



Climate-KIC

DEEP DEMONSTRATIONS

of a Net-Zero Emissions,
Resilient Future



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EIT Climate-KIC launched a new Strategy – [Transformation, in Time](#) – in December 2018. It says:

'The climate emergency is upon us. Continuing to work through gradual, incremental changes will not be enough. What is needed now is a fundamental transformation of economic, social and financial systems that will trigger exponential change in decarbonisation rates and strengthen climate resilience – what the IPCC Special Report on Global Warming of 1.5 °C calls, "rapid, far-reaching and unprecedented changes in all aspects of society".'

EIT Climate-KIC is a European community of innovators and entrepreneurs with the will and ambition to support Europe's leaders in tackling climate at the speed and scale we need. We focus our efforts on innovation at the level of whole systems to achieve the structural and exponential change called for by the IPCC.

Deep demonstrations of such changes are central part of our [Transformation, in Time](#) strategy and are intended to be inspirational examples of what's possible. These start with a demand-led approach, working with city authorities, regional bodies, governments or industry leaders who are committed to fundamental transformation to a net-zero emissions, resilient future.

Through a systems innovation approach, we match this demand with supply, bringing the full force of our innovation community to tackle multiple levers of change simultaneously through the rapid testing of options. We orchestrate this as a portfolio approach, concentrating on learning together about what creates the fastest pathways to change.

1 First wave of deep demonstrations

Building on our 9-years' experience of generating a rich supply of innovative ideas for tackling climate change, we are announcing our **first wave** of deep demonstrations. The first wave is characterised by clear commitment by problem-owners, who are ready to engage in a co-design phase with EIT Climate-KIC. Equally, they also represent areas where the EIT Climate-KIC community is ready to act and can bring multiple solutions to help tackle problems.

Deep demonstrations of healthy, clean cities

Cities face an enormous challenge in becoming healthy places to live, while reaching net-zero emissions in just a few years. They are also places where multiple systems intersect, making fast change complex but possible. EIT Climate-KIC is forging relationships with the most ambitious city mayors and municipalities, who are ready to design portfolios of innovation options to unlock a wholesale transformation. Deep demonstrations of healthy, clean cities will start in a phased way with a small cohort to be drawn from Amsterdam, Edinburgh, Copenhagen, Helsinki, Krakow, Madrid, Malaga, Malmö, Milan and Vienna.

Deep demonstrations of just transition for Europe's heavily industrialised and coal regions

Many regions and people across Europe still rely on economies which are incompatible with tackling climate change. These can be coal producing regions, or ones with polluting heavy industries. While such economies and societies need to change rapidly, the transition must be just and inclusive. Innovation at the level of whole systems can help – through the idea of deep demonstration that such just transitions are indeed possible. EIT Climate-KIC intends to work with an initial group of ambitious and committed regional governments in Upper Silesia (Poland), Mondragon (Spain), Emilia Romagna (Italy) and Lusatia and North-Rhine Westphalia (Germany).

Deep demonstrations of net-zero emissions, resilient maritime hubs

Ports are places where multiple systems collide – shipping, energy, waste, tourism and other transport for example. They are emissions hotspots in themselves, but also hubs with the potential to effect enormous change. In a phased way, EIT Climate-KIC will work with a small cohort of high-ambition port authorities in Valencia (Spain), Piraeus (Greece), Rotterdam (Netherlands), Turku (Finland) and others to demonstrate how ambitious maritime hubs can be catalysts for reversing the fast-growing emissions from international shipping and trade hotspots.

Deep demonstrations of a circular, regenerative economy

EIT Climate-KIC will partner with the Government of Slovenia and potentially other countries, in a deep demonstration of rapid change to a circular and regenerative economy and society. Innovation will tackle material production and waste flows across key economic systems, and in doing so help a country to advance health and prosperity.

2 Second wave of deep demonstrations

Where the commitment of problem-owners is yet to be secured, or problem-owners are spread and multiple, EIT Climate-KIC will need to take a more exploratory approach to find the most effective formula for deep demonstrations.

Deep demonstrations of forging resilience in some of Europe's most vulnerable and exposed regions

The impacts of climate change involve slow-onset changes, extreme events and increasing systemic risks. Some regions of Europe are particularly exposed to these impacts and are particularly exposed and vulnerable due to the make-up of their landscapes, economies and societies. EIT Climate-KIC will take a systems innovation approach to forging resilience, potentially working with regional governments and city authorities in Andalusia (Spain), Nouvelle Aquitaine (France), and the Dolomites area (Italy) among others.

Deep demonstrations of long-termism

Short-term thinking in investment cycles and in ideas of economic value are acting to prevent the 1.5 °C transition we need. EIT Climate-KIC will explore the most effective problem-owners to work with – whether institutional investors, insurance companies, faith-based organisations or land/landscape owners – to forge experiments that help shift attention to longer-term time horizons.

Deep demonstrations of turning regional landscapes from carbon sources to carbon sinks

Increasing rural depopulation in Europe, and economic practices that mine soils and landscapes for profit, are causing land to be sources of emissions, not sinks. Lack of land management is also raising wildfire risk that can create bursts of emissions, whereas opportunities for carbon sequestration are missed. Deep demonstrations of turning landscapes from carbon sources to sinks will need to tackle a lack of investment, forge new social contracts with soil and forests, and line-up value-chain incentives. EIT Climate-KIC will explore relationships with problem-owners in Scandinavia, Switzerland and Spain among others.

Deep demonstrations of reforming food systems and alternative proteins

Whether it's widespread plastic packaging, high-levels of food waste or diets high on meat consumption, our food systems are incompatible with a 1.5 C future. Deep demonstrations of change must tackle food production, distribution and consumption, and involve working with places and value-chains. EIT Climate-KIC will explore working with a combination of problem-owners in Nordic countries and others – from meat-industry leaders committed to introducing alternative proteins, food retailers and national governments.

3 Summary of decision process

The focus of deep demonstrations was decided through a process involving the sourcing of ideas from across our community via concept notes, through roadshows and by submissions to an open mailbox during February and March 2019. A two-day portfolio approach was used to map these ideas from different angles (geographic spread, systems to be tackled, impact areas, concentrations of solutions, clustering and others). Sense-making activities were used to help spot patterns and combine ideas into examples of deep demonstrations that met a basic standard: problem-owners clearly named, portfolios of innovation needed to create change across multiple drivers, EIT Climate-KIC's readiness, and consistency with tackling climate change at speed/scale. A decision-making circle considered each deep demonstration opportunity, using EIT Climate-KIC's portfolio composition principles.

4 Next steps

Deep demonstrations will now evolve through a defined design process, as informed by our [Transformation, in Time](#) strategy, and aligned with the idea of developing 'systems innovation as a service'. We have sketched the design process in Figure 1.

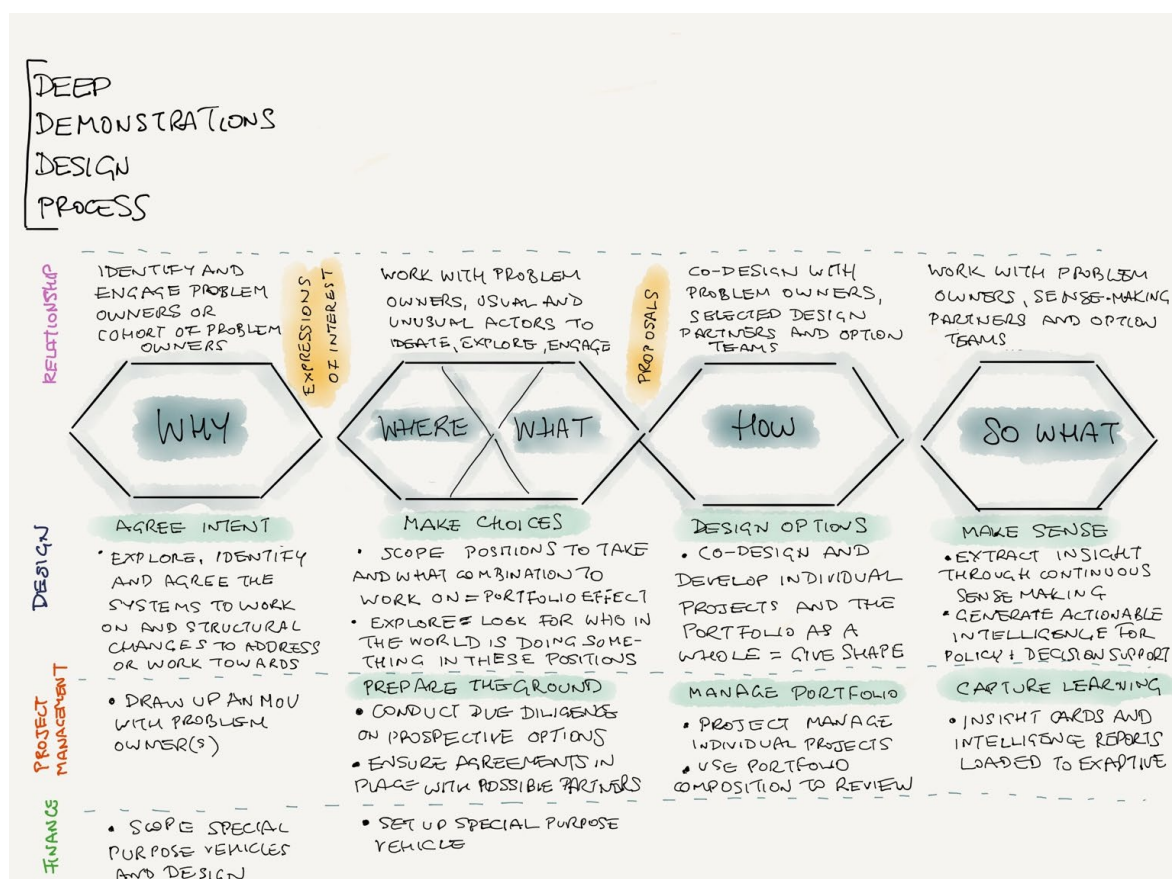


Figure 1: Sketch of the deep demonstrations design phase

In the first '**why**' and '**where/what**' phases, we will pursue the following set-up processes:

People: Each deep demonstration will have a dedicated design team, supported by an overall co-ordination group that brings methodological support to each deep demonstration. The teams will involve a mix of people with complementary capabilities, drawn from EIT Climate-KIC Holding and from EIT Climate-KIC partner organisations [see [Call for Proposals](#)]. They will work together with problem-owners to design processes and a portfolio of innovation options that have the potential to create rapid changes. They will also work to identify multiple sources of funding to support the execution of activities in the **how** phase.

While many EIT Climate-KIC partners will not have the interest to work during the *why* and *where/what* design phases, there will likely be multiple opportunities to match supply with demand during the *how* phase. This could be through open call processes, in the way EIT Climate-KIC has traditionally worked, or through more dedicated blended financing instruments.

Note: Deep demonstration teams will also have a key early task of engaging with concept note authors and discussing the extent to which such ideas are aligned to the deep demonstrations that have emerged.

Problem-owners: Deep demonstration team members and those holding existing relationships with problem-owners will start to take the relationships forward almost immediately with respect to Wave 1. During the *why* phase, we would expect to sign an MOU or Letter of Intent (or similar document) to help reiterate long-term co-operation on a systems innovation/deep demonstration logic.

Process: One key milestone we need to focus on is the submission of the grant application to EIT in September 2019 (EIT BP2020). Before then, in the case of each deep demonstration, we will need to develop enough detail to meet EIT's requirement.

Portfolio: Over the next few months, one of our opportunities is to link supply and demand for innovation much more closely. The deep demonstrations offer that, and we have a rich supply of innovation projects/positions. Following the close of EIT Climate-KIC's [Call to Action in April 2019](#), we will have the opportunity to spot alignments between the supply of new ideas and the demands being expressed through the deep demonstration process. Nonetheless, alignment with deep demonstrations does not represent a new selection criterion and will not be used to make choices between one idea or another.

Further information on deep demonstrations will be released through 2019 as the design process develops.



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offices across Europe.

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