

ACTION PLAN

OF DOVER / PAS DE CALAIS STRAIT



Picture: E. Desaunais, Pas-de-Calais County Council

Coordinated by

PAS-DE-CALAIS COUNTY (FRANCE)

AND KENT COUNTY COUNCIL (UNITED-KINGDOM)

MARCH 2018



European Union
European Regional
Development Fund



INTRODUCTION

This cross-border action plan has been jointly designed by Kent County Council and Pas-de-Calais County Council, partners of PASSAGE project, and many stakeholders involved on each side of the Strait of Dover/Pas de Calais.

PASSAGE project is aiming to develop a low-carbon transition at the scale of 6 European straits and 5 maritime border regions. The first phase of the project (April 2016-March 2018) was focused on the diagnosis and the identification of levers for action. The second phase of the project (April 2018-March 2020) will be dedicated to the implementation of this action plan.

This action plan is aiming to trigger a low-carbon transition of the Strait of Dover/Pas de Calais, based on the evidence provided by the carbon emissions’ study carried out by I Care & Consult in the framework of PASSAGE project.

After defining the functional perimeter of the strait based on its main activities, the study proposes an evaluation of emissions generated by each type of activity. These activities include those that are common to every territory and not specific to a strait (industries, urban and tourism activities); as well as activities that are specific to the strait, that is to say:

- Port activities
- Maritime traffic
- Channel Tunnel traffic
- In-land traffic (road, rail, waterways) generated by the ports and the tunnel.

For the first time, the study highlights that these latter activities; those specific to the Strait of Dover/Pas de Calais, represents **31% of the total emissions** emitted in the strait area.

Activities linked to the strait	Emissions (tCO ₂ e) in 2016	% of total emissions of the area
Port activities	223 073	2%
Maritime traffic	2 449 840	17%
In-land traffic (inc. tunnel)	1 746 178	12%
Total	4 419 091	31%

Emissions generated by maritime traffic passing through the strait without calling at any port represent **69% of emissions** linked to maritime traffic in the strait area. It is a reminder that the Strait of Dover/Pas de Calais is one of the busiest straits of the world (almost 20% of the world traffic). It is the main characteristic that separates Dover/Pas de Calais Strait from other straits in the PASSAGE partnership.

Industrial, urban and tourism activities not specifically linked to the strait emitted 10 051 764 tCO₂e in 2016, that is to say 69% of emissions emitted in the area of the strait. Among these, **industrial activities are clearly the largest emitter**. Their carbon impact for 2016 is evaluated to 8 346 854 tCO₂e, that is to say about **58% of total emissions** emitted in the area of the strait.

To go further, the study evaluates the emissions generated by in-land and maritime flows beyond the strait perimeter. Thus, the emissions included are not only the emissions of a ship from the moment it enters in the strait area until it gets out, but all the emissions generated by this ship from its port of departure until its port of arrival. With this prism, the share of emissions generated by maritime traffic transiting through the strait reaches almost **86% of emissions linked to the strait** (total of emissions inside the strait area and outside the strait area).



Picture: E. Desaunais, Pas-de-Calais County Council

Considering the main sources of emissions identified by this study, **stakeholders from the strait area acknowledge their lack of direct levers to reduce some of these emissions**, specifically the emissions generated by international maritime traffic or road traffic linked to the ports and the tunnel. Consequently, this action plan includes two crucial dimensions.

Firstly, **actions of awareness raising and lobbying** towards national, European and international bodies that have the power to act on regulations and/or to invest in favour of low-carbon alternatives, specifically regarding maritime, road and rail traffics.

Secondly, **actions in the field of competencies of stakeholders from the strait area**, more modest in the impact they might have on emissions, but demonstrating the collective adoption of the low-carbon transition issue at the scale of the strait. Several levers are identified:

- **Fight against energy scarcity**
- **Develop low-carbon public procurement**
- **Develop short and local supply chains**
- **Develop low-carbon mobility**
- **Develop low-carbon tourism**
- **Support low-carbon maritime traffic and port operations**
- **Support low-carbon in-land traffic**

- **Strengthen citizen appropriation of low-carbon transition issue**

Considering the slightly different challenges and contexts on each side of the border, the following action plan is divided in three parts:

- **A joint cross-border action plan** – validated both by Kent County Council and Pas-de-Calais County Council, in line with the expectations of the cross-border network of local stakeholders involved in the project
- **French shore's action plan** – validated by Pas-de-Calais County Council and in line with the expectations of French local stakeholders involved in the project
- **English shore's action plan** – validated by Kent County Council and in line with the expectations of English local stakeholders involved in the project.

The main objective of this action plan is to reduce emissions in the strait area, and to contribute to international objectives of decarbonisation and mitigation of climate change. However, the air quality and fight against air pollution issues are major concerns of all stakeholders from the area; most of the actions in this plan directly contribute to solve these issues.

BACKGROUND

This action plan builds on two major territorial strategies for sustainable development:

- Rev3 – Third Industrial Revolution, on French side
- Kent Environment Strategy, on English side.

The Third Industrial Revolution has been developed in Nord – Pas-de-Calais (now Hauts-de-France) region based on a master plan of Jeremy Rifkin (October 2013). This strategy was initiated by the Chamber of Commerce and Industry and the Regional Council together with Pas-de-Calais County Council, Nord County Council, the European Metropolis of Lille, Arras and Dunkirk urban districts. Its implementation is based on two main objectives: the rise of a low-carbon economy and the creation of new activities and jobs in the region.

With PASSAGE project, the Third Industrial Revolution is for the first time considered in a cross-border dimension with the United-Kingdom and applied to a maritime border region. This Third Industrial Revolution was promoted in the framework of PASSAGE project and selected by PASSAGE partners as one of the 9 “best practices” of the project to trigger a low-carbon transition. Mr Philippe Vasseur, former president of the Chamber of Commerce and Industry and one of the founders of the Third Industrial Revolution in Nord – Pas-de-Calais, introduced the initiative on 12 May 2016, at the occasion of the launching conference of PASSAGE project in Boulogne-sur-Mer (France).

PASSAGE project contributes to reach the main orientations of the Third Industrial Revolution as updated in September 2017, especially:

- Favour the territorialisation of the Third Industrial Revolution
- Promote a better collective appropriation of the Third Industrial Revolution
- Open the Third Industrial Revolution to an international perspective.

This action plan is thought to answer the main associated criteria of the Third Industrial Revolution in Hauts-de-France, namely:

- **A sustainable development**, based on the will of disclosing areas of action and fields of competencies
- **A territorial anchoring**, with a clear geographical scope on the Strait of Dover/Pas de Calais as a functional area beyond administrative and national borders
- **An enlarged governance**, with the involvement of a maximum of stakeholders and skills aiming at the creation of a cross-border network of stakeholders and the development of the specific assets and resources of the cross-border territory.

This action plan builds on the various declinations of the Third Industrial Revolution in regional schemes, mainly the SRADDET (Regional Scheme for Planning, Sustainable Development and Equality of Territories).

This action plan is also more globally in line with the French National low-carbon strategy adopted in 2015, from which the Third Industrial Revolution is one of the regional declination.

The Kent Environment Strategy was published by Kent County Council and partners in 2016. It provides a strategic framework for closer cross-sector partnership working between environment, health and economic agendas. It identifies high level, evidence-based priorities and focusses on the activities that would most benefit from partnership working. It also identifies opportunities where our natural capital, can provides positive outcomes for health, wellbeing and the economy. The strategy enables expertise and resources to be shared and creates greater opportunities to access external funding. The strategy has three themes:

- Theme One activities are focused on providing an evidenced understanding of environmental risks and opportunities and building the resources and mechanisms to underpin delivery of actions across the plan.
- Theme Two focuses on minimising the impacts of current activities through improving access to environmental services and reducing resource usage across all sectors.
- Theme Three activities are about ensuring that the county's communities, businesses, environment and services are resilient to environmental change, managing future risks and acting on opportunities.

The PASSAGE project contributes to the activities within all three themes by:

- **Bridging gaps in understanding our risks and opportunities to identify actions** – through the development of an emissions inventory for the Dover Strait.
- **Building resources, capabilities and changing behaviour** – through the development of the action plan and sharing of good practice throughout the Dover Strait and with wider PASSAGE partners and stakeholders.
- **Improve our resource efficiency** – through the development of low emission activities in sectors including transport, procurement and domestic energy, throughout the Dover Strait area.
- **Supporting growth in the rural economy and low carbon and environmental goods and services sector** – by supporting low carbon tourism and innovation.

ACKNOWLEDGMENT

Kent County Council and Pas-de-Calais County Council thank all stakeholders who have participated to the project and contributed to the carbon emissions' study and the following action plan:

Regional Council Hauts-de-France
Nord County Council
Calais urban district - Grand Calais Terres et Mers
Boulogne urban district - Communauté d'agglomération du Boulonnais
St Omer urban district - Communauté d'agglomération du Pays de Saint-Omer
District of Opal Country - Communauté de communes Pays d'Opale
District of Lumbres Country - Communauté de communes du Pays de Lumbres
District of Audruicq area - Communauté de communes de la Région d'Audruicq
District of 2 Caps land - Communauté de communes de la Terres des 2 Caps
District of Desvres-Samer - Communauté de communes de Desvres-Samer
Montreuil urban district - Communauté d'agglomération des 2 Baies en Montreuillois
Dunkirk urban district - Communauté urbaine de Dunkerque
French regional State administration (SGAR, DREAL, DIRMer, DIRECCTE, DRRT, INSEE, DDTM du Pas-de-Calais)
Dover district
Thanet district
Shepway district
Pas-de-Calais Tourisme
Visit Kent
Chambers of commerce and industry of Hauts-de-France and Opal Coast
Boulogne Développement
Pas-de-Calais Habitat
AmicusHorizon
Habitat du littoral
CROSS Gris-Nez
Getlink group (Eurotunnel)
P&O Ferries
SEPD – Société d'exploitation des ports du détroit (Ports of Boulogne and Calais)
Dover Harbour Authority
Dunkirk Port Authority - Grand Port Maritime de Dunkerque
Norlink Ports
University of Artois
University of Opal Coast
Sea Campus
Ifremer Manche Mer du Nord (National research centre for exploitation of the sea)
Nausicaá
Association for sustainable and responsible fishing - France Pêche Durable et Responsable
CERDD (Ressource Centre for Sustainable Development)
ADEME (Agency for Environment and Management of Energy)
CAUE (agency advising for Architecture, Urban planning and Environment)
Atmo Hauts-de-France

Kent and Medway Air Quality Partnership
Parc Naturel Régional des Caps et Marais d'Opale
Kent Nature Partnership and Kent Ambassadors
Kent Downs AONB
Energie 2020 (regional excellence centre of Hauts-de-France)
Aquimer (French national centre of competitiveness on aquatic products)
Freight Transport Association
Road Haulage Association
Daedalus Environmental
John Shirley LTD
GECT West-Vlaanderen/Flandre-Dunkerque-Côte d'Opale
Programme Interreg VA 2 Seas
Programme Interreg VA France (Channel)-England
Transfrontier Operational Mission
AFCCRE – French Association of the Council of Local and Regional Governments of Europe
ADF – Assembly of French County Councils

PART I

CROSS-BORDER ACTION PLAN



Pictures: Explore Kent and E. Desauois, Pas-de-Calais County Council

LEVER – LOBBYING TO NATIONAL, EUROPEAN AND INTERNATIONAL BODIES

This action refers to the commitment of Pas-de-Calais County Council and Kent County Council in favour of the recognition of specificities of straits' areas, in the framework of the European Straits Initiative that they jointly chair since 2010. These commitments are reaffirmed in the European and international Strategy of Pas-de-Calais County Council.

This action refers to the objective of better collective appropriation of the Third Industrial Revolution as well as the criterion 11 of the Third Industrial Revolution framework: "enlarged governance".

This action refers to action BF1.5: "Build on our understanding of local air and noise pollution and associated health outcomes to determine targeted actions" and action BF2.2 "Use our evidence to influence local, national and EU strategy and policy as appropriate", in the Kent Environment Strategy Implementation Plan.

ACTION 1 – LOBBY FOR INCREASED REGULATION OF EMISSIONS FROM MARITIME TRANSPORT

Together with PASSAGE partners, Pas-de-Calais County Council and Kent County Council will share the proposals stated in the "policy recommendations" of PASSAGE project with the relevant European institutions and programmes, to make sure they can be considered in future regulations and in the preparation of the next programming period.

As a reminder, since 2015 the annex IV of MARPOL convention limits the sulfur emissions to 0.1% in the area of North Sea and Channel. No existing regulation limits CO₂ emissions.

Pas-de-Calais County Council, Kent County Council and all interested stakeholders commit to actively raise awareness on the results of the carbon emissions' study from PASSAGE project. Specific actions of lobbying will be implemented towards the most relevant national, European, international organisations and institutions, to make sure the carbon impact of maritime transport in Dover/Pas de Calais Strait is known and can be used to argue in favour of future regulations.

Budget: No additional cost should be generated by this action, as it mostly implies awareness raising, dissemination of the carbon study and « policy recommendations » of PASSAGE project and, if pertinent, meetings with relevant institutions.

Time frame: Action 1 will be mainly developed during Phase 2 of PASSAGE project, by March 2020. If necessary, it will continue beyond.

ACTION 2 – LOBBY FOR MODAL REPORT FROM ROAD TO RAIL OR WATERWAYS

The carbon study from PASSAGE project highlights the importance of emissions generated by road traffic in the strait area, mainly linked to the traffic from/to the ports and tunnel. Cross-Channel traffic is expected to raise up to 40% by 2030, when already today more than 3.3 million trucks cross the strait every year. Brexit and possible return of increased customs constraints might generate an important saturation of road network leading to the ports and tunnel. Thus, the issue of modal report is essential to ensure existing infrastructure will be able to deal with the important raise of traffic in this context.

Development of rail freight and piggyback linked to the ports and tunnel may have an important impact on the reduction of carbon emissions, considering that rail freight is 20 times less polluting than road freight. Development of fluvial solutions, especially in France with the future Seine-Nord Europe Canal, is also a key area of improvement to reduce carbon emissions through intermodal shift of freight traffic. In the longer term, other low-carbon road transportation solutions (natural gas, hydrogen, electric vehicles) might also be interesting alternatives and require a constant watch.

To reduce the share of emissions generated by road traffic, especially road freight, Pas-de-Calais County Council, Kent County Council and all the interested stakeholders from the strait area commit to actively raise awareness on the results of the carbon study from PASSAGE project and on the need of increased modal report of road freight to rail or waterways.

On French side, this work will be undertaken together with Norlink Ports, association of sea and fluvial ports of Hauts-de-France.

Budget: No additional cost should be generated by this action, as it mostly implies awareness raising, dissemination of the carbon study and « policy recommendations » of PASSAGE project and, if pertinent, meetings with relevant institutions.

Time frame: Action 2 will be mainly developed during Phase 2 of PASSAGE project, by March 2020. If necessary, it will continue beyond.

LEVER – SUPPORTING LOW CARBON INLAND TRAFFIC

The following actions refer to criterion 5 of the Third Industrial Revolution framework: “mobility of goods and people”.

This action refers to action MR6.3 in the Kent Environment Strategy Implementation Plan: “Work with businesses to reduce costs and negative impacts through compliance, efficiency, resilience and innovation in the use of resources”.

ACTION 3 – REDUCE EMISSIONS FROM THE USE OF THE CHANNEL TUNNEL

Approximately 25% of commercial exchanges between United Kingdom and continental Europe passes through the Channel Tunnel. Eurotunnel (Getlink group), using the fixed link on Dover/Pas de Calais Strait, already implements several actions to reduce the environmental impact of its activities, especially through its Societal responsibility scheme. Since 2011, the group is certified by the British agency The Carbon Trust Standard for its policy to reduce carbon emissions, especially regarding the Fixed Link Concession. Eurotunnel publishes its carbon footprint annually and has reduced its carbon impact by 55% since 2006. The objective of Getlink group is to reduce its CO₂ emissions by 3% each year.

Action 3 proposes the implementation by Eurotunnel of complementary actions to reduce emissions linked to the use of the Channel fixed link, in particular:

- ***Replacement of diesel buses transporting truck drivers from the trucks placed on the shuttles to the club car (wagon where they remain during the crossing) by electric buses.***
- ***Consider the implementation of an autonomous electric shuttle between different places of the concession, to limit the use of personal vehicles for professional travels within the French part of the concession.***
- ***Implementation of a tool of awareness raising and accompaniment of (French and British) Eurotunnel collaborators to eco-behaviours.***

Budget: The budget dedicated by Eurotunnel to these investments is confidential.

Time frame: The implementation of these actions is planned on a staggered schedule, from 2018.

LEVER – FIGHT AGAINST ENERGY SCARCITY

This action refers to criterion 6 of the Third Industrial Revolution framework: “energy efficiency”. It acts on energy retrofit through housing renewal and behaviour change.

This action refers to the main policies of Pas-de-Calais County Council for housing, such as the contractualisation with social housing companies, the County Scheme for Housing or the County Plan for Housing and Accommodation of Disadvantage People.

This action refers to action MR6.2 in the Kent Environment Strategy Implementation Plan: “Improve the resource efficiency of our homes, reducing costs, tackling fuel poverty and improving health outcomes”.

ACTION 4 – REDUCE EMISSIONS FROM DOMESTIC HOUSING

In Pas-de-Calais, more than 18% of the population is in a situation of energy scarcity. Considering the important issue of fuel poverty in the cross-border region and the important emissions generated by energy use through domestic housing, this action is essential to reduce emissions and improve the overall quality of life in the strait area.

Partners in the strait area have considerable experience in energy saving schemes focused on housing and residents. For example, the IFORE project (*Innovation for Renewal*), implemented by Pas-de-Calais Habitat (Pas-de-Calais) and AmicusHorizon (Kent) in the framework of INTERREG IV A France (Channel) England programme, produced significant results in terms of energy retrofit. INCREASE project (*Increase Valorisation Sociale*) has just been approved by INTERREG V A France (Channel) England programme. The project is led by Optivo (formerly AmicusHorizon) and involves Pas-de-Calais Habitat, among a consortium of 14 partners. It started in October 2017 and will run for 3 years. Building on the results of IFORE project, INCREASE proposes to develop a cross-border training programme to help social housing residents to achieve forms of employment.

Other example, in the framework of INSPIRER (INTERREG IVA 2 Seas), the social housing company of Boulogne urban district, Habitat du Littoral (Pas-de-Calais), was able to build the 10 first passive social houses in France, in close collaboration with local companies and students from the École des Mines de Douai. Through ECOTEC21 project (INTERREG IVA France-(Channel) England), Habitat du Littoral was able to work on the economic, social and environmental impact of implementation of cogeneration systems for energy retrofit, while implementing and comparing different instrumentation systems to accompany the change of behaviour of residents. This work on awareness raising of residents for a better management of their energy consumption, together with a more efficient project management with increased resident involvement, can also be found in the SHINE project (INTERREG VA 2 Seas) tackling the issue of energy retrofit at the scale of neighbourhoods for a lever effect to reduce carbon emissions. Habitat du Littoral and its partners such as the Natural regional park of Opal caps and marshes (Pas-de-Calais) and Optivo (Kent) are exploring different strategies for retrofit and will implement a joint map of possible retrofit options.

Kent County Council's Warm Homes Programme, operating across Kent since 2013, has reduced energy emission in over 2200 homes and the new TRIPLE A project, funded by the INTERREG 2 Seas programme, will trial the use of solar photovoltaic battery storage technology in 10 homes in Kent.

Other works were implemented by the "Living" group of Club Noé as well as by the CERDD (Resource Centre for Sustainable Development) and are interesting resources to mobilise in the framework of this action.

Action 4 will build on these projects to enhance the exchange of experiences at cross-border level on this topic and promote the existing tools in the cross-border area. Technical exchanges will mainly deal with the development of new economic models to fund energy retrofit, innovation on energy management system, low-carbon technology and local production of energy (in line with criterion 4 of the Third Industrial Revolution framework: "smart grids").

The results of these works can feed the collective approach around the Commitment for the Renewal of the Mining Basin (ERBM) in France, which plans to double the number of houses benefiting from energy retrofit over 10 years, with an investment of the French State up to 100 million euros and a commitment of Pas-de-Calais County Council up to 2 million euros yearly for 10 years.

Budget: The possibility to submit a cross-border bid under the INTERREG VA 2 Seas or France (Channel)-England programmes will be considered, to benefit from 60 or 69% co-funding for the action. The possibility of a financial support from the ERDF programme Hauts-de-France may be considered for complementary actions aiming to energy retrofit in housing, especially social housing.

Time frame: Action 4 will be developed during the Phase 2 of PASSAGE project, by March 2020. In case a cross-border bid is submitted by autumn 2018, good results may be expected in 2021-2022.

LEVER – DEVELOP LOW-CARBON PUBLIC PROCUREMENT

This action refers to criterion 7 of the Third Industrial Revolution framework: “circular economy”. It aims to initiate an approach of eco-conception taking into account all the steps of the life cycle of products.

This action refers to the Scheme for promotion of socially and ecologically responsible public procurements (SPAPSER) 2017-2020 adopted by Pas-de-Calais County Council. It also refers to some actions of the Air Energy Climate Plan currently being written by Pas-de-Calais County Council, linked to exemplarity of the County Council’s buildings.

This action refers to action MR6.1 in the Kent Environment Strategy Implementation Plan: “Reduce negative impacts and maximise the resource efficiency of public sector services, setting out our public commitments for energy, waste and water use reduction.”

ACTION 5 – DEVELOP A « GLOBAL COST » APPROACH FOR PUBLIC PROCUREMENT

The objective of this action is to improve our capacity to act in favour of low-carbon production processes as public buyers. The “global cost” approach in public procurements is enabled by EU regulation 2005/32 (translated to French law by the decree 2016-360 from 25 March 2016 on public procurements and the decree 2015-899 from 23 July 2015, and into UK law under Statutory Instrument 2007 No:2037). This approach is based on the consideration of the full life-cycle of the product, which can include carbon cost related to production/transport/use of the goods.

So far, neither Pas-de-Calais County Council nor Kent County Council has implemented such a “global cost” approach that would enable to take into account the carbon impact of bought goods and services.

Action 5 proposes the coordination of the approach at regional and cross-border levels, to study the feasibility and implement such approach for some of the many public procurements launched by the two institutions and other partner institutions.

This action will build on the work undertaken by the Regional observatory of public procurement in Hauts-de-France, in link with the expertise report on “conditions for integration of a global cost logic in public procurements” currently being produced by the CERDD (Resource Centre for Sustainable Development). It can also capitalise on the experience of Habitat du Littoral (Pas-de-Calais) in the framework of the SAFE-ICE cluster (INTERREG IVA 2 Mers) on the implementation of a low-carbon economy; this cluster was able to produce a training/guide on the implementation of responsible and sustainable practices when it comes to procurements.

Budget: This action is not foreseen as costly, as it mainly refers to exchanges of practices as part of the mainstream activities of the partner institutions.

Time frame: Action 5 will be developed during the Phase 2 of PASSAGE project, by March 2020.

LEVER – DEVELOP SHORT AND LOCAL SUPPLY CHAINS

This action refers to criterion 7 of the Third Industrial Revolution framework: “circular economy”. It aims to initiate an approach of eco-conception taking into account all the steps of the life cycle of products.

This action refers to action MR6.1 in the Kent Environment Strategy Implementation Plan: “Reduce negative impacts and maximise the resource efficiency of public sector services, setting out our public commitments for energy, waste and water use reduction.”

ACTION 6 – DEVELOP SHORT AND LOCAL SUPPLY CHAINS FOR FOOD

Considering the carbon impact of food transit from production to consumption, including processing, there is a room for manoeuvre to engage a reduction of the transport with short supply chains based on local products. At cross-border scale, it seems interesting to better understand and optimise flows of food products between France and England in order to strengthen the complementarity between both territories.

Both Pas-de-Calais County Council, Kent County Council and many stakeholders from the border territory are engaged in approaches to promote short supply chains and local production. Go Trade project (funded under INTERREG VA France (Channel)-England programme) is an interesting example of how traditional markets can be used to promote more responsible consumption of inhabitants and visitors, with positive impacts for local producers and local economy. One of the challenges is the structuration of the agriculture sector to answer the needs of private consumers but also of public buyers.

In a low-carbon circular economy logic, these short and local supply chain issues can be developed on other aspects of agricultural production, such as animal feeding or green waste valorisation.

Considering the maritime specificity of the area, a particular attention will be given to short supply chains for fish. Indeed, if there is no lever to reduce the fishing distance, reducing the distance from disembarkation to processing and consumption is an option to reduce emissions. Boulogne-sur-Mer, important fishing port and centre for fish processing, is an interesting area for experimentation. Promote local consumption also implies that consumers know and identify local products. The development of labelling of fishing products from Pas-de-Calais (label “saveur en or”, “pavillon France” etc.) and the implementation of promotion campaigns are areas to explore.

Action 6 will develop exchange of experience at cross-border level on the best ways to support short supply chains, especially in the food sector.

This work will feed the future Sustainable Food Strategy of Pas-de-Calais County Council and the specific approach developed in each territory of the county (local partnerships) – see action 24.

Budget: This action is not foreseen as costly, as it mainly refers to exchanges of practices as part of the mainstream activities of the partner institutions. The submission of a micro-project under the INTERREG VA France (Channel)-England programme could be considered, on the angle of development of the local economy and support to employment in the area.

Time frame: Action 6 will be developed during the Phase 2 of PASSAGE project, by March 2020. If a micro-project is submitted, it will be by October 2018 to fit with the calendar of the programme.

LEVER – DEVELOP LOW-CARBON MOBILITY

Even though the carbon study does not specifically highlight the mobility challenge, as it was mainly aiming to highlight emissions linked to the traffic from the strait-crossing, daily and tourist mobility, with use of private car, remains today one of the major elements of carbonisation of territories in France and United Kingdom.

In France, private vehicles represent more than 53% of emissions from transport sector in 2016; about 15% of the total greenhouse gas emissions. In the United Kingdom, private vehicles generated almost 68 million tCO₂e in 2010; about 11.5% of total emissions of the country.

As such, it seems important that the development of low-carbon alternative mobility may have a good place in this action plan, in the fields of competencies of the stakeholders from the territory.

The following actions refer to criterion 5 of the Third Industrial Revolution framework: “mobility of goods and people”.

This action refers to several policies from Pas-de-Calais County Council, such as the County Scheme for Mobility, the County Plan of Itineraries for Walking and Hiking (PDIPR), the Cycling Policy of the County, the Inter-County Car Sharing Scheme or the Administration Travel Plan of the county. This action also builds on the Agenda 21 of Pas-de-Calais County Council (action 14: encourage car sharing).

These actions refer to action MR7.1 in the Kent Environment Strategy Implementation Plan: “Develop and integrated approach to sustainable access to our countryside, heritage and coast”.

This action also contributes to the next lever: develop low-carbon tourism.

ACTION 7 – REDUCE DAY-TO-DAY CAR JOURNEYS IN THE STRAIT AREA

The objective of this action is to reduce the number of car journeys in the Dover Strait area, by developing facilities for inhabitants from Kent and Pas-de-Calais to do their normal day-to-day travel using public rights of way (pedestrians/cycling ways) or by car sharing. This has a triple expected benefit of reduce carbon emissions, improve air quality and reduce congestion, especially in suburban areas.

As part of the Countryside Access Improvement Plan, Kent County Council plan to identify new and existing traffic-free routes that will encourage residents to walk or cycle, instead of using the car. These routes could also be promoted alongside car sharing.

Actions to support the development of car sharing practices are already implemented on both sides of the strait:

- *Kent Journey Share* is a car sharing platform developed by Kent County Council

- A number of car sharing areas have been developed by Pas-de-Calais County Council in the framework of its Inter-County Car Sharing Scheme
- *Pass Pass* car sharing platform gathers offers and demands for car sharing in Hauts-de-France
- A number of other more local public platforms and private platforms (such as *Blablacar*) exist on each side of the strait.

Action 7 proposes to develop technical and political exchanges on low-carbon mobility between Pas-de-Calais County Council, Kent County Council and other interested stakeholders, so as to reinforce their respective schemes in favour of active mobility and car sharing.

This action will capitalise on Sharemob project, carried by Hauts-de-France Regional Council, if the project is approved by INTERREG Europe programme.

Specific exchanges could be undertaken with ports, especially with the SEPD (exploitation company of the ports of Boulogne-sur-Mer and Calais); the SPED has launched a car sharing platform IDVROOM “community Port Boulogne Calais”, is considering the implementation of a bus line to reach Calais port site and will launch a questionnaire to companies in order to know the mobility habits of their employees from the dunes and port areas, to propose adapted alternatives to car.

Budget: This action is not foreseen as costly, as it mainly refers to exchanges of practices as part of mainstream activities of partner institutions. The possibility of a financial support from the ERDF programme Nord – Pas de Calais may be considered for complementary actions aiming to limit the ecological impact and increase modes of mobility alternative to the car.

Time frame: Action 7 will be developed during the Phase 2 of PASSAGE project, by March 2020.

LEVER – DEVELOP LOW-CARBON TOURISM

The following actions refer to criterion 5 of the Third Industrial Revolution framework: “mobility of goods and people”. It contributes to the attractiveness of public transport systems, increasing the efficiency and easing the journey for users. It implies a strong collaboration between stakeholders to bring new services, promote inter-modality and increase the accessibility of the territory.

This action refers to several policies from Pas-de-Calais County Council, such as the County Plan of Itineraries for Walking and Hiking (PDIPR) or the Cycling Policy of the County.

These actions refer to action MR7.1 in the Kent Environment Strategy Implementation Plan: “Develop and integrated approach to sustainable access to our countryside, heritage and coast”.

This action also contributes to the previous lever: develop low-carbon mobility.

ACTION 8 – IMPROVE THE OPPORTUNITIES TO CROSS THE STRAIT WITHOUT A CAR

The objective of this action is to improve the opportunities to cross the strait without a car. This action mainly targets tourist journeys but could also have benefits for business, for example.

Reduction of car-tourism in favour of other modes of discovery is today a major concern, especially on coastal areas experiencing strong tourism pressure. This objective is set up on the French coast in the framework of the renewal of the *Grand Site de France* label for the Two Caps area for 2017-2023.

Today, only one ferry company enables foot passengers to cross the strait, with difficulties of connection from the ports to the centres of Dover and Calais (security issues, lack of signage...). A bus company also connects Calais (ferry terminal) and Dover (ferry port) but the price and timetables are not satisfactory for daily journeys and the difficulties of connection from ports to Dover and Calais remain. The Channel tunnel is not open to foot passengers (direct access from motorway, no secure way to circulate within Eurotunnel area and shuttles not conceived for this purpose). The limited access through ferry and tunnel does not allow hikers to take the European route “Via Francigena” (Canterbury-Rome) or many other hiking itineraries on the strait territory.

Several online platforms of journey planning exist on English and French sides, such as:

- SMIRT platform *Pass Pass*: regional platform in France for interconnectivity between transportation modes and joint ticketing
- *Kent connected*: regional platform in UK for interconnectivity between transportation modes
- *England Coast Path platform*: national platform in UK that offers to package up trails, services and visitor attractions along the England Coast Path.

However, these platforms do not enable tourists or inhabitants to plan a journey across the border.

Action 8 offers to develop a cross-border bid, based on the existing infrastructure, that could include all or some of the following elements:

- **Ease the connection between ports and towns/cities for pedestrians and cyclists: safe ways, clear signs in both languages... This could build on the existing study pointing out all the obstacles to cycle to the ferry terminal in Dover.**
- **Connect the different journey planning platforms so as to provide an integrated tool at cross-border level.**
- **Test a cross-border bus line from Calais city centre to Dover town centre, through the tunnel.**
- **Promote options to cross the strait without a car, as well as the cross-border journey-planning platform, in order to increase the share of tourists crossing the strait without a car.**
- **Promote the leisure and tourism sites that can be accessed without a car in and around Dover and Calais.**

This action will capitalise on the actions already implemented (or planned) by the SEPD (exploitation company of ports of Boulogne-sur-Mer and Calais), such as the implementation of a self-service bike station at the ferry terminal during spring 2018; the implementation of an on-demand bus line during summer period to carry pedestrian passengers from P&O company; the consideration to implement a bus line to reach the port area of Calais.

Connections will be established with several cross-border projects such as PROFIT (Interreg VA 2 Seas) or Eurocyclo (Interreg VA France-Wallonie-Vlaanderen). An important dimension to take into account will be the security and safety issues around ports and tunnel, in association with the relevant stakeholders.

Budget: The action implies the possibility to submit a cross-border bid under the INTERREG VA France (Channel)-England programme (69% ERDF cofunding), which budget remains to be defined. The possibility of a financial support from the ERDF programme Hauts-de-France may be considered for complementary actions aiming to limit the ecological impact and increase modes of mobility alternative to the car.

Time frame: In case a cross-border bid is submitted by autumn 2018, good results may be expected in 2021-2022.

LEVER – STRENGTHEN CITIZEN APPROPRIATION OF LOW-CARBON TRANSITION ISSUE

The following actions refer to the objective of better collective appropriation of the Third Industrial Revolution as well as the criterion 11 of the Third Industrial Revolution framework: “enlarged governance”.

These activities refer to action BF1.5: “Build on our understanding of local air and noise pollution and associated health outcomes to determine targeted actions”.

ACTION 9 – RAISE AWARENESS AMONG INHABITANTS OF THE TERRITORY

Considering the results of the carbon study of PASSAGE project, it appears necessary to raise awareness on the main carbon emitter activities to citizens of the cross-border area and on the possibilities of action, including in daily-life. Beyond awareness raising on carbon impact and air quality, the objective of this action is to increase citizen appropriation, so as each citizen can consider him/herself as an actor of the low-carbon transition. The aim is a real change of behaviours in all parts of the society.

Action 9 will implement several approaches with civil society, including people with fewer opportunities. Several approaches are already under consideration by stakeholders in the area:

- ***Pedagogic projects with pupils or students (environmental education and citizen-science projects)***
- ***Institutional communication campaign towards a wider audience***
- ***Awareness raising around short supply chains and local products towards farmers, consumers and public buyers (primary and secondary schools, specifically)***
- ***Awareness raising towards boaters on environmental impact of maritime transport, in cooperation with the Chamber of commerce of Boulogne-sur-Mer etc.***
- ***Awareness raising towards elected representatives, employees and users of county buildings to the Air-Climate-Energy stakes of Pas-de-Calais County Council, to reduce daily emissions of greenhouse gas emissions.***

Other approaches may be developed, specifically towards users of some public services.

Budget: The submission of a project or micro-project under the INTERREG VA France (Channel)-England programme may be considered (69 to 80% of ERDF cofounding). Fundings from Regional council Hauts-de-France may be considered for targeted actions towards high-school pupils, especially through the call for projects Génération+ rev3.

Time frame: Action 9 will be developed during the Phase 2 of PASSAGE project, by March 2020. If a project or micro-project is submitted, it will be by October 2018 to fit with the calendar of the programme. Results can be expected in 2020-2021.

LEVER – MOBILISE STAKEHOLDERS OF THE MARITIME BORDER TERRITORY

The following actions refer to the objective of better collective appropriation of the Third Industrial Revolution as well as the criterion 11 of the Third Industrial Revolution framework: “enlarged governance”.

These activities refer to action BF2.2 “Use our evidence to influence local, national and EU strategy and policy as appropriate”, in the Kent Environment Strategy Implementation Plan.

ACTION 10 – CREATE A MONITORING COMMITTEE TO COORDINATE THE IMPLEMENTATION OF THIS ACTION PLAN

In the framework of PASSAGE project, a cross-border stakeholder group has been created and gathered every semester from 2016 to 2018. Considering the need to coordinate the implementation of this action plan and make sure all relevant stakeholders can continue to get involved in the project, it is proposed to continue to gather this group regularly, at least every semester, until the end of the project.

Action 10 proposes the transformation of the cross-border stakeholder group into a monitoring committee to coordinate the implementation of this action plan and continue the mobilisation around the low-carbon transition of Dover/Pas de Calais Strait after March 2018.

Budget:

This action will be funded by PASSAGE project as part of the monitoring of the implementation of the action plan.

Time frame:

Action 10 will be developed during the Phase 2 of PASSAGE project, by March 2020. If necessary, it will be continued beyond.

PART II

FRENCH SHORE ACTION PLAN



Picture: E. Desaunois, Pas-de-Calais County Council

LEVER – MOBILISE STAKEHOLDERS OF THE MARITIME BORDER TERRITORY

The following actions refer to the objective of better collective appropriation of the Third Industrial Revolution as well as the criterion 11 of the Third Industrial Revolution framework: “enlarged governance”.

ACTION 11 – ARTICULATE TERRITORIAL STRATEGIES

PASSAGE project is articulated with many territorial strategies implemented by the coastal district of the French shore of the strait.

- Strategy of Boulogne urban district

Boulogne urban district manages the ***Territorial Contract of Objectives for Acceleration of the Third Industrial Revolution (COTRI)***, which is a contractual arrangement between Boulogne Country (Boulogne urban district, 2 Caps land district, Desvres-Samer district) and ADEME (National agency for environment and management of energy) for 3 years. This COTRI aims to animate, mobilise all stakeholders, study-follow-evaluate and communicate to accelerate the Energy and Ecology Transition and the Third Industrial Revolution in a local governance. It seeks for implementation of new economic models (circular economy, functional economy) and develops behaviour change approaches.

One of the main technical challenges of this contractual framework is to propose strategies and a local governance enabling to articulate different policies in a transversal and integrated way. Referenced indicators operationalise some objectives stated in the ***Territorial Climate Air Energy Plan (PCAET)***:

- Build an action plan to commit and reinforce energy and environmental retrofit of private housing
- Define and implement a 2020 strategy of standardisation for energy and environmental retrofit of public estates
- Define a strategy of mobilisation of building sector professionals to provide a global offer for energy retrofit
- Define a global strategy for mobility and its implementation
- Define a strategy aiming to new modes of production and consumption, more responsible, building on circular economy principles
- From future energy needs, identify potentials for development of local resources and their valorisation
- Define and implement a strategy for adaptation to climate change
- Preservation of air quality
- Biodiversity and carbon storage in soils
- Accompany experimentations in sustainable operational urban planning
- Research, development and innovation to accelerate energy and ecology transition.

2017 enabled to:

- Inventory existing actions and programmes able to answer the issues and indicators of the COTRI

- Identify partners to involve in the local governance
- Start building a better financial articulation for each strategy implemented
- Start joint strategies at the scale of Boulogne Country aiming to answer to areas of cooperation mentioned in the COTRU (especially energy retrofit of public estates)
- Invest in emerging issues (vulnerability, inside air quality...).

The implementation of this COTRI will continue until 2019.

- Strategy of 2 Caps Land district

2 Caps Land district is involved in the ***Territorial Climate Air Energy Plan (PCAET)*** at the scale of Boulogne Country. The PCAET is a planning tool aiming to mitigate climate change, develop renewable energies and manage energy consumption. Besides its requirement to deal with air quality issue, its specificity is the compulsory adoption of a PCAET by each district council counting more than 20 000 inhabitants by 1st January 2019, and by 2017 for district councils counting more than 50 000 inhabitants. It was decided to work on this document at the scale of Boulogne Country (Boulogne urban district, 2 Caps Land district, Desvres-Samer district). This PCAET will officially be introduced in December 2018 and will include a diagnosis, a territorial strategy, an action plan and a follow-up and evaluation tool.

In parallel, a ***Territorial Contract of Objectives for Acceleration of the Third Industrial Revolution (COTRI)*** was signed with the National agency for environment and energy management (ADEME) and the Regional council in October 2016. The territory of Boulogne Country thus commits to implement some actions linked to climate change and reduction of greenhouse gas emissions, with a financial aid. Actions included in the COTRI are fully in line with the PCAET. As an example, the creation of a car-sharing area in Marquise, identified as a structuring car-sharing area in Pas-de-Calais County Council's study, will be open in 2018.

2 Caps Land district is working for a few years on ***soft mobility***: creation and planning of hiking paths, increasing the quality of these paths, planning of sites and district infrastructures to enable soft mobility (acquisition of electric bikes and charging stations in 2018). A study on mobility will be launched in 2018 at the scale of the COTRI territory, targeted on home/work travels. One of the objectives is to get the most important companies to implement actions to limit impact of these daily travels on environment (mobility plan, car sharing...), but also to identify lacks and propose first level actions. The issue of soft mobility is taken into account in all projects of the district council, but also in the projects implemented by the municipalities of the district. As an example, Marquise, Leulinghen, Bernes, Audembert and Offrethun are currently working on various planning projects (housing, town-centre renewal, links between sites and municipal buildings...) and all of them are implementing soft mobility solutions to limit the use of cars.

When it comes to ***short supply chains***, 2 Caps Land district is supporting private initiatives and studies grant allowance on the LEADER programme. Several short supply chain projects were helped thanks to LEADER. 2 Caps Land district is associated to the current thinking of MACADAM FARM company and AQUARELLE association for the creation of a food economic cooperation centre in Boulogne Country, together with Boulogne urban district, Desvres-Samer district and other public and private partners. The idea is to gather producers on the

territory to make sure they can work together for the development of short and organic supply chains in the area.

- Strategy of Desvres-Samer district

Desvres-Samer district is involved in the ***Territorial Contract of Objectives for Acceleration of the Third Industrial Revolution (COTRI)*** and ***Territorial Climate Air Energy Plan (PCAET)*** of Boulogne Country. It carries out several approaches linked to this action plan.

On energy scarcity, Desvres-Samer district is finishing in 2018 the fifth year of a ***Planned Operation for Improvement of Housing with energetic vocation (OPAH)***; more than 300 housings have benefited from energy retrofit, with more than 5 million euros of works undertaken.

Global costs in public procurements is currently being developed in the framework of an aquatic centre (14 million euros without taxes), with a procedure of global public procurement of performance to which is associated the implementation of a heat network together with ArcelorMittal, which will enable to catch the heat rejected in the air warm this aquatic complex.

A study of feasibility is launched regarding integration of ***short supply chains for collective food supply***, although one of the issues is the capacity of producers to get organised at the scale of the territory.

On the mobility issue, Desvres-Samer district is mainly involved in the development of ***car sharing***, with a network of 3 working car sharing areas.

Finally, the development of tourism is today organised at the scale of a larger area than the district, especially with Boulogne urban district, 2 Caps Land district and Opale Country district.

- Strategy of Calais urban district

A strategic geographic position and an image of the territory to comfort

One of the fundamental characteristics of Calais urban district is with no doubt its excellent accessibility, linked to a dense network of infrastructures and to the presence of two major transport actors: Eurotunnel and the Port. It is a fundamental issue, which conditions both the economic development, the tourism development and the residential attractiveness. Calais urban district is then truly an “entry point” on the regional territory of Hauts-de-France and, more globally, on the national territory from England. Two main train stations connect the territory to Lille Metropolis in 30 minutes (high-speed trains from Calais-Frethun) as well to 3 economic and institutional European centres: London (1 hour by Eurostar), Paris (1h30 by train) and Brussels (1h by train).

The image of the territory is a key issue, for the territory itself and at regional level, since Calais urban district must be one of the attractiveness centres at the scale of the Euro-region. For this, the challenge is to build synergies between municipalities of Calais urban district so as to

convey together a joint, positive and rich image of the territory, based on its key assets: landscapes, heritage, economic and commercial network, equipment... The revalorisation of the image will come from the cultural and touristic levers, since Calais urban district offers many assets enabling to reach a very wide audience. The offer is indeed very rich and qualitative: great landscapes and natural areas, coastal identity, urban and rural heritage, events offer, sports and leisure... These two levers are to connect to the environmental lever.

A priority axis for the territory: energy efficiency

The image of the territory and the attractiveness challenge coming from it also have an important role to play on residential dynamisms. The intervention scheme linked to housing has an important place to hold in the sustainable development policy of the territory, vector of change and image reversing. For this, Calais urban district implemented a grants' device for energy performance of private housing.

These grants enable to fight against climate change, encouraging energy retrofit works reducing greenhouse gas emissions. It is also a tool serving social cohesion, since criteria for obtaining grants are targeted on fighting energy scarcity. In addition, the advices and pedagogy enabled by the study of each individual project are the opportunity to promote responsible modes of production and consumption.

Concretely, a scheme of "grants for the development of renewable energies and energy efficiency of private housing" was implemented by Calais urban district council since 1st March 2011. It is complementary to State aids (ANAH). This scheme initially proposed as an experiment was then continued. In 2015, requests exceeded the budget possibilities, showing the great demand. After a short interruption, the scheme was reoriented towards modest households only.

The works financed since the scheme was implemented in 2011 represent almost 500 tCO_{2e} saved each year (equivalent to 3.2 million km travelled by a car). The experimental scheme of grants of Calais urban district evolved after feedbacks and (local, regional, national) orientations in terms of improving energy efficiency of housing.

- Strategy of Opale Country district

Several parts are included in the environmental strategy of Opal Country district council, which puts the preservation and valorisation of its rural heritage and of its environment as a major concern. The fight against energy scarcity, the improvement of energy efficiency, the development of renewable energies and the optimisation of waste treatment with specific features in the territory are the themes included together with sustainable development objectives. Opale Country district does not just observe it but also implement concrete actions:

- ***The launch of the Territorial Climate Air Energy Plan (PCAET)*** at the spring 2018, as planned in the regulation, will enable the district council to commit to a coherent strategy based on already implemented actions (energy retrofit, development of renewable energies, development of clean vehicles, green taxi...).
- ***The revision of the District planning scheme (PLUi)*** started on the territory will ease a sustainable housing strategy and preserve the environmental richness of the territory

such as wetlands or calcareous grasslands. The District planning scheme enables to conciliate issues of housing building, mobility, moderation of space use, development of economic activities and quality of life.

- **The development of a Perimeter of Protection and valorisation of Suburban and Natural Agricultural Areas (PPEANP)**, in partnership with Pas-de-Calais County Council. This innovative device for land strategy will enable to sustain agricultural areas, to manage suburban development and its environmental consequences, to restore ecological continuums in the framework of the green and blue frame, to ensure the protection of remarkable environmental sites, to protect the water resource and to promote environment-friendly farming. The associated programme of actions aims to implement an agriculture-governance in the long term, anticipating in a virtuous way the evolutions of the sector, the modes of production and of commercialisation. This programme will include planning and management orientations aiming to favour agricultural exploitation, its development and its sustainability through environment-friendly techniques and reconciliation between producers and consumers, especially through all forms of short supply (farmer markets, direct sale, associations supporting small farming – AMAPs, collective food supply, collective points of sale...)
 - **The approach of Planned Operation for Improvement of Housing with energetic vocation (OPAH)**, which objective is to renovate built heritage and improve the comfort of housing in order to enable home support, decrease of energy consumption of old housings, based on environmental quality criteria and with respect of the building. This action is incentive, it aims to create favourable conditions to undertake works of housing renewal in the targeted areas.
 - **The development of biomethanisation**, interesting technique for management of organic waste as it enable a double benefit of organic and energetic valorisation. In the framework of its participation to the SEVADEC waste treatment centre, Opal Country district integrates this process for fermentable waste it collects on its territory. New perspectives are developing today in link with agricultural world and asked to be accompanied in the framework of the PPEANP.
 - **Mobility**, especially through the management of on-demand transport system inside the territory (“green taxi”, which will soon be an electric vehicle), the network of the territory with charging stations for electric vehicles in each town-centre, the development of car sharing areas and of the Marshes’ cycling way in partnership with Pas-de-Calais County Council.
 - **The thermal renovation of public estate**: Opale Country district just renovated an old industrial wasteland into a low-consumption building in Guînes to gather all central services and now commits to building a positive energy building “BEPOS”, which will host in Ardres a nursery, a maternal and child welfare service, a music school and a house of public services. This building will produce more energy (electricity, heat) than it will use, starting from 2019. The district also commits in 2018, together with the County Energy Federation, into a diagnosis and ranking of local energetic heritage for the benefits of its municipalities.
- Strategy of Audruicq area district

The strategy of Audruicq area district relies on the development of a **Territorial Climate Air Energy Plan (PCAET)** in 2018, with a strategy and a programme of actions to reduce carbon

emissions. In 2018, a **Planned Operation for Improvement of Housing with energetic vocation (OPAH)** will also enable the development of an energy scheme.

The specificity of Audruicq area district is its alimentation scheme, which relies on a **Territorial Alimentation Project**. Many actions are implemented, such as:

- Ecopole: tools to accompany the development of local food supply chains (areas for production of organic agriculture, cannery/vegetable processing area, distribution platform)
- AD-in programme: food accessibility and autonomy for vulnerable people
- Education of young generations to food diversity
- Actions against food waste
- Animation and accompaniment of a citizens' collectivity and associations to act locally on alimentation issues (auto production, shared gardens, incredible edibles, responsible consumption, zero waste, reuse...).

- Strategy of Montreuil urban district

Montreuil urban district mainly relies on its competencies in housing and transport to implement actions contributing to low-carbon development of the territory. An application to **Territorial Contract of Objectives for Acceleration of the Third Industrial Revolution (COTRI)** is also planned.

In terms of housing, an aerial thermography study is being implemented in the framework of the **Positive Energy Territory for Green Growth (TEPCV)**, in order to identify priority sectors for energy retrofit and raise awareness around this issue. A thalassotherapy project is developed by Berck-sur-Mer city in order to use the potential for renewable energy from the sea. ADEME (National agency for environment and energy management) partly financed a positive feasibility study for a project of seawater pumping 1 km away from the coastline and exchange between seawater and soft water in a plant on the coast. This project could provide heat to the main infrastructures of the territory along the coastline, where urbanisation is dense, especially Berck hospital group (Fondation Opale). Another network could be developed perpendicularly to this first network, to reach Montreuil-sur-Mer district hospital via several infrastructures. Planned budget is 15 million euros for the coastal part and 35 million euros for the complementary network. A search for funding is currently in process, to implement the project by 2021.

The urban district will become a Transport organising authority (AOT) from 2020 and is currently leading a mobility study to anticipate a potential public service delegation contract. The main challenge is mobility in rural areas, with a consideration around how to reach the coastal area, mainly on summer weekends. **Deployment of car sharing areas** is also in process, together with Pas-de-Calais County Council. The urban district wishes to implement the Rezo Pouce (car sharing from a platform managed by an association) at the scale of its territory and the territory of 7 valleys district. It is also linked to the access to Valeo company, one of the main employer of the territory. Other experimentations are implemented together with Pas-de-Calais County Council on nature-sport (hiking, cycling...) and its consideration in planning documents. The **District planning scheme (PLUi)**, which will be ready in 3 years, will include an ambitious environment and mobility part.

- Strategy of St Omer urban district (CAPSO)

Audomarois territory is at the crossroads of motorways, waterways and railways and is a link between the coastal area and the rest of the national and European territory. Thus, PASSAGE project works are in resonance with major projects and development strategies engaged by the CAPSO in the framework of its competencies and its ***Territorial Climate Air Energy Plan (PCAET)***, such as:

- ***Its energy strategy:***

With its deliberation from 17/12/2017, the CAPSO fully committed to the energy transition aiming to progressively leave the current energy system based on fossil energies for a system based on renewable and recuperation energies. Thanks to a territorial multidisciplinary concertation (households, associations, companies and public sector) and the involvement of several of its departments, the CAPSO identified 3 areas of work:

- Management of energy consumption
- Development of short supply chains for energy
- Mobilisation of the territory on energy transition.

On a more “circular economy” perspective, in order to valorise dredging sludge from Neuffossé canal crossing the territory and bordering economic activities areas, the CAPSO is also engaged with Hauts-de-France Region as a ***territory for experimentation of SEDIMATERIAUX approach***, which aims to analyse properties, treatment and recycling of these highly polluted materials. The result could be the partial re-use of dredging sludge for building the dikes need to fight against flooding on a territory highly exposed to this risk. This experiment could also be enlarged to waterways across the territory.

In addition, the CAPSO is engaged in NEREUS project (2017-2020) on the INTERREG VA 2 Seas, with the objective to transform sanitation waste in a new resource, material, clean water and energy. Working on sewage sludge quality, it leads a pilot demonstrator operation on the use of mixt inputs to produce methane to inject in the domestic gas network.

In the framework of its energy strategy, the CAPSO as a Transport organising authority works with its operator to use gas buses as an experiment on regular lines. As an experiment ending in April 2018, the CAPSO created a NVG (Natural gas vehicle) on the multimodal activity park of Aa to supply carriers and trucks of companies in the area. The CAPSO also started to consider “hydrogen route” and keeps looking for its practical applications; the Urban planning and Development Agency of Saint-Omer Country and Inland Flander (AUD) is a member of the excellence regional centre Energie 2020.

- ***Its housing policy, specifically fight against energy scarcity in old housings (Safeguarded Perimeter):***

The House of Sustainable Housing (MHD) hosts the Single Desk for Information on Housing, which enables all residents of Audomarois territory, whether tenants or owners, to get information on energy savings, advice to get the relevant grants and understand the service

offer of the numerous operators. Animated by the housing department of the CAPSO, the MHD proposes for example the loan for energy retrofit available for owners, on 2 years, or the financial accompaniment to become the owner of an old housing, activated through a network of specialized partners and Hauts-de-France Region. The CAPSO hosts, for 4 years and in the framework of a partnership with the County energy federation, “shared energy councilors” who help municipalities to reach low energy buildings and public lighting.

Audomarois territory was granted with the TEPCV label - **Positive Energy Territory for Green Growth** and the CAPSO is helping, in this framework and as a complement to State grants, low energy projects on the territory (E.g. Enerlya boiler room). It wishes to create a technical referential and an architectural implementation guide for energy retrofit of buildings with heritage interest in the safeguarded perimeter of Saint-Omer town.

- ***The renewal of its Urban mobility plan (PDU) and its strategy for urban/rural mobility:***

A new **Urban mobility plan** (PDU) is under study to integrate new territories after merging and serve the structuring development projects of the territory.

A campaign of public workshops and debates was lead in 2016 to define a strategy for mobility (2018-2021). A new household questionnaire will be launched in 2018 to redefine urban and suburban mobility, based on this campaign, studies (e.g. parking in Saint-Omer town, students’ travels...) and foreseen projects (e.g. urban boulevard connected to the train station). This strategy aims to:

- Connect Audomarois with the Euro-region, with a user-oriented approached, mainly through the railways Saint-Omer/Calais and Saint-Omer/Lille,
- Connect rural areas to urban areas to fight against rural isolation and ease intra-urban circulation for daily mobility and access to socio-economic activities,
- Identify the most efficient and widely accessible exploitation model to guarantee a quality mobility service: new offer of on-demand transport, car clubs, connected bus stops, long bike rental...
- Make the behaviours and practices evolve through stimulation of collective mobility platforms and social inclusion.

These experimentations could be implemented in the framework of a European project (provisional title: SMARA), which first version will be submitted to INTERREG VB North West Europe programme in April 2018.

The CAPSO is currently implementing teleworking in its administration and offers possibility to employees to work on distant sites (territorial sites and “mini-stations” in a longer term). It develops digitalisation of the territory and is positioned as an eco-digital territory: with for example the Station (eco-digital and services’ site), the Great school of Digital (laureate of national label 2017) and digital strategy. This digital strategy embodies the development of uses and services to different scales to different stakeholders (e-administration, e-health, connected mobility paths, digitalisation of information tools...). It is supported by ERDF and the Digital Mission of Hauts-de-France Region.

- ***Its strategy for economic development, based among others on digitalisation of the territory and nature tourism:***

The ***creation of the eco-digital and services' site*** (the Station) at the train station of Saint-Omer aims to stimulate entrepreneurship in the Audomarois (co-working areas, Fab-Lab, innovation hall) in link with the metropolis and the coastal area. The Station seeks to mobilise new home-based companies through encouraging distance-work (limit travels) and rail mobility, rather than numerous carbonated trips currently generated by commuters.

To develop both economic attractiveness of the territory with the implantation of companies along the canal, the AUD will lead next year for the CAPSO a ***study on the development of waterways*** and industrial, tourism, environmental and social perspectives of this development. Fluvial ports are currently considered, with the reconversion of the basin in Aire-sur-la-Lys into a leisure boating area. Even if the connection of Saint-Omer Country waterways to the Seine Nord Europe Canal seems currently hypothetical, the development of this low-carbon transport solution could give a new economic and environmental impulsion to the territory.

To accompany the development of sustainable tourism of Audomarois Marshes, elected Man and Biosphere Reserve by UNESCO and last inhabited marshes of Europe, the CAPSO carries out together with the Natural Park of Caps and Opal Marshes the ***BIO-CULTURAL HERITAGE TOURISM project*** (INTERREG VA France (Channel)-England). It aims to create conditions for a bio-cultural tourism offer in the Audomarois Marshes, that is to say the management of touristic flows and optimisation of economic benefits of tourism, though the proposal of operations supporting alternative tourism development.

Audomarois territory bets on its authentic and craft vegetable production exported throughout Europe. It mainly bets on the ***development of short supply chains***, contributing to the local development strategy consolidated by LEADER programme and the European Agricultural Fund for Rural Development (EAFRD) on gastronomy and local products sectors through transformation, promotion and direct sell (selling points, house-selling, drive, farmer markets, tours) of local productions. In the same framework, the CAPSO develops the use of local products in catering (supply of commercial professionals and collective catering). It supports the implementation of the County agricultural scheme aiming to preserve the agricultural vocation of the Audomarois Marshes.

The CAPSO is often supported by the Urban planning and Development Agency of Saint-Omer Country and Inland Flander (AUD) before implementing these projects.

- Strategy of Lumbres Country district

The low-carbon development strategy of Lumbres Country district is based on several levers.

In terms of energy retrofit, a ***Planned Operation for Improvement of Housing with energetic vocation (OPAH)*** will be implemented from 2018 to 2020, with a total funding of about 5 million euros. This operation is a proactive policy of Lumbres Country district council, which will provide a cash advance for the remaining cost of energy retrofit works. The development

of an Interreg European project entitled LOCSAS on energy retrofit in sport facilities is under way; this project also aims to accompany the evolution of trainings provided by the vocational school of the territory, with specialisations on digital and energy retrofit as already started in the framework of the **Positive Energy Territory for Green Growth (TEPCV)**. In the framework of the TEPCV, environment educational workshops are also organised in schools, together with the Bird Protection Ligue and Enerlya (centre for scientific discovery of renewable energy). Finally, an energy retrofit work is being implemented and will continue until 2020 in all public buildings of the municipalities of the territory.

Experimentations are being developed on short supply chains, with the wish to organise the agricultural sector to answer the local demand. **GoTrade project** (co-financed by INTERREG VA France (Channel)-England programme), in which Lumbres Country district is involved, will enable to develop local farmer markets, the implementation of a “farm drive” (on the click-and-collect model) and the experimentation of a singular boutique to sell farm products, with relays in shops and markets. In a longer term, the district council could organise a grouped public procurement for school canteens of the different municipalities as well as for the secondary school.

Regarding mobility, two municipalities supported by the district council are carrying out a project of experimentation of an electric vehicle car club in rural area, supported by Pas-de-Calais County Council and the CAUE (agency advising for architecture, urban planning and environment). Two projects of active mobility connections are also planned, including the use of a former railway to develop a cycling-only path. The objective would be to reach a daily use of these active mobility connections by users, for example to go to the secondary school. In the framework of the **District planning scheme (PLUi)**, the district council will launch an experimentation for active mobility based on Orientations for Planning and Programming, to transform existing hiking paths into cycling-only path linking the different municipalities of the territory. The success of the car-sharing area could also lead to enlarge the area to meet the demand.

In the framework of the Third Industrial Revolution, Lumbres Country district council is also developing together with industries **a project to re-use the energy inherently trapped in systems of the concrete factory** EQIOM on the territory, for a use by 30% by the cardboard factory SICAL and a use of the rest of energy by the swimming pool, and even the secondary school and the sports hall.

- Strategy of Dunkirk urban district

Major industrial and energetic platform in Europe, Dunkirk urban district is also one of the main port and logistics hubs of the Channel-North Sea. Acknowledging the need to improve the environmental virtuosity of local economic network, local stakeholders have soon committed to the definition of a less-energy-consuming development model, more respectful of the quality of life.

Convinced of the leading role of territories in the mutation process of industry, transports and logistics, Dunkirk urban district council has initiated in 1998, together with the National agency

for environment and management of energy (ADEME), the National energy conference, which became in 2016 the **European conference for energy transition**. Co-organised with Bordeaux Metropolis and Greater Geneva, the event is now the big annual meeting of stakeholders involved in energy transition. Interdisciplinary work, learn, debate, exchange are the main motivations of organisers to initiate and develop a decentralised culture of energy and climate, linked to other territorial policies. Organised by Greater Geneva in 2018, the meeting gathered more than 5000 participants. The 20th edition will take place in Dunkirk in January 2019.

Dunkirk urban district council started in 2010 a **Cit'Ergie labelling process**, which is a tool for municipalities and their groupings to commit in a continuous improvement of their energy policy, in the framework of ambitious climate objectives. Cit'Ergie label has three levels rewarding for 4 years a process of management of quality of the energy and climate policy of the local authority. As a demonstration of its involvement, Dunkirk urban district council received in January 2014 the highest level of the label, Cit'Ergie Gold, which was renewed in 2018 with *"the best result reached so far in France"* according to the National agency for environment and management of energy. More than a label, a real certification approach is implemented, with a 4-years commitment to preserve and improve the energy performances. The internal action plan for 2017-2021, based on the Cit'Ergie standards, includes 79 actions in 6 areas (development planning; estate management; energy supply, water, waste and sanitation; mobility; internal organisation; communication and cooperation). To ease the evaluation of this action plan, 58 follow-up indicators have been allocated to these different areas.

Facing unprecedented climate and energy challenges, Dunkirk urban district has elaborated its second **Territorial Energy Climate Air Plan (PACET)** in 2014-2015. Approved in October 2015 by the elected representatives, the 2015-2021 PACET aims to:

1. Increase the energy efficiency of the territory

Challenges of energy efficiency can be considered as a crosscutting expectation, required to reach each of the four other objectives listed here after. Indeed, it is not possible to make sure that the development of renewable energies (hoped to provide 100% of energy demand in 2050) will meet the global energy demand before several centuries, unless a massive reduction of energy consumption in all sectors is reached.

2. Switch to renewable and recoverable energies

Switching to renewable and recoverable energies is a priority axis for the territory. The wide diversity locally available of these energies should be exploited: recovery of the energy inherently trapped in systems, on-land and on-shore windmills, biomass energy valorisation, sun energy, marine energy... Multiply this type of energies to reach a low-carbon economy will also imply the development of storage capacity, which may compensate intermittent production and consumption variations. In this field, where (almost) everything is still to invent, the territory can count on many factors to take the leadership: a very developed gas and electricity supply infrastructure, a growing experience of hydrogen supply, well-advanced research projects...

3. Reduce GHG emissions

Mitigate climate change by the reduction of Green House Gas emissions will contribute to the decrease of 75% of GHG emissions by 2050, compared to their 1990 level. Reduction of GHG emissions will mainly be reached by energy savings and development of renewable energies, which have a direct impact on the carbon footprint of a territory. With regards to the objectives set, this objective of 75% decrease by 2050 seems reachable for the territory.

4. Reduce exposure of the population to air pollutants

Climate-friendly actions are most of the time helping to reduce emissions of pollutants and thus exposure of population to air pollution. Commitment in this field is based on two levers: reduction of emissions of pollutants and protection of populations, especially the populations living in close proximity to the emissions sources (industrial sites and roads with important traffic).

5. Adapt the territory to the change of climate conditions

Dunkirk urban district is vulnerable to climate evolutions and thus tries to act both on mitigation and adaptation levers. An important part of the territory is under the high-seas level and has been drained for centuries by a complex system: the wateringues. So far efficient, this system is now showing some limits and worrying signals for capacity and reliability of structures. Issue of coastal erosion will probably intensify, with the related question of strengthening dikes and the ribbon of dunes to limit the risks of temporary marine submersion. To do so, many actions have been planned, specifically against risks of flooding.

Specificities of the carbon footprint of the territory:

In 2014, the GHG emissions footprint reached 24.4 million tons CO₂ equivalent. 94.5% of emissions are generated by 3 sectors: industrial processes, energy industry and freight. Dunkirk territory is particularly emitter, with a very un-typical profile compared to the national distribution (122 tCO₂e per inhabitant compared to 9 tCO₂e per inhabitant at national level). Emissions linked to industries on the territory are predominant in the GHG emissions footprint. Industrial processes represent more than 60% of emissions, 15.8 MtCO₂e. Energy industries emitted more than 5 MtCO₂e and freight represents 1.959 MtCO₂e – more than 80% of which is linked to maritime transport (1.6 MtCO₂e).

Territory of innovation of great ambition (TIGA):

Dunkirk urban district project “Transformation of an industrial port ecosystem” has been selected in the framework of the national call for projects Territory of innovation of great ambition; it is the only project in Hauts-de-France region among the 24 projects selected for 117 applications at national level. This first phase will lead to the presentation of a consolidated application in 2018.

Dunkirk project embodies the will of institutional stakeholders, companies, academic world, shared by inhabitants, to engage the transformation of its industrial port basin. Important transitions in process indeed require questioning the development model to better anticipate economic, environmental, social and even societal mutations. At the forefront of energy

transition, Dunkirk territory wishes to reach a new level in technological innovations to become the laboratory of energy sobriety, efficacy and efficiency.

Experience in industrial ecology and circular economy are key levers to roll out a technological platform on cold, increase the recovery of the energy inherently trapped in industrial systems, develop hydrogen potentials or increase and diversify production capacities of sustainable energy.

The specificity of the project is its carbon approach, which is based on both sobriety and valorisation. The objective is to support stakeholders in low-carbon strategies and develop local supply chains to valorise this resource (catchment, storage, transformation).

EuraEnergie park will support these innovations structuring a new multi-stakeholders governance. With its campus and its factory school, including innovative technologies' demonstrators, it will anticipate the evolution of production modes and needs for skills, to improve competitiveness of economic network.

Finally, regaining air quality is considered as an essential condition of the transformation process. First because it contributes to prevent health-risks for inhabitants, then because it contributes to guarantee a quality environment recovering the image and attractiveness of the territory.

Action 11 proposes exchange and development of synergies between strategies implemented on each territory of the French shore, to strengthen local policies aiming to accelerating low-carbon transition.

Budget: No additional cost is foreseen for this action.

Time frame: Action 11 will be developed during Phase 2 of PASSAGE project, by March 2020. If necessary, it will continue beyond.

ACTION 12 – DEVELOP A MARITIME STRATEGY FOR THE COUNTY

In the framework of PASSAGE project, many issues linked to the seaboard of the strait have been identified or better quantified and evaluated. In order to reinforce the answer proposed by county policies to these different issues, a maritime strategy will be developed in concertation with all the relevant territorial stakeholders and in link with the National strategy for the sea and coastline and the Strategic Seaboard Document for East Channel-North Sea.

Action 12 proposes the development and adoption by Pas-de-Calais County Council of a “maritime strategy”.

Budget: This action mainly involves staff cost for the development of the strategy. The budget for the implementation of this strategy will be to determine.

Time frame: Action 12 will be developed during Phase 2 of PASSAGE project, by March 2020. If necessary, it will continue beyond.

ACTION 13 – CREATE A POLITICAL STEERING COMMITTEE

In the framework of PASSAGE project, a cross-border local stakeholder group was created and gathered every semester from 2016 to 2018. Considering the need to coordinate the implementation of this action plan, including at political level, it is proposed to hold political steering committee meetings starting from 2018, at least annually, until the end of the project.

Action 13 proposes the creation of a political steering committee to coordinate the implementation of this action plan and continue the mobilization around low-carbon transition of Dover/Pas de Calais Strait.

Budget: This action mainly require staff cost for the organization of the meetings and will be funded as part of PASSAGE project, as a tool for the follow-up of the implementation of this action plan.

Time frame: Action 13 will be developed during Phase 2 of PASSAGE project, by March 2020. If necessary, it will continue beyond.

ACTION 14 – CONTRIBUTE TO THE EUROPEAN ENERGY CONFERENCE

In 2019, the European Energy Conference will take place in Dunkirk, at the initiative of Dunkirk urban district. This will be the opportunity to mobilise many stakeholders in the territory.

Action 14 proposes the contribution of PASSAGE project to this European Energy Conference, especially on the European and cross-border part, to capitalise on the lessons learnt through the project.

Budget: Budget for the participation to the European Energy Conference, in the framework of the global budget planned for the European Energy Conference.

Time frame: Action 14 will be developed in 2019, during Phase 2 of PASSAGE project.

LEVER – SUPPORT LOW-CARBON MARITIME TRAFFIC AND PORT OPERATIONS

The following actions refer to criterion 5 of the Third Industrial Revolution framework: “mobility of goods and people”.

ACTION 15 – CONTRIBUTE TO THE SUSTAINABLE DEVELOPMENT CHARTER OF THE PORT OF BOULOGNE-SUR-MER – CALAIS

The carbon study conducted in the framework of PASSAGE project and the best practices highlighted by the project are interesting basis for knowledge at the scale of the Strait of Dover/Pas de Calais. The Sustainable Development Charter of the port of Boulogne-sur-Mer – Calais, which will be jointly developed by Hauts-de-France Region and the SEPD (exploitation company), may benefit from this added value.

Action 15 aims to the use by Hauts-de-France Region of the results of PASSAGE project in the framework of the development of the Sustainable Development Charter of the port of Boulogne-sur-Mer – Calais to:

- ***Feed the diagnosis of the Sustainable Development Charter with results of the carbon study***
- ***Identify possible levers for action to reduce the carbon impact of port activities being implemented directly or sub-contracted by the regional council (maintenance, dredging...)***
- ***Study the involvement of the ports in the World Port Climate Initiative – WPCI.***

Budget: The budget identified is the budget dedicated by Hauts-de-France Region for the development of the Sustainable Development Charter of the port of Boulogne-sur-Mer – Calais. No additional budget is foreseen.

Time frame: It is expected that the Sustainable Development Charter will be written during the Phase 2 of PASSAGE project (by March 2020). The Charter will be implemented in the longer term.

ACTION 16 – CREATE A WORKING GROUP ON ALTERNATIVE FUELS AND ENERGY EFFICIENCY OF PORTS

The fast development of alternative fuels for shipping (LNG, electricity, hydrogen...) and port technologies (especially cold ironing) opens the door for the development of a different port economy model in the region.

However, many questions remain: profitability of investments in a competitive context, regulatory aspects, practical arrangements for the deployment of technologies in ports and on ships... It seems necessary to make a precise inventory of the various alternatives that can be envisaged and to identify blocking points and the levers of actions of ports and maritime companies, with medium and long-term investment prospects.

Action 16 aims to the development by Hauts-de-France Region and/or SEPD (pilot to be defined) of a technical working group on these topics, involving Hauts-de-France Region, the SEPD, Dunkirk port authority, maritime companies (specifically, ferry companies) and all relevant stakeholders.

Two aspects may be studied more specifically:

- **Liquefied Natural Gas (LNG)**

A national platform dedicated to maritime and fluvial Liquefied Natural Gas (LNG), supported by the French Association of Gas, is promoting since 2006 the use of LNG for maritime transportation. This platform has received the support from the French Ministry of Ecological and Solidarity Transition in February 2017. At the occasions of the Interministerial committee of the sea (July 2017) and the Conference of sea economy (November 2017), Prime Minister Edouard Philippe and Minister of Ecological and Solidarity Transition Nicolas Hulot have highlighted the strong potential for development of LNG for maritime transportation and expressed the support of the State in the deployment of this alternative fuel. The new LNG terminal in the port of Dunkirk will soon offer new possibilities for LNG supply in the region and opportunities for LNG supply of ferries and other types of boats. With its launch beginning of 2017, port of Dunkirk and its partner DK LNG are considering to set a maritime in-land supply chain for LNG. This will enable ships to answer the requirements of the Marpol VI convention and European directive enforcing a maximum 0.1% share of sulphur in shipping emissions in the SECA areas. Indeed, ship-owners with LNG engines – most reliable and economically sustainable technical solution – will be able to refuel in Dunkirk. Since 2012, the port of Dunkirk has carried out studies for the development of LNG as alternative fuel for ships, vehicles and industries. Following these studies, a Call for Interest has been launched to select a pool of stakeholders involved in this new sector.

- **Cold ironing**

In the sector of maritime transport, ports are concentrating an important share of polluting emissions. Indeed, a ship needs to burn an important quantity of fuel to remain operational. In order to limit the emission of pollutants (Sulphur, Nitrogen, fine particles) in ports, one of the solutions is to propose an electric connection at berth for ships, which enables them to plug to the land network and to delete the greenhouse gas emissions generated by engines; this is cold ironing. The port of Dunkirk authority (GPMD) has committed to deploy this to its container terminal in order to supply electricity to container carriers during their stopover. This solution will enable to reduce almost 100% emissions of ships at berth for the main pollutants such as NOx, PM and SO2.

The conclusions of this working group may feed the next Multiannual investment plan on the port site of Calais.

This working group will build on the works undertaken in the region by Energie 2020 (regional excellence cluster on energy), which has launched in 2017 a regional platform on LNG, under

the request of all stakeholders involved in the development of LNG (suppliers, order givers, transporters...). This regional LNG platform has the following objectives:

- Raise awareness on LNG assets for environment, attractiveness of the region and local employment
- Support LNG as an alternative fuel in the strategic documents
- Act for the development of projects between regional stakeholders
- Act as a regional relay in national regulations and tax decisions.

This work can also be developed in link with Norlink Ports, association of maritime and fluvial ports of Hauts-de-France.

Budget: This action mainly requires mobilisation of staff for the organisation of work sessions. No additional budget is to be planned so far.

Time frame: During Phase 2 of PASSAGE project (and beyond).

ACTION 17 – SUPPORT THE MODERNISATION OF THE FISHING FLEET

Considering the existing experimentations on Dover Strait (for example the hybrid fishing boat *La Frégate* in Boulogne-sur-Mer developed by France Pêche Durable et Responsable) and the successful practices across Europe, the objective of this action is to support additional experimentations and generalisation of these approaches where possible.

Action 17 proposes to add a criterion related to decrease carbon emissions of fishing ships in the selection of projects to be supported by the future Pas-de-Calais County Council's fishing policy, in link with the EMFF (European Maritime and Fisheries Fund)

Budget: The budget identified is the budget dedicated to Pas-de-Calais County Council's fishing policy. No additional budget is foreseen.

Time frame: Pas-de-Calais County Council's fishing policy should be adopted in 2018.

ACTION 18 – EXPERIMENT THE EXPLOITATION OF MARINE RENEWABLE ENERGIES ON A HYBRID PROFESSIONAL FISHING VESSEL

Fishing sector in region Hauts-de-France, dominated by the trawler activity, is weakened by the rise of fuel prices, rarefaction of resource and restriction of production spaces that need to be shared with maritime traffic, protected areas and wind farms. Pas-de-Calais fishing fleet, like the national one, is ageing (more than 27 years old in average) and energy-consuming. With the successive systemic crises, fuel progressively reached the top of expense items in operating balances. Productivity is penalised by the rise of energy costs, the turnover and balance of exploitation of trawler companies was only capable to stay constant at the expense of the self-financing capacity of ship-owners.

The proposed action is based on already implemented experimentations showing significant results. Thus, the hybrid ship *La Frégate* generates fuel gains estimated and cumulated from 15 to 21% depending on the use. The advance is the comfort on board, the ship being much

more silent, and the reduction of CO₂ and particle emissions. The main obstacle remains the low battery life, about 7 to 9 hours, which is today insufficient to answer the energetic needs of a trawler ship, propulsion and trawling being the most important sources of energy consumption. Research of an efficient innovating solution will be through exploring new sources of energy. “Fish2EcoEnergy” project, which vocation was to impulse technological evolutions for sustainable fishing on professional fishing vessels, enabled to move on electric engines and to lead, end 2016, studies on construction of a fishing vessel with technological break in Lorient.

Action 18 aims to the continuation, by France Pêche Durable et Responsable, of studies on electric propulsion with autonomous production and electricity storage on a professional fishing vessel, to accelerate the transition to a low-carbon economy in the fishing sector.

This innovative action in Pas-de-Calais impulses the implementation, on board of fishing vessels, of a combination of eco-innovations in terms of energy efficiency and storage, such as: undulator with friction of water, solar panels, mini wind turbines, anti-roll stabiliser system, wave energy... The action aims to a sensitive reduction or a total enfranchisement of fossil energy resources used by trawlers, adapting their mode of fuel consumption to the needs of an economically sustainable and environmentally responsible fishing.

The objective is to highlight technological evolutions adaptable to all the units of the regional fishing fleet, which gains of productivity produce immediate savings easing investments in innovative eco-solutions likely to guarantee a fast marketing.

Budget: The budget necessary for the launch of the project is about 25 000€. A search for public and private funding is in process. Project itself could be supported by the European fund for maritime affairs and fisheries or INTERREG VA France (Channel)-England or 2 Seas programmes.

Time frame: Project will be implemented during Phase 2 of PASSAGE project and could end in 2021.

ACTION 19 – CREATE A WORKING GROUP ON LOW-CARBON SOLUTIONS FOR FISHING SECTOR

Considering the specificities of our territory with the first fishing port in France, Boulogne-sur-Mer, the fishing sector seems to be an interesting lever of action to reduce CO₂ emissions, with two levers:

- The modernisation of the fishing fleet, to contribute to the reduction of emissions from maritime traffic. This could be supported by the exploration of new motorisations for fishing ships with alternative fuels or by the reduction of the consumption of fishing ships using innovative fishing techniques.
- The development of short and local supply chains for fishing products, considering that the regions is today importing fishing products despite an important local production. A more important valorisation of some species, for example in the framework of collective food supply, the use of labels or the development of aquaculture are areas to explore.

Several measures of the State, Hauts-de-France regional council or European Fund for Maritime Affairs and Fisheries are offering possibilities of support to projects contributing to these objectives. Experimentations implemented in the region have already produced significant results. However, existing innovations or support measures for their deployment are not well appropriated by the fishing sector.

Action 19 aims to the creation of a working group on these topics, to solve the obstacles and incite to a global deployment of low-carbon solutions for fishing and marketing of fishing products.

This working group could involve the different institutional partners (State, Region, County, Districts), associations acting in this area (France Filière Pêche, France Pêche Durable et Responsable) as well as representatives of the profession.

Budget: This action mainly requires mobilisation of staff for the organisation of work sessions. No additional budget is to be planned so far.

Time frame: During Phase 2 of PASSAGE project (and beyond).

ACTION 20 – DEVELOP THE ACKNOWLEDGEMENT OF LOW-CARBON PRINCIPLES IN THE PORT INVESTMENTS

Pas-de-Calais County Council has committed to investments of 5 million euros on the port of Boulogne-sur-Mer by 2021, as part of the multiannual investment framework of Boulogne-sur-Mer district.

Action 20 aims that Pas-de-Calais County Council can take into account low-carbon criteria and PASSAGE results where possible, to reduce the carbon impact of future investments.

This action may be completed by exchanges of experiences or partnerships between the port of Dunkirk and the ones of Calais and Boulogne-sur-Mer, especially in the framework of the application of the Urban district of Dunkirk to the national call for projects “Great Ambition Innovation Territory” (TIGA) about the transformation of the industrial-port system.

Budget: The initial budget planned for investment is 5 million euros by 2021. No additional budget is foreseen for this action. The possibility of a financial support from the ERDF regional programme Hauts-de-France may be considered for operations aiming to increase the use of sustainable transports, for people and goods, in an intermodality and pollution reduction strategy.

Time frame: By 2021.

LEVER – SUPPORT LOW-CARBON IN-LAND TRAFFIC

The following actions refer to criterion 5 of the Third Industrial Revolution framework: “mobility of goods and people”.

This action refers to the “Statement in favour of the Seine-Nord Europe Canal” adopted in July 2017 by the Permanent commission of Pas-de-Calais County Council.

ACTION 21 – SUPPORT THE IMPLEMENTATION OF THE SEINE-NORD EUROPE CANAL

Pas-de-Calais County Council has committed to invest in the Canal Seine-Nord Europe project, as a priority investment project for the coming years. Along with other public authorities of the region and Ile-de-France, the French State and the EU, Pas-de-Calais County Council will make sure this project can benefit to a significant modal report from road to fluvial freight. This ambitious project is also linked with the modernisation of the waterways in the region and to the development projects of waterway ports, as highlighted in the CPER (multiannual investment contract between the State and the Regional Council), to which Pas-de-Calais County Council is a signatory.

Action 21 establishes that Pas-de-Calais County Council supports and promotes the implementation of the Seine-Nord Europe Canal, as a major investment for modal report of freight.

Budget: Pas-de-Calais County Council commits to a contribution of 130 million euros for the construction of the Canal Seine Nord Europe.

Time frame: Construction works are planned end 2018-2019 for an opening of the canal by 2026.

LEVER – FIGHT AGAINST ENERGY SCARCITY

This action is a declination of action 4 (cross-border action plan).

This action refers to criterion 6 of the Third Industrial Revolution framework: “energy efficiency”. It acts on energy retrofit through housing renewal and behaviour change.

This action refers to the main policies of Pas-de-Calais County Council for housing, such as the contractualisation with social housing companies, the County Scheme for Housing or the County Plan for Housing and Accommodation of Disadvantage People. This action also refers to the Climate Air Energy Plan currently being developed by Pas-de-Calais County Council and to the Solidarity Pact of Pas-de-Calais County Council.

ACTION 22 – REDUCE EMISSIONS FROM DOMESTIC HOUSING

Energy consumption from housing and tertiary sector represent about 47% of the world production of fossil energies. Social housing companies are housing one out of two tenants in Nord – Pas-de-Calais and offer 9% of the total housing at national level. Energy remains the main rental burden and contributes to massive carbon emissions. In Pas-de-Calais, more than 18% of the population is in a situation of energy scarcity.

In the framework of several INTERREG projects, Pas-de-Calais Habitat aims to develop a new social and economic model to provide auto-funding to residents organised in Cooperative Societies of Collective Interest (SCIC), through energy transition. The Management of Energy Expenses approach (*Maîtrise des Dépenses Energétiques* – MDE), developed in the framework of IFORE project, will be included as a technical starting point; the digital tools (platform, networks and monitoring tools for energy consumption) are adaptable to different contexts and target groups. The objective is a social solution to energy scarcity issue, which can be massive and targeted in the same time.

Action 22 proposes that Pas-de-Calais County Council can provide support to a county-scale approach of the actions developed by Pas-de-Calais Habitat, in particular:

- ***The creation of a SCIC cooperative linked to the commitment of residents on 5 experimentation areas (and later 15 areas) in Pas-de-Calais***
- ***The entrustment of energy by the cooperative for subscriber residents***
- ***The creation of services of collective interest enabled by the energetic approach linked to the MDE, completed by the creation by residents of new economic and social services to answer the needs and improve quality of life of residents***
- ***The networking of Pas-de-Calais stakeholders to create and define concerted intervention models, especially in the field of Social economy.***

This aims to a wider deployment of the approach, a collective and unified exploitation of the results. Shared knowledge basis will enable to consolidate the work of housing ambassadors, trained to the MDE approach and use to its various tools.

Budget: The budget planned for this action is part of INCREASE project budget, with the support of the INTERREG VA France-(Channel) England programme (69% ERDF cofunding). The possibility of a financial support from ERDF regional programme Hauts-de-France can be considered for complementary actions.

Time frame: In the calendar of INCREASE project, from October 2017 to October 2020.

LEVER – DEVELOP SHORT AND LOCAL SUPPLY CHAINS

This action is a declination of action 6 (cross-border action plan).

This action refers to criterion 7 of the Third Industrial Revolution framework: “circular economy”. It aims to reduce the impact of transport in the life cycle of products and to develop a territorial approach at the relevant scale.

This action builds on the Climate Air Energy Plan of Pas-de-Calais County Council (action E2: Aiming a low-carbon food supply of canteens).

ACTION 23 – DEVELOP SHORT AND LOCAL SUPPLY CHAINS FOR FOOD

Pas-de-Calais County Council is developing a new strategy on Sustainable Food, especially in the framework of collective food supply for secondary schools and medical and social institutions. Considering the carbon impact of food transportation from production to consumption, including processing, there is a room for manoeuvre to engage a reduction of the transportation with short supply chains based on local products.

Considering fish specifically, there is no lever to reduce the fishing distance, but reducing the distance from disembarkation to processing and consumption is an option to reduce emissions. Boulogne-sur-Mer, important fishing port and centre for fish processing, is an interesting area for experimentation.

Action 23 proposes to include short supply chains’ incentive in the future Sustainable Food Strategy of Pas-de-Calais County Council.

Budget: The budget planned for the implementation of the future Sustainable Food Strategy will be the basis for this action. No additional budget is foreseen.

Time frame: The Sustainable Food Strategy should be adopted in 2018.

ACTION 24 – DEVELOP REGIONAL SHORT SUPPLY CHAINS THROUGH THE PORT OF DUNKIRK IN THE FRAMEWORK OF A GLOBAL ECONOMY

Dunkirk port authority (GPMD) started a process to reconquer its natural hinterland, North of France, based on some sectors and associated traffics, with a specific attention to bulk and container traffics. It aims to optimise massive transport sectors to maximise flows and make them more efficient and sustainable. Through CAP 2020 project, aiming to develop container traffic in Dunkirk, the port seeks to gain market shares in the regions Grand Est and Hauts-de-France, in a hinterland today mainly captured by Benelux ports.

Enabling the report of some logistic flows from Belgium ports to Dunkirk and capturing a more important share of the increasing traffic of containers, the project seeks to relocate on the territory transport services and logistics operations generating an important benefit. Getting closer landing sites and consumption sites and enabling modal report from road to less

polluting transport modes (transshipment, rail, fluvial), the project develops the notion of “global” short supply chains.

Action 24 aims to the development by Dunkirk port authority of CAP 2020 project, seeking to capture part of the containers transported by trucks from Benelux ports to reduce distance between landing and consumption sites and thus reduce carbon emissions through a more important modal report on waterways and railways.

Budget: Budget planned by Dunkirk port authority to implement CAP 2020 project.

Time frame: During Phase 2 of PASSAGE project (and beyond).

PART III

ENGLISH SHORE ACTION PLAN



Picture: Explore Kent

LEVER – FIGHT AGAINST ENERGY SCARCITY

ACTION 25 – REDUCE EMISSIONS FROM DOMESTIC HOUSING

This action relates to action 4 (cross-border action plan).

This action refers to action MR6.2 in the Kent Environment Strategy Implementation Plan: “Improve the resource efficiency of our homes, reducing costs, tackling fuel poverty and improving health outcomes”.

Domestic energy use accounts for 28% of Kent’s total CO₂ emissions, with over three quarters of that energy being used for space and water heating. Improving the energy and heat efficiency of homes through retrofitting will reduce greenhouse emissions, help residents save money and reduce the health impacts of living in a cold home.

Through the Warm Homes scheme, Kent County Council, in partnership with Dover District Council and other local authorities in Kent, offer residents subsidised insulation and offers the most vulnerable residents financial contributions towards boiler replacement and heating improvements.

Through the Triple-A project, funded by European INTERREG 2 Seas Programme, Kent County Council is also trying to stimulate the adoption of low carbon technologies by homes owners. The project seeks to improve home owner’s access to information about low-carbon technologies and test innovative new technologies (battery storage and renewables) in their homes.

Action 25 proposes that Kent County Council continues to support approaches that reduce emissions from domestic housing in the Dover Straits area and support homeowners to install low carbon technologies in their homes.

Budget: Kent’s share of the Triple-A project budget is €633,381.85. The budget for Warm Homes comes from energy companies and district funding on an install-by install basis. The approximate value of the scheme to date has been £3million. No additional budget is foreseen for this action.

Time frame: Until at least 2020

ACTION 26 – REDUCE EMISSIONS FROM SMALL AND MEDIUM SIZED BUSINESSES (SMES)

This action refers to action MR6.3 in the Kent Environment Strategy Implementation Plan: “Work with businesses to reduce costs and negative impacts through compliance, efficiency, resilience and innovation in the use of resources”.

34% of East Kent's CO₂ emissions¹ are attributable to the industrial and commercial sector and there are over 11,855 businesses registered in East Kent². Helping businesses to reduce their energy use will not only help reduce emissions, but also help them to save money. In addition, the Low Carbon and Environmental Goods and Services (LCEGS) sector forms an important part of the transition to a low carbon economy and Kent County Council is keen to support growth in this sector.

Kent County Council is committed to delivering 2 partnership projects:

- STEM: Steps To Environmental Management is an accreditation scheme that supports businesses to reduce costs through better energy and resource use. The programme also forms a basis for those organisations seeking ISO140001 accreditation.
- LoCASE: Low Carbon Across the Southeast is a partnership of local authorities and universities providing support and grants to SMEs for low carbon initiatives across the southeast. It aims to create 200 jobs and £9m private sector investment by 2019 in the LCEGS sector.

Action 26 proposes that Kent County Council continues to support local SMEs in the Dover Straits area to use energy and resources more efficiently and to provide support and grants for low carbon initiatives.

Budget: This is a partnership programme covering the geographic counties of Kent, East Sussex and Essex, with a total budget of £18.8m, funded through the European Regional Development Fund (ERDF). No additional budget is foreseen for this action.

Time frame: April 2016 – March 2019.

¹ Local authority industrial and commercial CO₂ emissions estimates for Dover, Shepway and Thanet in 2015

² Active businesses in the districts of Dover, Shepway and Thanet in 2016

LEVER – SUPPORT LOW-CARBON IN-LAND TRAFFIC

This action refers to action MR1.5 in the Kent Environment Strategy Implementation Plan: “Build on our understanding of local air and noise pollution and associated health outcomes to determine targeted actions”.

ACTION 27 – DEVELOP AN ENERGY AND LOW EMISSIONS STRATEGY

Air quality is increasingly an area of concern for the public and local authorities and health providers. In 2013 it was estimated that poor air quality was responsible for the equivalent of 1,050 premature deaths across Kent and Medway and also has associated economic costs through healthcare and lost productivity. The main source of air pollution in urban areas is from road traffic, with cross-channel traffic, both from port shipping and associated HGV freight traffic on the roads, being an additional source in the Straits area.

To prevent unacceptable impacts on air quality and health, Kent County Council will work with partners in the Straits area to develop an energy and low emissions strategy. The strategy will identify priorities for targeted partnership actions across Kent, building upon existing and planned energy, transport, travel and air quality activities.

Action 27 proposes that Kent County Council develop an energy and low emissions strategy for Kent and Medway, including actions to address emissions in the Straits area.

Budget: Low cost through staff time. No additional budget is foreseen for this action.

Time frame: A draft strategy is expected to be available for consultation in summer 2018.

LEVER – DEVELOP LOW-CARBON TOURISM AND MOBILITY

This action refers to action MR7.1 in the Kent Environment Strategy Implementation Plan: “Develop an integrated approach to sustainable access to our countryside, heritage and coast”.

ACTION 28 – INCREASE SUSTAINABLE ACCESS TO THE COUNTRYSIDE

Kent County Council is responsible for the management and promotion of approximately 7100km of Public Rights of Way (PROW) in Kent. This is a unique network of publicly accessible paths and tracks that are legally protected and free to use at the point of entry. The PROW network is a valuable resource, providing sustainable access opportunities for walkers, cyclists and equestrians to explore and enjoy Kent’s iconic countryside and coast.

The work of the Kent County Council PROW and Access service is guided by the Countryside and Coastal Access Improvement Plan (CCAIP). This is based on extensive public consultation and research, assessing the extent to which local rights of way meet the present and likely future needs to the public. The plan includes a statement of actions for managing and improving the PROW network, which will encourage active travel participation and improve sustainable access to the countryside and coast.

Action 28 proposes that Kent County Council will collaborate with local stakeholders to encourage sustainable access to the East Kent countryside and coast, by developing the Public Rights of Way & Access resource in East Kent. This will include:

- ***Promoting outdoor recreation opportunities across the PROW network and National Trails, including the recently opened England Coast Path.***
- ***Improving accessibility to the countryside and coast by enhancing the condition of existing paths and removing barriers across the PROW network.***
- ***Developing a more sensible, integrated PROW network with planning authorities and developers that encourages walking, cycling and equestrian activity.***

Budget: This action will be funded through a combination of income sources that includes: Developer Contributions (S106 and CIL), Local Government Funding, INTERREG, National Trails Grants and Landowner Contributions.

Time frame: A new Countryside and Coastal Access Improvement Plan is set to be published in 2018. This 10-year plan will be monitored and reviewed annually, though the work of the PROW & Access Service will be ongoing.

LEVER – SUPPORT LOW-CARBON MARITIME TRAFFIC AND PORT OPERATIONS

This action refers to action MR6.3 in the Kent Environment Strategy Implementation Plan: “Work with businesses to reduce costs and negative impacts through compliance, efficiency, resilience and innovation in the use of resources”.

ACTION 29 – SUPPORT THE DEVELOPMENT OF LOW CARBON TRANSPORT HUBS

The Port of Dover is already a Carbon Trust Standard holder and is required to reduce carbon emissions by 5% annually. They aim to become a carbon neutral port and have an energy strategy focused on investing and implementing renewable energy on their estate.

Kent County Council is a partner in the Department for Transport’s ‘Connected Corridors’ project to provide roadside connectivity along the A2/M2 from London to Dover. The aim is to pilot technologies that will provide live data to vehicle drivers, potentially warning them of hazards on the road, roadworks, traffic or even poor weather further along their route. Targeting freight vehicles, the scheme could help alleviate congestion in and around the port.

Action 29 proposes that Kent County Council continues to develop relationships with the Dover Harbour Board and Eurotunnel, to identify opportunities to reduce the impact of major transport hubs in the Dover Strait. Opportunities could include tackling congestion with the use of new technologies (eg. through the Intercor and Connect Corridors projects), addressing freight capacity issues, and further opportunities to reduce carbon emissions from port and tunnel buildings and infrastructure.

Budget: This action will utilise staff time and existing project budgets. No additional budget is foreseen for this action.

Time frame: Ongoing

PERSPECTIVES

The present action plan is the result of a long process of consultation. The actions appearing in this action plan have been selected from many relevant actions, which have been discussed, evaluated and sometimes left apart.

As a result, this action plan should be considered as the first step of a larger process. All interested stakeholders that wish to contribute to the general approach initiated by PASSAGE project are welcome to add to any future versions of this action plan.

Many on-going initiatives will enrich the local and cross-border experience when it comes to low-carbon transition and should be considered in the future, in line with this action plan.