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A pan - European framework for strengthening Critical Infrastructure resilience to climate change
EU-CIRCLE

euconcip

Opening Conference

Rome, October 20th, 2015

EU-CIRCLE description

Project objectives

Derive an innovative framework for supporting the interconnected European Infrastructure's resilience to climate pressures.

Develop and validate a Climate Infrastructure Resilience Platform (CIRP) that will:

- assess potential impacts due to climate hazards,
- provide monitoring through new resilience indicators and
- support cost-efficient adaptation measures.

Project sector: *Transport , Energy, IT, Telecommunication, Health, Water, Public Administration, Chemical*

Project topics*: Climate Change, Critical Infrastructures, Adaptation, Risk Assessment, Interdependencies and Cascading Effects*

Project duration: *36 months*

EU-CIRCLE outcomes

The EU-CIRCLE main outcomes are:

- **Methodological framework** for assessing risk and resilience of interconnected criticial infrastructures to climate change impacts – (guidelines) - expected for month 12
- **CIRP – critical infrastructure resilience platform (software)** – modeling of different climate hazards & risk propagation & resilience / adaptation metrics – expected for month 30
- Moving towards **standardization of climate risk and resilience** to interconnected CI (data, meta-data, models) – guidelines – common format and interfaces – expected for month 32

EU-CIRCLE description

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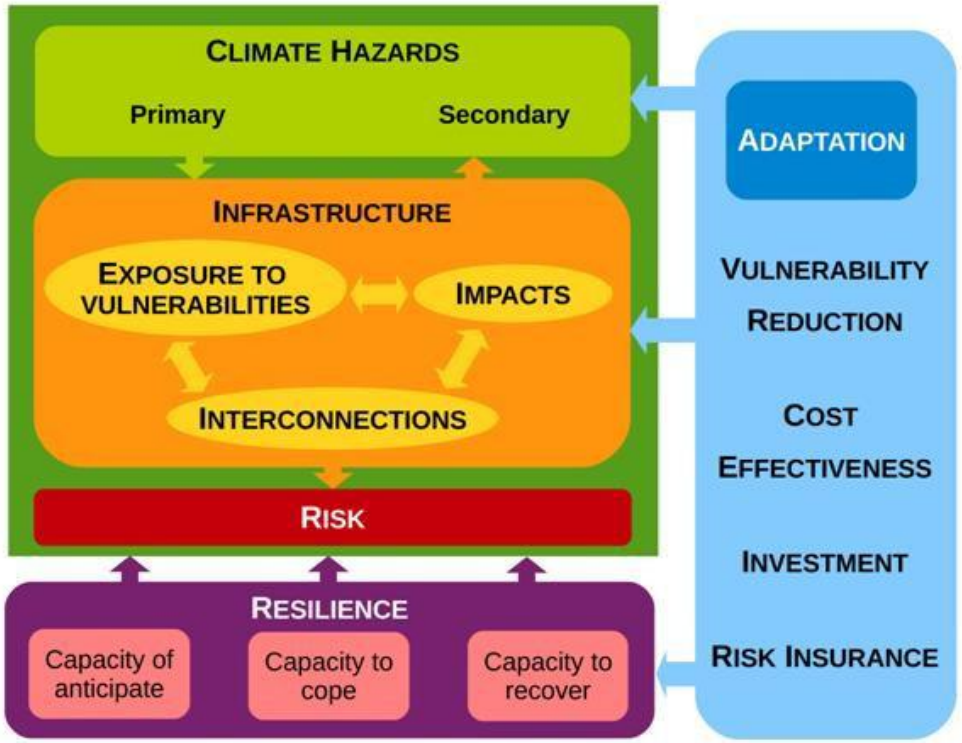
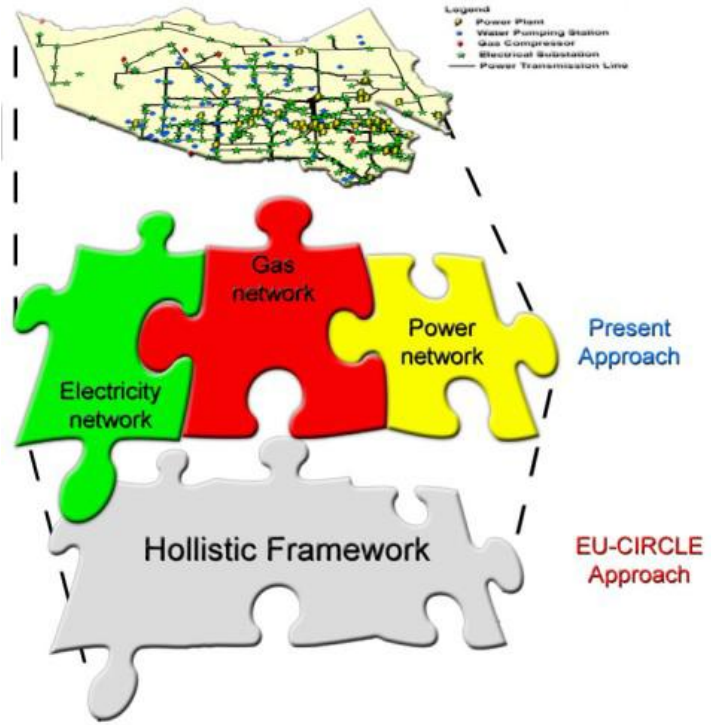




EU-CIRCLE target stakeholders

The EU-CIRCLE target stakeholders are:

- **CI National auhtorities** : have a risk informed tool for making the optimal long term decisions on interconnected CI resilience
- **CI owners / operators** : collaborative tool for determining and assessing risk and resilience due to climate hazards
- **Regional / Local authorities** : introduce CI resilience planning into larger societal resilience activities
- **Meteorological / Climatology community** : Linked to new challenges and uses of climate area
- **Scientific community**: open source software that may accomodate multiple models and standards into a common platform.

H2020 identified opportunities

H2020 identified opportunities to exploit EU-CIRCLE main outcomes

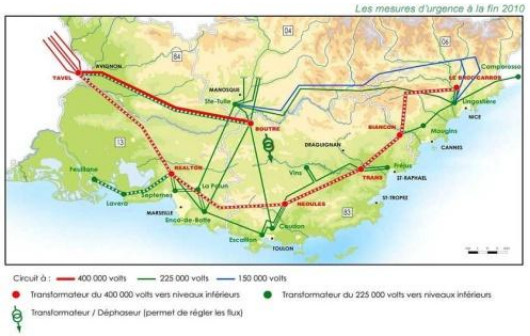
- **H2020 – SC5-08-2017**: Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction
- **H2020 – SC5-01-2016-2017**: Exploiting the added value of climate services

Other financing opportunities considered

- LIFE + on climate
- DGECHO

EU-CIRCLE Validation

Case Study 1: Extreme Dryness and forest fires on electricity and transport networks
Lead Partner: ENTENTE POUR LA FORÊT MÉDITERRANÉENNE



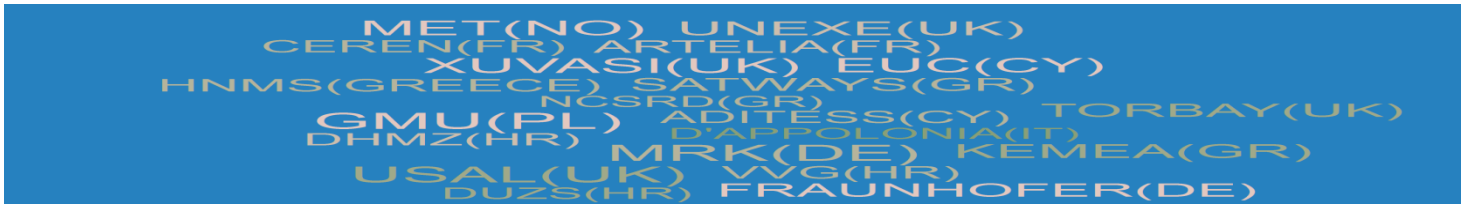
Case Study 2: Storm and Sea Surge at a Baltic Sea Port , Gdynia Poland
Lead Partner: AKADEMIA MORSKA W GDYNI

Case Study 3: Coastal Flooding (surface water, highway, sewer and watercourse flooding) across Torbay, UK
Lead Partner: UNEXE and Torbay Council

Case Study 4: International Event
Lead Partner: USAL and NCSRD

Case Study 5: Rapid Winter Flooding (melting ice, narrow mountain streams, flooding) around Dresden, Germany
Lead Partner: Fraunhofer IVI

With the financial support of
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 653824



Thank You for Your attention!

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