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| | SE224 - Skåne län<br>SE23 - Västsverige<br>SE311 - Värmlands län<br>UKC1 - Tees Valley and Durham<br>UKC2 - Northumberland and Tyne and Wear<br>UKE1 - East Yorkshire and Northern Lincolnshire<br>UKE2 - North Yorkshire<br>UKE3 - South Yorkshire<br>UKE4 - West Yorkshire<br>UKF1 - Derbyshire and Nottinghamshire<br>UKF2 - Leicestershire, Rutland and Northamptonshire<br>UKF3 - Lincolnshire<br>UKH1 - East Anglia<br>UKH3 - Essex<br>UKJ4 - Kent<br>UKM2 - Eastern Scotland<br>UKM5 - North Eastern Scotland<br>UKM6 - Highlands and Islands |

## 1. STRATEGY FOR THE COOPERATION PROGRAMME'S CONTRIBUTION TO THE UNION STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH AND THE ACHIEVEMENT OF ECONOMIC, SOCIAL AND TERRITORIAL COHESION

### 1.1 Strategy for the cooperation programme's contribution to the Union strategy for smart, sustainable and inclusive growth and to the achievement of economic, social and territorial cohesion

1.1.1 Description of the cooperation programme's strategy for contributing to the delivery of the Union strategy for smart, sustainable and inclusive growth and for achieving economic, social and territorial cohesion.

**North Sea Region 2014-2020: Vision**

Joining efforts to lead the way to stronger, more sustainable economies and societies around the North Sea

**Summary**

The following strategy charts the way that the current situation in the North Sea region has been brought together with European and national policies to define a programme of action for the North Sea Region programme 2014-2020. It builds on extensive experience of cooperation within the region and of the results that can realistically be achieved, while also respecting calls for delivering tangible results and long-term impact.

The programme aims to embed greater cooperation in working practices across the North Sea Region (NSR) as a way of tackling joint challenges, pooling expertise and building lasting links between businesses and institutions throughout the NSR.

The programme has been prepared against the background of slow recovery from the economic crisis as outlined in the section on the socio-economic situation. This has created pressures on financing as well as ever greater demands for high quality projects that complement other national and regional initiatives. The section on lessons from the past shows how the programme will respond to these needs.

In content terms, the crisis has underlined the relevance of the Europe 2020 policy framework and the preceding Lisbon Agenda: The North Sea Region needs to strengthen its knowledge economy so there are more businesses generating growth and jobs in sectors where the NSR can maintain a strong competitive position in global markets. Efforts to promote this change should focus on SMEs, which represent the vast majority of businesses in NSR economies but where innovation capacity often needs to be increased. The strategy explores these challenges in more detail and considers how the policy responses suggested in the Commission's Europe 2020 strategy can be applied to the North Sea Region. The strategy ends with a short summary of how these elements come together in the four priorities selected.

The strategy also recognises that there are a number of other threats to the long-term stability and well-being of the region. Climate change and environmental degradation could undo progress in other areas if they are left unchecked. This strategy therefore

considers steps that the programme can take to reduce carbon emissions and prepare for the environmental changes already underway as a result of climate change. The strategy and the more detailed information in the priorities Eco-Innovation and Sustainable North Sea Region also address wider environmental issues such as wise management of natural resources, water and air quality, pollution and biodiversity. The measures suggested acknowledge that human interests and environmental interests must be balanced to achieve sustainable development.

The programme addresses transport as a special theme. The North Sea Region is the international trade hub for most of the continent because of its deep water ports. The transport sector is therefore a major contributor to the region's economy and provides essential links to the outside world. However, it faces enormous challenges if it is to break the reliance of transport on fossil fuels particularly given that transport flows continue to increase. This trend is also found at a local and regional level, as transport systems have generally been based around car and truck use. By having a specific priority on transport - Green Transport and Mobility – the programme aims to bring focus and new impetus to efforts to demonstrate how the North Sea Region can start to move away from fossil fuels for transport.

Ambitious themes have been selected for the programme but the budget to address them is limited. Obviously, making significant, lasting change on issues such as carbon reduction will require contributions from many sources. Links and coordination with other EU funding programmes and policy initiatives are therefore included in the relevant section of the Cooperation Programme. Compared to these other schemes, transnational cooperation specifically focuses on the territorial integration of the North Sea Region. It addresses current barriers, such as uncoordinated sectoral policies, mismatches between administrative boundaries and functional boundaries, insufficient use of stakeholder knowledge and views, and a lack of long-term visions for planning and objective setting. By taking their starting point in the territory and all of the relevant influencing factors on the territory, transnational projects should transcend administrative and sectoral barriers, and actively pursue horizontal coordination (across sectors) and vertical coordination (across different levels of administration). In this way, transnational cooperation *can* make a real difference by demonstrating what is possible as well as delivering real change through practical action in regional and local communities. The strategy therefore closes with some examples of the sorts of action that have been effective in the past and can provide inspiration for North Sea Region 2014-2020.

**Designation of the area covered by the strategy**

This strategy covers the North Sea Region (NSR) comprising the whole of Norway and Denmark, the eastern parts of the United Kingdom, three provinces of the Flemish Region of Belgium, the north western regions of Germany, the northern and western parts of the Netherlands and the south western area of Sweden (See Annex 29). All regions are on or close to the coast of the North Sea itself. The NSR covers an area of some 664,000 km2 and approximately 60 million people.

**Analysis of the current socio-economic situation in the strategy area[i]**

The North Sea Region is a patchwork of varied territory extending from the remote islands and fjords at the northern edge of Europe through to the densely packed cities of Europe's core region with its concentrations of research and economic output. It includes some of Europe's most sparsely populated areas and some of its most heavily populated

centres. It contains centres of national and regional importance, ranging from capital cities to regional administrative centres and centres of global economic importance. In overall terms, however, the NSR is characterised by the importance of small and medium-sized towns with a particular reliance on towns of less than 20,000 inhabitants. The size and population of NSR cities continues to rise steadily. This is partly because people continue to leave rural areas.

The major factor influencing economic performance across the programme area is still the economic crisis, which has triggered major economic change across the region and substantial changes in macro-economic policy. Macro-economic impact has varied. Germany, Norway and Sweden have managed to maintain relatively stable economic performance. The national economies of the UK, Denmark, Belgium and the Netherlands, on the other hand, were significantly affected by the crisis and have demonstrated only limited levels of economic recovery.

Everywhere the crisis has fed through to the real economy, impacting on both export sectors and domestic consumption. Problems have also spread from the manufacturing to the public sector, particularly affecting the funding of public sector jobs and the provision of services. In a number of countries, structurally weaker regions are among those which have been most seriously affected by the crisis and many are still lagging seriously in the recovery.

The policy response to the economic crisis across all governments has been focused on the national and international dimensions rather than regional. This response has had two main goals:

- To stabilise the banking sector and the financial system
- To rebuild business and consumer confidence and to stimulate consumption and investment

Specific responses have been shaped in part by the degree and character of the downturn's impact on individual countries, but also by the macro-economic situation of each country before the crisis. In some NSRP partner countries, public finances are relatively sound and budgets for regional economic policy have even increased in recent years (e.g. Sweden). In others, austerity measures have been introduced to restore balance in the government finances and reduce debt ratios, which has impacted on regional policy budgets and co-financing, e.g. in the UK. The Netherlands made significant (€18 billion) budget cuts in 2010.

This situation emphasises the need for stimulating growth in all parts of the NSR through initiatives such as those outlined in this programme. However, the economic crisis also raises challenges in this respect, such as meeting financial commitments and mobilising project partners. National government concerns over value for money and effectively managing limited financial resources are also leading to an increasing interest in coordinating external sources of funding (such as EU Cohesion policy finding) and maximising their impact.

All NSR economies are looking for new opportunities for high value growth. There is an acceptance that this will be achieved through developing the knowledge economy, and all countries have programmes for raising skill levels, stimulating knowledge economy business start-ups and encouraging research. Nevertheless, it has often been difficult to commercialise the innovations needed to create and maintain strong positions in global

industry and although the NSR performs very well in an EU context, it still trails behind global innovation leaders like the USA, Japan, South Korea and increasingly China. This has led to initiatives to promote ever greater coordination of research with business skills and knowledge in an effort to generate new products, quality jobs and maintain the region's prosperity.

Socially the recent crisis has generated a paradoxical situation. In the long-term there could be a shortage of workers in the NSR. There is an ageing population with people on average living longer and smaller numbers of young people to take their place on the labour market. In the short-term, however, there are large pockets of youth and long-term unemployment and this brings with it a significant risk that these people may be permanently excluded from the labour market. Moreover, a proportion of the jobs that NSR economies have generated over recent years have been in very low pay segments of the economy. Such trends risk creating divisions in North Sea societies and stress the need to ensure that economic recovery is not limited to skilled workers in urban areas.

The economic situation has also put some pressure on the environment. Public spending on the environment has generally decreased slightly[ii] and it is not always easy to maintain support for long-term environmental goals when faced with the need to provide an immediate economic stimulus. Major climate change mitigation and adaptation initiatives are, however, still needed to protect NSR countries. In many cases further efforts are also needed to strike a better balance human needs and the long-term sustainability of the NSR environment.

In many respects the NSR faces these challenges from a position of strength. All of the NSR countries are highly developed[iii] with strong educational and health infrastructure, a generally well-trained workforce, prosperous economies, which perform strongly in the knowledge economy, and good levels of ICT infrastructure and literacy. Long histories of trade and migration have created strong economic and cultural links. Good transport infrastructure supports physical links across the region. There is a shared interest in developing renewable energy and other green technologies and the NSR is amongst the global leaders in these industries. This means also that the NSR is in a good position to use the solutions it develops to the challenges outlined in the programme as an engine for growth and new opportunities.

**Lessons from the past**

This is the fourth North Sea Region programme. Since the start of the first programme, cooperation in the region has matured and intensified. This has meant that with each programme period it has been possible to raise ambitions for the impact and durability of the projects funded, and the new North Sea Region programme will continue this progression. Thematically, the programme builds on positions of strength, developing on proven successes and complementing these with new themes based on the current analysis.

It is also possible to define a number of characteristics that projects under the new programme should fulfil. New projects will be:

- *Based on the shared or complementary needs of all partners*. It is not possible to put together partnerships based only on a loose thematic umbrella with no joint implementation. Projects should instead be built around a clearly defined and agreed set of needs with a clear definition of the requirements and skills that each

partner brings into the partnership. Projects allow all participating regions to pool the resources used on their particular challenges – and allow them to learn from assisting other regions.

- *Reliant on joint implementation*. The value of cooperation lies in bringing in knowledge and new perspectives from other partners. Results should be based on joint action.
- *Focused on delivering progress on core programme goals.* Every programme objective has a clear output and a related programme target. These targets give a clear direction for all activities and the results expected but leave freedom for projects to define their precise activities based on partner needs and the evolving situation in the programme area.
- *Implementing EU policy*. Projects have been successful in taking the objectives and visions of European policy in different sectors and defining specific actions and processes to achieve these goals on the ground. Projects should continue to give practical shape to policy in this way by developing synergies with existing national and regional initiatives and also integrating the outputs of relevant projects under other Interreg programmes and all other funding programmes.
- *Innovative*. Some projects work directly with 'innovation' by supporting the development of new products and services for the market. All projects are expected to be 'innovative' by rethinking standard approaches and using the skills, knowledge and experience available in the partnership to develop completely new approaches. In many cases innovative approaches for a partner will involve the transfer of ideas from another partner or 'tweaks' to existing solutions but programme funds should not support 'business as usual'.
- *Based on demonstrating and proving what is possible*. Research is an important part of the programme but it is important to stress that the programme focus is on demonstrating practical developments for the NSR and working through the barriers to making these developments a reality. Projects must therefore focus on demonstrating and testing new ideas. Where projects are based on planning and cannot demonstrate their recommendations (e.g. due to the high cost of the infrastructure involved), projects must be developed and delivered together with the main stakeholders who ultimately make funding decisions in order to ensure support for implementation after the project has ended.
- *Limited and specific in the changes they wish to generate*. Some earlier projects have been over-ambitious in the range of issues they wish to tackle. This tends to lead to a loss of focus. Projects should therefore carefully define the need they will address even where this means that other important issues must be left out.
- *Inspiring national and regional policy and practices*. Programme funding is limited but its ambition is to positively influence the whole programme area. This requires that the positive effects of results are not limited to the project partnership but are communicated to the most important stakeholders in order to secure a durable legacy after the end of the project.
- *Allowed to fail*. Projects should expect to succeed but also be able to draw lessons from failures and share these with others – without the risk of financial penalty for the work they have done. Projects need to be able to take risks and innovate.

It is also important that projects focus on delivery rather than administration and that unclear rules and procedures do not lead to unnecessary errors. This has also led to changes in programme administration including:

- Attempts to simplify the application process to reduce the work put into unsuccessful ideas and provide more uniform funding for detailed application development. This might include piloting a two-step application procedure where projects will get formal feedback on their proposed objectives, activities and results, and a decision on whether to proceed to the second step
- Use of a flat rate for overhead costs to avoid calculation errors and differences of interpretation between control and audit bodies
- Clearer rules and procedures and investigation of new channels for communicating requirements such as audio-visual materials
- Moves towards paperless administration and automation of as many processes as possible based on positive experiences from the 2007-2013 period
- Adoption wherever possible of harmonised documents, procedures and rules between all transnational programmes
- Reduction in the number of programme indicators to raise confidence in the usefulness and relevance of the system
- Use of different approaches to group projects on related themes (e.g. clustering and portfolio management) in order to share information and highlight the results being achieved
- Assistance to projects to identify programmes, policies and stakeholders working with related themes
- Provide regular opportunities for contact between projects for exchange of learning and experiences

**Main challenges and untapped potentials**

The summarised overview of challenges and opportunities provided below builds on a more detailed SWOT analysis (Annex 1) discussed and agreed with the Member States in preparation for the programming process, and a series of consultation and evaluation exercises with programme stakeholders. This process is described in more detail in section 5.2.

**Economic situation and innovation**

Increasingly innovation is carried out not as a closed off activity within individual companies, but rather in partnerships with other companies, customers and researchers. Many larger companies have embraced this potential but SMEs often lack the capacity to organise such a process and effective partners to engage with. Transnational cooperation offers companies an effective framework for establishing partnerships and a wider circle of relevant partners, as well access to successful methods from other countries.

Main strengths[iv]:

- Very strong performance on most innovation support indicators (level of R&D, educational attainment etc.)
- Strong capacity in a number of key sectors with a very strong innovation potential

Main weaknesses:

- Insufficient commercialisation of innovative ideas
- Need for increased knowledge exchange between businesses, entrepreneurs and knowledge institutions

- Need for increased innovation in SMEs

Main opportunities

- Developing innovation support between countries and regions in the programme area
- Sharing innovation facilities and resources
- Stimulating transnational product and service development activities
- Unresolved societal challenges (e.g. climate change, aging population, alternative fuels) provide strong impetus for innovation

Main threats

- Lack of funding and support
- Fragmented approaches
- Global competition

The NSR remains one of the most prosperous parts of the EU despite the impact of the financial crisis. Most countries are now recovering economically though there have been considerable variations in the depth and timing of recession in different countries (Annex 2) and significant differences in how regions have been affected (Annex 3). Some regions have indeed avoided recession entirely. Despite the difficulties of recent years, however, no region has a GDP of less than 75% of the EU average and many regions are considerably above the EU average.

Economic activity and growth are predominantly found in urban areas. This pattern and the accompanying movement of population away from rural areas seem set to continue. It is estimated that the proportion of the NSR population living in urban areas is already as high as 97.5% in some countries (Belgium). Even in a country with a lower proportion of urban population (Germany), the rate is already 76.3%[v]. While larger cities play an important role as growth hubs this needs to be balanced against the danger of over-concentrating growth in a very small number of locations (Annex 4).

Unemployment in the region is still relatively low as a whole but there are major regional differences. Agder and Rogaland (Norway) had the lowest 2012 rate at 2.7% while in Tees Valley and Durham the rate was 11.6%. The worst affected regions tend also to have relatively high levels of youth unemployment and long-term unemployment[vi]. One of the worst hit sectors is manufacturing where new technologies and global competition continue to have a major impact and the recent recession in many countries has strengthened pre-existing negative trends. Agriculture and fisheries still play a major role in the economies of many North Sea regions outside urban areas but labour markets in these sectors continue to shrink (Annex 5). In many places there has been a successful shift towards higher-value knowledge based activities. This has created more and better-paid employment opportunities but tends to be concentrated in urban areas. Jobs have also been lost in the service industries as a result of the recession though financial and business services and communication are still the strongest growth sectors. In parts of the region low paid jobs, such as in the tourism sector, are the main factor contributing to the lower levels of GDP recorded rather than a lack of employment.

The countries of the North Sea Region represent the innovation core of Europe (Annex 6) and occupy six of the top eight spots in EU innovation performance[vii]. This success is

based on a number of strengths in national research and innovation systems and in particular on strong business innovation measures and the role of the higher education sector[viii] as reflected in good links between industry and science[ix]. Educational levels are also high, there is a good research and innovation infrastructure and the environment for business start-ups is generally supportive. A number of sectors such as energy, environmental sciences and nanotechnology can be identified as national positions of strength with considerable overlaps between countries and a consequent potential for greater collaboration on development activities (Annex 7).

The NSR cannot, however, afford to be complacent about innovation. National scores on innovation performance parameters vary considerably[x] and on some indicators North Sea Region countries actually perform below the EU average[xi]. For example, some countries rate badly on SME and gazelle[xii] company performance[xiii], which is a cause for concern given the dominance of SMEs in the NSR economy and the need to stimulate innovation in such companies. The NSR needs to maintain the pace and spread of innovation but instead cutbacks are in some cases resulting in stagnation or even decline in innovation performance[xiv].

Emerging economies are moving fast to close skill gaps and develop strong positions in knowledge intensive roles such as design, engineering, high technology manufacturing, education and specialist services. Niche markets will therefore be lost unless NSR businesses ensure that they innovate to maintain market advantage. Innovation also needs to open up new industries based particularly on exploiting the world class research carried out in the region. The business world in the NSR needs to be an active part of this process and as far as possible eventual commercial benefits should remain in the region. SMEs in particular must be offered a supportive environment for innovation.

Public service innovation is also an important opportunity. In many countries, finances for the public sector are under severe pressure and there is a need to deliver public services more effectively and efficiently. Digitalisation especially offers the opportunity to improve services to citizens while reducing costs especially in remoter and rural areas. Maintaining a good level of essential services in such areas is one of the main keys to the balanced development of the North Sea Region as a whole.

**Environmental situation and sustainable growth**

The countries of the North Sea Region face many shared environmental threats such as climate change impacts, the need to reduce Greenhouse Gas emissions, degradation of the maritime environment, and the spread of air and water borne pollutants. New solutions need to be found and these can benefit greatly from pooling knowledge and to find new solutions.

Main strengths:

- High level of environmental monitoring and management
- Strong position on environmental technologies
- Number and range of natural landscapes and resources

Main weaknesses:

- Unsustainable energy and industrial practices
- High number of degraded habitats and ecosystems

- Many vulnerable coastal and waterside areas

Main opportunities:

- High degree of awareness and support for environmental action
- Strong experience and knowledge for developing new green technologies and processes
- Strong economic potential of green economy

Main threats:

- Short-term economic development needs override more sustainable approaches
- Effective solutions do not yet exist for some challenges
- Accident / natural disaster / climate related events

The North Sea Region has a rich natural environment with a varied coastline, river estuaries, wetlands, woods, hills and mountains providing a valuable and varied landscape. The quality of the natural habitats is recognised and protected through a large number of Natura 2000 sites and numerous national and regional conservation schemes. The estuaries of south-east England, Scotland, Zeeland, the Scheldt and the Wadden Sea are of particular ecological and natural value with an extraordinary variety of species. The natural landscape is a valuable resource and the basis for many economic activities ranging from tourism to extraction industries.

The NSR has a strong tradition in environmental policy. All countries have an advanced system of monitoring and regulating environmental issues but there are still challenges requiring joint action. These include managing water supply, biodiversity and other resources which are under threat. Parts of the land and sea areas in the NSR are amongst the busiest territories for transport and economic activity in the world. As a result, there are concerns about the long-term sustainability of development in terms of both the rate at which resources are being used and the effects that emissions and pollutants are having on ecosystems[xv]. The North Sea itself provides a stark example as many commercially fished species are currently being exploited beyond safe biological limits and fishing methods cause substantial damage to other species and to the seabed. Many land-based ecosystems face similar pressures.

There are also long-term threats to the environment linked to climate change. Sea levels rose on average by 19 cm last century[xvi] and the rate has accelerated to more than 3 mm a year[xvii]. It is very likely that rates will increase for the rest of the century[xviii]. It is almost certain that global average temperatures will rise by at least 1.5oC in the same period though there is a strong possibility that increases could be higher[xix]. Planning for these changes is difficult because they are not uniform. Some impacts may even offer opportunities for the NSR such as improved conditions for some kinds of agriculture and the opening up of Arctic sea routes to the Far East. However, many parts of the programme area lie just above or even below the current sea level and are at serious risk. Even regions where there are few low-lying areas tend to have heavy concentrations of population and essential infrastructure in the low lying areas.

Climate change is already causing negative impacts on the programme area. These effects need to be tackled and include loss of coastal land, salination of fresh water supplies, increased levels of erosion, subsidence and drought. The most dangerous and dramatic effect for the NSR is expected to be a significant increase in the frequency and

severity of storms and associated flood risks. Adaptation measures are needed and in many cases require major planning and investment efforts and difficult prioritisation especially where current land uses are untenable in the long-term.

The long-term solution to these challenges is a reduction in carbon emissions. The programme area has high levels of emissions and when emissions from imported goods are included, only Sweden is below the EU27 average[xx]. On a global scale, this means that the North Sea Region has some of the very highest per capita emissions and should demonstrate its commitment to improving performance. Current policy should deliver a 40% reduction in GHG (Greenhouse Gas) emissions by 2050 against 1990 levels on EU level but targets require an 80% reduction over the same period[xxi]. Achieving these targets will require action in all sectors of the economy. Transport is tackled in a separate priority due to the scale of the challenge and the importance of the sector in the NSR but all sectors need to look at potential for ever greater carbon reduction (Annex 8).**[xxii]** Attention should also be given to other air pollutants such as PM, SO2, and NO2 as covered in the Clean Air Package of 18 December 2013 and its objectives.

There are also opportunities in this situation. Knowledge and technologies for sustainable solutions are already in existence and can be applied in order to direct current economic activities into more sustainable directions. This will place much less pressure on the natural environment and in many cases lead to long-term cost savings as well. The region is strong in green economic activity and should showcase the potential of spreading the use of these approaches much more widely.

The 'green economy' is one:

*…that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient and socially inclusive. Its growth in income and employment is driven by public and private investments which reduce carbon emissions and pollution, enhance energy and resource efficiency and prevent the loss of biodiversity and ecosystem services.**[xxiii]***

The aim of programme activity should be to show through piloting how resource use and carbon emissions can be significantly reduced and/or how non-renewable resources can be substituted with renewable and preferably local materials.

**Transport situation**

The planning of new and improved international transport routes requires the cooperation of all main stakeholders from the point of origin to the destination. For local and regional transport, there is an urgent need to work together to develop more sustainable new ideas.

Main strengths:

- Major international trade routes performing a 'gateway' function for the European Union
- Good transport infrastructure and major transport operators
- Knowledge and willingness to improve sustainability

Main weaknesses:

- Reliance on conventionally fuelled road transport
- Many routes are heavily congested

Main opportunities:

- Many elements for increased multimodal transport are already in place including under-used infrastructure
- Strong research capacity on transport issues
- Strong business interest and significant market opportunities

Main threats:

- Lack of funding and knowledge
- Technology gaps – lack of solutions for some challenges
- Continued supply of cheap conventional fuels may lead to a timid introduction of sustainable alternatives
- Remoter regions may fall further behind if they suffer a relative fall in accessibility compared to core regions[xxiv]

Accessibility and mobility are important factors in promoting and maintaining economic growth and employment in the NSR. Accessibility varies across the NSR and depends mostly on how close a region is to the 'core' of Europe (Annex 9). The NSR includes extremes from high-density and highly accessible urbanised areas located in or adjacent to the central part of Europe (e.g. Randstad, Flanders, Essex, Hamburg), to remote, low-density and island areas (e.g. in Scotland, Norway and Sweden).

The NSR occupies a unique position in the European transport sector: The majority of goods passing through the region are on their way to or from other parts of Europe and the majority of EU international trade passes through the NSR. This gateway function means that transport decisions in the NSR can influence modal choice over much of the continent.

Overall, the transport network is well integrated into both national and international transport systems. The gateways into the NSR are primarily the ports and airports, with a smaller role played by High Speed Train links. There are a small number of international gateways, notably the sea ports at Rotterdam, Antwerp and Hamburg and the airports at Schiphol and Stansted, but the NSR is largely reliant on smaller regionally important hubs.

Short sea shipping remains an important mode of transport in the NSR. Lack of cargoes has forced some ports to shut down commercial operations but this has helped make the remainder more efficient and increase competitiveness. Regional airports have found a new lease of life as lower cost airlines pioneer new routes and changes in aircraft technology makes operating smaller aircraft more cost effective. Regional air links are of vital importance for remote areas such as in Norway and northern Scotland but play only a limited role in Denmark, the Netherlands and Germany, due to shorter distances or better railway services.

In parts of the NSR inland waterways still have a significant unrealised potential for sustainable transport corridors and as feeder lines for sea ports. The inland waterways system in the countries of the NSR covers a total of 16,378 kilometres but only in the Netherlands and Flanders and to some extent in Germany are significant volumes of

goods transported. In general, the NSR has a well-developed railway system, but many parts of the system face capacity problems particularly for transportation of goods. Whilst there is a general move to restricting new road building in favour of more sustainable modes of transport, roads are an important part of the transport network of the NSR. They are particularly important for access to more sparsely populated areas.

Personal transport, especially for shorter journeys, is dominated by private cars and current development trends are exacerbating this problem. Over the last 50 years urban areas in Europe have grown by approximately 78% but population has increased by just 33%[xxv]. In the NSR this has led to extensive urban sprawl because of low density residential builds in suburban areas. Such developments have created ever greater car use and the NSR is now faced with a major challenge in maintaining mobility while trying to move away from conventionally fuelled vehicles.

Achieving overall Green House Gas (GHG) reduction targets has so far been possible without major changes to transport but this will no longer be possible for the new targets for 2030[xxvi]: Transport must start to reduce emissions as other sectors can no longer achieve easy gains that will compensate for increasing transport CO2. Given the NSR's key role in the sector, there is a particular interest in finding solutions for delivering these reductions without an excessive loss of mobility. Due to the lifetime of transport infrastructure, solutions that are planned and introduced now will probably still be in place in 2050[xxvii] – and must therefore start to move strongly in the direction of meeting the environmental requirements likely to be in force then. The programme can showcase these new solutions to potential users and in this way try to speed up the adoption of more environmentally friendly forms of transport.

**Identification of the challenges and potentials to be addressed in the framework of European Territorial Cooperation**

Transnational cooperation is primarily focused on the joint action of sub-national partners to improve the efficiency and effectiveness of policy delivery in order to address the main challenges facing the North Sea Region. The aim is to pool knowledge and resources in partnerships to provide practical solutions on improving the economic, social and environmental situation in the North Sea Region, and to make these solutions available as widely as possible across the NSR. Although projects will often be built around individual cases, work on these local cases should be regarded as a tool for validating new working methods that can be applied much more widely across the North Sea Region. The programme budget reflects this focus and means that it is not realistic to fund major infrastructure investments or directly fund improvements for large numbers of individual citizens or businesses: The programme aims rather to serve as a catalyst. These features have been used to define the fields of action appropriate for the North Sea Region programme.

It is also important to note that the Europe 2020 strategy is the main strategic guidance for the 2014-2020 programme. The Europe 2020 strategy defines in some detail appropriate actions for cooperation in the North Sea Region based on detailed socio-economic analyses of all of the participating Member States. The programming process has therefore involved bringing together these Commission and national analyses with the views expressed by programme stakeholders. This process is described below.

The Europe 2020 Strategy requires action on three fronts:

- Smart growth – Developing an economy based on knowledge and innovation
- Sustainable growth – Promoting a more resource efficient, greener and more competitive economy
- Inclusive growth – Fostering a high-employment economy delivering economic, social and territorial cohesion

The programme will provide a forum for organisations from across the NSR to pool existing good practices and experiment on how to deliver the aims of the strategy in their day-to-day work. Current national performance on the Europe 2020 aims is measured against five core targets (Annex 10). The North Sea Region generally performs well on these targets and can build on this strength but there are gaps[xxviii]. In particular:

- The region trails on Europe 2020 targets for smart growth (as measured by GDP investment in R&D – Annex 11).[xxix] There is a need to strengthen the knowledge economy through more and/or better education and training, innovation and research, and better use of research outputs
- The region does not meet Europe 2020 sustainability targets in terms of energy efficiency (Annex 12). There is a need to enhance sustainability by reducing Greenhouse Gas (GHG) emissions and resource use

The detailed background documents on Europe 2020[xxx] confirm these needs and also raise other issues which are highlighted in the NSR SWOT analysis such as the need to:

· Replace jobs being lost to lower cost economies

· Adjust the labour market and welfare services to a much smaller working population

· Scale back resource use to more sustainable levels

· Adjust to climate change

· Transform the transport system from dependence on fossil fuels[xxxi]

All countries have also negotiated a national set of priority actions with the European Commission. The main challenges for North Sea Region countries are set out in Annex 15**[xxxii]**. The situation in each country is very similar: There is a need to strengthen the knowledge economy through more and/or better education and training, innovation and research, and better use of research outputs. Almost all countries also need to enhance sustainability by reducing GHG emissions and/or resource use.

This shared set of needs for the programme area is reinforced in the section of the national position papers which deals specifically with issues of relevance to European Territorial Cooperation (Annex 16).[xxxiii] According to European Commission and national analysis, the main areas of shared interest with a strong cooperation potential are therefore:

- Innovation support (knowledge transfer, product development etc.) – All countries
- Sustainable growth (energy, environment and climate change) – All countries
- Maritime sector – All countries
- Smart specialisation and clustering – Majority

These themes therefore form the core of the new programme.

**Establishment of the ranking of the identified challenges and potentials**

Challenges were identified through consultation with the Member States and Norway as well as the analyses presented above and were summarised in three thematic papers which were presented to regional stakeholders in the summer of 2013 (see 5.2 for more details of this process and an overview of the organisations consulted). Stakeholders were asked to rank the issues presented and to add further themes if necessary. This resulted in the following prioritisation:

Innovation – 5 key themes were presented and ranked as follows:

**1. Use the strong potential of the public sector in e.g. energy, water, health, public transport and education to bring new solutions to market**

**2. Support innovation in the public and voluntary sectors**

**3. Improve private sector research levels and the take up of research results by the business sector**

**4. Assist businesses to increase comptetitivesness and enter international markets**

**5. Address fragmentation and duplication in the innovation system**

Environment – 6 key themes were presented and ranked as follows:

**1. Protecting the environment and promoting resource efficiency through protecting and restoring biodiversity, soil protection and restoration and promoting ecosystem services including NATURA 2000 and green infrastructures**

**2. Promoting climate change adaptation, risk prevention and management through supporting investment for adaptation to climate change**

**3. Supporting the shift towards a low carbon economy in all sectors through promoting research, innovation and adoption of low-carbon technologies**

**4. Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector, soil protection or to reduce air pollution**

**5. Supporting industrial transition towards a resource efficient economy and promoting green growth**

**6. Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems**

Transport – 3 key themes were presented and ranked as follows:

**1. Support the expansion of effective multi-modal transport alternatives in the programme area and assist them in increasing freight flows**

**2. Support the introduction and take up of new cleaner transport technologies and solutions**

**3. Ensure that remoter parts of the programme area are effectively linked up to core European networks**

The last challenge under each theme had only moderate to weak backing and these were not taken further with the exception of the accessibility theme under transport. Answers here revealed a very clear geographical bias with respondents from the well-connected southern part of the programme area seeing no need for support to accessibility projects. As a result this theme was retained but with reduced focus. On the basis of these responses, the programme has been developed around four inter-linked priorities:

**1. Thinking Growth: Supporting growth in North Sea Region economies** - Knowledge transfer; Innovation capacity building; Innovation demand stimulation; Innovative public service delivery

**2. Eco-Innovation: Stimulating the green economy** - Carbon reduction; Promoting green economic activity

**3. Sustainable North Sea Region: Protecting against climate change and preserving the environment** – Climate change adaptation; Ecosystem management

**4. Promoting green transport and mobility -** Carbon reduction through multimodal and maritime freight transport; Sustainable transport solutions

A more detailed description of the issues to be tackled can be found under each priority.

**Identification of the challenges and potentials to be addressed in the framework of European Territorial Cooperation in the 2014-2020 programming period**

**Priority Axis 1 - Thinking Growth: Supporting growth in North Sea Region economies**

Thinking Growth focuses on how the North Sea Region can promote sustainable economic growth through innovation. All actions are particularly targeted towards support for SMEs. As well as being by far the largest category of businesses in the NSR, it is also here that innovation capacity is generally weakest. Three specific objectives are supported.

*1.1 Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services*

This objective aims to address the identified needs of:

- Ensuring better knowledge exchange between knowledge institutions and businesses
- Increasing R&D expenditure especially in the private sector
- Increasing the number of new commercial products and services developed by businesses in the NSR

Activities will cover exchange of knowledge on how to engage businesses and researchers in active knowledge partnerships, and how to ensure that this involvement leads to the development of new products and services, which will result in creating growth and jobs. Cooperation should also facilitate transnational innovation processes by establishing long-term links between related businesses, and between businesses and knowledge institutions in different countries. It is essential for the success of all actions under this objective that they move beyond networking and stimulate new product development processes rooted in business needs.

*1.2 Enhance regional innovation support capacity to increase long-term innovation levels and support smart specialization strategies*

A region's innovation capacity depends on the successful combination of a wide range of factors including education, types of sectors present, research intensity and the support of public authorities. The objective will support:

- Joint analysis of gaps in regional innovation capacity and development of methods to address them
- Long-term coordination around, for example, joint training offers, shared R&D infrastructure etc.
- Cooperation to identify new innovation potential outside existing innovation hotspots

It is important that innovation in the North Sea Region is not limited to a relatively small number of urban innovation hotspots. There is a need to look for new economic opportunities in many sectors of the economy and regardless of location so as to ensure continued livelihoods for people throughout the NSR. This innovation should be place-based: firmly rooted in the capacities and realistic potentials of each region. Transnational cooperation should be used to address disadvantages of location, scale and resources by pooling knowledge and facilities to address common challenges.

*1.3 Stimulate the public sector to generate innovation demand and innovative solutions for improving public service delivery*

The public sector is a major part of the economy in all NSR countries. The need for innovation arises from requirements to maintain service levels against a background of shrinking budgets and in many cases, an increasing demand for services. Transnational cooperation will:

- Share knowledge on how services are delivered and how innovation can improve this through, for example, increased digitalisation
- Analyse the need for new products and services to address shared challenges such as the ageing population, movement to urban areas, the need for greater efficiency etc.
- Support collaboration on how to stimulate businesses to deliver innovative solutions that can reduce the burden on public services

Efficiency and cost reduction in public service delivery are also important for the competitiveness of the NSR. This objective builds on strong stakeholder support for measures that promote public service innovation. It should at the same time stimulate private sector product development by promoting improvements to currently available products and services as part of procurement procedures.

**Priority Axis 2 - Eco-Innovation: Stimulating the green economy**

The Eco-innovation priority addresses the need to develop new approaches that can promote the more sustainable use of resources and reduce carbon emissions. Major investments and research programmes are currently running on both themes and will provide significant long-term change. The aim of this objective is maintain momentum by spreading awareness of practical steps that can already be taken and promoting the take up of new technologies and processes. The NSR is still a world leader in renewable energy technologies and green industry and should also consolidate this position. There are two specific objectives:

*2.1 Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy*

Greening in this context does not refer only to support for traditional green sectors of the economy but rather to improvements in sustainability in any part of the NSR economy. Clearly this is a long-term process and the aim of this objective is to provide inspiration and show what can be achieved by applying new sustainable approaches. This should result in a developing body of transnational good practice on how to increase resource efficiency. This can also lead to reduced carbon emissions and manufacturing costs. Actions will include:

- Pilots to identify resource savings through innovative industrial design and manufacturing processes
- Pilots to experiment with new uses of renewable and locally sourced materials
- Increased recycling of non-renewable materials supported by improved lifecycle design
- Awareness raising of greening methods and results

People in the North Sea Region consume on average 16 tonnes of materials and throw away 6 tonnes every year[xxxiv]. This objective also supports coordinated action which will influence behavior and reduce these figures to more sustainable levels.

*2.2 Stimulate the adoption of new products, services and processes to reduce the environmental footprint of regions around the North Sea*

This objective addresses the need to increase renewable energy generation and reduce overall energy use. Transnational cooperation should help partner regions to:

- Identify viable opportunities for installing additional renewables infrastructure
- Pilot installation of newer renewable technologies such as wave power and blue energy
- Demonstrate the application of smart grid technologies as a way of saving energy and integrating more renewable power in the energy mix
- Reduce overall energy use by changing behaviour and increasing take-up of energy saving technologies

Energy is a complex issue with many stakeholders, regulations and limitations. Projects should help partners to identify realistic options within these constraints and demonstrate the carbon reductions that can be achieved, building on the many good examples available of regional and district energy planning and implementation. There is also considerable scope for exchange on energy saving techniques and technologies. Cost-

effective retro-fitting of older buildings is one area of considerable potential but this objective should also support partners to experiment with identifying completely new areas where carbon savings are realistic.

**Priority Axis 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment**

*3.1 Demonstrate new and/or improved methods for improving the climate resilience of target sites*

All of the analyses cited above flag climate change as a major issue for the NSR and this is confirmed by programme stakeholders. The most pressing need in terms of adaptation in the NSR is better flood control but other actions must ensure that all kinds of landscapes and the marine environment are resilient to increased temperatures, more frequent and more severe extreme weather events, and changes to natural cycles and processes. This objective therefore addresses:

- Exchange of knowledge on the latest flood defence construction techniques targeting especially 'build with nature' methods
- Improved environmental and catchment management to improve the flood resilience of NSR landscapes
- Exchange of knowledge and demonstrations of new urban planning and infrastructure approaches to improve resilience
- Adoption of new and/or improved methods for tackling other effects of climate change such as drought, increased nutrient leaching and invasive species

Projects should also address the cost of such measures and how they can be integrated with other land uses in order to achieve the overall goal of stimulating more extensive adaptation investments.

*3.2 Develop new methods for the long-term sustainable management of North Sea ecosystems*

A robust natural environment provides food and resources, as well as regulating water and air quality and nutrient cycles. It is an essential element of quality of life, and protects against the most severe effects of climate change. Although awareness and actions to manage environmental threats have improved significantly over recent years, there are still serious challenges that have to be addressed if NSR environments are to continue to provide these functions. Actions under this objective should stimulate an exchange of knowledge and joint action to:

- Develop and implement long-term strategies for sustainable management of North Sea landscapes and the North Sea itself
- Develop and test new methods and technologies for tackling environmental problems
- Use participatory processes to win stakeholder support for environmental measures including promoting understanding of ecosystem services

**Priority Axis 4: Green Transport and Mobility**

NSR economies and societies are dependent on goods transport and the mobility of workers. For many years this has meant trucks for goods and cars for people and in most

cases economies and societies have been planned around these solutions. These forms of transport are still overwhelmingly dependent on fossil fuels. This gives rise to serious concerns about carbon emissions and long-term fuel supplies and costs. In addition there are problems with pollution, noise, congestion and the risk of accidents. Efforts so far to reverse these trends have been disappointing: road freight and car use continue to increase. This objective seeks to demonstrate where alternative solutions can be made to work, and to lay some of the groundwork for longer-term solutions where alternative fuels might offer a viable alternative for mass transport.

*4.1 Develop demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation*

The majority of international trade into the EU travels by ship through North Sea ports. Many goods are immediately transferred onto trucks although a significant proportion do already travel by rail or ship for the next stage of their journey until road becomes the only viable option for the last part of the journey. Improving the sustainability of long distance transport requires that more sustainable routes are available from transport hubs like ports and that these routes extend as far as possible into the hinterland to minimize the number of cargoes transferred to road and keep the road part of the journey as short as possible. If viable routes are established they can also be used for journeys from the hinterland to the transport hubs and also for shipment of goods between locations in the NSR and to other EU locations. Transnational cooperation is needed to:

- Identify viable multimodal routes and goods flows, and the barriers to wider use of these routes.
- Pilot solutions to remove these barriers
- Ensure that NSR services and routes link up to the major corridors being promoted by the European Union (TEN-T)
- Support the development of improved logistics solutions to facilitate these developments

All actions under this priority must have a strong strategic orientation based on action along the length of the transport chain concerned rather than just at isolated locations. Where infrastructure investments are supported it must be demonstrated that these will remove or mitigate important bottlenecks in the transport chains concerned and should realistically lead to increased multimodal traffic.

*4.2 Stimulate the take-up and application of green transport solutions for regional freight and personal transport*

Multimodal solutions apply mostly to long distance goods transport. Shorter journeys and personal transport generally require a different set of solutions. Transnational cooperation should be used to:

- Demonstrate the potential of immediately available solutions such as car-sharing, multi-use vehicles, and non-conventional fuels for urban public transport and freight distribution systems
- Continue to promote and prepare for the wider roll out of alternative fuels for privately owned vehicles

- Support other long term solutions like changes to planning rules and practices to reduce travel need and promote healthier forms of mobility

This objective is ambitious and tackles very complex challenges. The programme will therefore encourage applications from partnerships willing to take a lead and implement Living Lab approaches to experiment with comprehensive changes to local transport systems in order to increase working knowledge of the steps needed and the benefits available.

**Identification of the results sought for addressing challenges and tapping into potentials in the framework of the European Territorial Cooperation in the 2014-2020 programme**

Authorities, businesses and communities are the users of policies and can make them work in practice. North Sea Region 2014-2020 aims to empower these users by joining forces and introducing innovative solutions that can make policy ambitions for the region a reality. The programme also provides a channel to report back to decision-makers on these experiences and influence the direction of future developments.

The description of each specific objective under the four priorities contains output indicators showing the main benefits that projects are expected to deliver within the project lifetime. These outputs should be seen as a 'proof-of-concept', validating the project's approach by delivering progress on one or more core parameter.

The result indicators for each specific objective reflect the programme's long-term intention to improve performance in each priority theme across the whole programme area or large parts of it. They attempt to capture the extent to which the outcomes of individual projects have been integrated into policies and practices, and how they therefore have a positive influence across the NSR as a whole.

**Main target groups and types of projects envisaged**

Participation in the programme is not limited to specific types of organization and will rather be decided based on:

· The ability of a partner to contribute to the outputs and results identified for the specific objective

· The extent to which the partnership can influence development in the wider programme area (i.e. not just a local effect)

· The overall balance of the partnership in terms of geography, expertise and competence (are the participating organisations able to influence the theme?)

· The ability of the partners to live up to the formal requirements for the programme

There are differences between the legal status (public, private etc.) of parallel organisations in different countries. Legal status does not, however, have a bearing on whether an organisation can participate but may affect the terms of participation especially for private sector bodies. Potential beneficiaries will include (the list is non-exhaustive):

· Public authorities and their agencies– National, regional, municipal and local administrations, regional development agencies, industrial parks and incubators, regional environmental agencies etc.

· National and European interest organisations and institutes

· Knowledge institutions – Universities, colleges, research centres, technology centres, providers of professional training, schools, consultants, cluster managers etc.

· Enterprises – Including social enterprises and with a particular focus on small and medium sized enterprises

· Civil society – Associations, NGOs, charities, community organisations etc.

In addition, many objectives have a clear sectoral focus, which should be reflected in partnerships (transport, energy etc.). Projects should however also take an inclusive approach involving stakeholders from different levels (local, regional etc.), from different institutions (government, research, business, civil society etc.) and with backgrounds in different relevant disciplines depending on the topic of the project (water management, agriculture, urban planning, creative industries etc.). Within these criteria, partners should be selected based on their potential contribution to the project theme. Not all target group representatives need to be involved in the partnership. Alternative methods of participation include membership of working groups and expert groups, acting as the subject of pilot and demonstration actions etc. Projects should ensure the effective involvement of the end-users of all deliverables. End users are diverse and range from citizens to decision-makers, entrepreneurs and consumers.

Projects should be planned around a programme of joint activities to deliver the required result. Successful examples of different types of projects include (the list is non-exhaustive):

**Projects with a focus on testing and training**

For example, a problem or issue is raised in one or more of the partner countries and the entire project partnership works on developing a joint solution based on their regional or national experiences. This is typically tested at one or more of the partner country locations and in the best cases solutions are taken up in the long term by more than one of the partner countries. Some projects have applied this to training and have developed courses on a transnational basis for use by all regions around the North Sea.

**Projects with investments and pilot actions**

‘Pilot’ or ‘demonstration’ investments test a new or improved approach with clear and measurable differences to standard practices. These investments must be relevant to wider project and programme goals and must be rooted in the joint activities of the partnership. The best of the investments in past periods have piloted completely new ideas but even those offering only small adjustments to existing ideas can greatly benefit the regions concerned and provide very concrete proof of the value of continued cooperation.

**Development of best practice**

Some projects primarily focus on knowledge transfer and exchange of experience within a transnational environment. Here networks and clusters have been created or improved to exchange knowledge between institutions in different countries. Joint discussions and continuous exchange have enabled the creation of jointly developed models and action plans that have been adapted for use by each partner region to enhance the work being undertaken by their organisation or region.

**Development of new models, strategies**

Projects may aim at changing national and regional policy and strategies for managing a certain theme. For such projects it is vital that all main stakeholder groups are involved in strategy development and especially the authorities which are mandated to adopt or change policy on the issue in question.

**Up-scaling and expansion of new solutions**

Some projects focus on the wider scale adoption of ideas that have already been tested in other locations and contexts. This is an acceptable approach provided that it can be demonstrated that adoption of these solutions will deliver better performance for participating regions against one of the programme's specific objectives. Such projects should be designed to act as a bridge between testing and general adoption of the approach in question. Living laboratory approaches are one example.

All projects must observe the principles of inclusive and sustainable growth. As a result all projects should take account of the impacts of issues such as ageing populations, lack of relevant skills, social exclusion, the need to improve governance, and location disadvantages.

Projects are invited to indicate how they comply with the regional innovation strategies

**Linkages and synergy effects**

The programme operates in a complex framework of related European, national and regional policies and frameworks. Section 6 of the Cooperation Programme contains an overview of how North Sea Region activities should harmonise with related programmes, funds and Regional Innovation Strategies, and the particular added value that transnational cooperation is expected to deliver. The Strategic Review prepared by EPRC as part of the ex-ante evaluation contains details of main regional development policies. As part of the project development phase, projects should orient their proposals with these other funds to avoid duplication of effort and ensure that project ideas are being targeted towards the most appropriate programme.

The wider policy context has informed the development of the OP and will continue to do so though the detailed guidance to project developers produced for each call for applications. During programme implementation a number of mechanisms are also in place to ensure the development of synergies between North Sea Region projects and results, and related activities under other programmes. These include:

- Coherence checks of all applications against latest policy by Steering Committee members and national sub-committees
- Events and publications to inform North Sea Region stakeholders about interesting developments

- Meetings with representatives of programmes outside Interreg (e.g. through Interact)
- Clustering of project results and facilitating contacts with stakeholders outside the programme

In addition, the programme monitors the implementation of coordination mechanisms in neighbouring areas such as the EU Strategy for the Baltic Sea Region and the Atlantic Strategy. Project links with these strategies are encouraged where there is a clear benefit for the North Sea Region. The option to allocate up to 20% of programme funds to partners from outside the programme area may be used in such cases where it can be satisfactorily demonstrated that external partners provide inputs not available within the programme area.

1.1.2 Justification for the choice of thematic objectives and corresponding investment priorities, having regard to the Common Strategic Framework, based on an analysis of the needs within the programme area as a whole and the strategy chosen in response to such needs, addressing, where appropriate, missing links in cross-border infrastructure, taking into account the results of the ex-ante evaluation

**Table 1: Justification for the selection of thematic objectives and investment priorities**

| Selected thematic objective | Selected investment priority | Justification for selection |
|---|---|---|
| 01 - Strengthening research, technological development and innovation | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies | There is a recognised need to:<br>• Strengthen the knowledge economy to generate growth and jobs especially in SMEs<br>• Improve the commercial take-up of research results<br>• Improve framework conditions for new and expanding companies<br>• Ensure that all parts of the region actively develop their innovation potential based on their own positions of strength.<br>• Stimulate innovation in public service delivery<br>• Ensure that public administrations where possible use public investments as a driver for innovation<br><br>The success of existing measures on these themes varies widely. Transnational cooperation will allow an exchange on why the best innovation measures succeed and how these lessons can be transferred. Transnational cooperation should also internationalize regional innovation |

| Selected thematic objective | Selected investment priority | Justification for selection |
|---|---|---|
| | | activities to ensure that businesses across the NSR can access the best innovation partners in their field. |
| 05 - Promoting climate change adaptation, risk prevention and management | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches | With so many low-lying areas, the greatest climate change impact for the North Sea Region will be the increased risk of severe flooding. There is a need to bolster flood defences but also to accept the limits of conventional solutions and take a lead on developing adaptation techniques that can prevent disasters and limit the impact of unavoidable events. Climate change also has many other effects beyond flooding from local drought and outbreaks of new plant and animal diseases to species invasions and breakdown of industrial cooling systems. Action under this priority should therefore monitor and predict such changes in all sectors and ensure that essential preventative actions are taken so that the climate change threat can be properly managed in the NSR. This should include the spread of effective solutions from existing centres of expertise, and action to reduce barriers to initiating adaptation projects (cost, public resistance etc.). |
| 06 - Preserving and protecting the environment and promoting resource efficiency | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure | The NSR environment has been heavily affected by human activity. Habitat and biodiversity loss are continuing. There is a need to:<br>• Protect plant and animal species<br>• Reduce pollutants such as TBTs and PCBs in the marine environment[i], copper and other heavy metals, excessive nitrogen and phosphorus, particulate air pollution, antibiotic residues and hydrocarbons<br>• Develop green spaces, corridors and other green infrastructure especially in urban areas<br>Promote work on challenges like water |

| Selected thematic objective | Selected investment priority | Justification for selection |
|---|---|---|
| | | quality, biodiversity loss and soil degradation so that action on major environmental issues like climate change also effectively integrates other ecosystem services and ensures the environmental quality of areas set aside for e.g. floodwater retention. |
| 06 - Preserving and protecting the environment and promoting resource efficiency | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors | The countries of the North Sea Region have amongst the highest resource consumption levels in the world with correspondingly high carbon emissions. The aim of this objective is to identify measures to improve the environmental footprint of the NSR economy and wider society including carbon and resource use. For example, many businesses already focus on reducing packaging and try to use local, renewable and biodegradable materials. The same actions reduce carbon and resource use. The same dual benefit can be obtained from modifying the way we use water, raw materials, recycling of heat and energy, energy efficiency improvements, renewable energy sources etc.<br><br>The NSR is a leader in developing and piloting new approaches in these fields and this priority will build on this strength. Activities under this objective will not just focus on technologies but can also address working practices and lifestyle changes where these can provide significant carbon reduction |
| 07 - Promoting sustainable transport and removing bottlenecks in key network infrastructures | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote | In the North Sea Region transport sector there is a recognized need to:<br><br>• Reduce Green House Gases to tackle climate change<br>• Reduce pollution to improve air quality and public health<br>• Reduce congestion to maintain competitiveness and free flow of |

| Selected thematic objective | Selected investment priority | Justification for selection |
|---|---|---|
| | sustainable regional and local mobility | goods and people<br><br>As an important maritime transport hub, the NSR should include shipping in these actions. The programme will tackle these issues through cooperation on:<br><br>• Promoting effective, more sustainable freight and logistics systems including actions on shipping, fuels, technologies, harbours, hubs and new IT solutions<br>• Encouraging concrete actions that move freight off the roads to more environmentally friendly solutions<br>• Promoting environmentally friendly passenger transport solutions<br><br>Encouraging the use of zero or low carbon fuels in the transport sector |

## 1.2 Justification for the financial allocation

Justification for the financial allocation (i.e. Union support) to each thematic objective and, where appropriate, investment priority, in accordance with the thematic concentration requirements, taking into account the ex-ante evaluation.

The allocation of funding to thematic objectives and investment priorities was decided by the partner countries and reflects the prioritisation of themes laid out in the strategy (and as such the recommendations in the national position papers) and confirmed by the ex-ante evaluation. The strategy emphasises the need for economic growth and for the continuing diversification of the North Sea Region economy particularly through strengthening the knowledge economy and innovation. As a result, 28% of programme funds are directly concentrated on support for this economic transition and specifically investment priority 1b focusing on business research and links between the private sector and research. Furthermore, an additional 27% targets economic growth in the form of strengthening the Region's position in emerging green industries through investment priority 6g. This funding targets a regional position of strength and simultaneously supports the development of new solutions for some of the major environmental challenges which will need to be resolved to secure the long-term viability of the North Sea Region – addressing climate change mitigation in particular. Priority axis 3 continues this strategy of tackling environmental threats as a necessary step for continued growth. It uses 22% of the funding and combines investment priorities 5a (climate change adaptation) and 6d (preserving the environment) with equal funding to both, as the

programme seeks to support integrated approaches taking a holistic view of ecosystem services. Finally, 17% of funding goes to transport under investment priority 7c. Transport is a key enabler for trade and growth especially in the North Sea Region, which is the EU's main hub for inter-continental transport.

This allocation of funding complies fully with the thematic concentration requirements laid out in Regulation (EU) 1299/2013 §6.1 in that 94% of the ERDF allocation to the programme is allocated to four thematic objectives. This process of concentration has resulted in the exclusion of a number of actions contained in earlier drafts of the Cooperation Programme in order to ensure compliance with the regulation. The ex-ante evaluation of the programme has provided advice on concentration and supports the content and funding presented here.

The allocation is mirrored in output indicators for each specific objective. The output indicators have been defined in such a way as to capture the core value of each set of actions targeted (as defined in the description of the specific objective) while still allowing for the aggregation of data from a number of quite different actions. Due to the fact that one output indicator is defined for each specific objective, the output indicators will cover 100% of the financial allocation to projects.

## Table 2: Overview of the investment strategy of the cooperation programme

| Priority axis | ERDF support (€) | Proportion (%) of the total Union support for the cooperation programme (by Fund) | | | Thematic objective / Investment priority / Specific objective | Result indicators corresponding to the specific indicator |
|---|---|---|---|---|---|---|
| | | ERDF | ENI (where applicable) | IPA (where applicable) | | |
| 1 | 46,831,112.00 | 28.00% | 0.00% | 0.00% | ▾ 01 - Strengthening research, technological development and innovation<br>▾ 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies<br>▾ 1.1 - Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services<br>▾ 1.2 - Enhance regional innovation support capacity to increase long-term innovation levels and support smart specialization strategies.<br>▾ 1.3 - Stimulate the public sector to generate innovation demand and innovative solutions for improving public service delivery | [1.1, 1.2, 1.3] |
| 2 | 45,158,572.00 | 27.00% | 0.00% | 0.00% | ▾ 06 - Preserving and protecting the environment and promoting resource efficiency<br>▾ 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors<br>▾ 2.1 - Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy<br>▾ 2.2 - Stimulate the adoption of new products, services and processes to reduce the environmental footprint of regions around the North Sea | [2.1, 2.2] |
| 3 | 36,795,874.00 | 22.00% | 0.00% | 0.00% | ▾ 05 - Promoting climate change adaptation, risk prevention and management<br>▾ 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches<br>▾ 3.1 - Demonstrate new and/or improved methods for improving the climate resilience of target sites | [3.1, 3.2] |

| Priority axis | ERDF support (€) | Proportion (%) of the total Union support for the cooperation programme (by Fund) | | | Thematic objective / Investment priority / Specific objective | Result indicators corresponding to the specific indicator |
|---|---|---|---|---|---|---|
| | | ERDF | ENI (where applicable) | IPA (where applicable) | | |
| | | | | | ▾ 06 - Preserving and protecting the environment and promoting resource efficiency<br>▾ 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure<br>▾ 3.2 - Develop new methods for the long-term sustainable management of North Sea ecosystems | |
| 4 | 28,433,175.00 | 17.00% | 0.00% | 0.00% | ▾ 07 - Promoting sustainable transport and removing bottlenecks in key network infrastructures<br>▾ 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility<br>▾ 4.1 - Develop demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation<br>▾ 4.2 - Stimulate the take-up and application of green transport solutions for regional freight and personal transport | [4.1, 4.2] |
| 5 | 10,035,238.00 | 6.00% | 0.00% | 0.00% | 5.1 - To communicate the programme to relevant stakeholders and stimulate them to develop and deliver high quality projects<br>5.2 - To ensure the sound financial management of the programme at all levels so that implementation happens with a minimum of errors, without delays, and in line with all applicable regulations | [5.1, 5.2] |

## 2. PRIORITY AXES

### 2.A DESCRIPTION OF THE PRIORITY AXES OTHER THAN TECHNICAL ASSISTANCE

### 2.A.1 Priority axis

| | |
|---|---|
| **ID of the priority axis** | 1 |
| **Title of the priority axis** | Thinking Growth: Supporting growth in North Sea Region economies |

☐ The entire priority axis will be implemented solely through financial instruments
☐ The entire priority axis will be implemented solely through financial instruments set up at Union level
☐ The entire priority axis will be implemented through community-led local development

### 2.A.2 Justification for the establishment of a priority axis covering more than one thematic objective (where applicable)

### 2.A.3 Fund and calculation basis for Union support

| Fund | Calculation basis (total eligible expenditure or eligible public expenditure) |
|---|---|
| ERDF | Total |

### 2.A.4 Investment priority

| | |
|---|---|
| **ID of the investment priority** | 1b |
| **Title of the investment priority** | Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product |

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| **ID of the investment priority** | 1b |
| | validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |

## 2.A.5 Specific objectives corresponding to the investment priority and expected results

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|---|---|
| **ID of the specific objective** | 1.1 |
| **Title of the specific objective** | Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services |
| **Results that the Member States seek to achieve with Union support** | • SMEs innovate and initiate development of new products, services and processes<br>• Transnational partnerships and clusters strengthen the participating sectors<br><br>Businesses and especially SMEs should maintain and improve competitiveness through continuous innovation. The 15% of SMEs already work with developing and using new technologies but a much wider range of businesses should benefit from innovation and new growth opportunities.<br><br>A 'knowledge partnership' is a formal cooperation of businesses, researchers, the public sector, NGOs and end users. It should provide the knowledge needed to create new products and services and accompany development to the point when these products can be introduced to the market. Partnerships also promote improvements to existing processes and the adoption of new technologies. Rather than supporting one-off cases of innovation, programme support to knowledge partnerships aims to identify effective innovation methods and tools so more businesses become regular innovators.<br><br>Knowledge partnerships need to deliver practical results but such knowledge flows between research and business in the NSR still need improvement. Projects should test new approaches for working with knowledge partnerships in order to increase the practical benefits. They should ensure the widest possible take up of effective methods – particularly for SMEs that have not innovated in the past.<br><br>Cooperation should also build transnational networks to support SMEs by creating contacts between SMEs and knowledge institutions in different countries to reduce geographical barriers to new knowledge and support firms in rapidly responding to |

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|---|---|
| **ID of the specific objective** | 1.1 |
| **Title of the specific objective** | Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services |
| | market changes and accessing international markets. The best and latest solutions may not be in an SME's own region or country and cooperation should stimulate the transfer of ideas, products and services.<br><br>All projects must lead to the development of new products and services based on knowledge exchange and cooperation. |
| **ID of the specific objective** | 1.2 |
| **Title of the specific objective** | Enhance regional innovation support capacity to increase long-term innovation levels and support smart specialization strategies. |
| **Results that the Member States seek to achieve with Union support** | • Improvement in regional innovation capacity and entrepreneurship across the NSR<br>• Transnational cooperation on the implementation of regional innovation strategies<br>• Greater networking of innovation centres across the NSR<br><br>Regional innovation performance depends on a range of factors including educational levels, the amount of research carried out, private sector R&D budgets, intellectual assets and patenting and the types of SMEs present in the region (see Regional Innovation Scoreboard – Annex 17). This objective promotes the spread of ideas and examples of how regions can influence these factors to encourage people to start new businesses and support firms as they grow, and can help them engage in innovation and expand into international activities. The objective is focused on innovation support for businesses and the private sector. Activities include:<br><br>• Encouraging entrepreneurship<br>• Making procedures responsive to SME needs and interests<br>• Helping SMEs access opportunities in the single market, public procurement and global markets<br>• Upgrading skills[1]<br><br>Projects should identify the factors most likely to boost innovation in each participating region and develop or take over effective methods for improving regional performance in order to stimulate new economic activity. |

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|---|---|
| **ID of the specific objective** | 1.1 |
| **Title of the specific objective** | Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services |
| | Rural and disadvantaged areas should be assisted with diversification and becoming better integrated in the knowledge economy. In this connection, the objective supports the implementation of 'smart specialization' strategies and similar approaches to define realistic innovation potentials outside established innovation hotspots. Cooperation should encourage the development of a common understanding of how each region's own assets and expertise can be exploited, and how to draw on other regions' strengths and resources.<br><br>All projects should develop existing innovation support measures in participating regions with a view to creating long-term improvements in innovation performance. |
| **ID of the specific objective** | 1.3 |
| **Title of the specific objective** | Stimulate the public sector to generate innovation demand and innovative solutions for improving public service delivery |
| **Results that the Member States seek to achieve with Union support** | • Improve knowledge of how the public sector can innovate in service delivery<br>• Use the public sector's role as a launching customer to stimulate innovation in procured products and services<br><br>Public service delivery faces a number of major challenges over coming years and service providers need to define how these changes will impact their organisations and work to pioneer innovative solutions.<br><br>This objective is targeted at developing innovation in the public sector to address new challenges arising from adaptation to climate change, reducing carbon emissions and resource use, an ageing population and declining tax base, increasing demand for health care, budget reductions and a resultant need for continual efficiency savings. As a result of this objective, public service providers should be better equipped to respond to their rapidly changing operating environment. The public sector can also 'pull' regional innovation forward by creating demand for new products, services and processes that better meet changing needs and this objective will also stimulate that development<br><br>Operations should study how these challenges can be addressed in the NSR and initiate cooperation to develop these new |

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|---|---|
| **ID of the specific objective** | 1.1 |
| **Title of the specific objective** | Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services |
| | products and services. This objective will fund test cases to develop expertise on ways of anchoring innovative approaches in public service delivery through, for example, green procurement, pre-commercial procurement and increased digitalization of public services.<br><br>In addition to the products and services delivered, the objective will stimulate the innovative culture in public services and thereby help to deliver performance improvements. This will equip public service providers with new processes for addressing long-term challenges, and stimulate NSR businesses to take first-mover position on developing new products and services for the public service market. Cooperation is required to promote wider use of existing successful models and support joint development of new methods. |

**Table 3: Programme-specific result indicators** (by specific objective)

| **Specific objective** | | **1.1 - Develop new or improved knowledge partnerships between businesses, knowledge institutions, public administrations and end users with a view to long-term cooperation (post project) on developing products and services** | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 1.1 | Capacity of knowledge partnerships in the North Sea Region to deliver marketable product, service and process innovations | Qualitative analysis of capacity / potential | 2.8 | 2015 | 3.3 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

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| **Specific objective** | **1.2 - Enhance regional innovation support capacity to increase long-term innovation levels and support smart specialization strategies.** |

| ID | Indicator | Measurement unit | Baseline value | Baseline year | Target value (2023) | Source of data | Frequency of reporting |
|---|---|---|---|---|---|---|---|
| 1.2 | Capacity of authorities / practitioners to increase the scope and quality of innovation in enterprises | Qualitative analysis of capacity / potential | 2.6 | 2015 | 3.1 | Baselines and Targets Survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

| Specific objective | | 1.3 - Stimulate the public sector to generate innovation demand and innovative solutions for improving public service delivery | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 1.3 | Capacity of authorities / practitioners to increase the scope and quality of innovation in public service delivery | Qualitative analysis of capacity / potential | 2.3 | 2015 | 2.8 | Expert consultation during evaluation | 2017, 2019 and at programme close |

## 2.A.6 Actions to be supported under the investment priority (by investment priority)

### *2.A.6.1 A description of the type and examples of actions to be supported and their expected contribution to the specific objectives, including, where appropriate, identification of the main target groups, specific territories targeted and types of beneficiaries*

| Investment priority | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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1.1 Knowledge partnerships

In order to meet global competition, businesses need to improve their take up of the world class research results being produced in the NSR. Similarly, research and learning institutions in the region need to improve their links to the business community and the way that the commercial opportunities of

| Investment priority | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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research findings are communicated so that more product and service innovation can be fed into NSR businesses. This process applies not only to new advanced technologies but also to more traditional companies which also need to grow by introducing new or significantly improved goods and services, processes, organisational and marketing methods into their internal business practices and to the marketplace.[i]

Transnational cooperation can link innovation actors and ensure that key organisations enter into relevant knowledge partnerships. In this way researchers and businesses (in particular SMEs) can meet and initiate joint development activities which lead to new products and services.

SMEs are key targets in this priority as they represent by far the majority of businesses in the NSR but are under-represented in innovation performance. There is a huge variation among SMEs and it will not be possible to develop one standard approach. Instead a variety of techniques should be used to develop innovation including meetings and events, temporary placements of academic workers in SMEs, presentations of new research findings to businesses or a wide range of other methods. It is important that projects develop processes which effectively move ideas from the academic world through to new products and services and eventual commercialization.

Actions should address the communication gap between knowledge institutions and business, which is a well-recognised barrier to the innovation process.[ii] Often SMEs do not have their own researchers and do not know who to approach when developing new solutions to technical or operational problems. Equally, researchers may be unaware of needs in local businesses.

Knowledge partnerships should aim to integrate all relevant innovation resources in a harmonised effort. This should include material resources (funds, equipment, facilities, etc.), human capital (students, faculty, staff, industry researchers, industry representatives, etc.) and the full range of relevant institutions (e.g. universities, colleges of engineering, business schools, business firms, venture capitalists, industry-university research institutes, government or industry supported centres of excellence, and regional and/or local economic development and business assistance organizations, funding agencies, policy makers, etc.).

In many cases, the ‘triple helix’ relationship of research institutions, businesses and the public sector can also be strengthened by the inclusion of end users as a fourth actor (a ‘quadruple helix’). User-driven innovation and co-creation of solutions have proven in some cases to be successful approaches and might be particularly effective in developing new solutions for local and regional problems.

Clustering is another specific example of this kind of activity. There are emerging industries such as nano-technology, where several countries/regions in

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |

the programme area are particularly strong and there is a potential for lasting cooperation. Other NSR areas of specialisation include modern manufacturing, creative industries, design, aerospace, telecommunications, energy, and environmental and maritime technologies (Annex 7). Clusters need to be far more than loose networks of related businesses. The competitive advantage of a cluster emerges when a concentration of related businesses grows big enough to attract specialist workers and suppliers and thereby moves into a position to lead in the sector as the companies involved feed off each other. Distance and competition between countries work against this process and strategies need to be found to address this challenge if transnational clusters are to result in genuine transnational positions of strength.

Blue Growth requires a specific mention. Established maritime activities like fishing and tourism need to be consolidated while space is also made for developing maritime industries. For example, the number of pharmaceutical patents based on marine genetic resources is rising by 12% per year[iii] and the first global seabed mining licences are being issued with North Sea companies taking a lead[iv]. There is considerable potential here but also a need for cooperation to manage the considerable shared risks of actions in the North Sea.

Transnational cooperation can facilitate an exchange of best practice and it should also ensure that businesses and knowledge become better linked across national boundaries. Effective activation of these international links will require the use of tools that can effectively support trust building and overcome the distance barrier. The public sector has an important role to play as broker in creating these new knowledge partnerships. Valuable experiences can be found in some past NSR projects, which have achieved real product and service improvements through a tight sectoral focus and securing a strong commitment to virtual cooperation.

In terms of target sectors, hi-tech industries and centres of excellence will be targeted but there is also an urgent need to stimulate the innovative potential in regions and sectors that are not normally associated with the knowledge economy, such as agriculture and transport. Leading edge research will remain concentrated in a small number of locations but all regions need to develop and identify innovation opportunities based on their specific resources and the sectors where they can realistically maintain and extend a competitive advantage. In many cases this will rely less on technological R&D and more on organisational and marketing innovation or making small incremental improvements to existing technologies and processes.

1.2 Innovation capacity

The development of knowledge partnerships and clusters is only one method of increasing innovative capacities in a region. A strategic approach needs to be developed which meets the needs of a variety of user groups with different objectives, and uses multiple approaches and tools to reflect the big

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |

differences between SMEs. For example, access to venture capital remains deeply problematic for many technology developers and the programme could support operations bringing together funders and businesses. The vast majority of SMEs (the technology followers) on the other hand need more basic assistance such as:

- Consulting services
- Help with recruitment of university graduates and skilled personnel
- Support to gain awareness of new ideas and technologies[v]

Furthermore, many SMEs still lag on the take-up of new ICT services. New communication technologies can facilitate global reach and help reduce the disadvantage of scale economies which small firms face in all aspects of business. Actions may include ICT innovation voucher schemes to improve SME access to digital know-how and technology by providing an incentive to connect with ICT knowledge and service providers.

In addition to general innovation support measures, there is a need to consider the huge differences between regions around the NSR when it comes to innovation performance - from world-class academic research centres at one extreme to strongly rural and agricultural areas at the other. There is a general concentration of innovation in urban centres and this can increase challenges for remoter parts of the NSR to attract and hold highly skilled workers and young people. Balanced development of the NSR requires that all regions are able to innovate, attract investment, and generate and maintain jobs for highly skilled workers. The priority seeks to ensure that all regions – regardless of location and capacity – have the opportunity to develop their role in the knowledge economy and deliver growth and jobs to the population. This aim is related to the development of 'smart specialization' strategies (or similar approaches), which can break "follow the leader" trends by identifying and targeting each region's own specialized growth sectors.

Smart specialization calls for a clear differentiation of each region's core development fields and building a development path based on existing assets and the potential of specialisation in a market niche. This can compensate for some of the disadvantages of small scale and location. A number of different development pathways are possible including:

- Rejuvenation of traditional sectors through higher added value activities and identifying new market niches
- Modernizing by adopting and disseminating new technologies
- Technological diversification from existing specialist industries into related fields

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |

- Developing new economic activities through radical technological change and breakthrough innovations
- Exploiting new forms of innovation such as open and user led innovation, social and service innovation[vi]

Cooperation should foster an exchange of knowledge on different development strategies and success factors as well as assisting with the identification of regions with complementary skills and assets. This exchange should be rooted in demonstration actions that seek to confirm the validity of the measures being taken. Such support actions should be targeted at clearly identifiable innovation gaps in the participating regions. Projects involving a wide cross-section of regional interests and including target businesses will be strongly favoured.

Examples of actions under this objective include:

- Support for policy making
- Development of regional research and innovation strategies
- Alignment of educational courses with industry needs
- Skills development and recruitment support
- Support to entrepreneurial programmes
- Support for start-ups and gazelles (new companies with high and consistent growth)
- Support for the innovation climate
- Support for the creation of new markets by identifying and moving on new business opportunities

1.3 Public sector innovation

Finally, authorities in the NSR also need to be able to deliver a wide range of public services in order to ensure the continuing attractiveness and competitiveness of their regions. Public service delivery faces a number of key challenges such as the need for major investment to address threats like climate change, a growing elderly population needing care and a smaller working population to pay for it, falling budgets and staff levels, and rising public expectations and demands. Innovation is therefore equally important in public service delivery in order to respond to these challenges.

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |

Public services represent 40%-55% of GDP in the EU, directly employ about 15% of the working population, and are responsible for a procurement budget of up to €450 billion per year[vii]. The public sector can therefore serve as a driver for the wider knowledge economy through demonstrations, setting standards and creating markets for innovative products and services[viii]. The aim of this group of activities is to promote the dual benefit of improving service delivery and at the same time stimulating innovation in the wider economy.

A range of measures are available to improve the quality, speed and cost of service delivery:

- Continuing the roll-out of e-government services to provide time and cost savings. Projects can address piloting and exchange of good practice particularly around issues such as interoperability, security and user-friendliness[ix]
- Redesign of service delivery based on the new opportunities that digitalization can provide[x]. A good example is health care provision in the home, which exploits ICT to re-design the delivery of many health services
- Inter-agency approaches which add value and functionality to the work of each agency by, for example, cross-checking data and providing one-stop desks and portals for a wide range of services. Examples include Norwegian experiences of training home-helpers to provide fire safety advice, which has cut house fire deaths by half
- Methods like customer differentiation to allow for better targeting of services
- Making use of bottom-up input from junior staff, public consultation, crowd sourcing and social media

There are very different but complementary experiences of these developments across the NSR and cooperation should be used for transferring methods and joint development of new ideas. A number of barriers have, however, also been identified in the reform process and these include cuts to public sector research and development budgets, lack of employee incentives for innovation, lack of skills and institutional resistance. Solutions to these issues could also be targeted by projects to help ensure the success of future initiatives.

The public sector can also support innovation by creating demand for innovative solutions through procurement of products and services which promote improvements in the environmental profile of existing technologies. Projects to develop successful methods for green procurement, joint procurement and pre-commercial procurement should investigate how best to contract research and product development by the public sector[xi] and develop knowledge and experience on how to do this safely. Green procurement can be used to set demands about the environmental performance of goods and services. Pre-commercial procurement can be used to enter into joint research and development projects between the public and private sectors. Joint procurement

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between a number of organisations could be used to ensure that contract values justify the innovation effort required from bidders. All of these approaches are relatively new and would benefit from exchange of experience.

Taken together, action under the three objectives in this priority will allow regions to tackle the main barriers to innovation and integrate larger parts of the regional economy into the knowledge economy.

### *2.A.6.2 Guiding principles for the selection of operations*

| Investment priority | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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General: Projects have to demonstrate a need to work transnationally and clearly illustrate the contribution expected from each partner. Projects must define the precise need(s) they are tackling, how this affects each partner, and the specific benefits expected from transnational partnership.

Projects are expected to commit to a strong result orientation. Projects must report on one of the outputs for the investment priority and should justify the figures reported by referring to specific cases. Projects will also be expected to draw a clear logical link between these outputs and the relevant result indicator for the specific objective.

Projects should aim to have a broad impact on the programme area and projects with limited partnerships will have to justify the relevance of their activities in relation to the rest of the programme area. Project activities shall not be based on specific local cases but must also demonstrate relevance to the wider programme area.

The principles of inclusive and sustainable growth must be observed. Ageing populations, lack of relevant skills, social exclusion, and location

| Investment priority | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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disadvantages are amongst the wider challenges that should be taken into consideration by all projects. Projects should take an integrated approach to the maritime economy and the Blue Growth potential of the region.

The programme will test a 2-step application procedure to assist in delivering these aims.

Priority specific: The priority is focused on business growth and improving the efficiency and effectiveness of public service delivery through innovation. Project activities must strongly link to one of these goals and make a measurable contribution to them. Projects that rely solely on analyzing the current situation and/or making plans for future action will not be approved. It is instead expected that projects will validate such conclusions with testing and piloting in order to provide a sound basis for other regions and organisations to build on their results. Innovative solutions include the spread of innovation by introducing existing technologies and methods to new users ('new in this company/organisation').

Projects should demonstrate a strong link to target groups and their needs. This is particularly important where businesses are involved in testing project ideas and methods; applications should demonstrate that business representatives have been involved in the proposal and support its implementation and deliverables. All projects should identify effective measures for communicating results to target groups including citizens, decision-makers and consumers.

The primary aim of the priority is to develop transnational processes and procedures to stimulate innovation rather than offer direct support to individual businesses. The involvement of businesses is instead intended to test the effectiveness of different innovation support measures, which would then be more widely applied. All projects mustcomply with programme requirements on State Aid.

Projects should have a lasting impact. Knowledge partnerships and clusters must secure real benefit for participants to ensure a commitment to the initiative after the end of the funding period. Activities based solely on networking with no post-project life will not be supported. This requires the formulation of clear recommendations based on documented success stories and measurable improvement compared to existing practices and standards.

### *2.A.6.3 Planned use of financial instruments* **(where appropriate)**

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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### *2.A.6.4 Planned use of major projects* (where appropriate)

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| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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### *2.A.6.5 Output indicators* (by investment priority)

### Table 4: Common and programme-specific output indicators

| **Investment priority** | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO41 | Productive investment: Number of enterprises participating in cross-border, transnational or interregional research projects | Enterprises | 30.00 | Project reporting | Annual |
| CO42 | Productive investment: Number of research institutions participating in cross-border, transnational or interregional research projects | Organisations | 20.00 | Project reporting | Annual |

| Investment priority | 1b - Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies |
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| ID | Indicator | Measurement unit | Target value (2023) | Source of data | Frequency of reporting |
|---|---|---|---|---|---|
| 0.1 | Number of organizations / enterprises adopting new solutions by project end | Organisations and enterprises | 230.00 | Project reporting | Annual |
| 0.2 | Number of organizations / enterprises informed about new solutions by project end | Organisations and enterprises | 2,295.00 | Project reporting | Annual |
| 1.1 | Number of enterprises cooperating with new / improved knowledge partnerships | Enterprises | 500.00 | Project reporting | Annual |
| 1.2 | Number of improved or new innovation support measures launched for businesses | Measures | 21.00 | Project reporting | Annual |
| 1.3 | Number of improved or new innovation support measures launched for public service delivery | Measures | 21.00 | Project reporting | Annual |

## 2.A.7 Performance framework

## Table 5: Performance framework of the priority axis

| Priority axis | 1 - Thinking Growth: Supporting growth in North Sea Region economies |
|---|---|

| ID | Indicator type | Indicator or key implementation step | Measurement unit, where appropriate | Milestone for 2018 | Final target (2023) | Source of data | Explanation of relevance of indicator, where appropriate |
|---|---|---|---|---|---|---|---|
| 1.1 | O | Number of enterprises cooperating with new / improved knowledge partnerships | Enterprises | NA | 500.00 | Monitoring system / project reporting | |

| Priority axis | | 1 - Thinking Growth: Supporting growth in North Sea Region economies | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator type** | **Indicator or key implementation step** | **Measurement unit, where appropriate** | **Milestone for 2018** | **Final target (2023)** | **Source of data** | **Explanation of relevance of indicator, where appropriate** |
| P1.1 | F | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 93,662,224.00 | Certifying Authority | Compulsory financial indicator for all priorities |
| 1.2 | O | Number of improved or new innovation support measures launched for businesses | Measures | NA | 21.00 | Monitoring system / project reporting | |
| P 1.2 | I | Number of applications received and assessed | Applications | 27 | 54.00 | Monitoring system | Reflects programme ability to attract committed beneficiaries |
| 1.3 | O | Number of improved or new innovation support measures launched for public service delivery | Measures | NA | 21.00 | Monitoring system / project reporting | |

**Additional qualitative information on the establishment of the performance framework**

Key implementation steps have been selected to minimize the amount of data collected while still giving a reliable indication of the real progress of and support for the programme. Financial targets have been set just over the N+3 target amounts for the 2018 review. It is hoped that a higher spend can be achieved but at the same time it is very unlikely that the Cooperation Programme will be approved before the end of 2014 and the targets reflect this reduced operating period. There are no options regarding the choice of output indicators to be used. Annex 30 must be consulted for a full justification of the selection of outputs and associated targets.

## 2.A.8 Categories of intervention

Categories of intervention corresponding to the content of the priority axis, based on a nomenclature adopted by the Commission, and indicative breakdown of Union support

**Tables 6-9: Categories of intervention**

**Table 6: Dimension 1 Intervention field**

| **Priority axis** | **1 - Thinking Growth: Supporting growth in North Sea Region economies** |
|---|---|
| **Code** | **Amount (€)** |
| 060. Research and innovation activities in public research centres and centres of competence including networking | 4,257,374.00 |
| 062. Technology transfer and university-enterprise cooperation primarily benefiting SMEs | 8,514,748.00 |
| 063. Cluster support and business networks primarily benefiting SMEs | 8,514,748.00 |
| 066. Advanced support services for SMEs and groups of SMEs (including management, marketing and design services) | 8,514,748.00 |
| 067. SME business development, support to entrepreneurship and incubation (including support to spin offs and spin outs) | 8,514,747.00 |
| 078. e-Government services and applications (including e-Procurement, ICT measures supporting the reform of public administration, cyber-security, trust and privacy measures, e-Justice and e-Democracy) | 8,514,747.00 |

**Table 7: Dimension 2 Form of finance**

| **Priority axis** | **1 - Thinking Growth: Supporting growth in North Sea Region economies** |
|---|---|
| **Code** | **Amount (€)** |
| 01. Non-repayable grant | 46,831,112.00 |

**Table 8: Dimension 3 Territory type**

| **Priority axis** | **1 - Thinking Growth: Supporting growth in North Sea Region economies** |
|---|---|
| **Code** | **Amount (€)** |
| 04. Macro regional cooperation area | 46,831,112.00 |

**Table 9: Dimension 6 Territorial delivery mechanisms**

| **Priority axis** | **1 - Thinking Growth: Supporting growth in North Sea Region economies** |
|---|---|
| **Code** | **Amount (€)** |
| 07. Not applicable | 46,831,112.00 |

**2.A.9 A summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries and, where necessary, actions to enhance the administrative capacity of relevant partners to participate in the implementation of programmes** (where appropriate)

| **Priority axis:** | **1 - Thinking Growth: Supporting growth in North Sea Region economies** |
|---|---|

| Priority axis: | 1 - Thinking Growth: Supporting growth in North Sea Region economies |
|---|---|
| | |

## 2.A.1 Priority axis

| | |
|---|---|
| **ID of the priority axis** | 2 |
| **Title of the priority axis** | Eco-innovation: Stimulating the green economy |

☐ The entire priority axis will be implemented solely through financial instruments
☐ The entire priority axis will be implemented solely through financial instruments set up at Union level
☐ The entire priority axis will be implemented through community-led local development

## 2.A.2 Justification for the establishment of a priority axis covering more than one thematic objective (where applicable)

## 2.A.3 Fund and calculation basis for Union support

| Fund | Calculation basis (total eligible expenditure or eligible public expenditure) |
|---|---|
| ERDF | Total |

## 2.A.4 Investment priority

| | |
|---|---|
| **ID of the investment priority** | 6g |
| **Title of the investment priority** | Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |

## 2.A.5 Specific objectives corresponding to the investment priority and expected results

| | |
|---|---|
| **ID of the specific objective** | 2.1 |
| **Title of the specific objective** | Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy |
| **Results that the Member States seek to achieve with Union support** | The aim of the objective is to stimulate the development of technologies and processes which reduce natural resource use and increase investment in the NSR's existing natural assets. The focus is on the design, production, consumption and reuse of goods. Projects can target raw material use across any sector of the economy. The approach seeks to support businesses, and particularly SMEs, in redirecting activities in a more sustainable direction. This can in many cases also open up new growth opportunities based on green products and services.<br><br>Through these actions the programme can act as a catalyst for green growth and support regions in drawing on the extensive experience available in many parts of the NSR. Transnational projects can, for example, demonstrate the potential for businesses of increased use of recycling, introducing zero waste production and consumption methods ('use and re-use'), making much greater use of renewable energy, green buildings, sustainable transport and mobility, improved land use planning and improved management of waste and water.[i]<br><br>Use of renewable natural materials such as bioplastics and biofuels should be promoted as much as possible. Where it is not possible to identify renewable materials, projects should try to adapt consumption, and improve reuse and recycling including finding new uses for materials generally regarded as waste. The trend should be towards circular economies[ii] where the majority of materials are returned to nature and products are designed in such a way that non-natural materials can be reclaimed in high quality form at the end of product lifetimes.<br><br>There are many successful cases to draw on. Cooperation should be used to raise awareness of the potentials, advise businesses on measures they can take, and look at potential synergies within and between regional economies. |
| **ID of the specific objective** | 2.2 |
| **Title of the specific objective** | Stimulate the adoption of new products, services and processes to reduce the environmental footprint of regions around the North Sea |
| **Results that the Member States seek to achieve with Union support** | Transnational exchange of experience and knowledge will help the NSR to develop new initiatives to reduce its environmental footprint including carbon emissions. The objective focuses on energy use and generation, and achieving 2030 targets. The provisional 2030 EU targets for renewable energy generation and Greenhouse Gas reductions will require major new |

| | |
|---|---|
| **ID of the specific objective** | 2.1 |
| **Title of the specific objective** | Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy |
| | initiatives to succeed. The 2020 target for energy efficiency is unlikely to be met (Annex 22).<br><br>The programme will not deliver these targets but coordinated local and regional level action *can* contribute to the energy and emissions savings required to meet these targets. Actions should be based on areas offering significant potential for emissions reductions in the participating regions. Projects should provide inspiration on new approaches for reducing energy use, increasing the use of renewables, and other ways of reducing the environmental impact of communities in the NSR. Energy related measures will also reduce emissions other than CO2 such as PM, NO2 and SO2. Actions may assist countries in achieving goals under Air Quality plans as defined in Directive 2008/50/EC and with reaching compliance with the National Emission Ceilings Directive.<br><br>For the NSR, work on energy savings is particularly relevant. Based on current performance it seems that the NSR will not achieve the 2020 target of a 20% reduction in energy use. Renewed transnational efforts should therefore be made to identify areas where technological development, wider take-up of proven technologies, changes to working practices and/or behavioural change can provide new energy savings.<br><br>There is also potential in looking at energy generation and in particular building on successful pilots that have demonstrated the possibility of transforming local energy production to a much greater use of renewables. In the NSR infrastructure projects are currently underway that should lessen some of the bottlenecks to integrating more renewables in the energy mix. Enabling technologies for smart grids are also becoming widely available and will allow greater use of renewables and considerable energy savings. |

**Table 3: Programme-specific result indicators** (by specific objective)

| **Specific objective** | | **2.1 - Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy** | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |

| Specific objective | | 2.1 - Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 2.1 | Capacity of enterprises and organisations to adopt new or improved green products, processes and services | Capacity scale | 2.6 | 2015 | 3.6 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

| Specific objective | | 2.2 - Stimulate the adoption of new products, services and processes to reduce the environmental footprint of regions around the North Sea | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 2.2 | Capacity of authorities / practitioners around the North Sea to identify and implement new ways of reducing their environmental footprint | Capacity scale | 2.8 | 2015 | 3.8 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

## 2.A.6 Actions to be supported under the investment priority (by investment priority)

### *2.A.6.1 A description of the type and examples of actions to be supported and their expected contribution to the specific objectives, including, where appropriate, identification of the main target groups, specific territories targeted and types of beneficiaries*

| **Investment priority** | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|
| There is growing recognition that current economic practices and lifestyles are leading to the rapid depletion of non-renewable resources and degradation of natural systems. Rising global populations and wealth are accelerating this process and creating an urgent need for the development of new methods. The programme will support the development of green economy demonstration actions as an inspiration for NSR economies to move towards more | | |

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

sustainable practices and strengthen the region's position as a global provider of green solutions. 'Greening' has been a growth sector over recent years despite the economic downturn and can generate highly skilled and well-paid jobs in the NSR. 'Green economy' means more than supporting traditionally green sectors like renewables and refers in addition to efforts to improve environmental performance in all sectors.

Greening involves a number of inter-related actions:

- Preserving natural capital (avoiding irreversible damage and restoring damaged assets)
- Using better production methods (reducing material use and waste generation)
- Changing consumption patterns (promoting healthy choices with a low environmental footprint)
- Ensuring that economic decisions also take proper account of environmental and social costs[i]

The aim of the objective is to act as a catalyst for an industrial transition based on 'technologies and production methods that reduce natural resource use and increase investment in the EU's existing natural assets'[ii]. Transnational cooperation can spread awareness of the many initiatives that have already been launched across the region, pilot new ideas, and should demonstrate the benefits of green action to citizens, decision-makers and businesses.

The NSR is relatively well-placed in this respect and has taken a lead in providing environmental solutions. It is still a leader despite growing competition especially from China and North America[iii]. Denmark and Germany are the two leading countries in the world in cleantech investment performance and Sweden and the United Kingdom are also in the top 10[iv]. There is an estimated potential for millions more jobs. Green technologies represent an important growth sector with the global market currently worth €1.15 trillion annually and predicted to grow to €2 trillion by 2020[v].

When it comes to resource use, NSR consumption of materials continues to rise[vi] and this trend is even stronger if imports are included. The programme aims to support experimentation and pilots to stimulate change in current patterns of production, consumption, working and living'[vii]. These actions should demonstrate the potential of new, renewable natural materials, new approaches to industrial design, a greater focus on product lifecycle planning, more use of green buildings, improved land use planning and careful management of waste and water[viii]. Many of these actions can also be expected to have a positive knock-on effect in terms of carbon reduction.

In terms of resource efficiency, reconsideration is needed of patterns of production and consumption including:

- Greater use renewable materials

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

- Increasing reuse and recycling
- Promoting circular economies[ix] where the majority of materials are returned to nature and products are designed so non-natural materials can be reclaimed in high quality form at the end of product lifetimes

These activities should not be limited to niche markets and specialist products but should be placed firmly in the mainstream of economic activity. Such practices are increasingly common in large companies due especially to the growing use of environmental auditing and Corporate Social Responsibility strategies. Programme support will raise awareness of the potential for transferring or modifying them for SMEs. This includes support to develop new green products and services but should just as importantly address process change and developing environmental management capacity in SMEs.

Eco-design is a major task for the future and should aim to ensure that all products use a minimum of materials, use the least harmful materials, are designed to be durable and upgradable, with a potential for recycling[x]. In parallel, new ideas are needed for separate collection of different types of waste and to promote consumer willingness for greater recycling (see Annex 19).European Commission figures suggest that by using this kind of approach the EU as a whole could realistically reduce total requirements for materials in the economy by between 17% and 24%, boost GDP and create between 1.4 and 2.8 million jobs[xi]. This is a prime area for projects to work with new knowledge partnerships and demonstrate what can be achieved in different sectors.

Specific actions for stimulating business greening include:

- Identifying ways of reducing raw material usage in different sectors (see Annex 20)
- Encouraging display of environmental information on products and promoting use at regional level of resource performance indicators such as EUROSTAT sustainable development indicators[xii]
- Reducing waste, encouraging high quality waste management and increasing recycling (incineration of non-recyclable waste only and phase out of landfill). ‘Use and re-use’ of ‘waste’ Producers should be responsible for ensuring that products can be recycled and incentives should be provided to take environmental considerations into account in product design[xiii]
- Improving resource efficiency in B2B relations including SMEs by building capacity and encouraging involvement in existing sustainable sourcing standards for industry and retailers (such as existing certification schemes for fish, wood etc.)
- Encouraging the spread of ‘industrial symbiosis’ networks where the waste of one industry is traded as a commodity needed by another. Kalundborg in Denmark is a pioneer in the North Sea Region and its companies trade steam, dust, gases, heat, slurry or any other waste product that can be physically transported from one enterprise to another

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

- Providing a coherent policy framework for resource efficient product and service development and ensuring that this is reflected in requirements for warranties, durability, upgradability and/or recyclability, eco-design requirements etc.
- Providing specific support for SMEs to gain capacity, skills and access to finance required to take full advantage of resource savings and new markets. This could include resource efficiency audits / consultancy, and other financial, advisory and skills services[xiv]

On a regional level these activities should be integrated with the development of smart specialization strategies (or similar) to consider possible overlaps between waste and raw material needs in businesses in each region together with the natural asset base and its best possible sustainable exploitation.

The NSR also remains a major source of carbon emissions and other Greenhouse Gases (GHGs) and must continue to reduce energy consumption and convert energy production as far as possible to renewable sources. In addition to climate benefits, these activities will contribute to reduced reliance on imported fuels and promote green innovation. Previous projects have shown that local and regional pilot actions can identify new approaches and build stakeholder support for them, and that transnational cooperation can be used to improve the design and implementation of such pilots. Examples of actions include:

- Development of new technologies and approaches
- Demonstration and increased use of existing technologies
- Better planning, smarter use of existing capacities and resources
- Behavioural change
- Knowledge exchange
- Collaborative innovation between public authorities, businesses, knowledge institutions and citizens.

There is a need to support the continued development of sustainable energy generation in the NSR, assist regions in identifying the best renewable energy potentials and share knowledge on how to remove remaining barriers to implementing renewables projects. Projects should support the transfer of successful practices between regions of strength in different renewable technologies and other regions with a similar resource base (e.g. onshore and offshore wind, biogas and biomass, tidal energy and geothermal energy). Cooperation on successfully exploiting regional energy resources can stimulate long-term cooperation around shared energy assets. Any use of biomass should be accompanied by strict emission standards and abatement measures reducing emissions, especially of PM.

Pilot and demonstration investments for renewables will realistically be based on small decentralised electricity generation plants or co-generation

schemes due to prohibitive costs involved in larger projects. Decentralized capacity such as domestic solar panels, small wind turbines, local biogas plants etc. is increasing and arrays of small installations can meet most of the energy needs of a relatively large area. Cooperation can support exchange of knowledge on developing small infrastructure. Energy investments and the implementation of energy plans should be encouraged. Pilots should be based on testing a new technology/approach where there is a demonstrable need for drawing upon external resources (the partnership) to develop the pilot. Energy transition can lead to quick wins by (re)-using energy infrastructure and integrating transition fuels (especially gas) into energy planning.

Support for larger scale transnational energy planning is possible where it can be demonstrated that there is a clear need and support for coordination among the main stakeholders, and they have accepted a project as the vehicle for this coordination. The focus of such projects would be to work towards transnational agreements on future energy supply.

Local areas and even individual households will in future change from being pure energy consumers and will also be energy providers when local generation devices are producing more electricity than is needed. Combined management of electricity generation, heating (thermal storage) and transport (battery storage) with non-intermittent power generation such as from gas (preferably biogas) to address short-term energy shortages should allow the use of more renewable energy (see Annex 21). Future power supply and distribution networks need to be more flexible and the programme will support testing of new methods to deliver this flexibility such as by coupling power supply together with ICT (smart grids) to improve the match between supply and demand at different times to avoid surges and blackouts. Much of this grid 'smarting' needs to be done locally by using smart meters and intelligent planning of electricity demand based on variations in supply. Previous projects have shown that major energy savings can be achieved through better planning and timing of energy intensive operations like heating, cooling and lighting.

Advances like the widespread use of smart meters and wireless connections in household appliances will revolutionise the way that electricity is used and make it possible to achieve countless small savings with a major overall impact. Digital monitoring and display of electricity supply and demand (possibly with variable pricing for peak periods) will help consumers reduce overall and especially peak period electricity use. The basic requirements for such a system are broadly agreed (see Annex 20) but transnational cooperation can demonstrate its working in practice, explore issues like cost, reliability and effectiveness, and lay the ground for more extensive schemes in future.

Reductions in energy demand are also needed. Cooperation on energy efficiency measures should focus on sharing knowledge where there are wide differences in standards for example in construction. Concerns about the payback time on such investments have been a major barrier and projects can explore financing models for energy efficiency. The potential for small-scale action here is very clear and earlier projects have shown that cooperation

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

can:

- Help change attitudes to energy use
- Support the development of more energy efficient processes
- Improve the take up of energy efficient technologies

Demonstration projects on refurbishing buildings is one area where there is a good unexploited potential in some parts of the NSR. Project activities should focus on providing cost effective energy reduction including retro-fitting existing building stock. This work should be centered on an exchange of knowledge on construction, material technologies, installation of low carbon electricity and a consideration of costs and financing models with a view to accelerating the pace and extent of refurbishments across the programme area. Public buildings can be used to pilot these activities. Techniques should be transferable to private buildings including business premises. Refurbishment plans must be based on a sound analysis of potential energy savings.

Greening is in many cases a new approach and will require good channels for transnational knowledge transfer and research to spread ideas and technologies as they are developed. Cooperation on specialist training is also possible and should include skills in circular design and production, new business models, environmental regulations and technologies[xv]. Businesses should in general be encouraged to analyse their processes and look for energy savings. Support will focus on SMEs, which in many cases do not have the capacity to identify and implement innovative greening actions independently.

Finally, there is still a great deal that could be done by individuals and public organisations to achieve a host of small energy and carbon savings in everyday life. Measures are still needed to identify new areas with energy saving potential and raise public awareness of the action that needs to be taken, including the development of new procedures and processes, improvements to existing products and services, providing training and education, and piloting.

### *2.A.6.2 Guiding principles for the selection of operations*

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

| | |
|---|---|
| **Investment priority** | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |

General: Projects have to demonstrate a need to work transnationally and clearly illustrate the contribution expected from each partner. Projects must define the precise need(s) they are tackling, how this affects each partner, and the specific benefits expected from transnational partnership.

Projects are expected to commit to a strong result orientation. Projects must report on one of the outputs for the investment priority and should justify the figures reported by referring to specific cases. Projects will also be expected to draw a clear logical link between these outputs and the relevant result indicator for the specific objective.

Projects should aim to have a broad impact on the programme area and projects with limited partnerships will have to justify the relevance of their activities in relation to the rest of the programme area. Project activities shall not be based on specific local cases but must also demonstrate relevance to the wider programme area.

The principles of inclusive and sustainable growth must be observed. Ageing populations, lack of relevant skills, social exclusion, and location disadvantages are amongst the wider challenges that should be taken into consideration by all projects. Projects should take an integrated approach to the maritime economy and the Blue Growth potential of the region.

The programme will test a 2-step application to assist in delivering these aims.

Priority specific: The objective is focused on reducing the environmental footprint of the NSR by reconsidering current business processes to find more sustainable options in materials and production methods, as well as wider actions to reduce energy use and carbon emissions.

All measures implemented should offer significant resource/carbon savings compared to normal practice for the organisations concerned. Projects should identify actions that provide the greatest reduction for the funds available. Solutions that are ‘new’ to target groups (even though they have been tried elsewhere) are also supported provided they offer significantly improved sustainability compared to normal practices and are an innovation for the organisation involved.

Projects relying solely on analysing the current situation and/or making plans for future action will not be approved. It is instead expected that projects should validate conclusions with testing and piloting in order to provide a sound basis for other businesses and organisations to build on these results.

Projects should demonstrate a strong link to target groups and their needs. Businesses will need to play a central role in testing project ideas and methods, supported by external expertise. Applications should demonstrate that business representatives have been made aware of the proposal and support its

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|

implementation. The involvement of businesses is intended to test the effectiveness of different greening measures rather than subsidising the greening plans of individual businesses. Projects must at all times comply with programme requirements on State Aid.

All projects should identify effective measures for communicating results and deliverables to target groups including citizens, decision-makers and consumers. Projects should have a lasting impact. This means that project recommendations should be adopted into standard working practices for the target groups and thereby lead to a permanent improvement in sustainability.

### *2.A.6.3 Planned use of financial instruments* (where appropriate)

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|
| | |

### *2.A.6.4 Planned use of major projects* (where appropriate)

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors |
|---|---|
| | |

### *2.A.6.5 Output indicators* (by investment priority)

## Table 4: Common and programme-specific output indicators

| Investment priority | 6g - Supporting industrial transition towards a resource-efficient economy, promoting green growth, eco-innovation and environmental performance management in the public and private sectors | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO41 | Productive investment: Number of enterprises participating in cross-border, transnational or interregional research projects | Enterprises | 30.00 | Project reporting | Annual |
| CO42 | Productive investment: Number of research institutions participating in cross-border, transnational or interregional research projects | Organisations | 20.00 | Project reporting | Annual |
| 0.1 | Number of organizations / enterprises adopting new solutions by project end | Organisations and enterprises | 222.00 | Project reporting | Annual |
| 0.2 | Number of organizations / enterprises informed about new solutions by project end | Organisations and enterprises | 2,225.00 | Project reporting | Annual |
| 2.1 | Number of green products, services and processes piloted and/or adopted by the project | Green products, services or processes developed | 54.00 | Project reporting | Annual |

## 2.A.7 Performance framework

## Table 5: Performance framework of the priority axis

| Priority axis | | 2 - Eco-innovation: Stimulating the green economy | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator type** | **Indicator or key implementation step** | **Measurement unit, where appropriate** | **Milestone for 2018** | **Final target (2023)** | **Source of data** | **Explanation of relevance of indicator, where appropriate** |
| 2.1 | O | Number of green products, services and processes | Green products, services or | NA | 54.00 | Monitoring system / | |

| Priority axis | | 2 - Eco-innovation: Stimulating the green economy | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator type** | **Indicator or key implementation step** | **Measurement unit, where appropriate** | **Milestone for 2018** | **Final target (2023)** | **Source of data** | **Explanation of relevance of indicator, where appropriate** |
| | | piloted and/or adopted by the project | processes developed | | | project reporting | |
| P1.1 | F | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 90,317,144.00 | Certifying Authority | Compulsory |
| P 1.2 | I | Number of applications received and assessed | Applications | 15 | 30.00 | Monitoring system | Reflects programme ability to attract committed beneficiaries |

**Additional qualitative information on the establishment of the performance framework**

Key implementation steps have been selected to minimize the amount of data collected while still giving a reliable indication of the real progress of and support for the programme. Financial targets have been set just over the N+3 target amounts for the 2018 review. It is hoped that a higher spend can be achieved but at the same time it is very unlikely that the Cooperation Programme will be approved before the end of 2014 and the targets reflect this reduced operating period. There are no options regarding the choice of output indicators to be used. Annex 30 must be consulted for a full justification of the selection of outputs and associated targets.

## 2.A.8 Categories of intervention

Categories of intervention corresponding to the content of the priority axis, based on a nomenclature adopted by the Commission, and indicative breakdown of Union support

**Tables 6-9: Categories of intervention**

**Table 6: Dimension 1 Intervention field**

| **Priority axis** | **2 - Eco-innovation: Stimulating the green economy** |
|---|---|
| **Code** | **Amount (€)** |
| 012. Other renewable energy (including hydroelectric, geothermal and marine energy) and renewable energy integration (Including storage, power to gas and renewable hydrogen infrastructure) | 11,289,643.00 |
| 013. Energy efficiency renovation of public infrastructure, demonstration projects and supporting measures | 11,289,643.00 |
| 023. Environmental measures aimed at reducing and / or avoiding greenhouse gas emissions (including treatment and storage of methane gas and composting) | 11,289,643.00 |
| 069. Support to environmentally-friendly production processes and resource efficiency in SMEs | 11,289,643.00 |

**Table 7: Dimension 2 Form of finance**

| **Priority axis** | **2 - Eco-innovation: Stimulating the green economy** |
|---|---|
| **Code** | **Amount (€)** |
| 01. Non-repayable grant | 45,158,572.00 |

**Table 8: Dimension 3 Territory type**

| **Priority axis** | **2 - Eco-innovation: Stimulating the green economy** |
|---|---|

| Code | Amount (€) |
|---|---|
| 04. Macro regional cooperation area | 45,158,572.00 |

**Table 9: Dimension 6 Territorial delivery mechanisms**

| **Priority axis** | **2 - Eco-innovation: Stimulating the green economy** |
|---|---|
| **Code** | **Amount (€)** |
| 07. Not applicable | 45,158,572.00 |

**2.A.9 A summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries and, where necessary, actions to enhance the administrative capacity of relevant partners to participate in the implementation of programmes** (where appropriate)

| **Priority axis:** | **2 - Eco-innovation: Stimulating the green economy** |
|---|---|
| | |

## 2.A.1 Priority axis

| | |
|---|---|
| **ID of the priority axis** | 3 |
| **Title of the priority axis** | Sustainable North Sea Region: Protecting against climate change and preserving the environment |

☐ The entire priority axis will be implemented solely through financial instruments
☐ The entire priority axis will be implemented solely through financial instruments set up at Union level
☐ The entire priority axis will be implemented through community-led local development

## 2.A.2 Justification for the establishment of a priority axis covering more than one thematic objective (where applicable)

The most serious threat facing the North Sea Region's ecosystems is climate change. For many parts of the NSR this has already led to increased flood risk from storm surges in coastal areas or heavy rain causing flooding of rivers and lakes inland. The frequency and severity of these floods is increasing and will probably worsen over coming years. This means that flood defences need to be improved but, just as importantly, the landscape in flood zones needs to be adapted towards the new climate so as to support other efforts at limiting damage. Effective measures include:

- Limiting excessive run off and improving water retention
- Identifying temporary floodwater retention sites
- Bolstering natural defences like dunes and mudflats

Such measures should reduce the risk of flooding and reduce the impact of unavoidable floods.

However, the impacts of climate change go far beyond flooding and include a wide range of threats such as salination, increased plant and animal disease risk, habitat loss, increased eutrophication, drought and heat stress.

These impacts come at a time when many North Sea Region environments both on land and at sea are already under severe stress due to intensive usage, resource extraction and pollution: Climate change may be the factor that pushes them into irreversible decline. As a result, safeguarding the NSR against climate change also means bolstering natural environments so that they are better able to withstand change. Measures include:

- Improved environmental management and land use planning
- Restoring damaged areas and reducing or avoiding further pollution
- Protecting and improving biodiversity

In addition to helping to secure the NSR's unique environment for future generations, such measures provide immediate benefits to climate change adaptation efforts. Forests, peat lands and other habitats are major stores of carbon. Healthy ecosystems can also help lessen climate change impacts by absorbing excess water and buffering against coastal erosion or extreme weather events. Ecosystem based approaches should be an integral part of the overall adaptation and mitigation effort. This can be achieved by ensuring the effective management and restoration of different habitats, developing green infrastructure, and working with - rather than against – nature[i].

Improving the flood resilience of the NSR shows how climate change adaptation should be addressed as one part of wider integrated sustainable environmental management practices. Effective flood defences increasingly rely on landscape features to slow and hold floodwaters. This includes planting woodlands in catchment areas to improve water retention, returning rivers to their natural courses to slow water flows and increase holding capacity, and maintaining wetlands as holding areas. These measures may well offer the most effective long-term flood protection but also bring with them a range of additional environmental benefits such as reducing nutrient run-off and thereby cutting eutrophication, offering protected habitats, supporting biodiversity, and providing a source of biomass and natural materials.

Combining climate change adaptation with wider environmental conservation and management is a win-win situation. This priority aims to support activities which deliver these multiple benefits and which in particular look at the wider environmental potentials of investments in adaptation.

### 2.A.3 Fund and calculation basis for Union support

| Fund | Calculation basis (total eligible expenditure or eligible public expenditure) |
|---|---|
| ERDF | Total |

## 2.A.4 Investment priority

| | |
|---|---|
| **ID of the investment priority** | 5a |
| **Title of the investment priority** | Supporting investment for adaptation to climate change, including ecosystem-based approaches |

## 2.A.5 Specific objectives corresponding to the investment priority and expected results

| | |
|---|---|
| **ID of the specific objective** | 3.1 |
| **Title of the specific objective** | Demonstrate new and/or improved methods for improving the climate resilience of target sites |
| **Results that the Member States seek to achieve with Union support** | There is a need to:<br>• Jointly develop new flood prevention techniques and methods<br>• Predict and monitor other climate change impacts<br>• Demonstrate effective adaptation measures<br>• Mobilise stakeholder support for adaptation measures<br>• Promote the integration of adaptation perspectives in regional planning and development<br><br>Severe weather events are becoming increasingly common in the NSR and require adaptation of flood defence thinking and infrastructure. Projects should address the negative impacts that have already occurred and prepare the North Sea Region for projected changes based on a further temperature rise of at least 1.5oC. In addition to flooding, consequences of severe weather and climate change include:<br>• Coastal erosion and land loss<br>• Freshwater shortages and salination<br>• Heat stress in urban areas<br>• Marine acidification<br>• Wind surges<br>• River and lake flooding (including in urban areas)<br>• Increased pollution from run-off water |

| | |
|---|---|
| **ID of the specific objective** | 3.1 |
| **Title of the specific objective** | Demonstrate new and/or improved methods for improving the climate resilience of target sites |
| | • Increased algal blooms due to temperature rise[i]<br><br>Projects should identify and implement effective actions for addressing these and other impacts as they emerge. It is important that results are communicated throughout the NSR to promote widespread adaptation investment.<br><br>Projects should also include awareness raising and joint development of new ways of working in the most affected sectors such as agriculture, forestry, tourism, health, fisheries, energy and water providers. These actions should be harmonised with national Adaptation Strategies where these have been adopted[ii]. Projects using green infrastructure and taking an ecosystem-based approach will be favoured. Priority will be given to projects whose results have a good potential for transfer to other regions. |

**Table 3: Programme-specific result indicators** (by specific objective)

| **Specific objective** | | **3.1 - Demonstrate new and/or improved methods for improving the climate resilience of target sites** | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 3.1 | Capacity of relevant authorities / practitioners around the North Sea to identify and implement solutions for improving climate change resilience | Capacity scale | 2.7 | 2015 | 3.7 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

## 2.A.6 Actions to be supported under the investment priority (by investment priority)

***2.A.6.1 A description of the type and examples of actions to be supported and their expected contribution to the specific objectives, including, where appropriate, identification of the main target groups, specific territories targeted and types of beneficiaries***

| **Investment priority** | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|

Adapting to climate change is a key challenge for the whole North Sea Region. It is clear that there are already significant negative effects in the programme area and that they need to be managed. Transnational cooperation provides opportunities for:

- Sharing knowledge on the latest methods
- Joint work on designing improved infrastructure and procedures
- Developing new solutions to tackle emerging threats

Rising sea levels and storm surges are a particular threat for the NSR. Many parts of the programme area lie just above or even below the current sea level and are at serious risk. Even regions where there are few low-lying areas tend to have high population density and essential infrastructure situated in the low lying areas – and there is a tendency to continue developing flood plains and coastal areas in most North Sea Region countries. The increased frequency and severity of storms coupled with the underlying rise in sea levels means that many existing coastal flood defences are inadequate and there is a serious and increasing risk of major flooding in these areas.

Cooperation is needed on how to address this challenge. In many cases, building conventional sea defences may prove to be prohibitively expensive and ineffective in the long-term. Dialogue and planning should begin in order to design the solutions required for all parts of the NSR's extensive coastline. This should be done by drawing on and developing the extensive knowledge already available in some parts of the programme area as well as by identifying land that cannot be defended and planning a managed retreat from it. Projects should also examine other measures to manage unavoidable flooding such as:

- Changes in planning rules to prevent construction in high risk areas
- Designing sea defences for 'over-topping'
- Setting aside and managing retention areas for flood water
- Disaster management

Projects should include work on modeling climate change impacts on a regional level if this has not already been done, and developing risk management and investment plans based on the picture that emerges. New and more effective flood defences should continue to use 'building with nature' techniques

wherever possible in order to harness natural protection mechanisms.

In addition to coastal flooding, frequent severe weather events can cause river and lake flooding and increased levels of erosion and declining water quality due to increased rates and amounts of run off. New techniques using landscape features such as tree planting, restoring slow moving river courses, and using peat bogs, marshes and mudflats to retain water can manage flood risk, preserve water quality, and restore ground water reserves. Securing commitment to full implementation of existing measures such as ploughing restrictions near streams and rivers is equally important. Actions should include recognition of the benefits of returning farmed land to woods or marshes in some cases and an exploration of how landowners might be compensated for losses of cultivatable land.

As the major landowners in most NSR catchment areas, farmers also have a key role to play in other aspects of climate change adaptation. Many farmers in the NSR report that localised drought is often a severe problem and is becoming worse. Improving water retention in upstream catchment areas should help but additional measures may also be required such as remote monitoring of crops, smart irrigation, changes to land management and new agricultural techniques. Projects should explore these measures to ensure that farming is not reliant on extracting excessive reserves from groundwater reservoirs. Farmers can also be assisted with smart spraying of fertilizers and pesticides to avoid rapid run off in heavy rain, and measures to improve soil structure and reduce nutrient leaching into watercourses. Transnational cooperation should assist the development of adaptation plans that consider all of these effects and develop integrated management approaches on this basis.

For urban areas there is a need to integrate engineered solutions into all new developments on sites that are at risk, and to retrofit older buildings as well as making space for natural defences. Techniques should be developed for increasing water retention in urban areas including the addition of new green infrastructure and creating opportunities for drainage into underlying soil. Green infrastructure should be used wherever possible meaning that the same area of land can frequently provide multiple benefits if the correct priorities are established from the outset. Green infrastructure can frequently be managed so as to maintain a high level of biodiversity while supporting broader well-being in the area. Examples include:

- Downspout disconnection (directing rainfall to permeable areas)
- Rainwater harvesting and rain gardens (collecting rain water for later use)
- Planter boxes and bioswales
- Permeable paving
- Green parking areas and roofs
- Urban tree planting

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|

- Maintenance of green corridors and parks

Such initiatives have been used successfully to complement and reduce the cost of operating conventional 'grey' infrastructure or, in some cases, completely replace it, and should be extended into other urban areas.[i]

Climate adaptation investments also provide additional environmental benefits in many cases. For example, planting marginal riverside agricultural land with willow can stabilize river banks, reduce run off and thereby improve water quality. Willow can also be used as biomass for energy production. This should be accompanied by strict emission standards and abatement measures reducing emissions. Careful planting and smart spreading of agricultural chemicals at these sites should protect biodiversity and raise overall environmental quality. There are many examples of such win-win situations which demonstrate the need to consider the full range of functions provided by different landscapes.

Rising water levels also have effects beyond flooding and once more the effects are felt most strongly in low lying areas. These include the salination of fresh water supplies and arable land as well as subsidence due to rising water tables. New techniques make it possible to map and predict these effects and can support decisions on the preventative measures to be taken.

Rising average temperatures also have a range of effects both positive and negative. In agriculture, temperature changes may influence the type of crops that can be grown in some areas leading to changes in farming conditions and an extended growing season. On the other hand they may also cause increased prevalence of plant and animal disease. An increase in winter temperatures can be expected to have an effect on the number of invasive species that can survive the colder months in the NSR. Additional pressures on native species from other climate effects such as ocean acidification and loss of habitats may have a major effect on NSR biodiversity. Better or clearer understanding of the effects of these kinds of changes is still emerging and predicting effective responses is therefore impossible in some cases. Every sector will be affected to some extent and transnational cooperation will support participating regions in following these processes and adapting to newly emerging risks.

### *2.A.6.2 Guiding principles for the selection of operations*

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|
| General: Projects have to demonstrate a need to work transnationally and clearly illustrate the contribution expected from each partner. Projects must | |

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|

define the precise need(s) they are tackling, how this affects each partner, and the specific benefits expected from transnational partnership.

Projects are expected to commit to a strong result orientation. Projects must report on one of the outputs for the investment priority and should justify the figures reported by referring to specific cases. Projects will also be expected to draw a clear logical link between these outputs and the relevant result indicator for the specific objective.

Projects should aim to have a broad impact on the programme area and projects with limited partnerships will have to justify the relevance of their activities in relation to the rest of the programme area. Project activities shall not be based on specific local cases but must also demonstrate relevance to the wider programme area.

The principles of inclusive and sustainable growth must be observed. Ageing populations, lack of relevant skills, social exclusion, and location disadvantages are amongst the wider challenges that should be taken into consideration by all projects. Projects should take an integrated approach to the maritime economy and the Blue Growth potential of the region.

Projects should ensure the effective involvement of the end-users of all deliverables. End users are diverse and range from citizens to decision-makers, entrepreneurs and consumers.

The programme will test a 2-step application to assist in delivering these aims.

Priority specific: The objective is focused on stimulating the wider adoption of successful climate change adaptation methods throughout the NSR. The region as a whole is threatened by climate changes and successful pilots are needed to demonstrate that effective action is possible. These pilots should be jointly developed and implemented by project partnerships or should be carried out on behalf of the whole partnership and with a demonstrable potential for transferring successful results. It is important that all actions focus on wider take up of adaptation measures and therefore also address cost-effectiveness and stakeholder backing.

'Climate change resilience' should be understood as the ability to prevent or reverse the negative effects of climate change at a target site. Where this proves impossible partners must ensure that negative impacts are managed in such a way that damage is limited. All projects should therefore build on a baseline analysis which shows the situation they are trying to change and the required improvement.

Projects that rely solely on analysing the current situation and/or making plans for future action will not be approved. It is instead expected that projects

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|
| should validate such conclusions with testing and piloting in order to provide a sound basis for other regions and organisations to build on these results. Projects should have a lasting impact. This means that project recommendations should be adopted into standard working practices for the target groups and lead to sustained improvements in climate resilience. | |

### *2.A.6.3 Planned use of financial instruments* (where appropriate)

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|
| | |

### *2.A.6.4 Planned use of major projects* (where appropriate)

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches |
|---|---|
| | |

### *2.A.6.5 Output indicators* (by investment priority)

### Table 4: Common and programme-specific output indicators

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO41 | Productive investment: Number of enterprises participating in cross-border, transnational or interregional research projects | Enterprises | 5.00 | Project reporting | Annual |

| Investment priority | 5a - Supporting investment for adaptation to climate change, including ecosystem-based approaches | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO42 | Productive investment: Number of research institutions participating in cross-border, transnational or interregional research projects | Organisations | 10.00 | Project reporting | Annual |
| 0.1 | Number of organizations / enterprises adopting new solutions by project end | Organisations and enterprises | 92.00 | Project reporting | Annual |
| 0.2 | Number of organizations / enterprises informed about new solutions by project end | Organisations and enterprises | 919.00 | Project reporting | Annual |
| 3.7 | Number of new and/or improved climate change adaptation solutions demonstrated | Solutions | 21.00 | Project reporting | Annual |

## 2.A.4 Investment priority

| | |
|---|---|
| **ID of the investment priority** | 6d |
| **Title of the investment priority** | Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |

## 2.A.5 Specific objectives corresponding to the investment priority and expected results

| | |
|---|---|
| **ID of the specific objective** | 3.2 |
| **Title of the specific objective** | Develop new methods for the long-term sustainable management of North Sea ecosystems |
| **Results that the Member States seek to achieve with Union support** | Projects should:<br>• Develop and implement long-term strategies for sustainable management of North Sea landscapes and the North Sea itself<br>• Develop and test new methods and technologies for tackling environmental problems |

| | |
|---|---|
| **ID of the specific objective** | 3.2 |
| **Title of the specific objective** | Develop new methods for the long-term sustainable management of North Sea ecosystems |
| | • Use participatory processes to win stakeholder support for environmental measures<br><br>Sustainable management aims to ensure that human impacts do not exceed the sustainable limits of the North Sea Region's ecosystems so that a natural balance can be maintained. This should include ways of reducing nitrogen and phosphorous overloads pollution and biodiversity loss, as well as ensuring sustainable limits for resource extraction, freshwater use and land use.<br><br>Projects will protect the environment through early identification of potential problems and identification of new opportunities for better use of natural and maritime areas. This should include development and deployment of new methods and technologies for environmental monitoring and management. Successful approaches should be mainstreamed. This should be done in such a way as to reduce conflicts between sectors and create synergies between different activities.<br><br>It will not be possible to address all relevant challenges and projects should be developed around the most pressing and serious shared threats to the ecosystems in partner regions. There should be a demonstrable potential for joint action (e.g. similar habitats) or a need for coordinated action due to the cross-border nature of the problem addressed (e.g. marine pollution, migrating wildlife).<br><br>This work must take account of the work of existing organisations such as OSPAR and the North Sea Commission's Maritime Resources working group. DG MARE is also promoting the development of integrated maritime spatial planning approaches and sea basin strategies so projects will have to be coordinated with any such initiatives that are formally adopted within the programme's lifetime. |

**Table 3: Programme-specific result indicators** (by specific objective)

| **Specific objective** | **3.2 - Develop new methods for the long-term sustainable management of North Sea ecosystems** |
|---|---|

| ID | Indicator | Measurement unit | Baseline value | Baseline year | Target value (2023) | Source of data | Frequency of reporting |
|---|---|---|---|---|---|---|---|
| 3.2 | Capacity of North Sea regions to improve the quality of the environment | Capacity scale | 2.9 | 2015 | 3.9 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

## 2.A.6 Actions to be supported under the investment priority (by investment priority)

### *2.A.6.1 A description of the type and examples of actions to be supported and their expected contribution to the specific objectives, including, where appropriate, identification of the main target groups, specific territories targeted and types of beneficiaries*

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|

The North Sea Region has a reputation for sound environmental monitoring and management, and should continue to play a leading role in the development of new approaches for preserving high quality environments, limiting pollution and managing diverse demands on natural resources. Nevertheless, despite this progress, the environment in the NSR continues to faces challenges because of:

- Continuing urbanization
- Habitat loss and fragmentation
- Intensive farming
- Heavy exploitation of resources
- Damaging legacies from earlier industrial activity in some locations

There is a need to ensure balance between the many changing demands on the environment and work towards new agreements on how this balance can be maintained in the long-term. Differing threats on land and at sea will require different approaches and it will not be possible to address every aspect of the issues. Projects should be developed around the most pressing and serious threats to the ecosystems of the regions where there is potential for joint action or where regional coordination is needed to develop and implement new solutions.

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|

The objective's primary goal is to protect and restore the environment through:

- Early identification of potential threats
- Identifying opportunities for better use of natural and maritime areas,
- Development of new methods and deployment of new technologies for environmental monitoring and management
- Mainstreaming successful approaches

The overall aim is to reduce conflicts between sectors and create synergies between different activities. Efforts should be made to increase coordination between administrations in each country and ensure that sufficient weight is given to the preservation of the environment[i]. The aim should therefore be to protect and/or restore ecosystems to the point where they can indefinitely support regional economies and populations without a significant loss of quality and to prepare to offer this expertise to others.

The marine environment is a key target area since increased pressure is being placed on the limited space available from a growing range of economic, transport, infrastructure and leisure demands. Major threats to maritime sustainability center on shipping, oil spills and over-fishing but as maritime activity increases in other sectors so does the risk of accidents.[ii] In addition to traditional maritime activities, marine resources are increasingly being used in the cosmetics and pharmaceutical industries as well as for blue biotechnology, aquaculture and tourism. The development of energy infrastructure places demands on space as do mineral extraction, marine conservation and fish stock recovery programmes.

The large and growing intensity of activities in a limited marine space is an increasing problem. There is little coordination between countries on many of these issues and the programme should support the development of integrated approaches to planning and managing the North Sea. Problems are found throughout the region and are particularly acute at the narrow southern end of the North Sea. DG MARE is currently exploring the development of a Sea Basin Strategy for the North Sea to promote greater coordination of interests and activities and the programme will support this and similar initiatives as and when they are formally adopted.

Projects targeting the North Sea should aim to remove or mitigate major threats and pressures including the risk of accident, eutrophication, highly toxic pollutants and the urgent need to support fish stock recovery and preserve all parts of marine food chains. They should also explore the environmental limits of new and existing economic activities in the North Sea in order to provide a sound basis for sustainable Blue Growth[iii]. Transnational cooperation is needed especially in the areas of:

- Coordinating different user needs and planning the best locations for different activities

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|

- Action on pollutants
- Action to preserve the breeding, spawning and feeding grounds of North Sea fish and animals

Land and fresh water environments are equally important and the programme will support exchange of knowledge to tackle threats facing sites across the North Sea Region. The most pressing of these include nitrogen and phosphorous overloads, biodiversity loss, chemical pollution as well as unsustainable resource extraction. There is also a need for cooperation on effective methods for restoring and preserving North Sea Region ecosystems where damage has occurred, for joint action on migratory species, and improved management of shared ecosystems. Solutions should be climate-proofed and should also preferably contribute to the overall adaptation strategies of the regions where target sites are located.

For projects working with the North Sea marine area, work must take account of activities in organisations such as OSPAR and the North Sea Commission's Maritime Resources working group. DG MARE is also promoting the development of integrated maritime spatial planning approaches and sea basin strategies so projects will have to be coordinated with any such initiatives that are formally adopted within the programme's lifetime.

### *2.A.6.2 Guiding principles for the selection of operations*

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|

General: Projects have to demonstrate a need to work transnationally and clearly illustrate the contribution expected from each partner. Projects must define the precise need(s) they are tackling, how this affects each partner, and the specific benefits expected from transnational partnership.

Projects are expected to commit to a strong result orientation. Projects must report on one of the outputs for the investment priority and should justify the figures reported by referring to specific cases. Projects will also be expected to draw a clear logical link between these outputs and the relevant result indicator for the specific objective.

Projects should aim to have a broad impact on the programme area and projects with limited partnerships will have to justify the relevance of their activities in relation to the rest of the programme area. Project activities shall not be based on specific local cases but must also demonstrate relevance to the wider programme area.

The principles of inclusive and sustainable growth must be observed. Ageing populations, lack of relevant skills, social exclusion, and location

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|

disadvantages are amongst the wider challenges that should be taken into consideration by all projects. Projects should take an integrated approach to the maritime economy and the Blue Growth potential of the region.

The programme will test a 2-step application to assist in delivering these aims.

Priority specific: The objective is focused on new sustainable management methods for the NSR environment. The aim is to achieve a better balance between human activity and the natural environment, and to ensure that the new methods are taken up as widely as possible in the NSR. This requires that all projects also engage stakeholders and jointly develop solutions that will win long-term backing.

Projects that rely solely on analysing the current situation and/or making plans for future action will not be approved. It is instead expected that projects validate conclusions with testing and pilots which provide a sound basis for other regions and organisations to build on these results.

Projects should demonstrate a strong link to target groups and their needs. Wherever possible projects should target solutions that balance benefits for the environment with the needs of key stakeholders. All projects should identify effective measures for communicating results to target groups and particularly to other environmental authorities in the NSR. Projects should ensure the effective involvement of the end-users of all deliverables. End users are diverse and range from citizens to decision-makers, entrepreneurs and consumers.

Projects should have a lasting impact. This means that project recommendations should be adopted into standard working practices for managing the target sites in the project.

### *2.A.6.3 Planned use of financial instruments* (where appropriate)

| Investment priority | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
|---|---|
| | |

### *2.A.6.4 Planned use of major projects* (where appropriate)

| | |
|---|---|
| **Investment priority** | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure |
| | |

### *2.A.6.5 Output indicators* (by investment priority)

### Table 4: Common and programme-specific output indicators

| **Investment priority** | 6d - Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO41 | Productive investment: Number of enterprises participating in cross-border, transnational or interregional research projects | Enterprises | 5.00 | Project reporting | Annual |
| CO42 | Productive investment: Number of research institutions participating in cross-border, transnational or interregional research projects | Organisations | 10.00 | Project reporting | Annual |
| 0.1 | Number of organizations / enterprises adopting new solutions by project end | Organisations and enterprises | 92.00 | Project reporting | Annual |
| 0.2 | Number of organizations / enterprises informed about new solutions by project end | Organisations and enterprises | 918.00 | Project reporting | Annual |
| 3.2 | Number of sites managed using new solutions supporting long-term sustainability | Sites | 35.00 | Project reporting | Annual |

## 2.A.7 Performance framework

### Table 5: Performance framework of the priority axis

| Priority axis | | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator type** | **Indicator or key implementation step** | **Measurement unit, where appropriate** | **Milestone for 2018** | **Final target (2023)** | **Source of data** | **Explanation of relevance of indicator, where appropriate** |
| 3.1 | O | Number of new and/or improved climate change adaptation methods demonstrated | Climate change adaptation solutions | NA | 21.00 | Monitoring system / project reporting | |
| 3.2 | O | Number of sites managed using new solutions supporting long-term sustainability | Sites | NA | 35.00 | Monitoring system / Project reporting | |
| P1.1 | F | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 73,591,748.00 | Certifying Authority | Compulsory |
| P 1.2 | I | Number of applications received and assessed | Applications | 13 | 26.00 | Monitoring system | Reflects programme ability to attract committed beneficiaries |

### Additional qualitative information on the establishment of the performance framework

Key implementation steps have been selected to minimize the amount of data collected while still giving a reliable indication of the real progress of and support for the programme. Financial targets have been set just over the N+3 target amounts for the 2018 review. It is hoped that a higher spend can be achieved but at the same time it is very unlikely that the Cooperation Programme will be approved before the end of 2014 and the targets reflect this

reduced operating period. There are no options regarding the choice of output indicators to be used. Annex 30 must be consulted for a full justification of the selection of outputs and associated targets.

### 2.A.8 Categories of intervention

Categories of intervention corresponding to the content of the priority axis, based on a nomenclature adopted by the Commission, and indicative breakdown of Union support

**Tables 6-9: Categories of intervention**

**Table 6: Dimension 1 Intervention field**

| **Priority axis** | **3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment** |
|---|---|
| **Code** | **Amount (€)** |
| 085. Protection and enhancement of biodiversity, nature protection and green infrastructure | 18,397,937.00 |
| 087. Adaptation to climate change measures and prevention and management of climate related risks e.g. erosion, fires, flooding, storms and drought, including awareness raising, civil protection and disaster management systems and infrastructures | 18,397,937.00 |

**Table 7: Dimension 2 Form of finance**

| **Priority axis** | **3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment** |
|---|---|
| **Code** | **Amount (€)** |

| Priority axis | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment |
|---|---|
| **Code** | **Amount (€)** |
| 01. Non-repayable grant | 36,795,874.00 |

**Table 8: Dimension 3 Territory type**

| Priority axis | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment |
|---|---|
| **Code** | **Amount (€)** |
| 04. Macro regional cooperation area | 36,795,874.00 |

**Table 9: Dimension 6 Territorial delivery mechanisms**

| Priority axis | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment |
|---|---|
| **Code** | **Amount (€)** |
| 07. Not applicable | 36,795,874.00 |

**2.A.9 A summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries and, where necessary, actions to enhance the administrative capacity of relevant partners to participate in the implementation of programmes** (where appropriate)

| Priority axis: | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment |
|---|---|

| Priority axis: | 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment |
|---|---|
| | |

## 2.A.1 Priority axis

| | |
|---|---|
| **ID of the priority axis** | 4 |
| **Title of the priority axis** | Promoting green transport and mobility |

☐ The entire priority axis will be implemented solely through financial instruments
☐ The entire priority axis will be implemented solely through financial instruments set up at Union level
☐ The entire priority axis will be implemented through community-led local development

## 2.A.2 Justification for the establishment of a priority axis covering more than one thematic objective (where applicable)

## 2.A.3 Fund and calculation basis for Union support

| Fund | Calculation basis (total eligible expenditure or eligible public expenditure) |
|---|---|
| ERDF | Total |

## 2.A.4 Investment priority

| | |
|---|---|
| **ID of the investment priority** | 7c |
| **Title of the investment priority** | Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |

## 2.A.5 Specific objectives corresponding to the investment priority and expected results

| | |
|---|---|
| **ID of the specific objective** | 4.1 |
| **Title of the specific objective** | Develop demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation |
| **Results that the Member States seek to achieve with Union support** | • Demonstrate effective freight and logistics solutions and increase the number of users<br>• Reduce dependency on road transport for freight<br>• Promote integrated logistics across all transport modes<br><br>Efforts are needed to improve the speed, reliability, ease of use and cost of rail and shipping in order to cut CO2 emissions and other negative impacts of oil-based road transport including air pollution, noise, congestion and dependence on imported oil. Projects should demonstrate that multimodal solutions can be made to work for different routes and goods. This could include tackling organisational barriers (lack of cooperation and coordination, unclear responsibilities / liabilities etc); technical barriers (missing information technologies, no door-to-door tracking and tracing, delays at transfer points, lack of standardization (semi-trailers, loading units) etc); operational, logistical and service-related barriers (lack of transparency in transport chains, limited flexibility for short-term orders, priority for rail passenger transport, problems integrating intermodal transport in logistics chains of companies etc); and political barriers (no harmonized framework conditions for first and last mile haulage, terminal funding etc.). Projects may also address process capacity, systems and bottlenecks of customs and border control authorities and services.<br><br>Operations should deliver practical solutions that provide new ways of coordinating and promoting services, trials of technology and ICT, use of inland ports and similar infrastructure, methods for reducing the time and administrative burdens of cross-border customs procedures for ships, improved logistics services etc. Operations may also plan how to tackle infrastructural barriers (unsuitable terminal infrastructure, different rail gauges, capacity restraints at terminals and access roads etc.) and financing barriers (high investment costs of intermodal equipment and terminals, cost-intensive storage capacity etc). These solutions should be transferable to other route. |
| **ID of the specific objective** | 4.2 |
| **Title of the specific objective** | Stimulate the take-up and application of green transport solutions for regional freight and personal transport |
| **Results that the Member States** | • Reduction in CO2 emissions and pollution from local and regional traffic |

| | |
|---|---|
| **ID of the specific objective** | 4.1 |
| **Title of the specific objective** | Develop demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation |
| **seek to achieve with Union support** | • New sustainable transport and logistics solutions for first and last mile freight<br>• Greater use of vehicles running on zero/low carbon fuels<br><br>The average distance for freight transport in the EU is 84 km and so too short to justify multimodal solutions. Goods often travel the same routes as people and it makes sense to develop integrated solutions that consider all of the shorter distance travel and transport needs in a region. Alternative fuels are one good long-term option for greening freight and personal travel but other solutions like mobility management and city logistics are also needed in the immediate future.<br><br>Transnational cooperation can make a range of contributions. Mobility management projects should help people with decisions on how to reduce private car use. Land-use planning can help by better connecting people, services and transport infrastructure. Collective transport should be further developed and integrated into wider transport networks, and the use of bike-sharing, taxi-sharing, ride-sharing and car-sharing should be encouraged.<br><br>Intelligent transport systems should be used to create smart services that allow for greater coordination of services, consolidation of loads, optimized load weights and reduced numbers of empty runs. Existing vehicle fleets such as local trains, river transport, metro trains, trams and even cargo bikes should be used for moving goods especially at night or in off-peak periods.<br><br>Operations will also look at new types of vehicles, engines and green fuelling infrastructure, and more fuel efficient ways of operating vehicles and ships. Cooperation can support inter-operability and cost-effective solutions for spreading these technologies and especially the support infrastructure required.<br><br>Effective solutions are needed for remoter parts of the NSR where the most sustainable modes may not be viable due to low traffic flows. Solutions should instead focus on improving the environmental profile of air and road transport. |

**Table 3: Programme-specific result indicators** (by specific objective)

| Specific objective | | 4.1 - Develop demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 4.1 | Capacity of transport and logistics stakeholders to increase the proportion of long-distance freight carried on sustainable modes in the North Sea Region | Capacity scale | 2.7 | 2015 | 3.7 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

| Specific objective | | 4.2 - Stimulate the take-up and application of green transport solutions for regional freight and personal transport | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 4.2 | Capacity of authorities and enterprises to increase the use of green transport services | Capacity scale | 3.0 | 2015 | 4.0 | Baselines and Targets survey (Annex) & Expert consultation during evaluation | 2017, 2019 and at programme close |

## 2.A.6 Actions to be supported under the investment priority (by investment priority)

### *2.A.6.1 A description of the type and examples of actions to be supported and their expected contribution to the specific objectives, including, where appropriate, identification of the main target groups, specific territories targeted and types of beneficiaries*

| **Investment priority** | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|
| Some 45% of freight in the EU moves by road and less than 15% by rail and inland waterways[i]. The EU's new TEN-T policy aims to improve the core network of railways and waterways to boost their share of freight transport. The core network links major ports and cities and does not cover large parts of | |

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

the NSR. The remoter parts of the NSR therefore need to be connected via the comprehensive network linking to core networks in order to offer modern, sustainable transport options. If goods have to travel a long way by road to reach a multimodal route, it is generally just as easy for shippers to rely on road transport for the whole journey. To move freight onto more sustainable forms of transport, the NSR therefore needs effective multimodal routes, including maritime routes, to as many parts of the region as possible. This objective focuses on improvements to those multimodal routes and the services that operate on them. The trans-European transport network should deliver (1) safer and less congested travel and (2) smoother and quicker journeys. The Connecting Europe Facility (CEF) will act as 'seed capital' to stimulate investment to complete missing parts of the TEN-T network. Support from the NSR focuses on the comprehensive network extending out into the remoter parts of the region.

Actions supported will demonstrate how to increase the use of multimodal services so truck use is as far as possible limited to the first and last kilometers of any journey. This requires that multimodal services are upgraded to improve speed, reliability and competitiveness, and that action is taken to raise awareness of the options and persuade shippers to try alternative services. Transnational cooperation is an important tool given that effective multimodal transport chains rely on a well-functioning system along the whole route from start point to final destination.

The EC target is to have 30% of road freight over 300km[ii] on sustainable modes such as water or rail by 2030. This will require fast and reliable multimodal routes that allow goods to move quickly, cheaply and reliably between terminals in the multimodal network and to and from these terminals to the customer. The TEN-T network is a framework around which to build multimodal feeder services to as many parts of the NSR as possible so that as many shippers as possible can be offered a viable multimodal route. Projects should consider how feeder networks can be formed from existing infrastructure and services at relatively low cost. Better service integration should also allow shipments to move easily from one mode to another. The TEN-T regulation calls for transnational cooperation to support these developments and promote coordination between investments. Projects need to demonstrate that these synergies have been considered[iii].

Projects should support the identification of new routes and removal of barriers in physical connections, information technologies, and administrative/regulatory requirements so freight can move quickly between modes and countries. Some investment in small infrastructure at terminals might be possible but projects will generally work with existing infrastructure and how to make better use of it and exploit the potentials of new infrastructure developed under other funding schemes like the Connecting Europe Facility. Examples include filling gaps in local/regional networks through better use of the capacity of small and medium ports and regional rail networks, and small infrastructure investments including the upgrade of existing facilities such as fuel storage/bunkering facilities, secured truck parks, flow management tools and information provision. Projects should demonstrate how such investments can be provided cost effectively in smaller ports and terminals, where a lack of such services can exclude them from

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

multimodal transport chains and low traffic volumes make it hard to justify high investment costs.

Long distance multimodal services also need to be effectively linked to local and regional infrastructure so transshipment does not cause delays. Different elements of the multimodal network (ports, logistics platforms, urban nodes, freight terminals etc.) should cooperate in order to ensure joined up services for users. For ports this could include the use of inland 'dryports' to ease congestion and allow for expanded port services outside the space constraints of the port itself.

Actions should demonstrate that multimodal solutions can be made to work efficiently in practice, and encourage users to switch to the new services. Logistics management should support the planning and operation of such services to improve competitiveness, speed and efficiency on multimodal routes. Smart transport systems and integrated journey planning technologies can make routes more efficient and give easy access to information on all modes of transport, the possibilities for combining them and their environmental impact. Where systems have already been developed on a European level these must be used rather than inventing new systems[iv]. Improved procedures are also needed for inter-modal freight documentation, insurance, liability, and real time delivery information. Interoperability of all new systems should be a key goal. Such measures should also take account of the simplified customs requirements for ships moving between Member States introduced as part of the Blue Belt Single Transport Area for Shipping.

Training is important for suppliers and users of multi-modal offers. Transport and logistics managers must understand how to put together seamless transport chains using sustainable options. Transport users should be supported to develop an understanding of new services and routes and exploit them effectively. Combining shipments and sharing services will reduce the transportation of empty loads. SMEs need particular support in this area as they often do not have in-house logistics expertise.

For the NSR maritime transport is particularly important. Sea and ferry routes should be considered as an 'extra corridor'. Actions should focus on sea-based travel and connections inland. Time-consuming and complex administrative handling procedures and paper based data flows are a problem in this respect and many small ports have no electronic data transmission. As a result, interoperability between different ports and different information systems used in the ports is not satisfactory and limits possibilities for integrating new joint services and creating economies of scale.[v]

The second objective is focused on exploring the wide range of options available for greener transport on shorter journeys – most importantly looking at how these different options could be combined to pilot the transition of local and regional transport systems to much lower carbon solutions. Transnational cooperation can support the joint development of new approaches that explore viable alternatives to conventionally fuelled vehicles for shorter journeys. Living laboratory approaches could be particularly effective as a way of testing a range of interlinked solutions in the same area and finding transport

solutions that offer comparable levels of convenience at a much lower environmental cost. In many cases effective solutions will depend on finding solutions for both goods and people on the same routes. Integrated regional solutions that consider the full range of travel needs are therefore preferred.

For short distance freight transport a different set of solutions is required compared to long-distance multimodal solutions. For example, urban areas account for 40% of all CO2 emissions from road transport and up to 70% of other pollutants from transport. 25% of these CO2 emissions are caused by freight. European Commission policy aims for near zero CO2 city logistics by removing conventionally fuelled vehicles from urban areas by 2030.[vi] This requires action to promote:

- Larger scale experiments with electric, hydrogen and hybrid propulsion for trucks to assess and improve viability
- Better loads management and city logistics. Urban supply chains are inefficient with low load factors (goods volumes carried compared to vehicle capacity) and frequent and uncoordinated deliveries[vii]. Urban logistics should be used to manage combined deliveries to towns and cities to avoid unused vehicle capacity
- Multi-use vehicles to ensure that all trips are useful. This may require new designs and procedures to meet different roles (e.g. trucks taking goods in and waste out)Other flexible-use solutions including combined use passenger/freight vehicles, freight trams, flexibus services, car-sharing etc. to reduce the overall number of vehicles and ensure efficient use of the vehicle fleet

Such measures need to be tested in different locations to explore how they can work best and should be jointly designed based on experience from across the NSR.

The programme will also address personal journeys and the need to move from private cars to other means of transport including:

- Increasing the frequency and capacity of public transport services
- Encouraging more active transport (walking and cycling) in urban areas
- Behavioural change amongst users
- Integration of services to bring together electrified rail services, trams, rapid transit systems, buses and improved conditions for walking and cycling to allow rapid movement independent of cars.

Specific actions could include:

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

- Integrated ticketing and traffic information systems across various forms of transport including ships and planes, which would simplify combined transport and contribute to increased occupancy rates
- Car-sharing services, which can reduce the pressure on public transport and reduce the number of private cars on the road as well as offering a more sustainable solution than single occupant journeys on routes where no public transport is available
- Integrated strategies that will provide additional street space for walking, cycling, green infrastructure etc. and will therefore also improve quality of life and the urban environment
- Urban planning should encourage shorter journeys and better access to services, while the cityscape should be designed in way that encourage active travel

Outside city centres, urban sprawl and dispersed rural populations can create car dependency[viii]. Loss of public transport services can exclude non-drivers and particularly older people and the young. Actions are therefore needed to maintain and improve rural services at a reasonable cost to avoid the risk of social exclusion, and ensure accessibility for tourists and visitors to rural areas. New approaches to public transport such as door-to-door flexibus services, demand responsive transport (DRT) and combined freight and passenger services may offer some solutions. Ride-sharing platforms and peer-to-peer car-sharing also have potential for rural areas but will require different approaches to those used in urban areas to avoid long distances to pick up points. Where services are under threat, non-profit social enterprises could be an option for delivering transport services in remoter areas by building on community involvement.

Actions based around better use of the existing transport system can achieve a lot but the scale of change required means that large numbers of low and zero carbon vehicles must also be introduced. According to Commission targets, the number of conventionally fuelled vehicles in urban transport should be halved by 2030[ix]. They should be completely phased out of major urban areas by 2050.

Many of the necessary technologies are ready for use or are in use on a small scale and more could be done to continue piloting the newest ideas or to support the roll out of proven technologies across the programme area. Potential actions include:

- Further use of urban bus fleets, taxis and delivery vehicles as demonstrations for the introduction of new fuels and propulsion systems
- Showcasing integrated urban transport solutions and last mile solutions
- Cooperation on procurement of vehicles to develop new standards, expand the market, secure cost savings, spread risk and ensure inter-operability of solutions put in place in different countries

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

Other modes and especially shipping should also be considered. New technologies and better fuels and operating procedures need to be introduced. Maritime transport emission levels should be cut by 50% by 2050 against 2005 levels[x]. Although maritime transport is one of the most environmentally friendly modes of transport in terms of energy consumption per transported tonne, the increase in global volumes makes shipping a significant source of emissions. The NSR is a prime location for maritime pilot projects with global implications to improve the environmental and safety standards of maritime transport and the promotion of Short Sea Shipping.

Liquefied Natural Gas technologies for shipping are in development. The core ports in the TEN-T network need to provide LNG bunkering but the infrastructure is currently prohibitively expensive for smaller ports and solutions need to be found to this problem. Similar changes – and concerns – apply for all modes and could usefully be addressed in projects exploring the roll out of the infrastructure and vehicles needed for the range of alternative fuels being explored (see Annex 24). For example, LNG might serve as a reasonable transition fuel for trucks, as its emissions footprint is much better than solid and liquid fossil fuels. Second generation biofuels derived from waste rather than food crops offer one longer-term alternative while electric and hydrogen vehicles are other strong alternatives but need major technological and infrastructure developments. The programme cannot fund a transition on this scale but aims instead to demonstrate its viability through small scale tests that show the way for widespread implementation through the use of appropriate technologies and changes to public policy.

### *2.A.6.2 Guiding principles for the selection of operations*

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

General: Projects have to demonstrate a need to work transnationally and clearly illustrate the contribution expected from each partner. Projects must define the precise need(s) they are tackling, how this affects each partner, and the specific benefits expected from transnational partnership.

Projects are expected to commit to a strong result orientation. Projects must report on one of the outputs for the investment priority and should justify the figures reported by referring to specific cases. Projects will also be expected to draw a clear logical link between these outputs and the relevant result indicator for the specific objective.

Projects should aim to have a broad impact on the programme area and projects with limited partnerships will have to justify the relevance of their

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
|---|---|

activities in relation to the rest of the programme area. Project activities shall not be based on specific local cases but must also demonstrate relevance to the wider programme area.

The principles of inclusive and sustainable growth must be observed. Ageing populations, lack of relevant skills, social exclusion, and location disadvantages are amongst the wider challenges that should be taken into consideration by all projects. Projects should take an integrated approach to the maritime economy and the Blue Growth potential of the region.

The programme will test a 2-step application procedure to assist in delivering these aims.

Priority specific: The priority is focused on demonstrating the potential for change in NSR transport systems. Projects should take as their starting point current barriers to the wider use of greener transport solutions on a specific route / at a specific location and take focused action to remove these barriers. General research on changing transport will not be supported. Projects should also take a strategic approach, which does not just focus on isolated locations but looks at the whole transport chain or region to tackle major barriers along the whole route.

Projects are expected to have a lasting impact and to deliver measurable environmental performance improvements in the targeted transport services and to communicate the factors behind this improvement to a wider NSR audience.

'Living lab' approaches could be used to actively involve citizens with the public and private sectors, and knowledge institutions in developing new freight and passenger transport concepts and ensuring that these really meet user wishes – both for urban and rural areas. Urban areas can be an interesting laboratory where infrastructure can be provided relatively cheaply, average journeys are short and the required vehicle technologies may already exist.

Projects should demonstrate strong links to target groups and their needs. Applications should demonstrate that relevant business and public authority representatives have been consulted about the proposal and support its implementation. Projects should ensure the effective involvement of the end-users of all deliverables. End users are diverse and range from citizens to decision-makers, entrepreneurs and consumers.

All projects must comply with programme requirements on State Aid.The primary aim of the priority is to develop transnational processes and procedures to stimulate and implement effective transport and logistics solutions rather than offer direct support to individual businesses. The involvement of businesses is instead intended to test the effectiveness and encourage the uptake of proven solutions.

### *2.A.6.3 Planned use of financial instruments* (where appropriate)

| | |
|---|---|
| **Investment priority** | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
| | |

### *2.A.6.4 Planned use of major projects* (where appropriate)

| | |
|---|---|
| **Investment priority** | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility |
| | |

### *2.A.6.5 Output indicators* (by investment priority)

### Table 4: Common and programme-specific output indicators

| **Investment priority** | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| CO41 | Productive investment: Number of enterprises participating in cross-border, transnational or interregional research projects | Enterprises | 10.00 | Project reporting | Annual |
| CO42 | Productive investment: Number of research institutions participating in cross-border, transnational or interregional research projects | Organisations | 20.00 | Project reporting | Annual |
| 0.1 | Number of organizations / enterprises adopting new solutions by project end | Organisations and enterprises | 144.00 | Project reporting | Annual |

| Investment priority | 7c - Developing and improving environmentally-friendly (including low noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure, in order to promote sustainable regional and local mobility | | | | |
|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 0.2 | Number of organizations / enterprises informed about new solutions by project end | Organisations and enterprises | 1,445.00 | Project reporting | Annual |
| 4.1 | Number of new and/or improved green transport solutions adopted | Green transport solutions | 54.00 | Project reporting | Annual |

## 2.A.7 Performance framework

### Table 5: Performance framework of the priority axis

| Priority axis | 4 - Promoting green transport and mobility | | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator type** | **Indicator or key implementation step** | **Measurement unit, where appropriate** | **Milestone for 2018** | **Final target (2023)** | **Source of data** | **Explanation of relevance of indicator, where appropriate** |
| 4.1 | O | Number of new and/or improved green transport solutions adopted | Green transport solutions | NA | 54.00 | Monitoring system / project reporting | |
| P1.1 | F | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 56,866,350.00 | Certifying Authority | Compulsory |
| P 1.2 | I | Number of applications received and assessed | Applications | 20 | 40.00 | Monitoring system | Reflects programme ability to attract committed beneficiaries |

**Additional qualitative information on the establishment of the performance framework**

Key implementation steps have been selected to minimize the amount of data collected while still giving a reliable indication of the real progress of and support for the programme. Financial targets have been set just over the N+3 target amounts for the 2018 review. It is hoped that a higher spend can be achieved but at the same time it is very unlikely that the Cooperation Programme will be approved before the end of 2014 and the targets reflect this reduced operating period. There are no options regarding the choice of output indicators to be used. Annex 30 must be consulted for a full justification of the selection of outputs and associated targets.

## 2.A.8 Categories of intervention

Categories of intervention corresponding to the content of the priority axis, based on a nomenclature adopted by the Commission, and indicative breakdown of Union support

**Tables 6-9: Categories of intervention**

**Table 6: Dimension 1 Intervention field**

| **Priority axis** | **4 - Promoting green transport and mobility** |
|---|---|
| **Code** | **Amount (€)** |
| 036. Multimodal transport | 9,477,725.00 |
| 043. Clean urban transport infrastructure and promotion (including equipment and rolling stock) | 9,477,725.00 |
| 044. Intelligent transport systems (including the introduction of demand management, tolling systems, IT monitoring control and information systems) | 9,477,725.00 |

**Table 7: Dimension 2 Form of finance**

| **Priority axis** | **4 - Promoting green transport and mobility** |
|---|---|
| **Code** | **Amount (€)** |
| 01. Non-repayable grant | 28,433,175.00 |

**Table 8: Dimension 3 Territory type**

| **Priority axis** | **4 - Promoting green transport and mobility** |
|---|---|
| **Code** | **Amount (€)** |
| 04. Macro regional cooperation area | 28,433,175.00 |

**Table 9: Dimension 6 Territorial delivery mechanisms**

| **Priority axis** | **4 - Promoting green transport and mobility** |
|---|---|
| **Code** | **Amount (€)** |
| 07. Not applicable | 28,433,175.00 |

**2.A.9 A summary of the planned use of technical assistance including, where necessary, actions to reinforce the administrative capacity of authorities involved in the management and control of the programmes and beneficiaries and, where necessary, actions to enhance the administrative capacity of relevant partners to participate in the implementation of programmes** (where appropriate)

| **Priority axis:** | **4 - Promoting green transport and mobility** |
|---|---|

| Priority axis: | 4 - Promoting green transport and mobility |
|---|---|
| | |

## 2.B DESCRIPTION OF THE PRIORITY AXES FOR TECHNICAL ASSISTANCE

### 2.B.1 Priority axis

| | |
|---|---|
| **ID** | 5 |
| **Title** | Technical Assistance |

### 2.B.2 Fund and calculation basis for Union support

| Fund | Calculation basis (total eligible expenditure or eligible public expenditure) |
|---|---|
| ERDF | Public |

### 2.B.3 Specific objectives and expected results

| ID | Specific objective | Results that the Member States seek to achieve with Union support |
|---|---|---|
| 5.1 | To communicate the programme to relevant stakeholders and stimulate them to develop and deliver high quality projects | Start-up phase: The existing network of project developers and partners will be activated, as well as relevant new partners, in order to ensure the right balance of professional know-how, geographical coverage and decision-making power to create really effective partnerships. This requires production of effective materials promoting the programme, explaining its objectives and rules, how and where to identify potential partners and how to apply for a project. This will mainly involve online material with the development of a programme website and an active presence in the main social media used by the project community (especially LinkedIn and Facebook). Possibilities will be explored for using audio-visual and printed tools to support other media. Events to address and bring together relevant target |

| ID | Specific objective | Results that the Member States seek to achieve with Union support |
|---|---|---|
| | | groups on transnational level such as project development seminars, partner search and thematic seminars will also take place. There should be good awareness of the programme among main target groups and throughout the North Sea Region. Communication should present positively the potential of transnational cooperation and reduce barriers for applicants by explaining requirements in a clear and user-friendly way.<br><br>Easy to use forms, procedures, guidance and tools will be developed for project applicants. These will be based on an online system to automate large parts of the process, and ensure seamless communication between the different programme management bodies and projects. All requirements and assessment criteria will be available in an easy to understand form for all applicants. The online system should be quick and easy to use and should provide all information required for deciding on and subsequently monitoring the project.<br><br>Main implementation phase: Support activities to address main stakeholders developing high quality projects starts with the very early phases of the programme and continues along the work to communicate and promote the calls for applications. Project reporting will allow for effective collection of key information on projects to confirm progress and identify the main intermediate results as they emerge, both as a way of encouraging synergies between projects and increasing stakeholder interest in project work. Communication will promote the projects and will especially focus on the fit between project activities and developments in relevant fields at European, national and regional level. Communication will be project led but the programme will play an important role in analysing, grouping and distributing relevant information. Monitoring will also provide information to adjust strategic steer through for example targeted calls, corrective action etc. This should result in projects that deliver the results defined in their applications, and the collection and communication of reliable and comparable information on these results.<br><br>Closure phase: The programme will produce and publicise an effective record of achievements. All projects will be brought to a satisfactory completion and the results communicated to the partner countries, the European Commission, and other stakeholders in such a way that they are more likely to be |

| ID | Specific objective | Results that the Member States seek to achieve with Union support |
|---|---|---|
| | | taken up in the programme area and beyond. |

## 2.B.4 Result indicators

**Table 10: Programme-specific result indicators** (by specific objective)

| Priority axis | 5.1 - To communicate the programme to relevant stakeholders and stimulate them to develop and deliver high quality projects | | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 5.1 | No indicator required | NA | 0.00 | 0 | 0.00 | NA | NA |

## 2.B.3 Specific objectives and expected results

| ID | Specific objective | Results that the Member States seek to achieve with Union support |
|---|---|---|
| 5.2 | To ensure the sound financial management of the programme at all levels so that implementation happens with a minimum of errors, without delays, and in line with all applicable regulations | Start up phase: To quickly establish a set of standard programme rules, procedures and documents for the reliable management of the projects and programme with a strict focus on genuine simplification and reducing the administrative burden and costs at all levels. All documents and procedures will be made available through the new online programme management and monitoring system, which should allow for paperless management, single data entry, and improved data flows between programme management bodies. The system will ensure that the new 90-days processing deadline can be monitored and met.<br><br>National designation bodies as well as first and second control systems will be established to ensure compliance with the regulations, and consistently high control standards throughout the programme area. Working with national designation authorities, the programme will develop support services for projects and controllers. This will include written and audio-visual guidance, improved rules and documents, and automatic checking when projects and controllers enter data in the system. Events such as first level control seminars and support visits will also take place. The JS will also assist with practical arrangements for establishing the Group of Auditors.<br><br>Main implementation phase: The programme will ensure that projects are provided with regular and reliable information on finance and control requirements. Reports will be processed and payments made as rapidly as possible. The JS will monitor funding allocations and spend and will ensure as far as possible that the programme does not lose funding due to the N+3 rule. The programme will also provide guidance on specialist issues such as state aid, eligibility of expenditure and procurement, with the assistance of national and / or outside experts where necessary. Up-to-date and easy-to-understand financial data will be provided to all main stakeholders. Rules, procedures and documents will be assessed on a regular basis to ensure their continued reliability and simplicity. Changes will only be made when absolutely unavoidable. All documentation for the European Commission will be accurate and timely. This includes requests for payment (CA's application for ERDF), the annual statement of |

| ID | Specific objective | Results that the Member States seek to achieve with Union support |
|---|---|---|
| | | accounts, and annual reporting information.<br><br>Closure phase: All audit and control problems will be resolved as quickly as possible, including initiating procedures for withdrawals and recoveries when necessary. Error rates will be closely monitored at all stages of implementation and corrective action will be taken if error rates suggest systemic problems. |

## 2.B.4 Result indicators

**Table 10: Programme-specific result indicators** (by specific objective)

| Priority axis | 5.2 - To ensure the sound financial management of the programme at all levels so that implementation happens with a minimum of errors, without delays, and in line with all applicable regulations | | | | | | |
|---|---|---|---|---|---|---|---|
| **ID** | **Indicator** | **Measurement unit** | **Baseline value** | **Baseline year** | **Target value (2023)** | **Source of data** | **Frequency of reporting** |
| 5.2 | Also not required | NA | 0.00 | 0 | 0.00 | NA | NA |

**2.B.5 Actions to be supported and their expected contribution to the specific objectives** (by priority axis)

***2.B.5.1 Description of actions to be supported and their expected contribution to the specific objectives***

| **Priority axis** | **5 - Technical Assistance** |
|---|---|

The Technical Assistance budget (TA budget) will be used to ensure timely and effective delivery of the programme. Funding will be distributed between the main management bodies involved in implementing the programme – the Joint Secretariat (JS), the Intermediate Body hosting the JS and the Certifying Authority (CA). The JS will carry out the great majority of tasks of the Managing Authority. In addition, funding may be made available to each country to promote the programme on its own territory.

Three categories of action will run in parallel – (i) Preparation, implementation, monitoring and inspection (ii) Evaluation and studies (iii) Information and communication.

Joint Secretariat: The secretariat will - on behalf of the managing authority - implement all activities required according to the regulations and Article 125 of the Common Provisions Regulation in particular, as well as Article 114-117 regarding evaluation, information and communication. The programme will ensure clear and effective procedures for all stages of project application and implementation. It will provide clear and reliable documentation for all committee meetings so that stakeholders are effectively involved and can make informed decisions on the strategic steer. This will include on-going monitoring of all tools and procedures to ensure their continued usefulness and user-friendliness. Events and communication will be used to bring in new stakeholders, help partnership creation, explain application and implementation requirements, build connections between related projects, and assist projects with any challenges they are facing. These events will range from the major annual conference to one-to-one meetings with individual projects. The NCP network will assist with all of these functions and will be coordinated through the JS. Finally, an on-going evaluation will supplement monitoring data and provide in-depth analysis of specific aspects of programme implementation. The issues to be evaluated will be decided with the partner countries as part of the preparation of an evaluation plan.

The following list of activities is indicative and will be adjusted to match changing programme circumstances in consultation with the Monitoring Committee.:

| Priority axis | 5 - Technical Assistance |
|---|---|

- Promoting the programme in the countries participating in the programme
- Advising applicants on possibilities and conditions for receiving support
- Providing and adjusting information and seminar activities for applicants on transnational level
- Preparing calls for applications and carrying out admissibilitychecks of incoming applications. For applications passing these checks, carrying out a full technical assessments of the applications in order to provide a clear recommendation for approval or rejection of each application
- Preparing all SC and all MC meetings including, together with the current chair, agreeing on the agenda and preparing all necessary background papers
- Developing and fine tuning seminars and other training tools for approved projects
- Technical advice for approved projects and their first level controllers on eligibility rules, calculation principles, requirements for protecting the audit trail etc.
- Checking all incoming activity and finance reports from all approved projects twice a year including preparing the reports for further processing by the Certifying Authority (CA)
- Developing and maintaining an IT system complying with e-Cohesion requirements and capable of managing the submission, processing and follow-up of :
    - Applications
    - Reports
    - Requests for change
    - Budget control
    - Outputs and results
    - Documents and background data for the CA and Audit Authority
- Carrying out support visits to approved projects on the spot as and when necessary
- Coordinating the work of the National Contact Points (NCPs)
- Preparing the annual report for the Monitoring Committee
- Implementing and following up on Monitoring Committee decisions
- Preparing for the CA the background documentation for each application for payment of ERDF at least once a year and probably at least twice a year from 2015
- Developing and implementing a communication strategy with a view to informing applicants and the general public about the programme, the possibilities for receiving funding and project achievements
- Developing and maintaining a Content Management System to promote the programme and provide relevant information on project

| Priority axis | 5 - Technical Assistance |
|---|---|

implementation to the public

- Developing an evaluation plan, supporting the evaluators in delivery of this plan, and implementing recommendations for change at the request of the MC
- Preparing and organising the annual conference including identifying new themes, liaising with the North Sea Commission, local hosts, key note speakers etc.
- Supporting the Audit Authority and the Group of Auditors including assistance with the preparation of meetings, minute taking, provision of background materials for the audit etc.

These actions aim to ensure that all staff at both programme and project level, and all programme stakeholders are fully aware of requirements and are provided with the tools and guidance needed to meet them. There will be a strong focus on training, simplification, and clarity of information throughout the programme period.

National Contact Points: NCPs may be appointed and will be organised on a national basis and in a way that best fits each country's administrative set-up. They will contribute to promoting the programme, act as an additional contact for information and guidance, and may also assist with spreading information on project achievements.

Intermediate Body: The Central Denmark Region hosts the Joint Secretariat and will provide a number of essential support functions. These include staff contracting, payments of salary and ensuring employer obligations are met, rent and maintenance, provision of office equipment, computers, and IT support, and digital archiving system. These services are essential for the day-to-day running of the programme.

Managing Authority: The MA supervises the work of the JS and is the channel for formal communication with the European Commission (e.g. for the submission of annual reports).

Certifying Authority: The CA controls the work of the JS in preparing project claims for payment and prepares each request for payment to the European Commission. The CA keeps the programme accounts and a full record of payments made, deductions and corrections made following withdrawals and recovery procedures.

### *2.B.5.2 Output indicators expected to contribute to results (by priority axis)*

## Table 11: Output indicators

| **Priority axis** | **5 - Technical Assistance** | | | |
|---|---|---|---|---|
| ID | Indicator | Measurement unit | Target value (2023) | Source of data |
| 5.1 | Number of project ideas advised | Project ideas | 500.00 | Internal monitoring at JS and NCPs |
| 5.2 | Number of applications received and assessed | Applications | 237.00 | Monitoring system |
| 5.3 | Percentage of programme output targets met | % output indicators achieved | 95.00 | Monitoring system |
| 5.4 | Number of visitors to programme website | Visitors | 150,000.00 | Count tool on website |
| 5.5 | Number of participants at events promoting the programme and its results | Participants | 10,000.00 | Monitoring by JS and other event organisers (excludes project events) |
| 5.6 | Amount of expenditure requiring follow-up and / or correction | % of total programme budget | 2.32 | Monitoring (baseline is 4.82%) |
| 5.7 | Number of employees (FTEs) whose salaries are co-financed by technical assistance | FTEs | 12.50 | Programme |

**2.B.6 Categories of intervention**

Corresponding categories of intervention based on a nomenclature adopted by the Commission, and an indicative breakdown of Union support.

**Tables 12-14: Categories of intervention**

**Table 12: Dimension 1 Intervention field**

| **Priority axis** | **5 - Technical Assistance** |
|---|---|
| **Code** | **Amount (€)** |
| 121. Preparation, implementation, monitoring and inspection | 7,526,400.00 |
| 122. Evaluation and studies | 501,760.00 |
| 123. Information and communication | 2,007,078.00 |

**Table 13: Dimension 2 Form of finance**

| **Priority axis** | **5 - Technical Assistance** |
|---|---|
| **Code** | **Amount (€)** |
| 01.Non-repayable grant | 10,035,238.00 |

**Table 14: Dimension 3 Territory type**

| **Priority axis** | **5 - Technical Assistance** |
|---|---|
| **Code** | **Amount (€)** |
| 04.Macro regional cooperation area | 10,035,238.00 |

## 3. FINANCING PLAN

### 3.1 Financial appropriation from the ERDF (in €)

**Table 15**

| Fund | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---|---|---|---|---|---|---|---|---|
| ERDF | 0.00 | 21,408,271.00 | 17,638,076.00 | 31,106,193.00 | 31,728,333.00 | 32,362,912.00 | 33,010,186.00 | 167,253,971.00 |
| **Total** | **0.00** | **21,408,271.00** | **17,638,076.00** | **31,106,193.00** | **31,728,333.00** | **32,362,912.00** | **33,010,186.00** | **167,253,971.00** |

## 3.2.A Total financial appropriation from the ERDF and national co-financing (in €)

### Table 16: Financing plan

| Priority axis | Fund | Basis for calculation of Union support (Total eligible cost or public eligible cost) | Union support (a) | National counterpart (b) = (c) + (d) | Indicative breakdown of the national counterpart | | Total funding (e) = (a) + (b) | Co-financing rate (f) = (a) / (e) (2) | For information | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | National public funding (c) | National private funding (d) | | | Contributions from third countries | EIB contributions |
| 1 | ERDF | Total | 46,831,112.00 | 46,831,112.00 | 42,148,001.00 | 4,683,111.00 | 93,662,224.00 | 50.0000000000% | 5,702,128.00 | 0.00 |
| 2 | ERDF | Total | 45,158,572.00 | 45,158,572.00 | 40,642,715.00 | 4,515,857.00 | 90,317,144.00 | 50.0000000000% | 5,498,480.00 | 0.00 |
| 3 | ERDF | Total | 36,795,874.00 | 36,795,874.00 | 33,116,287.00 | 3,679,587.00 | 73,591,748.00 | 50.0000000000% | 4,480,243.00 | 0.00 |
| 4 | ERDF | Total | 28,433,175.00 | 28,433,175.00 | 25,589,857.00 | 2,843,318.00 | 56,866,350.00 | 50.0000000000% | 3,462,006.00 | 0.00 |
| 5 | ERDF | Public | 10,035,238.00 | 4,300,816.00 | 4,300,816.00 | 0.00 | 14,336,054.00 | 70.0000013951% | 857,143.00 | 0.00 |
| **Total** | **ERDF** | | **167,253,971.00** | **161,519,549.00** | **145,797,676.00** | **15,721,873.00** | **328,773,520.00** | **50.8720930445%** | | |
| **Grand total** | | | **167,253,971.00** | **161,519,549.00** | **145,797,676.00** | **15,721,873.00** | **328,773,520.00** | **50.8720930445%** | | |

(1) To be completed only when priority axes are expressed in total costs.

(2) This rate may be rounded to the nearest whole number in the table. The precise rate used to reimburse payments is the ratio (f).

### 3.2.B Breakdown by priority axis and thematic objective

### Table 17

| Priority axis | Thematic objective | Union support | National counterpart | Total funding |
|---|---|---|---|---|
| 1 | Strengthening research, technological development and innovation | 46,831,112.00 | 46,831,112.00 | 93,662,224.00 |
| 2 | Preserving and protecting the environment and promoting resource efficiency | 45,158,572.00 | 45,158,572.00 | 90,317,144.00 |
| 3 | Promoting climate change adaptation, risk prevention and management | 18,397,937.00 | 18,397,937.00 | 36,795,874.00 |
| 3 | Preserving and protecting the environment and promoting resource efficiency | 18,397,937.00 | 18,397,937.00 | 36,795,874.00 |
| 4 | Promoting sustainable transport and removing bottlenecks in key network infrastructures | 28,433,175.00 | 28,433,175.00 | 56,866,350.00 |
| **Total** | | **157,218,733.00** | **157,218,733.00** | **314,437,466.00** |

### Table 18: Indicative amount of support to be used for climate change objectives

| Priority axis | Indicative amount of support to be used for climate change objectives (€) | Proportion of the total allocation to the programme (%) |
|---|---|---|
| 2 | 38,384,786.20 | 22.95% |
| 3 | 25,757,111.80 | 15.40% |
| 4 | 11,373,270.00 | 6.80% |
| **Total** | **75,515,168.00** | **45.15%** |

## 4. INTEGRATED APPROACH TO TERRITORIAL DEVELOPMENT

Description of the integrated approach to territorial development, taking into account the content and objectives of the cooperation programme, including in relation to regions and areas referred to in Article 174(3) TFEU, having regard to the Partnership Agreements of the participating Member States, and showing how it contributes to the accomplishment of the programme objectives and expected results

'A coherent territory offers high quality by efficient functioning as a whole…involves all sub-territories which contribute to the whole in accordance with their distinct natural, cultural, social and economic assets[i]'.

The Territorial Agenda aims to mobilise the potential of EU regions and cities and use territorial diversity for sustainable economic growth. This is a guiding principle in the preparation of all priorities, which promote a place for all regions and strengthened links across the NSR.

Regions deliver growth and tackle challenges based on very different starting points - a place-based approach. Four related principles for the programme are:

· **Capitalise on the strengths of each territory** so they can best contribute to sustainable, balanced development of the NSR

· **Manage concentration** by working with positive and negative impacts of cities - intensifying innovation and productivity while tackling pollution and social exclusion

· **Better connect territories** so there is reasonable access to public services, efficient transport, reliable energy networks and broadband internet

· **Develop cooperation** to address challenges that do not stop at traditional administrative borders[ii]

Transnational work should reinforce the process of cohesion by tackling:

- Uncoordinated sectoral policies
- Mismatches between administrative boundaries and functional boundaries
- Insufficient use of stakeholder knowledge and views
- Lack of long-term visions for planning and objective setting [iii]

This approach acknowledges the diversity of the NSR: The strategy can be applied in very different circumstances so all kinds of regions can be active:

*Priority 1*

- *B*ased on innovation strategies tailored to regional capacities
- *A*llows regions to define their own 'paths of sustainable development'[iv] and form strong cooperative networks.
- *D*ifferentiated approach to counter over-concentration of innovation in areas with major scientific and research infrastructure

- Process, marketing, organisational and incremental innovation can be pursued outside research centres

*Priority 2*

- *S*upports development based on regional assets
- *S*timulates companies and regions to experiment on low carbon, sustainable production with resources available in NSR
- *G*enerates new economic links across the region.

*Priority 3*

- *A*ddresses management of environmental risks including climate change impacts, shared conservation of resources including the North Sea itself, fresh water supplies, biodiversity etc.

- Joint action for most effective targeting of environmental measures for the benefit of all and work against the disadvantaging of high risk regions.

*Priority 4*

- Addresses concentration and connection by taking a lead on low carbon mobility

- Focuses on accessibility through high-quality sustainable transport services to off-set long-term risks of oil shortages, price rises and climate change
- Includes fuels and fuel-saving as development of common standards for LNG, hydrogen and electric vehicle technology as viable inter-operable low-carbon transport solutions are needed to keep all parts of the NSR connected

**4.1 Community-led local development** (where appropriate)

Approach to the use of community-led local development instruments and principles for identifying the areas where they will be implemented

**4.2 Integrated actions for sustainable urban development** (where appropriate)

Principles for identifying the urban areas where integrated actions for sustainable urban development are to be implemented and the indicative allocation of the ERDF support for these actions

**Table 19: Integrated actions for sustainable urban development – indicative amounts of ERDF support**

| **Indicative amount of ERDF support (€)** |
|---|

| Indicative amount of ERDF support (€) |
|---|
| 0.00 |

**4.3 Integrated Territorial Investment (ITI)** (where appropriate)

Approach to the use of Integrated Territorial Investments (ITI) (as defined in Article 36 of Regulation (EU) No 1303/2013) other than in cases covered by 4.2, and their indicative financial allocation from each priority axis

**Table 20: Indicative financial allocation to ITI other than those mentioned under point 4.2 (aggregate amount)**

| Priority axis | Indicative financial allocation (Union support) (€) |
|---|---|
| **Total** | **0.00** |

**4.4 Contribution of planned interventions towards macro-regional and sea basin strategies, subject to the needs of the programme area as identified by the relevant Member States and taking into account, where applicable, strategically important projects identified in those strategies (where appropriate)**

**(Where Member States and regions participate in macro-regional and sea basin strategies)**

At present, it seems unlikely that a formal macro-regional strategy will be developed for the North Sea Region in the 2014-2020 period.

However, on-going strategic discussions, continuing development of the North Sea Commission's 2020 strategy and planning for a sea basin strategy will be closely monitored.

A number of countries in the North Sea Region are involved in neighbouring programme areas and their accompanying strategies. Sweden, Denmark and Germany are part of the EU Strategy for the Baltic Sea Region (EUSBSR) and the UK is part of the Atlantic Strategy. These development processes will be followed closely in order to identify and exploit on-going potentials for joint action.

In addition, opportunities for synergies with other strategic processes will be created and pursued where activities are of clear relevance and benefit to the North Sea Region.

## 5. IMPLEMENTING PROVISIONS FOR THE COOPERATION PROGRAMME

### 5.1 Relevant authorities and bodies

**Table 21: Programme authorities**

| Authority/body | Name of authority/body and department or unit | Head of authority/body (position or post) |
|---|---|---|
| Managing authority | Danish Business Authority | Preben Gegersen, Regional Development Director |
| Certifying authority | Central Denmark Region, Accounts Department | Per Grønbech, Deputy director |
| Audit authority | Danish Business Authority, EU Controller Unit | Svend Wellemberg, EU Auditor |

**The body to which payments will be made by the Commission is:**

☐ the Managing authority
☑ the Certifying authority

**Table 22: Body or bodies carrying out control and audit tasks**

| Authority/body | Name of authority/body and department or unit | Head of authority/body (position or post) |
|---|---|---|
| Body or bodies designated to carry out control tasks | Bremen - Senator für Umwelt, Bau und Verkehr der Freien Hansestadt Bremen Ref. Raumordnung, Stadtentwicklung, Flächennutzungsplanung (DE) | Petra Staats |
| Body or bodies designated to carry out control tasks | Bundesregierung Bundesministerium für Verkehr und digitale Infrastruktur EFRE-Prüfbehörde (DE) | Sigurd Freitag |
| Body or bodies designated to carry out control tasks | Danish Business Authority, Regional Development Unit (DK) | Kaja Korgaard |
| Body or bodies designated to carry out control tasks | ERDF Programmes Team (UK) | Arni Narain |
| Body or bodies designated to carry out control tasks | Enterprise Flanders, Division Europe Economy (BE) | Werner Van den Stockt |
| Body or bodies designated to carry out control tasks | Hamburg Behörde für Stadtentwicklung und Umwelt Amt für Landes- und Landschaftsplanung, LP 03 (DE) | Klaus Haberlandt |
| Body or bodies designated to carry out control tasks | Netherlands Enterprise Agency (Rijksdienst voor Ondernemend | Nancy Karjantiko |

| Authority/body | Name of authority/body and department or unit | Head of authority/body (position or post) |
|---|---|---|
| | Nederland) (NL) | |
| Body or bodies designated to carry out control tasks | Niedersachsen - Niedersächsische Staatskanzlei Referat 404 - INTERREG, Metropolregionen (DE) | Monika von Haaren |
| Body or bodies designated to carry out control tasks | Schleswig-Holstein Ministerium für Justiz, Kultur und Europa des Landes Schleswig-Holstein (DE) | Mario Schulz |
| Body or bodies designated to carry out control tasks | The Swedish Agency for Economics and Regional Growth, Programstöd – Joint Unit for Regional Structural Fund, EU programmes (SE) | Tommy Anjevall |
| Body or bodies designated to be responsible for carrying out audit tasks | Agentschap Ondernemen - Afdeling Inspectie en Ondersteuning (Division for Inspection and Management Support, Flemish Government) (BE) | Dirk De Rijck |
| Body or bodies designated to be responsible for carrying out audit tasks | BDO AS (NO) | Terje Tvedt |
| Body or bodies designated to be responsible for carrying out audit tasks | Danish Business Authority, EU Controller Unit (DK) | Svend Wellemberg |
| Body or bodies designated to be responsible for carrying out audit tasks | Ekonomistyrningsverket (SE) | Ulrika Bergelv |
| Body or bodies designated to be responsible for carrying out audit tasks | Ministry of Justice, Cultural and European Affairs Schleswig-Holstein (DE) | Markus Stiegler |
| Body or bodies designated to be responsible for carrying out audit tasks | National Audit Service (Ministry of Finance) (NL) | Ruud van As |
| Body or bodies designated to be responsible for carrying out audit tasks | UK Group of Auditors (UK) | Desmond Mulcahy |

### 5.2 Procedure for setting up the joint secretariat

Following consultations with the member states and Norway represented in the North Sea Programme, the Managing Authority will set up a Joint Secretariat. The Joint Secretariat will be operational immediately following approval of the Cooperation Programme. The Joint secretariat will assist the Managing Authority, the Monitoring Committee and the Steering Committee in carrying out their respective tasks as described in the relevant regulations.

The Joint Secretariat is part of the Central Denmark Region, which is located at:

The Central Denmark Region

Department for Regional Development

Skottenborg 26

DK-8800 Viborg

Denmark

The Central Denmark Region acts as an Intermediate Body in line with Article 123(6) of Regulation (EU) No 1303/2013 and will be delivering most of the tasks of the Managing Authority. The modalities of the interaction between the Managing Authority, the Certifying Authority, the Intermediate Body and the Joint Secretariat are described in a set of Letters of Agreement between the relevant parties and the member states and Norway participating in the programme.

Recruitment of staff for the Joint Secretariat will as far, as possible, ensure a wide representation of the programme area. A detailed work plan, a description of the competences and responsibilities of the secretariat staff and an updated TA budget will be presented annually in a Business Plan to the Monitoring Committee for discussion and decision. The Business Plan will also include a description of steps taken in order to ensure that the secretariat staff posses the qualifications and competences necessary for delivering the tasks delegated to the Joint Secretariat.

### 5.3 Summary description of the management and control arrangements

**The Managing Authority**

In line with Article 21(1) of Regulation (EU) No 1299/2013 and Article 123(2) of Regulation (EU) No 1303/2013 the member states and Norway have designated the Danish Business Authority as Managing Authority.

The Managing Authority is responsible for the overall management of the Cooperation Programme in line with Article 125 (1-3) of Regulation (EU) No 1303/2013. The Managing Authority will carry out those tasks on behalf of the member states and Norway in line with the principles of sound financial management. All tasks, with the exception of the formal communication with the European Commission will be delegated to the Central Denmark Region as Intermediate Body and delivered by the Joint Secretariat.

**The Certifying Authority**

In line with Article 21(1) of Regulation (EU) No 1299/2013 and Article 123(2) of Regulation (EU) No 1303/2013 the member states and Norway have designated the Accounts Department of the Central Denmark Region as Certifying Authority (CA). The CA will receive all payments from the European Commission and will make payments to the Lead Beneficiaries in line with Article 132 of Regulation (EU) No 1303/2013.

The CA is both physically and administratively separated from the Joint Secretariat. The main tasks of the CA are to prepare payment claims to the Commission, to receive payments from the Commission and national co-financing of TA from the member states and Norway and subsequently make payments to beneficiaries. A detailed description of the CA tasks is listed in Article 126 of Regulation (EU) No 1303/2013. In addition to this, the CA serves as an independent quality assurance body for the secretariat. It verifies the quality of the verifications carried out by desk officers and, on a sample basis, checks the correctness of the reports from the beneficiaries.

**First Level Control**

Each member state and Norway will in line with Article 23 (4-5) of Regulation (EU) No 1299/2013 set up a system for First Level Control (FLC) of beneficiaries operating on its territory. The individual member state is responsible for the first level control on its territory. The member state Sweden will apply a centralised system for first level control, the member state Belgium (Flanders) will apply an intermediate system where a limited number of FLC providers will be available for designation as first level controllers, while the other member states and Norway will apply a decentralised system for designation of first level controller in line with the relevant national rules. The designation systems applied in all participating countries will be similar to the systems applied in the 2007-2013 structural funds period.

Regardless of the structure of the FLC system in the individual countries, the reporting procedures and the responsibilities are the same in all 7 countries.

The programme will not normally use the same bodies responsible for carrying out verifications for Cooperation Programmes under the Investment for growth and jobs goals in accordance with Article 125(4) of Regulation (EU) No 1303/2013. Each country may choose to make use of this option or to adopt a separate solution for ETC based on its own needs.

**Prevention of fraud**

In line with commitments in the Partnership Agreements and published European Commission guidance (Fraud Risk Assessment and Effective and

Proportionate Anti-Fraud Measures), the programme adopts a zero tolerance attitude towards fraud. Control procedures and rules have been established with a specific view to limiting the opportunities for fraud. The residual fraud risk will be assessed as part of the development of detailed operating procedures for the programme (‘designation’) and in line with the Commission’s published recommendations as follows:

1. Quantification of the risk that a given fraud type would occur by assessing impact and likelihood (gross risk).

2. Assessment of the effectiveness of the current controls in place to mitigate the gross risk.

3. Assessment of the net risk after taking into account the effect of any current controls and their effectiveness i.e. the situation as it is at the current time (residual risk).

4. Assessment of the effect of the planned mitigating controls on the net (residual) risk.

5. Defining the target risk, i e the risk level which the managing authority considers tolerable after all controls are in place and effective.

This assessment will be reviewed during the programme's lifetime to ensure that measures remain effective.

**Reporting**

In line with the Lead Beneficiary principle described in Article 13 of Regulation (EU) 1299/2013, each beneficiary reports on activities and finance to the Lead Beneficiary using the templates based on the Harmonised Implementation Tools. Both reports are subject to FLC in line with the relevant national rules for control. The FLC can take place either by way of an on-the-spot check or by way of a desk-check by the FLC. The basis of the checks will be the progress reports on activities and finance supported by accounting evidence submitted by the beneficiary in question.

Once the FLC has completed his/her checks the FLC certificate and the FLC control report is returned to the beneficiary and entered into the on-line monitoring system. Details on the procedure for entering data/documents, access rights for reading documents etc. will be described in the Handbook of Standard Procedures, which will be presented to and approved by the Monitoring Committee.

In line with Article 13 (c) of Regulation (EU) 1299/2013 the Lead Beneficiary ensures that expenditure presented by all beneficiaries has been incurred in implementing the operation (project) and corresponds to the activities agreed between all the beneficiaries and is in accordance with the subsidy contract.

There will be no additional FLC check of the reports from other beneficiaries at the Lead Beneficiary level.

**Desk-verifications in the Joint Secretariat**

The Lead Beneficiary reports to the Joint Secretariat at least twice annually with normal reporting deadlines in April and October. Delays are permitted for legitimate reasons if agreed with the secretariat in advance. The deadlines enable compliance with the deadlines for submission of the final annual application for payment to the Commission in line with Articles 131 & 135 of Regulation (EC) No1303/2013 and the annual deadline for payment applications following the decommitment rule in line with Article 136 of the same regulation.

The Joint Secretariat carries out a desk-verification of the material submitted by the Lead Beneficiary. The desk-verifications are based on HIT document "Project Progress Report". The content of the verification will be described in the Handbook of Standard Procedures. If relevant during the verifications, the Joint Secretariat will contact the individual beneficiaries and/or their FLC for verification of any outstanding issues. The Joint Secretariat will ensure that there are adequate quality control procedures in place when reviewing First Level Control (FLC) reports.

Once the desk verifications are completed, the reports on expenditure will be forwarded to the Certifying Authority for verification and payment. The payment procedure will be completed in line with the requirements of Article 132 of Regulation (EC) No 1303/2013 allowing a maximum processing time of 90 days.

Reports from other beneficiaries will not be subject to additional FLC-checks at the Lead Beneficiary level

**Audit Authority**

In line with Article 123(4) of Regulation (EU) No 1303/2013 the member states and Norway have designated the EU Controller Unit of the Danish Business Authority as Audit Authority (AA) for the programme. The EU Controller Unit is both functionally independent and physically detached from the Managing Authority.

The functions of the AA are described in Article 25 of Regulation (EU) No 1299/2013 and Article 127 of Regulation (EU) No 1303/2013.

In line with the provisions of Article 124(2) of Regulation (EU) No 1303/2013 the Audit Authority is responsible for drawing up the report and opinion assessing the fulfilment by the Managing Authority and Certifying Authority of the criteria related to the internal control environment, risk management, management and control activities and monitoring, on the basis of the Annex XIII of Regulation (EU) No 1303/2013.

In line with Article 25(2) of Regulation (EU) No 1299/2013 the AA will be assisted by a Group of Auditors. The Group of Auditors is composed of at least one representative from each member state and Norway. The auditors are functionally independent of the first level controllers. The Group of Auditors will be set up within 3 months of approval of the Cooperation programme. The Joint Secretariat will cooperate with the AA and the Group of Auditors as necessary.

The individual member state and Norway is responsible for the second level control carried out on its territory.

**The Monitoring Committee**

In line with Article 47 of Regulation (EU) No 1303/2013 the member states and Norway will, within 3 months of approval of the Cooperation Programme set up a Monitoring Committee. The committee will draw up and adopt its own rules of procedure. A national representative from the member state will chair the Monitoring Committee. There will also be two co-chair persons, who are the past and the future chair persons. The chair and co-chairs will be nominated for a period of twelve months and alternate between the member states in the following order (more or less continuing from the order that ran in the Interreg IVB programme) (NL,S, D, FL, DK, UK)

The composition of the Monitoring Committee will be in line with the prescriptions of Article 48 of Regulation (EU) No 1303/2013. In line with this, the Monitoring Committee will be composed of up to three representatives from each member state. One of these representatives must come from the body responsible for ERDF in each country. A representative from the European Commission may participate in an advisory capacity.

The Monitoring Committee will meet at least once per year.

The Monitoring Committee will be assisted by the Joint Secretariat, which will be responsible for the preparation of documentation in relation to the monitoring reports, agendas and minutes of the meetings.

The tasks of the Monitoring Committee are listed in Article 49 of Regulation (EU) No 1303/2013.

Decision-making in the Monitoring Committee will be by consensus.

**The Steering Committee**

In line with Article 12(1) of Regulation (EU) No 1299/2013 a Steering Committee will be established under the responsibility of the Monitoring Committee. The Steering Committee will be established at the first meeting of the Monitoring Committee. The Steering Committee will set up its own rules of procedure which will subsequently be adopted by the Monitoring Committee. The purpose of the Steering Committee is to approve or reject project applications for funding under the North Sea Programme. The Steering Committee will report to the Monitoring Committee.

In order to ensure efficiency in decision making, the Steering Committee will have a limited number of representatives from each member state and Norway. The composition of the delegations from each country will ensure that the views of social partners will be taken into account in accordance with the relevant regulations and the administrative traditions in the countries concerned.

A national representative from one of the member states or Norway will chair the Steering Committee. The chair will be nominated for a period of twelve months and alternate between the member states and Norway in the following order (continuing the order followed in the Interreg IVB programme) (UK, DK, FL, D, NL, N and S)

The Steering Committee will be composed of three representatives and at least one each from the regional and national level from each of the member states and Norway. A representative from the European Commission may attend the meetings in advisory capacity.

Decision making in the Steering Committee will be by consensus.

The Steering Committee will meet twice a year or as necessary. The committee will be assisted by the Joint Secretariat, which is responsible for the preparation of documentation in relation to the technical assessment of applications, agendas and minutes of the meetings.

**Beneficiaries** Any organisation, public or private, can be a beneficiary in projects under the North Sea Region programme if it fulfils the following conditions:

- It constitutes a legal body
- Act as a non-profit organisation in the context of the project. This does not exclude companies acting on a for-profit basis in other contexts. Any co-financing from such companies is registered as national private funding in the financing plan of the programme;It makes all project results available to the general public free of charge. This includes securing public access to the project results and includes no ownership by beneficiaries of intellectual property rights to the project results
- Project activities are carried out in accordance with the principle of real costs and do not qualify as a “commercial activity”

- Project activities are carried out in accordance the relevant national rules on public tender.
- Private sector parties cannot take on the role of Lead Beneficiary.

In addition to this, the programme may make use of tools that will also make commercial activities eligible in the North Sea Region programme e.g. the de-minimis rules or the General Block Exemption rules as specified in particular in Article 20 of the Commission Regulation declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty. The specific conditions for this will be described in the programme manual.

**Subsidy contracts**

Following approval of a project, the Joint Secretariat will, in line with Article 12(5) of Regulation (EU) No 1299/2013 draw up a subsidy contract between the Managing Authority and the Lead Beneficiary on behalf of the project partnership. The contract will set out the conditions for support including the specific requirements concerning products or services to be delivered, the financing plan and the time-limit for delivery of the project.

The subsidy contracts will be signed by the head of secretariat and a senior officer from the Intermediate Body i.e. the Central Denmark Region both representing the MA and by the Lead Beneficiary. Neither the head of secretariat nor the senior officer from the Intermediate Body will subsequently be involved with making payments to the project. The issuing of subsidy contracts and the subsequent payments to projects will in other words be kept separate.

**Complaints and Appeals**

A complaints procedure has been established in line with Article 74(3) of Regulation (EU) No 1303/2013. It allows project applicants to appeal against project assessment procedures. Details of the complaints procedure are published in connection with each call for project proposals. The complaints procedure is included in the Annexes for the Cooperation Programme for information purposes.

Complaints regarding First Level Control (FLC) and/or audit findings and procedures should be made to the relevant national authorities as set out in Table 22.

All other complaints or appeals should be made in writing to the programme's Managing Authority. They will be handled in the first instance by the Complaints Panel and according to the procedure laid out for appeals against the assessment procedure. Depending on the nature of the complaint, the Complaints Panel may decide to nominate alternative members with the relevant expertise to tackle the specific nature of any complaint.

**Principles for the use of geographical flexibility**

The North Sea Region Programme recognizes the added value of external cooperation. Beneficiaries from outside the programme area are eligible for funding in accordance with Article 20(2c) of Regulation (EC) No 1299/2013. The arrangements regarding control and audit responsibilities as well as liability of the beneficiary country shall be confirmed in a signed agreement, ref. article 20(2c) of Regulation (EC) No 1299/2013.

In cases where beneficiaries from the programme area are taking part in an operation, which is implemented and where costs are incurred outside the programme area, the relevant Member State where the operation took place is responsible for the control and audit of such costs.

**Public procurement provisions**

When the application of public procurement rules is relevant in connection with project implementation the national rules on public procurement in the beneficiary country apply. In the case of activities carried out by the Joint Secretariat the Danish national rules on public procurement apply.

A more detailed description of the management and control arrangements can be found in the Article 72 description.

## 5.4 Apportionment of liabilities among participating Member States in case of financial corrections imposed by the managing authority or the Commission

In line with Article 27 of Regulation (EU) No 1299/2013) the Managing Authority will ensure that any amount paid as a result of an irregularity will be recovered from the relevant beneficiary. In the event that it proves impossible to recover the amount in question e.g. as a result of bankruptcy the member state on whose territory the beneficiary is located shall reimburse the Managing Authority any amounts unduly paid to that beneficiary. In practice the recovery procedure will be prepared by the Intermediate Body i.e. the Joint Secretariat and executed by the Certifying Authority.

The Audit Authority, the Group of Auditors, the European Commission or the European Court of Auditors may at any point during or after programme implementation detect systemic or other irregularities on programme or project level which might lead to financial corrections imposed by the European Commission in line with Articles 85 and 144 to 147 of Regulation (EU) No 1303/2013. Apportionment of liabilities in these cases will be as follows:

- In cases where a financial correction is imposed as a result of irregularities and/or errors which are clearly the responsibility of a particular member state(s), the member state(s) in question will be liable.
- In cases where a financial correction is imposed as a result of a systemic error in the programme manifesting it self on project level and where it is not possible to attribute the irregularity and/or error to the First Level Control system in a particular member state, the liability will be shared by the member states. The liability will be shared proportionally based on the allocation of funding to beneficiaries in the individual member states
- In cases where a financial correction is imposed as a result of irregularities and/or errors in TA expenditure resulting from joint decisions by the participating countries, the participating countries will bear joint liability proportionally to their respective share of the overall TA budget.

Apportionment of liabilities in all other cases including arrangements in relation to third countries will be described in the programme manual.

**5.5 Use of the Euro** (where appropriate)

Method chosen for the conversion of expenditure incurred in another currency than the Euro

The North Sea Region programme covers countries being part of the Euro zone and countries making use of other currencies. Regardless of the currency in which costs are incurred, all costs incurred by beneficiaries under the programme will be reported to the Joint Secretariat in euro. In line with Article 28 of Regulation (EU) No 1299/2013 expenditure incurred in a currency other than the euro shall be converted into euro by the beneficiaries using the monthly accounting exchange rate of the Commission in the month during which that expenditure was submitted for verification to the First Level Controller.

This method of calculation is applicable to all beneficiaries to whom the conversion issue is relevant.

Verification of the correct conversion from other currencies into euro is part of the checks carried out during the First Level Control.

**5.6 Involvement of partners**

Actions taken to involve the partners referred to in Article 5 of Regulation (EU) No 1303/2013 in the preparation of the cooperation programme, and the role of those partners in the preparation and implementation of the cooperation programme, including their involvement in the monitoring committee

Programming started in November 2011 with an informal meeting between the JTS of the 2007-2013 programme and the partner countries to review the first draft of the regulations and discuss implications. This initial consultation focused on a number of issues requiring discussion and scoping:

- How to address thematic concentration
- The role of the private sector
- The role of the new cooperation instruments like Integrated Territorial Investments
- The need for administrative simplification

The Monitoring Committee of the Interreg IVB programme decided at its 9th meeting in November 2011 that two informal working groups should be established. One to address financial and administrative matters and the other working with programme content. First meetings for both groups were proposed for early-mid 2012. A list of organisations represented in these groups is included in section 9.3.

**Scoping discussion with national and regional stakeholders**

The first meeting of the content group was held in early September 2012. The meeting agreed on the formation of an additional Steering Group to be the decision making body for preparation of the new programme. The countries attending also provided initial information on national views on thematic concentration and internal national consultations on this issue.

At the May 2012 meeting, the choice of thematic objectives was discussed and narrowed down to 9 investment priorities of interest for the future programme. The group was also presented with input on the innovation theme and an analysis of the sorts of challenges that might be addressed through transnational cooperation on the issue.

This type of analysis was accepted as the basis for initiating public consultation on the investment priorities identified. It identified key challenges facing the programme area with regards innovation and engaged key stakeholders including representatives of NGOs, businesses and academia in discussing and ranking the challenges and potentials for a future North Sea Region programme through questions on:

- Relevance of challenges
- Whether additional challenges should be added
- What kind of results the programme should aim for on each challenge
- What kind of activity would be best to deliver these results

Similar input papers were prepared for environment and transport. Online consultation ran till 8 July 2013 and was publicised nationally and at programme level. It resulted in approximately 280 responses (see list of participating organisations in 9.3).

The second phase took part in June 2013 with three thematic workshops and one joint session discussing all three main themes. It followed the same question structure as the online consultation.

Consultation findings largely confirmed the thematic selection based on MS inputs, national consultation events, document analysis and experience from the 2007-2013 programme. There were, however, also suggestions for refinements of the main challenges and these were ranked and incorporated into the drafts produced for the next meeting of the content group in September 2013. Fine-tuning continued into 2014.

**The role of partners in the preparation and implementation of the programme**

**The Netherlands**

The Dutch consultative body for Interreg B and C programmes - the National Advisory Committee (NAC) - was used for consultation. NAC is chaired by representatives of the Ministry of Infrastructure and the Environment, and composed of representatives of provinces, municipalities and water boards.

The Dutch delegation in Programme Preparation Groups and MC/SC is composed of representatives of national and regional organisations. The input for the negotiations for all Interreg B and C programmes was prepared in the NAC.

In addition, the Netherlands organised a National Event for Interreg B and C on 24 June 2013. The event looked back at past achievements and lessons learnt, while at same time providing an outline of Europe 2020 objectives and a glimpse of the upcoming

programme period. 13 workshops were held to gather input for the preparation of the new programme, including for the North Sea Region.

The National Contact Point has also attended many events to collect input on thematic needs and administrative challenges. For example a workshop on energy in North Sea Region at TU Delft (16 September, Delft).

**Flanders**

The Flemish Working Group was set up by the Flemish Government in June 2012 to provide technical input for the 2014-2020 programmes on behalf of the Flemish government. The first meeting of the Flemish Working Group was in July 2012.

Flanders has a tradition of close cooperation with other governance levels for the preparation and implementation of Interreg programmes. For the NSR programme a long standing partnership exists since Interreg III with the Flemish Provinces in programme. The Provinces represent an elected intermediary governance level between the Flemish Region and local authorities.

Flemish input and positions concerning the new Cooperation Programme were intensively prepared and coordinated with Flemish Provinces. Flemish Provinces organised a consultation process with stakeholders closer to their governance level. The Flemish provinces are also directly represented in formal Programme Preparation Groups, Monitoring Committee and working groups that participate in decision making for the new OP.

On 5 June 2013 all Flemish stakeholders and the Flemish Working Group on Interreg received a request in Dutch to fill in the Online Consultation survey on the North Sea Region Programme 2014-2020.

The three Flemish Provinces involved in the North Sea Region Programme have all organised information events (between October 2013 and March 2014) to inform their stakeholders on the opportunities of the 2014-2020 Interreg Programmes.

**Germany**

The results of the previous transnational cooperation were analysed on behalf of the federal states participating (Bremen, Hamburg, Schleswig-Holstein and Lower Saxony) and the two federal departments involved. This resulted in recommendations for the design of a future North Sea programme after 2013. The project "Joining Forces - results and perspectives of Interreg B" included the development of a brochure and an accompanying exhibition. The exhibition was presented at a number of international regional events (e.g 18-19 June 2012 Annual Conference in Bremerhaven) and in Brussels. Recommendations for continued strategic and operational development included in depth study of the following dimensions:

- results of the NSR Programme in Northern Germany

- added value and unique features of transnational cooperation

- conditions for European cohesion and spatial development policy after 2013

- priorities for a future NSR Programme

The German Institute of Urban Affairs (Deutsches Institut für Urbanistik, Difu) used a number of methods to prepare the expert report including extensive documentary analysis, interviews with experts, two workshops and an in-depth study of twelve projects from different priority areas of the programme.

In addition there was continuous public information displayed on www.interreg.de, with a special section on future cooperation 2014-2020 established in 2012. Regular updates were provided in the monthly e-mail INTERREG newsletters and quarterly INTERREG Journals. Several bigger events were held on Länder level with 100–150 participants each (January 2012, September 2013, May 2014). An internal communication platform was utilised (groupspaces.com/interreg) open to all members of national committees and several bigger events were also held on national level with 200–400 participants each (June 2011, September 2012, May 2014)

An informal consultation letter was sent to 87 associations covering the topics of INTERREG and working on national level regarding their expectations and needs for future programmes (February 2013). In addition, there was a public consultation of all six CP drafts and SEAs via website, email newsletters and follow-up letters to 87 associations (between December 2013 and spring 2014) and national stakeholders.

Annual events on Länder level took place with 100–150 participants each (January 2012, April 2013, November 2014). Public information was posted via official regional websites.

INTERREG events on regional level took place in Hamburg, Bremen, Kiel and Lower Saxony. Informal consultation (via email) of stakeholders also took place (e.g. regional ministries, clusters, project partners).

**UK**

A number of engagements and workshops have taken place, through regular contacts with the Regional European Spatial Planning (RESP), which represents local authority practitioners in England and Scotland in providing policy and guidance on the mechanisms needed to coordinate infrastructure and implementation programmes at the sub-regional level through local partners. The NSR contact point and the head of ETC programmes for the UK attend these meetings to update and involve them in ETC programme development and seek guidance on the approach needed to inform local stakeholders and partners about utilising EU funding strategically when developing new projects etc.

In Scotland, the Scottish Territorial Cooperation Network meet regularly and held two INTERREG Information Seminars to discuss the new programme. These sessions included workshops looking at potential project ideas.

In England there have been the three Focus Group meetings and INTERREG seminars in Chelmsford and Durham. In addition, the UK contact point has had contact through meetings and e-mails with partners interested in developing project ideas.

**Denmark**

Denmark carried out consultations during the programming process (e.g. on thematic priorities) on national, regional and local level and has had extensive discussions about Danish priorities in the Danish Sub-Committee. The consultation process was carried out in line with national structures and practices. These processes will continue during the delivery and implementation of the new Programme.

Denmark will also host a conference with joint focus on the North Sea, Baltic Sea and Interreg Europe programmes in late 2014 to start communication with national stakeholders about the implementation of the new programme. The event will take place in Copenhagen but will involve stakeholders from all over Denmark and from all levels.

**Norway**

A questionnaire was sent to relevant regional and local authorities in autumn 2011 asking for input on the next program period. Answers were submitted by 01.02.14. Representatives from regional authorities and the ministry have participated in developing the programme.

Coordination has also taken place through the national sub-committee for Norwegian participation in the transnational and interregional Interreg programmes. Different regions have been invited to give input to the priorities in the different programmes through the national sub-committee. Direct consultations with regard to the North Sea programme and conferences at regional level were held in 2014.

**Sweden**

Sweden held preparation activities on three levels:

a) National – common activities for all three transnational (Interreg B) programmes with Swedish participation (BSR, NSR and NPA programmes)

b) National – activities per programme

c) Regional/local – activities mostly for all relevant Interreg programmes. Please see the following examples

**An example of national level activities is when t**he Ministry of Enterprise, Energy and Communications (Näringsdepartementet) organized five meetings with the PPG delegation group (members of PPG in all three programmes) to coordinate Swedish positions.

**The involvement of partners in the Monitoring Committee of Regulation (EU) No 1303/2013**

**The Netherlands**

The Netherlands have involved key stakeholders in the upcoming programme period using a flexible, constructive and efficient approach. The Netherlands has considered options for the NAC to include a wider variety of partners to correspond with societal and economic developments.

**Flanders**

During the public consultation on the Cooperation Programme and its environmental report, Flanders put the draft Cooperation Programme at the disposal of all Interreg stakeholders. This process was completed with targeted communication or events directed at public and private stakeholders (including civil society).

The multilevel character of Flemish Representation in Programme Committees will be continued. Cooperation modalities between the Flemish and other governance levels are historically pragmatic and flexible and can thus be continuously adapted and innovated to serve the North Sea Region Programme.

It is intended to maintain the so-called Flemish Working Group on Interreg as a tool for strategic input, feedback and communication that should also serve for coordination with other Funds and Flemish Regional funding instruments. On Flemish level this would be partly a formalization of current ad hoc practices and partly an innovation because new policy areas will be involved much more than previously.

**Germany**

With regard to the implementation of the next programme period, Germany will carry on the work of the national sub-committee. The German sub-committee includes representation from the federal states of Bremen, Hamburg, Schleswig-Holstein and Lower Saxony and the two federal departments involved and a number of stakeholders from regional and national level.

**UK**

An ETC communication strategy is being developed to assist the UK to engage and support key stakeholders and local partners in delivery of the new programmes over coming years.

**Norway**

Norway will carry on the work of the national sub-committee with representation from regional and national level.

**Sweden**

A substantial part of implementation tasks of the NSR in Sweden has to date been carried out on regional level. This will continue in the new programme with Region Västra Götaland intending to appoint a subcommittee and hosting the secretariat of the Sub Committee and the National Contact Point.

## 6. COORDINATION

The mechanisms that ensure effective coordination between the ERDF, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and other Union and national funding instruments, including the coordination and possible combination with the Connecting Europe Facility, the ENI, the European Development Fund (EDF) and the IPA and with the EIB, taking into account the provisions laid down in the Common Strategic Framework as set out in Annex I to Regulation (EU) No 1303/2013. Where Member States and third countries participate in cooperation programmes that include the use of ERDF appropriations for outermost regions and resources from the EDF, coordination mechanisms at the appropriate level to facilitate effective coordination in the use of these resources

The programme is designed to avoid overlaps with other funds and focus actions where the potential of transnational territorial cooperation is greatest. Thematic links with other programmes will be regularly reviewed and programme guidance and advice will be modified on this basis. Future projects are also expected to consider links with other relevant Community and national policies, initiatives and programmes at application stage and on an on-going basis throughout implementation.

This chapter is divided according to the EU main programmes and policies relevant to each of the new programme's priorities.

The main policy framework is provided by the aims of EU 2020, territorial cooperation, EU cohesion policy regulations, the partnership agreements, policies and programmes and the Common Strategic Framework (CSF).[1] These policies focus on economic growth with important safeguards for environmental and social values. These links are explored separately in the strategy chapter. Compared to other schemes, transnational cooperation specifically focuses on the territorial integration of the North Sea Region. It addresses current barriers, such as uncoordinated sectoral policies, mismatches between administrative boundaries and functional boundaries, insufficient use of stakeholder knowledge and views, and a lack of long-term visions for planning and objective setting. By taking their starting point in the territory and all of the relevant influencing factors on the territory, transnational projects should transcend administrative and sectoral barriers, and actively pursue horizontal coordination (across sectors) and vertical coordination (across different levels of administration). In this way, transnational cooperation *can* make a real difference by demonstrating what is possible as well as delivering real change through practical action in regional and local communities. This distinct strategic focus should be used to maximise the programme's effect.

Relevant links to national and regional frameworks, including other ETC programmes have been considered through the national consultation process with Member States. The main areas of shared interest with a stronger cooperation potential are: Business development (R&D/innovation support); social cohesion, quality of life, accessibility and environmental protection.[2]

The list presented in this section is not exhaustive but provides an indication of the main EU policies and instruments that complement activities in NSR 2014-2020 (see Annex 25).

The last section includes a description of coordination mechanisms and arrangements at different stages of the implementation process.

**Priority 1: Thinking Growth: Supporting growth in North Sea Region economies**

The priority is focused on business growth and improving the efficiency and effectiveness of public service delivery through innovation.

HORIZON 2020 is the EU Framework Programme for Research and Innovation. The HORIZON 2020 Programme has three main pillars:

(1) Societal challenges

(2) Excellent science

(3) Industrial leadership

HORIZON 2020 is designed to help bring more good ideas to market. The programme will boost job creation, support innovation, stimulate private investment in research and innovation, and tackle societal challenges for a better society. It also supports reliable, clean and efficient energy, efficient use of resources for protection of our planet, safe and secure food supply, and smart, green transport.[3]

Many of these themes are areas of interest for the North Sea Region. The main difference between HORIZON 2020 and the NSR 2014-2020, however, is that HORIZON is based on a non-territorial, non place-based approach. HORIZON 2020 focuses on individual R&D projects, focusing on the whole cycle of innovation. NSR 2014-2020 is much more limited in addressing primarily the demonstration/proof-of-concept and early commercialisation stages on the innovation cycle. It is also, however, wider in the sense of seeking to promote the innovation process in participating regions with specific cases of innovation serving as vehicles for this capacity building. There is also a good potential for the valorisation of HORIZON 2020 research under other themes.

The Programme for the Competitiveness of Enterprises and SMEs (COSME's) aims to strengthen the competitiveness and sustainability of EU enterprises. The COSME programme has four main pillars:

(1) Better access to finance for small and medium-sized enterprises (SMEs)

(2) Access to markets

(3) Supporting entrepreneurs

(4) More favourable conditions for business creation and growth.[4]

The main difference between the COSME and NSR 2014-2020 is that COSME is focused on providing different kinds of financial instruments, such as an equity facility for growth and a loan guarantee facility. Rather than directly supporting individual enterprises with this kind of financial support, NSR 2014-2020 concentrates on the

involvement of businesses to test the effectiveness of different innovation support measures, which can then be more widely applied.

Creative Europe is the European Commission's framework programme 2014-2020 for support to the culture and media sectors. The Creative Europe Programme contributes to Europe’s goals for smart, sustainable and inclusive economic growth. The NSR 2014-2020 programme may support projects linked to transnational initiatives taken in the Creative Europe programme focused on creative industries.

The ERASMUS+ programme funds grants for students, teachers, trainers and apprentices to study abroad. The programme includes a newly established partnership arrangement between teaching institutions and firms. The NSR programme may support the development of vocational training courses to provide specific skills but its focus is not on education as such.

**Priority 2: Eco-innovation: Stimulating the green economy**

The priority is focused on reducing carbon emissions and accelerating the greening of the North Sea Region economy.

The 7th EU Environment Action Programme focuses on making the EU a resource-efficient, green and competitive low-carbon economy. It identifies two major objectives:

(1) Promoting nature and strengthening ecological resilience

(2) Boosting sustainable, resource efficient, low-carbon growth[5]

The main difference between the 7th European Environment Action Programme and NSR 2014-2020 is that the NSR focuses on raising environmental management capacity throughout the region rather than specific local cases. There are however complementarities and projects should check for potential crossovers with actions on conservation of natural capital and the actions on resource-efficient, green and competitive low carbon economy.[6]

HORIZON 2020 also focuses on secure, clean and efficient energy. Research and demonstration activities focus on buildings, industry, heating and cooling, SMEs and energy-related products and services, which are similar to the NSR 2014-2020.[7] Again though, HORIZON 2020 focuses on research and new technologies while NSR primarily addresses awareness raising and increasing the take-up of new energy technologies and will support the development and/or testing of new technologies only where they can be shown to contribute to this wider process. There is a good potential for NSR to help with spreading successful results from HORIZON 2020.

The European Agricultural Fund for Rural Development (EAFRD) in some cases supports similar activities to the NSR 2014-2020, such as promotion of resource efficiency and the shift towards a low carbon and climate resilient economy in the agriculture, food and forestry sectors, as well as restoring, preserving and enhancing ecosystems dependent on agriculture and forestry.[8] Nevertheless, EAFRD primarily targets farmers and other land managers, while NSR takes a wider approach and would only fund work at specific sites as tests cases. Agriculture is not a focus for NSR but a sector that may be relevant because of the need for changed land management practices.

**Priority 3: Sustainable North Sea Region: Protecting against climate change and preserving the environment**

The priority is concentrated on climate change adaptation, ecosystem conservation and sustainable economic activity.

The European Maritime and Fisheries Fund (EMFF) has four pillars:

(1) Sustainable and smart fisheries including inland fisheries

(2) Sustainable and smart aquaculture

(3) Sustainable development of fisheries

(4) Integrated maritime policy[9]

The fund focuses amongst other things on the promotion of climate action in relation to the energy efficiency of fishing vessels, insurance of aquaculture stock with regard to extreme weather events, and the implementation of local development strategies including operations to mitigate climate change. Fisheries are not a specific sectoral focus for NSR although projects may be funded on aspects of fishery management requiring cooperation, and on development of regions strongly linked to fishing. In such cases projects will have to demonstrate that the actions funded do not duplicate EMFF actions.

The LIFE Programme is divided into two different sub-programmes. The sub-programme for climate action supports efforts to increase resilience to climate change (mitigation, adaptation, climate governance and information). The sub-programme for environment will support efforts on environment and resource efficiency, nature and biodiversity, and environmental governance and information.[10] The LIFE Programme and NSR 2014-2020 both focus on pilot, demonstration and integrated projects in the areas of nature, water, waste, air and climate change mitigation and adaption. The focus for LIFE is to support specific needs for the development and implementation of EU environmental or climate policy and legislation while the NSR focuses on cooperation about how to effectively deliver these policy goals throughout the region.[11] Projects should demonstrate that duplication has been avoided, and that complementarities and integration have been ensured where appropriate'.

The 7th EU Environment Action Programme focuses on climate change, nature and biodiversity, environmental and health and natural resources and wastes.[12] Again, projects should therefore check for potential crossovers with actions on these themes.

The 2014-2020 Rural Development Programmes (RDPs) also contain the possibility for transnational cooperation and duplication and double-funding must be avoided.

**Priority 4: Promoting green transport and mobility**

The priority is focused on demonstrating where there is a real potential for change in NSR transport systems.

The new European Commission proposal for multimodal transport networks (TransEuropean Networks TEN-T) should deliver (1) safer and less congested travel and

(2) smoother and quicker journeys. The Connecting Europe Facility (CEF) will effectively act as "seed capital" to stimulate further investment by Member States to complete missing parts of the TEN-T network and especially difficult cross-border connections and links which might not otherwise get built.[13] CEF assistance is however focused on the core network while support from the NSR focuses on the comprehensive network extending out into the remoter parts of the region. There is very little EU funding for this work and the NSR programme aims amongst other things at activating national, regional and private funds to ensure effective links to the core network. The TEN-T regulation specifically calls for the use of transnational cooperation as a tool to support these developments and promote coordination between investments. Projects will need to demonstrate that these synergies have been considered.[14]

HORIZON 2020 will fund research on:

- Better mobility, reduced congestion, greater safety and security
- Improvements in the mobility of people and freight
- New concepts of freight transport and logistics.

Again, however, HORIZON 2020 is focused on new research and technologies while NSR focuses primarily on using existing capacities with some support possible for incremental improvements of existing technologies.[15]

The Sustainable Urban Development Programme will address improved urban links and transport in urbanised areas, including environmental improvements.[16]

**Description of Coordination Mechanisms of Relevant Funding Sources**

The North Sea Region 2014-2020 has a distinct position and role within other policy frameworks and initiatives, and particularly in terms of contributing to and implementing Europe 2020 goals and ensuring that the actions being funded are consistently those that can be expected to generate the greatest impact on growth, jobs and sustainability.[17]

The Integrated Territorial Investment (ITI) is a tool to implement territorial strategies in an integrated way.[18] The NSR 2014-2020 is aware of ITIs being established in the programme area and will take these into account during implementation.

To ensure complementarity with other funding instruments, a number of requirements have been defined for the new programme. These are checked during both selection and monitoring procedures. Projects are requested to state their relationship with relevant EU and national policies, including relevant links to funding instruments. The projects must describe how the established relationship will work during the funding period, and also indicate the potential results. Confirming compliance with national and regional policies is a core part of the Steering Committee’s responsibility and a main tool for ensuring synergies will be safeguarded.

In special cases during the application stage, the North Sea Region programme may consult other territorial cooperation programmes (or any other EU and national/regional funding instruments), in order to avoid potential duplication and ensure coherence.

During implementation the programme will also work to ensure and exploit synergies on an on-going basis. This work is outlined in the Linkages section of the strategy chapter.

## 7. REDUCTION OF ADMINISTRATIVE BURDEN FOR BENEFICIARIES

Summary of the assessment of the administrative burden for beneficiaries and, where necessary, the actions planned accompanied by an indicative timeframe to reduce the administrative burden.

The programme should always focus on avoiding and reducing unnecessary administration for projects and programme bodies. The focus of current simplification efforts is:

- To simplify formats for collecting information from beneficiaries based on Interact's HIT (Harmonised Implementation Tools)
- To limit data collection to what is necessary rather than what is possible in order to meet the new 90 day processing rule (§132) and avoid excessive monitoring
- To provide simpler, clear and unequivocal rules and guidance especially related to control and audit questions
- To avoid frequent and/or major changes to rules and procedures mid-programme
- To avoid unnecessary duplication of work

The first priority should be to reduce the time spent on clarification of audit issues and resolving problems from payment interruptions. Control and audit procedures are being rigorously reviewed and streamlined. Quality and transparency are the keys to reducing the overall error rate so financial corrections can be prevented.

The findings below are based on extensive user surveys, which will also be used to identify additional measures as the programme progresses.

Simplification of application procedures

Attempts will be made to simplify application procedures. These might include a two-step application procedure. Projects will submit a short form focused on results and key activities. Only projects successful in this step would be asked to complete a full application. This would reduce time and costs for developing unsuitable projects and would lower the barrier for new applicants.

Timeframe: These measures should be in place for the first call (target early 2015). They will be evaluated and if necessary modified on an on-going basis.

Risk: This is a new procedure for the NSR. It needs to be ensured that it is easier, leads to better applications, does not slow the approval process excessively, and reduces loss of time and costs for unsuccessful applicants.

Results-oriented management

The programme will introduce a streamlined indicator system, with a single result for every objective, a small range of core deliverables and greatly shortened list of outputs. This should define clearly the focus for all projects and simplify assessment and monitoring by providing a clear framework of targets and milestones for every project. Progress towards these targets will be the basis of simplified interim project reports.

Timeframe: Indicators have been defined. Baseline and target values, as well as methods and timing for data collection will be completed within one year of approval of the programme. The indicator information needed for projects, report forms and procedures will be ready in time for the first call.

Risk: For the 2007-2013 period many extra indicators had to be added as part of the inter-service consultation. It is hoped this can be avoided for the 2014-2020 period. If formal requirements lead to the adoption of too many indicators, inappropriate indicators, or indicators which are impossible to monitor (as in the 2007-2013 period) then the indicators will cease to work as an effective management tool and the programme will again have to rely primarily on long text-based reporting.

Simplification of rules

The programme will introduce simpler, harmonized eligibility rules. Positive steps have been taken such as the adoption of five standard budget lines and flat rates for overhead costs (in line with Regulation 1303/2013 §67 and 68 and Commission Regulation 481/2014). Every effort will be made to provide clear rules on all main issues and to secure agreement on interpreting these rules to avoid divergent findings by different control and audit bodies.

Timeframe: All rules (European, programme and national) must be in place and published by the time of the first call.

Risk: Providing uniform programme rules on the main issues would provide greater transparency and in some cases simplicity. A balance will be sought between respecting national rules when available, and providing programme rules as a way of avoiding lack of clarity. Regardless of the source of rules, they must be ready before the start of the programme, should be freely available to all beneficiaries, and should only be changed when it can be demonstrated that they lead to errors.

Control and audit

Attempts are being made to simplify the documents and procedures for control and provide greater assurance for beneficiaries and programme management through greater transparency about the work carried out by each controller and the results obtained.

Timeframe: The system must be agreed by the time of submission

Risk: Clear and simple rules for expenditure are essential. Without this there will always be a risk of differing interpretations between control bodies. This seems arbitrary and unfair to beneficiaries and has previously led to many errors. A forum is needed for exchange between different levels of the control system and possibly a procedure for appealing control and audit decisions. It may not be possible to simplify control if this is felt to conflict with national decision-making on control.

E-Cohesion

The aim is to be paperless – especially for document flows between beneficiaries and programme management. Automation will be used to assist workflows and avoid multiple entry of the same data. If managed properly, such a system should save time and reduce costs and errors.

Timeframe: The first parts of the system (for the application and assessment procedure) must be ready and working effectively by the first call. Additional parts of the system will be brought into use when possible.

Risk: Delays in system implementation including failure of target groups to adopt the system and use it. Commission requirements (such as the suggested entry of lists of expenditure for every claim) should not create duplicate work for beneficiaries.

Version management procedures

Change to regulations, programme and national rules as well as control and audit findings affect how beneficiaries should manage their projects. Change procedures should ensure that new information is quickly incorporated into relevant sources and communicated to the right stakeholders (beneficiaries, controllers, auditors etc.) with a clear statement on the entry into force of any changes to avoid retrospective application of rules.

Timeframe: Must be included in the programme's standard procedures.

Training and information

Training will be offered to all beneficiaries and their controllers in future to avoid bad or misleading information flows from Lead Beneficiaries. This effort will be proactive and should start before the first certification. Materials and events will be regularly re-assessed to verify accuracy and relevance. Greater use should be made of audio-visual material to supplement physical meetings and written material.

Timeframe: On-going.

## 8. HORIZONTAL PRINCIPLES

### 8.1 Sustainable development

Description of specific actions to take into account environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and management, in the selection of operations.

One main principle for the North Sea Region 2014-2020 is to contribute to the continuous and on-going improvement in the quality of life for current and future generations.

The programme area covers some of the most developed countries in terms of promoting sustainable development. It is important to bear in mind, however, that North Sea Region 2014-2020 builds in part on the challenges to sustainability that still remain to be resolved (as confirmed by Eurostat's most recent data on statistics on sustainable development) and that work towards sustainability is by no means complete.

**Compliance with national legislation**

Sustainable development will be secured both by ensuring compliance with relevant national environment legislation and by integrating sustainable approaches into the priorities of the programme. Given the emphasis on sustainability in national legislation in the programme area, compliance with national legislation means that the North Sea Region 2014-2020 is pursuing sustainable development with very high ambitions and standards.

**Compliance with European Union policy**

The programme approach follows current EU thinking on sustainable development and especially the European Commission's Communication 'On the review of Sustainable Development Strategy: A platform for action'. This states that the contributions of different sectors to achieving better sustainability need to be interlinked and closely connected to each other. Particularly relevant sectors include climate change, clean energy, public health, social exclusion, demography, migration, management of natural resources, sustainable transport, global poverty and development challenges. An integrated approach considering the interaction of some or all of these elements is promoted for all NSR projects.

This statement and approach are re-iterated in the Commission Communication 'A Roadmap for moving to a competitive low carbon economy in 2050' which calls for a transition towards a Green Economy. This transition requires a continuous improvement of products, changing consumer patterns (private and public purchases), exchanging information on paths to resource efficiency between various partners in order to prevent waste, promote innovation and create new markets. Other important tools include enabling and turning waste into a resource, boosting research and innovation, promoting green construction methods and mobility, and the management of natural capital and ecosystem services including biodiversity, minerals and metals, water, air, land and soils, marine resources and food. This approach is specifically promoted under priority 2 and has also been an important factor in developing the other parts of the programme.

In addition, the Commission Communication 'Roadmap to a Resource Efficient Europe' states that resource efficient development is the road for the future in order to obtain sustainably managed resources, from raw materials to energy, water, air, land and soil. This should include air quality measures under Directive 2008/50/EC (e.g. reductions of PM and NO2). These aspects are central to priority 3.

The social aspect of sustainability as laid out in the EU's social agenda focuses on active inclusion of the most disadvantaged such as the unemployed, the handicapped, the elderly and women, and the inclusion of ethnic minorities. It addresses income support, access to employment and services, the information society, education and training Although the North Sea Region 2014-2020 will have a limited direct impact on these themes, all interventions should be designed in such a way as to avoid exclusion and stimulate greater participation of all social groups in the issues addressed by the projects.

The three different elements of sustainability come together in EU policy on Corporate Social Responsibility (CSR), which calls for individual businesses to take an integrated and systematic approach to the economic, social and environmental issues affected by their activities. These include employment and social affairs policy, environmental policy, consumer policy, public procurement policy, external trade, external relations and development policies and public administration policy.

**Promoting sustainable development in the selection of operations**

North Sea Region 2014-2020 works for an on-going improvement of sustainability. During project development, projects should consider how to ensure net social, environmental and climate benefits (where possible) in particular when making investments and increasing the use of green public procurement. In addition, greening should be considered in selection of operations, where possible and appropriate. Especially, involving following considerations:

- Preserving natural capital (avoiding irreversible damage and restoring damaged assets)
- Using better production methods (reducing material use and waste generation)
- Changing consumption patterns (promoting healthy choices with a low environmental footprint)
- Ensuring that economic decisions also take proper account of environmental and social costs
- Use of public and sustainable transport

## 8.2 Equal opportunities and non-discrimination

Description of the specific actions to promote equal opportunities and prevent any discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation during the preparation, design and implementation of the cooperation programme and, in particular, in relation to access to funding, taking account of the needs of the various target groups at risk of such discrimination, and in particular, the requirements of ensuring accessibility for persons with disabilities.

North Sea Region 2014-2020 aims to promote equal opportunities and prevent discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation. The North Sea Region 2014-2020 continues to build on the strong tradition of ensuring equal opportunities and non-discrimination from previous programme periods.

The North Sea Region is considered to be a leading region in terms of promoting equal opportunities and non-discrimination. Furthermore, changes in the proportion of people at risk of poverty or social exclusion in EU member states indicates that over recent years Sweden, Denmark and Germany have managed to strengthen labour market support for all groups, including the most vulnerable, and link social assistance to activation measures and access to enabling services. In addition, a majority of the countries within the North Sea Region indicate that universal access to high quality services is considered a priority area. A number of countries also highlight the continuous need to tackle regional disparities in the provision and quality of services.

**Compliance with national legislation**

All organisations involved in the North Sea Region 2014-2020 will contribute to a positive environment for the active pursuit of equal opportunities and the prevention of deprivation, exclusion and discrimination in all forms in line with current national legislation. These national policies promote objectives aligned with the European Platform against Poverty and Social Exclusion, to which all countries in the programme are committed. A list of each country's equal opportunities and non-discrimination plans is included in Annex 27.

**Compliance with European Union policy**

North Sea Region 2014-2020 recognises the importance of applying social inclusion strategies wherever applicable particularly because unemployment rates may remain high for some time and there are attendant risks of long-term unemployment and exclusion. Constant efforts and actions are therefore needed to ensure that the programme benefits a wide cross-section of the NSR population including the low-skilled, the young, the elderly, single and lone parents and people with disabilities.

Social inclusion is primarily targeted indirectly in the programme and is mainly envisaged as a result of growth and accompanying job creation. Businesses and especially SMEs are an important target group but the North Sea Region 2014-2020 is also particularly concerned with the challenges of growth in disadvantaged regions and so specific actions might be funded to promote business development and entrepreneurship among ethnic minorities, disabled persons or women (in particular within priority 1 – Thinking Growth).

Information and communication technologies (ICT) are still an important issue even though the NSR is considered to be among the top ICT regions in the EU. Improving access to high speed ICT, especially in remote areas, can increase of quality of life for individuals by facilitating access to services such as e-health and e-government and may therefore help to prevent marginalization. In addition, the North Sea Region 2014-2020 work on public transport services in remoter and rural areas aims to provide physical links by maintaining services at reasonable cost in order to avoid the social exclusion of non-drivers.

**Ensuring the integration of equal opportunities and non-discrimination**

Promoting equal opportunities and non-discrimination in the Strategy of the North Sea Region 2014-2020 is a concrete commitment. In North Sea Region 2014-2020, equal opportunities and non-discrimination will be addressed as a cross-cutting issue in order to rectify imbalances as addressed above, and to integrate a non-discrimination dimension in innovation, environment and accessibility content.

## 8.3 Equality between men and women

Description of the contribution of the cooperation programme to the promotion of equality between men and women and, where appropriate, the arrangements to ensure the integration of the gender perspective at cooperation programme and operation level.

Gender equality is one of the founding principles of the European Union. The North Sea Region 2014-2020 is committed to the promotion of equality between men and women. The North Sea Region programme 2014-2020 continues to build on the strong tradition of ensuring equality between men and women from previous programme periods.Gender mainstreaming is the main strategy used to achieve gender equality policy objectives through the integration of the gender perspective into every stage of policy processes – design, implementation, monitoring and evaluation – with a view to promoting equality between women and men.

The countries of the North Sea Region are acknowledged frontrunners in terms of promoting equality between men and women. For example, the European Commission report 'Boosting equality between women and men in the EU: Key actions and figures' shows that in Germany, Denmark, the Netherlands, Sweden and the UK, the proportion of working age women in employment is high.

In terms of average salary differences between men and women (in percentage), Belgium leads the North Sea Region with women earning on average 'only' 10% less than men per hour across all sectors. This figure is very low in a European perspective seen against an average 16.4% gender pay gap in 2012 across the European Union. In the North Sea Region, the pay gap is generally decreasing especially in Denmark and the Netherlands. In some North Sea countries progress has, however, stagnated.

Projects are expected to proactively address these issues during development and implementation in order to help continue and strengthen positive trends in the region.

**Compliance with national legislation**

The principle of equality between men and women will be ensured through compliance with current national legislation in the involved Member States and Norway. Given the emphasis on gender equality in national legislation in the programme area, compliance with national legislation means that the North Sea Region programme 2014-2020 is pursuing equality with high ambitions and standards. This is not to say that there are not areas where further efforts are still needed. A list of each country's gender plan is included for reference in the Annex 26.

**Compliance with European Union policy**

The issues of greatest relevance for the North Sea Region 2014-2020 are (1) equal economic independence for women and men (2) equal pay for work of equal value and (3) equality in decision-making.

**Ensuring the integration of equality between men and women**

Projects should ensure that gender perspectives are taken into consideration in all aspects of project development and implementation and ensure the effective promotion of gender equality and the gender dimension throughout the priorities. Projects are also expected to take direct action where they can have an immediate impact for example by taking

account of the need to promote gender balance in decision-making. Particular attention shall be paid to ensuring gender balance in evaluation panels and in bodies such as advisory groups and expert groups.

# 9. SEPERATE ELEMENTS

## 9.1 Major projects to be implemented during the programming period

### Table 23: List of major projects

| Project | Planned notification / submission date (year, quarter) | Planned start of implementation (year, quarter) | Planned completion date (year, quarter) | Priority axes / Investment priorities |
|---|---|---|---|---|

## 9.2 Performance framework of the cooperation programme

### Table 24: Performance framework (summary table)

| Priority axis | ID | Indicator or key implementation step | Measurement unit, where appropriate | Milestone for 2018 | Final target (2023) |
|---|---|---|---|---|---|
| 1 - Thinking Growth: Supporting growth in North Sea Region economies | 1.1 | Number of enterprises cooperating with new / improved knowledge partnerships | Enterprises | NA | 500.00 |
| 1 - Thinking Growth: Supporting growth in North Sea Region economies | P1.1 | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 93,662,224.00 |
| 1 - Thinking Growth: Supporting growth in North Sea Region economies | 1.2 | Number of improved or new innovation support measures launched for businesses | Measures | NA | 21.00 |
| 1 - Thinking Growth: Supporting growth in North Sea Region economies | P 1.2 | Number of applications received and assessed | Applications | 27 | 54.00 |
| 1 - Thinking Growth: Supporting growth in North Sea Region economies | 1.3 | Number of improved or new innovation support measures launched for public service delivery | Measures | NA | 21.00 |
| 2 - Eco-innovation: Stimulating the green economy | 2.1 | Number of green products, services and processes piloted and/or adopted by the project | Green products, services or processes developed | NA | 54.00 |
| 2 - Eco-innovation: Stimulating the green economy | P1.1 | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 90,317,144.00 |
| 2 - Eco-innovation: Stimulating the green economy | P 1.2 | Number of applications received and assessed | Applications | 15 | 30.00 |
| 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment | 3.1 | Number of new and/or improved climate change adaptation methods demonstrated | Climate change adaptation solutions | NA | 21.00 |
| 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment | 3.2 | Number of sites managed using new solutions supporting long-term sustainability | Sites | NA | 35.00 |

| Priority axis | ID | Indicator or key implementation step | Measurement unit, where appropriate | Milestone for 2018 | Final target (2023) |
|---|---|---|---|---|---|
| 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment | P1.1 | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 73,591,748.00 |
| 3 - Sustainable North Sea Region: Protecting against climate change and preserving the environment | P 1.2 | Number of applications received and assessed | Applications | 13 | 26.00 |
| 4 - Promoting green transport and mobility | 4.1 | Number of new and/or improved green transport solutions adopted | Green transport solutions | NA | 54.00 |
| 4 - Promoting green transport and mobility | P1.1 | Total eligible expenditure incurred by beneficiaries and entered in the accounting system of the Certifying Authority | EUR (ERDF + co-financing) | 2250000 | 56,866,350.00 |
| 4 - Promoting green transport and mobility | P 1.2 | Number of applications received and assessed | Applications | 20 | 40.00 |

## 9.3 Relevant partners involved in the preparation of the cooperation programme

Submitted separately as Annex 28.

## 9.4 Applicable programme implementation conditions governing the financial management, programming, monitoring, evaluation and control of the participation of third countries in transnational and interregional programmes through a contribution of ENI and IPA resources

## Documents

| Document title | Document type | Document date | Local reference | Commission reference | Files | Sent date | Sent By |
|---|---|---|---|---|---|---|---|
| NSR national letters of agreement | Confirmation of agreement in writing to the contents of the cooperation programme | 29-Oct-2014 | | Ares(2015)2693474 | NSR national letters of agreement | 26-Jun-2015 | nhanseng |
| Table with official EC observations and programme response - including update on result indicators | Supplementary information | 28-May-2015 | | Ares(2015)2693474 | Table with official EC observations and programme response - including update on result indicators | 26-Jun-2015 | nhanseng |
| Annexes - Background information on Cooperation Programme - May 15 Update | Supplementary information | 28-May-2015 | | Ares(2015)2693474 | Annexes - Background information on Cooperation Programme - May 15 Update | 26-Jun-2015 | nhanseng |

## Submitted annexes by the Commission implementing regulation laying down the model of the programme

| Document title | Document type | Programme version | Document date | Local reference | Commission reference | Files | Sent date | Sent By |
|---|---|---|---|---|---|---|---|---|
| Citizen Summary | Citizens' summary | 1.0 | 30-Sep-2014 | | Ares(2014)3582510 | Citizen Summary | 29-Oct-2014 | nhanseng |
| Final ex-ante report NSR - April 2015 | Report of the ex-ante evaluation | 1.1 | 01-Apr-2015 | | Ares(2015)2273874 | Final ex-ante report NSR - April 2015 | 01-Jun-2015 | nhanseng |
| Programme Snapshot 2014TC16RFTN005 1.2 | Snapshot of data before send | 1.2 | 26-Jun-2015 | | Ares(2015)2693474 | Programme Snapshot 2014TC16RFTN005 1.2 da | 26-Jun-2015 | nhanseng |
| NSR national letters of agreement | Confirmation of agreement in writing to the contents of the cooperation programme | 1.2 | 29-Oct-2014 | | Ares(2015)2693474 | NSR national letters of agreement | 26-Jun-2015 | nhanseng |