Project ideas

Priority 1 – Thinking Growth

Concept Acceleration Yacht MANufacturing – CAYMAN

Central Aim

The aim of the collaboration with the yacht building industry cluster and knowledge centres is to achieve a sustainable (digital) knowledge platform in which theory and practice strengthen one another continuously and to bring about exemplary/icon projects with best practises.

Project Description

To strengthen the economic position of the yacht building industry cluster in the NSR, we want to establish collaboration between the cluster, knowledge institutes and authorities on the basis of an integral strategy based on acceleration and cooperation within the yacht building production chain, in correlation with European social and climate challenges.

To bring about a change in the sector, research will have to be done into the current production methods, prototypes will have to be developed, hindrances to innovation should be removed and missing knowledge and expertise must be acquired.

This programme reinforces and endorses the economic, ecological, and social interests of Europe in the North Sea Region, and provides stakeholders with a strong knowledge position in the world. By working together in the context of the NSR the necessary scale will be achieved in order to become and remain a more competitive sector.

The aim of the collaboration with the yacht building industry cluster and knowledge centres is to achieve a sustainable (digital) knowledge platform in which theory and practice strengthen one another continuously and to bring about exemplary/icon projects with best practises.

The focus lies on making production methods more efficient, devoting attention to sustainability and safety, reducing the carbon footprint, cooperating and strengthening within the production chain, knowledge development and knowledge sharing, all in significant correlation with the innovation, research and education agenda of the different regional, national and European policy agendas.

A work programme/innovation agenda has been drawn up to give shape to the ambition and correlated strategy formulated above. This work programme is linked to the following work packages:

1. Concept development and design
2. Production techniques
3. Sustainability
4. Knowledge development

Cooperation in the production chain is the 'umbrella' that covers these four themes. For each theme, cooperation in the production chain is used to speed up the process so as to get results more quickly and effectively with respect to the defined development agendas.

Best practices in other industries will have to be examined closely. The innovative applications that are devised must always be deployed in a genuine environment with users: a living lab.

Envisaged Output

Within the project, the following work packages can be distinguished:

1. Concept development and design
2. Production techniques
3. Sustainability
4. Knowledge development

What is the need for this project?

Envisaged Output

Within the project, the following work packages can be distinguished:

1. Concept development and design

Problem definition: The market/demand is changing rapidly and consumers are accustomed to frequent product innovations. The yacht building industry cluster is lagging behind in this respect. The time needed to develop a yacht is too long, so it is impossible to respond quickly enough to the rapidly changing market demand.

The following questions have been formulated on the basis of the above mentioned problem definition:

- Carrying out a baseline measurement: how much time is needed from concept to product?
- Research by related industries into concept development: what elements are practicable in the yacht building industry cluster?

- What is required in order to speed up the process?
- How can a base platform be developed by cooperation in the production chain? And what data is essential in order to arrive at a base platform?
- What role could a new technique like 3D printing play here?
- Etc.

2. Production techniques

The competitive position of the yacht building industry cluster in the NSR is under pressure by the larger producers who can manufacture their products on a large scale more cost effective. The production of a custom-built or semi custom-built yacht requires a lot (too much) time. The production time must be shortened to save costs and reduce the lead time.

The following questions have been formulated on the basis of the above mentioned problem definition:

- Carrying out a baseline measurement: how much time is needed to produce the average yacht?
- Research by related industries into shortening the production time taking notice for some useful elements if possible.
- How can the lead time be shortened by cooperation in the production chain? And what data is needed for this?
- What design and engineering tools are essential?
- What role does 3D printing play?
- Etc.

3. Sustainability

What can the yacht building industry cluster contribute to the reduction of environmental pollution and reduction of the carbon footprint? Sustainability is not yet adequately integrated in the building process of the yacht building industry cluster. Research must be carried out into how sustainability can play a role and be implemented in concept development, design and production, and in the usage and end of life phases of a yacht.

The following questions have been formulated on the basis of the above mentioned problem definition:

- Carrying out a baseline measurement: how is sustainability taken into account within the various production phases in the yacht building cluster?
- Research by related industries into applying sustainability principles in the production process (e.g. limiting waste flows and consumption of raw materials).
- Research into possibilities of taking sustainability principles into account in the design process, for example dismantling after the usage phase.
- Research into the possibilities of recycling, with the focus on reuse of composite materials.

- What is required in order to speed up the application of sustainability principles in the yacht building cluster?
- Etc.

4. Knowledge development

Problem definition: How can the yacht building industry cluster satisfy an increasing need for knowledge? This demand for knowledge is related to increased complex technology that is used to design, produce and fit out yachts, in connection with the European social challenges for sustainability and corporate social responsibility.

The following questions have been formulated on the basis of the above mentioned problem definition:

- Carrying out a baseline measurement: how is the lack of knowledge being remedied?
- Research into the required knowledge in individual areas; identification of research areas.
- Research into getting the research questions acknowledged in the NSR yacht building industry cluster and addressing them.
- Research into offering bundled knowledge in the NSR.
- How can R&D facilities contribute to product development? And what are the possibilities of using R&D facilities more for SMEs?
- How can structural connections be made and coordinated between the various R&D facilities for the benefit of the industry?
- How can innovation and other facilities be shared within the NSR?
- Etc.

Joint Industry Projects

Based on the above mentioned development agendas, Joint Industry Projects are to be formulated that will enable market parties, knowledge institutions and, potentially, the authorities to work on developing the problem definitions and implementing them. A result indicator is linked to each JIP to make the result measurable against predetermined objectives in the context of the ambitions and problem definitions stated in the development agendas.

Thematic Keywords

Clusters, Digitalisation of services, Growth and jobs, Innovation capacity building, New products and services, R&D in SMEs, Societal challenges, Stimulating innovation, Training and education.

Other Keywords

Yacht building industry cluster, yacht design, innovation, R&D in SMEs, production chain, education.

Partners Found Already

Branche organisations in the yacht building industry and yacht building industry associations in the NSR have already been contact under supervision of HISWA.

Partners Searched

We are looking for at least eight to ten international partners who are working professionally in the yacht/maritime/production industry or research institutes (universities) who are specialised in innovation/productivity related to SMEs in the yacht building industry.

We are also interested in (sub) projects that relate to the following themes:

- E-learning in industrial environments
- QRM principles / Lean production
- Digital platforms
- Modern production techniques
- Use of high end / new materials
- Industrial design

Estimated Budget

6.000.000

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Enhancing Regional Growth: Shaping the Future – ERGrow

Central Aim

Predicting demand in the skills supply chain to meet future demands for industrial growth. We are looking to share best practice and develop ideas between regions, in particular to:

- identify 'regional multiplier' impacts of future growth for sub-regions
- cascade economic benefits from intense growth points across wider regional geographies
- promote linkages between businesses to sustain growth

Project Description

Every country wants to grow its economy and most see Science, Technology, Engineering and Mathematics (STEM) as the key.

In the context of globalisation and digitisation, this sets a particular challenge for Western democracies, with their mature and plateauing demographies, welfare provision and quality of life increasing in expectation. The challenge is, how to sustain high quality of life at affordable costs by remaining, as required, at the head of the economic and industrial food chain?

The answer, apparent in all economic and political strategies in these countries, is to add value:

- by investing in high level skills and knowledge
- by encouraging and capitalising on innovation
- by sustaining the lead role in creating new products and services for world markets
- by meeting domestic demand for high quality services that cannot be decentralised

How can this be done - and how can regions do it well? The key is the interplay between business growth, innovation and skills supply. Can we find a better way to:

- foresee the way key industries (particularly but not exclusively STEM) will develop?
- understand the skills needs associated with these developments?
- design for growth, so that skills are provided for industry when needed?
- focus, increasingly, on a steady supply of appropriately-qualified technicians and master technicians

Envisaged Output

Better prospects for socio-economic prosperity through:

Horizon scanning and knowledge transfer (HSKT) - relies on a steady supply of intelligence about the future derived from the work with STEM corporates and converted into meaningful guidance for meeting tomorrow's supply chain demands for skills. HEIs and FE Colleges are well placed to do this and we will demonstrate how this is best done.

Critical dependencies analysis - ensuring HSKT systems can work. This includes understanding what is expected of each actor in the chain of transfer and knowing which other agencies can help sustain the system.

Enabling business investment decisions - demands a focus on what businesses need in terms of the supply of skills, services and synergy with other businesses. This arises from the work on predicting future skills demands and on understanding the consequences of upstream innovation for downstream manufacture and services.

What is the need for this project?

The Greater Cambridge and Greater Peterborough region has a focus on STEM.

Cambridge is an international centre attracting investment, innovation and skills. Yet in other parts of the region there is a struggle to attract business. The skills needed for the supply chain for future industrial growth can capitalise on the region's assets, particularly if we can see the needs ahead of time and identify growth-point locations that would work. This means:

- predicting demand in the skills supply chain to drive new industrial growth
- identifying the 'regional multiplier' impacts of such growth for sub-regions
- cascading the economic benefits from intense growth points to wider regions
- promoting linkages between firms to sustain growth, rather than compete and lose

Building on the New Engineering Foundation's ideas in, "Inventing the Future" (2013), our project will work with major STEM corporates with an interest or presence in our region to understand

- how do major STEM companies predict the future?
- what impacts does this have for supply chains?
- what impacts does this have for training and skills supply?
- what innovation projects funded by NGOs, HEIs, etc. will impact on our region?
- how will these impacts affect skills demands?

Thematic Keywords

Growth and jobs, Innovation demand stimulation, Place-based approaches, Societal challenges, Stimulating innovation, Training and education.

Other Keywords

STEM; Skills supply chains,

Partners Found Already

Partners Searched

Estimated Budget

2.000.000

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Festival Driven Innovation - Innofest

Central Aim

1. Developing an/or testing prototypes on festivals
2. Using festivals as an unclusterd and cross-sectoral yearmarket for innovation

Project Description

Innofest is offering start-ups and SME's the possiblity to integrate and test their smart innovation in the production of festivals. Products and ideas will be developed and tested within a real living lab (a festival) with tousends of end-users. The public on festivals is an integral and essential part of the project, which will bring innovations to markets much faster and will bring together start-ups and launching costumers.

Envisaged Output

- 100 innovations a year (so 300 in total), based on the questions of festivals, SME's/companies and governments, developed and/or tested on festivals.

What is the need for this project?

The North Sea Region is in need of radical and unclustered innovation. Festivals offer the perfect breeding ground for unexpected contacts and innovations. The North Sea Region is famous for its many great festivals, these festivals are now willing to open their gates for smart young start-ups.

Thematic Keywords

New products and services, Shared R&D infrastructure, Stimulating innovation.

Other Keywords

Innovation/R&D in traditional, not so innovative, SME's.

Partners Found Already

- TU Delft (University)
- The Northern Netherlands alliance
- Welcome to the Village
- Into The Great Wide Open
- Eurosonic Noorderslag
- NOM
- Hallifornia
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Partners Searched

Regions

- Aarhus
- Shetlands
- MidJutland
- Aberdeen
- Hannover
- Bremen
- Halland

Festivals to approach

- Trena
- Spot
- Roskilde
- GoNorth
- Sonderborg
- FuchsbauFestival Hannover
- HaldernOpen Air
- ElbeJazz Hamburg
- Bremenfestival
- Hallifornia

Estimated Budget

7.000.000

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FISHCREATION

Central Aim

To develop a viable and sustainable future economy, based on the historic role and core qualities and values of fishing communities. It aims to make maximum use of the available social, cultural and economic capital within these communities. The project activities are focused on developing new business opportunities and innovation through cooperation of SMEs, knowledge institutes, maritime stakeholders, regional authorities and municipalities and the fishermen themselves.

Project Description

Objectives:

- To enhance innovation through the development and market introduction of new business opportunities;
- To create new "knowledge partnerships" and cooperation between private and public organisations, stimulating the commercial take up of innovative products and services;
- To improve the competitiveness of fishing communities by place marketing.

The project aims to strengthen innovation by developing new economic activities based on the social, cultural and economic capital of fishing communities around the North Sea. New formal cooperation will be set up between SMEs, independent entrepreneurs, local interest groups, knowledge institutes, the public sector and end users (e.g. in the field of fishery, tourism, marketing, cultural and natural heritage, education, health). These new sectoral cross-overs will provide knowledge that is necessary to support the development and market introduction of new business opportunities. Involvement of local stakeholders is important to realize economic added value for the fishing communities themselves.

The project supports the creation of joint ventures between private and public organisations in order to adapt new technologies, create new products and services, organise the take up of new product-market combinations. The "knowledge partnerships" and new joint ventures will enhance the regional innovation support capacity of the fishing communities that will also increase long-term business innovation. Successful products and services will be delivered also after the project has finished and contribute to economic broadening and strengthening of the social economic resilience of fishing communities in the North Sea Region.

Envisaged Output

- Improved knowledge capacity in and flows between private and public organisations related to fishing communities
- Best practices and lessons learned (do's and don'ts)
- Cooperation between SMEs, research institutes (with local scope and international knowledge like ILVO or Imares), local organisations, the public sector, end users (e.g. in the field of fishery, tourism, marketing, cultural and natural assets, education, food or health)
- New realised market opportunities or bigger market shares for products and services relevant to fishing communities
- Tested innovative marketing approaches
- Better positioning and profiling of fishing communities and harbours.
- Increased knowledge flows and innovation potential on long term.
- Improved support of public organisations to innovations related to fishing communities.
- Involvement of local economic, social and cultural organisations to generate economic innovation and economic broadening

What is the need for this project?

Shared challenges

In the North Sea Programme area many small scale coastal fisheries are struggling financially, or are disappearing altogether, being overruled by large fishing companies with more financial resources to buy quota, or struggling under administrative burdens and inadequate policy frameworks. The European Union recognises the valuable role that small scale fishing can play in coastal communities. Socioeconomic development of small scale fishing activities in European coastal zones is needed in order to let these activities (re)flourish in a sustainable and valuable way with the potential to lead to increased employment, food security and social and cultural wellbeing of coastal communities in general.

Historically, small scale fisheries are important for local communities. However, the economic situation and outlook for small-scale fisheries in the North Sea region is not positive. Their contribution to regional income and employment is low and declining. Nevertheless, history has proven that fishing communities

along the North sea Coast posses highly adaptive potential to change their way of life and business. Fishermen (and in the cultural mind set of fishing community members) contain a resourcefulness that could be better used to tackle the actual challenges. Increased efforts are necessary to better position and profile the fishing communities and their harbours.

The partners in this project will cooperate to reinforce (the cohesion of) these communities, their economic position and their competitiveness. The project will focus on the old core qualities and values of the fisheries and fishing communities, and make maximum use of the available social, cultural and economic capital within these communities.

Business innovation and knowledge partnership

The project partners will develop new business opportunities, based on authenticity (story telling), attractive products (looks, craftsmanship) and unique selling points (attractive setting and personal touch). Joint ventures between fishing communities around the North Sea will be stimulated to generate solid sales for the SMEs involved. Contacts between fishermen and fishing communities, originating from historical fishery migrating routes, will now be recreated /tightened for exchange and trade. The project will seek to (re)discover the full innovative potential of fishing communities. Local capacity and valuable assets will be input for the development of new products or marketing channels (new and mixed media, e-marketing). At the same time partners may use region marketing and place branding to stimulate new cross overs and innovative processes.

To boost innovation, knowledge flows between research and business in this field must be improved and extended. Due to a relative self-sufficient way of living of fishermen and fishing communities, knowledge exchange with other organisations will/has not developed spontaneous.

The project will bring entrepreneurs, interest groups, public authorities, organisations representing end users and knowledge institutes together. This so called knowledge partnership will act at different level and scale with different points of view, representing fishery, tourism, marketing, education, food or even health. Different expertise, experience and information will interfere and can improve innovation processes.

Project partners will develop and test new business innovations and ensure the widest possible take up of effective marketing methods. The partners explore ways to reduce geographical barriers to new knowledge and support the (new) joint ventures in response to market changes and to access (international) markets.

The transnational cooperation will be an effective method to analyse the best circumstances for transferability / high market share and to select successful innovations. The project period has a laboratory

function; economic failures and successes are both valuable. Lessons on both will be disseminated to relevant stakeholders.

Thematic Keywords

Clusters, Growth and jobs, New products and services, Place-based approaches, Societal challenges, Stimulating innovation.

Other Keywords

New business opportunities &networks, small scale fisheries, innovation SMEs, knowlegde partnerships.

Partners Found Already

- NL Gemeente Middelburg (Arnemuiden)
- NL, VHL, University of Applied Sciences
- NO, Kystkommunene Trøndelag
- SE, Maritimaklustret
- SE, Vestra Gotaland

Probably interested:

- BE, ILVO (Instituut voor Landbouw- en Visserijonderzoek)
- DK, Midt Central Denmark Region

Partners Searched

German and UK partners

Estimated Budget

€ 1.8

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Prosme

Central Aim

Through transnational exchange of experiences develop innovative procurement models that enable collaboration between the public sector and small and medium sized enterprises (including social economy) with the aim of securing future welfare. To strengthen and take advantage of innovation in order to deliver quality products and services to citizens.

Project Description

Today´s models for public procurement do not contribute to sustainable development, innovation and growth in the way that they could. One reason for this is the lack of SME participation and partnerships between public and private sector.

Although much has been done to promote participation of SMEs in procurement, it is still a small percentage who do participate. At the same time, public authorities struggle with the conflicting ambitions of stimulating competition, achieving the best value for money, good quality and also difficulties in securing sustainable logistics.

A higher participation of SMEs in public procurement can lead to many benefits for the companies, including economic growth and increased job opportunities. At the same time the public sector, achieves access to a wider range of products and services and thereby take advantage of the innovation that is needed to secure public services and future welfare.Some of the questions we want to answer is: Is it possible to develop models for procurement processes that really stimulate and strengthen innovation and new solutions? How do different implementations of the European procurement legislation affect SME participation? Something we see as an area to focus on especially, is how to develop tools that enable authorities to measure the quality rather than price of the procured product. We need to develop instruments that enable procurement of outcome.

Region Västra Götaland has noticed that collaboration is a solution to improve the quality of public meals and is now working in a partnership with the County Administrative Board, The National Centre for Food, the Federation of Swedish Farmers etc. The aim of the partnership is to improve the quality of public meals, e.g. in schools and hospitals, by supporting producers with training and advice for cooperation in food procurement and also by developing delivery logistics.

Main Activities

Establish partnerships: Establish partnerships for transnational exchange of experiences in the North Sea area between the public sector, businesses (manufacturing, transportation/logistics, and various processing stages) in the participating regions/municipalizes.

Pilot projects: With aim to use public procurement to jointly develop products and services that meet the future challenges for the public sector and secure economic growth.Implement developed and existing models to include other SME sectors.

Envisaged Output

- The proportion of SMEs participating in public procurement increases
- Functioning models of public procurement in areas such as food, furniture, textiles, logistics, etc. (models for a neutral helpdesk directed at both the public and private sectors or maybe an innovative procurement process that involves SMEs etc. at an early stage).
- Conclusions in what way different implementation of procurement legislation in different regions/countries in Europe, affects SMEs as well as the outcome and quality of the public sector services and products.
- To strengthen and take advantage of innovation for SMEs.

In the long run the project will contribute to sustainable development, innovation and growth and higher quality in public services to citizens.

What is the need for this project?

Through transnational exchange of experiences between the countries around the North Sea region develop and test sustainable models for public procurement in which small and medium sized enterprises develop their potential as suppliers to the public sector and thereby improve the quality of public services.

Thematic Keywords

Innovation capacity building, Innovative public service delivery, New products and services, Stimulating innovation.

Other Keywords

Procurement, SME.

Partners Found Already

- County Administrative Board Västra Götaland
- The Federation of Swedish Farmers
- The Swedish Federation of Business Owners

Partners Searched

Region Västra Götaland is primarily searching partners in the public sector (regions/municipalities) who are able to develop, or already have local/regional public private partnerships (PPPs). Partners could also be representatives of the private sector/social economy in the participating region/municipality.

We are searching for partners who see the potential in procurement as a tool to stimulate the innovation capacity of SMEs and thereby develop the public procurement opportunities.

Estimated Budget

3.000.000

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Innovative Farming in Times of Climate Change - ICLIC

Central Aim

To create open-air labs along the NSR coastline to demonstrate the possibilities of agricultural prodcution on salinized soil. To set up a transnational R&D infrastructure with a focus on the salt tolerance of crops and to create new production chains and opportunities for regional entrepreneurs to enlarge and renew their businesses. To strengthen innovation capacity building by cooperation between universities, SMEs, and the public sector.

Project Description

The NSR coastlines have been protected against seawater since centuries by higher and higher dykes, fertile sweet water areas been separated from salt water lands, where no crops would grow. But climate change makes it necessary to think differently and to find innovative ways of cultivating crops who can adapt to salt water areas. Small experiments have shown that certain varieties of plants can stand higher concentration of salt in the ground and with our project we seek to explore these possibilities along the coastal regions of all North Sea countries.

Transnational co-operation and the creation of open-air labs along various coastal zones will enable us to conduct large-scale screening of many different crops and varieties, from potato to beetroot, asparagus or

barley to find out which varieties can take in the highest salt concentration. The identified crops can grow on salt affected soils and can be irrigated with brackish water, thereby saving scarce fresh water.

Experiments with the cultivation of salt tolerant crops along the wetlands of the North Sea Region will not only contribute to developing saline agricultural practices and new methods in agriculture along the North Sea Coast, it will also create new production chains and chances for regional entrepreneurs to enlarge and renew their businesses. Smart specialization strategies for the agricultural and food sector in coastal regions can be developed, and, in addition, transnational co-operation between knowledge institutes, farmers and entrepreneurs, the public sector, and consumers will ensure knowledge transfer and boost innovation for the benefit of all North Sea Region countries and wider Europe. In this way, various aspects of salinization and salt water irrigation related to growth and quality of crops and halophytes can be researched under different conditions, while the results can be compared and taken into account for future policies of agriculture and farming in the wetlands within the North Sea Region and beyond.

Envisaged Output

A shared R&D infrastructure with a focus on salinized soil and salt tolerant crops. Results will be compared and taken into account for future policies of agriculture and farming in the wetlands within the North Sea Region. A paper on smart specialization strategies for coastal regions and policy recommendations for other European and world regions who have to cope with the consequences of climate change and salinized soils. A new brand of agricultural and food production from the North Sea region (for instance: "zilt food") to promote the region on a European and world-wide scale. A North Sea Region consultancy office consisting of various experts that can offer advice on salt food production in various countries of the world.

What is the need for this project?

Farming and cultivating crops is an important economic factor in the European Union, and certainly on the fertile grounds of the North Sea Region countries. Not only in this region, it is necessary to cope with the various phenomena of climate change, like for instance the rising of the sea water level, but worldwide about 1.5 billion hectares of land is already salt affected and this number increases by 3 hectares every minute. Agricultural research nowadays is focussed on defeating the further spreading of salinization, but there is simply not enough fresh water supply available. As the world population is expected to grow up to 9 billion in 2050, agricultural production has to increase by 70 %. With a decreasing amount of fresh water, food producers world-wide have to look for new methods and resources. A shift of paradigm is necessary.

This is where we want to start the innovation process: we seek to demonstrate the possibilities to make use of salinized soil and mixed irrigation for agricultural production. By ensuring transnational co-operation of knowledge institutes, farmers and entrepreneurs, the public sector and consumers, we

endeavour to strengthen innovation capacity building along the North Sea Region coastal zones and beyond.

Thematic Keywords

Growth and jobs, Innovation capacity building, New products and services, R&D in SMEs, Shared R&D infrastructure, Smart specialization, Societal challenges, Stimulating innovation, Training and education.

Other Keywords

Climate change, innovative ways of farming, food production.

Partners Found Already

Waddenacademie (NL) zilt proefbedrijf Texel (NL), Royal HaskoningDHV (NL), province of Groningen (NL), MaRenate Oldenburg (D), Waterplant (D), Ökowerk Emden (D), Biosynergy (DK), Chaudhary Biosysnepal Pvt.Ltd. (Nepal), Environmental Agency, The Wash (UK)

Partners Searched

Research institutes, farmers, SMEs, public sector in Belgium, Germany, Sweden and Norway.

Estimated Budget

5.000.000

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Priority 2 – Eco-innovation

circular BIOmass CAScade to 100% - BIOCAS100%

Central Aim

BIOCAS100% aims to promote the transition towards a resource efficient economy by supporting regional circular biomass application initiatives and showcasing at least two pilots. The project will create networks around biomass stocks in the regions involved and connect several producers of biomass applications. The aim of bringing together different pilot projects around one regional biomass stock is - as discussed above - to optimize valorisation.

Project Description

Biomass waste is looked upon as a costly residual, due to collection, transport and treatment. But biomass is a promising source for innovative circular biomass products. Application at a local or regional level can result in cost reduction, rise in local employment, reduction in use of fuel and dependency on the import of minerals, conservation of organic matter on a local and regional scale.

The degradation of agricultural land because of the decline of organic matter content has long been recognized by farmers. Current solutions for a structural increase in the organic matter content like applying compost are expensive and technically and logistically demanding. In modern agriculture, only a small part of the organic produce is returned to the soil. This has already led to loss of biodiversity. Furthermore, a considerable amount of biomass is lost in incineration plants or used for biogas production. It can be foreseen that the competition for biomass will further increase because of demand of circular biomass industrial initiatives. By taking all the components of biomass into consideration, the project identifies the specific components that can revitalize the soil. The loop is considered to be closed by returning these essential components to the soil, thus preserving soil fertility and biodiversity. The BIOCAS100% project acknowledges the high value of organic matter for the soil.

The characteristics of biomass that are described above create opportunities for rural areas that are suffering from population decline. The BIOCAS100% project interconnects a growing number of existing and emerging regional initiatives on the conversion of biomass resources into valuable products. This INTERREG project will connect several of these rural regions in order to learn from each other, share expertise and experiences, and actually seize the existing opportunities. BIOCAS100% emphasizes the

inherent link between the biomass cycle and the regional community. Rural communities have a lot of soil and agricultural expertise: by promoting circular biomass initiatives from these regions, the project will strengthen networks between rural areas and create new relationships between them. In this way, the project: (1) will kick start regional circular economies that are already existing in an infant form; (2) will contribute to a reduction of waste; and (3) will prevent the degradation of soil and contribute to the 2015 International Year of Soils.

Envisaged Output

- Number of green product, services and processes piloted and / or adopted by the project: 4
- Number of enteprises receiving support: 10
- Number of enterprises participating in cross-border, transnational or interregional research projects: 10
- Number of research institutions participating in cross-border, transnational or interregional research projects: 4
- Number of organisation / enterprises adopting new solutions by project end: 200
- Number of organisations / enterprises informed about new solutions by project end: 1.000

What is the need for this project?

The North Sea region is the breeding ground for some of the world's most innovative circular biomass application initiatives. Although very promising, these initiatives are local and rather small-scale. In addition, many isolated initiatives are being developed which do not (yet) contribute to the optimal valorization of regional biomass stocks.

Thematic Keywords

Awareness raising, Locally sourced materials, Pilots, Promoting green economic activity, Recycling, Reduce carbon emissions, Sustainable resource use.

Other Keywords

Biomass, cascading.

Partners Found Already

- Dutch Companies facilitating the bioplastics pilot
- Leeuwarden European Capital of Culture 2018
- Region Zealand + Roskilde University, Department of Environmental, Social and Spatial Change
- University of Oldenburg, COAST Centre for Environment and Sustainability Research

- Samsoe Energy Academy + Aarhus as European Capital of Culture 2017
- VITO (Belgium)

Partners Searched

- Partners in the NSR aiming to close the biomass cycle loop:
- Supply side of biomass
- Demand side (biomass products)
- Biomass recycling
- Knowledge institutes
- Public authorities as ''launching governments''
- NGO's
- Financial institutions (financing upscaling)
- Companies interested in pilots implementation

Estimated Budget

6,000,000

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Assessment of innovative anticorrosive and antifouling coatings for the maritime sector – SHIPCOAT

Central Aim

We have a double goal, to support both valorisation and innovative research:

Creating a platform for testing the performance of ship coatings in North Sea conditions (VALORISATION OBJECTIVE)

Using the data we obtain on this platform for modelling the interaction between coat, ship metal and environmental conditions to enhance our understanding of corrosion onset and progression, and of the role of marine bacteria in the onset of fouling (RESEARCH OBJECTIVE)

Project Description

1. Construction of a (physical) test platform in the Port of Ostend with comparison of different paint types (copper based / with nanotubes / with organic molecules as biocides/...).

2. Analysis of the technical variables linked to surface preparation (blasting, grinding, wire brushing etc.) which have a profound impact on the performance of the coating. This will provide insight into why (under which conditions) and how (by which mechanism) coating ageing is accelerated and failure starts to occur. Therefore, we will measure parameters such as surface profile, roughness, type of grit used to blast the surface, salt levels, moisture, steel temperature, a etc... The impact of humidity, temperature, drying/curing conditions etc... during the application and drying will also be evaluated.

3. The mechanisms by which metallic materials corrode in sea water are complex and not fully understood since they are dependent of (1) the chemical composition, (2) the metallurgical characteristics such as the microstructure and final surface preparation of the materials and (3) the numerous environmental variables that can be present in the marine atmosphere during a ship lifetime that include water salinity, pH, dissolved oxygen concentration, temperature...As such, we study the interaction between coating degradation and the initial phases of corrosion.

4. Tests on microfouling comprise the analysis of microbial communities, using both quantitative (flow cytometry) and qualitative (metagenomics and metabolomics) approaches as well as more conventional testing electron microscopic analysis, fluorescent in situ hybridization, biochemical analysis of slime composition.

5. Accelerated ageing of antifouling coatings will enable us to assess the physicochemical behaviour and the antifouling performance of these coatings after five to ten years.

6. Predictive models will be developed that are able to represent the time history of the degradation of coating and the subsequent development of corrosion. In addition, these models are meant to be practical mathematical relations to be decision support tools for maintenance/repair planning. Finally, these results will be combined, by way of a comprehensive overall life cycle analysis.

Envisaged Output

- Creation of a test platform for objective comparison of antifouling and anticorrosion paints on ship hulls and inside ship tanks.
- A performance analysis of several typical paint types used for anticorrosion or antifouling
- Formulation predictive models for anticorrosive and/or antifouling coating behavior, coating ageing and the interaction between fouling and corrosion onset
- Formulation of a comparative life cycle analysis for different paint types
- Scientific publications and a conference in corrosion and fouling

What is the need for this project?

One of the main threats to a ship is steel corrosion: in the western world, damage by corrosion is estimated at 4% of the gross national product (GNP), and approximately 5 tons of steel per second is lost through corrosion. In the Oil and Gas Industry (North Sea production platforms) 60% of all maintenance costs are related to corrosion, directly or indirectly (1993). 90% of ships failures are attributed to corrosion (Melchers, 1999)[1]. Corrosion is a major cause of marine structural failures: it results in loss of structural strength at local and global levels, and leads to fatigue failure and stress corrosion cracking. Consequently, the costs pertaining to corrosion are sky high: a 2006 study indicates that the US Navy alone incurred 2.44 billion dollars' worth of damage due to corrosion; for the U.S. marine shipping industry, the annual corrosion-related costs were estimated at $2.7 billion. The latter cost is associated with new construction ($1.12 billion), maintenance and repairs ($ 810 million), and corrosion-related downtime ($ 785 million). For the whole U.S. economy, the 1998 cost of corrosion amounted to $275.7 billion in 1998 alone (see overview on the cost of corrosion in De Baere et al. 2013)[2].

But coatings protect not only against hull corrosion. Finding proper ways to tackle biofouling (the growth of organisms on the outside of a ship's hull) is another of the challenges which the shipping industry is facing. The presence of often large numbers of organisms (barnacles, macrophytes, mollusks, ...) after all has a large effect upon the hydrodynamic shape and friction of a ship. In practical terms: every tonne of heavy fuel oil that is not consumed on board means an effective saving of 3.3 tonnes of CO2 emissions in the ship. On a fuel consumption of 300 tonnes per day (e.g. by. Emma Maersk), a reduction in consumption by 15% leads to an emission reduction of 150 tonnes of CO2 per day [3]. Improving the antifouling performance of a coating system therefore leads to significant savings in the consumption of fossil fuels.

In addition, among the fouling on the ship's hull are plenty of rather annoying species. Some of them are invasive hitchhikers, which should be kept from undertaking long journeys towards other ecosystems. All in all, estimates of the Marine Environment Protection Committee (MEPC), a committee under the auspices of the International Maritime Organisation (IMO), indicate a total cost of more than $ 5.7 billion per year, to be paid by governments worldwide and by the maritime sector, due to the increased fuel consumption, to repair costs and the possible consequences for man and the environment of the measures to be taken. These costs could be greatly diminished with good antifouling coating systems.

Lastly, organismal growth on the outer side of the hull, from sulfur-oxidizing bacteria to barnacle species (figure 4), may assist in coating breakdown and thereby the corrosion risk of the hull's steel. A good antifouling coating should therefore also help to prevent this kind of corrosion.In conclusion: the better the coating, the smaller the costs and the smaller the burden it presents for the environment.But who decides what is the best coating? Nowadays, the only information comes from the producers' own research labs - which all demonstrate the superiority of the own product - leaving ship owners to do their own, time-consuming and expensive tests.

Hence the double goal of the project:

- creating an objective test platform for testing the adequacy and the performance of ship coatings in North Sea conditions (VALORISATION OBJECTIVE)
- using the data we obtain on this platform for modelling the interaction between coat, ship metal and environmental conditions to enhance our understanding of corrosion onset and progression, as well as for investigating a less known element in the chain of events in fouling formation: the microbial phase (RESEARCH OBJECTIVE)

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[1] Melchers, R. E. (1999). Corrosion uncertainty modelling for steel structures. Journal of Constructional Steel Research, 52(1), 3-19.

[2] De Baere, K., Verstraelen, H., Rigo, P., Van Passel, S., Lenaerts, S., & Potters, G. (2013). Study on alternative approaches to corrosion protection of ballast tanks using an economic model. Marine Structures, 32, 1-17.

[3] Lewthwaite, J. C., Molland, A. F., & Thomas, K. W. (1985). An investigation into the variation of ship skin frictional resistance with fouling. Royal Institution of Naval Architects Transactions, 127

Thematic Keywords

Energy efficiency, Industrial design, Pilots, Reduce carbon emissions.

Other Keywords

Maritime, emissions reduction, innovative capacity building, corrosion, antifouling, coating.

Partners Found Already

- Chalmers University of Technology, Department of Shipping and Marine Technology - Sweden
- Northumbria University, Faculty of Engineering and Environment, Department of Mechanical and Construction Engineering - Great Britain
- Abertay University, The SIMBIOS Centre, School of Science, Engineering and Technology - Great Britain
- Institute for Agriculture and Fisheries Research (ILVO) - Belgium
- Geniaal bvba - Belgium
- Acotec NV - Belgium

Partners Searched

Estimated Budget

2.000.000

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Priority 3 – Sustainable North Sea Region

Adapting to Climate Change in North Sea Region: Risk and Vulnerability Assessment of Port Infrastructure – RVAPI

Central Aim

The main objective behind RVAPI is to contextualise climate risks at each North Sea Port with the view to provide information that will assist decision makers in prioritising climate adaptation initiatives. More importantly, RVAPI aims at raising awareness on the need to build port infrastructure climate resilience by highlighting the cost (consequences) of non adaptation to each port and to the regional economy at large.

Project Description

With more than 80% of the world trabe being seaborne, the development and maintenance of maritime transportation infrastructure has increasingly become a key enabler and catalyst for the competitiveness and development of any regional economy. Climate change has however brought new risks to the maritime industry in general and to seaports in particular. This is mainly due to the fact that seaports are located on coasts that are susceptible to climate variations. RVAPI approach is as follows:

- Develop climate risk scenarios for each identified port in North Sea Region based on field investigations, interviews with takeholders and available data.
- Identify scenarios presenting high vulnerabilities to ports through a methodology by elimination
- Provide recommendations to decision makers in respect to port adaptation priorities.

There is a wide recognition that adaptations initiatives in the industry are often compromised due to the constant trade off between costs and solutions. The proposed ACCNSR / RVAPI approach focusses on addressing the trade off challenge by highliting scenarios in terms priorities with the view to assist decision makers with allocation of resources where they are mostly required.

Envisaged Output

- North Sea Port Classification in relation to climate risks
- North Sea Port Vulveranility Assessment report
- List of Proirity scenarios requiring adaptation

What is the need for this project?

The nature of the maritime industry is in such a way that it has substantial multiplier effect on the wider regional economy. However, climate change has however brought new risks to the industry with devastating consequences on regional economy. For this reason, the building of port infrasructure resilience has therefore become compelling, in order to maintain an healthy regional economy. Moreover the constant trade off between costs and solutions neccessitates the need to highlight priorities. This is what ACCNSR / RVAPI is proposing to achieve.

Thematic Keywords

Adaptation and resilience, Climate change, Stakeholder involvement, Sustainable environmental management.

Other Keywords

Priorities, Decision makers, adaptation, port infrastructure.

Partners Found Already

Partners Searched

Academic institutions, Ports, Private consultancies or anyone interested on the project should contact us on p1306@wmu.se.

Estimated Budget

2

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JOINT MONITORING PROGRAMME FOR AMBIENT NOISE NORTH SEA - JOMOPAN North Sea

Central Aim

This project aims to develop a structure for a fully operational joint monitoring programme for ambient noise (Indicator 11.2.1 of the Marine Strategy Framework Directive, MSFD: 2008/56/EG) in the North Sea. In addition, the project aims to provide tools necessary for managers, planners and other stakeholders to assess the effect of ambient noise on the environmental status of the North Sea, and to co-ordinate their activities in a trans-national manner.

Project Description

Sounds are omnipresent in the underwater environment, and can be produced by natural and anthropogenic sources. Natural sound sources include breaking waves, splashes from raindrops, lightning, wave-wave interactions and the sound produced by marine fauna. Anthropogenic activities such as shipping, military activities, construction work and oil and gas exploration lead to an increase of underwater sound sources. In comparison to air, water supports propagation of sound better and the attenuation is less, resulting in sound travelling faster and over longer distances in water than in air. There is an increasing concern about the possibility of negative effects of anthropogenic underwater noise on marine fauna. For instance behaviour such as foraging, migration and reproduction could be disrupted. In some cases hearing impairment or physical damage can occur in species such as fish or marine mammals, which may in turn affect the population. In 2008 the European Commission approved the Marine Strategy Framework Directive (MSFD: 2008/56/EG), requiring all EU Member States (MS), to reach or maintain Good Environmental Status (GES) by 2020. GES is described in eleven descriptors and all the MS must set criteria and methodological standards for each descriptor in their marine strategies. The MSFD explicitly encourages regional co-operation between member states through the regional sea conventions, like OSPAR. Descriptor 11 focuses on the energy in the marine environment, including underwater noise. Descriptor 11 describes two types of underwater sound, divided into two indicators: loud, low and mid frequency impulsive sounds (11.1.1) and continuous low frequency sound (11.2.1), widely referred to as “ambient noise”. This project focuses on ambient noise, which is caused by both natural and anthropogenic sources. Current ambient noise levels in European marine waters and their impact on the ecosystem are largely unknown. Increasing ambient noise levels would increase the pressure on marine ecosystems. However each Member State should reach or maintain GES in their part of the international seas, like the North Sea. The ambient noise indicator focuses on the monitoring of the trends in the ambient noise levels. For this, each Member State is required to start a monitoring programme to measure the trends in ambient noise levels, to know what contributes to the ambient noise levels and to what extent.

Envisaged Output

The result of the project will be a structure for a full monitoring programme for ambient noise in the North Sea. Outputs will be the tools necessary for managers, planners and other stakeholders to assess the effect of ambient noise on the environmental status of the North Sea, and to co-ordinate their activities in a trans-national manner. These outputs will include standards for noise measurement and modelling, validated sound maps of the North Sea, tools for predicting trends in the ambient noise levels as requested by Indicator 11.2.1 of the MSFD, and tools for assessing GES. The standards will be developed in close cooperation with other comparable monitoring projects (BIAS, JONAS, MEDMAN, GLOSS) and will be based on the work of the MSFD Common Implementation Strategy Technical Group on Underwater Noise. This common approach will deliver comparable data, enhance the quality of the monitoring programme and will lower the costs for monitoring of Indicator 11.2.1.

What is the need for this project?

Activities which cause the ambient noise levels in the North Sea as well as the propagation of noise itself have a trans-national character. Therefore monitoring as well as imposing measures to mitigate impact of ambient noise on the ecosystem (to reach GES) ask for a common trans-national approach. Each Member State might work on its own to monitor the trends in the ambient noise levels in their sea area, but in the case of the North Sea, each Member state would need to cover the whole North Sea to determine what is going on in their part of the North Sea, resulting in unnecessary duplication of effort. Furthermore the measures which must be taken to lower ambient noise levels in the Exclusive Economic Zone (EEZ) of country A, probably have to be taken in the EEZ of country B. By setting up a common standardized monitoring programme, consisting of a combination of measurements and modelling, and by developing common assessment tools, this project will deliver the basic knowledge, standardized methods and tools for the future Ambient Noise Monitoring and management in the North Sea. This will allow a coordinated standardized and validated joint monitoring effort.

Thematic Keywords

Ecosystem management, Sustainable environmental management.

Other Keywords

Marine Strategy Framework Directive.

Partners Found Already

- Swedish Defence Research Centre (FOI) (Sweden)
- Marine Scotland (Scotland)
- SMRU Consulting (UK)

- Royal Belgian Institute of Natural Science (Belgium)
- Danish Hydraulic Institute (Denmark)
- Bundesamt für Seeschifffahrt und Hydrographie (Germany)
- DW-Shipconsult (Germany)
- Institute of Theoretical Physics and Astrophysics (Germany)
- National Physical Laboratorium (UK)
- Nederlandse Organisatie voor natuurwetenschappelijk onderzoek (Netherlands)
- Centre for Environment, Fisheries and Aquaculture Science (UK)
- Institute of Marine Research (Norway)
- QuietOceans (France)
- SHOM (France)
- Sinay (France)

Partners Searched

Estimated Budget

4.000.000

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Free Range Salmon

Central Aim

Improve conditions for salmon to reproduce and for their migration.

Project Description

Over the last 250 years Europe's rivers have been subject to the impacts of industrialisation in terms of their flows being managed, impounded, polluted and modified. These impacts are heightened with the advent of climate change altering flow patterns and conditions within the rivers. In essence the flows that connect the rivers and estuaries have become disjointed. This project seeks to re-join all parts of the rivers and their estuaries so that wildlife, in particular salmon, can have free range in and out of these catchments. Salmon have been chosen as they are a shared resource within Europe, crossing boundaries

in their migrations and so linking countries together, and are an indicator of the health of the rivers and their estuaries.

This project will aim to quantify the range of barriers to fish migration and understand their impacts. Physical obstructions such as dams; chemical barriers such as pollution; environmental changes linked to climate change and changes caused by development of the rivers will all be considered. This will be achieved through a combination of research and seminars so that information can be exchanged on how fish are using these rivers, the challenges that these barriers represent and how they can be overcome.

Demonstration sites will be developed to look at how the Water Framework Directive can be used to alleviate these barriers in the partner countries, along with the development of a skills and knowledge base to build capacity within the partners' organisations. The ethos of the project will be to understand and reconnect these rivers whilst working alongside industrial partners so that the different demands on the rivers can be better met.

The salmon is an important resource for growth. The rivers and streams located in rural areas and sport fishing and sport fishing tourism is a major growth area for the project's partners. Hence it is important that conditions are created to enhance and sustain fish resources.

Finally the project will bring together the knowledge resource into catchment fishery management plans so that the environmental benefits of improving the connectivity of rivers and estuaries.

Envisaged Output

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What is the need for this project?

For better understanding, solutions and make growth possible in the areas for tourism.

Thematic Keywords

Adaptation and resilience, Catchment management, Climate change, Climate change adaptation, Ecosystem management, Ecosystem services, Invasive species, Sustainable environmental management.

Other Keywords

Growth, Salmon, Sea Trout, Biodiversity, obstacles, fauna passages.

Partners Found Already

- Sweden: Laholms Kommun River Smedjeån, Halmstad Kommun - River Nissan
- Scottland : River Dee

- and we hope: Germany: River Rhone

Partners Searched

Denmark and Norway

Estimated Budget

200,000,000 SEK

Contact

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Estuary Management in the North Sea Region

Central Aim

The overall aim of this project is to ensure and maintain the sustainability and accessibility of estuary sites in the North Sea Region. Using the latest scientific knowledge available throughout the North Sea Region, the project will advance existing management strategies a step forward by developing and adapting measures to address new as well as most pressing management challenges at specific estuary sites.

Project Description

Earlier projects TIDE and EMOVE showed that estuaries are subject to interrelated pressures, some of which have become more persistent since adoption of the current management plans:

- Amplification of the tidal range leading to shifts in estuarine dynamics, import of fine sediments, and increased flood risk
- Encroachment of salt water into ground- and surface water bodies and soils of coastal landscapes
- Increased flood frequency due to climate change

Estuary managers need to attend to resulting management challenges, such as reducing flood risk, maintaining access to inland ports and ensuring proper relocation of dredged sediment. These are not yet sufficiently addressed by current estuary management plans and resulting measures, which are mostly based on analyses and strategies developed more than a decade ago.

Since then, new knowledge and innovative methods have become available or advanced considerably (i.e. ecosystem service valuation, system analysis, serious gaming). These approaches can be used to create a better basis for developing the most appropriate, integrated solutions to prevailing problems. They can also help overcome barriers to implementing existing solutions, such as lack of stakeholder approval.

The proposed project will employ new methods to accelerate implementation of already defined measures, as well as get stakeholder agreement on new or adapted measures. Ongoing barriers to implementation will be resolved through stakeholder engagement processes to address concerns. New or adapted measures will be developed as needed in response to prevailing management challenges. The project will support management changes at identified sites by fully evaluating feasibility and designing corresponding action plans.

Achieving the project's aim requires a range of partners and activities specific to both estuary sites and across the region. Sites include those investigated in TIDE and EMOVE, as well as additional estuaries facing similar challenges. By involving public authorities, researchers, and civil society organisations, management strategies at specific estuary sites will be updated through a process to bridge the gaps between knowledge generation, stakeholder interests and on-the-ground implementation. Transnational cooperation to exchange knowledge and best practices will enhance strategies to address common challenges.

Envisaged Output

Long-term sustainability of North Sea Region estuaries will be advanced by updated management strategies and increased stakeholder buy-in. Innovative measures will be developed and disseminated through specific outputs, currently under discussion:

- Priority ratings of which measures need to be adapted or developed in response to management challenges
- Relevant scientific studies that provide information necessary for developing measures
- Targeted stakeholder communications to increase scientific understanding of measures
- Feasibility studies and action plans for new and adapted measures
- Stakeholder agreements and policy changes in support of implementation

What is the need for this project?

Estuaries are amongst the most socio-economically and ecologically important environments.

- They are often the sites of major cities and ports and support large urban, agricultural and industrial areas surrounding the estuaries and in their catchments; providing conditions for a multitude of uses such as agricultural land reclamation and food production, harbours and

navigation, fishery and aquaculture, mineral extraction, energy generation as well as tourism and recreation.

- They provide highly valuable habitats; safeguard biological diversity protecting numerous species of plants and animals from extinction and serving as nursery areas for marine fishes as well as overwintering areas for wading birds. Moreover they recycle nutrients and contaminants. Thus many estuary segments are designated Natura 2000 reserves/sites.

Estuaries are also the final recipient of much of the pollution carried by rivers and that originates at sea. They are highly complex and dynamic environments, which are to a large extent unpredictable and exhibit strong reactions to human interventions, which are further exacerbated by variable environmental conditions (i.e. climate change). Understanding and managing these changes, while simultaneously addressing challenges posed by the multitude of stakeholder interests, is a substantial task for public authorities. This requires sound communication strategies and engagement mechanisms to interpret complex scientific concepts for different target groups.

Numerous management plans have been prepared in the past as a reaction to issues such as flood prevention, sediment dynamics, deepening of waterways and/or in compliance to EU directives. These plans form the basis for subsequent measures, which have or are still being realized. The proposed project will advance the development of measures to address management challenges in an era where greater flexibility is needed due to changing environmental conditions and uncertainty.

Governance and stakeholder support are key components for implementing large-scale projects, which do not only imply substantial financial resources but also have long term and substantial impact. Estuary partnerships provide a platform for cross-sectorial communication, and these will benefit from the projects results as well as from transnational exchange of experiences.

Thematic Keywords

Adaptation and resilience, Build with nature, Ecosystem management, Ecosystem services, Flood control, Stakeholder involvement, Sustainable environmental management.

Other Keywords

Estuary, Sediment management.

Partners Found Already

Confirmed: Flemish Ministry of Mobility and Public Works (MOW), Lead Partner; Antwerp Port Authority; Deltares; Rijkswaterstaat; Hamburg Port Authority (HPA); University of Hull, Institute for Estuarine and Coastal Studies

To be confirmed: University of Antwerp; Flemish Waterways and Sea Canals Authority; German Federal Waterways Engineering and Research Institute; Küste und Raum (KuR): Ahlhorn & Meyerdirks GbR; Waterways and Shipping Administration of the German Federal Government (WSV); Free City of Bremen Senate for Economy, Work and Harbor; Lower Saxony Water Management, Coastal Defence and Nature Conservation Agency; Lower Saxony Ministry for Environmental Protection, Energy and Climate Change; Bremenports; Norwegian Geological Institute; Port of Gothenburg; Karlstad University; IVL Swedish Environmental Institute; COWI; UK Environment Agency; Humber Nature Partnership;

Partners Searched

Estuary managers, waterway managers, environmental agencies, port authorities, knowledge institutions, …

Estimated Budget

3.500.000

Contact

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Priority 4 – Green transport and mobility

GEOgreen – GEOgreen

Central Aim

The project aims to develop tailored "green" sustainable model for Geoparks and UNESCO World Heritage Sites that could supports the management bodies (public and privates) in enhancing policies for the promotion of sustainable tourism practices with special focus on disabilities and new technologies.

Project Description

The project analyses the needs and the potentiality of Geoparks and World Heritage Sites (UNESCO sites in general) in the green mobility field with special focus on supporting disabilities and with the aim to develop new tourism offers with focus on sustainable transports and new technologies.

The project will analyse the existing plan, the infrastructure, the architectonic barriers, the existing technologies and the actual infrastructural connections between public transport and the touristic "hot spots" of the UNESCO sites.

Interviews to disable people engaged in local associations will be crucial to develop the report.

The partners in the end will develop one common strategy that will allow them to fulfill the gaps underlined in the need analysis.

The inclusion of the GEOVR virtual exhibition-platform that Magma Geopark is developing inside the strategy and it will be part of the plan. In fact special stop will be planned in order to offer virtual innovative experience to the tourist and disable people that will travel inside the UNESCO sites partners of the project simply sitting in one location with the support of digital tools.The platform will be run from next year and is easy implementable by other UNESCO partners.

The GEOgreen strategy in the end will support the UNESCO sites to develop green mobility disable-friendly solutions, to connect tourist from the public transport to the localities and to the hot spot provided with GEOVR technologies, reducing the CO2 emissions and increasing the use of public transport and to erase barriers for disabilities both physicals and ideological. The GEO green strategy will be tested and adapted in order to be adopted by the Governmental bodies involved. The leader is member of the UNESCO Geoparks Network, this will allow the consortium to expand the strategy Worldwide.

Integration with European policies:

- EUROPE 2020 Green economy- CO2 reduction.
- Sustainable transport and mobility.
- European Disabilities Strategy 2010-2020. (Accessibility and integration)
- EUROPE 2020- digital society.

Envisaged Output:

Expected Results:

- Implementation of the tailored plan in the Regional policies.
- Increase the sustainability and the tourism attractiveness of remote areas for disable people.
- Increase the awareness of people in sustainable practices and disabilities issues.
- Enhance the use of new technologies inside the UNESCO Sites (Geoparks and WHL)

What is the need for this project?

Main issues (problems to face within the project):

- Lack of tourism strategy plan for the development of green infrastructure in combination with the use of innovative technologies with special focus on disability.
- Lack of tourism offer for disable people in the Geoparks and UNESCO World Heritage Sites that can provide them with proper means of transport.
- Need of "green" transport connection between public transport stations and the UNESCO localities.
- Need of expanding the use of new technologies for providing disable people with "outdoor" experiences.

Thematic Keywords

Emissions reduction, Healthy mobility, Public transport.

Other Keywords

Disability, ICT technologies.

Partners Found Already

- Lemvig Kommune, Geopark project- Denmark.
- Shetland Geopark. Scotland
- Odsherred Geopark Denmark

Partners Searched

Stakeholders:

- UNESCO World Heritage Sites listed (WHS)
- Geoparks
- Aspiring Geopark projects.
- National, regional, public authorities responsible for cultural and natural heritage.
- Tourism income providers.
- Mobility and environmental Regional Authorities.
- Development agencies- Regional and National.
- Universities and private independent research centers (tourism, mobility and sociology sectors).
- Organizations in economic sectors with a strong impact or dependence on natural and cultural heritage.
- Association that focus on supporting the disabilities.
- No profit and NGO involved in natural-cultural heritage promotion and disability sectors.

Estimated Budget

200,000 EUR

Contact

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Seamless CARbonless BIKE driving in the Northsea Region – SCARBIKE

Central Aim

Remove all tresholds for a personal change to CO2 friendly biketrips.

With this consortium we will test different usecases in regions:

- Accessibility of nature resorts
- Cities with good public transport and bike facilities
- Cities with a poor biking culture
- Rural areas with parking facilities for bikes at bus stops

- Cross border travel in the NSR with bike use

Project Description

Travelling in the NSR should be as simple as this:

Just take up your key and carnavigation and drive! A friendly lady guides you through a strange city. With one caruser you will use up to five or more times of CO2 in comparison with single or multimodal biketrips. But…….. a change from cartrip to single or multimodal biketrips is a hassle.

Find your way in different bike options of bike services. There are many many tresholds for a modality change from car to bike.

Bike options and services will be offered but not in one stop service:

- What sort of bike, normal, racing, e-bike will I use?
- Will I use my own bike or a shared bike service.
- Fiscal aspects of bikedriving, will they support or not?
- Safe parking options for my bike, load facilities e-bike?
- Safe and comfortable bikeroads?
- Fastlanes for bikes?
- Multimodal travel information in combination with bike?
- Reservation services for a shared bike or a parking place for my bike? (especially in IC Railway stations).
- Other travel options during bad weather.
- Use of sensordata during biketrips

Envisaged scope of the project:

- Define all possible tresholds that people can bring in if you ask them to change to a CO2 friendly biketrip
- Define for each partner the goals to realise a change in organizations and persons to biketrips
- Share permanently knowledge of the usecase results
- Connect all bikefacilities to a personal full-fledged carbonless single or multimodal biketrip for endusers
- Create for each partner a one stop shop solution in order to gain a seamless low carbon biketrip
- Including integrated information reservation and ticketing service pre-, on- and posttrip
- Use Living Lab Assen with customers for testground.

Envisaged Output

A single of multimodal SCARBIKE trip has to be as simple as a cartrip. Biketrips differ from partners and regions.

- Define the usecases per partner for a measurable change from car to a biketrips
- 1500 informed organizations and 60 adopted bikesolutions
- For the last mile stimulating the use of a shared bike option
- Get your realtime information during the biketrip
- No payment of all the different legs during the MM biketrip
- You will find your bill in your mailbox afterwards
- Connect new technology in combination with existing mobility, payment and information services for bikes

What is the need for this project?

There are yet too many obstacles for someone who wants to travel from A to B. If the obstacles would be lifted, the consortium has a strong belief that people will select the bike as the altnernative transport mode more often.

Thematic Keywords

Emissions reduction, Healthy mobility, Living Laboratory, Multimodal, Pollution, Public transport.

Other Keywords

Bike, biking.

Partners Found Already

- Stichting Sensor City Assen: Promoting the use of the Living Lab Assen with real end users
- Intercomunale Ontwikkelings maatschappij Kempen (IOK): Change car use from commuters to seatsharing, ebike public transport
- Magicview Connected Products (partner of Sensor City Assen): Developing cheap technology solutions (IOT) for multimo. service
- Province of Drenthe: Promotion of bike use in combination with bike highway

Partners Searched

- Leeuwarden Culturele Hoofdstad 2018
- Malmo (bike)
- Aberdeen (bike)

- others

Estimated Budget

4.000.000

Contact

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Promotion of cargo bikes - dynamic market introduction - Working title: CABI – DYNAMIC

Central Aim

The objective of this project is to reduce car traffic and CO2 emissions and to improve the quality of life in cities around the North Sea by transforming them from car spaces into people spaces.

Project Description

Cargo bikes are a great alternative to cars when it comes to goods transport or children transport. However, they have not yet really been taken on in the cities. There are a number of reasons, among them high purchase costs, parking difficulties or simply lack of knowledge about the possibilities. We want this to change, we want to promote the use of cargo bikes in cities, make them more visible and overcome some of the barriers for their use.

There is an abundance of possibilities what cities can do to prepare the grounds. The common denominator in this project will be the joint evaluation for an exchange of experience, for collecting good practice which can then be spread into the entire North Sea Region and beyond. With the two cycle pioneer countries Denmark and the Netherlands being part of the programme area, we are going to use a fair amount of existing experience and take it one step further.

Envisaged Output

Creating a market for cargo bikes - through inducing offer through various measures which will entail a rise in demand and so forth. Suitable cargo bike parking and a system for sharing those bikes (instead of buying one) are important issues in this context.

Through sound evaluation we are going to identify good practice to be transferred to other cities and municipalities within the North Sea Region.

What is the need for this project?

Urban transport is dominated by cars and delivery vans. Parents are taking their little children to kindergarten by car, last mile deliveries are being operated by huge lorries. The traffic (flowing and parking) that this creates is a safety, economic and health problem. Most of these trips can be done using a cargo bike with a number of advantages: it is a healthy and safe way to move, it reduces the costs for transport and creates livable cities.

Thematic Keywords

Congestion, Emissions reduction, Healthy mobility, Last mile, Living Laboratory, Logistics.

Other Keywords

Cycling, Mobility management, Personal transport.

Partners Found Already

- team red
- Calllock
- Fietsdiensten.nl
- City of Malmö
- City of Deinze

Interested:

- University of Aberdeen
- City of Osnabrück

Partners Searched

- Lead partner
- Public authorities (cities, municipalities)
- Kindergartens
- Organisation for the elderly
- Housing companies
- Logistics companies and distributors
- Industry partners, i.e. cargo bike manufacturers

- (Professional) cargo bike users

Estimated Budget

3.000.000

Contact

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