

Innovation in Climate Service Provision

INNOVA – An ERA4CS Project 2017-2020



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Transform climate-related data into customized products such as projections, forecasts, information, trends, economic analysis, assessments (including technology assessment), counselling on best practices, development and evaluation of solutions and any other climate services that are useful to society at large.

1 INNOVA will undertake cutting edge research through:

- A combination of social and economic innovation, both technological and non-technological elements that can lead to employment and sustainable growth.
- The development of technological and performance assessment for risk management and extreme risk response options, fostering adaptive innovation.
- Monitoring the performance, effectiveness and scalability of approaches, including post-implementation requirements, and operational, organizational and governance needs.

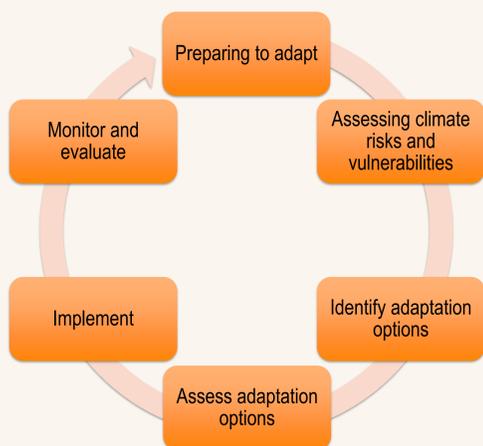


Figure 1: Adaptation cycle - the theoretical backbone of the innovation process of INNOVA

2 The INNOVA approach is adaptive and co-management focused including:

- Co-produced identification of risks and vulnerabilities.
- Adaptive climate services innovations to adapt to the risk, including the identification of suitable business models shifting from risks to opportunities.
- Monitoring, evaluation and learning for enhancing and up-scaling innovation in climate services development for adaptation.

3 INNOVA will learn and innovate by way of exploring four geographically and developmentally distinct case studies (hubs):

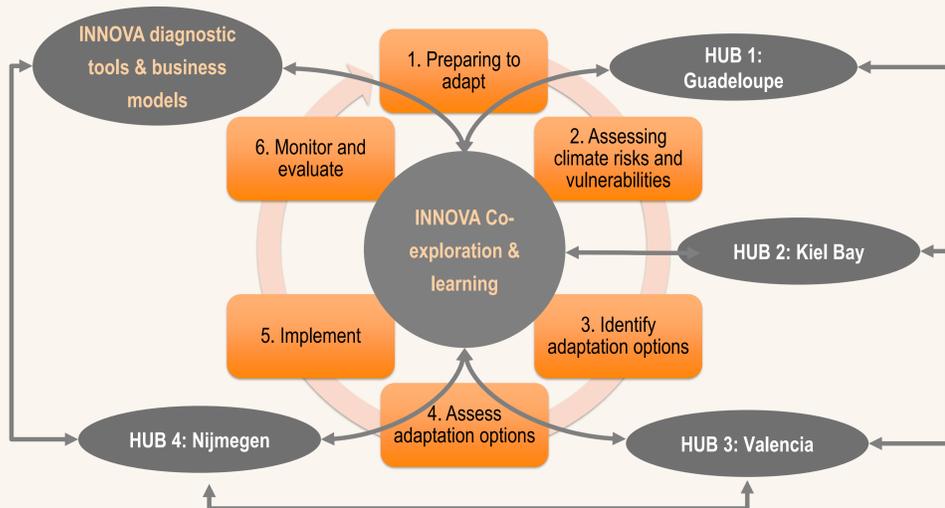


Figure 2: Hubs development status

- Hubs are generally representative of other areas in Europe (Mediterranean, North European; and islands urban and peri-urban areas).
- The development of adaptation options for hubs are different along the adaptation policy.

Table 1: Description of INNOVA hubs or case study areas

Bio-geographical unit	Risk description	Climate Services Development
A. Guadeloupe archipelago and Martinique, French West Indies islands: Small island states	Increasing magnitude and frequency of flash floods and droughts create worsening conditions for agriculture.	Incipient
B. Kiel Bay, Germany: Coastal communities in low-lying areas at the Baltic coast of Schleswig-Holstein	Climate change stimulates an increase in extreme weather events such as: excess surface runoff during heavy rainfalls and an increasing erosion trend at the coast with increasing usage of the coast.	Emergent
C. Valencia, Spain: Mediterranean coastal urban area	Protracted droughts and flash floods; reduction of available resources with climate change; water quality reduction.	Emergent
D. Nijmegen on the river Waal, The Netherlands: upper part of the Rhine, Maas, Schelde delta	New urban developments are being realised along the river. During this development process climate services showed that the Waal river near Nijmegen should be broadened to lessen the risk of flooding.	Maturing

4 INNOVA is implement thought six work packages:

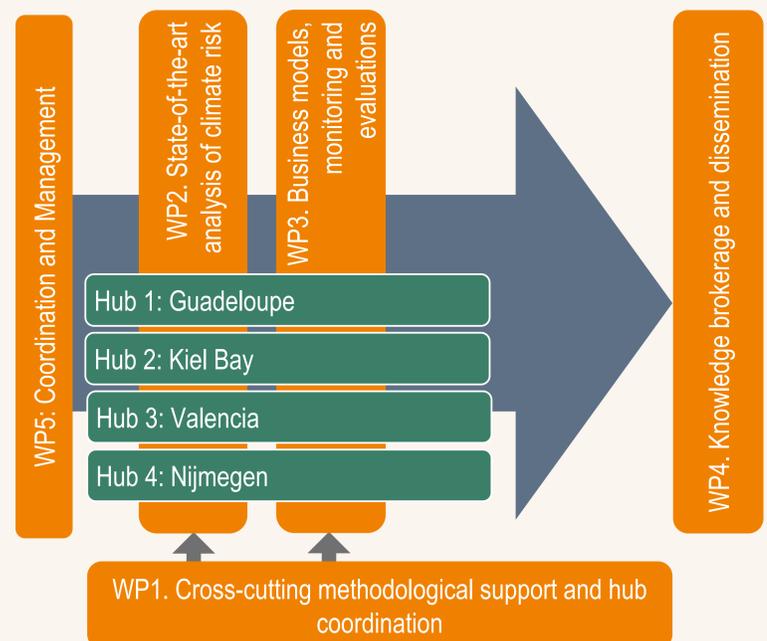


Figure 3: INNOVA work package flow

5 INNOVA offers novel planning processes for climate service:

- Core to INNOVA is real-world examples (hubs) of the potential of scientific data to be negotiated with stakeholders and converted to climate services in order that society can derive benefit.
- Three groups of people work together on innovative solutions to real problems related to climate change and extreme weather events: societal actors, the public sector and knowledge or knowledge brokerage institutions.
- Develop innovative tools for the evaluation, planning, development and implementation of climate services for local adaptation.