Net Zero Industrial Cluster Exchange (NICE)

CASE STUDY PROVIDED BY: European Policies Research Centre (EPRC)

Liliana Fonseca

The Net Zero Industrial Cluster Exchange (NICE) was established as a collaborative effort between Michelin, the Scottish Government, and the European Policies Research Centre (EPRC) at the University of Strathclyde, with the aim of facilitating knowledge exchange and best practices among regions transitioning to net zero industrial clusters.

DESIGN

RATIONALE

Policies and strategies at the regional level to promote decarbonisation and net zero are still evolving with a lack of knowledge on good practice.

There is a need for platforms to facilitate knowledge exchange and 'good practice' both nationally and internationally.

CREATION

NICE concept initiated in 2021 by EPRC, with Scot Gov and Michelin who were redeveloping a former Michelin tyre manufacturing site to Net Zero.

At COP26, a side event shared the Scottish experience with other decarbonisation initiatives from across Europe for the formal creation of the NICE network.

A pilot period (2021-23) secured £150,000 from Scot Gov and Michelin.

CHALLENGES

Identifying good practices and partners in this niche proved difficult, alongside ensuring their commitment to a new network required frequent discussion and adjustment of resources and objectives.

The theme of regional transition was new to EPRC, while engaging with private sector partners or nexus organisations required new ways of working.

CHALLENGES

Refining communication strategies and platforms has been crucial for effectively sharing information and best practices, and fostering trust across the network.

Establishing a clear vision and objectives is essential for guiding the network.

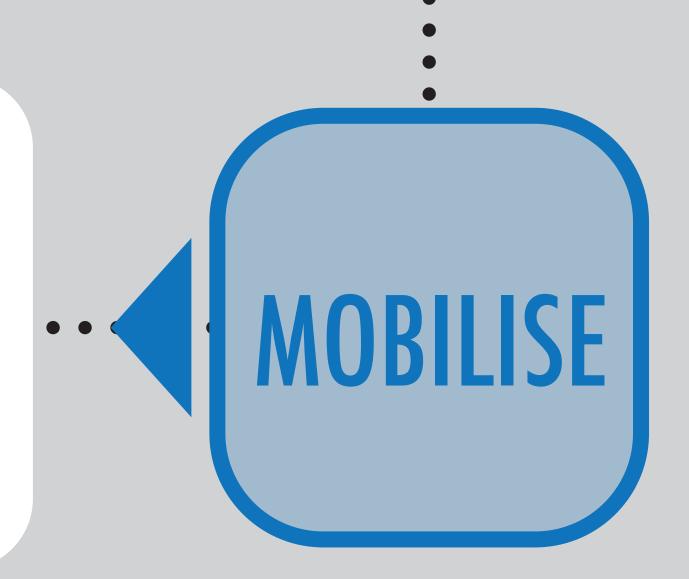
Frequent discussions promote a bottom-up approach, so that all stakeholders are aligned and working towards common goals.

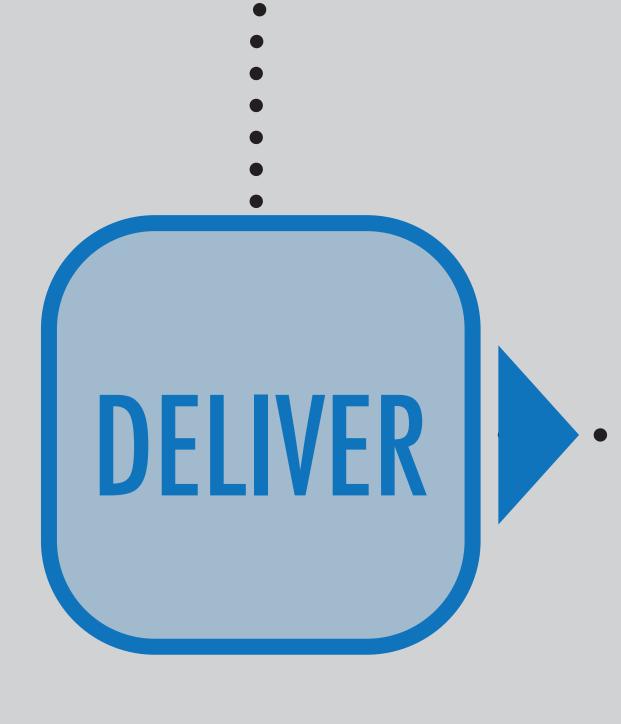
A funding application was developed and submitted to the second call of Interreg Europe (Spring 2023), which was accepted. COMMIT, on Low-Carbon SME Development and Transition will start in April 2024 and run for four years, continuing the NICE work.

A research programme was defined for the NICE pilot period, with two more conferences (Spring and Autumn 2023) and online workshops (three in 2023) on key topics in industrial decarbonisation and regional just transition.

Bilateral meetings held with potential partners to identify the network's objectives and ambitions.

First conference was organised in Brussels, Sept 2022, at Scotland House, on regional decarbonisation strategies and access to finance.





Three international conferences on the topics of regional decarbonisation and access to finance (Brussels, 2022), SME low-carbon entrepreneurship and business attraction (Genk, 2023) and skills for the just transition (Dundee, 2023). Two briefing papers were prepared for the last two conferences.

Three Coffee Break Workshops held online on Zoom on carbon management guidance for projects and programmes, workforce for Net Zero project delivery, and leading change in communities experiencing economic transition.

A dedicated website
(https://nice-net.org/) and
regular newsletters to a
60-strong mailing list, which
includes NICE partners,
European institutions,
academics, industry
representative bodies, public
sector bodies and industrial
clusters.

CHALLENGES

Ensuring effective coordination and collaboration among diverse international stakeholders.

Securing funding and resources to sustain project activities and initiatives after the pilot period.

The importance of fostering effective collaboration for driving meaningful change towards decarbonisation.

Effective leadership to drive the network vision, facilitate decision-making, and resolve conflicts.

CHALLENGES

It has been difficult building a new network on an emerging theme in the 2-year pilot timeframe.

There was limited in-person interaction and event participation for some of the partners with more limited resources for travelling.

EPRC's continued maintenance and updating of the shared knowledge base/website will provide an ongoing platform for the dissemination of information on Scottish innovations and new developments.

NICE showcased Scottish leadership on several Net Zero initiatives at five international meetings in Brussels (Belgium), Hallstadt (Germany), Clermont-Ferrand (France), Genk (Belgium) and Dundee (Scotland).

NICE achievements and outcomes demonstrate delivery on the initial objectives set for the NICE network. They lay the ground for ongoing cooperation between network partners, and a continuation of exchange of knowledge and best practice.

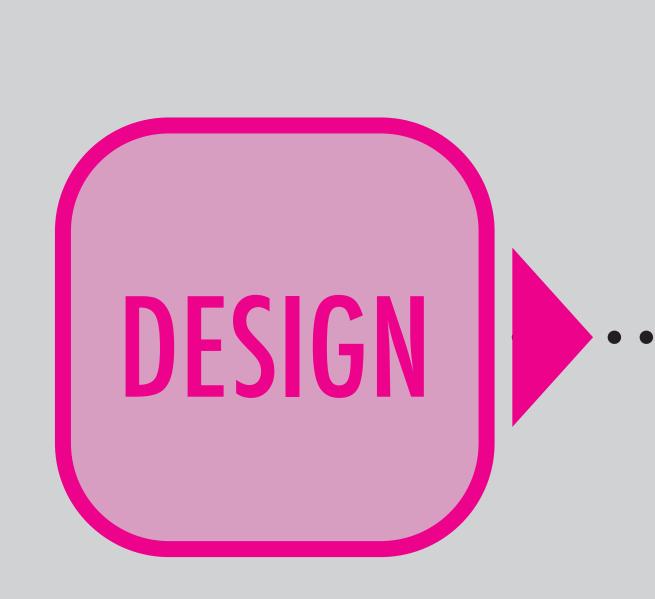


System Demonstrators for Climate Neutral Cities

CASE STUDY PROVIDED BY: Lund University

Emily Wise

System Demonstrators for Climate Neutral Cities represent a new approach to addressing deep structural challenges within specific systems, aiming to accelerate the transition to climate neutrality. This initiative, led by Vinnova and Viable Cities in Sweden, involves collaborative efforts with municipalities and various stakeholders.



Viable Cities, Vinnova, the Swedish Energy Agency and other government agencies within Climate City Contract 2030 are investing in system demonstrators to create new approaches to contribute to climate neutral and sustainable cities.

RATIONALE

Inspired by similar initiatives elsewhere, Viable Cities and Vinnova worked together to develop the concept of system demonstrators – a new instrument with the purpose of quicker transitions to climate neutrality in cities.

CREATION

One of the clearest characteristics of the system demonstrator is the strong emphasis on systemic perspectives, which is reflected in the emphasis on considering various systemic dimensions in the analysis of the current situation and in the design of measures.

Vinnova and Viable Cities published a white paper describing the concept, before launching a call for the first step (a design phase) open to the first nine Swedish cities having signed Climate City Contracts 2030.

CHALLENGES

Ambition to change multiple aspects needed for transformation of broader socio-technical systems (vs. "just" developing and demonstrating innovative solutions), introduced new thinking and required "to do's" for the cities who applied, which has taken time and additional support.

While the mobilisation and planning has been for the long-term (until 2030 and beyond), the duration and funding of the system demonstrators in practice has been limited to short-term.

CHALLENGES

Balancing system demonstrator instrument planning activities that are most easily done in smaller, focused groups, yet also encourages broader inclusion of stakeholders in these processes.

Having a broad enough scope for self-determined stakeholder missions to be relevant and impactful, which are manageable in terms of the planned actions and actors involved.

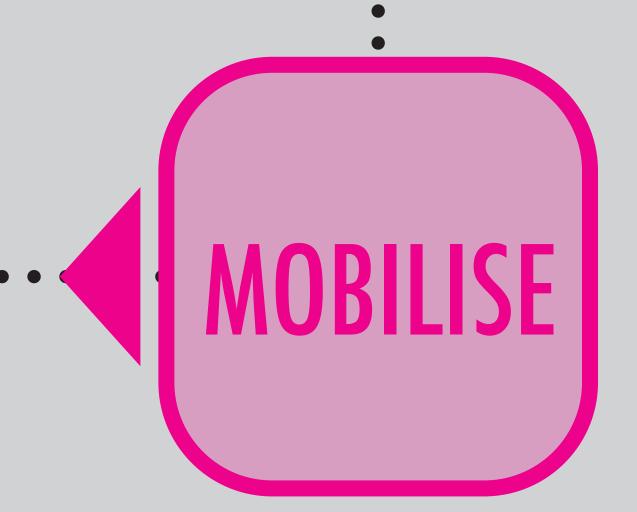
CoAction Lund has mobilised 26 stakeholders in the planning phase, working to create an accessible mobility system with reduced emissions while linking to a local climate-neutral energy system.

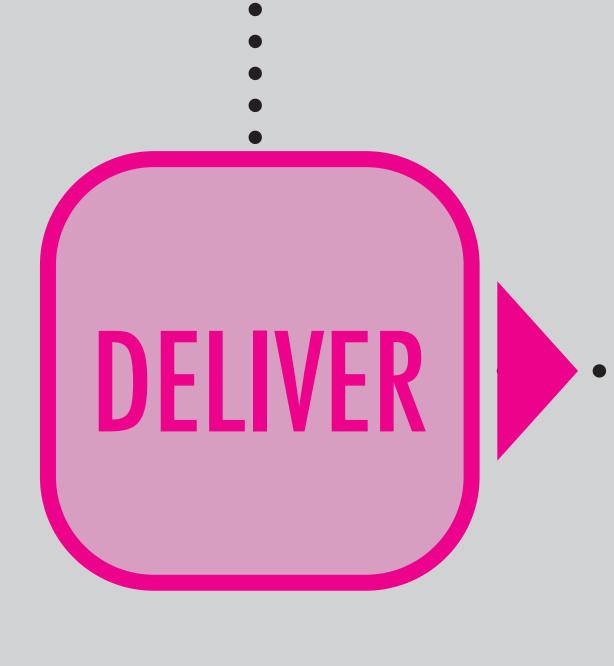
SnabbSam Stockholm has engaged 10-12 stakeholders in the planning phase for a comprehensive change in travel habits, land use and vehicle fleet in the inner city.

The system demonstrator instrument targets municipalities as coordinators but requires that municipalities have mobilised a broader consortium of actors outlining their role and contribution.

Viable Cities had already established the over-arching mission and a framework for working with Swedish cities.

The first climate contracts were signed in 2020 (and are renewed annually) and have served to mobilise (six) government agencies and (23) municipalities in working towards this mission.





Key stakeholders co-create and formulate a mission specifically for the system demonstrator, based on the overall mission of climate-neutral cities with a good life for all within the boundaries of the planet.

A mapping and analysis of the current system is carried out jointly by all stakeholders, based on five system dimensions.

Key actors in the system jointly identify structural barriers and challenges to achieving the system demonstrator's mission based on the five system dimensions.

Based on the system analysis, the mission and the identified challenges and barriers, the actors in the system demonstrator co-create a portfolio of plans and actions, linking all efforts into a larger whole.

CHALLENGES

Time for reflection, absorption and operationalisation of systems thinking.

Normal administrative burden when trying to adapt to and build a new normal.

Reduced time (and funding) for implementation.

Connections with other agencies/funders.

CHALLENGES

Completely re-think how we monitor and evidence the impact of system transition.

Define new indicators for tracking, e.g. development of new infrastructures, progress and influence on policy and regulatory changes, user behaviours and perceptions, etc.

Develop new mindsets towards monitoring focused on reflection and learning from actions taken in order to guide next decisions.

To support the learning journey, Vinnova has funded accompanying research to follow, draw insights and facilitate mutual learning on the implementation of this new instrument, providing ideas for reflexive monitoring and learning processes that can be an embedded part of future implementation phases.

Interim achievements include the mobilisation of actors achieved in Lund and Stockholm, as well as the progress made on thinking through and delivering on the four-step model.



Vision Denmark

CASE STUDY PROVIDED BY: Aalborg University

Henrik Halkier & Laura James

Vision Denmark is a cluster organisation funded by the Danish Board for Business Development and Growth and the Ministry of Higher Education and Science, emerged from a government-led effort to consolidate network-type business development initiatives. Focusing on the digital visual sector, it aimed to address common challenges faced by SMEs and larger firms in the industry.

RATIONALE

Clusters and cluster management organisations (CMOs) support networking and collaboration between especially SMEs but also larger firms.

In 2018 a government-appointed task force, the 'simplification commission', recommended consolidation of network-type business development initiatives in a smaller number of nationwide CMOs through which public support would be channelled to industries/business areas with the greatest potential for growth.

CREATION

As the digital visual sector (animation, movies, games, television, extended reality) has become a major area of economic activity, with considerable export activities and high rates of new jobs created, key actors from these areas came together in order to create a national consortium that applied to become one of 14 government-funded cluster organisations.

CHALLENGES

Different parts of the digital visual industry share common challenges in terms of technological development, competence development and sustainability.

To be recognised on equal footing with traditional high-performing and high-tech industries, reflected in the relatively low level of support given to Vision Denmark.

CHAILENGES

DESIGN

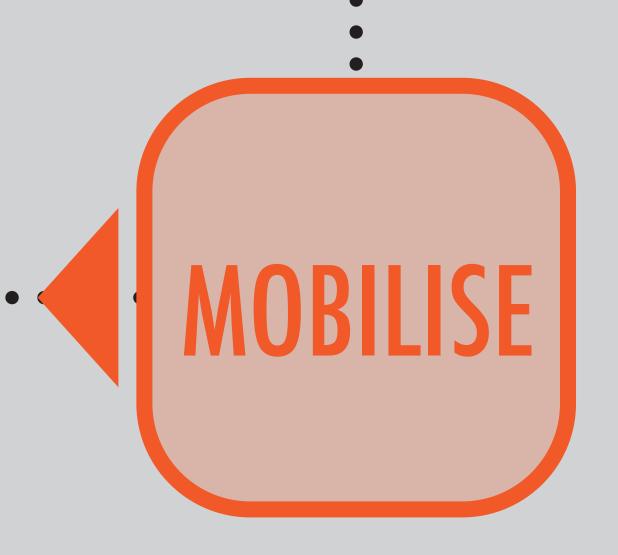
Many innovation circuits and knowledge opportunities had to be documented so needed to be patient in order to bring in new partners and members: both private SMEs/startups and public knowledge institutions.

Stringent government rules about the balance of activities prevented shifting funding from the two sub-set of activities funded by the two funders.

Making knowledge institutions (universities, colleges, etc.) part of innovation projects with private firms required a good deal of active promotion by the CMO to make researchers aware of the new opportunities being offered.

First year also involved developing a strategy, which was a relatively straightforward job because the requirements for obtaining government funding was very detailed. The CMO also decided to focus on activities related to attracting and retaining competent staff, a perennial issue in industries dominated by project-oriented workflows.

Vision Denmark ensured that it had strong presence outside the capital area where most of the big private producers of digital visual products were located, and in the first year priority was given to organising network activities that would appeal to SMEs and start-ups, potentially signing them up as members on favourable financial conditions.





Talent and competencies are central to develop good, soulful and meaningful stories across the Vision Denmark cluster.

A key approach is matchmaking events for firms, entrepreneurs and professionals meet.

Sustainability is targeted with research-based guidance published and promoted by bringing public authorities and private companies together to make them aware of the need for and possibility of sustainable change.

Financing includes
equipping firms with the
skills and knowledge
that can help them
secure seed-funding as
early-stage start-ups
and finding the right
partners, both
nationally and
internationally, that will
enable them to grow
and prosper.

The Creative innovation programme brings creative private firms together with research in projects to develop and test new production methods and technologies. Vision Denmark announces calls for project proposal 1-2 times every year.

CHALLENGES

A 'neutral' platform for cooperation has functioned well in attracting private and EU funding to innovation and competence development projects.

Collaboration with knowledge institutions about production and dissemination of new research has been less in demand.

CMOs having to comply with two sets of rules on the use of funding complicates collaboration and adds to the administrative burden.

CHALLENGES

Short-term nature of the Danish cluster initiative, with an initial 4-year period of support for CMOs, then followed by a review based on output and financial indicators rather than impact assessment.

Impact assessment would have required extensive and systematic combination of quantitative and qualitative methods.

An ad-hoc evaluation in 2023 noted that other forms of public support for innovation within especially the games industry was limited, but at the same time the digital creative industries were dismissed as 'small' and characterised by an extensive regional public funding involvement. The Board decided in June 2023 that digital creative industries should not be prioritised as an area for government support through a CMO, which was overturned in Sept 2023 following extensive lobbying to ensure Vision Denmark is part of the 25-28 Danish cluster strategy.

Government-funded CMOs are monitored and measured through annual reporting to the ministries, which traces the activities and financial commitments against the initial CMO application and subsequent strategies.



Connecting Nature

CASE STUDY PROVIDED BY: Glasgow City Council

Gillian Dick

Connecting Nature is a €11.4m project funded by the EU's Horizon 2020, aimed to establish Europe as a leader in nature-based solutions (NBS). With partners across 16 countries, the initiative focused on implementing NBS to address urban challenges sustainably. Led by Trinity College Dublin, the project engaged various stakeholders, including cities like Glasgow, Poznan, and Genk, to lead large-scale NBS projects.

DESIGN

The European Commission defines nature-based solutions to societal change as cost-effective, provide environmental, social and economic benefits and help build resilience. They bring natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. For example, street trees, parks and urban green areas provide a range of social and natural benefits: intercepting dust, shelter, sinking carbon, buffering flooding, space for recreation, fostering well-being and biodiversity.

RATIONALE

CREATION

Connecting Nature was a €11.4m five year project funded by the European Commission's Horizon 2020 Innovation Action Programme. Our aim by project end was to position Europe as a global leader in the innovation and implementation of nature -based solutions.

Glasgow's project had a policy focus and therefore was chosen for its uniqueness. Through the Connecting Nature project the Glasgow team is required to assist in the development and delivery of the Open Space Strategy (OSS).

CHALLENGES

The development and implementation of nature-based solutions has been slow, uneven and complex; requiring efforts across many disciplines.

Issues like silo thinking, managing social cohesion and tackling the deficit of knowledge that exists around nature-based solutions need to be confronted.

Several cities successfully positioned their NBS demonstrators as high-profile flagship projects within broader climate adaptation policies, which increased political support.

Glasgow used high-level initiatives such as COP26 and the city's climate emergency declaration topolitically position their Open **Space Strategy (OSS).**

Capacity-building and experiential learning building on effective knowledge sharing and mentoring between front-runner cities and fast-follower cities.

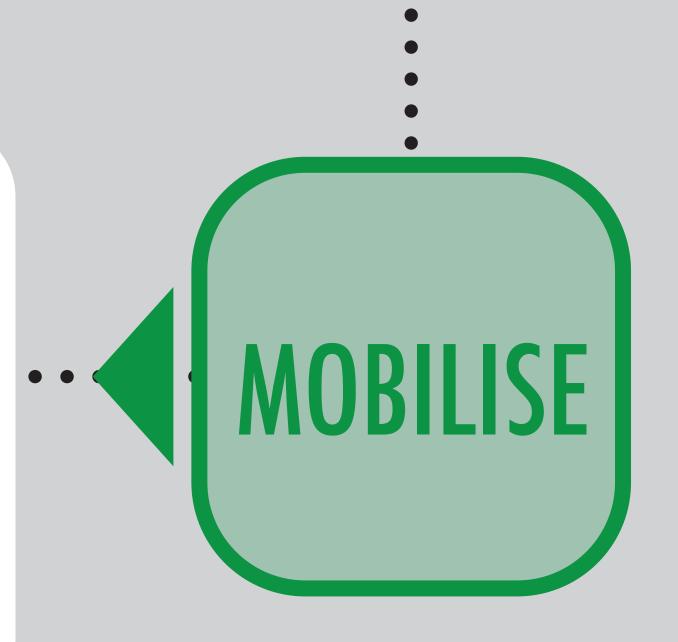
Sustainable support for innovation, exploitation and enterprise development building on selected and promising new nature-based solution exemplars.

Identify funding and financial mechanisms that establish nature-based solutions as evinced valid solutions for sustainable and resilient cities that are climate prepared.

Share learning from, the scaling-up, replication and integration of nature-based solutions for city-making within front-runner cities.

Develop an urban planning process that will 'burst open' silos, enrich and nurture social, business and governance innovations and focus on the scaling-up of nature-based solutions in cities.

Develop a new master planning process that accelerates the scaling of nature-based solutions in cities by connecting policy and market needs.





Connecting Nature Enterprise Platform was established as the world's largest community of nature-based enterprises (naturebasedenterprise.com).

Connecting Nature Framework supported Governance activities to plan, deliverand steward nature-based solutions.

The Connecting Nature Framework is a holistic approach to creating nature-based solutions that is

- characterised by three concepts:
- The process is iterative Co-production is best
- The ongoing monitoring of goals and impacts is critical.

Nature based enterprises including piloting a nature-based accelerator programme in Scotland with social innovation agency, The Melting Pot.

Technical Solutions Multifunctional technical design that balanced local needs and local landscape context.

CHALLENGES

Institutionalising a systems approach to NBS.

Institutionalising inclusive collaboration.

Institutionalising reflexivity and continuous learning.

CHALLENGES

Glasgow employed citizen science approaches to involve citizens in the assessment of open spaces and trees across the city. The integration of the data collection and maps in the OSS supported its use across city departments and programmes, including the Development Plan, play space revitalisation, urban agriculture and water management.

Finance and business models and development of NBS business model canvas.

Co-production, effective storytelling and the Sarajevo **Process**

UrbanByNature -A European network of hubs Impact Assessment and the Co-impact tool. By definition, nature-based solutions are multifunctional.

NBS assessment is cardinal to evaluating the strengths and weaknesses of specific interventions against strategic city goals.

Reflexive Monitoring an innovative monitoring and evaluation method. It aligns daily activities with long-term ambitions and the impact of a project.

Governance rests on the recognition that nature-based solutions are better developed when people and organisations collaborate.



Transforming CSIC into BE-ST

CASE STUDY PROVIDED BY: Built Environment - Smarter Transformation

Douglas Morrison

The transformation of the Construction Scotland Innovation Centre (CSIC) into Built Environment -Smarter Transformation (BE-ST) marked a strategic shift to reflect evolving industry needs and stakeholder expectations. Guided by the EFQM Model, the transformation prioritised collaboration, inclusive decision-making, and proactive engagement to ensure successful adaptation to change.

DESIGN

RATIONALE

After eight years of operating as the Construction Scotland Innovation Centre (CSIC), we realised that over time the things our industry, academic and public sector stakeholders were coming to us for support with had evolved and that we needed a new mission, vision, purpose and strategy to reflect this.

CREATION

We followed the EFQM Model (https://efqm.org/) for organisational change and performance improvement, which provided us with a framework and blueprint for setting the direction for the next phase of CSIC.

Collaborating proactively with stakeholders, funders, project partners, and the team allowed for a comprehensive understanding of both current and future needs. This understanding, in turn, facilitated the maintenance of high engagement and buy-in from all stakeholders involved.

The importance of collaboration in the transformation programme cannot be overstated. It served as a foundation for understanding, engagement, alignment, and trust among all involved parties

We ensured open and transparent communication.

We involved employees in decision-making processes.

We ensured that leaders were aligned with the change and actively participated.

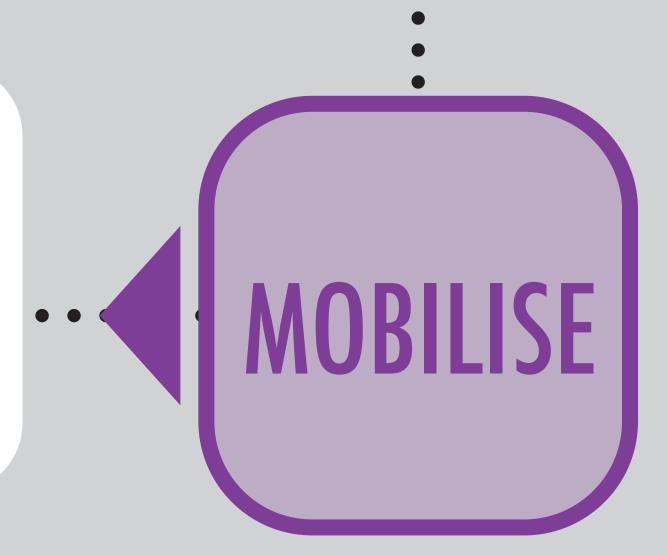
We provided the necessary resources, tools, and infrastructure to support employees.

We emphasised the importance of learning and adapting.

For each of these thematic areas, a working group was established to identify and progress tasks under each of these themes. We then took an agile approach to managing each of these projects, with regular 'scrum-style' check-ins led by a member of the leadership team to review progress and input into activity and findings.

We used the online whiteboard tool, MIRO, to map out the different tasks that would make up our renewed approach. This included purpose, vision and strategy; engaging stakeholders and stakeholder perceptions; creating sustainable value; driving performance and transformation; organisational culture and leadership; and strategic and operational performance.

The transformation was going to affect each of our stakeholders our staff, board, and external partners – and so everybody should be involved from the beginning in decision-making, mapping the framework for the future of the organisation and implementing the changes.





Across the six working groups, the team broke down the overall objective of their focus area into individual, more manageable tasks that when implemented in tandem, would come together to make transformational change.

One working group mapped all stakeholders and developed a strategy for targeting them and created a customer relationship management (CRM) system for the organisation.

The purpose, vision and strategy working group focused on overseeing and coordinating the full transformation programme, building a quality management framework and creating and communicating the business plan and strategy for the next phase of the organisation.

CHALLENGES

Approaches we took to support the process of transformational change, mitigate challenge and ensure success:

- clarity of purpose;
- alignment with stakeholder expectations;
 - resource allocation;
- managing perception and reputation; - legal and regulatory considerations.

As we developed processes and strategies, there was a risk of becoming overly onerous and process-driven.

> We're taking a fresh look at these systems by:

- reviewing processes;
- optimising efficiency;
- ensuring agility;
- involving stakeholders;
- continuous improvement.

With the support of project management tools created using Monday.com we are able to collect data and insights on each of our focus areas, benchmark progress and recommend priorities for improvement.

EFQM Lens series uses the guiding principles and seven criteria of the EFQM Model as the basis for focusing on a specific topic to measure and improve progress. Our programme performance team reviews each transformation programme on an ongoing basis.

Two years since the transformation programme commenced and we continue to see the benefits and opportunities it has created for BE-ST as an organisation.

We are monitoring, measuring and adapting our approaches still to this day – something which the EFQM framework is vital in supporting.



Scottish Funding Council Innovation Centre Programme

CASE STUDY PROVIDED BY: Scottish Funding Council

Julia Mitchell

The Scottish Funding Council (SFC) spearheads the Innovation Centre (IC) Programme, investing in long-term infrastructure to foster collaboration among universities, colleges, and the public-private sector. This initiative, aligned with national priorities and economic growth strategies, aims to harness academic expertise for both societal and economic benefits.

RATIONALE

The GES and associated frameworks for Innovation and Science for Scotland articulated the need to support innovation to drive business competitiveness and economic growth. The call highlighted that ICs provided an important opportunity for HEIs to define and strengthen their role as partners with industry.

CREATION

In April 2012 the SFC issued the 'Innovation Centre Call for Proposals' from Scottish higher education institutions (HEIs) and potential business partners. Eight ICs were established with investment from SFC

The ICs were invited to put forward Business Plans for Phase 2 funding in 2017 to support transformational opportunities for industry and work collaboratively to develop Scotland as a world-leading entrepreneurial and innovative nation. Seven of eight ICs were awarded Phase 2 contracts.

SFC's 2021 Review recommended relaunch of flagship investments, including ICs, as long-term infrastructure, so ICs were again invited to put forward Business Plans demonstrating how they would fulfil infrastructure investment principles. Four of seven ICs were awarded infrastructure

CHALLENGES

It wasn't easy to create an overtly industry facing organisation within university structures, however, this did prove over time to be very valuable and allows balance between stability and flexibility

There is complexity required when running multi-partner assessment processes.

A significant challenge in Phase 1 and 2 was how to support ICs not continuing to receive funders awards, so to ensure value is not lost

CHALLENGES

DESIGN

Review and Evaluation provided valuable learnings from stakeholders and partners.

Challenges centred around the enormity of what was being reviewed.

The number of ICs which each operate independently.

10 YEAR EVALUATION 2023

ICs support increased innovation activity, skills development and benefits for society more generally through supporting industry and academia to work collaboratively. However, this has not yet translated into significant economic impacts.

ICs provide substantial skills development support, are engaging with and building innovation ecosystems that go far beyond any narrow definition of IC activities, reaching wide range of industrial sector interests.

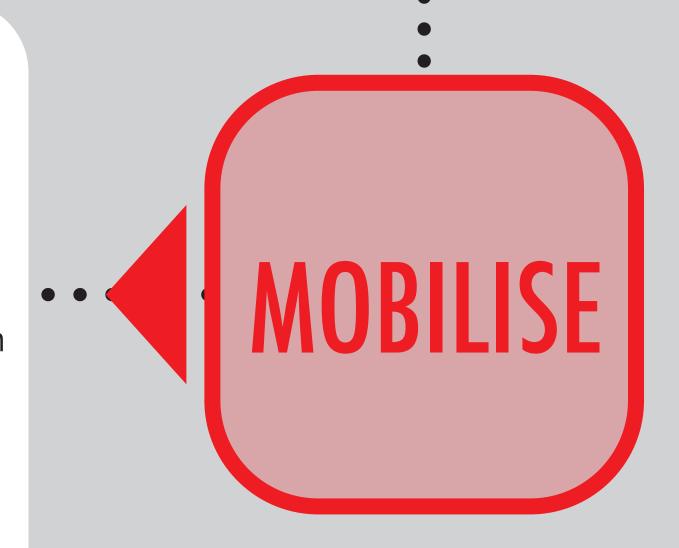
REID REVIEW 2016 - KEY FINDINGS

Differing views amongst contributors on how effective the ICs were at engaging businesses across the whole of Scotland and with universities.

investment.

Contributors asked that a "clear, detailed commitment of long running public support is given to the programme to fully realise opportunities.

Feedback from businesses engaging with ICs was positive, with benefits and impacts for participating companies particularly in relation to networking and knowledge gains.





Each IC is unique in structure and approach, whilst broadly covering three main areas:

- funding innovation between academic and business;
 provision of access to skills and education across the pipeline;
- connection and community building enabling access to support and signposting.

Events - at least 2,167
engagement events hosting
61,000 attendees.
Entrants to Education and
Training - at least 114,803
individuals

in total across phases 1 and 2 focus has primarily been on
academic-to-business
collaborations but
academic-to-public sector
collaborations have also been

frequent

- Follow-On at least 301 of the 543 known and reported follow-on Collaborative Projects having been signposted to other forms of support.
- Led to at least 2,120
 commercial launches & other applications.

Qualifications - 15,258 individuals to receive qualifications.

CHALLENGES

Generally, each IC has the overall same function, but each operates in their own way.

This led to additional administrative burden for funders and ICs and so Infrastructure funding mechanism was revised to resolve these issues.

CHALLENGES

Main challenge in the Phase 2 evaluation was the consistency of approach and the robustness of data relating to beneficiaries.

GDPR issues caused significant delay compressing the consultation period.

MEF being economic focused by design, not making the MEF as an effective management tool it could have been

Monitoring and Evaluation Framework (MEF) and 10-year Evaluation have provided the main monitoring and measurement of impact.

The approach was designed to provide confidence that each Centre was on track (or not) and to provide accurate information.



Cross-cutting Tractor-effect Initiatives

CASE STUDY PROVIDED BY:
Basque Government - Presidency
Cristina Uriarte & Carlos Peña
Orkestra - Basque Institute of Competitiveness
James Wilson

The Basque Government's Science, Technology, and Innovation Plan 2030 (STIP 2030) introduces Cross-Cutting Tractor-Effect Initiatives (CTIs) to stimulate collaboration among RIS3 smart specialisation areas and the digital, climate and socio-demographic transitions. These initiatives, initially focusing on healthy ageing, electric mobility, and the circular economy, aim for tangible results to Basque society.

DESIGN

RATIONALE

The Euskadi 2030 Science, Technology and Innovation Plan (STIP 2030) introduces the concept of Cross-Cutting Tractor-Effect Initiatives, understood as an instrument that can promote collaborative work among the RIS3 areas in specific strategic fields.

Focus is on establishing and/or sharing common strategies among companies, universities, technology and research centres and public administrations with the aim of identifying tractor-effect projects with well-defined objectives.

CREATION

They would be public-private cooperation projects with transformation potential for Euskadi, concentrating capabilities and investments in research, development and innovation.

Three Cross-Cutting Tractor-Effect Initiatives are initially proposed for the 2030 STIP in the fields of "healthy ageing", "electric mobility" and the "circular economy".

CHALLENGES

How to approach this new initiative, which involves a change in the way of working, and how to convey the need to address challenges in a cross-cutting and collaborative way.

Fairly recent initiative that still needs greater directionality and participation from society.

CHAILENGES

Greater communication of the objective of this type of initiative and of the challenges established for each initiative and the need for greater transversality, involving entities from all RIS3 areas.

Defining the scope of each cross-cutting initiative to break the inertia of sectoral departmental policies and strategies.

How to foster the meeting and collaboration of different agents.

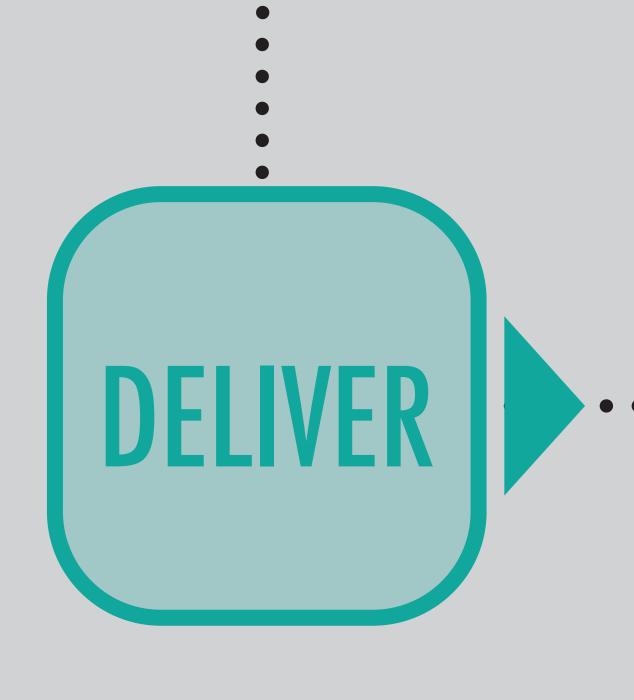
The areas where future driver projects will be identified were selected, establishing both general and specific challenges and objectives.

Awareness and facilitation days have been organised with STI actors to present the initiatives and facilitate contact and mutual knowledge between organisations.

Built on previous work in the development of the RIS3
Strategy and its governance model (the previous STIP 2020).

3 working teams were created to drive the development of each CTI. These were co-led by the Department responsible for the strategic priority closest to the CTI and the Science, Technology and Innovation Commissioner.





The main objective of the CTIs is to identify new collaborative tractor-effect projects that can be developed between companies, universities, technology and research centres, public administrations, etc. The tractor-effect projects will have specific objectives, the implementation of which will achieve tangible results that can be visualised by Basque society.

A Governance model was established for the launch of the CTIs, with the participation of representatives from different steering groups, administrations and various agencies.

A grant programme has been designed to support the identification of potential collaborative tractor-effect projects.

CHALLENGES

It is necessary to move towards a more participatory governance model, with effective collaboration between different stakeholders and society.

Identification of new CTIs for the future:
Establish participatory ways of identifying challenges with an impact on Basque society.

Resources: Adaption of programmes for the implementation of the identified cross-cutting collaborative projects.

CHALLENGES

The key challenge will be in monitoring the development of projects that are eventually developed following support from the call, and assessing their impacts concerning the specific strategic challenges guiding the intervention.

For the resolution of the call we have relied on a technical office and committees of external expert evaluators who collaborate in the monitoring of the approved projects and the verification of their justification.

The results of the first call of the grant programme for the identification of cross-cutting collaborative tractor-effect projects indicate a greater impact on the Healthy Ageing Initiative than on the other two.

When defining indicators and measuring the impact of initiatives, it is easier and more immediate to measure the results of the grant programme call.



Contribution of Basque Science, Technology and Innovation Plan to SDGs

CASE STUDY PROVIDED BY:
Basque Government - Presidency
Cristina Uriarte & Carlos Peña
Orkestra - Basque Institute of Competitiveness
James Wilson

The Basque Science, Technology, and Innovation Plan (STIP) align with Sustainable Development Goals (SDGs) through explicit societal challenges, reflecting a commitment to sustainability. Collaborating with Orkestra, the Basque Government initiated a project to measure STIP's contribution to SDGs.

DESIGN

RATIONALE

For the first time in a Basque Science and Technology plan, it was made explicit that research and innovation had to contribute to solving five societal challenges closely related to seven SDGs.

CREATION

The Basque Government reached an agreement with Orkestra, the Basque Competitiveness Institute, to carry out a research project aimed at developing a methodology (based on the state of the art) to measure the contribution of Basque science, technology and innovation to the SDGs.

Took place in an environment where the European Commission was also stressing the importance and need to increase the directionality of policies towards sustainability.

CHALLENGES

Difficulty in the technical and methodological aspects and in the availability of information sources at regional level that are comparable with Europe.

Using the results of this measurement in the next interim evaluation of the 2030 STIP, with the aim of increasing the directionality of the plan towards sustainability and the SDGs.

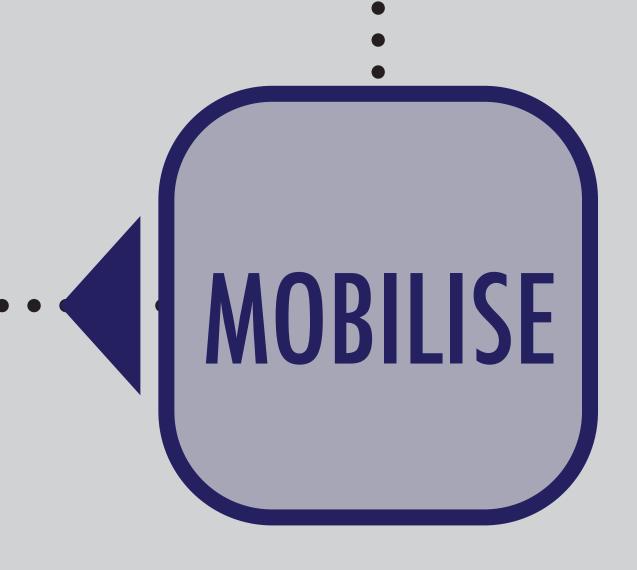
CHALLENGES

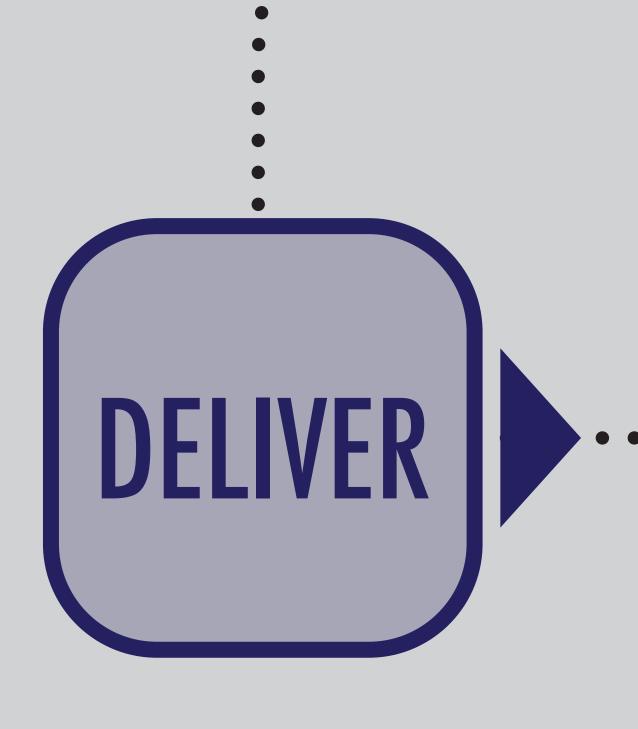
Among the challenges for the future is to identify more stakeholders who are currently contributing with their STI activities and projects to the SDGs and their measurement

we should deepen awareness and communication of the importance of the contribution of STI to achieving the challenges related to the SDGs.

The purpose of these meetings was, on the one hand, to obtain the perspective of the different organisations in relation to the proposed methodological approach, and, on the other hand, to understand how the entities were assessing their contribution to the SDGs in practice, in those cases where they were doing so.

The main working group for the project included representatives of the Basque Government and Orkestra researchers. However, the project team also met with different organisations of the Basque Science, Technology and Innovation Network with experience in this field, as well as departments and public entities managing R&D&I grant programmes.





Analysis of the State of the Art on measuring the contribution of STI to the SDGs.

Analysis of the 2030 STIP and its relationship with the prioritised SDGs (3, 5, 7, 8, 9, 11 and 13).

Development of the framework for measuring the contribution of the 2030 STIP to the SDGs

Compilation of the complete list of indicators/statistics available for the Basque Country.

A first pilot implementation focusing on SDG 7 (Affordable and clean energy).

Refinement of the methodology and full implementation for the rest of the SDGs.

a distinction was first made by type of indicator, depending on whether it was a resource (input) or an output of the R&D&I process.

For each indicator, we differentiated the social challenge established by the 2030 STIP they contribute to, and the associated SDGs.

CHALLENGES

The first difficulty at the start of the project was deciding which methodological approach to take.

The second subsequent difficulty was to decide on each of the available indicators and their assignment to specific SDGs.

Information available in different data sources, both in R&D&I statistics and financing programs, is classified by scientific disciplines, which makes it difficult to assign contribution to societal challenges or SDGs.

CHALLENGES

The plan also points out 'talent' as a central element, which has emerged as a fundamental challenge for the territory's future competitiveness, so could incorporate this 'talent' as a sixth societal challenge

It would be important to move forward in establishing common measurement parameters, which can facilitate the integration of data in the future.

In this first methodological approach to measuring the contribution of STI to the SDGs, there is room for improvement in some areas, for example in the availability of information from public grant programmes

The contribution and evolution of the Basque STI is generally positive in terms of both inputs and outputs, although there are certain areas for improvement

societal challenges, a positive contribution is observed in all areas, although the contribution to "energy and climate change" is particularly noteworthy.



Scotland Can-Do Innovation

CASE STUDY PROVIDED BY: Scottish Enterprise

Terry Hogg & Ingrid Green

Scottish Enterprise initiated the Can-Do Innovation Challenge to harness public sector demand for driving innovation in Scotland. Drawing inspiration from international models, they tailored a pre-commercial procurement approach, deviating from the UK's SBRI model. This innovation drive aimed to boost economic growth while enhancing public services.

DESIGN

RATIONALE

In 2016 Scottish Enterprise started to explore the potential of utilising public sector demand and procurement to drive innovation. A dedicated post was invested in to explore and develop this area and through the analysis of best practice from leading countries and regions the Can-Do Innovation Challenge Fund was developed.

CREATION

The development phase included engagement with the EU's procurement of innovation networks, to get a picture of what other EU Member States were doing.

It also included taking learning from the US which had been running their Small Business Innovation Research (SBIR) programme since the 1980s and which included a commitment to a SBIR minimum spend from Federal department R&D budgets.

SE used the research led by David Connell to support the case for the programme in Scotland.

CHALLENGES

It was apparent during the design phase that it would be hard to combine the nature of procurement (its open nature where non-Scottish companies could benefit) with Scottish economic development goals.

It was decided this could be overcome by focusing on areas of Scottish sectoral strengths.

We learned our approach could be tailored to optimise regional economic impact.

CHALLENGES

Deviating from the standard Innovate UK model required discussion and debate.

Innovate UK started off running Challenge Calls on SE's behalf (gratis), using their brand and initiative but as SE approach deviated this had to be handled sensitively and transparently with challenge sponsors and companies securing contracts.

These were used to establish innovation challenge sponsors. The carrot for the public sector was potential funding and support through the process to have a solution customised to their needs that could improve service and/or policy delivery through the innovation challenge.

By decoupling the funding of phase 2 activity from the call it 'derisked' phase 2 activity for SE by reducing the risk that there would be little or no economic impact from the phase 2 cohort.

Funding was provided to the challenge sponsor for Phase 1 activities and if successful and they wanted to continue they could pitch back in for funding for Phase 2, subject to meeting SE criteria





Can-Do Innovation Challenge was a national Scottish-wide project but SE delivered the programme. Scottish Government supported financially and committed behind the pilot. In addition, Highlands and Islands Enterprise (HIE) – provided some time.

The "Fund Management Team" consists of representatives from the Can-Do Innovation
Challenge Fund Partners – SE, SG, HIE and SFC and is responsible for overall governance.

CHALLENGES

The public sector focus was a new approach in Scotland. We had to learn how to build market propositions and understand value-chains to focus and direct calls.

We had to build and operate new processes and develop front end engagement with public sector in a number of new areas.

Recruiting people to volunteer their time to undertake the evaluation of the Calls could be challenging (from SE and partners - latterly).

CHALLENGES

One of the biggest issues with the way the calls were run was it was not always clear who companies should be reporting to. SE at times struggled to get companies to respond to SE information requests

Being one step from the companies contractually did reduce the influence SE could use to encourage companies to submit data.

Over 4 calls, 89 contracts were awarded. During Phase 1 Proof of Concept; 42.5% of business applicants were Scottish. By Phase 2 Prototype Development it was 48.3% and 64% of solvers/winners were Scottish.

The team had to develop their skills in this area and became early adopters of Microsoft Power Bl. There were systems which were upgraded during delivery including: logic model; data capture; quarterly reports.

The objective was to develop a pilot to build the evidence base that would lead to a bigger fund, and ultimately make the case for embedding this approach in the Scottish economic system.

