

ENSURE – European Sustainable Urbanisation through port city Regeneration

Targeted Analysis

**Annex 4.2 - Case Study Report:
Brest (FR)**

Case Study Report

This Case-Study Report is conducted within the framework of the ESPON 2020 Cooperation Programme, partly financed by the European Regional Development Fund.

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.

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Authors

Xavier Le Den, Samy Porteron

Advisory Group

Project Support Team: Borel Gildas, De Pénanros Tristan, Brest métropole; Lefebvre Alexandra, Quentin Delaune, ADEUPa;

ESPON EGCT

Michaela Gensheimer (Senior Project Expert), Caroline Clause (Senior Financial Expert), Nikos Lampropoulos (Project Expert – European Outreach/Press and Media)

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Contact: info@espon.eu

ISBN: 978-99959-55-35-9

Annex 4.2 - Case Study Report – Brest (FR)

**ENSURE – European Sustainable
Urbanisation through port city
Regeneration**

Version 29/04/2020

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The final version of the report will be published as soon as approved.

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Abbreviations

ADEUPa	Agence d'Urbanisme et de Développement Économique Brest-Bretagne – Brest-Brittany Agency for Planning and Economic Development
AVAP	Aire de mise an Valeur de l'Architecture et du Patrimoine – Area of architectural and heritage enhancement
BMA	Brest Metropole Aménagement – Brest Metropole Planning
CCIMBO	Chambre de Commerce et d'Industrie Métropolitaine Bretagne Ouest – Chamber of Metropolitan Commerce and Industry for West Brittany
EC	European Commission
EPCI	Etablissement Public de Cooperation Intercommunale – Public Organisation of Intercommunal Cooperation
ERDF	European Regional Development Fund
ESPON	European Territorial Observatory Network
ESPON EGTC	Espon European Grouping Of Territorial Cooperation
EU	European Union
FNADT	Fonds National d'Aménagement et de Développement du Territoire – National Fund for Territorial Planning and Development
FRED	Fonds pour les Restructurations de la Défense – French Defense Restructuration Fund
INSEE	Institut National de la Statistique et des Études Économiques – National Institute of Statistics and Economic Studies
MAPTAM	Loi sur la Modernisation de l'Action Publique Territoriale et d'Affirmation des Métropoles – Law on the Modernisation of Regional Public Action and the Affirmation of Metropoles
NUTS	Nomenclature of Territorial Units for Statistics
NPNRU	Nouveau Programme National de Rénovation Urbaine – New National Programme for Urban Renewal
PLH	Plan Local d'Habitat – Local Housing Program
PLU	Plan Local d'Urbanisme – Local Urbanism Plan
POS	Plan d'Occupation des Sols – Land Use Plan
SCoT	Schéma de Cohérence Territoriale – Regional Plan for the Pays de Brest
SEM	Société d'Economie Mixte – Semi-Public Company
SEMAEB	Société d'Économie Mixte d'Aménagement et d'Équipement de la Bretagne – Semi-Public Company for Planning and Equipment in Brittany
SEMPI	Société d'Economie Mixte de Portage Immobilier – Semi-Public Company for Real Estate
SMBI	Syndicat Mixte pour le Développement de Brest Iroise – Joint Association for the Development of Brest Iroise
SMEs	Small and Medium Enterprises
ZAC	Zone d'Aménagement Concertée – Concerted Planning Zone
ZNIEFF	Zone Naturelle d'Intérêt Écologique, Faunistique et Floristique – Natural Area of Ecological Interest
ZPPAUP	Zone de Protection du Patrimoine Architectural et Urbain – Architectural and Urban Heritage Zone

1 Introduction

This case study report for the port city of Brest (FR) has been prepared as a key input to the ESPON project ENSURE – European Sustainable Urbanisation through port city Regeneration.

The study consists of three tasks:

- A task 1, based on statistical analysis and a survey among small and medium-sized port cities in Europe to identify the economic, social and environmental impact of port city regeneration.
- A task 2, based on a case study comprising four European small and medium-sized port cities of Cork (IE), Aalborg (DK), Brest (FR) and Catania (IT) with the aim of collection and analysing the experience of the port regenerations in their territories
- A task 3 based on the outcome of task 1 and 2 to develop a framework of good practice for implementing sustainable port city regeneration in small and medium-sized European cities

This case study is thus one of four case study reports of task 2.

The purpose is here to describe and analyse the process of relocation of port activities and the regeneration of the port areas in the city of Brest (FR) and to identify main drivers and challenges of this process on the background of the specific geographical, urban, social and economic context in order to contribute to an overall assessment of what best practise is for cities like Brest (FR).

In connection with the overall project, a research framework has been developed to indicate what are the main questions to be raised and identified answers to during the project activities and the three main tasks. The main questions of the research framework are shown in the following **Error! Reference source not found..** More detailed questions are given in Annex 1.

Table 1.1: Research Framework

Questions
Impact
What are the impacts of port services relocation on medium size port cities?
What are the impacts of brownfield regeneration on medium size port cities?
What are the main challenges of medium port city regeneration?
Policy and governance
How can policy, support medium port city regeneration and mitigate challenges?
How can regulation support medium port city regeneration and mitigate challenges?
How can governance support medium port city regeneration and mitigate challenges?
What are the risks of port city regeneration?
Finance
What funding models support port city regeneration? What works, and why?
What is the role of public finance in port city regeneration? How is value for money achieved?
Implementation
How can city visions for city dockland district regeneration be implemented? What works, and why?
Citizens Involvement
How can citizens be involved in the regeneration process? What works, and why?
Catalysts
What type of catalyst developments are employed to transform and provide a focus for citizens and economic activity? What works, and why?
What other important synergies should be considered?
Knowledge Transfer and Lessons Learned
What solutions exist to inspire/implement port city regeneration?

Source: Authors

On the basis of the four case studies, a synopsis was prepared with the aim of providing an overview of similarities and differences in the experiences of the four case cities and hence to get a basis from which to develop inputs from the case studies to a framework of good practise.

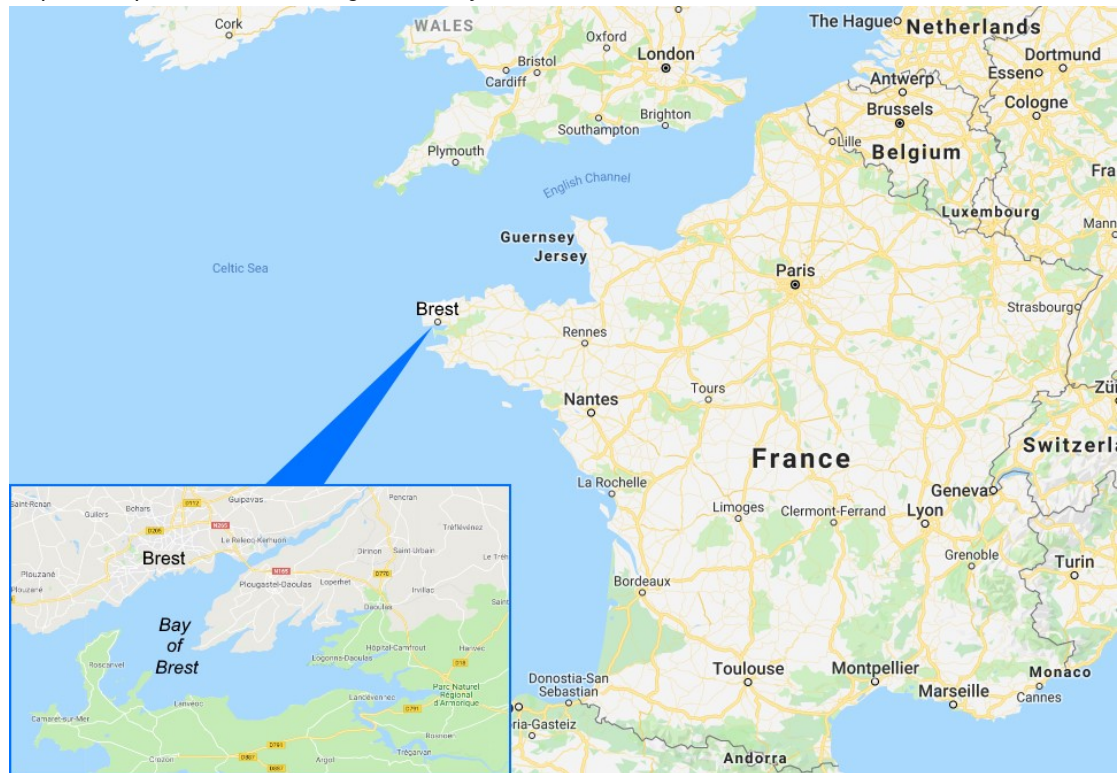
The case study has been prepared on the basis of interviews with relevant stakeholders and on existing planning and other documents and literature. The process of data collection and reporting has currently been coordinated with the other case studies in order to ensure a common approach and reporting structure. The Brest métropole (FR) has currently been involved in the process and has read and commented a preliminary draft before submitting the final draft case study report.

2 History and context

2.1 Scope of the case study

Brest is a city bordering a bay (in French, “rade de Brest”) located at the farthest Western point of France in the region of Brittany (see Map 2.1 below).

Map 2.1 Map of France, zooming on the Bay of Brest.

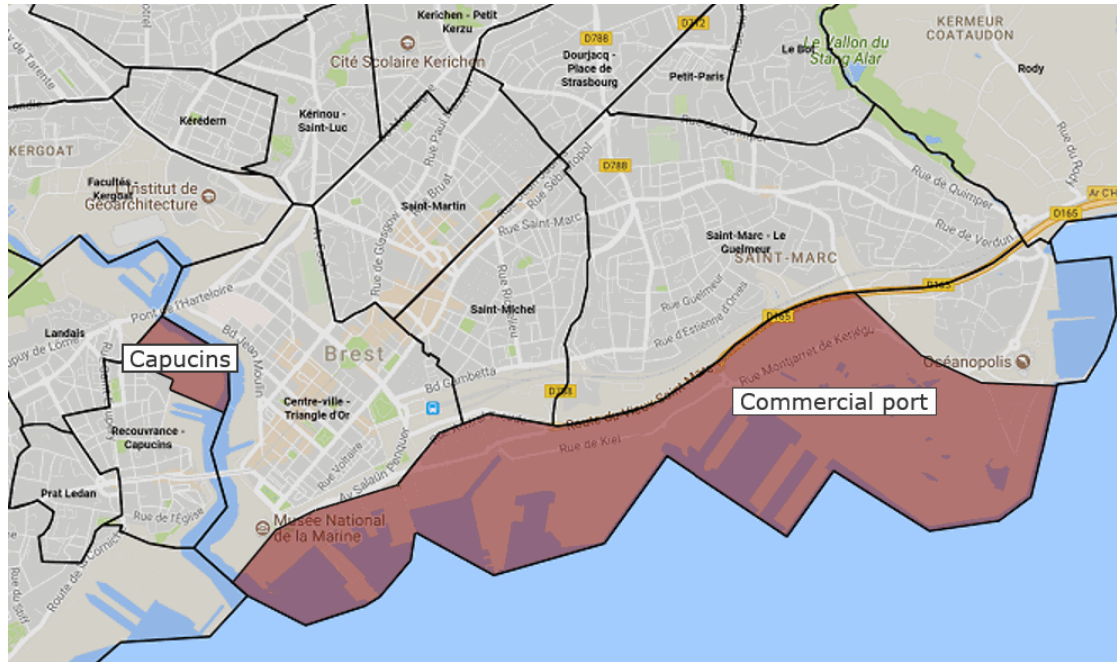


Source: Authors, based on Google Maps.

Two neighbourhoods are in the scope of the regeneration process: the commercial port (along the water), and the Capucins area (in the West). These areas are shown in the map in Map 2.2 below. The commercial port area encompasses a number of brownfield regeneration projects and new functions for leisure (boating, cafés and restaurants) and culture (street arts, a concert hall) in addition to the existing and new maritime economic activities (listed further below). The site is in regeneration since the early 1980's and more formally since 1994 with the adoption of a Reference Plan (described in section 3.1).

The Capucins area encompasses two main projects: the Capucins Workshops, a repurposed naval industrial warehouse, and the Capucins neighbourhood, a new urban neighbourhood. The area is linked to the city centre by an aerial cable car over the Penfeld river. The area is in physical regeneration since 2010 after the transfer of ownership of the area from the Navy to the metropole.

Map 2.2 Restricted map of Brest's neighbourhoods.



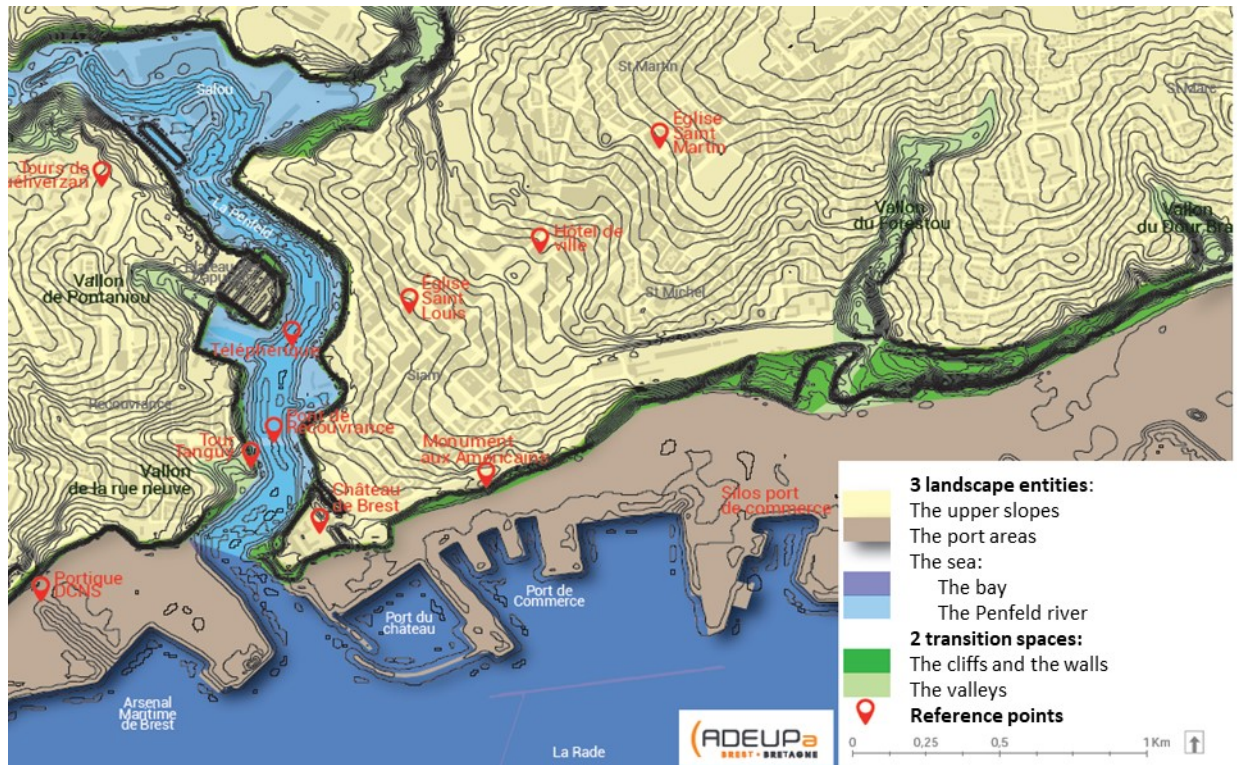
Source: Authors, based on Google Maps.

Other projects took place in the period of regeneration and included port industrial infrastructure, a large aquatic museum (Océanopolis), a tramway line, a marine science and innovation complex (Technopôle Brest-Iroise), and a marine renewable energy infrastructure project.

As can be seen in the map in Map 2.3 below. Brest is split by the Penfeld river. The city is elevated around the riverbanks which are mainly occupied by the Navy. Taken together, the river's geographical formation and the presence of restricted military areas constitute a significant natural barrier to movement between the East and West of the city.

The area of the port of Brest is situated in the 'lower city' (located at sea level) which is separated from the 'upper city', where one finds the city centre, by a cliff which elevates the upper city to over 50 metres above sea level. This constitutes another barrier to movement.

Map 2.3 Map of Brest's topography



Source: Brest métropole and ADEUPa. (2019). *Portrait Composite – ÉLABORATION DU PLAN GUIDE BREST, CŒUR DE MÉTROPOLE*. Page 54. Note that the map shown here has been cropped from the original.

The port of Brest is physically located between the city and the water. Broadly speaking, the port is divided into three areas: areas owned by the Navy, the area of the commercial port, and a marina located further east (see Map 2.6). These areas tend to mix when considering the specific projects of the regeneration process: the areas which used to be part of Navy-owned land include the Capucins area as well as the Castle's Port, but the latter is physically located in the commercial port area.¹

¹ This affects the structure of the report: the Castle's Port and the Capucins area are first described as part of the areas owned by the Navy in section 5.3 as section 5 differentiates the regeneration processes in the commercial port on the one hand and in the areas owned by the Navy on the other hand, however the Castle's Port is described as an outcome of the regeneration process in the commercial port area in section 6.1, while the Capucins area is in its own section 6.2.

Currently, the port of Brest entails four main functions:

- Trade (see Zone Industrielle in **Error! Reference source not found.** below), including multimodal container transport (ship to road or rail), dry bulk, hydrocarbon trade, agricultural products trade and processing, refrigerated cargo trade;
- Naval repairs (see Réparation Navale in **Error! Reference source not found.** below);
- Fishing;
- Maritime safety.

Three additional functions can be identified: scientific research on local ecosystems and marine technologies; leisure boating which takes place in two locations of the port of Brest; and since 2016, a new marine renewable energy project in development that will add a new function. Note that in this case study the economic ambitions and projects for the port are not a focus and therefore are only explored insofar as they interact with the urban regeneration vision and process.

2.2 The history of Brest and its port

The port of Brest was initially born as a royal military infrastructure. In 1631, Cardinal Richelieu² ordered the construction of a military port, pushed by King Louis XIII's strategic motives³. Brest is conveniently located at the confluence of the English Channel and the Atlantic Ocean, allowing the monarchy to hold a tactical position over Spanish and British maritime movements. Brest truly became the main French maritime arsenal under Louis XIV's Minister of the Economy Jean-Baptiste Colbert⁴, who was in charge of the Navy between 1669 and 1683⁵. Between 1683 and 1695, architect and engineer Vauban also designed Brest's fortifications as per the map below.

² Appointed Foreign Secretary in 1616, he became King Louis XIII's chief minister in 1624.

³ James, A. (2004). *The Navy and government in early modern France, 1572-1661*. pp. 73-76. Woodbridge (Suffolk): Boydell and Brewer. Retrieved April 03, 2019 from: https://books.google.be/books?id=vhwTkj-MD9cC&pg=PA111&lpg=PA111&dq=construction+du+port+de+brest+richelieu&source=bl&ots=ZtPMIZI0Nk&sig=ACfU3U0xgsvVorVZ39E2pm8kLszhxdvjPA&hl=en&sa=X&ved=2ahUKewi7vvXnsbHhAhVDz6YKHW_DDs0Q6AEwDXoECAGQAQ#v=onepage&q=construction%20du%20port%20de%20brest%20richelieu&f=false

⁴ Minister of Finances of *France* from 1661 to 1683 under the rule of King Louis XIV.

⁵ Réseau des Sites Majeurs, Vauban. (2015). *Inventaire des Sites Fortifiés par Vauban en France*. Retrieved April 02, 2019 from: <http://www.sites-vauban.org/Brest>

Map 2.4 17th century map of Brest showing Vauban's project for fortifications (see the 'V' shapes and lines surrounding the city).



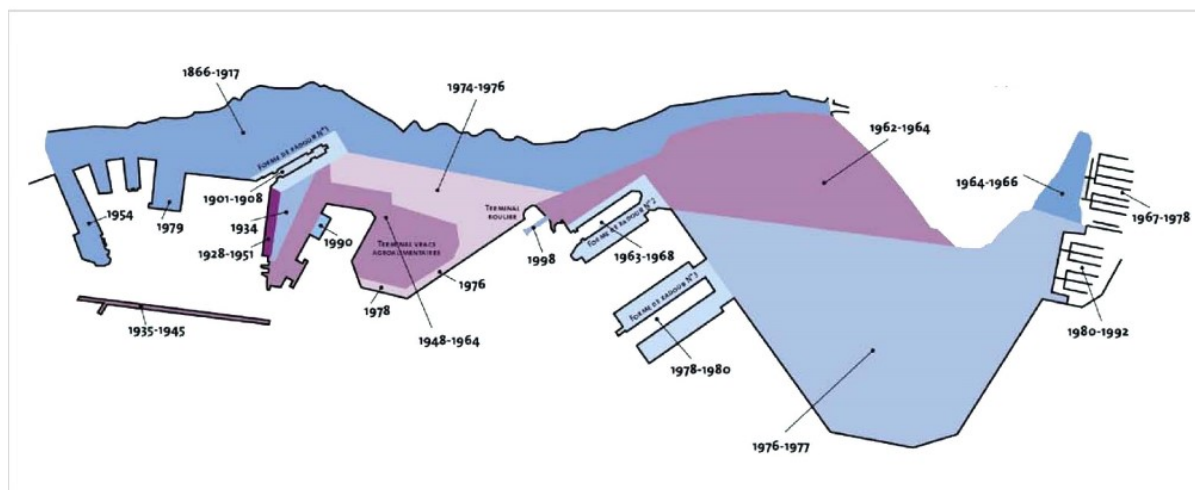
Source: Bibliothèque Nationale de France. Retrived from : <https://gallica.bnf.fr>

The commercial and navy port of Brest was in the 17th century first created inland, on the banks located at the mouth of the Penfeld river. Over time, the commercial port developed outward onto the seashore, and further eastward on the eastern shore of the city (see Map 2.5).⁶ Commercial activities had to move eastward because of the increasing size of ships and of the creation of specialised terminals (agri-food, containers, oil, etc.). More recently, the 19th century docks have seen their commercial traffic progressively being replaced by alternative activities: fishing, passenger traffic, etc. The Navy port remained on the banks of the Penfeld and later established further on the Western seashore (see Map 2.6).

⁶ Région Bretagne. (2017). *Port Brest-Bretagne – Projet de Développement*.

Retrieved April 02, 2019 from: https://www.bretagne.bzh/upload/docs/application/pdf/2012-08/projet_de_developpement.pdf

Map 2.5 Commercial port of Brest - Stages of Extension.



© CCI métropolitaine Bretagne Ouest

Source: https://portbrest.bretagne.bzh/jcms/prod_319944/fr/le-port-de-commerce-en-bref

Technological modernisation took place between 1852 and 1865: the Département du Finistère⁷ developed communication lines necessary for the smooth functioning of the port infrastructure. Napoleon III then supported the city of Brest by agreeing to the creation of a commercial port, managed by the Chamber of Commerce of the City of Brest.⁸ The opening of the commercial port allowed the city to expand. New commercial activities emerged, and new inhabitants established in the city. At the end of the 19th century, commercial traffic in the port was constantly growing, thanks to significant efforts to further equip the port and secure its coast.

However, in 1914 the First World War hit hard on the port and its economic activities. Second World War had an even stronger impact on the port of Brest⁹. In 1941, the Germans occupying France established their fleet and submarines in Brest. The city was freed in 1944. By then, the commercial port and three quarters of the city had been entirely destroyed due to years of airstrikes by the Allied forces.

A new dynamic emerged in 1946, after the war. The port received more and more cargo and Brest contributed for a large part to the economic revival of the country. The 1960's were another flourishing period in the history of the commercial port. It grew in size again, aiming to

⁷ A département is an autonomous local collectivity and a sub-division of a French region. See section **Error! Reference source not found..**

⁸ Port de Brest – CCI Métropolitaine Bretagne Ouest, (2017, Fall). *Historique*.

Retrieved April 02, 2019 from: <http://www.brest.port.fr/en/port-de-brest/historique/3-de-1850-a-1914>

⁹ Port de Brest – CCI Métropolitaine Bretagne Ouest, (2017, Fall). *Historique*.

Retrieved April 02, 2019 from: <http://www.brest.port.fr/en/port-de-brest/historique/6-de-1944-a-1960>

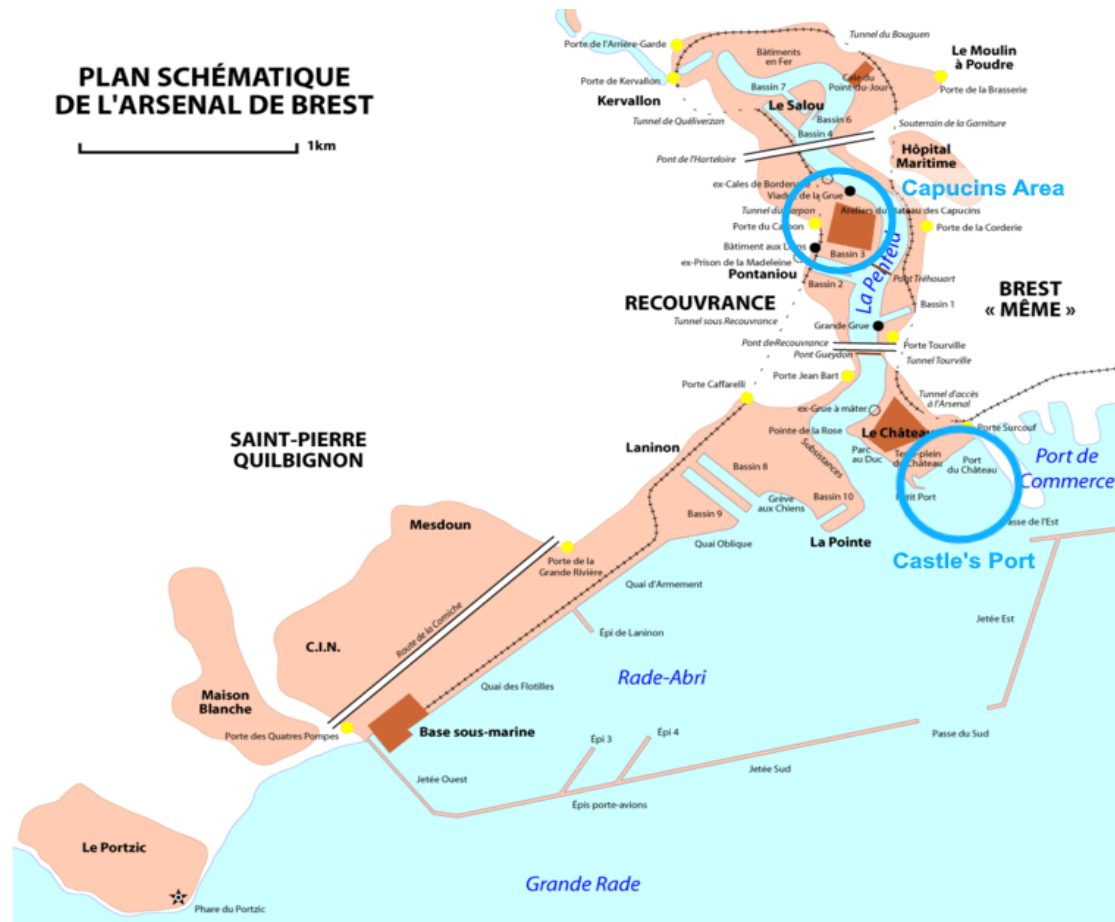
attract new industries, whilst keeping those already established there. The port was entirely reconstructed by the 1970's¹⁰.

After a period of growth, the oil price shocks of 1973-1974 heavily impacted the development of Brest. Investments slumped, particularly in the construction sector where many job losses occurred. By the mid-1980's, the port was once again so derelict that rent prices started plummeting. Private investors extended several trade activities (e.g. coal trade) that quickly led to the degradation of the entire port area.

The Navy has historically owned large parts of the city of Brest, mainly around the Penfeld river basin and West of the river. The centre of Brest, located East, is therefore bordered by the restricted area of the Navy. Map 2.6 shows the land occupied by the Navy in 2006. Note however that the map still shows areas which today have been transferred to the city, in the process described further below. These concern two areas circled in blue: the Castle's Port and the Capucins area and comprising the Capucins Workshops and neighbourhood.

Map 2.6 Map of areas owned by the Navy before ownership transfers to the City.

¹⁰ Port de Brest – CCI Métropolitaine Bretagne Ouest, (2017, Fall). *Historique*. Retrieved April 02, 2019 from: <http://www.brest.port.fr/en/port-de-brest/historique/7-de-1960-a-1980>



Source: https://wikivividly.com/wiki/Brest_Arsenal

The economy of the city of Brest is tightly connected to the Navy's activities, in fact the French Ministry of Defense is the main employer in the entire region that surrounds Brest, linking to many different functions (military command, safety and security, research, naval repair and construction, among others).¹¹ In the 1990's the French State restructured the Army and recentered naval activities to the city of Toulon following the fall of the Berlin Wall and therefore the end of the Cold War which had so far justified the maintenance of defense activities. Combined with the reform of mandatory military service and a reduced budget, the reduction in the number of jobs in Brest had significant knock-on impacts in Brest in terms including demographic and economic decline. The construction of the Charles de Gaulle aircraft carrier in 1990-1996 was around that time one of the largest construction work in France mobilising

¹¹ ADEUPa. (2016). Impact économique de la Défense sur le territoire de la base de défense de Brest-Lorient.

up to 1 200 people in peak construction periods.¹² At the end of the project, the city's naval construction capacities were significantly reduced, leaving certain military spaces in disuse.¹³

The decline of both the commercial port and Navy activities in the city of Brest together explain why in 1985 local actors started to identify pathways towards positive change and has undergone in a regeneration process, which is still in progress.

2.3 Demography and socio-economic context

2.3.1 Administrative units

In order to identify the relevant unit(s) of analysis, it is necessary to spell out the main features of the administrative territory of Brest and its greater area. The French National Institute of Statistics and Economic Studies (INSEE), provides the following definitions given in Table 2.1.

Table 2.1 Administrative definitions of Brest and its greater area (from larger to smaller).

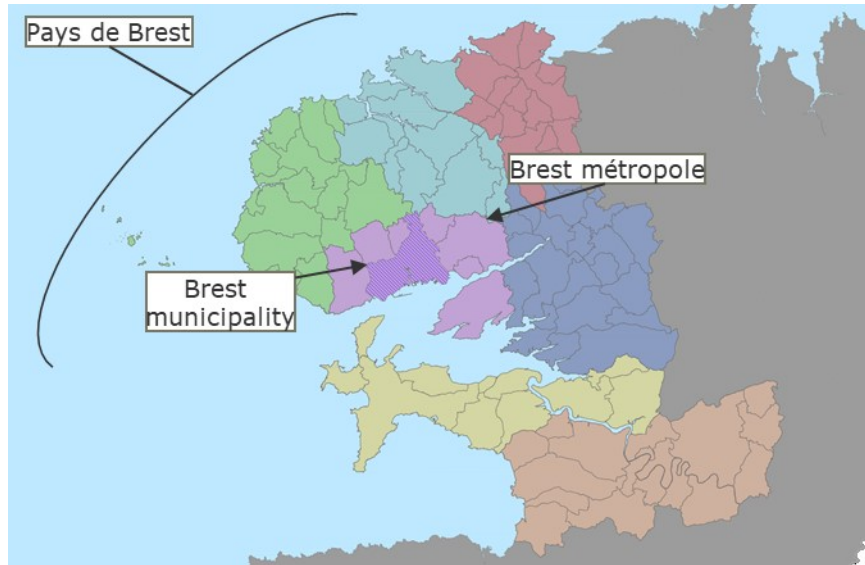
Administrative area	Sub-administrative parts of the area
Région Bretagne. A region is the most recent entity of French administration. In France there are 17 regions in total : Brittany (in French, Bretagne) is one of them. Every region is composed of several départements.	The four departments forming Brittany are : ➤ Côtes-d'Armor, Ille-et-Vilaine, Morbihan, and Finistère where Brest is located.
Département du Finistère. A département is an autonomous local collectivity and a subdivision of a region. There are 89 départements in France, of which Finistère is one of them.	Finistère comprises four districts (arrondissements) : ➤ Brest, Châteaulin, Morlaix, and Quimper.
Pays de Brest is an area composed of 103 municipalities, grouped in 7 EPCIs . An EPCI is an Etablissement Public de Cooperation Intercommunale, i.e. : Public Organisation of Intercommunal Cooperation.	The 7 EPCIs within Pays de Brest are : ➤ Brest métropole, Communauté de communes du Pays de Landerneau-Daoulas, Communauté de communes du Pays d'Iroise, Communauté de communes du Pays des Abers, Communauté de communes du Pays de Lesneven et de la côte des Légendes, Communauté de communes de Pleyben-Châteaulin-Porzay, Communauté de communes Presqu'île de Crozon-Aulne maritime.
Brest métropole , it is the most populated of the 7 EPCIs composing the Pays de Brest. It is a grouping of 8 municipalities. The capital is the municipality of Brest.	The 8 municipalities of Brest métropole are : ➤ Brest, Plouzané, Guilers, Bohars, Gouesnou, Guipavas, Le Relecq-Kerhoun et Plougastel-Daoulas. Brest métropole
Commune de Brest (Brest Municipality). Brest municipality is divided into seven neighbourhoods, or municipal districts.	The 7 municipal districts of Brest are : ➤ Bellevue, Brest-Centre, Europe, Lambézellec, Quatre Moulins, Saint-Marc, Saint-Pierre. Each of them has its own elected representing official.

¹² Réseau - mensuel de la recherche et de l'innovation en Bretagne. (1994). La construction du "Charles de Gaulle" à Brest. Espace des sciences. No. 96, pp15-16. Retrieved from : https://www.espace-sciences.org/sites/espace-sciences.org/files/images/sciences-ouest/numeros/r_096_01_1994_0.pdf

¹³ https://www.lepoint.fr/editos-du-point/jean-guisnel/brest-fer-de-lance-de-la-marine-francaise-05-10-2016-2073738_53.php

Source: INSEE

Map 2.7 Map of administrative areas.



Source: Authors, based on Wikipedia. Note: Coloured areas are the 7 EPCIs (including Brest métropole) part of the wider Pays de Brest (see also Table 2.1).

The analysis that follows will focus on the three lowest levels specified in Table 2.1 and identified in Map 2.7 above. The choice of these three geographical levels, rather than a single one, was dictated by the availability (or unavailability) of data.

Table 2.2 Population and surface area of different administrative levels.

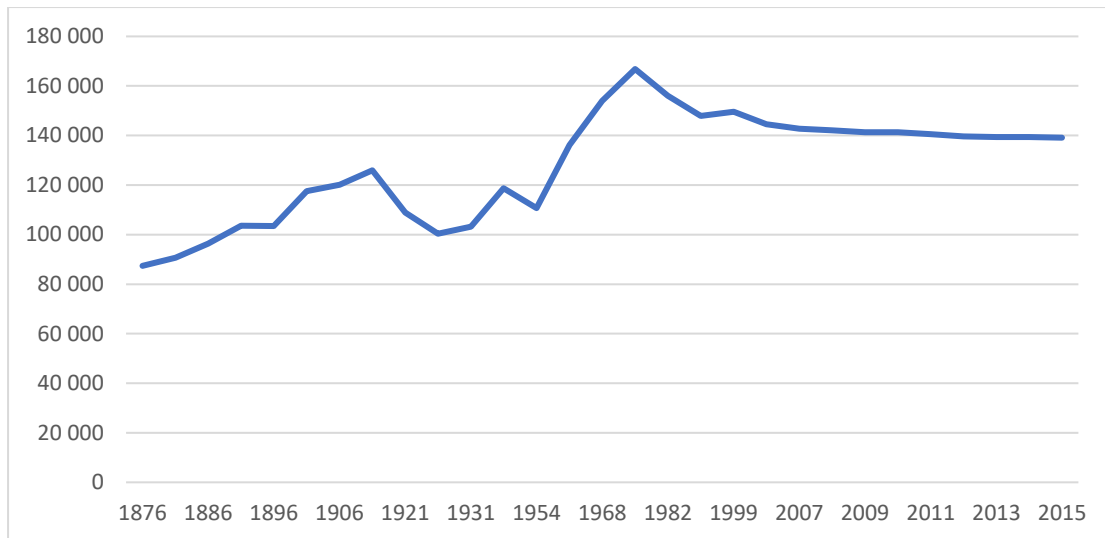
Administrative level	Population size	Surface area
Pays de Brest	419,000 inhabitants (2019)	2 102 km ²
Brest métropole	208,930 inhabitants (2016)	218 km ²
Brest Municipality	139,342 inhabitants (2016)	50 km ²

Source: INSEE

2.3.2 Demographic trends

Brest municipality (which represents only a part of Brest's wider urban area) has been on a declining demographic trend. Since 1975 its population went from 166,826 inhabitants to 139,342 today. This is due to the oil shocks of the 1970's, the end of the reconstruction period in the same decade (and following the destruction of the city during World War II) which led to job losses in the construction sector, and the army restructuring of the 1990's which affected the city economically and therefore led to demographic decline.

Figure 2.1 Evolution of the population in Brest municipality between 1876 and 2015.

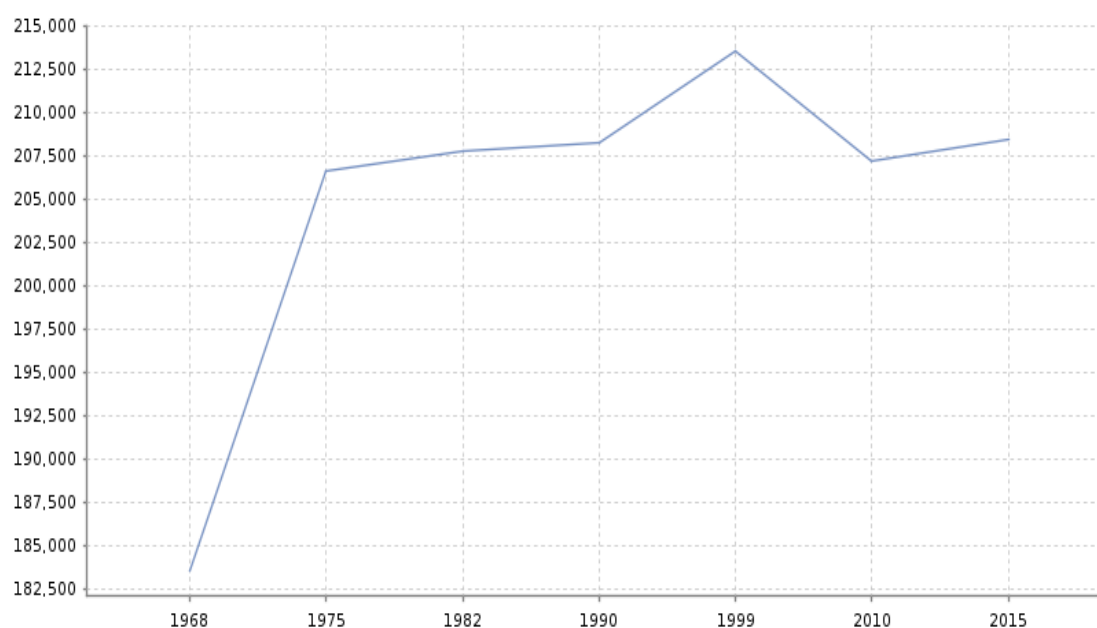


Source: Authors, based on <https://www.insee.fr/fr/statistiques/3698339>

Essentially composed of collective housing solutions (92%) of small size and of renting tenants, residents in the city of Brest are for the most part temporary. The city of Brest is, together with the Bellevue neighborhood, the area of Brest métropole where most students live. The city of Brest mainly hosts couples without children, reflects a logic of residential progression. It constitutes a first place of residence for inhabitants who later on move to more peripheral areas of Brest, historically contributing to a sprawling effect. Finally, the city of Brest encompasses, primarily on the Eastern bank, a concentrated area of small businesses. This space constitutes the most important employment area within all of the Brest metropolitan area.

Figure 2.2 below shows how the population evolved from 1968 to 2015 in Brest métropole. It shows a drastic surge in population from 1968 to 1975 (due to a particularly high birthrate and migratory surplus, compared to the following decades), which was followed by a stable period until 1990 where only a minimal increase occurred. Between 1990 and 2015, population has risen and fallen to finally being slightly over the levels of the 1970's and 80's.

Figure 2.2 Evolution of population – Brest métropole, 1968 - 2015



Source : INSEE - Chiffres Clés - Evolution et structure de la population.

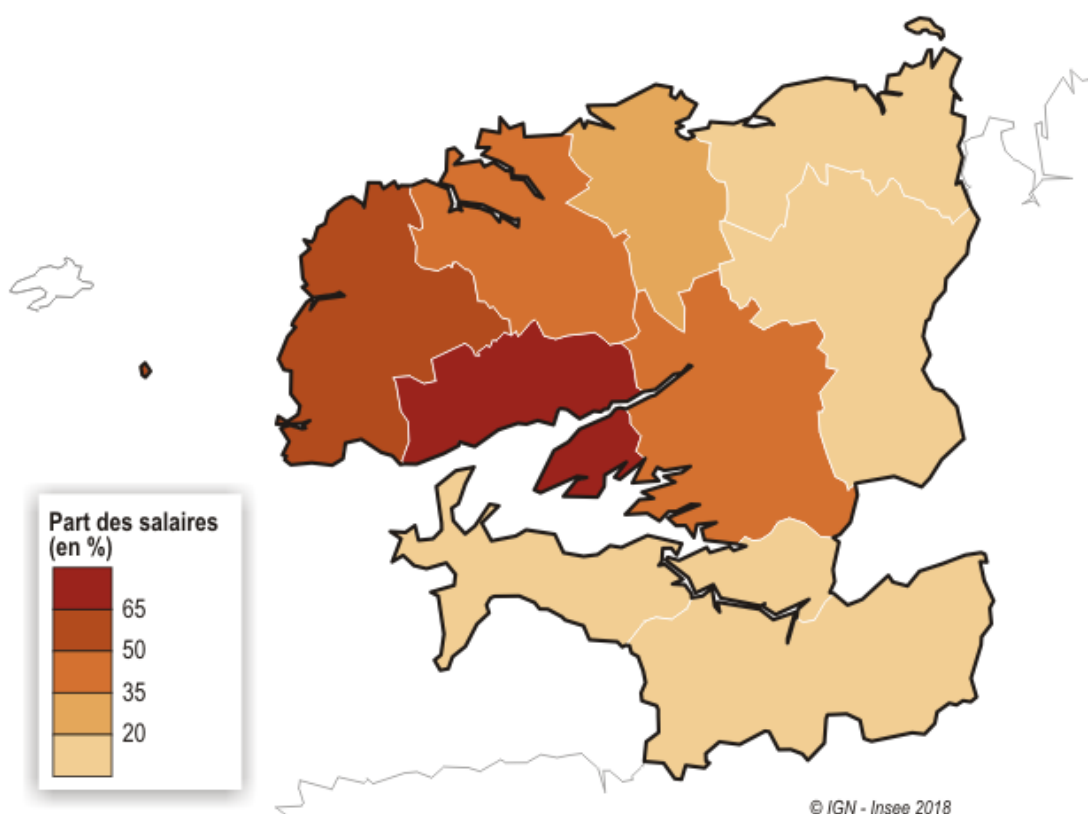
Note the start of the population axis at 182 500 inhabitants, emphasizing changes from this population level.

2.3.3 Economy

The economy of the Pays de Brest is built around activities in Brest métropole, particularly in relation to defense activities with the strong presence of the Navy. For that reason, data presented in this section is given at broader scales than the métropole or the municipality. Brest métropole is a centre of economic activities for its region, as evidenced by the fact that 40% of all salaries expended by organisations located in the métropole are given to persons residing outside of it (see also Figure 2.3 below).¹⁴ Since the 1970's, the population of municipalities surrounding Brest has increased due to the movement of urban citizens to periurban areas, but a significant share of this population has been employed in the métropole.

¹⁴ INSEE. Retrieved from : <https://www.insee.fr/fr/statistiques/3524431>

Figure 2.3 Share of salaries within Pays de Brest originating from organisations located within Brest metropole (dark red area).



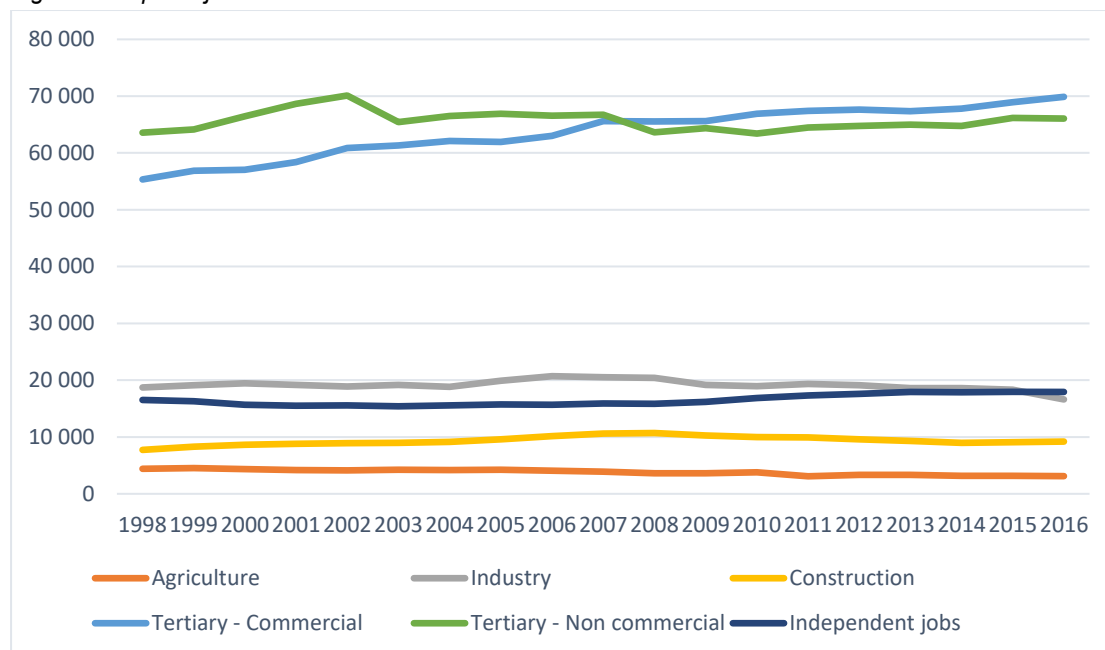
Source : INSEE, DADS 2014. Retrieved from: <https://www.insee.fr/fr/statistiques/3524431>

The main job sectors in Brest employment zone have been primarily in the tertiary (service) sectors, both commercial and non-commercial (see Figure 2.4 below).¹⁵ Some main and specific activities include for instance national defense (the Navy), health research and practice centre (including multiple sites), higher education institutions, marine research centres, and banking.

Figure 2.4 below shows that commercial tertiary sector jobs and independent jobs have been growing, compared to industry and agriculture jobs which have shown variation or decline (respectively). By contrast, construction jobs have seen variations with a peak in the late 2000's. Tertiary non-commercial jobs have also fluctuated, with a peak in the early 2000's.

¹⁵ The **tertiary commercial sector** is composed of trade, transport, financial activities, business services, services to individuals, accommodation, restoration, real estate, information and communication. The **tertiary non-commercial sector** is composed of public administration, education, human health, social action.

Figure 2.4 Split of job sectors in Brest between 1998 and 2016.



Source : Authors, based on INSEE.

Note : **Tertiary commercial sector** is composed of trade, transport, financial activities, business services, services to individuals, accommodation, restoration, real estate, information and communication. **Tertiary non-commercial sector** is composed of public administration, education, human health, social action.

The blue economy is an important part of Brest's economic fabric but is not represented separately in Figure 2.5 as it spreads over several sectors. There are 26 990 maritime workers in the Pays de Brest.¹⁶ 78% of the economic maritime activity in the Pays de Brest is concentrated in 2 domains:

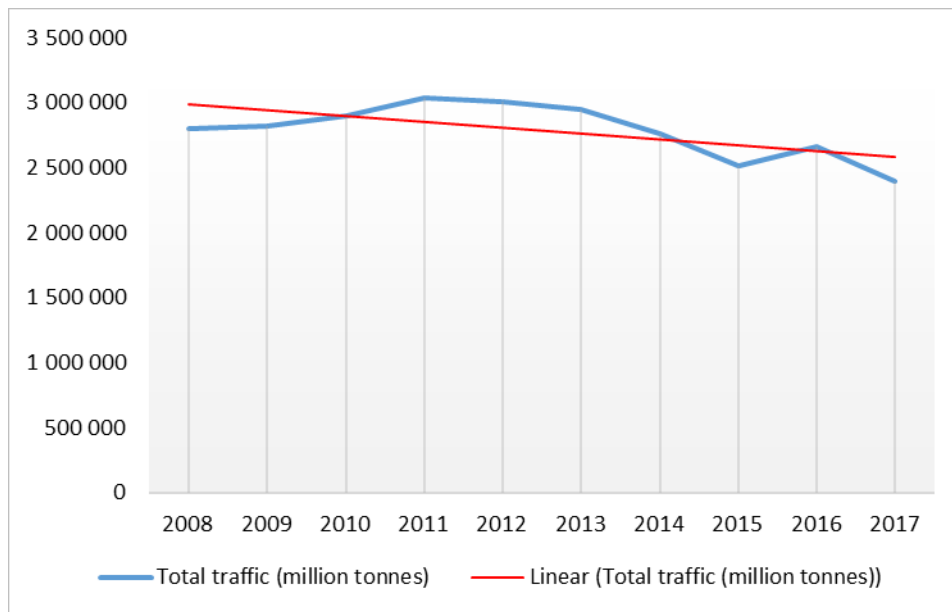
- Activities of national defence related to the sea: in the Pays de Brest, these activities account for 74% of the overall defence activities in Brittany. In Brest municipality alone, 10 680 jobs are linked to the local Navy base.
- Naval construction.

By order of importance, the other domains include marine research (1 200 jobs), maritime trade, and maritime cultural activities.

Maritime trade has been on a general decreasing trend in terms of tonnage traffic since 2009 and until 2017.

¹⁶ Observatoire Economie Maritime Bretagne – Septembre 2018

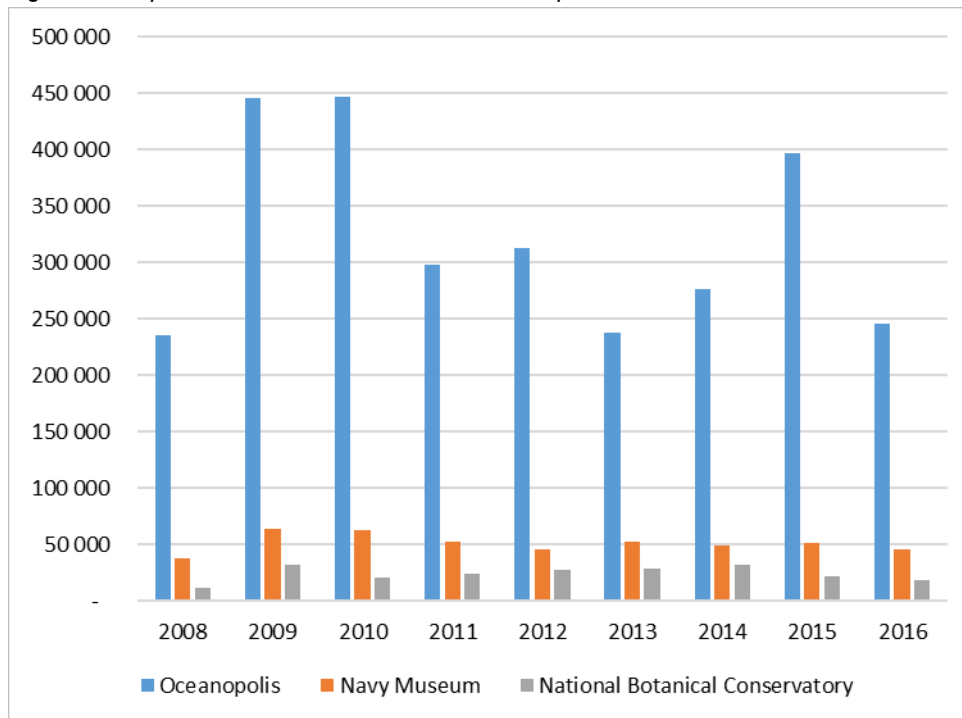
Figure 2.5 Evolution of annual trade traffic in the commercial port of Brest (in tonnes) between 2008 and 2017.



Source: Authors, based on ADEUPa Observatoire Économique.

Tourism is an important facet of Brest's economy. Figure 2.6 shows the number of visitors in Brest's top three touristic attractions from 2008 to 2016, during the touristic season. The touristic season extends from April to September of every year. The top three touristic attractions in Brest in terms of number of visitors are, in order from most to less visited, Oceanopolis, the Navy Museum, and the National Botanical Conservatory.

Figure 2.6 Top 3 Touristic Attractions in Brest Metropolitan Area.



Source: Authors, based on ADEUPa Observatoire du Tourisme du Pays de Brest

Inaugurated in 1990, Oceanopolis is one of the largest aquarium in France and is deeply entrenched in the city's marine identity. Despite the evident fluctuations in number of visitors from one year to another, it remains by far the most visited touristic attraction in Brest. The peak in number of visitors was reached in 2009-2010. The lowest number of visitors was in 2008.

The Navy Museum is yet another symbol of the city's identity: the military heritage of Brest is preserved through the museum. Despite having a considerably lower number of visitors, both the Navy Museum and the National Botanical Conservatory show similar trends to those just observed for Oceanopolis. Indeed, the highest number of visitors for the Navy Museum was recorded in 2009-2010; the National Botanical Conservatory received the highest number of visits in 2009 and 2014. The lowest number of visitors for both the Navy Museum and the National Botanical Conservatory was 2008, just as it was for Oceanopolis.

As shown in the chart below, unemployment in Brest métropole tends to be higher than in the higher administrative levels, however the percentage change from 2008 to 2013 shows that the different administrative levels tend to follow similar trends. Longer-term trend data for comparison was not available for these different administrative levels.

Table 2.3 Unemployment rates at different administrative levels (by order of size) in 2008 and 2013.

Administrative level	Unemployment rate (15-64 years old) 2008	Unemployment rate (15-64 years old) 2013	Change in percentage points 2008-2013
France (mainland)	11.1%	13.1%	2.0 points
Région Bretagne	9.1%	11.3%	2.2 points
Département du Finistère	9.9%	12.0%	2.1 points
Pays de Brest	9.9%	11.9%	2.0 points
Brest Metropole	12.0%	14.3%	2.2 points

Source: ADEUPa. (2017). *PORTRAIT DE BREST MÉTROPOLE*. Page 13.

The chart below shows that Brest Municipality and Brest employment area¹⁷ have similar unemployment rates. Unemployment has fluctuated over the past 15 years with the economic crisis of 2008, which Brest only started recovering from as of 2014. Prior to 2004, another important event was the restructuring of the Army in France which moved Navy activities to Toulon and created further unemployment due to the importance of the Navy on other parts of the local economy.

¹⁷ The Brest employment area is a perimeter of 123 municipalities and 447 112 inhabitants (as of 2008). It most closely resembles the scale of the Pays de Brest as it includes the broader area of Brest metropole, however its boundaries present differences in the more peripheral areas (see **Error! Reference source not found.**). This geographical zoning is used for employment statistics.

In conclusion, this section has demonstrated the economic importance of Brest metropole for the wider area, as well as the importance of the blue economy and particularly the Navy. The metropole's economic activities is a notable factor of attractivity for its inhabitants.

3 Laws, regulations, and policies

The regeneration process in Brest is conducted within a framework of multi-stakeholder local planning policies and documents, national planning obligations at the level of the metropolitan area (Brest métropole) and broader region (Pays de Brest), as well as national legislation enabling the use of planning tools for architectural and urban heritage protection, and environmental protection tools provided at EU and national levels.

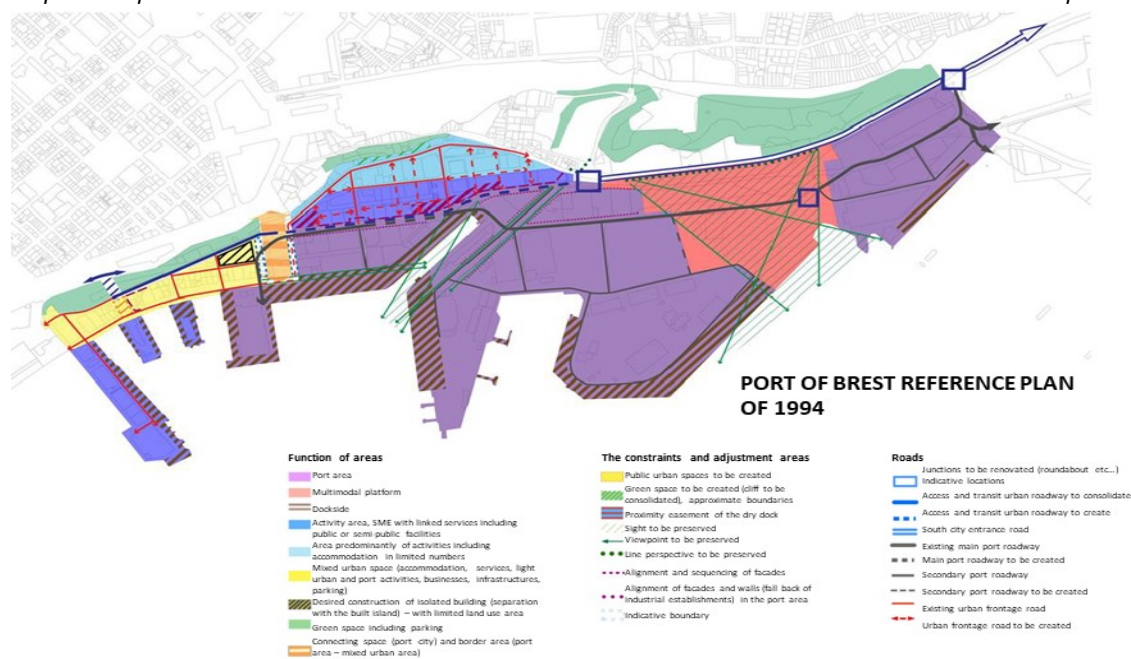
3.1 Planning for the commercial port area

The process for regeneration in the commercial port area started from a consensus between the actors involved that there was a need to regenerate brownfields. The result of this process was the **Reference Plan for the port of Brest** (in French, Schéma de Référence), approved in 1994. The plan aimed to coherently develop and modernise the four main functions of the commercial port (trade, naval repairs, fishing, maritime safety); to develop a fabric of SMEs serving port activities; to create a better link between the port and its city by managing different forms of traffic; and finally to enhance the environment, topography, and the "Vauban" urban heritage (i.e. what is left of the city's fortifications built during the 17th century, see section 2.1).

This Reference Plan is a high-level agreement on the set of principles and objectives for the regeneration of the commercial port area. The Reference Plan itself was the result of inter-institutional collaboration between the French State, the Urban Community of Brest (now Brest métropole), the city of Brest, and the CCIMBO, while the process was led by Brest-Brittany's agency for planning and economic development ADEUPa (in French, Agence d'urbanisme et de développement économique Brest-Bretagne).

The Reference Plan differentiated between the several areas and entities in charge of the commercial port (the city's port urban area and the State-owned commercial port area, conceded to the CCIMBO and which later became ownership of the Region). Map 3.1 indicates the urban and commercial functions of designated zones of the commercial port area and sets out objectives for the development of these zones.

Map 3.1 Map of the visions from the 1994 Reference Plan for the different zones of the commercial port.



Source: ADEUPa. (2017). *Brest Port 2040 - Hériter*. Page 29.

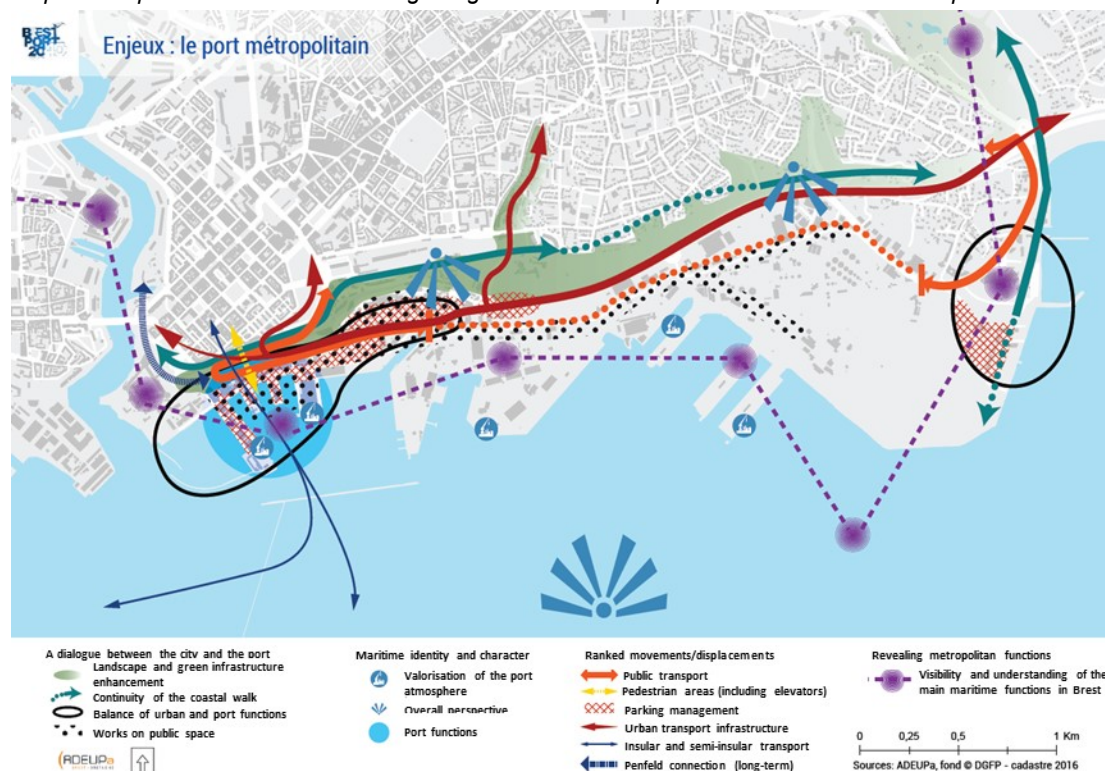
The Reference Plan is a rather short (10 page) document was preceded by several studies to understand the situation of Brest and its commercial port from the urban and economic standpoint, which also involved architects and urban planners in workshops organised over several days, as well as other stakeholder consultations to develop the vision for urban regeneration in synergy with the port's economic development. These studies provided further objectives to regeneration in the commercial port area. For instance, the “**Operation Seafront**” (in French, *Opération Front de Mer*) study from 1993 identified the following issues to address:¹⁸

- Improving accessibility to the port;
- Carrying out landscaping works to improve the port's landscape;
- Developing the offer of space for port industrial activities and services;
- Maintaining services and businesses linked to the sea in the commercial port area;
- Identifying port activities and services with touristic and cultural potential;
- Organizing various animation activities on the public spaces of the port.

The same year as the plan was signed, a **Concerted Planning Zone** (in French, *zone d'aménagement concerté* or ZAC) was created in the commercial port area within which different sectors and objectives were envisaged (see Map 3.2). This planning tool directly serves to implement the Reference plan by supporting the functioning of the commercial port's

¹⁸ The issues identified are summarised in ADEUPa. (2017). *Brest Port 2040 - Hériter*. Page 25.

Map 3.3 Map of the ambitions for integrating the commercial port area within Brest métropole.



Source: ADEUPa. (2018). *Brest Port 2040 – Schéma de référence du développement portuaire de Brest. Se Situer. Document de travail V4. Page 122.*

3.2 Planning for the Capucins area

In 2005, Brest métropole attributed a contract to architect and urban planner Bruno Fortier for the definition of the plan for the regeneration of the Capucins area and the Capucins Workshops, whose ownership was transferred from the Navy to the city. The attribution process was done following competition between three urban planning and architectural teams who each developed a 10-year guiding plan that included an overall strategy for the regeneration of the area.²⁰ The selection of the winning project also involved citizens, who were invited to comment on each of the three proposals.²¹ A **regeneration plan** emerged from the collaboration between Brest métropole and the contractor Bruno Fortier which envisaged the making of the Workshops into a public space that would nevertheless maintain the naval

²⁰ Barthel, P.A. (2007). Renouvellement urbain à Brest : les enseignements du marché de définition du plateau des Capucins. *Norois* no. 203, vol. 2007/2. Retrieved from : <http://journals.openedition.org/norois/1508>

²¹ Le Télégramme. (2005). Plateau des Capucins : avis à la population. Retrieved from : <https://www.letelegramme.fr/27-05-2005-10052310.php#SHagpQYfqueCOe5e.99>

heritage of the site (by retaining the walls and shape of the Workshops, and by bringing in marine research and technological activities).

3.3 Planning at Brest métropole level

In 2000, the **Land use plan** (in French, Plan d'occupation des sols or POS) was approved. The POS was replaced in 2014 by a **Local urbanism plan** for the Brest Metropolitan Area (in French, Plan local d'urbanisme or PLU). In France, the local urbanism plan is the main document of urban planning for development at the level of one or multiple municipalities. The purpose of the PLU is to determine a development plan for the metropolitan area (including the various municipalities party to the plan) and the general planning rules that apply to the area and to specific sites. The 2014 PLU for the Brest Metropolitan Area set out specific ambitions and actions for the urbanisation and economic activities of the commercial port and Capucins area:

- Structuring the transport axis from the city centre and the West Bank to the commercial port.
- Maintaining viewpoints on the commercial port.
- Preserving biodiversity.
- Reinforcing Brest's cultural, scientific, technical, touristic and economic activities in connection to the sea.
- Simplifying the rules for development within the ZAC of the commercial port and alters some of the rules (e.g. increasing the height of buildings in certain zones of the commercial port).
- Confirming the ambition for a new neighbourhood in the Capucins area, including housing, shops, cultural places, maritime economic activities, public transport options.
- Confirming the ambition for a new marine renewable energy project providing new infrastructure and capacity to the commercial port.
- Taking account of the risk from sea level rise in future developments.
- Taking account and reducing the environmental impact and industrial risk from port activities by concentrating polluting activities in certain zones of the commercial port.

In 2001, an **architectural and urban heritage zone** (in French, Zone de Protection du Patrimoine Architectural et Urbain, or ZPPAUP) was created which covers certain urban areas, walks, and links between the city of Brest and its port. The ZPPAUP is currently being requalified as an AVAP i.e. an **area of architectural and heritage enhancement** (in French, Aire de mise en valeur de l'architecture et du patrimoine), and will soon again be requalified

into **remarkable heritage sites** (in French, Site Patrimonial Remarquable), all following successive changes in national legislation.²² These successive denominations have similar objectives: to preserve and enhance the value of the architectural, landscape and urban heritage of an area, but also, more recently with the remarkable heritage sites denomination, integrating other aspects such as energy, environment and public space.²³ In practice in Brest, this means that regulation on the height of buildings is enforced in order to preserve certain viewpoints of the city and the sea, another objective expressed in the Reference Plan.

Since the early 1990's and again in 2004, the bay of Brest has been classified in two sites as **Natura 2000 special area of conservation and special protection area** under the Council Directive 92/43/EEC (Habitats Directive) and Directive 2009/147/EC (Birds Directive) respectively.²⁴ The Bay is also recognised under national biodiversity identification programmes as a **natural area of ecological interest** (in French, zone naturelle d'intérêt écologique, faunistique et floristique, or ZNIEFF).²⁵ The rich biodiversity that surrounds Brest's port has led to important precautions being taken when planning and constructing new projects. On the one hand, the aesthetic of the site encourages the creation of viewpoints and leisure areas by the water, and on the other it has led to special attention to avoid harming biodiversity. This has received particular attention in the Eastern part of Brest and very recently, accompanying the ongoing marine renewable energy development project.

3.4 Planning at the level of Pays de Brest

In 2011, the **Regional plan for the Pays de Brest** (in French, Schéma de Cohérence Territoriale or SCoT) was approved for conceiving and implementing the intercommunal urban plan. The SCoT aims at bringing coherence among the different policies relevant to the territory and fosters environmental preservation and sustainable development. The SCoT has as its primary feature that of being a reference document for public policies by fixing goals in terms of urban and economic development, movement of persons and merchandise, vehicle parking and traffic regulation. This coherence across documents and policies is ensured by the link between the SCoT and other thematic documents: the local housing program (in French, plan local d'habitat or PLH), the urban mobility plan (in French, plan de mobilité), the commercial development plan, the PLUs, as well as communal maps, commercial exploitation

²² Loi no 2010-788 du 12 juillet 2010 portant engagement national pour l'environnement; Loi no 2016-925 du 7 juillet 2016 relative à la liberté de la création, à l'architecture et au patrimoine.

²³ ADEUPa. (2018). Brest Port 2040 – Schéma de référence du développement portuaire de Brest. Se Situer. Document de travail V4.

²⁴ <https://inpn.mnhn.fr/site/natura2000/FR5310071>; and <https://inpn.mnhn.fr/site/natura2000/FR5300046>.

²⁵ ADEUPa. (2018). Brest Port 2040 – Schéma de référence du développement portuaire de Brest. Se Situer. Document de travail V4.

authorizations, land operations and development actions must be compatible with the SCoT. The SCoT in this sense provides the framework for the development of the urban area of the city of Brest, including its port.

Since 2018, Brest métropole and ADEUPa have engaged in a new planning process aiming at creating a new 'heart' for the metropole and wider Pays de Brest (in French, **Coeur de Métropole**).²⁶ This process takes as a starting point the new areas of the city previously owned by the Navy and created from regeneration processes (Capucins area, Castle's port) and the new transport infrastructure (tramway, aerial cable car) that connects the city. The project ambitions to strategically rethink the cultural and economic centre of Brest, as further described in section 5.3.1.

3.5 National policies

In 2014 the French government adopted the **law on the modernisation of regional public action and the affirmation of métropoles** (in French, loi sur la modernisation de l'action publique territoriale et d'affirmation des métropoles, or loi MAPTAM)²⁷. MAPTAM law allows metropolitan areas grouping municipalities with over 400,000 inhabitants altogether to access the status of métropole. The law extends in part the scope of action for métropoles for instance as it relates to mobility, urban planning, and local development, among others.²⁸ Despite Brest metropolitan area only having 208,930 inhabitants, elected officials were able to argue for its accession to the status as métropole thanks to the its high level of administrative integration of the 8 different municipalities it comprises when it comes to provision of public services, but also due to the importance of some metropolitan functions (centralising administrative responsibilities and political resources) and in some of its economic activities related to the sea and to presence of the Navy which entertains a diversity of functions (see also section 2 on the importance of the Navy in Brest).²⁹ Another incentive for Brest to access this status was that, as a métropole, Brest would be able to receive more State funding (such as for large construction projects) compared to municipalities.

In 2014, the New National Programme for Urban Renewal (in French, Nouveau Programme National de Rénovation Urbaine or NPNRU) was initiated which planned for investing €5 billion

²⁶ Brest métropole and ADEUPa. (2019). Portrait Composite – ÉLABORATION DU PLAN GUIDE BREST, CŒUR DE MÉTROPOLE.

²⁷ Loi du 27 janvier 2014 de modernisation de l'action publique territoriale et d'affirmation des métropoles

²⁸ <https://www.lagazettedescommunes.com/218245/les-9-principales-dispositions-de-la-loi-metropoles-dans-le-detail/>

²⁹ ADEUPa. (2016). Impact économique de la Défense sur le territoire de la base de défense de Brest-Lorient. Page 9.

in the renewal of 'neighbourhoods of national interest'. Among these neighbourhood is Recouvrance, located near the Capucins area and further described in section 5.3.2.

3.6 Summary

The various planning tools presented above overall illustrate good coherence with each other, indicating clear ambitions that have continued to develop over time. The overview of the documents identified is given in the table below.

Table 3.1: Main planning tools.

Planning tool	Date	Scope	Main purpose
Reference Plan	1994	Commercial port area	Urban regeneration and economic activities development
Concerted planning zone	1994	Commercial port area	Urban regeneration
Charter for the port area	1998	Commercial port area	Urban regeneration and economic activities development
Land use plan	2000	Brest metropolitan area (Brest metropole)	Sustainable urban planning and development
Architectural and urban heritage zone (and updated denominations)	2001	City of Brest	Preservation and promotion of architectural and urban heritage
Plan for the Pays de Brest	2011	Pays de Brest	Sustainable urban planning and development
New National Programme for Urban Renewal	2016	Recouvrance neighbourhood	Urban renewal of the neighbourhood near the Capucins area
Brest Port 2040 (multiple documents)	2019	Port of Brest	Strategic development of the port's various activities and urban planning
Coeur de Métropole	2019	Brest metropolitan area	Strategic urban planning and development

4 Main stakeholders

Brest métropole (whose president is also the mayor of the city of Brest) is the main actor leading the regeneration of the port of Brest with the support from ADEUPa, the local urbanism agency for Brest, who has been developing the planning documents and monitoring the process. In addition, the city of Brest created several satellite organisations and to whom it delegated the management of real estate development processes in the areas for regeneration (the SEMs, or semi-public companies).

The main organisations involved in the regeneration of the port of Brest have been identified in the table below.

Table 4.1 List of relevant stakeholders (non-exhaustive).

Name of the organisation	Type of organisation	Role in relation to the port/city
Agence d'urbanisme et de développement économique Brest-Bretagne (ADEUPa)	Public body	Regional urban planning agency, in charge of urban planning studies and analysis supporting public action for urban development in Brest and other territories in Western Brittany.
Brest Aim	Semi-public company	Managing cultural and leisure equipment and organising events for Brest métropole. ³⁰ Brest Aim for instance manages the Castle's Port marina and the Moulin Blanc marina, the Océanopolis aquarium, as well as several other cultural, leisure and sports landmarks.
Brest métropole	Public body	Public authority for the metropolitan area of Brest representing 8 municipalities, including Brest. Brest métropole is the main body responsible for urban development in the city and its commercial port. Its president is the Mayor of the City of Brest.
Brest Métropole Aménagement (BMA)	Semi-public company	Created in 2006 by Brest métropole to take over the real estate assets of SEMAEB in the commercial port. BMA is in charge of real estate development processes in the commercial port area. BMA is managed by Brest métropole, CCIMBO, Caisse des Dépôts et Consignations, Proxidev, and regional banks. Its president is the Mayor of Brest.
Ville de Brest (City of Brest)	Public body	Local government for the city of Brest. Its role is lesser than that of Brest métropole which takes over the main functions when it comes to urban regeneration and economic development. The two entities are closely related, as evidenced by shared staff.
Chambre de Commerce et de l'Industrie de Métropolitaine de Bretagne Ouest (CCIMBO)	Public industrial and commercial body	Manages and maintains the commercial port area, the railroad in the port, as well as port equipment related to commercial, fishing and ship repair activities, putting this equipment at the disposal of companies (users). CCIMBO also handles construction works in the commercial port.
Citizens, including Conseils de quartier (in French, neighbourhood councils)	Citizen structures	Citizens were involved occasionally to express opinions on projects in the city and increasingly in more so recent and large urban projects. This can also take place via neighbourhood councils, which are required by law in municipalities with over 80,000 inhabitants. Citizens also visit the regenerated areas, live and work in these areas, consume and use public or private services.

³⁰ <https://www.brestaim.fr/>

Name of the organisation	Type of organisation	Role in relation to the port/city
Mission Penfeld	Public body	Created in 2002 by the State, the EU, and local public actors to manage the transfer of ownership of Navy-owned land to the City located around the Penfeld river.
Marine Nationale (The French Navy)	Public institution	Historical owner of important parts of the land in Brest located on the seafront and around the Penfeld river. The Navy has been transferring ownership of parts of its land to the city.
Région Bretagne	Public body	Regional public authority for Brittany, and port authority and owner of the commercial port of Brest since 2007.
SEMTram	Semi-public company	Created in 2006 and in charge of developing the tramway line project as well as the aerial cable car. It is composed of Egis (engineering group) and another semi-public company in charge of public transport in Brest.
Société d'Économie Mixte de Portage Immobilier (SEMPI)	Semi-public company	In charge of developing residential housing for families and for students in Brest metropolitan area. Exists since 1973.
Société d'Économie Mixte d'Aménagement et d'Équipement de la Bretagne (SEMAEB)	Semi-public company	Brittany region's organisation, charged with planning the regeneration of the commercial port (until 2006). While it is still responsible for planning in the wider Brittany region, its role in the commercial port of Brest has been replaced. SEMAEB is owned at about 73% by the Région Bretagne, while the rest is owned by 23 other public and private organisations. ³¹
Syndicat Mixte pour le développement de Brest Iroise (SMBI)	Joint association of regional and local public organisations	Created in 2013, its president is the Mayor of the City of Brest. SMBI is owned at 25% shares each by CCIMBO Brest, Brest métropole Océane, Conseil général du Finistère and the Conseil régional (representing Région Bretagne). ³² SMBI is in charge of port strategy.
Union Armoricaine de Transports	Business	Agency offering transport services (handling, mooring, transit, road freight, storage, etc.). ³³

Since 1974, Brest became known administratively as the Urban Community of Brest and later became Brest Métropole océane in 2004, however the name was more symbolic and reflecting an ambition than an actual status as a métropole³⁴. In 2015, Brest officially became a métropole and thus adopted the administrative name of Brest métropole (this process is described under section 3.5). In this report, the term Brest métropole refers to the public administration whose name has changed over time.

Due to its status as a “port of national interest”, the commercial port of Brest was for several centuries the property of the French State. In 2007, the ownership of the port was transferred to the Région Bretagne. The same transfer of powers took place for other ports in ten other regions and cities at the time, following decentralisation efforts in France enacted by a national

³¹ <https://www.sembreizh.fr/qui-sommes-nous.html>

³² <http://www.energiesdelamer.eu/publications/410-6le-port-de-brest-se-reorganise>

³³ <http://www.uat.fr/qui-sommes-nous.php>

³⁴ In France, a métropole is an administrative unit integrating several individual municipalities around a larger city, and endowed with its own budget.

legislation voted in 2004 (loi n. 2004-809 du 13 août 2004 relative aux libertés et responsabilités locales).³⁵ While the Region is responsible for the port's infrastructure development, the operation and management of the port's commercial, fishing and ship repair activities is under the responsibility of the CCIMBO under a concession contract.

The French Navy (in French, Marine Nationale) has historically acted as the main employer in Brest as well as a landowner, transferring parts of its land to Brest métropole be reintegrated back into the city. As such, the Navy has been a collaborator in the regeneration process.

The commercial port is also the working space of private sector actors related to the blue economy and to urban leisure activities (cafés, restaurants) and service sectors (offices) and liberal professions. These actors have economic interests, contribute to Brest's economy and provide employment opportunities.

Citizens have played some role in the regeneration process particularly in the Capucins area, contributing to the conception of some parts of the public space, and providing their opinion on the projects.

³⁵ <https://www.banquedesterritoires.fr/dix-huit-ports-maritimes-dinteret-national-passent-aux-mains-des-collectivites>

5 From vision to realization

5.1 Introduction to regeneration in Brest

Table 5.1: Main phases of regeneration.

Name of the area and phases of regeneration	Time period
Regeneration of the commercial port area, comprising two smaller phases: - Phase 1 (1981-1994): Pilot projects and events, studies - Phase 2 (1994-2022): Regeneration	1981-2022
Regeneration of ex-Navy owned areas, comprising two smaller phases: - Phase 1 (2004-2009): The Castle's Port - Phase 2 (2010-ongoing): The Capucins area	2004-ongoing

The two areas subject to regeneration in Brest are the commercial port and ex-Navy owned areas:

- The commercial port area for regeneration is confined by the concerted planning zone (ZAC) described in section 3 and represented in Map 3.2. The various projects in this area are spread around the port.
 - In the 1980's and early 1990's, several pilot projects and catalytic events also occurred which demonstrated the feasibility for the city to re-appropriate its port, and therefore encouraging the regeneration process.
 - From 1994 onwards, the Reference Plan and the concerted planning zone shaped a number of regeneration projects.
- Ex-Navy owned areas are confined in two very distinct locations that were subjected to regeneration:
 - The Castle's Port, which is actually adjacent to the commercial port and is now considered to be part of, in the sense that its location and activities are coherent with the regeneration of the commercial port area itself.
 - The Capucins area, located on the other side of the Penfeld river.

5.2 Regeneration of the commercial port area

5.2.1 Vision

The ambition of the regeneration process prepared through studies (e.g. Operation Seafront, 1993) and formalised in 1994 with the Reference Plan was to regenerate brownfields in the commercial port area and help develop its maritime activities, and restore the cultural attachment of Brest citizens to the sea and to the city's industrial heritage, creating synergies between the economic development of the commercial port and the city centre. More concretely, this involved reinforcing the link between the city and its port and seafront, attracting

visitors to the area and enabling access to the water. The commercial port area was thus to become a place for social, cultural and leisure activities.

The urban development vision for the commercial port ran parallel to the economic ambition carried both by the métropole and the CCIMBO to modernise port activities in line with maritime trends (also reaffirmed in the Brest Port 2040 strategic process engaged in 2017), ensuring adequate positioning and competitiveness of the port in international markets. City actors recognised the importance of the port's activities both in their economic functions and as an identity driver, and thus aimed at integrating these two aspects. It was however crucial and agreed by both the Municipality and the CCIMBO that any new urban activity should not hinder economic development by expanding onto the areas of the commercial port which were or could be needed in the future. The agreement was therefore that urban activities could develop instead of disused buildings of the port, such as old warehouses which had become obsolete due to shifts in economic trends or to the need for new equipment and capacity.

In order to enable urban regeneration of the commercial port and the maintenance of economic activities, the vision since 1994 was also to restructure the main transport access from the city centre to the commercial port while maintaining larger (regional/national) road access to the port for industrial activities. In particular, truck traffic needed to be maintained and remain unhindered. This recently evolved to introduce more considerations related to public transport and pedestrian access.

5.2.2 Regeneration process and projects

The regeneration process formalised in the early or mid-1990's was slow and progressive. The long time needed for the process can be explained by the need to transfer ownership of plots of land from the State to the city piece-by-piece and project-by-project. This process was not clear to the City in the 1980's, it was first demonstrated with pilot projects.

The ownership of the land by the State meant that, in order to redevelop land plots, the City purchased each plot from the State at the price estimated after redevelopment into new functions. The State was a rather distant actor in these operations, allowing city stakeholders to plan and develop on their own will.

The status of the commercial port area as ZAC allowed Brest métropole to enact specific planning regulations and to have a pre-emption right over land that would be up for sale. Brest métropole could thus intervene or commission the development of the land before any other entity could do so.

Brest métropole delegated acquisition and redevelopment operations to semi-public company SEMAEB in 1996, which became BMA in 2006. SEMAEB/BMA's role was to identify investment opportunities, handle the administrative process of acquiring land, negotiating with investors, and working with contractors to prepare and develop projects (including brownfield decontamination and construction). Where the land was contaminated, decontamination had to

be paid for by BMA as part of its operations, or by the City when decontamination needed to be undertaken which had not been foreseen in the budget.³⁶

The types of activities which set up on regenerated land were not within the control of SEMAEB/BMA and depended on investors' offer. SEMAEB/BMA has been responsible for the financial balance of the operations and thus needed to turn a profit to feed new operations. The delegation of the process to SEMAEB/BMA, a satellite organisation of Brest métropole, enabled to separate public finances from urban development projects, ensuring the financial sustainability of the City had projects not been successful.

An overview of the financing of all projects in the commercial port of Brest could not be obtained, however one interview could be held with a stakeholder in Brest métropole responsible for acquisition of financing for the city's projects. The city was able to attract funding from various sources, in particular the Region, the State and the EU (from the ERDF, the European Social Fund) by putting forward its socio-economic situation (the need for economic reconversion following the retreat of army activities, for instance) and its development projects in trade, urbanisation, transport, culture, research and innovation, etc. This ability to mobilise funding from different levels of public administration is considered a strong driver of the regeneration process in Brest (see also section 8.6).

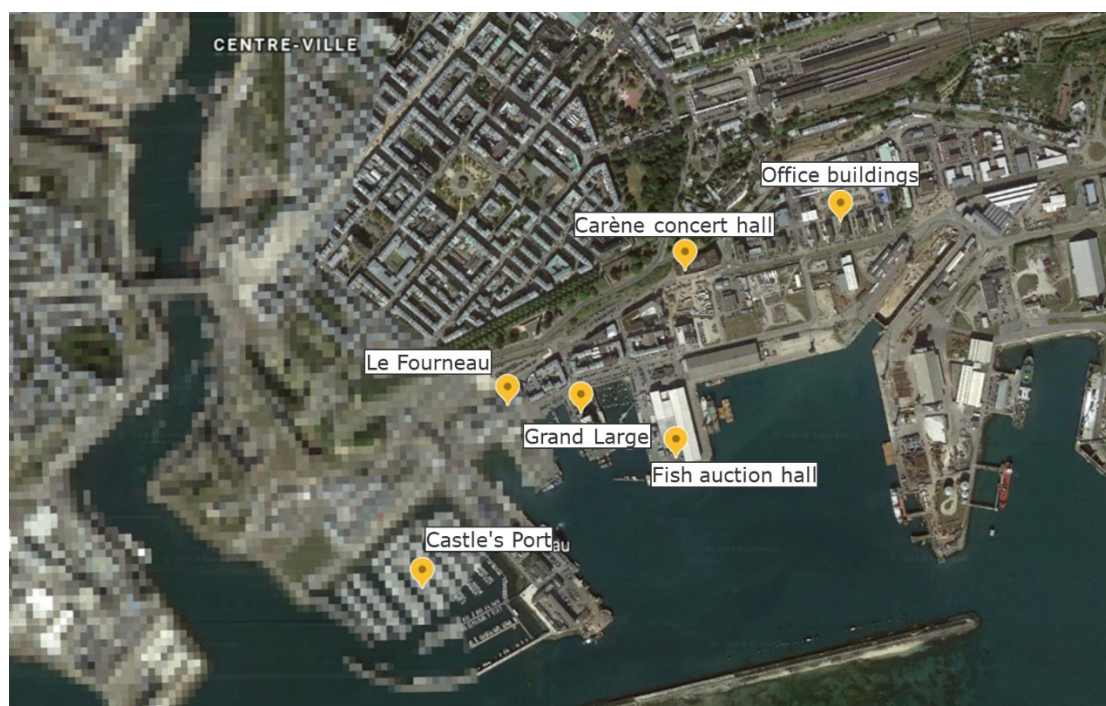
Several key projects and events are listed in the table below and described thereafter.

Table 5.2 Timeline of projects and events.

Phase	Date	Event
Phase 1: Pilot projects, studies and catalytic events	1981	Creation of the Fourneau (artist space)
	1986	Creation of the Grand Large office building
	1989	Starting year of the Port's Thursdays (cultural events)
	1992	First Maritime Festival in Brest (cultural event)
Phase 2: Regeneration process	1994	Adoption of the Reference Plan for the regeneration of the commercial port
	Since 1994	Land ownership transfers, and progressive regeneration including brownfield deconstruction, decontamination, and land development.
	2002	Creation of office buildings on Rue de l'Elorn
	2007	La Carène concert hall is inaugurated
	2009	Inauguration of the Castle's Port (marina)
	2016	Start of the works for new marine renewable energy infrastructure

³⁶ In some cases, decontamination could also be financed by EU funding and the State in the context of regional development contracts. One such case is the Castle's port.

Map 5.1 Location of regeneration projects in the commercial port area.



Source: Authors, based on Google Earth, 2019.

The first signals of urban regeneration were two **pilot projects** characterising Phase 1 of the process: Le Fourneau on the one hand (1981) and the Grand Large office building (1986) on the other. Both buildings previously held economic functions as warehouses but had become obsolete due to shifting economic trends. These two catalyst projects demonstrated the feasibility of creating new activities in the commercial port.

Le Fourneau

Since 1994, Le Fourneau, a national centre for street arts funded by the public sector at national, regional and local level and set up in former coal warehouses. Le Fourneau contributes to the integration of the port to the city by cultivating an artistic presence in the commercial port, where it would be least expected. Le Fourneau also hosts the Port's Thursdays, described further below.

In the immediate vicinity of Le Fourneau is a vast esplanade between the city and the port normally serving as a parking lot but also hosting one third of the time circuses, fairs and other cultural events.

The Grand Large building

The Grand Large building was previously Magasin B, a disused warehouse, which was turned into an office building in 1986 by Brest métropole through SEMAEB and SEMPI, both semi-public organisations in charge of acquiring the previous building, then constructing and owning/managing the new building. The land on which Grand Large stands is property of the

port's owner, which at the time was still the State. The land was conceded to Brest metropole, who delegated the concession to SEMPI thus effectively in charge of the management of the

Figure 5.1 – Photograph of the mural painting by Paul Bloas of the Grand Large building



Source : Philippe Saget. Retrieved from: http://www.wiki-brest.net/index.php/Fichier:Freque-Grand_large.jpg

building and renting the office space to different organisations.

The Grand Large is seen as a catalyst for the regeneration process as it introduced offices on the commercial port and was an immediate success in

attracting companies. This success is explained by stakeholders by the strong cultural identity of Brest's port and relation to the ocean, the name of the building itself 'Grand Large' evoking the open sea.

In 2004, the façade of the Grand Large facing inland (and thus visible from the city, especially when driving to the commercial port) was painted by local artist Paul Bloas. The mural painting evokes a maritime worker (a berthing docker, see for a photograph of the mural), thus paying tribute to Brest's maritime heritage.

The Grand Large project contributed to the idea that the commercial port area was transitioning to a new set of functions, particularly the service sector, and thus the attraction of other activities such as restaurants and cafés that would cater to the new population of office workers. Some of the first companies renting space in the building were a communication company and a regional newspaper. This was suggested to have contributed to positive communication around the project and to the regeneration process in general and signalled the gentrification of the area (from blue collar maritime workers to white collar office workers). The role of Brest métropole was key, as private investors were not willing to invest in such financial operations in the commercial port area.

Port's Thursdays

In the summer of 1989, a free festival named the Port's Thursdays (in French, Jeudis du Port) was organised for the first time by Brest Municipality in the commercial port . The festival became an annual gathering of musicians and street theatre every Thursday evening over a month between July and August. It was specifically conceived to allow Brest citizens to come to the seafront of their city.

Maritime Festival

In 1992, Brest hosted the Maritime Festival (in French, Fêtes Maritimes), a festival organised by an association initiated and supported by Brest métropole. Previous Maritime Festivals occurred in nearby towns since 1980 and always consisted in a gathering of sailboats as well as cultural festivities (music and exhibitions). In 1992, the event needed the space available in

Brest to host more ships than ever before, thus leading to the first Maritime Festival of the city. The last event in 2016 gathered an estimated 712 000 visitors and had an estimated economic impact of €21.5 million.³⁷

The second phase of regeneration followed the implementation of the Reference Plan. There were several projects of which some are described below.

Office buildings on Rue de l'Elorn

A number of brownfields were regenerated in the early 2000's to build six identical new office buildings on rue de l'Elorn (Elorn street), in proximity to port industrial activities (see photograph in the figure below). These offices had been planned at the time of the Reference Plan, however the types of businesses which settled was different than envisaged initially: where the Reference Plan suggested the installation of SMEs related to port activities, liberal professions and service sector activities settled instead. This can be explained by the relatively quicker and more attractive offer from private investors to set up service sector activities.

Figure 5.2 Photograph of offices (left handside) and industrial facilities (right handside) on Rue de l'Elorn in Brest's commercial port.



Source: Google Maps (photograph from May 2018).

La Carène concert hall

In the commercial port the City of Brest located a new concert hall La Carène in 2007. The flagship project was financed by public authorities at all levels of governance. The project had been envisaged since the 1980's and was therefore the result of a long political deliberation.

The choice of its location at the foot of the cliff came from the intention to create a link through this project between the city centre and the port. The location of the commercial port made sense as it was not residential and would not be disturbed by its activities, despite some

³⁷ Source : ADEUPa. (2017). Impact économique de Brest 2016 - Observatoire du tourisme du pays de Brest n° 43. Retrieved from : https://adeupa-brest.fr/system/files/publications/obs_tourisme_43_impact_eco_brest2016.pdf

opposition from actors related to the commercial port's activities who thought the port should not be a place for leisure.

Figure 5.3 Photograph of La Carène concert hall.



Source: Brest métropole.

Port industrial infrastructure

During the regeneration period, the commercial port received a number of infrastructural improvements, which included the move of the fish auction hall into new facilities, the renovation of the port's dry docks, the creation of a wharf for sand extraction vessels, the modernisation of agriculture product trade terminal, the creation of the multimodal platform for diverse trade products. In addition, a marine renewable energy project was also initiated which is still ongoing and is described as part of the other development projects. These are shown Map 5.2 below.

Map 5.2 Map of main projects for the modernisation of the infrastructure in the commercial port.



Source: Authors, based on Google Earth (2019) and information from ADEUPa. *Brest Port 2040 - Hériter*. Page 44.

The **fish auction hall** was moved and reopened in 2015 in the commercial port. The modernised space replaced the 1992 fish auction hall and should increase capacity to receive all fish and shellfish catches (maximum 2 500 tonnes, compared to 1 600 tonnes for the old fish auction hall). The new fish auction hall was located in partial replacement of a disused refrigerated warehouse. The project was led by the CCIMBO and the Région Bretagne, and financed also by Département Finistère, the European Maritime and Fisheries Fund, the French State, and France Agrimer (an industrial public organisation). The project cost €5.1 million.

One of the oldest **dry docks** of the port's naval repair infrastructure was renovated and reopened in 2009. The works modernised the docks to enlarge it, added several new structures (a crane, pumps, a towpath), and improved its capacity to receive larger vessels and vessels of more specific functions (such as vessels equipped with sonar technology, e.g. offshore vessels, marine research vessels, military vessels). It also enabled the start of ship dismantling as a new function of Brest's port.³⁸ Financers were Région Bretagne, Département Finistère, CCIMBO, and Brest Metropole who also managed the projet, as well as the ERDF and the French State who contributed significant financing.

A new **marine renewable energy project** initiated by Région Bretagne was approved during a regional assembly in 2010 and works started in 2016 on the easternmost polder of the port of Brest.³⁹ The polder had been created in the 1970's from dredged sediments but was left

³⁸ Source: Région Bretagne, CCIMBO. (2010). Inauguration de la forme de radoub n°1. Retrieved from: https://www.bretagne.bzh/upload/docs/application/pdf/2010-07/dp_forme_1_radoub_port_brest_juillet_2010.pdf

³⁹ Sources of information on the project include interviews and web documentation.

https://www.bretagne.bzh/upload/docs/application/pdf/2018-10/guide_de_lexposition_sur_les_energies_marines_en_bretagne.pdf

fallow until this project. Massive works are underway to develop the project including land stabilisation, dredging and extension of the polder to create the 40 hectare platform. The new project costs €220 million and is a partnership between Région Bretagne, the Conseil départemental du Finistère, Brest métropole, CCIMBO. ERDF funding could also be obtained.

The first goal of the project is to create a marine renewable energy infrastructure platform for assembling, storing, and launching wind turbines and hydrokinetic turbines. This strategic project will contribute to providing Brittany with its own source of electricity as currently, all power is imported from other parts of France. It is also contributing to Brittany's objective to reach a 35% share of energy consumed from marine renewable energy produced locally by 2030.

A second goal is to provide new infrastructure capacity for the commercial port to charge and discharge large/heavy loads, which could contribute to commercial or naval repair activities.

In addition to the new infrastructure, citizens were involved to express their hopes for other developments. One concerns the creation of a new leisure and walking area by the water of the Bay of Brest. The infrastructure project has also integrated environmental concerns from citizens to ensure the preservation of the flora and fauna of the area during the works, including bird species, amphibians, seashells, etc.

The project is subject to communication and information efforts from the Region Bretagne, with for instance a small exhibition space in commercial port presenting the project to visitors during weekends.

Région Bretagne's initiative can be credited for the new project, which is the most important action since the transfer of ownership of the port from the State to the Region in 2007.

Other projects have for instance included the creation of a **wharf for sand extraction vessels**, the **modernisation of agriculture product trade terminal** (52 million French Francs, or €793 000), and the **creation of the multimodal platform for diverse trade products** (43 million French Francs, or €656 000). These projects were managed mainly by CCIMBO.

Other projects

The **Castle's Port** marina inaugurated in 2009 is another project which characterises the regeneration of the commercial port, however the history of this process differs due to the involvement of the Navy, such that it is described in the next section.

https://portbrest.bretagne.bzh/jcms/preprod_149418/fr/accueil

<https://www.bretagne-economique.com/actualites/energies-marines-renouvelables-le-chantier-du-polder-de-brest-franchit-une-etape-de-plus>

<https://www.ouest-france.fr/bretagne/brest-29200/brest-veut-conquerir-les-energies-marines-renouvelables-6038685>

5.3 Regeneration of the areas owned by the Navy

5.3.1 Vision

The city of Brest's military zones located on the sea (the Castle's Port) and on the elevated Capucins area had for centuries been closed off to citizens. This situation deprived the local population of a visual and physical proximity to the water in the city. With the opportunity for the city to re-appropriate these areas, local actors discussed the vision for the Castle's Port on the one hand, and the Capucins area on the other.

For the Castle's Port, the ambition was always to create new capacity in the commercial port area for yachting (adding to the existing Moulin Blanc marina) and creating a promenade on the jetty of the new marina.

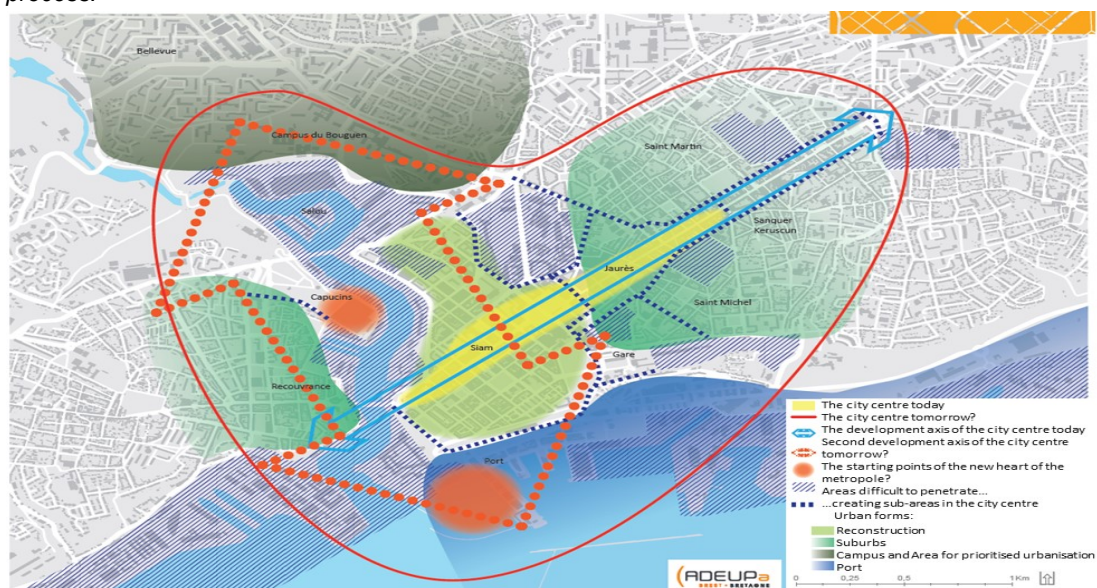
For the Capucins area, the vision was to create a new neighbourhood integrated with the city and including housing, office space, public services and shops. For the Capucins Workshop various options were considered to reconvert the space. The first option was to host four functions which would be either moved from their original location to the Workshops or created anew: an art and design school, a film library, a television studio for a national channel, and marine science and innovation facilities. The idea was dropped in 2008 after a change in governance which led to the adoption of the idea of an indoor public square surrounded by public and private structures. The Capucins Workshops was thus conceived as public space for cultural and economic activities, shops and restaurants where naval shipbuilding related activities used to take place, using the space to also exhibit elements of Brest's maritime history and about marine science.

The idea of the Capucins neighbourhood as an entirely new neighbourhood of the city also emerged and had from the start the ambition to be sustainable and mixing different populations.

These new developments also triggered since 2018 a reflection between Brest metropole, ADEUPa and an urban planning and landscaping firm on how to redefine the 'heart' for the metropole and wider Pays de Brest (in French, **Coeur de Métropole**) as illustrated in Map 5.4 below.⁴⁰ The vision intends to 'move' the focal point of Brest's urban centre to include the redeveloped Castle's Port and Capucins areas as core places of the metropole and wider Pays de Brest. It aims also to coherently plan for the integration of other areas to be retroceded to the city by the Navy in the Northern part of the Penfeld river. This is longer-term and ongoing process that still requires solving remaining issues of mobility in the city and particularly the commercial port area. The process is further described in the next section.

⁴⁰ Brest métropole and ADEUPa. (2019). Portrait Composite – ÉLABORATION DU PLAN GUIDE BREST, CŒUR DE MÉTROPOLE.

Map 5.3 Map of the new planned centre for the metropolitan area as part of the 'Coeur de Métropole' process.



Source: Brest métropole and ADEUPa. (2019). *Portrait Composite – ÉLABORATION DU PLAN GUIDE BREST, CŒUR DE MÉTROPOLE*. Page 22.

5.3.2 Regeneration process and projects

As explained above in section 2, shifting needs for military presence in Brest due to the restructuring of the army and the reform on mandatory military service in 1997 had led to the disuse of Navy structures, and triggered reflection around the retrocession of the Capucins Workshops and its surrounding area, of the Castle's Port, and in the longer-term future, the Northern part of the Penfeld river banks.

As mentioned above, development in these (ex-)military zones was not foreseen in the definition of the vision for the commercial port in 1994. In fact, the vision definition process for the military zones was formally started in 1997, when a special governance organisation named Mission Penfeld was created in partnership between the State representation at the level of the Finistère Département (Préfecture du Finistère), Brest métropole and the EU. Mission Penfeld has offered a platform for dialogue between these actors as well as the Navy with yearly meetings since its inception, with the goal of organising the progressive transfer of ownership of Navy-owned areas to the Region (in the case of the Castle's Port) and Brest métropole (for the Capucins and Northern Penfeld areas) and envisioning their redevelopment. The process had to consider specific issues due to the projects' location in and near military zones, such as the security and protection of remaining zones.

As shown in the table below, the first regeneration projects started in 2004. Two locations in particular were subject to redevelopment at different periods: the Castle's Port and the Capucins neighbourhood including the Capucins Workshops.

Table 5.3 *Timeline of projects and events.*

Phase	Milestones	Event
Phase 1 (2004-2009): The Castle's Port	2004	Ownership transfer of the Castle's Port (marina) from the Navy to the City of Brest
	2009	Castle's Port (marina) is inaugurated
Phase 2 (2005-ongoing): The Capucins area	2005	The planning of the Capucins areas and Capucins Workshops is awarded to architect and urban planner Bruno Fortier.
	2010	Ownership transfer of the area of Les Capucins from the Navy to the City of Brest; Start of the works to repurpose the Capucins Workshop
	2015	Start of the works to develop the Capucins neighbourhood
	2016	Inauguration of the aerial cable car linking the Capucins neighborhood to the city centre
	2017	The Capucins multimedia library opens

The Castle's Port marina

In 2004, the ownership of the **Castle's Port** was transferred to the Region. Brest métropole, together with the other members of the Mission Penfeld, ambitioned to keep the Castle's Port function as a marina, this time open to civilian yachters. The new marina was opened in 2009. The project benefited from €4.5 million in funding from the French Defense Restructuration Fund (in French, Fonds pour les restructurations de la défense or FRED), as well as €6 million in European Regional Development Funds (ERDF) funding within the framework of State/Region contract plans. The site needed to be decontaminated at a cost of €2.5 million. The project was managed by BMA in conjunction with the Navy, the Region and Brest Aim. The marina itself is managed by Brest Aim, a semi-public company managing diverse leisure and cultural equipment in Brest.

The Capucins area

The **Capucins area** was under ownership of the Navy, however army restructuration efforts, including the transfer of certain military activities to the city of Toulon (including military shipbuilding)⁴¹ had made the location obsolete. In 2010, the Navy sold the area of the Capucins to the City of Brest at a low price (€2.2 million). The Navy took charge of decontaminating the site. Three large projects are found within this area: the Capucins Workshops, the entirely new Capucins neighbourhood, and the aerial cable car (see Map 5.4 below).

The planning of these projects was subjected to a tendering procedure which in the end received three offers, of which one was selected. The different offers presented very different alternatives. In 2005, Brest métropole selected architect and urban planner Bruno Fortier's offer. The plan was elaborated in collaboration between the contractor and Brest métropole and can be illustrated by the map in Map 5.4.

⁴¹ Brest is currently still an important place for warship repair and maintenance but is no longer involved in military shipbuilding.

Map 5.4 Map of the functions planned for the Capucins area, including the Capucins Workshops (right, "Les Ateliers"), the Capucins neighbourhood (to the left), the aerial cable car (to the right in light green, "Téléphérique"), and the tramway stop for Les Capucins (to the left in light green, "TRAMWAY").



Source : Brest métropole.

The development of the **Capucins neighbourhood** project was delegated to BMA. SEMPI, a building promoter and owner/manager, was also given charge of the development and management of one office building. Ex ante studies were funded by Brest métropole, the ERDF, and the FRED. The works are financed by Brest municipality and Brest métropole, the National Fund for Territorial Planning and Development (in French, Fonds National d'Aménagement et de Développement du Territoire or FNADT), the ERDF, the FRED, Région Bretagne, and the Caisse des Dépôts et Consignations. The French army took charge of decontamination of the site. In total, public investment in the project is estimated at €150 million. Additional private investments of about €200 million were raised.

Regeneration in the area was subject to discussions regarding the risk of gentrifying the area in proximity to a historically low-income neighbourhood (Recouvrance). Local actors thus tried to mitigate this risk by mixing housing types and populations. Furthermore, an urban renewal project will start that will initiate construction works estimated at €70 million over the next 10

years as part of the NPNRU. A public consultation was organised in 2018 to allow for the local population to raise questions and points of interest on this project.⁴²

The Capucins neighbourhood was the location of a large warehouse hosting a naval manufacturing workshop named **Capucins Workshop** (in French, Ateliers des Capucins). The project was managed by BMA, and is operated by a local public organisation (in French, société publique locale, or SPL) named SPL for the Capucins Workshops (in French, SPL des Ateliers des Capucins). The SPL is in charge of relations with potential investors and tenants of the Capucins Workshops, as well as animation and management of the site. The Capucins Workshop is an important investment for Brest local authorities, who seek to balance the financing of the project with other real estate operations.

Due to the Capucins neighbourhood being located on the West bank of the Penfeld, there was an important challenge in creating access to the location from the city centre. After weighing different options, the choice of creating an **aerial cable car** was made by Brest métropole. Other options included different designs and locations for a new bridge, however these appeared too costly and inadequate for the functioning of the naval base. The aerial cable car appeared as an innovative project and was selected despite arguments from political opponents to the idea and during municipal elections. The project was developed by Brest métropole and through SEMTram, another semi-public company originally created to develop the tramway line.

The development of projects in the Capucins area were participatory, involving citizens in decision-making around the planning of the Capucins neighbourhood, construction of public furniture in and around the Capucins Workshops and the creation of artistic projects as part of the social innovation aspect of the national Écocité programme.

There are perspectives for new developments in the future in the Navy-owned areas with the **Coeur de Métropole** planning process, also described in the previous section. The reflection could only emerge thanks to the realisation and success of the redevelopment of the Capucins neighbourhood and Castle's Port. Brest métropoleThe planning process is consultative, involving a diversity of stakeholders including over 1500 citizens, and touches upon various urban aspects and functions of the city: economic activities, employment, identity, culture and leisure, demographics, mobility, etc. Brest métropole.

⁴² Projet NPNRU Recouvrance – Rive droite. Compte-rendu de la réunion publique du lundi 14 mai 2018. Auditorium de la médiathèque François Mitterrand- Les Capucins. Retrieved from: https://jeparticipe.brest.fr/fileadmin/Concertation.brest.fr/Projets/Recouvrance/documents/2018-05-14_CR_Reunion_publique_Recouvrance.pdf

5.4 Other development projects

The regeneration projects in the commercial port area and in the areas previously owned by the Navy were developed in reflection with other projects, existing or new. These other projects were developed in other parts of the city than the commercial port area or the areas previously owned by the Navy, contributing to its overall attractiveness.

Océanopolis is a large aquarium and marine science centre located in the East of Brest and which first opened in 1990 on the idea of a marine biologist and an oceans specialist, and financially supported by the Urban Community of Brest and Département du Finistère. Since then, Océanopolis underwent some expansions to include more exhibition spaces and activities (financed by public authorities at all levels of governance) and it is the touristic and cultural location that attracts the most paying visitors in Brittany (from under 250,000 in 2008 or 2013 and up to 450,000 visitors in 2009 and 2010). Océanopolis' cultural importance has led the city to consider how new projects could further add to maritime culture in Brest and attract visitors to the other parts of the city. The Capucins Workshop's spaces dedicated to marine science and maritime culture for instance reflect this ambition.

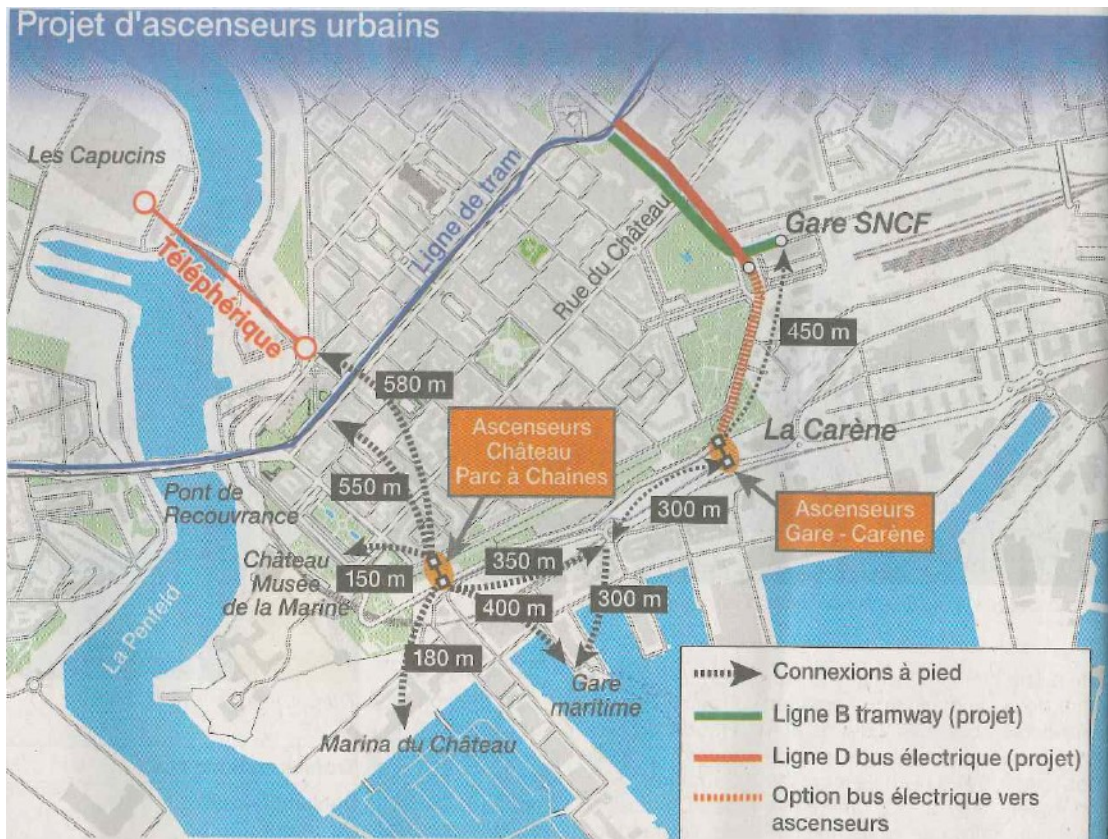
Located West of Brest's city centre is Brest's **Technopôle** created in 1988, a marine science and innovation complex and strong element of Brest's blue economy, international collaboration and influence. The Technopôle was created as an association which gathers private companies, higher education institutions, and research centres.⁴³ The Technopôle's functions are reflected in some of the activities newly created in the Capucins Workshop (marine science exhibitions, technology innovation hub, and the naval industry campus soon to be opened), creating visibility for these activities to the public and reinforcing them.

The opening of Brest's **tramway** line in 2012 created a real public transport option in the city centre and also enabled to link the Capucins area. The reflection on the tramway's path already in 2007 placed the Capucins area as one of the tramway's stops. The tramway also now linked the aerial cable car on the other side of the Penfeld river, further enhancing access to the Capucins neighbourhood. Although options to bring the tramway line to the commercial port area was considered, it did not materialise due to the long way down the cliff from the Upper City to the commercial port (and vice versa) implying very high potential investment and operating costs.

In the future, a new bus line may be created to better link the tramway line to the city's train station and to urban elevators allowing to access the commercial port area from the Upper City, with the ambition to foster sustainable mobility in Brest. This is shown in the figure below.

Map 5.5 Map illustrating pedestrian connections with the envisaged public transport connections between the existing tramway line, a new tramway line, a new electric bus line, and urban elevators.

⁴³ <https://www.tech-brest-iroise.fr/>



Source: Ouest France, 23 May 2019, "Ascenseurs au port: quel est l'avis des Brestoïses?". Newspaper (photocopy).

5.5 Conclusion

The regeneration processes that occurred in the commercial port and the ex-Navy owned areas differed significantly. The actors and governance structures involved for instance differed, with implications for the regeneration process:

- In the commercial port area: Brest métropole, the municipality and semi-public organisations as well as CCIMBO as project owners and developers, interacting with the State and private real estate actors on land transfers.
- In the ex-Navy owned areas: Brest métropole, the municipality, Région Bretagne, the Département and semi-public organisations as project owners and developers, interacting with the State and the Navy to plan land transfers under the Mission Penfeld. In the Capucins area, a regeneration plan was also developed in collaboration with an architect and urban planner.

The scale of planning in the commercial port area was more diverse and progressive (many separate land plots) than in Navy-owned areas. Projects were developed in collaboration between real estate developers and BMA and had to reconcile the offer from the private real estate sector with the ambitions of the Reference Plan, which aimed to develop the port's

industrial activities in coherence with new urban functions. Overall this process was successful in regenerating the commercial port area, but only partially successful in meeting the ambitions of the Reference Plan, as explored in further detail in section 6.

The negotiations within the Mission Penfeld took time but allowed for more control from the public sector over the process and more agility to seize opportunities and change the vision. The process for the Capucins area was also more consultative of citizens, reflecting a more recent participatory approach to urban planning in Brest.

Project financing often involved a diversity of public actors at different levels, driven by Brest métropole's and BMA's ability to market these opportunities to attract private funding from real estate investors and developers. While public funding was the driver, private funding was necessary to develop private real estate and activities including offices, housing and shops.

Overall, regeneration in Brest occurred rather opportunistically and allowed for flexibility in the process. This is due to the choice of governance granting discretion to planners on the basis of an evolving yet concerted vision, but also to land ownership patterns which required a long-term progressive approach to regenerate land based on opportunities arising.

6 The outcome of the regeneration process

6.1 Outcomes in the commercial port area

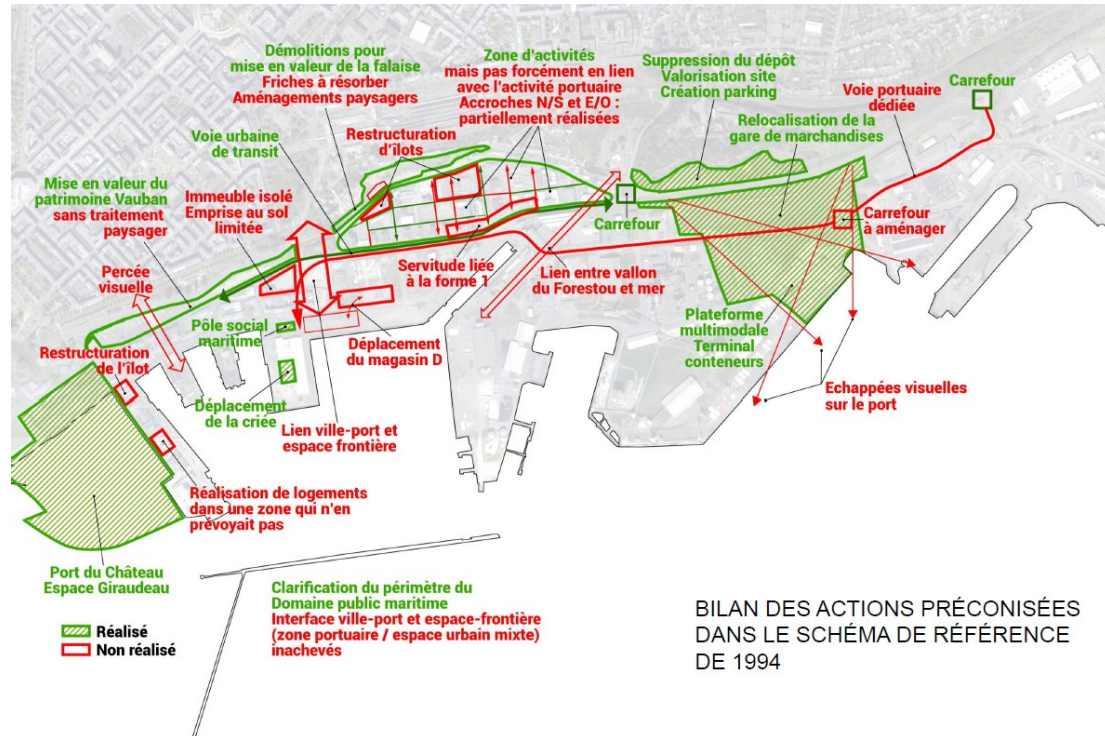
The regeneration process had a number of intended outcomes. Some of these were realised, while others are still in progress or not completed according to planning (as can be seen in the map in Map 6.1 below). Furthermore, unexpected outcomes occurred.

Table 6.1 below summarises the objectives and outcomes of the regeneration process in the commercial port area. The following sections analyse these outcomes in further detail.

Table 6.1 Overview of the objectives and outcomes of the regeneration of the commercial port area.

Objective	Outcome
Regeneration of brownfields	Successful decontamination and regeneration of brownfields.
Creation of new urban functions for leisure (cafés, cultural spaces), as well as offices and housing, integrating the port into the city	Successful creation of cafés, a new marina, a concert hall, office buildings and housing. The port is better integrated into the city.
Preservation of the port activities	Successful maintenance of certain port activities (e.g. fish auction hall), and creation of new port activities (e.g. marina, marine renewable energy infrastructure). Future projects will further contribute to this objective.
Preservation of the city's maritime identity	Successful, port regeneration has attracted cultural activities, events, economic activities which reinforce the city's maritime heritage and bring its citizens closer to the sea.
Management of the relationships between urban and industrial activities	Mixed, urban and industrial activities tend to overlap with some land use conflicts and safety risks.
Creation of space dedicated to SMEs related to port activities	Unsuccessful, the space was attributed to service sector functions (offices and liberal professions).
Improvement of the transport link between the city and the port	Unsuccessful, the geological barrier of the cliff has not been overcome, and the commercial port area still suffers from poor public transport connection. Future projects intend to address this objective.
Preservation and creation of viewpoints from the city centre onto the port and the sea	Mixed, some buildings were erected higher than planned.
Creation of new vegetated areas	Unsuccessful, the commercial port area is still mainly built up and has little vegetation.

Map 6.1 Overview and conclusion of intended outcomes of the 1994 Reference Plan.



Source: ADEUPa. (2017). *Brest Port 2040 - Hériter*. Page 33.

6.1.1 Realised outcomes

In the 1980's and prior to the start of the regeneration process, the area of the commercial port was characterised by the presence of brownfields and contaminated land that was the property of the State. The state of disrepair made this part of the city a 'no go zone' for its inhabitants, disconnecting citizens from the industrial and maritime heritage of Brest. Following regeneration, the main physical outcomes were the demolition or deconstruction of brownfields, mainly warehouses, and subsequent rebuilding or repurposing into offices (see Figure 6.1 below for an example), restaurants and cafés, hotels, and cultural places as mentioned in section 5.2.2. The environment of the commercial port area became friendlier to visitors.

Figure 6.1 Photographs before and after the regeneration of a brownfield (Chais Le Duc warehouse) into a residential building.



Source: ADEUPa. (2017). *Hériter*. P.31.

With these changes, **the urban functions ambioned for the commercial port area have mostly been realised**. These physical changes were significant, introducing more modern architecture into the commercial port. The proximity of these new urban activities to the port's industrial infrastructure continues to recall some of the port's functions for the blue economy. Today, this area resembles a city neighbourhood located near the port and the sea, attracting visitors and workers.

The commercial port also saw the **re-appropriation of the Castle's Port from the Navy by the city and its subsequent renovation** (see Figure 6.2). Its name comes from the fact that it is overlooked by the seventeen centuries old Castle of Brest (first built during the times of the Roman Empire in the 3rd century).⁴⁴ Prior to its acquisition by the city, the Castle's Port was a marina with few infrastructure⁴⁵ access restricted to Navy soldiers. The area was therefore closed off for the public. Navy staff have access to its leisure boating facilities still today, however now the area has also become public. Construction works to *inter alia* create piers for the boats ended and the new marina was inaugurated in 2009. The project was an opportunity to alleviate the lack of available space for leisure boats in the other marina of Brest (Moulin Blanc). The quayside of the Castle's Port also became the location of multiple restaurants and cafés, as well as offices. **The Castle's Port is considered a new landmark of Brest's maritime identity and of urban activities.**

⁴⁴ Frémond, D., and G. Besson. (n.d.). Un lieu, une histoire le château de Brest. Musée national de la Marine. Retrieved from: <http://www.musee-marine.fr/>

⁴⁵ Before any works started the marina had no hard jetty or piers, leisure boats were attached to buoys rather than piers and the port was protected by anchored warships.

Figure 6.2 Aerial view of the Castle's Port.



Source: <https://www.bateaux.com/plaisance/port/brest-marina-chateau-REFv7vc73lI4Yg>,

Overall, the maritime identity of the city was preserved and reinforced thanks to the preservation of economic activities, the presence of landmark ships in the commercial port, the new infrastructure, cultural activities, events and projects initiated during the regeneration period.

In the commercial port area, the vision for transport aimed at restructuring the transport link between the city and the port, however this vision was rather weak in creating a public transport offer for urban populations. Instead, **the vision aimed at reinforcing existing private and heavy vehicle traffic**. As this was realised, it led to the maintenance of many free on-street vehicle parking and carparks which tend to be overcrowded. **This vision** has led to a lock-in and growing use of the space by private vehicles, reinforced by the gratuity of parking making it difficult to create a modal shift, and the outcome is **in contradiction with contemporary ambitions and trends in Europe and France for sustainable urban mobility based on active modes of travel and public transport**. This is seen as a missed opportunity by local actors. By contrast, the centre of the city benefited from a tramway and extended bus lines created in 2012. These new services were not extended to the commercial port due to technical difficulties (the cliff as a natural barrier), current mobility trends (car culture maintained by efficient road traffic to the port) and consequent concerns over the financial sustainability of a new high quality public transport option (few inhabitants and workers likely to use public transport to go to and from the port). Several options are however considered today to ensure transport from the city to the port including urban elevators to facilitate pedestrian traffic and new bus lines.

Figure 6.3 Photograph of the access road down the cliff from the city centre to the commercial port area.



Source: Brest métropole.

The link between the city and the port, including from the perspective of transport connections, was thus not anticipated sufficiently at the time of the Reference Plan as noted by City stakeholders interviewed. Furthermore, the prevalence of a car culture has been responsible for reluctance from politicians and planners to intervene and modify infrastructure to reduce car use, creating a situation of lock-in where public transport options are difficult to introduce without significant investments and a cultural shift.

6.1.2 Incomplete outcomes

One part of the vision regarding transport was to distinguish between urban and industrial traffic. On this point as well, ADEUPa notes that **the objective was not really met, as both forms of traffic tend to mix and perturb each other**.⁴⁶

Overall, the commercial port area denotes a **lack of coherence and distinction between port and urban activities**. The mix of urban and industrial traffic, the presence of visitors with maritime workers, and the choice of projects has caused some land-use conflicts between commercial port actors (industry and their representatives) on the one hand, and city planners and the population on the other.

The deconstruction of brownfields (and projects like La Carène) enabled, in some places, to enhance parts of the cliff and Vauban city walls, while also creating new vehicle parking (see

⁴⁶ ADEUPa. (2017). Brest Port 2040 - Hériter.

Figure 6.4 below). **Some viewpoints from the city/port onto the sea and the port were not created or maintained as planned**, as existing and new construction blocked out some views. Furthermore, **vegetation was not introduced to the extent envisioned** such that the commercial port is still highly paved.

Figure 6.4 Before and after pictures of the deconstruction of a brownfield to clear the view of the Vauban city walls.



Source: ADEUPa. (2017). *Brest Port 2040 - Hériter*. Page 32.

6.1.3 Unrealised outcomes

Some planned developments did not occur and new functions to support port activities were not created. The vocation of certain plots in the commercial port (in sectors 4 and 5 of Map 3.2) to become a place for **the development of SMEs dedicated to port activities did not materialise and instead, the option to create office space** was favoured. Although the initial ambition to support port activities was seen positively by representatives from industry at the time of defining the vision, the available real estate quickly attracted investors and appeared more financially advantageous to local planners. Today, these offices are occupied mainly by liberal professions, some of whom moved away from the city centre and leaving a gap of activity in the centre. This outcome was seen negatively by local industry representatives.

In another part of the commercial port, **housing and office buildings emerged where it had not been planned by the 1994 Reference Plan**. This is particularly the case of the Vigie building which replaced wine trade warehouses. These unexpected developments were enabled by the private ownership of the land which were therefore not within direct planning capacity by the city. This is expected to happen again with the disowning of a restaurant by court rule, enabling investors to develop offices and a hotel.

6.2 Outcomes in the Capucins area, previously owned by the Navy

The opportunities offered by the departure of the Navy from certain areas led to developments considered to have also contributed to the vision to reintegrate the city into its port. In this section, the focus is placed on the Capucins area while the Castle's Port was addressed in the previous section due to its location in the commercial port area.

Table 6.2 Table 6.1 below summarises the objectives and outcomes of the regeneration process in the Capucins area. The following sections analyse these outcomes in further detail.

Table 6.2 Overview of the objectives and outcomes of the regeneration of the commercial port area.

Objective	Outcome
Regenerate and repurpose the Capucins Workshops with new activities (four functions initially envisaged: an art school, a film library, a television studio, and marine science and innovation facilities), while maintaining elements of their naval/industrial history.	Successful, although the initial vision for four functions was not followed. Instead the Capucins Workshops were made into a public place with a multimedia library, shops and restaurants, an exhibition hall, an exhibition on the Capucins area's naval/industrial history, a digital start-ups accelerator, and more in the future (the head office for the new naval industry campus, and Le Fourneau street arts centre which will be transferred from its current commercial port location).
Regenerate the Capucins area by creating a new mixed use neighbourhood with offices and housing, with a focus on sustainability.	In progress, projects are emerging and more will be built. The neighbourhood is envisaged to become an 'eco-neighbourhood', producing some of its own renewable energy, using a smart grid and energy efficient infrastructure. A district heating system has already been implemented.
Connect the Capucins area to the city centre, overcoming the natural barrier formed by the Penfeld river, and fostering sustainable mobility.	Successful, the Capucins area is connected both by a tramway and an aerial cable car (despite several periods of technical maintenance).

6.2.1 Realised outcomes

Following the acquisition of the Capucins area by the City of Brest in 2010, the **Capucins Workshops'** walls and structure were kept and the 25,000 m² interior was completely repurposed (see Figure 6.5) to become a **place for cultural and public or private events, exhibitions, shops and restaurants, digital and technological innovation entrepreneurial activities, as well as a 10,000m² multimedia public library**. While most parts are already built (the multimedia library was finalised in 2016), shops are still setting up.

The Capucins Workshops have been an **immediate success with 3 million visitors in 2 years coming particularly during week-ends and events**. The main attraction of the place has been the multimedia library, due to its innovative and diverse offering of exhibitions, books, music, films and videogames.

The **naval/industrial identity of the place was maintained** with a permanent exhibition on the history of the Capucins area, as well as remaining machinery. In the future, a new naval industry campus will also be hosted in the Capucins Workshops.

Figure 6.5 View of the Capucins Workshop's exhibition hall.



Source: Authors.

The **Capucins neighbourhood** is a mixed neighbourhood currently in development to create a new housing, shops, offices, car parking and services. All the functions in the area are meant to be **accessible via active modes of transport** (walking, biking), and **link to the city centre via the aerial cable car** (see Figure 6.6 below). It also will **mix different populations** with to the construction of an intergenerational home for the elderly and international students combined, as well as regular housing for all, with shared public and green spaces.

Figure 6.6 Photograph of the aerial cable car, connecting the city centre (on the right) to the Capucins Workshops (on the left).



Source: Brest métropole.

The whole Capucins neighbourhood is nationally recognised as an eco-neighbourhood (in French, écoquartier) by the Ministry of Territorial Cohesion and Housing (in French, ministère de l'Égalité des territoires et du Logement) and the Caisse des Dépôts et Consignations. The Capucins Workshop, housing and offices are heated via a **district heating system**. The area is also powered via **three photovoltaic systems**. A **smart grid system** and **optimised lighting** are also in function in certain areas. **Construction materials were also selected for their environmental value** in reducing the footprint of the buildings and contributing to citizens' health and well-being.

Figure 6.7 Conceptual design of the future Capucins Neighbourhood.



Source: BMA.

Despite initial political opposition, **the aerial cable car project has since proven to be an operational and financial success**, transporting many users also thanks to the integration of this transport system with the tramway and bus lines thanks to combined ticketing.

6.2.1 Incomplete outcomes

The **redevelopment of the Pontaniou prison did not yet materialise** out of the regeneration project for the Capucins area due to the important resources needed to deliver the other projects. A redevelopment project has however recently been attributed to a real estate promoter for the creation of housing in the former prison, closed down since the 1990's and acquired by the municipality from the State in 1997.⁴⁷

6.2.2 Unexpected outcomes

The choice of **making the Capucins Workshops a public space with a multimedia library was an important deviation from the original vision**, which proved to be successful today.

⁴⁷ Le Télégramme. (2018). Brest. Brest. L'ancienne prison transformée en appartements. <https://www.letelegramme.fr/finistere/brest/pontaniou-la-prison-bientot-vendue-18-09-2018-12082653.php>

6.3 Conclusion and future projects

Overall, Brest has significantly changed thanks to the projects carried out by local actors. In a survey with 400 internet users conducted in 2016, the newspaper Le Télégramme found that 96.3% of respondents agreed that Brest had undergone a 'metamorphosis' between 2000 and 2015. Respondents identified the tramway and the port as topmost useful projects, and thought that the Recouvrance neighbourhood (which includes the Capucins area) had the most promising future, followed by areas in the city centre.⁴⁸

In the commercial port, the **physical changes have tremendously improved the urban qualities of the area**, as expressed by local populations thanks to the creation of leisure and cultural functions. Overall, most land plots which had been targeted for regeneration did undergo regeneration. In parallel to urban regeneration, the port's industrial infrastructure also evolved but also moved away from the older parts of the port to have the space to expand and give way to urban activities.

However, the regeneration process did not achieve all the objectives as the **shared spaces for port and urban activities lack coherence**, the **space for SMEs to support port activities did not materialise**, and **neither did the link from the city to the port**. Unintended outcomes also occurred, in particular the lack of parking space despite abundance of free parking, the strong presence of cars, and the absence of efficient transport alternatives. In some areas, these new urban activities expanded beyond their planned areas and into industrial areas.⁴⁹ A number of projects were envisioned but did not materialise, for instance one warehouse (Magasin D) was envisaged to be moved or destroyed in order to create a view to the sea from the street.

These mixed outcomes can be in part explained by the project-by-project, progressive approach and regeneration process. Each land plot was developed individually between BMA and an investor, and in fact the choice of final projects to develop (i.e. restaurants, hotels, housing, offices, etc.) could not be influenced by BMA to a significant extent, as it depended on the demand from investors and the need for BMA to achieve overall financial sustainability of the operations. This meant that certain types of projects emerged where they were not planned in the original vision and did not always seem to integrate well, in particular with regard to port activities.

In the Capucins area, the overall result of the regeneration works is a **new mixed neighbourhood of cultural, economic and residential functions** which link to the ambition

⁴⁸ Le Télégramme. (2016). Brest. La métamorphose de la ville en trois dimensions. <https://www.letelegramme.fr/dataspot/brest-la-metamorphose-de-la-ville-en-trois-dimensions-22-02-2016-10966869.php>

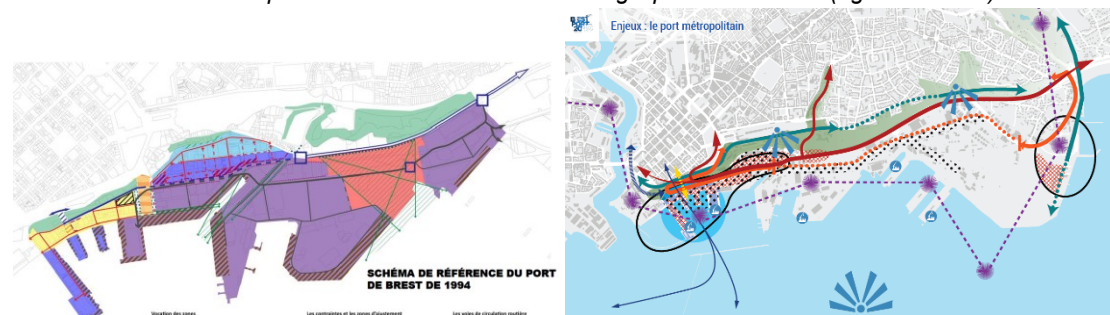
⁴⁹ ADEUPa. (2017). Brest Port 2040 - Hériter.

of reconnecting Brest with its maritime and industrial heritage. The project was not in the scope of the regeneration planning process of the 1980's and early 90's, but follows in continuity with the objectives of integrating regenerated areas with the city.

The **regeneration of the commercial port area took place to some extent at the expense of some neighbourhoods of the city centre**, particularly around Jean Jaurès street and Siam street from where liberal professionals moved to the new offices in the commercial port. This is seen as a problem, as some activities were not new but in fact simply relocated and were not replaced. This could not be foreseen but could be in part due to the reduced scope of the 1994 Reference Plan which focused on the commercial port area.

With this key learning, a main outcome of the regeneration process is the **enabling of a broader reflection on the future of the metropole, with the further integration of the regenerated areas into the city centre and expansion of urban projects in the Northern Penfeld area**. Recent plans (Brest Port 2040, and Coeur de Métropole) have demonstrated city planners' ambition and ability to truly integrate the port within metropolitan development (the "metropolitan port"), a significant change from the scope of the 1994 Reference Plan which was more restricted (see comparison of planning maps in the map below). In this sense, the city's relationship to its maritime and industrial heritage encapsulated in its port is now seen as an engine of urban development.

Map 6.2 Maps of the visions from the 1994 Reference Plan (left handside) and of the ambitions for the new Reference Plan as part of the Brest Port 2040 strategic process in 2018 (right handside).



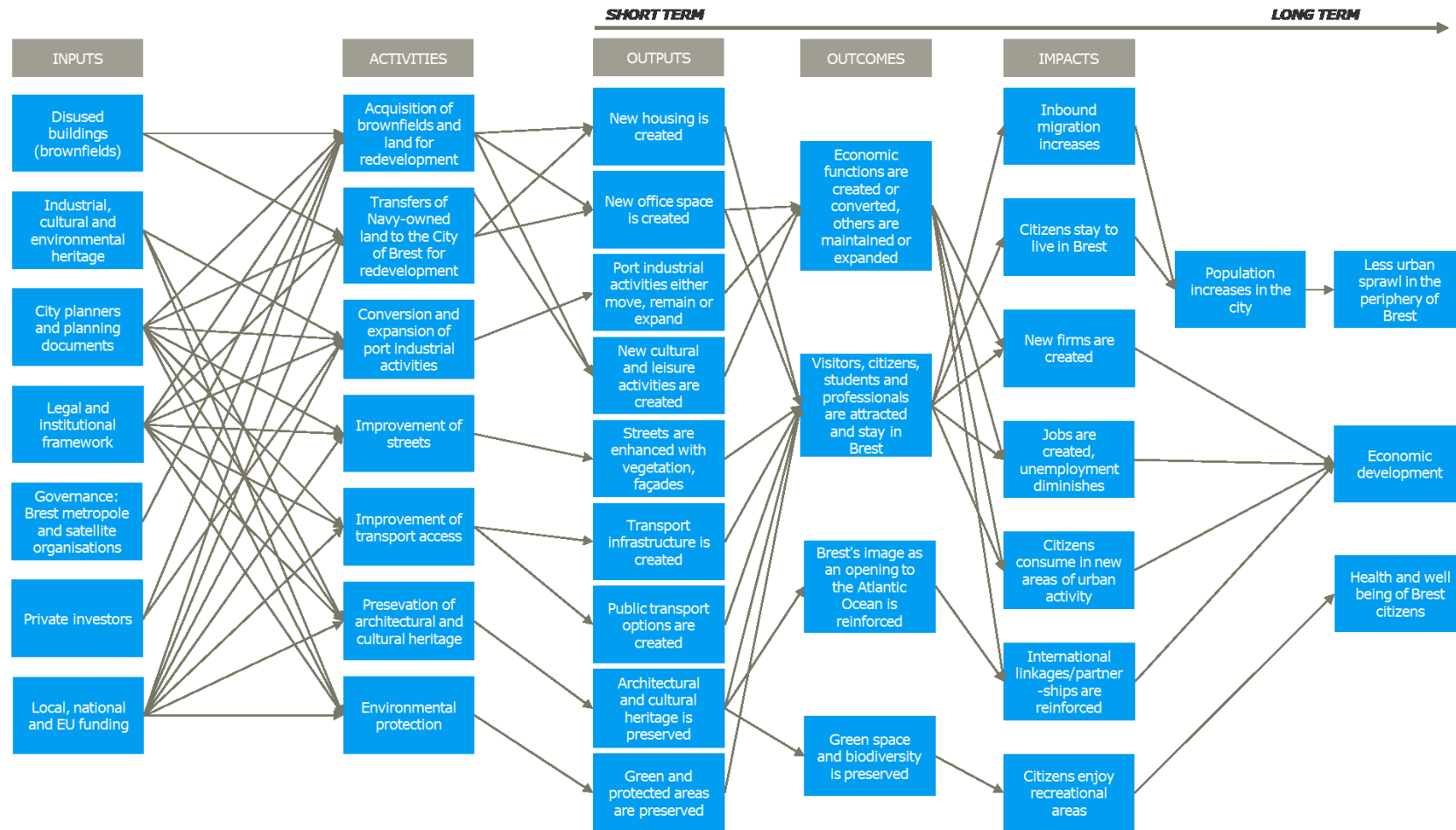
Sources: ADEUPa. (2017). *Brest Port 2040 - Hériter*. Page 29; and ADEUPa. (2018). *Brest Port 2040 – Schéma de référence du développement portuaire de Brest. Se Situer. Document de travail V4*. Page 122.

7 Economic, social and other impacts

The analysis of Brest's regeneration process has demonstrated the outcomes of the new developments in the commercial port and the Capucins area towards creating urban livability in these areas while maintaining a maritime industrial culture and identity. This section considers the expected and observed impacts, in terms of socio-economic and cultural trends, including demography, identity of the city and of its inhabitants. To the extent possible, the analysis considers whether the impacts are truly incremental, or whether they may have occurred regardless of the regeneration process.

The impacts are identified, analyzed, and assessed on the background of a 'Theory of Change' approach (TOC). With the help of the TOC, the logical relationships between initiatives and activities to the resulting and expected outcomes and impacts are identified in order to compare the goals with the outcomes and impacts. In particular, a focus shall be put on the long-term potential demographic and socio-economic impacts, but also the cultural and identity changes that may be expected as a result of the regeneration and the identified outcomes. As part of the analysis, it is also assessed whether outcomes and impacts are truly incremental, or whether they may have occurred regardless of the regeneration process. The following figure shows the theory of change of the regeneration process in Brest.

Figure 7.1 Theory of change of the regeneration process in Brest.



As can be read in the theory of change, the impacts expected are of socio-economic and environmental nature within Brest's regenerated areas, in the city at large, and more broadly at regional, national and international levels. Expected impacts relate to increasing employment opportunities, attracting tourists, increasing consumption, creating economic growth, increasing the population in the metropole, preserving and enhancing the city's maritime identity, fostering citizen satisfaction and pride, etc.

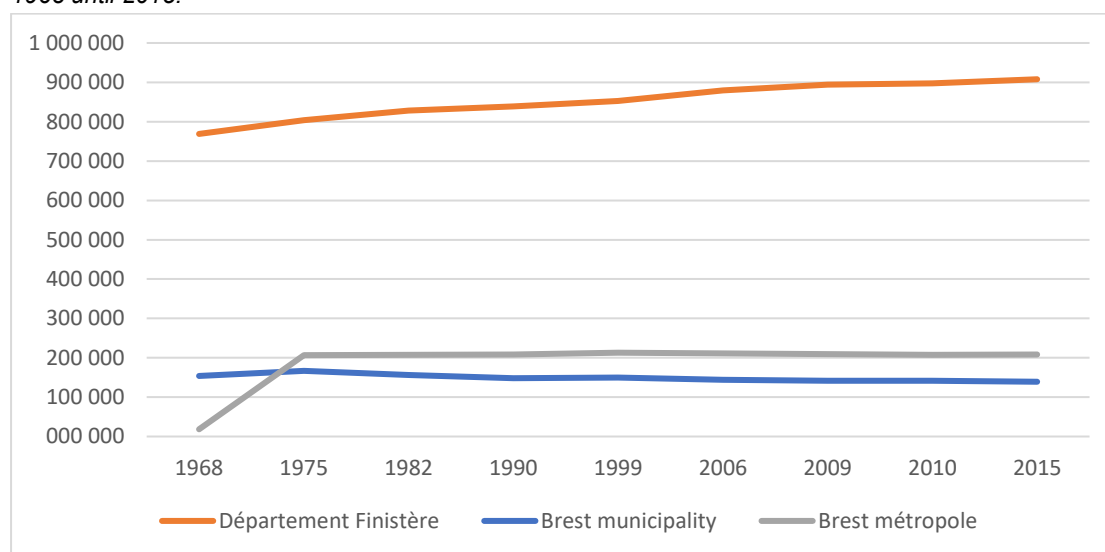
Due to the lack of quantitative data at the appropriate scale (Brest's neighbourhoods) and over the right period of time (regular measurements since the start of the regeneration process), the analysis is mainly qualitative and relates either to expected impacts or impacts observed by stakeholders.

7.1 Demographic trends

The improvement of Brest's urban qualities have the potential to attract new inhabitants and visitors, thus potentially reducing urban sprawl in the broader metropolitan area. At the time of this study, and as shown in *Figure 2.1 Evolution of the population in Brest municipality between 1876 and 2015*. *Figure 2.2 Evolution of population – Brest métropole, 1968 - 2015*, the population in Brest municipality and Brest métropole has stagnated or slightly increased in the past 10 years or so compared to the clear decreasing trend of the previous decade or two. This effect is difficult to attribute directly to the regeneration process as the city has also received other improvements, such as the tramway. However, it seems reasonable to assume that regeneration may have had some impact on population as the physical changes to urban activities in the regeneration areas have been significant. This effect needs to be observed over a long period of time to be affirmed. In the absence of any regeneration process, it is possible that a share of the new inhabitants of the commercial port and Capucins neighbourhood would have settled elsewhere, either in the city centre or at the periphery. Historical trends comparing demographics in the Département Finistère, Brest metropole and Brest municipality indicate that, despite a clear growth trend in the population of the broader Département, Brest metropole and municipality have experienced relative stagnation in the last 40 years (Figure 7.2). Population projections to 2040 based on historical trend data further suggest that municipalities in the periphery of Brest metropole will continue growing much more than the metropole itself, whose population is expected to range between about 205,000 (low scenario) and up to about 237,000 inhabitants (high scenario) by 2040 from the 2010 situation of about 207,000 inhabitants.⁵⁰

⁵⁰ ADEUPa. (2012). QUELLE POPULATION DU PAYS DE BREST EN 2040 ? FLASH DÉMO #1. Réf. 11/ML/258. Retrieved from: https://www.adeupa-brest.fr/system/files/publications/flashdemo-n1_pop-pdb-2040.pdf. Projections based on INSEE (2010).

Figure 7.2 Population trends for Département du Finistère, Brest métropole, and Brest municipality from 1968 until 2015.



Source: INSEE.

These population trends clearly indicate the tendency in the wider Département for peri-urban population growth rather than urban growth.

7.2 Attraction and integration of new inhabitants

The construction of mixed housing is aimed at contributing to diversify the housing offer and attracting a diversity of residents: from smaller to larger apartments housing students, the elderly, and active population with various income levels. This is seen as particularly important in view of the proximity to the historically low-income Recouvrance neighbourhood and thus the risk of gentrifying the area.

7.3 Business and employment opportunities

New activities offer potential for improving Brest's positioning, both in a national context of competition between cities for attractivity and in the international commercial competition on port activities and the knowledge economy. Job statistics for Brest are thus assessed compared to three other metropolitan areas in Brittany chosen for their regional proximity and one area in Normandy (Le Havre) chosen for its similar history and economy (destruction and reconstruction after World War II, maritime trade heritage). The areas have different population sizes to identify differences in trends. The first area is Rennes, the largest city in Brittany in population. The second area is Quimper, with a smaller population and the second largest town in Département du Finistère after Brest; the third area is Lorient, also smaller than Brest; and the last area is

Le Havre (Normandy), with a smaller but more comparable population. All areas are compared based on their employment area, which are defined based on observed commuting patterns.⁵¹

Table 7.1 shows that population growth and job growth in Rennes employment area are much higher than in the smaller (by population) employment areas of Brest and Quimper. While Brest has a higher population growth than Quimper, its job growth is slightly lower. Lorient and Le Havre have positive and negative population growth rates respectively, yet both experience negative job growth rates. Le Havre recently started urban regeneration projects nearby its port, these projects have not been completed and therefore observed trends cannot be attributed to the projects.

These statistics indicate that medium sized cities tend to experience less growth than larger cities, despite regeneration efforts in Brest.

Table 7.1 Population and job statistics for the employment areas of Brest, Rennes, Quimper (Brittany) and Le Havre (Normandy) in 2011 and 2016.

	Population in employment area			Jobs in the employment area		
	2011	2016	Growth rate	2011	2016	Growth rate
Brest	451,810	458,020	1.4%	181,532	182,765	0.7%
Rennes	678,771	726,194	7.0%	353,320	373,878	5.8%
Quimper	314,257	316,205	0.6%	126,522	127,597	0.8%
Lorient	290,794	296,957	2.1%	108,277	106,615	-1.5%
Le Havre	402,473	401,060	-0.4%	160,494	155,690	-3.0%

Source: INSEE.

With regard to tourism, the evidence is scarce regarding whether or not the regeneration process has increased the number of visitors (see for instance Figure 2.6). While it is likely that these activities overall attract some tourists and therefore sustain economic activity in the form of consumption and jobs, the incremental effect of the regenerated areas could not be assessed. For instance, the regeneration of the commercial port area is likely to have contributed to improving the experience of visitors during the Maritime Festival and the Port's Thursdays. The data on visitor and local business satisfaction for the Maritime Festival indicates 88% satisfaction both for 2012 and 2016 (a reportedly higher figure than in 2008).⁵² These indicators however do not allow to conduct a more refined analysis, as they did not seem to clearly include the urban environment in which the festival took place.

The ability of the Capucins area to attract businesses remains a question. One issue is the transport approach used in the area, which is different than the rest of Brest (where private vehicle circulation is favoured), and which businesses find risky. Brest métropole is also concerned with the risk of simply moving activities away from other places of the city as

⁵¹ Source: INSEE. See <https://www.insee.fr/fr/metadonnees/definition/c1361>

⁵² Source : ADEUPa supplément à l'observatoire du tourisme du Pays de Brest #35 and .

occurred in the commercial port area. The Capucins area is however ambioned to be a place for the development of entirely new businesses and competences, such as start-ups in the digital sector, and a naval industry campus whose mission it is to train new professionals and fill the skills gap in that industry.⁵³ These activities may be successful in attracting temporary inhabitants, for instance workers developing a project or students following an educational programme and moving away.

7.4 Attraction of new functions

The urban regeneration projects initiated in Brest reinforced existing and new functions (port activities, marine science and energy, the blue economy) and thus are intended to contribute to the city's societal, cultural and economic importance in the broader region (Pays de Brest), nationally and internationally.

In the commercial port, the creation of office spaces, restaurants and cafés, as well as leisure and cultural functions such as the Castle's Port, La Carène and Le Fourneau have created a diversified offer of urban activities. Some of these activities may have alternatively been created elsewhere: La Carène in particular did not emerge as a result of the regeneration process but had been a wish by the city representatives for some time already. Office space also may have emerged elsewhere, but also more problematic is the fact that some of the offices opened simply moved existing activities in other parts of Brest, including its city centre and leaving a gap.

7.5 Preservation of the port and industrial heritage

In the commercial port, the relationship to the sea and the maritime and industrial heritage has been strongly reinforced with visual elements (e.g. the Grand Large building's mural painting), leisure activities (the Castle's Port marina, in particular), and the accessibility to the port and the water.

While activities of the commercial port have remained, some of the port's economic functions have moved eastward as a result of a combination of economic trends, the need for larger working spaces (warehouses, docks), and the regeneration process which impeded on available public space (e.g. parking) and available private space (e.g. real estate). There has not been evidence that the regeneration process contributed to ending industrial activities, however the sample of industry actors interviewed for the study was small (1 industry representative organization and 1 public industrial and commercial organisation).

⁵³<https://www.letelegramme.fr/finistere/brest/campus-des-industries-navales-l-association-officiellement-creee-12-12-2018-12160253.php>

The Capucins area was reconverted from heavy naval industrial infrastructure, however this past is maintained with the Capucins Workshops and the visual proximity to the Navy's other work sites in the surroundings. In this sense, the cultural heritage of the Capucins area is purposefully maintained and integrates the identity of the place. The relationship to the ocean is also supported by views from elevated spots (e.g. buildings, the aerial cable car, the Capucins Workshops) and by the establishment of marine science exhibitions and blue economy activities in the Capucins Workshops.

7.6 Urban qualities

As a result of flagship projects created in the Capucins area (the Capucins Workshops and the aerial cable car, in particular), the Capucins is seen almost unanimously by city actors as the most promising new place for developing the new living heart of Brest and its entire metropolitan area.

In the commercial port area, a strong prevailing car culture has not been mitigated with a competitive set of alternative options. More cars circulate and park in the commercial port area today than before, causing some tensions with industrial activities also present.

The Capucins area appears as a site for the city to experiment with different forms of mobility than the private car, as the development of the area is focused on public transport and active mobility access. The infrastructure signals the ambition to attract people inclined to walk, cycle, and use the tramway and aerial cable car. The huge space of the Capucins Workshops already and the aerial cable car attracts more visitors than expected. In 2017, about 356 000 aerial cable car trips were counted between April and September alone.⁵⁴

7.7 Environment

The large number of brownfields that were decontaminated and regenerated into new functions have reduced the amount of toxic wastes found in the commercial port area, with potential avoided negative impacts in terms of health.

7.8 The impact on identity

The identity of Brest is changing towards a reinforcement of its maritime heritage. This is clear in both the commercial port area and the Capucins. Industrial and military activities that have moved or disappeared are still reminded by new activities related to maritime and marine

⁵⁴ ADEUPa. (2017). TOURISME I PAYS DE BREST - BILAN DE LA SAISON TOURISTIQUE 2017.

knowledge, culture and education. The city has also increased its physical, visual and cultural proximity to the sea thanks to the regeneration process.

7.9 Conclusions on impacts

In conclusion, while it is likely that the urban regeneration process has increased the attractiveness of Brest for tourists and inhabitants, it is unclear but possible that population growth in Brest's peri-urban area is due to regeneration. Its flagship projects in the Capucins area have attracted attention nationwide and raised interest among the local population, and the city's maritime identity has strengthened with better access to the port and sea, and more economic activities related to the blue economy.

When compared to other small- and medium-sized cities in France, Brest shows stagnating but positive population and job growth rates which shows that it has been able to maintain a certain level of competitiveness. These effects however need to be observed over a longer period of time to be confirmed.

The case study shows that the commercial port area undoubtedly underwent important physical and economic changes while maintaining the area's industrial and maritime heritage. There is no long-term socio-economic trend data which can clearly be attributed to the regeneration process. In the absence of the regeneration process, it is possible that some port activities would have remained within the area rather than settle elsewhere, while urban activities may have developed in the city centre or at the periphery.

Concerning the Capucins area, this new space has represented a unique opportunity for large, innovative and sustainable flagship projects which today have become a core element of Brest's urban development strategy for the future. This said, the success of the area may be gauged on its ability to attract new residents and businesses without this occurring at the expense of other areas of Brest. Efforts to integrate sustainability practices in the urban fabric would also be dependent on the city's ability to introduce cleaner transport infrastructure in other areas to progressively encourage Brest citizens and visitors to travel throughout the city using public transport or active mobility.

8 Challenges, risks and drivers for change

8.1 Demography and population

In any redeveloping area, **the presence of residents is a driver to the growth of new urban activities and services, and at the same time residents need activities and services to want to settle**, creating a 'chicken or egg' situation. In the second half of the 19th century, the commercial port hosted over a thousand inhabitants, however this population decreased to about 300 by the 1980's.⁵⁵ At the time of the initial regeneration period (1980's), the question was therefore whether to try to recreate a residential quarter or a trade and services area. The latter option was chosen due to the difficulty in attracting population without creating amenities.

The attractiveness of the city is a driver for population growth. In the Capucins neighbourhood, larger opportunities were offered by the space left behind by the Navy and the possibility to shape a narrative around this historic neighbourhood, while creating attractive new activities in the Capucins Workshops which proved to be very successful. The creation of the eco-neighbourhood with smart city features and mixed uses seems to be a factor of attraction of new residents as housing has sold well according to city planners.

The 200,000 inhabitants in the Brest metropolitan area made it more difficult for Brest to establish as a métropole due to the national legal minimum of 400,000 inhabitants necessary to acquire the status, and is today still challenging Brest métropole in maintaining its status with potential consequences on the size of the métropole's budget (see also section 3.4).⁵⁶ In the past, the importance of Brest's marine science activities and the presence of the Navy have been a convincing argument for public actors to obtain Brest the status of metropole from the national government. This could change in the future by decision of the State, possibly forcing a slowing or reduction of the scope of urban planning and development ambitions by reducing national funding. Brest local elected officials have thus been actively seeking to integrate the broader Pays de Brest in the scope of the metropolitan area to reach the minimum population threshold, however this has so far not been successful.

⁵⁵ Source : interview with Brest métropole official.

⁵⁶ <https://www.letelegramme.fr/finistere/crozon/metropole-l-elargissement-comme-horizon-03-02-2018-11838278.php>

8.2 Environmental protection, risks and challenges

The regeneration projects in Brest have been constrained or concerned by various environmental risks and constraints which required environmental remediation, risk mitigation or environmental preservation measures to be taken. Land topography also presented challenges to develop innovative infrastructure.

The 20th century was an extremely active industrial period, also interrupted by wars. These activities have created an important risk related to the **presence of toxic industrial waste and of unexploded bombs**. These risks were found both on land on construction sites (one in the Capucins area) during redevelopment projects, as well as in the port's sediments. These risks necessitate safety measures to protect the population (creating safety zones, evacuating populations in case of explosion) and the environment when undertaking construction projects.

Current industrial activities also present **risks from the presence of installations in the commercial port listed under the SEVESO Directive**. These installations lead to necessary precautions to create a safe distance with residential and urban activities in the area.

Environmental protection has been a growing issue of policy and public concern, which has led to tightened EU and French regulations. This has not been a major concern in the regeneration process per se, however other types of projects have integrated the need to preserve **biodiversity**. The most important of these efforts is related to the creation of the marine renewable energy platform, which required constant monitoring of the risk of disturbing benthic sediments to avoid the sudden proliferation of an organism at the expense of other marine life. To mitigate this risk, marine works were only conducted in the cold season when the risk was lower and were closely monitored. Furthermore, the project has consulted and informed the public continuously to assure buy-in of local citizens.

Brest is increasingly recognizing the **risk of submersion from storms or from sea level rise** due to climate change. In order to mitigate the risk, local actors have been researching and mapping this risk over different scenarios and taking it into account in future planning.

The presence of two main **physical barriers** in the city of Brest: the Penfeld river and the cliff between the city centre (upper city) and the port (lower city). These constraints contribute to the preferred use of private vehicles to travel in Brest and have prevented the full integration of the commercial port area to the city, but have also led to some innovativeness from the Métropole with the creation of the aerial cable car over the Penfeld river to link Les Capucins to the city centre (a first in an urban environment in France), and the plans for the possible future creation of urban elevators on the cliff from the city centre to the port.

8.3 The planning processes, models and tools

Planning processes, models and tools can either be effective drivers of regeneration, supporting urban planners in their ambitions; or challenges if they appear ineffective.

Planning tools, including the 1994 Reference Plan for the commercial port and the concerted planning zone (ZAC) **provided direction and flexibility to urban development**. The absence of a precise plan (such as imposed by tools like master planning) allowed to respond to opportunities with agility and build a vision progressively and collaboratively. This said, the **planning did not anticipate issues of overcrowded parking space and highly motorized streets in the commercial port area**, where industrial and urban traffic intermix. Stakeholders have suggested this situation materialized due to insufficient planning at the time of the Reference Plan and due to political shyness to intervene. Measures to remedy the situation (more public transport and active mobility) are being considered as of 2019 but face the difficulty of having to overcome the geographical barrier of the cliff between the Upper City and the commercial port and the political risk of trying to change citizens' travel habits mainly centered around the private car.

The success of the development process can however also be mainly credited to the **strong consensus between stakeholders on the desired outcomes, their good knowledge of the local context, and readiness to collaborate**. This is linked by stakeholders to cultural tendency in Brest (and Brittany at large) to maintain unity and mobilise for local interests towards external stakeholders (the State in particular) due to the region's rather isolated location in the country.

The **integration of economic and urban functions** was both a challenge and a risk due to conflicting interests in land use. Both forms of activities (economic and urban) were at times perceived as incompatible in the eyes of, on the one hand, citizens wanting to enjoy the port as a place of leisure or residence; and on the other, of workers engaged in the port's economic activities. For citizens and visitors, industry could be seen as noisy and polluting which leads to considerations in the placement of urban activities with regards to existing industrial activities. For workers, visitors are perceived to hinder economic activities due to their circulation (on foot or by car) and the use of limited parking space, which was said by stakeholders to have contributed to pushing economic activities away (in addition to other more economic reasons, such as available space equipment more generally). These issues also create tension with the objective to maintain the cultural importance of the port industrial heritage and have been difficult to address as activities tend to continue mixing. Further planning documentation aim to further distinguish zones for the development of urban activities on the one hand and port activities on the other.

Tensions subsist between Brest métropole' and real estate developers' ambitions to build according to their visions and the objective to preserve Brest's architectural

heritage and the views from the upper city onto the port and the sea. In order to maintain this heritage and balance the objectives, public actors have been collaborating with French Building Architects who contribute to and approve the projects. **These intentions are further set in stone in architectural regulations from the ZPPAUP/AVAP** e.g. on the height of buildings and monitored by other services of the Métropole.

8.4 The role of public policy and governance

The public sector in Brest had a very strong role in driving the regeneration process due to public actors' will, their ability to collaborate and define a common vision for urban regeneration, and access to many planning tools as previously described. Brest métropole has been the common denominator of all governance processes in the city, shaping planning processes and tools in the city, convening stakeholders, attracting public and private financing for projects.

One key approach of the Métropole has been the **creation of semi-public satellite organisations** managing real estate development processes (the SEMs, or semi-public companies, i.e. BMA in the ZAC of the commercial port and SEMPI). These SEMs identified investment opportunities, handled the administrative process of acquiring land, negotiated with investors, and worked with contractors to prepare and develop projects (including brownfield decontamination and construction). Their pivotal role was in carrying the risks of their operations, thus alleviating the burden of risk on the City and the private sector. Indeed, the private sector was not a driver of change but rather reacting to the supply of development opportunities created by the SEMs.

The **transfer of ownership of the port from the State to the Region** in 2007 has created opportunities for Brest, as the Region has shown more willingness to invest where the State had remained largely inactive. In 2010, the Region started by elaborating a strategy for Brittany's commercial ports.⁵⁷ The implementation of this strategy has recently led to the initiation of the €220 million marine renewable energy project on a disused polder described above in section 5.2.2, and which is likely to impact Brest at least economically, in terms of sustainability innovation and adding to the portfolio of Brest's marine technological expertise. The Region also contributed to the financing of new premises for various social services and associations dedicated to maritime workers.

The regeneration process has been exposed to **political risks** as some projects were exposed to criticism related to various development choices and their financial cost from political parties, citizens and port economic actors. Ambitions were realized thanks to the strong political will of the public sector to go forward with the vision and to support the existing cultural and industrial

⁵⁷ https://ports.bretagne.bzh/jcms/c_12468/fr/une-strategie-pour-les-ports

heritage, aided by robust governance and financing structures, strong political cohesion and an inclusive stakeholder process. This reduced the risk and made it controllable.

8.5 The involvement of citizens

Citizens involvement has been less important in early phases, which rather involved institutional actors, the private sector and urban planning experts and architects, than in more recent projects. While large projects are normally subjected to a Declaration of Public Interest procedure which involved public consultation, local actors including citizen representatives themselves have recognized in interviews the **difficulty involving citizens due to the lack of participatory culture** in development processes in Brest. However, the recent experience have shown that the organization of **public participation could yield positive results** in the creation of public furniture near the Capucins Workshops on the one hand, and driving up concerns and actions to preserve biodiversity in the marine renewable energy project on the other while creating new spaces for recreation subjected to public opinion. Citizen participation took place at the planning stage and in early stages of works, taking the shape of in public debates and information sessions or online surveys to inform citizens and learn about their expectations, and direct citizen participation to construction to enable appropriation of new public space (in the Capucins Workshops). Public consultation is now systematically integrated in planning processes in Brest, and the municipality and Métropole have set up an online platform to facilitate consultation.⁵⁸

Despite the sometimes rather passive role in development processes, **citizens have demonstrated their interest and enthusiasm in seeing the city regenerate and integrating the port and sea into urban life**. Citizens attendance and visits to new urban and recreational places in the commercial port and the Capucins area however testify the approval of citizens.

8.6 Funding opportunities and initiatives

Funding for the regeneration process has been managed with agility thanks to a **governance set up allowing to distribute financial risks to satellite organisations** (the semi-public organisations) with dedicated finances able to take financial risks where private investors were less inclined, therefore **mitigating these risks for Brest métropole's budget**.

In addition, Brest métropole has been **able to attract funding from higher administrative levels** by dedicating personnel to positioning the city towards various funding programmes at national and European level in particular.

⁵⁸ <https://jeparticipe.brest.fr/>

Furthermore, the **status of ZAC in the commercial port area has meant that landowners had to pay a ‘planning tax’ on their real estate projects**, which allowed the public sector to raise money for regeneration of the area’s public infrastructure (roads, sidewalks, etc.).

8.7 Impacts of incentives, catalyst developments, and synergies

Pilot projects and events in the commercial port area were significant catalysts of regeneration in Brest. Since the 1980’s, the area of the commercial port has attracted visitors on a regular basis thanks to regular cultural activities, especially in the touristic season. The Maritime Festival and the Port’s Thursdays contributed to re-appropriating the port area to Brest’s citizens and reinforcing the city’s maritime identity. Around the same period, the creation of Le Fourneau and the repurposing of the Grand Large building into offices in 1986 triggered the regeneration process formalized by the Reference Plan and following planning documents, as explained in section 5.2.2. These projects demonstrated the feasibility of the process and model for regeneration based on public intervention and supported the creation of the ZAC in the following decade (in 1994).

8.8 Conclusion on main drivers and challenges

In conclusion, the regeneration process in Brest was driven by a consensus among local actors around the need to regenerate Brest and strengthen the city’s maritime identity. The vision was pushed mainly by the strong political will of local public actors and could be realised thanks to their ability to gather around the project and mobilise funding across different government levels. These projects further attracted private sector investments, and sometimes involved citizen participation in decision-making processes (especially in the Capucins area). Planning agility, both in terms of planning documents and in the creation of autonomous satellite organisations also facilitated the change process. The cultural heritage of Brest’s port was also a significant driver for attracting businesses.

Challenges to regeneration relate mainly to the difficulty in creating a coherent fabric of activities, leading to some land use conflicts between maritime economic activities and other activities in the commercial port area (leisure, culture, service sector). Brest is also challenged by its topography, including the cliff separating the city centre from the commercial port area, and the Penfeld river separating the Capucins area from the city centre. These natural barriers have posed significant challenges to creating transport options, however the city is able to innovate to overcome these barriers with different public transport options. In the commercial port, transport remains an issue due travellers’ preference for using private vehicles, which clutters parking space and further slows the introduction of public transport and active mobility infrastructure. The Capucins area has effectively attracted population, however it appears more

difficult to attract businesses due to the novelty of the area and choices made towards mobility infrastructure based on public transport and active mobility.

9 Conclusion and lessons learned

The regeneration process in Brest has been ongoing in the commercial port area for almost forty years and has led to very significant improvements in the urban qualities of the city, starting with the introduction of cultural spaces, events and a pilot renovation project in the early 1980's and 1990's which facilitated the cultural reintegration of the port into the city.

Challenges to regeneration included ownership patterns in the port area (the State and private sector on the one hand, and the Navy on the other). The process was handled with agility by the public sector via a governance system characterised by the use of satellite organisations (SEMs, or semi-public organisations) operating with financial independence from the métropole, thus mitigating risks to the métropole's budget. The SEMs redeveloped plots of land in the commercial port (brownfields), which allowed to reduce the risk to the métropole and share the risk with the private sector, attracting their investments. Without the support and promotion by these satellite organisations, the private sector may not have invested as rapidly, and the regeneration process may not have occurred. The publicly-led regeneration process formalised in the commercial port by the Reference Plan in 1994 steadily led to the regeneration of brownfields on a case-by-case basis through land ownership transfers, contributing to Brest's commercial port's enhanced attractiveness for visitors and (mainly service sector) businesses.

Regeneration occurred thanks to strong consensus around the need to act among local actors and the political class. The vision remained sufficiently loose to enable for opportunities to be seized, such that the outcomes were shaped during the regeneration process and in line with the offer from private developers. As developments resulted from the negotiation between public planners and the private sector, the outcomes were sometimes unexpected. This concerns in particular the creation of service sector office space and housing in the commercial port where port activities were expected to develop. The integration of urban functions and activities (culture, leisure) has in some cases created frictions with industrial activities with regard to land use, local transport and parking. Furthermore, the creation of new office space has also led to moving activities away from the city centre, which, together with other factors, contributed to the urban decline of some areas of the centre.

The symbolic value of Brest's port and relationship with the ocean was a driver of the regeneration process. Cultural events such as the Maritime Festival and artistic projects like the Grand Large's mural painting are strong cultural symbols of this relationship between the city and maritime culture, and new economic actors showed interest in settling in the commercial port due to the interest in its cultural identity. What is more, the city's attachment to the sea was also aimed to be reinforced through the regeneration process, as evidenced by the creation of new economic, cultural and educational functions in the Capucins Workshops related to the blue economy, marine science and naval industries.

Citizens were mostly not involved in the regeneration process apart from during the development of the Capucins area, which was subject of some public involvement in contributing to public debates on the regeneration vision and the construction of public furniture.

Lessons learned:

The chosen regeneration approach, including the governance set-up, determines the implementation of the regeneration vision and alter its outcomes. In the case of Brest, the choice of attributing the task of regenerating brownfields to a satellite organisation of the city with budgetary imperatives has led to some unexpected developments also due to market forces. Where city stakeholders favour a flexible approach to regeneration, cities can choose to opt for such governance models. However, if a vision is aimed to be implemented strictly according to plan, stronger oversight over the regeneration process (possibly under the leadership of the municipality itself or a comity of stakeholders) is needed.

The attraction of public funding to finance projects can result from dedicated efforts from the local public sector. Brest has shown that, in a country like France where multiple funding sources are available at higher levels of governance (regional, national, EU), it was able to effectively attract and combine funding sources for its regeneration projects.

In cities where private sector investments for regeneration are scarce, strong public sector leadership facilitating the preparation and management of regeneration projects can help attract private investments. In Brest, important public sector involvement in the initial acquisition projects, decontamination and promotion of land parcels in the commercial port of Brest has successfully attracted private sector interest where it was previously thought unfeasible to invest.

The attraction of businesses and inhabitants in regenerated areas occurred at the expense of other areas of the city, by simply moving businesses and inhabitants rather than attracting them from farther areas. Efforts to consider the wider impacts of redevelopments are already engaged by Brest metropole, our recommendation is for the city to continue taking this risk into consideration in the planning of future projects though integrated city planning.

The regeneration process has occurred in the absence of a clear monitoring and evaluation framework of indicators on the social, economic and environmental impacts of regeneration projects. Monitoring and evaluation can help draw the lessons of individual projects and regeneration programmes as a whole in their contribution to the socio-economic trends in Brest and its wider region.

Considering the urban sprawling trend observed within and beyond Brest metropole and into the wider Pays de Brest, the metropole could further aim at targeting and retaining in the regenerated areas those residents with a profile matching household typically found in peri-urban areas to slow down sprawling. This may be a balancing exercise considering the other trend observed that many citizens, particularly young people, tend to live in the city for short

periods and eventually set up elsewhere (e.g. after their studies). Efforts to define the new 'Heart of the metropole' should hopefully contribute to this goal.

Brest faces challenges regarding the creation of public transport services and active mobility infrastructure. Planning and political efforts engaged to improve alternatives to the private car should continue in order to encourage a modal shift to sustainable mobility.

As observed in the commercial port area, the development of urban activities can irritate local port activities. The development of urban activities in traditionally commercial or industrial areas should be conducted in logic and consultation with stakeholders from the sectors that may be impacted to enhance synergies where possible and mitigate land use conflicts.

Topics of future research:

Based on the observations made in the regeneration process of the city of Brest, future research could contribute to more effective regeneration processes by investigating the displacement effect of new residential and commercial spaces, attracting citizens and businesses from other areas of the same city and therefore contributing to decline in other areas, rather than contributing to urban densification where urban sprawl is an issue.

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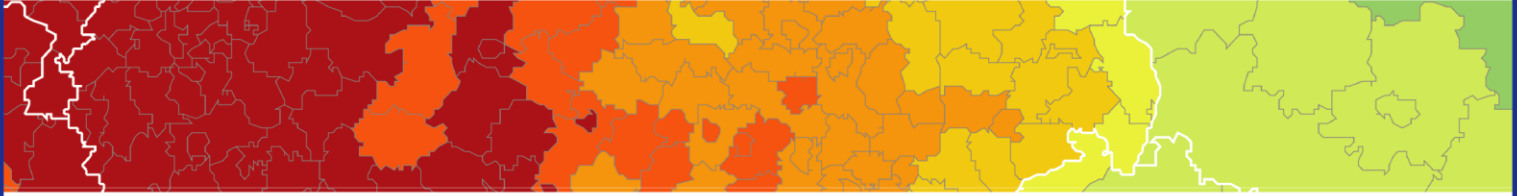
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ISBN: 978-99959-55-35-9

ESPON 2020 – More information

ESPON EGTC

4 rue Erasme, L-1468 Luxembourg - Grand Duchy of Luxembourg

Phone: +352 20 600 280

Email: info@espon.eu

www.espon.eu, [Twitter](#), [LinkedIn](#), [YouTube](#)

The ESPON EGTC is the Single Beneficiary of the ESPON 2020 Cooperation Programme. The Single Operation within the programme is implemented by the ESPON EGTC and co-financed by the European Regional Development Fund, the EU Member States and the Partner States, Iceland, Liechtenstein, Norway and Switzerland.