European Commission

EASME

Executive Agency for Small and Medium-sized Enterprises

A VIEW FROM HORIZON 2020

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H2020 Environment & Resources

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Executive Agency for SMEs

ENVIRONMENT

Horizon 2020: addressing Europe's challenges

- Investing in research and innovation 2014-2020
- Budget of €77 billion
- Coupling research to innovation to maximise impact
  - *Using stakeholders knowledge to maximize the uptake of project results*
  - *Stronger participation of SMEs (in collaborative projects and through the dedicated SME instrument)*

- *35% of funding earmarked for climate related projects*



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Horizon 2020 three priorities



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Horizon 2020 budget
(2014-2020)

Societal challenges	€ 29.7 Bn
1. Health, demographic change & well-being	€ 7.5 Bn
2. Food security, sustainable agriculture & forestry, marine maritime & inland water research & the Bioeconomy	€ 3.8 Bn
3. Secure, clean & efficient energy	€ 5.9 Bn
4. Smart, green & integrated transport	€ 6.3 Bn
5. Climate action, environment, resource efficiency & raw materials	€ 3.1 Bn
6. Europe in a changing world – Inclusive innovative & reflective societies	€ 1.3 Bn
7. Secure societies – Protecting freedom & security of Europe & its citizens	€ 1.7 Bn

Societal Challenge 5: Climate action, environment, resource efficiency and raw materials

Objective: *"to achieve a resource – and water – efficient and climate change **resilient** economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems."*

H2020 –SC5 Climate Action, Environment, Resource Efficiency and Raw Materials

Budget of €3 billion over 7 years for:

Eco-Innovation



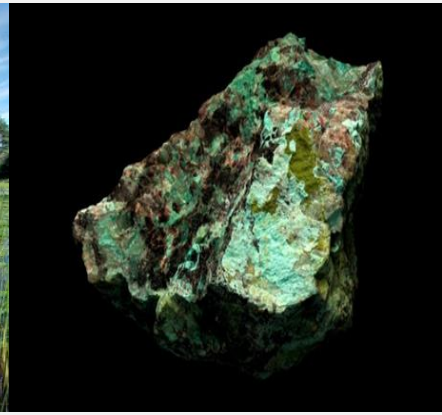
Climate Action and Earth Observation



Natural Resources



Raw Materials



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H2020 –SC5 Climate Action and Earth Observation

Climate Action and Earth Observation



Strategic themes:

- Climate services
- Decarbonisation of the economy
- The Arctic dimension
- Earth Observation within GEO

Overview SC5 Climate (+EO) related projects

- Currently 56 projects, total 350 M€
  - About 1000 beneficiaries, thereof 180 SMEs (50 M€)
  - None finished so far

Climate Action: Ongoing projects

Climate Services

Climate Change Adaptation

Air quality

The food–energy–water–climate nexus:

Climate Change Mitigation, decarbonisation

Earth Observation

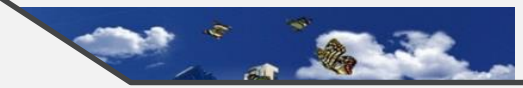


Climate Action: Ongoing projects

Climate Modelling

Climate Services

Climate Change Adaptation



Budget: **€ 15.003.512**, 60 months
24 Beneficiaries from 10 countries led by University of Leeds

-A new set of combined socio-economic and climate emission scenarios.

-A coordinated ensemble of ESM projections based on the new CMIP6/ScenarioMIP data.

CRESCENDO

PRocess-based climate sIMulation: AdVances in **high-resolution** modelling and European climate Risk Assessment

Budget: **14.967.970 €**
19 beneficiaries from 9 countries led by Met Office (UK)

PRIMAVERA

Climate Action: Ongoing projects

Climate Modelling

Climate Services

	Domain	Case studies	End
RESCUE	W U I	ES, PT, UK	2020
BRIGAID	W I	BE, IT, NL, RO, PT, ES, AL, IL	2020
RESIN	W U I	ES, FR, SK, UK	2018
EU-CIRCLE	I	DE, FR, PL, UK	2018
IMPREX	W A E I	DE, EL, ES, IT, SE, UK	2019
CLARA	W A H E	ES, IT, NL, SE	2020
PUCS	U I ch H E	BE, ES, CZ, IT, AT, CH	2019
CLARITY	U I E	SE, IT, AT, ES	2020
H2020_insurance	I A H	DE, RS, TZ, CN	2020
NAIAD	W U I	DK, ES, FR,NL, PL, RO, SI, UK	2019
VISCA	A	PT, ES, IT	2020
PROSNOW	T	FR, DE, AT, IT, CH	2020
STORM	ch U	EL, UK, IT, PT, TK	2019
HERACLES	ch	IT, EL	2019

Urban U
Water W
Infrastruct. I
Agriculture A
Tourism T
Cultural heritage ch
Insurance I
Energy E
Health & AQ H

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aptation

Air quality

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Climate Action: Ongoing projects

Climate Modelling

Climate Services

Climate Change Adaptation

Air quality

ood–energy–water–climate nexus:

BINGO

Bringing INnovation to onGOing water management – A better future under climate change
Budget: **7.822.425 €**, 48 months
20 beneficiaries from 6 countries, led by LNEC (PT)
Improved understanding of future climate impacts on the water cycle: average conditions and extreme weather events (floods, droughts), on regional and local scale

RESIN

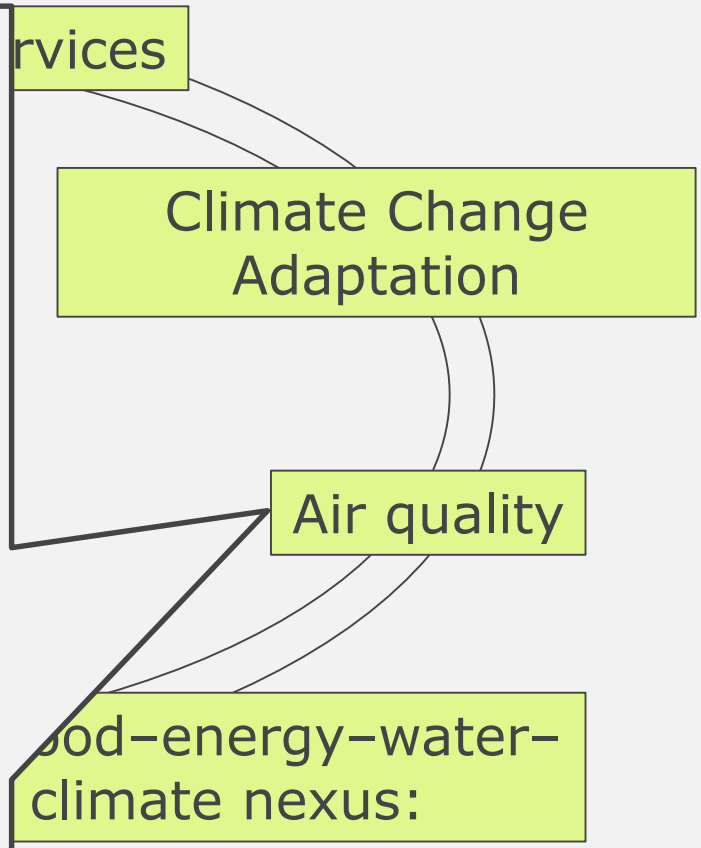
Climate Resilient **Cities** and **Infrastructures**
Budget: **7.466.007 €**
17 beneficiaries from 8 countries, incl. IO (ICLEI) and Industry (Siemens), led by TNO (NL), Peter Bosch
provides **standardised** methods for **vulnerability assessments**, **performance evaluations of adaptation measures**, and for **decision support tools** for robust adaptation strategies **tailored to the city.**

Climate Action: Ongoing projects

Clair-CITY
- Focus on citizen behaviour/multi stakeholders dialogue
- Co creation of roadmaps towards a clean air/low carbon healthy future in 6 pilot cities
- Apps, Serious Game

ICARUS
- Focus on integrated monitoring and modelling
- Decision Support System
- Policy evaluations and creation of emission pathways

iSCAPE
- Focus on evaluation local measures and influencing citizen transport choice
- Passive control systems (low boundary walls, green infrastructure), Photocatalytic coating



Climate Action: Ongoing projects

REINVENT (730053) – 'Realising Innovation in Transitions for Decarbonisation'
Project Co-ordinator Lund University
5 partners from 4 different countries (UK, DE, NL, SE).
Start: 01/12/2016. Duration: 48 Months. EC contribution: € 4.500.000.

- REINVENT develops an evidence-based framework for research, business, investment and policy decision making for assessing decarbonisation pathways and governance **in key economic sectors (steel, plastics, paper, and meat and dairy) where low carbon transitions are still relatively unexplored**.

GREENWIN – 'Green growth and win-win strategies for sustainable climate action'
Coordinator: GLOBAL CLIMATE FORUM EV (Germany)
Project duration: 9/2015-8/2018. EC contribution: €3.624.763
AIM AND SCOPE
The GREEN-WIN project develops a major international transdisciplinary research collaboration to apply a solution-oriented approach targeted at increasing the understanding of links between **climate action and sustainability** and overcoming implementation barriers through win-win strategies.

Climate Change Mitigation, decarbonisation

The food–energy–water–climate nexus:

Climate Action: Ongoing projects

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Climate Change Mitigation, decarbonisation

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THANK YOU

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