4. DEVELOP THE PLAN



Planning can be defined as the process of setting **GOALS, OBJECTIVES** and **TARGETS** and developing the appropriate strategies to accomplish them.

At this stage it will be determined how best to address those risks, by identifying a range of **ADAPTATION OPTIONS** and then selecting preferred adaptation options using specific criteria.



5. IMPLEMENT



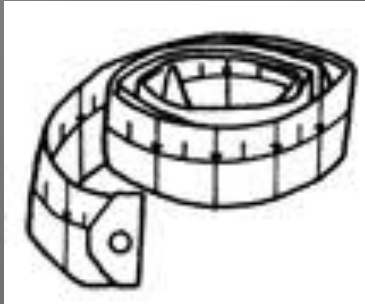
An implementation plan should set out what needs to be done by whom and by when to convert your adaptation strategy into **PRACTICAL ACTION**. The development of an implementation plan converts adaptation options into action by listing the operational objectives, assigning roles and responsibilities and setting the deadlines for completion.



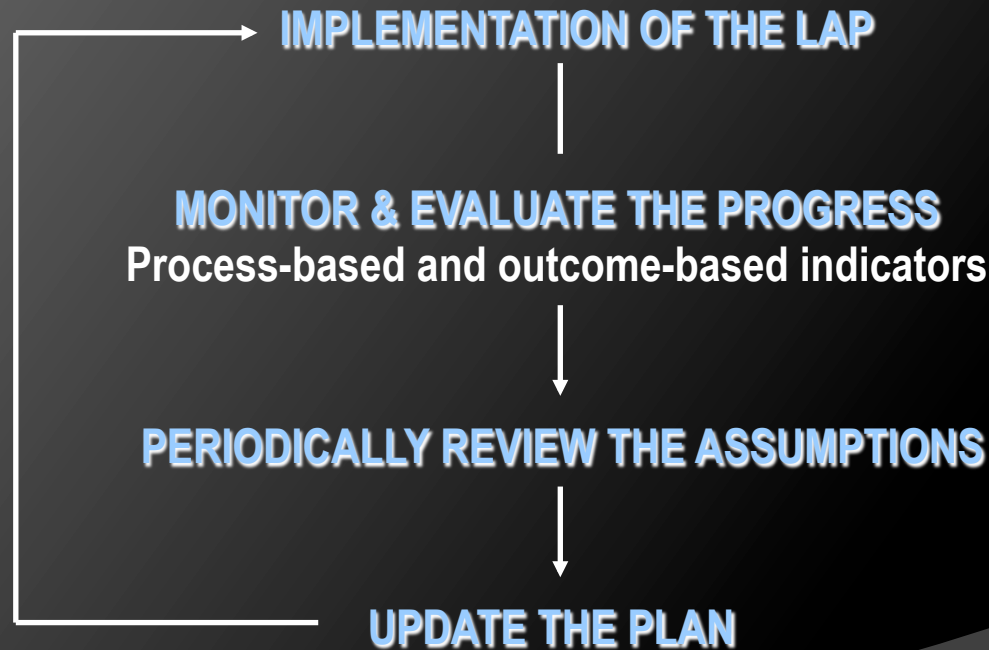
KEY FACTORS:

- ✓ Set a clear and robust leadership identifying roles and responsibility for the individuals involved
- ✓ Describe how preferred adaptation actions should be implemented
- ✓ Ensure that your organization has the right implementation tools (including financial ones)
- ✓ Identify opportunities that could be exploited to synergize climate adaptation actions with other planning and development activities
- ✓ Identify what resources will be required to implement the adaptations and monitor their effectiveness
- ✓ Identify potential barriers and constraints to action and mechanisms to overcome these

6. MONITOR, EVALUATE, UPDATE



Adaptation is an **ITERATIVE PROCESS** that requires regular review in order to verify if the community is adapting well in a dynamic world, to assess what is working well, what is not working and why, and finally to provide regular feedbacks to stakeholders on the **PROGRESS** being made.



7. ENGAGE STAKEHOLDERS



The adaptive ability of a city is influenced by the political and societal **WILLINGNESS** to deal with climate change.

The success of this step relies on the ability to make the community **“BEING PART OF”** the change instead of “taking part” to it.

WHY?

Need to join the efforts, commitments and knowledge of different groups and individuals

Achievement of a common goal: the development of a resilient community and territory

2. WHO?

Public Administrations play a key role but need the support and the collaboration of private sector that is influenced by the planning solutions developed.

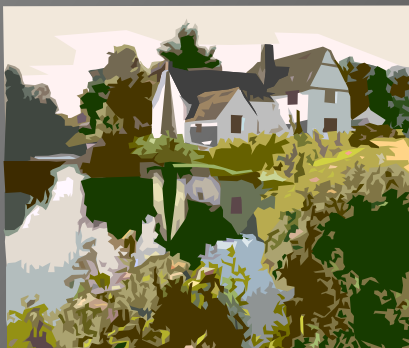
3. WHEN?

Stakeholder engagement must be realised during the whole process, in order to get relevant subjects joint to the process since the very beginning.

4. HOW?

The main stages of the creation of a Public-Private Partnership are described.

8. MAINSTREAM ADAPTATION



In most cases adaptation measures will need to be implemented as part of a broader suite of measures within existing development processes and decision cycles. Adaptation to climate change is a challenge of **POLICY INTEGRATION**.



KEY SECTORS:

physical land use plans or community plans, infrastructure plans, environmental plans, policies and programs, disaster response and management plans, community health and social development programs, economic development programs or projects, corporate plans and strategies, etc.

TOOLS AND STRATEGIES:

- ✓ planning processes;
- ✓ adjustment of local regulatory and service provision frameworks;
- ✓ adjustment of local government accountability mechanisms;
- ✓ engagement of private-sector, civil society organisations and processes.

9. COMMUNICATE AND RAISE AWARENESS



SHARING INFORMATION is an essential pre-condition for good adaptation.

Communications options and rates the pros and cons of each

- ✓ **Community events**
- ✓ **Press release**
- ✓ **Issue brief**
- ✓ **Reporting**

ANNEX I – DATABASE OF ADAPTATION ACTIONS



ADAPTATION MEASURES ANCONA



ADAPTATION MEASURES BULLAS



ADAPTATION MEASURES PATRAS



DESCRIPTION	
TIME HORIZON	
RESPONSIBLE	
CORRELATED PLANNING ACTIVITIES	
EXPECTED RESULTS	
MONITORING INDICATORS	
CRITICAL ASPECTS	
FINANCIAL RESOURCES	
PARTIES TO BE INVOLVED	



Final Draft of the Guidelines is expected for June 2013

THANK YOU VERY MUCH!

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