Study on living conditions and access to selected basic needs

Final report

ECORYS
Answering tomorrow's challenges today

Ecorys
January – 2024

EUROPEAN COMMISSION

Directorate-General for Regional and Urban Policy
Directorate A – Budget, Communication and General Affairs
Unit A.1 – Outermost regions

Contact: Paula Duarte Gaspar

E-mail: REGIO-A1-RUP@ec.europa.eu

European Commission
B-1049 Brussels

Study on living conditions and access to selected basic needs

Final report

Directorate-General for Regional and Urban Policy

2024

EN

Manuscript completed in January 2024

1st edition

Luxembourg: Publications Office of the European Union, 2024

PDF ISBN 978-92-68-11899-3 doi: 10.2776/185784 KN-05-24-084-EN-N

Table of Contents

Executive Summary

The present study supports the implementation of the 2022 Communication "Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU's outermost regions". As part of this communication, the European Commission encourages the Outermost Regions (OR) and their respective Member States to ensure access to a range of basic needs, including, amongst others, adequate housing, drinking water and sanitation, electricity, cooling and heating, and connectivity (internet and telephone networks).

The objective of this study is to **provide a snapshot of the situation regarding access to these four basic needs across the outermost regions and the infrastructure in place for this purpose. The study further aims to identify key trends over time and remaining needs**.

The first part of the study analyses access to these **four basic needs** in all outermost regions, while the second part analyses the **two most challenging basic needs** identified in each outermost region through regional fiches. Based on these findings, the study develops a set of recommendations to support closing the gap in living conditions between the outermost regions and the continental territory of their respective Member States and the rest of the EU.

Using a wide range of sources of information, the first part of the study provides **key identified indicators** for the four basic needs in all the OR. This **quantitative information** is complemented by **qualitative insights** gained through stakeholder consultations and desk research of key European, national, and regional documents (including studies, evaluations, national and regional strategies and action plans covering each of the four analysed basic needs).

The second part of the study draws on the core findings and the quantitative analysis of the first part, complemented by information gathered through **stakeholder consultations and additional desk research** on regional and local policies, studies and reports produced by relevant regional public and private organisations related to the two basic needs identified for each OR.

The study is subject to **methodological limitations** concerning limited data availability for certain regions and basic needs. The difficulties in accessing data for Saint Martin, and, to a lesser extent, Mayotte, are worth noting. Nonetheless, this limitation has been partially overcome by employing additional qualitative information from extensive desk research and stakeholder consultations.

The **main takeaways and recommendations** in relation to access and infrastructure of the four basic needs across the OR are summarised below.

KEY AREA 1: ADEQUATE HOUSING

Overall, **all OR face challenges in relation to adequate housing and affordability.** Housing prices have increased in the OR while the purchasing power of their citizens remains below the national level, resulting in lower homeownership rates. A **lack of social housing to meet the growing demand can be observed across all the OR**. Additionally, an increasing **demographic pressure** stemming from population growth and migration, particularly acute in **Mayotte, the Canary Islands and French Guiana**, exacerbates the existing challenges in these regions, including **high over-occupation rates** of dwellings.

Consequently, targeted responses are needed, such as **increasing the social and affordable housing offer,** particularly in areas with specific constraints. Increasing the social housing supply is likely to reduce housing prices, ensuring access to adequate housing for a greater share of the population.

Promoting **adequate relocation from temporary and unsafe settlements** has also been identified as a key need, particularly in **Mayotte and French Guiana**. Further action is needed to facilitate access to permanent housing, such as promoting access to land, resources and building materials. Additional efforts to raise awareness of existing housing support programmes available to low-income households would be important (i.e. social housing, subsidies for home improvement, etc.).

With regard to **housing infrastructure**, there is a positive trend concerning the prevalence of solid houses, as evidenced by decreasing rates of fragile constructions. However, the **connection to the sewerage system remains a challenge in all the French OR,** which indicates the need for further investments towards the **development of extended sewerage.**

The **lack of land** suitable for developing construction projects, mainly due to geographical constraints, remains a key barrier to increasing the housing stock across all the French OR. **The lack of appropriate air conditioning and energy-efficient infrastructure** continues to be challenging in the **Portuguese OR** and the **Canary Islands**. In addition, the **Azores** would benefit from **rehabilitating the existing housing stock** to ensure that the infrastructure is adequate, pointing to the need for further investments in this regard.

In **Réunion, Guadeloupe and French Guiana**, the **regulations and practices related to construction** currently in place are not entirely adapted to their local specificities. In this regard, there is a need to identify concrete regulatory aspects that are possibly deterring construction. Fostering circular economy actions could also be beneficial to reduce the environmental footprint of the construction sector and the costs of importing materials from mainland Europe.

Most of the outermost regions are particularly **vulnerable to natural hazards** which requires the promotion of climate adaptation and mitigation measures, as well as the use of climate-proof and resilient materials for housing.

KEY AREA 2: DRINKING WATER AND SANITATION

Access to drinking water has been identified as a crucial need for most of the French OR. This is specifically the case in **Mayotte** which is currently facing its **most severe water crisis** of the last decades. **Unequal water consumption** represents an important barrier in French Guiana[1] while **water affordability** is a common challenge across all the OR, in the light of the rising water prices during the period of this analysis[2]. Consequently, various actions[3] would be needed to address these needs. Data shows that **water quality** has improved across all the OR, apart from Mayotte, French Guiana and Réunion.

Improving access to drinking water remains a challenge in the French OR, particularly in **Mayotte**. In relation to **water consumption,** the need to mobilise investments is crucial

[1] It refers to different levels of access to water in the region. The main challenge is to increase access to water in the interior of the region, as most of the population is on the coast. Source: Interview with regional stakeholders from French Guiana.

[2] The period of analysis differs among the OR. French OR: 2014-2020. French Guiana and Saint Martin were the exceptions, where available data goes from 2016 to 2019 and from 2021 to 2022, respectively. Portuguese OR: 2021-2022 and the Canary Islands from 2010 to 2020.

[3] In the case of French Guiana, developing a strategic plan to provide access to water in isolated communities would be beneficial. In relation to water affordability, it would be positive to invest in smart water metres.

to ensure a fair and equal distribution of drinking water supply across the regions, including in isolated communities. Regarding **water affordability, investing in smart water metres** could support reducing water leaks and, consequently, final consumption and water bills.

In terms of **sanitation**, one of the remaining challenges is to improve the processes of water purification to guarantee access to drinking water and improve wastewater infrastructure across all the OR. There is a need to continue improving water quality, particularly by decontaminating watercourses which are subject to different types of pollution[4]. As such, it is important to develop environmental rehabilitation measures to restore areas affected by water pollution and additional mechanisms to detect factors negatively impacting water quality.

Data shows that the existence of **outdated facilities** has led to an increase in **service interruptions** and the level of **water losses. While scarce water resources** have led to a situation in which higher amounts of water would need to be reused, this is not always the case. For example, in the **Canary Islands,** the volume of **reused water** has decreased[5]. Another key finding has been the **need to build climate-resilient water infrastructure** in the OR, especially in the **Portuguese OR**[6].

In this context, it would be beneficial to focus on **expanding existing water infrastructure.** This includes assessing the condition of the existing infrastructure and carrying out the necessary repairs. **Higher amounts of investment as well as research** on different **construction materials** would reduce **service water interruptions** as well as **water leaks and losses** and consequently improve networks' efficiency. Identifying and promoting the use of **alternative water sources**[7] could contribute to ensuring a fair distribution and reliability of water supply across the territories. At the same time, there is a need to invest in **modernising storage** infrastructures and increasing the number of **storm tanks**[8]**.** Setting up and enhancing **interconnections** between existing water networks and storage facilities would allow the mobilisation of different resources and compensate for shortages. It would also be beneficial to focus on increasing the amount of **water reused, by investing in new and/or alternative technical solutions.** Finally, infrastructure should focus on **risk prevention and mitigation** to avoid the negative impacts of climate change on water infrastructure.

KEY AREA 3: ELECTRICITY, COOLING AND HEATING

Despite progress made, access to this basic need is not yet fully rolled out across all the OR. Access to electricity seems to remain stable in the **Canary Islands**, **the Azores** and **Madeira** (recording almost universal access), while the **French OR** show progressive advancements towards reaching universal access. **Annual electricity consumption** has

[4] This is the case of chlordecone contamination in Martinique or mercury pollution from alluvial gold mining activities in French Guiana.

[5] There is no available data in the case of the French and Portuguese OR. However, according to Water Reuse Europe, in 2019 France reused only about 1% of its wastewater resources, a much lower percentage than that registered in neighbouring countries such as Spain, according to the same source (https://www.water-reuse-europe.org/france-triple-water-reuse/#page-content). In the case of Portugal, the aim is to reuse 10% in 2025 and 20% in 2030, according to SUWANU Europe.

[6] This is a key need in the official documents consulted (i.e., https://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/rup-2022/comm-rup-2022-glance_en.pdf) Nonetheless, all the rest of the OR, e.g. Caribbean area, are also vulnerable to climate change and its consequences. In general terms, the intensification of adverse weather conditions due to climate change impacts water resources and their use. https://www.apambiente.pt/sites/default/files/_Agua/DRH/Licenciamento/ApR/Artigo_Water_reuse_trends_in_PT_WaterCycle.pdf

[7] Such as seawater through desalination, groundwater, rainwater recovery, and reused treated wastewater.

[8] They are used to capture and store rainwater temporarily. https://www.nationalstoragetank.com/industries/storm-water-management/

declined over the 2010-2021 period, but the OR have experienced in the last decade an increase in the final consumption of electricity in households. This increase is aggravated by the surge in energy prices, which have increased at a higher rate than the income of households, placing an important constraint on their economic stability. Addressing this imbalance is particularly important in the transition towards a greener energy system. Data shows that all OR have increased the **total production of energy from renewable sources.** In terms of **heating and cooling,** data shows that air-conditioned rooms in the **French OR** have become increasingly prevalent, while dwellings in the **Canary Islands** are struggling to maintain an adequate temperature, due to the recorded increase in temperature in recent years[9].

The size of the electricity infrastructure has been expanded across all regions, with additional tension lines and poles, as well as connection points for data consumption. Such infrastructure improvements translate into fewer service interruptions and a more reliable grid network. However, in some regions such as the **Canary Islands**, recent events such as power outages have proven that the age and the overall condition of the grid infrastructure are not optimal. In order to support the progress made in ensuring adequate access, **further renovations and frequent maintenance of power plants are needed**.

To **better understand energy needs and further analyse access conditions** across the OR, monitoring mechanisms could be put in place. In addition, to close the existing gap between soaring energy prices and households' income, **energy efficiency programmes** can be developed to support and reinforce the financial capacity of households. This could help low-income households reduce their energy bills through diverse subsidies, hence mitigating the potential increase in energy poverty rates across the population. In addition, these programmes could raise awareness of energy efficiency, equipping individuals with knowledge and training to foster efficiency improvements. Increasing difficulties in maintaining an adequate temperature in dwellings can also be addressed by allocating more resources to the **promotion of energy efficiency measures in buildings and constructions** (including, for instance, the insulation of walls).

Insularity and the lack of interconnections between islands can hamper the stability of the electricity system. As such, the **promotion of policies and investments to strengthen the stability of insular systems** can contribute to its long-term sustainability. As such, the allocation of further resources to the creation, renovation and further maintenance and monitoring of grid infrastructure is recommended as a means to strengthen the stability of the insular grids.

KEY AREA 4: INTERNET AND TELEPHONE NETWORKS

The study shows significant differences within the OR. In the **French OR**, access to (high-speed) internet and its regular usage remains well below the national average despite a considerable reduction of the gap with the French mainland in recent years. As regards access to telephone networks, the indicators show a stable development of both landline and mobile phone connections, with some OR above and others below the French average. In the case of the **Portuguese and Spanish OR**, access to the internet and telephone is far closer to the respective national averages. The OR show better results than the mainland under some indicators such as the share of households with internet access.

For the French OR, these findings suggest that a continuation of current efforts would help to maintain the trend of increasing internet access rates. To reach more

[9] https://www.eldiario.es/canariasahora/tiempo-canarias/futuro-climatico-canarias-seis-grados-lluvia-75-aridez_1_10744903.html

remote areas, mobile networks may act as a substitute for (high-speed) broadband connections. For the **Portuguese and Spanish OR**, the focus may be placed on reaching the remaining share of the population (e.g. through better coverage of remote areas and digital skills development), ensuring that everybody has access to internet and telephone services.

Concerning the **infrastructure for internet and telephone,** in all the **French OR** the share of households with access to high-speed fibre connections remains low (except for Réunion) but has been rising quickly over the last years. Nonetheless, all the French OR (including Réunion) have stagnating download speeds (domestic and mobile) far below the national average. In the case of the **Portuguese OR**, mobile download speeds are far higher than in the mainland. Nonetheless, their internet connections are dependent on submarine cables, connecting the islands to each other and to mainland Europe, whose lifespans are ending in the coming years. For the **Canary Islands**, the infrastructure of mobile networks is similar to the mainland in the case of 4G, but the deployment of 5G is slower compared to the mainland.

In the case of the **French OR, stagnating download speed rates suggest that additional efforts for expansion and modernisation of the infrastructure**, including upgrading submarine cable connections, especially for Réunion[10], are needed to prevent the gap with the mainland from widening. For the **Portuguese OR**, a **timely replacement of the submarine cables** between the islands and the continent is needed to ensure a continued and stable internet connection in the OR. In the case of the **Canary Islands**, an additional focus on **increasing the coverage of 5G networks** would ensure that the islands continue to have a high level of internet infrastructure and are prepared for upcoming technological changes.

CONCLUSION

Overall, **promising trends have been observed in recent years in the outermost regions in relation to the four basic needs analysed in this study.** However, due to their specificities, varying needs and contexts, the OR are lagging behind in certain areas, which vary from one outermost region to another. EU support, in particular from the European Regional Development Fund (ERDF), and national support have played a key role in fostering such developments.

On **access to adequate housing and drinking water**, to reach national and EU levels, this study recommends placing **particular emphasis on affordability and providing general and equal access to those services**. The main gaps identified in relation to **housing infrastructure** refer to the **connection to the sewerage system** in the French OR. In the case of the **Azores, Madeira, and the Canary Islands**, a key challenge is to improve **air conditioning and energy efficiency in infrastructure**. The **water infrastructure** needs to be improved in all the OR, as water facilities are outdated and there is a need to build climate-resilient infrastructure.

Data analysed on access to **electricity, cooling, and heating** show that, despite advancements and increased levels of access, some OR still need to devote further efforts to **guarantee universal access, as well as to better monitor the maintenance conditions of grid infrastructure.** With regards to **access to electricity, cooling, and heating as well as connectivity,** it is recommended to **consolidate and continue progress** as in the past years.

[10] See section 2.4.3.

Regarding digital **connectivity**, additional efforts to **expand and modernise infrastructure** are necessary. In general, it would be beneficial to consider **dedicating efforts to research, innovation, and new methods to improve, expand and modernise current infrastructure in the OR.**

While carrying out this study, positive trends and good practice examples have been observed, with the potential to be replicated in other regions, offering useful insights for any future initiative in this regard. The constraints and unique geographical and socio-economic characteristics of the OR, as recognised in **Article 349 TFEU**, are evidenced by the findings presented in this study. There is a need for specific measures in the OR that aim at **guaranteeing citizens' access to basic needs in these regions.**

1. Introduction

The European Union has **nine outermost regions**. These islands, archipelagos, and one land territory are located thousands of kilometres away from the European continent, in the Macaronesia basin, the Caribbean-South American basin and the Southwest Indian Ocean basin and are home to approximately **4.8 million European Union citizens**[11].

The Outermost Regions (OR) are quite heterogeneous. However, specific structural constraints associated with their remoteness, insularity, small size, difficult topography and climate and economic dependence on a few products are common to all OR, as recognised by **Article 349 of the Treaty on the Functioning of the European Union**[12]. The Treaty provides for specific measures to support the outermost regions, including the tailored application of EU law in these regions and access to EU programmes.

To support the OR, in May 2022, the Commission adopted the Communication "**Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU's outermost regions"**[13]. The Communication presents the priorities for EU action to foster OR development, as well as recommendations for action by the OR and by their respective Member State. The Communication recognises that the OR represent **a major asset** for the EU and aims to help improve living conditions for people in the outermost regions, ensure people's quality of life, and tackle poverty, including, among others, **access to adequate housing, drinking water and sanitation, electricity, cooling and heating and internet and telephone networks.**

Over the past decade, several regions have featured high levels of unemployment, and gross domestic product (GDP) significantly below EU and national averages. The communication acknowledges these regions' **vulnerability** concerning basic needs, aggravated by the COVID-19 crisis as well as the food and energy crises resulting from the Russian invasion of Ukraine.

Some of these regions still lack access to drinking water, adequate housing, electricity and internet. In general, the OR tend to have lower employment rates, and higher unemployment rates than the national averages of their respective Member States, paired with lower levels of educational attainment and higher rates of early leavers from education and training[14].

In some cases, inadequate access to the above-mentioned basic needs can be linked to either insufficient quality or coverage of infrastructure or to their high cost (making them unaffordable for households) or because infrastructure is physically inaccessible. Consequently, access levels vary across regions, across population subgroups (e.g., between people with higher and lower incomes), and between urban and rural households.

Access to adequate housing is a core need for human society[15] and it presents different challenges for several OR. Some of these regions have been experiencing an increase of

[11]European Commission (2022). EU Outermost Regions. Available at: https://ec.europa.eu/regional_policy/policy/themes/outermost-regions_en

[12] Eur-lex (2023). Treaty on the functioning of the European Union. Available at: https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=celex%3A12012E%2FTXT

[13] https://ec.europa.eu/regional_policy/information-sources/publications/communications/2022/putting-people-first-securing-sustainable-and-inclusive-growth-unlocking-the-potential-of-the-eu-s-outermost-regions_en

[14] For an overview of statistics on the OR, please see "Outermost Regions at a glance", European Commission (2022), available at: https://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/rup-2022/comm-rup-2022-glance_en.pdf

[15] https://unhabitat.org/priorities-2022-2023-adequate-housing-cities-and-climate-change-and-localising-the-sustainable

informal settlements throughout the 20th and 21st century which puts pressure on the housing sector, particularly in the French OR. The offer of social housing has been evidenced as insufficient across all the OR. In particular, 15% of households in the French OR are social housing while 80% of the population is eligible for such social housing. In addition, in the Portuguese OR and the Canary Islands, the housing infrastructure is not always climate-resilient or adapted to the specific needs of each region, a challenge that is amplified by the risks posed by climate change.

In terms of **access to drinking water and sanitation**, some of the OR regularly face water cuts[16], lack proper infrastructure and face inequality in terms of access[17]. There are also concerns about the presence of chlordecone in the water consumed in some French OR, which poses risks to public health. In Mayotte, for example, it is estimated that the health risks associated with water supply (water-borne diseases, gastroenteritis, or diarrhoea) affect 7,300 inhabitants (which is more than 2% of the population). Moreover, in Mayotte, one third of households have no access to running water[18] and the region faces limited water availability[19]. In fact, Mayotte is experiencing the most severe water crisis of the last few years, with severe water cuts affecting the population.

Another important dimension of adequate living conditions is **access to electricity, cooling, and heating**. None of the OR's electricity networks are connected to the European grid and the current generation system is mainly based on traditional fossil fuels. Therefore, the islands are strongly dependent on fuel imports, with high costs due to long-distance transport and logistics. Furthermore, due to the inadequate coverage of residential heating and cooling needs, the per capita energy consumption is below the respective national averages[20]. For example, in the Azores, in 2018, fossil sources were responsible for 63.4% of electricity production[21]. Additionally, rising energy prices are generally putting more people at risk of energy poverty in the OR.

In the area of **connectivity,** i.e. access to internet and telephone networks, the OR seem to be closer to the EU and national averages, though with major differences from one OR to another. In some cases, especially in the French OR, access to the internet as well as the infrastructure quality and speed is far below the national averages, including areas with limited, slow, or inexistent internet and telephone coverage. These circumstances create challenges for remote working, home-schooling, the provision of digital public services, as well as connection to and communication with mainland Europe. Moreover, some OR rely on outdated submarine cables, while others struggle with costly infrastructure, requiring public action to maintain stable and continuous connections[22].

[16] Water cuts denote total or partial interruptions of water distribution services, scheduled by communes in Guadeloupe, Mayotte and Martinique, also known as 'water turns' ('tours d'eau' in French).

[17] Conseil économique, social and environnemental (2022). La gestion de l'eau et de l'assainissement dans les outre-mer. Available at: https://medias.vie-publique.fr/data_storage_s3/rapport/pdf/286976.pdf

[18] Insee (2019). Analyses Mayotte Évolution des conditions de logement à Mayotte. Available at: https://www.insee.fr/fr/statistiques/4202864

[19] Interview with a regional stakeholder from France.

[20] Frontiers (2021). Supporting the sustainable energy transition in the Canary Islands: simulation and optimization of multiple energy systems layouts and economic scenarios. Available at: https://www.frontiersin.org/articles/10.3389/frsc.2021.685525/full

[21] Diario de Noticias (2018). Fontes fosseis reponsaveis por 63,4% da energie electrica nos Acores. Available at: https://www.dn.pt/lusa/fontes-fosseis-responsaveis-por-634-da-energia-eletrica-nos-acores-9121046.html

[22]European Commission (2022). Study on the impact of COVID-19 on the Outermost Regions. Available at: https://op.europa.eu/en/publication-detail/-/publication/2216604f-7420-11ec-9136-01aa75ed71a1/language-en

To help address people's basic needs and contribute to closing the gaps in living conditions between continental Europe and these regions, DG REGIO commissioned this study which aims to:

- Provide a general overview of access to adequate housing, drinking water and sanitation, electricity, cooling and heating, internet and telephone networks, for citizens in the OR, as well as the infrastructure in place.
- Prepare a tailored analysis of two basic needs selected for each OR.
- Develop recommendations on how to close the gaps between the OR and mainland Europe.

The study is divided into two parts. The first part analyses access to adequate housing; drinking water and sanitation; electricity, cooling, and heating; and internet and telephone networks in all outermost regions, including recent trends, and the related infrastructure in place. The second part analyses the two most challenging basic needs in each outermost region, presenting a regional fiche per outermost region.

2. Overview analysis of the selected basic needs in all outermost regions

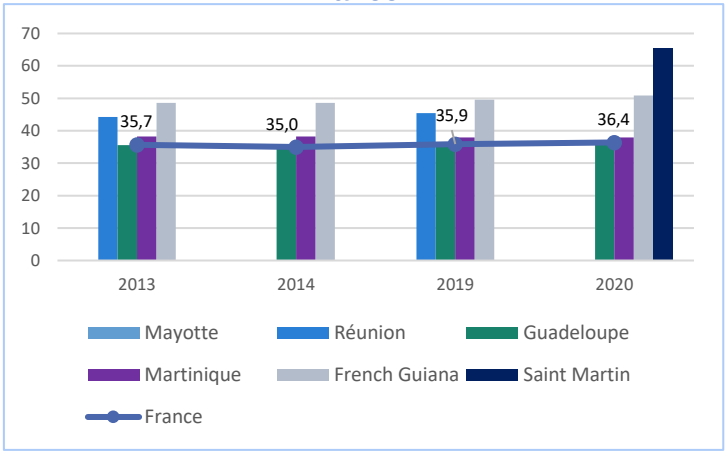
This part of the study provides an overview analysis of the four basic needs in the nine OR, their current status and trends. It analyses the extent to which people in the OR have access to adequate housing; drinking water and sanitation; electricity, cooling, and heating; and internet and telephone networks. It also studies the similarities and differences across regions and how they compare to the respective Member States and to the EU averages. In addition, it analyses the extent to which adequate and reliable infrastructure is in place to provide access to these basic needs in the OR, as well as identifying what are the main infrastructure gaps and needs for further investment.

2.1. Adequate housing

Data has evidenced that all OR face key challenges in relation to access to adequate housing, particularly in terms of affordability. Nonetheless, difficulties and obstacles vary across regions. The French OR face greater difficulties due to overcrowding dwellings and an insufficient supply of social housing. In particular, French Guiana and Mayotte are witnessing strong demographic and urban growth as well as migratory pressure, posing greater challenges to adequate housing. The Portuguese OR and the Canary Islands, while also affected by affordability and social housing challenges, face lower constraints in terms of infrastructure.

2.1.1. Overall trends

Graph 1: Tenancy rate (%) in the French OR and France



The **French OR** face key challenges both in terms of access and infrastructure, with significant difficulties in the former. In 2017, the poverty rate was two to five times higher in the Overseas Departments and regions (*Départements et régions d'Outre-mer*) than in mainland France[23][24]. In 2021 all the French OR, except Martinique, had an average rent per square metre of living space above the French national average and a standard of living[25] below the national average, evidencing a challenge in relation to **affordability**. As a result, the **homeowner rates** have been decreasing over time, with the share of tenants above the national average, as illustrated in Graph 1. Another key trend identified in the French OR is that, despite a growing supply of **social housing**, demand continues to exceed supply, with 80% of the population being eligible for social housing[26].

In relation to **infrastructure**, all the French OR, except **Mayotte,** have experienced a decline in fragile and unsafe constructions[27] over the period 2009-2020. Mayotte experienced an increase in the share of houses made of metal sheets from 2012 to 2017, as a result of increasing migratory flows[28]. Rates of electricity facilities and bath/shower and WC inside the accommodation reached almost 100% in 2020 in Guadeloupe, Martinique, Réunion and Saint Martin, while French Guiana and Mayotte displayed lower rates (below 80%). However, the availability of sewerage systems in 2020 remains below 50% in almost all the French OR, except Saint Martin where 59.32% were connected to the sewer network and 40.3% to a septic tank. Data shows that **access to adequate housing remains a crucial challenge in Mayotte and French Guiana**. These regions face important socio-economic challenges related to high poverty rates combined with a high level of migration[29][30].

[23] https://www.union-habitat.org/sites/default/files/actualites/documents/2021-09/ush-plaquette-chiffrescles-outre-mer-2021-page.pdf

[24] 34% of Guadeloupeans and 77% of Mahorais live below the national poverty line (i.e. on less than 1,020€ a month), compared with 14% of the population of mainland France. 21% of Martinique residents live below the local poverty line (820€ per month). The figure is 16% in Réunion (700€ per month) and 42% in Mayotte (160€ per month)

[25] The standard of living is equal to the household's disposable income divided by the number of consumption units (CU). The standard of living is therefore the same for all individuals in the same household. The standard of living corresponds to what Eurostat calls "equivalent disposable income".

[26] https://www.union-habitat.org/actualites/et-si-le-logement-ultramarin-devenait-un-laboratoire-du-changement-climatique

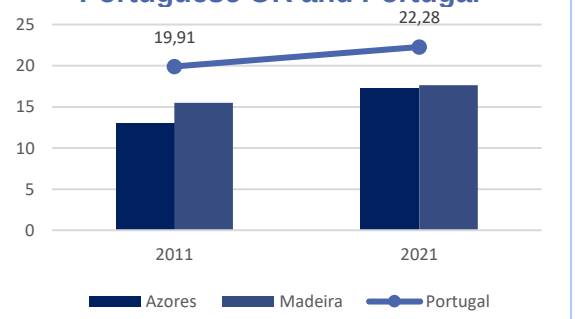
[27] Houses made of steel, wooden houses or buildings, makeshift dwellings and traditional huts.

[28] https://www.insee.fr/fr/statistiques/4622454

[29] https://la1ere.francetvinfo.fr/replay-urgence-face-a-la-crise-migratoire-en-guyane-a-la-une-de-l-info-outre-mer-1419356.html

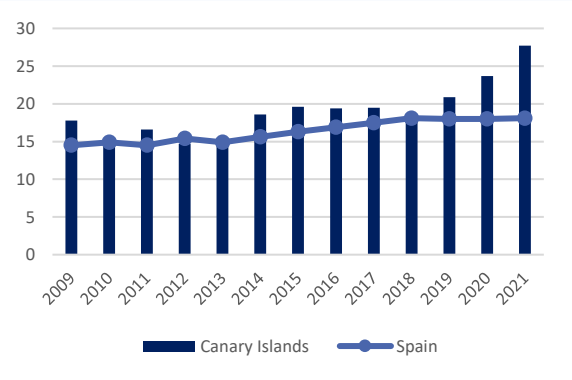
[30] https://www.insee.fr/fr/statistiques/3713016

Graph 3: Tenancy rate (%) in the Portuguese OR and Portugal



The **Portuguese OR** face higher challenges in terms of access to adequate housing than of infrastructure. **Affordability presents a challenge for both the Azores and Madeira** due to rising housing prices and lower purchasing power, raising **tenant rates**, as illustrated in graph 2 from 2011 to 2021. In **the Azores,** the rise in prices is related to compliance with energy certification requirements, driving up housing costs and prices, combined with limited land available for construction. In **Madeira**, the challenge is related to tourism which, despite bringing economic growth to the region, also influences prices. As described under the Portuguese Recovery and Resilience Plan 2021-2026 (RRP), rental prices are too high for the purchasing power of Madeiran families. Finally, a crucial challenge in access to adequate housing in **the Azores** is related to **social housing**. As highlighted in the Portuguese Recovery and Resilience Plan 2021-2026, demand for social housing continues to exceed supply[31]. The housing market in the Azores is also characterised by a **need to invest in housing rehabilitation**. Due to the history of emigration of the region, mainly to North America, a large number of houses have been left unoccupied and housing infrastructure is degrading over time[32].

Graph 2: Tenancy rate (%) in the Canary Islands and Spain



The **Canary Islands** also face difficulties towards **tackling the affordability challenge and ensuring sufficient social housing**. The Canary Islands have high levels of tourism that have progressively generated a rise in rental prices[33]. This region is among the top Spanish regions in terms of foreign home purchases, indicating that tourism does not only impact rental but also purchasing prices[34]. This, in turn, translates into lower purchasing capacity of the Canary Islands' residents as evidenced by an **increase in tenant rates** over the period 2014-2021, shown in graph 3. A key public measure to support access to adequate housing is social housing, which has become a challenge in the region due to growing demand. Finally, while the Canary Islands' dwellings have access to electricity, hot water, sewerage and other basic facilities, they tend to lack adequate air conditioning and/or weatherproofing and insulation[35]. This is important given the likelihood that temperatures will rise and for increasing the energy efficiency of households.

[31] https://recuperarportugal.gov.pt/wp-content/uploads/2021/10/PRR.pdf

[32] Insights retrieved from interviews with key stakeholders.

[33] https://www.exceltur.org/wp-content/uploads/2022/11/ReviTUR-en-sintesis-221122.pdf

[34] Ibid

[35] https://www.laspalmasgc.es/export/sites/laspalmasgc/.galleries/documentos-urbanismo/1.-PLAN_DE_VIVIENDA_CANARIAS_2020_2025.pdf

2.1.2 Access

Access to adequate housing entails different dimensions including habitability, tenancy regime, social housing and affordability[36]. **Habitability** refers to the adequate and sufficient conditions of housing to guarantee adequate space for a decent standard of living. Analysing the **tenure distribution** is key to understand the population's ability to access housing and its ownership and is closely related to government support via **social housing**. Finally, to provide a comprehensive analysis of access to adequate housing, it becomes essential to understand its **affordability**. The selection of available indicators identified and analysed in view of covering these areas is compiled under Annex I and their visualisations are compiled under Annex II.

Habitability

The French OR[37] are, in general, characterised by a lower **number of rooms per person** than the national average, while the **proportion of main residences that are over-occupied** has been declining between 2009 and 2020. The regions that face a greater challenge are French Guiana and Mayotte, exacerbated by strong demographic growth and high levels of migration. **French Guiana** displays a considerably lower number of rooms per person than the national average, 1 compared to 1.8 at the national level in 2020, and 32.8% of main residences were over-occupied in 2020. In **Mayotte,** 55.6% of residences were over-occupied in 2017, a problem that is linked to the high influx of migrants and the prevalence of slums.

The Portuguese OR follow similar trends to the national level with regard to the **average number of rooms per person**. With regards to **overcrowding,** while **the Azores** have experienced a decreasing trend from 2018 to 2021, in 2021, the overcrowding rate remains at 11.2%, above the national average of 10.6%. **Madeira** has experienced stagnation over the period 2018-2021 in terms of overcrowding rate, but it remains below the national average.

The Canary Islands show a lower number of rooms per person than the national average over the 2013-2022 period. There is an increasing **overcrowding rate** over the period 2009-2020, which remains above the national average. In 2021, the overcrowding rate in the Canary Islands stood at 17.6% compared to 6.4% at the national level. This trend illustrates the growing challenge the Canary Islands are facing in providing access to adequate housing. One of the latest surveys by the Centro de Investigaciones Sociológicas (CIS) highlighted access to housing as one of the main concerns of Canarians[38].

Tenancy regime

In all the **French OR**[39] the **homeowner rate** remains below the EU and national averages, with a higher proportion of tenants. In **Guadeloupe**, **Martinique** and **Réunion** rates remain slightly above 50% (58.7%, 54.7% and 50.5% in 2020) compared to the national average of 63.6% in 2020. In **French Guiana**, the rate decreased from 44.3% in 2009 to 40.7% in

[36] https://www.ohchr.org/es/special-procedures/sr-housing/human-right-adequate-housing

[37] No available information for Mayotte and Saint Martin

[38] https://www.atlanticohoy.com/economia/canarias-tiene-200000-casas-vacias_1518773_102.html

[39] Except Mayotte for which data is not available

2020. In **Saint Martin,** the homeowner rate stood at 28.32% in 2020, considerably below the national average.

The Azores and **Madeira** have experienced a **decrease in homeowner rates** (of dwellings of usual residence[40]) between 2011 and 2021. Despite this decline, both OR remain above the national average in relation to homeowner status. In the Azores, this decline responds to several phenomena that increase housing prices (further analysed in the following section0) and limit access to purchasing dwellings. With regards to Madeira, the region is becoming more dependent on tourism, which translates into an increase in prices and lower access to housing for inhabitants[41].

In the **Canary Islands**, the **homeowner rate has remained systematically below the national average** over the 2009-2021 period, combined with an increase in the rate of tenants. This region is also characterised by a high level of tourism and the purchase of houses by foreigners. Data published by the Land Registry show that the Canary Islands were at the top of the national ranking in terms of foreign home purchases during the third quarter of 2022 (30.6%)[42].

Affordability

All **French OR**, except **Martinique**, had an **average rent per square metre** of living space **above the national average in 2021**, implying higher housing costs in these regions than in the mainland. According to INSEE, in 2019 the median standard of living[43] lay below the national average for all regions[44] creating a significant challenge in accessing adequate housing due to unaffordable prices. This becomes an even more relevant challenge in French Guiana and Mayotte. In **French Guiana,** housing accounts for a higher proportion of households' expenses (19% in 2017[45]) mainly as a result of increasing rental expenditure. In **Mayotte,** the yearly median standard of living (disposable income) in 2019 was 3,140€, far below the national average of 21,680€[46]. According to INSEE, 77% of the inhabitants of **Mayotte** were living below the poverty threshold in 2020, five times more than in mainland France[47].

In **the Azores,** the **median house rental value per m²** of new lease agreements of dwellings remained constantly below the national average from 2017 to 2022, while in **Madeira** it remained above the national average. Increasing housing prices has been identified as a core challenge for Madeira, which highlighted that "rental prices are too high

[40] Occupied household dwelling that is the usual or main residence of at least one household

[41] https://www.ihm.pt/images/img-aviso/ERH.pdf (page 25).

[42] https://www.registradores.org/actualidad/portal-estadistico-registral/estadisticas-de-propiedad#portlet_com_liferay_journal_content_web_portlet_JournalContentPortlet_INSTANCE_92PKQIzgTNBS

[43] The standard of living is equal to the household's disposable income divided by the number of consumption units (CU). The standard of living is therefore the same for all individuals in the same household. The standard of living corresponds to what Eurostat calls "equivalent disposable income". https://www.insee.fr/fr/statistiques/4482473#graphique-figure2_radio1

[44] No available data for Saint Martin

[45] https://www.senat.fr/rap/r20-728-1/r20-728-14.html#toc277

[46] https://www.insee.fr/fr/statistiques/4482473#graphique-figure2_radio1

[47]https://www.insee.fr/fr/statistiques/5039943?sommaire=5040030#:~:text=Le%20niveau%20de%20vie%20m%C3%A9dian,fois%20plus%20qu'en%20France.

for the purchasing power of Madeira families"[48]. The **median housing cost burden**[49] was above the national average in 2018 and, since then, has progressively converged with the national average both in the Azores and in Madeira in 2021. Additionally, during the stakeholder consultation, it was mentioned that compliance with the requirements set by Directive/2010/31/EU[50] on the certification system with regards to house construction/rehabilitation increases housing costs and prices in the Azores. These requirements aim to ensure energy efficiency requiring higher efforts in construction and rehabilitation, leading to an increase in associated costs.

In the **Canary Islands**, the **average rent per m²** was below the national average for the period 2010-2021. Nonetheless, in 2022 the Canary Islands surpassed the national average with a value of 11.5€/m² compared to 11€/m² at the national level, illustrating the growing challenge in terms of affordability. Due to the growing tourism, housing prices have been experiencing a significant upward trend in the past years, negatively impacting the financial capacity of Canary Islands' residents [51]. The **share of the Canary Islands population with high expenditure on housing is above the national average**, with 15% in 2020 compared to 9.9% in Spain as a whole.

Social Housing

The **French OR**[52] are experiencing an overall increasing trend as regards the **proportion of social housing per 10,000 inhabitants**. Despite this trend, **French Guiana** and **Mayotte** systematically show values below the national average over the period 2018-2022, while **Guadeloupe**, **Martinique** and **Réunion** lay above. In addition, only 15% of households in overseas departments and regions (DROM) are living in social housing, while 80% are eligible[53], evidencing the growing demand for social housing and its shortage of supply. The first Overseas Housing Plan (PLOM 1) for 2015 to 2019, defined the quantitative objective of producing and rehabilitating at least 10,000 social houses per year across the DROM. However, this objective was only achieved in 2016, while for the other years, the cumulative volume of new production and renovations was below 10,000 housing units[54]. Additionally, while the **success rate**[55] **in applications to social housing** remained at 18% in France in 2020, the French OR displayed great divergence. Guadeloupe and Réunion show rates above the national average[56] while Martinique, French Guiana and Mayotte are below the national average[57] despite the growing demand[58].

[48] https://recuperarportugal.gov.pt/wp-content/uploads/2021/10/PRR.pdf

[49] This indicator refers to the housing cost burden distribution - Difference between the housing costs and the disposable household income (net of housing allowances in both parts). With regards to housing costs, it is defined as costs relative to the rent, water, electricity, gas and heating, condominium, sewerage, regular maintenance and repairs, as well as mortgage interest payments and structural insurance. The measuring unit is percentage (%)

[50] https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=celex%3A32010L0031

[51] https://www.exceltur.org/wp-content/uploads/2022/11/ReviTUR-en-sintesis-221122.pdf

[52] Except Saint Martin where no information is available

[53] https://www.union-habitat.org/actualites/et-si-le-logement-ultramarin-devenait-un-laboratoire-du-changement-climatique

[54] https://www.senat.fr/rap/r20-728-1/r20-728-12.html

[55] The social housing success rate measures the proportion of applications for social housing that are approved.

[56] 24.8%in Guadeloupe and 20.7% in Réunion

[57] 14.1% in Martinique, 12.5% in French Guiana and 0% in Mayotte

[58] https://www.union-habitat.org/les-locataires-hlm-et-les-demandeurs

In relation to the **Portuguese OR**, **Madeira** displays a higher **proportion of social housing per 10,000 inhabitants** compared to Portugal in 2015[59]. **The Azores** remains slightly below the national average implying the need for further support in relation to social housing in this region. The Recovery and Resilience Plan 2021-2026 highlights the fact that the demand for social housing continues to exceed supply, resulting in long waiting lists for access to social housing in the Azores[60]. The region has developed different programmes such as the *Famílias com Futuro* (Families with a Future) to respond to these challenges.

For the **Canary Islands**, there is an **overall decreasing trend in the number of definitive qualifications of social housing**[61] both at the national and regional level from 2010 to 2020, evidencing a decreasing trend in terms of providing an adequate supply of social housing. Taking into consideration overcrowding rates higher than the national average and challenges related to affordability, social housing becomes a crucial tool. Nonetheless, the demand for social housing exceeds the supply as evidenced by the Housing Plan of the Canary Islands 2020 – 2025, there are more than 17,000 applicants for housing in the Canary Islands, more than half of them for public housing[62].

2.1.3 Infrastructure

The conditions of the housing infrastructure are a crucial part of ensuring access to adequate housing. A key condition is the **type of housing** which entails the quality, materials, resistance and reliability of housing in the OR. Similarly, adequate housing also requires equipment to provide **facilities** such as electricity, water or sanitation facilities.

Housing typology[63]

Overall, the **French OR have experienced a decline in fragile constructions**[64]. Guadeloupe, Martinique, Réunion and French Guiana have experienced an increase in the proportion of solid houses or buildings in the period 2009-2020. In **French Guiana**, despite the rising trend, the proportion of solid houses stood at 78.3% in 2019. In **Mayotte**, there has been an increase in the share of households made of metal sheets from 33.33% in 2012 to 37.72% in 2017. These trends coincide with the challenge of managing high numbers of migrants, leading to a higher prevalence of slums with a lack of adequate amenities. According to INSEE, 65% of foreigners live in precarious housing[65].

The **Portuguese OR** feature a rate of makeshift dwellings below the national average and decreasing over time. Both **the Azores** and **Madeira** display **rates of solid buildings of almost 100%** in 2021. However, the Azores deal with a high number of dwellings in need

[59] Most recent year for which information is available.
[60] https://portal.azores.gov.pt/en/web/drpfe/prr

[61] This indicator measures the number of definitive qualifications of social housing, hence referring to the administrative and legal rights of social housing being awarded. A requirement for social housing dwellings is to obtain the corresponding qualification from the competent authorities. The qualification procedure consists of the verification of compliance with the regulations applicable to officially protected housing. This process consists of two phases: provisional qualification and definitive qualification. Therefore, the number of definitive qualifications conditions the size and availability of social housing stock.

[62] https://www.laspalmasgc.es/export/sites/laspalmasgc/.galleries/documentos-urbanismo/1.-PLAN_DE_VIVIENDA_CANARIAS_2020_2025.pdf

[63] For further insights on the indicators and data analysed please refer to Annex II, Section 7.2.1.5

[64] Fragile constructions in the French OR entail houses made of steel, wooden houses or buildings, makeshift dwellings and traditional huts

[65] https://www.insee.fr/fr/statistiques/4202864

of repair due to the high level of emigration flows in the past decades. As a result, many houses have been left unoccupied and are degrading over time[66]. In response, the government of the Azores has developed programmes to subsidise and promote the rehabilitation of dwellings[67], and inserted the improvement of housing conditions as a priority within the Recovery and Resilience Plan 2021-2026[68]. In addition, both Portuguese OR are prone to suffering coastal floods and have experienced adverse climate events (floods, storms, cyclones…) that challenge the existing infrastructure[6970].

The Canary Islands have experienced an increase in the **share of households with serious deficiencies in construction** from 2018 to 2021. Additionally, despite the decline in the **rate of substandard housing** (shack, shanty, shack-like, prefabricated or similar) from 2018 to 2021, substandard housing remains constantly above the national average. As a result, the Canary Islands Housing Plan 2020 – 2025 envisages among its key objectives the enhancement of housing rehabilitation in the territory[71]. Additionally, the increasing number of migrants arriving in the Canary Islands in the past few years has increased the challenge of accessing adequate housing and might be related to the rise in substandard housing[72].

Facilities

The services which are supplied to a greater extent in the **French OR** tend to be electricity, bath or shower and WC inside the accommodation. They reach almost 100% except for French Guiana and Mayotte, whose rates remain slightly below 80% in 2020. The core challenge in **Mayotte** relates to the low rate of dwellings with sanitation facilities, which stood at 40.76% in 2017. Less than 50% of households have access to the sewerage system in almost all the French OR, except for Saint Martin where 59.32% were connected to the sewer network and 40.3% to a septic tank in 2020. Data shows that in most regions half of the population have access to sewerage system within their households, and the regions with lower rates have experienced increasing trends in the past years. Nonetheless, rates remain low and further support is needed to ensure everybody in the French OR has access to sewerage.

In relation to the **Portuguese OR**, almost 100% of households are equipped with a bath or shower and with wastewater drainage systems in 2021. Due to the mild climate in both regions, the presence of air-conditioning and cooling systems remains low. In **the Azores**, despite an increase, it remained at 6.29% in 2021, considerably below the national average (16.58% in 2021). **Madeira** experienced an increase between 2011 and 2021, from 1.54% to 2.54%, but below the national average.

In the **Canary Islands**, households are fully equipped with electricity, hot water, and sewerage equipment. However, the region is facing an increasing challenge given the

[66] Information retrieved from interviews.

[67] Renovated House Program Inhabited House - Renovate to Live and Renovated House Program Inhabited House - Renovate to Lease. Available at: https://portal.azores.gov.pt/en/web/drh/casa-renovada-casa-habitada

[68] https://portal.azores.gov.pt/en/web/drpfe/c2.-aumentar-as-condi%C3%A7%C3%B5es-habitacionais-do-parque-habitacional-da-regi%C3%A3o-aut%C3%B3noma-dos-a%C3%A7ores

[69] https://soclimpact.net/results-8/

[70] https://soclimpact.net/results-2/

[71]https://www.gobiernodecanarias.org/cmsgobcan/export/sites/vivienda/galerias/docs/Informacion/General/PLAN_DE_VIVIENDA_CANARIAS_2020_2025.pdf

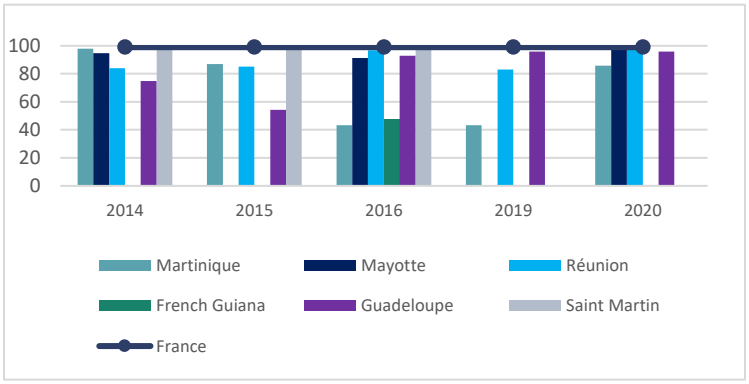
[72] https://www.accem.es/wp-content/uploads/2023/06/AIDA-ES_2022update_final.pdf

likelihood of experiencing more extreme temperatures because of climate change. Over 80% of households do not have a heating system compared to the national average of 20%. The rate of air-conditioned dwellings in Spain stood at 38% in 2023 compared to 15% in Santa Cruz de Tenerife and 8% in Las Palmas de Gran Canaria[73]. Lack of adequate insulation in dwellings is another relevant challenge. The region has experienced an increase in the share of households with unhealthy conditions (dampness, dirt, and odour) from 8.2% in 2018 to 15.6% in 2021, constantly above the national average (which stood at 3.4% in 2018 and 6% in 2021).

2.2 Drinking water and sanitation

The right to drinking water and sanitation is linked to other fundamental rights, such as adequate housing[74]. Within the Sustainable Development Goals (SDG), SDG 6 calls for specific targets for 2030 to ensure the availability and sustainable management of water and sanitation for all[75]. Considering access to drinking water as a human right has been emphasised by the European Parliament's resolution of 5 October 2022, which highlights that access to clean drinking water is indispensable for a healthy and dignified life and is essential for human dignity[76].

Graph 4: Proportion of the population that has been served by public water services (left axis) Proportion of the population using at least basic sanitation



2.2.1 Overall trends

The French OR share a common challenge: deteriorating networks and outdated facilities[77] which directly affects access levels to drinking water. Nonetheless, the overall trend in access to drinking water in the French OR[78] is not homogenous. In this regard, the proportion of the population served by public water services increased in Guadeloupe, French Guiana[79], Saint Martin and Mayotte, whereas it decreased in Martinique from 2014 to 2020 (see graph 4). As regards water management, quantified through the maximum number of working days needed to open connection for new subscribers[80], the situation

[73] https://www.idealista.com/news/inmobiliario/vivienda/2023/07/19/807129-un-38-de-las-casas-en-espana-tiene-aire-acondicionado-mas-en-alquiler-que-en-venta

[74] https://www.coalition-eau.org/actualite/etude-sur-les-droits-humains-a-l-eau-et-a-l-assainissement-dans-les-outre-mer/

[75] https://sdgs.un.org/goals/goal6

[76] Texts adopted - Access to water as a human right – the external dimension - Wednesday, 5 October 2022 (europa.eu)

[77] Interview with key regional stakeholders from France.

[78] Data has been retrieved from Observatoire national des services d´eau et assainissement (SISPEA). https://www.services.eaufrance.fr/

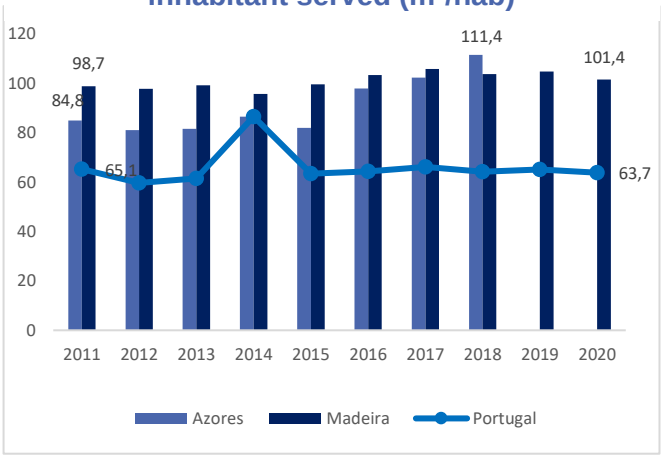
[79] Available data just from 2016 to 2018.

[80] This indicator refers to the number of working days that new subscribers of water services have to wait to open connections with regards to having access to water services. Indicator provided by SISPEA.

improved[81] in Guadeloupe and Martinique, but not in French Guiana and Mayotte, where it remained stable over time, and in Réunion, where this indicator worsened. Lastly, data has evidenced that water affordability differs among the French OR[82], since the price of water[83] increased in Guadeloupe, French Guiana, Saint Martin[84] and in Réunion, whereas it decreased in Martinique and Mayotte. Water quality has generally improved, with Réunion, French Guiana and Mayotte[85] being the exceptions[86]. In relation to infrastructure, the main challenge is outdated facilities. The percentage of occurrence of unscheduled service interruptions[87] increased in Guadeloupe, Martinique, Mayotte and Réunion while it decreased in French Guiana. In Guadeloupe, Martinique and French Guiana, the linear network loss index (m3/km/day)[88] decreased, whereas it increased in Saint Martin[89], Réunion, and in particular Mayotte, a region that is experiencing a severe water crisis.

In the **Portuguese OR**, two of the main actions in the case of the Azores of the ERDF-ESF[90] Programme for 2021-2027[91] refer to investments in drinking water supply and wastewater infrastructure projects as well as in the reuse, resilience, modernisation, and decarbonisation of water systems. In **Madeira**, to understand access to drinking water and sanitation as well as water infrastructure, geographical considerations should be taken into account since one of its focus areas[92] is to build climate resilience infrastructure. The domestic volume per inhabitant supplied[93] increased from 2011 to 2018 and 2020, respectively and, in both cases, exceeding the national figures, suggesting a possible increase in the levels of access to drinking water in both regions (see graph 5). There has also been an increase in the amount of fresh water supplied per

Graph 5: Domestic volume per inhabitant served (m³/hab) Domestic volume per inhabitant served (m³/hab)



[81] It means that fewer days were needed to open connections for new subscribers from 2014 to 2020. Consequently, access to drinking water is improved, which is related to the concepts of increased drinking water availability as well as having quick access to water services. https://www.services.eaufrance.fr/indicateurs/D151.0

[82] From 2014 to 2020.

[83] Including VAT.

[84] Source in this OR: Saint Martin Eau Potable 2022. Rapport annuel du delegataire. Period: 2021-2022.

[85] According to interviews with regional stakeholders from France, one of the main challenges of Mayotte is water availability since there are water cuts and an old infrastructure that is not adapted to the population growth.

[86] It is important to note that two indicators have been used (provided by SISPEA): compliance rate of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology and, on the other hand, to the quality limits for physico-chemical parametres. In the first case, there was a decrease, which implies a negative trend, whereas in the second case, there was an increase, which implies an improvement. In any case, those data are only available until 2020, so the current water crisis in Mayotte cannot be adequately reflected.

[87] This indicator refers to the rate at which unexpected disruptions in water supply to consumers take place. No data available in the case of Saint Martin. Indicator provided by SISPEA.

[88] This indicator refers to the amount of water lost due to leaks, bursts, and other similar losses in the water distribution network. Indicator provided by SISPEA.

[89] Available data for 2021 and 2022.

[90] European Regional Development Fund and the European Social Fund.

[91] ERDF-ESF Programme for 2021-2027. Note that these funds for the period 2021-2027 are planned but not spent. https://portal.azores.gov.pt/documents/2314045/48aa5d8d-eb43-9202-7bad-18fa3164b022

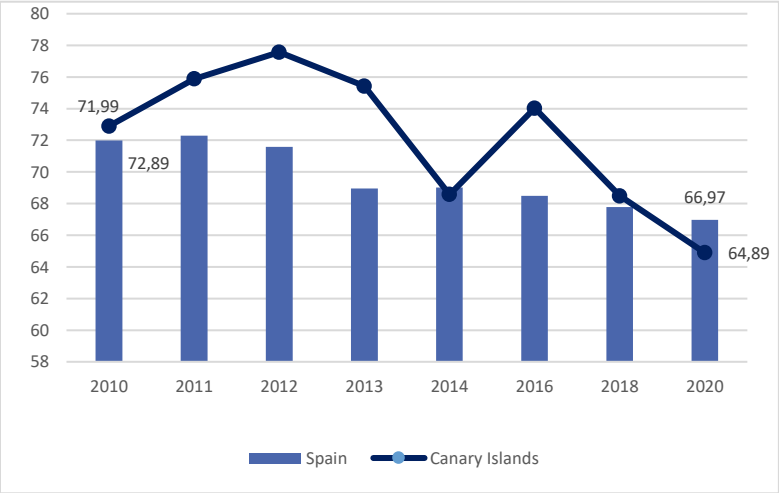
[92] https://ec.europa.eu/regional_policy/sources/policy/themes/outermost-regions/rup-2022/comm-rup-2022-glance_en.pdf

[93] Data retrieved from Pordata (Portugal) https://www.pordata.pt/db/municipios/ambiente+de+consulta/tabela

inhabitant[94] in both regions and these quantities are also higher than those registered at EU level. Prices of water increased in both regions in 2022 compared to 2021[95]. Finally, in relation to water quality, according to the data, there has been an improvement in the percentage of analyses in compliance with the parametric value[96] from 2014 to 2021 in both regions.

The Canary Islands face a key challenge related to **insufficiency of water**[97]. In this sense, one of the main actions of the ERDF Operational Programme for 2014-2020 of this region was energy efficiency in desalination, purification, and water distribution[98]. This focus on energy efficiency is also present in the ERDF Programme 2021-2027 for the Canary Islands [99], which specifies that work on efficiency in water management is needed, specifically reducing losses in drinking water supply facilities and modernising storage infrastructures.

Graph 6: Domestic volume for per inhabitant served



The **overall trend in access to drinking water** is not homogenous; whereas consumption of water decreased (see graph 6), and levels of affordability worsened since the unit cost of water[100] increased from 2010 to 2020, management of water shows mixed results. In this regard, while the volume of water reused, in general terms, decreased, the volume of water reused in agriculture[101] increased from 2011 to 2020. Infrastructure is still a challenge for this region; specifically, the reduction of losses in drinking water supply facilities[102]. The overall trend is that there were more water losses[103] in 2020 than in 2014, whereas there were less at the national level[104]. Moreover, whereas surface water abstraction decreased, groundwater abstraction and desalination

[94] Data retrieved from INE (Portugal) https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0009600&contexto=bd&selTab=tab2

[95] https://www.deco.proteste.pt/sustentabilidade/lixo-sem-agua

[96] This indicator refers to the examination of water samples that meet the required standards set for human consumption. INE (Portugal) https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_main

[97] https://agriculture.ec.europa.eu/system/files/2022-08/rdp-factsheet-spain-canarias_en.pdf

[98] https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1552995599.pdf

[99] https://femp-fondos-europa.es/wp-content/uploads/2023/03/programa-de-canarias-feder-2021-2027.pdf

[100] Both indicators have been retrieved from INE (Instituto Nacional de Estadística. Spain). https://www.ine.es/index.htm

[101] The first indicator was retrieved from ISTAC (Inicio ISTAC - Gobierno de Canarias) and the second one from INE (https://www.ine.es/index.htm) 2011-2020.

[102] According to the ERDF Programme for 2021-2027 in the Canary Islands.

[103] This indicator refers to the volume of actual losses as a percentage of the total volume of unregistered water. INE (Spain). 2010-2020.

[104] Data retrieved from INE (Spain) https://www.ine.es/jaxi/Tabla.htm?tpx=53447&L=0

increased from 2010 to 2020. Finally, the number of storm tanks[105] that are available has remained stable over time (2013-2020)[106].

2.2.2 Access

This subsection aims to analyse the conditions of access to drinking water and sanitation in the nine OR in the last decade, access to drinking water and sanitation has several sub-categories, including consumption, management, and affordability. **Consumption** refers to the evolution of water consumption per person or dwelling, depending on the availability of data. **Water management** provides a better understanding of who supplies water, or the maximum number of working days required to open connections for new subscribers of water services[107]. **Affordability of water** is essential for understanding the level of access to drinking water and to this end, indicators such as the unit cost of water have been used. Lastly, **water quality** refers to the degree of compliance of water samples with quality standards for human consumption. The selection of available indicators identified and analysed regarding these areas can be found in Annex I and their visualisations in Annex II.

Consumption

Within the **French OR**, the existence of deteriorating networks affects the levels of access to drinking water. The main challenge in **Guadeloupe** is water availability since there are problems related to access to services[108]. Nonetheless, the estimated number of inhabitants supplied increased between 2014 (327,720 inhabitants served, 74.86% of the population) and 2020 (395,497 inhabitants served, 95.84% of the population). In **Martinique**, one of the main expected impacts of the ERDF Operational Programme for 2007-2013 for the region[109] was the increase in drinking water supply capacity. However, the estimated number of inhabitants supplied decreased between 2014 (375,818 inhabitants served, 97.89% of the population) and 2020 (308,534 inhabitants served, 85.75% of the population). In **French Guiana**, the main challenge is to increase access to drinking water in the interior areas, as most of the population is on the coast[110] and the interior is sparsely populated[111]. In particular, the part of the region close to Brazil has no access to drinking water[112]. Despite this, the domestic volume accounted for per inhabitant served increased from 2014 (33.79

[105] They are used to capture and store rainwater temporarily. They then gradually release rainwater. Strom tanks are a useful tool for preventing floods and making sustainable use of water resources. https://www.nationalstoragetank.com/industries/storm-water-management/

[106] Data retrieved from Instituto canario de estadística (ISTAC) http://www.gobiernodecanarias.org/istac/jaxi-istac/tabla.do?uripx=urn:uuid:edddf341-fb41-490f-aa3c-a015c8696cba&uripub=urn:uuid:4c80614c-ee5b-4f77-aab5-564ec7675fe9

[107] In order to clarify what is understood by water management, it should be noted that its function is to protect and allocate water resources to allow citizens to benefit from water. https://www.igi-global.com/dictionary/water-management/101235

[108] Interview with key regional stakeholder from Guadeloupe.

[109] https://ec.europa.eu/regional_policy/in-your-country/programmes/2007-2013/fr/operational-programme-martinique_en

[110] Communities in the interior may have limited access to centralised water and sanitation systems, making it challenging to provide essential services (they have almost no access to drinking water, and they use river water without access to sanitation) whereas coastal regions have access to water according to EU standards. Interview with regional stakeholders from French Guiana.

[111] https://www.egmontinstitute.be/app/uploads/2018/04/Outermost-Regions-PLS-v2.pdf

[112] Interview with regional stakeholders from French Guiana.

m^3) to 2019 (45.41 m^3)[113]. Water shortage represents a challenge[114] in **Mayotte,** although the estimated number of inhabitants supplied increased from 2014 (212,000 inhabitants, 94.76% of the population) to 2020 (270,372 inhabitants, 96.93% of the population).

Despite this positive development, it is important to note that data only covers the period from 2014 to 2020 and therefore the development over the recent years, and in particular the current water crisis, cannot be captured by data. In **Réunion**, one of the main expected impacts of the ERDF Operational Programme for 2014-2020[115] was as increase in the percentage of the population benefiting from drinking water treatment. In this sense, the estimated number of inhabitants supplied increased between 2014 (708,073 inhabitants, 84.02% of the population) and 2020 (836,089 inhabitants, 97.58% of the population). Due to the existence of an obsolete water infrastructure in **Saint Martin**[116], access to drinking water has been affected[117]. However, data in this region shows the evolution from 2021 (29.2 m^3/km/day) to 2022 (30.7 m^3/km/day)[118].

In the **Portuguese OR**, geographical characteristics are relevant in **the Azores** since it is a volcanic archipelago[119], which could represent a barrier to the construction of water infrastructure and, consequently, to having access to drinking water and sanitation. Despite this barrier, the domestic volume per inhabitant supplied increased from 84.80 m^3 in 2011 to 111.40 m^3 in 2018, in both cases exceeding the national figures, which were 65.10 and 64.10 m^3, respectively. Moreover, the amount of water supplied (for domestic, commercial, and industrial use) per inhabitant increased between 2011 (84.80 m^3) and 2018 (109.10 m^3). These quantities were also higher than those registered at the EU (23 m^3 in 2018[120]) and national levels in the same years (65.20 m^3 and 64.40 m^3, respectively). In **Madeira**, also affected by geographical constraints, the **domestic volume per inhabitant supplied increased** between 2011 (98.70 m^3) and 2020 (101.40 m^3) in both cases exceeding the national figures[121]. The amount of **freshwater supplied** per inhabitant slightly increased between 2011 (100 m^3) and 2020 (100.3 m^3). These quantities were also higher than those registered at the EU and national levels in the same years.

In the **Canary Islands**, the domestic volume accounted for per inhabitant served decreased from 2010 (72.89 m^3) to 2020 (64.89 m^3)[122], following the national trend which decreased from 2010 (71.99m^3) to 2020 (66.97m^3).

[113] This indicator has been used due to the availability of data over the period 2014-2020. According to the World Health Organisation (WHO), 50-100 litres of water per person and per day are needed to ensure that the most basic needs are met. Considering that 100 litres of water per person and per day are needed, this French OR region did not meet the WHO standards in 2014 (33790 litres per year and per person which is under the 36500 litres per year and per person recommended by the WHO). However, this was not the case in 2019. This could be a sign of wastage or not proper water infrastructure. https://www.un.org/spanish/waterforlifedecade/human_right_to_water.shtml

[114] Interview with regional stakeholders from Mayotte.

[115] https://ec.europa.eu/regional_policy/in-your-country/programmes/2014-2020/fr/2014fr16rfop007_en

[116] Interview with regional stakeholders from Saint Martin.

[117] Ibid

[118] This indicator indicates the ratio of volume consumed per day, per km. Source: Saint Martin Eau Potable 2022. Rapport annuel du delegataire. Since just two years are available, it is not possible to establish if the trend over the period 2010-2020 has increased or decreased.

[119] https://www.egmontinstitute.be/app/uploads/2018/04/Outermost-Regions-PLS-v2.pdf

[120] Data retrieved from the World Bank (EU) https://data.worldbank.org/indicator/ER.H2O.FWDM.ZS

[121] The amount of water supplied in both regions was higher than the already mentioned WHO´s recommendation. This could be a sign of waste or a lack of adequate water infrastructure. However, it is important to note that the average water consumption in most European countries is 200-300 litres per person per day, which could lead to a situation where water is wasted. https://www.un.org/spanish/waterforlifedecade/human_right_to_water.shtml

[122] Although there has been a decrease, both years show an amount of water accounted for that is higher than the amount recommended by the WHO.

Management

In **Guadeloupe**, the maximum number of working days to open connections for new subscribers[123] decreased from 4.43 days in 2014 to 4.27 days in 2020. In **Martinique**, the number of days drastically decreased from 5.67 days in 2014 to 1 day in 2020. In **French Guiana and Mayotte**, the number of days has remained stable, while it increased from 1.14 days in 2014 to 3.10 in 2020 in **Réunion**[124].

In **Madeira**, the percentage of dwellings served by wastewater drainage systems[125] increased from 66% in 2011 to 68% in 2020[126], although these percentages were lower than those registered at the national level (80% in 2011 and 85% in 2020).

In the **Canary Islands**, the Rural Development Programme (EAFRD)[127] for 2014-2022 stressed the need to invest in water usage to **save and reuse the insufficient water resources** of the region. Data evidences that, in general terms, the volume of water reused per inhabitant per day decreased from 0.04 m^3 in 2010, to 0.03 m^3 in 2020. However, the percentage of water reused in agriculture **increased** from 2011 (52.20%) to 2020 (65.80%), although the percentage at national level was higher, with 62.10% in 2011 and 72.40% in 2020[128].

Affordability

The **price of water** per m^3 for 120 m^3 in the French OR, except for Mayotte and Réunion, remains above the national average at 2.11 €/m^3 [129]. In **Martinique** and **Mayotte,** the price decreased between 2014 and 2020 from 2.95 €/m^3 to 2.64 €/m^3 and from 1.75 €/m^3 to 1.56 €/m^3, respectively. The price evolution followed the opposite trend in the other OR: from 2.52 €/ m^3 to 3.25 €/m^3 in **Guadeloupe** and from 1.31€/ m^3 to 1.41€/m^3 in **Réunion**. In **French Guiana,** a lack of connectivity between the water networks in the interior and coastal areas[130] affects water affordability and, consequently, the price of water increased between 2016 (2.71€/m^3) and 2019 (3.18€/ m^3). In the case of **Saint Martin**[131], the price increased from 2021 (9.20€/ m^3) to 2022 (9.29€/ m^3 [132]).

[123] It is a proxy measure of network performance and the time it takes to access water services. The higher the number, the worse the level of access to water services.

[124] This indicator -maximum number of working days to open connections for new subscribers- was not available for Saint Martin.

[125] No data available in the case of the Azores. Pordata (Portugal) https://www.pordata.pt/db/portugal/ambiente+de+consulta/tabela

[126] This increase is in line with the Madeira Regional Program 2021-2027, which focuses on promoting sustainable water and waste management. https://ec.europa.eu/regional_policy/in-your-country/programmes/2021-2027/pt/2021pt16ffpr001_en

[127] https://agriculture.ec.europa.eu/system/files/2022-08/rdp-factsheet-spain-canarias_en.pdf It refers to the European Agricultural Fund for Rural Development (EAFRD)

[128] INE (Spain) https://www.ine.es/jaxiT3/Tabla.htm?tpx=53452.

[129] In France, It is difficult to specify the price of a m3 of water, as different rates are applied. On average, however, the price of water is estimated at 2.11 €/ m^3 for drinking water as of 1er January 2021, based on an annual consumption of 120 m^3 (figures published in the latest SISPEA report in July 2022).

[130] https://www.egmontinstitute.be/app/uploads/2018/04/Outermost-Regions-PLS-v2.pdf

[131] This indicator is "water price on 1st January of the following year for a 120 m^3 (€ incl. VAT / m^3)". Data is only available for 2021 and 2022. Saint Martin Eau Potable 2022. Rapport annuel du delegataire.

[132] Data limitations with regard to the calculation of these numbers. Look at methodological notes.

In the **Portuguese OR**, **water prices** show significant variability[133] because tariffs are defined by each municipality. In 2022, considering an annual consumption of 120 m^3, in **Madeira**, prices ranged from 0.30€/m^3 to 1.03€/m^3, with an average value of 0.71€/m^3. This represented an increase of 0.02€ compared to the average value in 2021. In **the Azores**, the situation is similar, with municipalities charging different prices for water. While the lowest value was 0.08€/m^3, the most expensive reaches 1.11€/m^3. The average value for 2022 was 0.71€/m^3, which is higher than that of 2021 (0.56€/m^3)[134].

In the **Canary Islands** the **cost of water**[135] increased from 1.90 €/m^3 in 2010 to 2.20 €/m^3 in 2020. These prices were higher than the ones registered at the national level, where prices also increased from 2010 (1.51 €/m^3) to 2020 (1.92 €/m^3). This increase in water prices is in line with the increase in prices of other basic needs; according to the National Institute of Statistics in Spain, the prices of housing, water, electricity, gas, and other fuels have increased by 17% since 2016 at both regional and national levels[136].

Quality

Guadeloupe, despite being characterised by obsolete water infrastructure which might reduce drinking water quality, the percentage of **compliance of distributed water samples taken for sanitary control with physico-chemical quality limits**[137] increased between 2014 (92.71%) and 2020 (94.36%)[138]. Even though the quality of water presents one of the main challenges of **Martinique**[139], the selected quality indicator[140] improved between 2014 and 2020. One of the main challenges of **French Guiana** is the lack of quality water, as exemplified by the fact that water in this region can be susceptible to contamination from other activities, such as agriculture. One of the problems is the use of river water that is not processed for water treatment. This could lead to a situation where the water that is consumed does not meet quality standards[141]. In this line, the chosen indicator decreased between 2016 and 2020 (from 98.24% to 95.85%). In the case of **Réunion**[142], this indicator decreased from 2014 (98.50%) to 2020 (95.47%). In **Mayotte,** this indicator increased between 2014 and 2020. However, the data only shows official information up to 2020. As a result, it does not reflect the current situation on the island, where people still use high

[133] https://www.deco.proteste.pt/sustentabilidade/lixo-sem-agua

[134] It should also be noted that several municipalities in both regions have a social tariff that reduces the water price, ensuring access to low-income or socially vulnerable families.

[135] Water affordability has been measured by different indicators related to the price of water. The use of different indicators is due to data availability.

[136] Report on exclusion and social development in the Canary Islands: FOESSA report.

[137] This indicator refers to the process of collecting water samples from the distribution network to assess the physico-chemical quality of the water supplied to consumers.

[138] It should be noted that the provided indicator refers to the compliance rate of distributed water samples taken in the framework of sanitary controls with the quality limits of physico-chemical parametres.

[139] Specifically, the French Government launched a programme, called PC4 (2021-2027), to reduce levels of chlordecone in water. The objective of this national program is to protect population against this environmental pollution and to take charge of its impacts (health or environmental, for instance) since 92% of Martinique´s population is still affected by this product that affects water. So far, this program has allowed the establishment of a map of soil contamination and polluted water in this region. https://www.outre-mer.gouv.fr/territoires/martinique

[140] The percentage of compliance of distributed water samples taken for sanitary control with physico-chemical quality limits.

[141] Interview with key regional stakeholder from French Guiana.

[142] In the case of this French OR, it should be considered that geographical characteristics specifically affect water quality: although water quality situation is under control (50% meets health standards), the rest deteriorated after the cyclone period. Interview with key regional stakeholder from Réunion.

levels of untreated water, linked to the current water crisis that Mayotte is facing[143]. Regarding **Saint Martin**[144], one of its main problems is an obsolete infrastructure[145]. In this line, there has been a slight decrease in the proportion of the population using improved drinking water sources (from 2010, 96.70% to 2019, 96.64%), free from faecal and priority chemical contamination [146].

According to the State of the Environment Report of **the Azores** (2017-2019), water sources in the region have remained stable. In fact, in 2019, the number of analyses performed exceeded the mandatory ones in all municipalities. This is an example of how water is a particularly important area for the Azores, given the geographical peculiarities of these islands[147]. In this context, in the Azores, the percentage of analyses in compliance with the parametric value[148] increased from 69.38% in 2014 to 76.80% in 2021[149]. In **Madeira**, this same indicator[150] increased from 75% in 2014 to 82.91%[151] in 2021[152]. In the **Canary Islands**, water quality is of paramount importance due to the limited availability of water resources. In the field of health, both at the national and regional levels in Spain, actions to control water quality can be carried out through different instruments, as is the case of health inspections.[153] In the case of the Canary Islands, the improvement of the water quality has led to a decrease in the number of health inspections notified (from 9035 in 2016 to 4832 in 2020)[154].

2.2.3 Infrastructure

To ensure the sufficient delivery of drinking water and sanitation, it is necessary to look at the infrastructure and its condition. To this end, there are three sub-categories. The **condition of water infrastructure** refers to the means available to ensure clean and secure water supplies[155], using indicators such as the number of storm tanks. **Water losses** refer to the lack of good water infrastructure, resulting in a loss of resources. **Water abstraction** refers to how water is obtained: surface water, groundwater, and desalination.

[143] https://www.lemonde.fr/en/france/article/2023/05/09/life-without-running-water-in-the-slums-of-mayotte_6025975_7.html

[144] A new indicator has been used for this region since data was not available in the case of percentage of compliance of distributed water samples taken for sanitary control with physico-chemical quality limits.

[145] Interview with key regional stakeholder from Saint Martin.

[146] https://data.unicef.org/indicator-profile/WS_PPL_W-QUA/

[147] Interview with key regional stakeholder from the Azores.

[148] https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0008662&contexto=bd&selTab=tab2&xlang=en

[149] The difference between the national and regional levels was more significant in 2014 (69.38% and 75.13% respectively). This difference was reduced in 2021, with 76.57% at the national level and 76.80% at the regional level. Although improvement is mainly related to the fact that all managing entities of the region's water supply systems comply with the implementation of the water quality control programmes.

[150] Percentage of analyses in compliance with the parametric value.

[151] Statistics Portugal. https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_main

[152] The difference between the national and regional levels was less significant in 2014 (75.13% and 75.00%, respectively). This difference increased in 2021, with 76.57% at the national level and 82.91% at the regional level.

[153] Page 76. https://www.sanidad.gob.es/ciudadanos/pdf/Estrategia_de_Salud_Publica_2022___Pendiente_de_NIPO.pdf

[154] This could imply that there has been an improvement in levels of quality of water since a lower number of health inspections took place. It is important to note that this same indicator increased at the national level from 2016 (14,812) to 2020 (15,294 inspections).

[155] It refers to the characteristics needed to maintain a sufficient water infrastructure.

Conditions of water infrastructure[156]

The main challenge of the French OR is the **obsolete infrastructure** to deliver water to the population. An example of this is the percentage of occurrence of unscheduled service interruptions[157]. This indicator increased in **Guadeloupe**, **Martinique** and **Réunion** between 2014 and 2020[158] and, in particular, in **Mayotte**, where there was an increase from 0.02% to 7.38% over the period 2018-2020. In **French Guiana,** this indicator decreased from 2018 (6.70%) to 2019 (6.12%). In the **Canary Islands**, storm tanks are essential for the efficient use of water resources. However, data shows that the number of storm tanks has remained stable between 2013 and 2020, with two storm tanks.

Water losses

One of the consequences of an **obsolete water infrastructure and/or of a non-climate adapted water infrastructure** is the inefficient use of water resources with potential water losses. Within the **French OR**, the linear[159] network loss index (m^3/km/day)[160] decreased, from 2014 to 2020, in **Guadeloupe** (from 34.62 to 33.84), in **Martinique** (from 16.4 to 11.43) and in **French Guiana** (from 10.47 to 5.45) and increased in **Mayotte** (from 6.72 to 11.10) and in **Réunion** (from 23.43 to 26.84). In the case of **Saint Martin**, the volume lost per day and per km of the network was higher in 2022 (13.8)[161] than in 2021 (12.9). At the national level, the proportion of the volume of water distributed lost by a peak in the pipes[162] decreased from 2012 (20.3%) to 2021 (18.5%)

In the case of **the Azores**, available data is limited, since only 10 of the 19 systems of the region have available data on water **losses on supply systems**. The Water Regional Programme of the Azores (2023)[163] identifies an average loss rate of approximately 40%[164] in the region in 2022, which considers all available information on real and apparent losses, including system leaks and overflows. There is high variability within the region's systems and water loss rates range from 7% to 63% per system. In **Madeira**, water supply losses increased from 2012 to 2020.

In the **Canary Islands**, the volume of actual **water losses** as a percentage of the total volume of unregistered water **increased**[165] from 2010, when 21.22% of the total volume of unregistered water was lost, to 2020, when this percentage was 24.36%.

[156] No data in the case of the Portuguese OR.

[157] No data available in the case of Saint Martin.

[158] This percentage increased in Guadeloupe from 2.70% to 2.78% and from 11.87% to 15.08% in the case of Martinique. In Réunion, there was an increase from 0.61% to 1.07%.

[159] This indicator covers the period 2014-2020.

[160] This indicator refers to the amount of water lost due to leaks, bursts, and other similar losses in the water distribution network. It indicates the volume lost per day and per kilometre of network. It gives a better idea of the performance of the network.

[161] Data only available for 2021 and 2022. Saint Martin Eau Potable 2022. Rapport annuel du délégataire.

[162] This indicator has been used as a proxy to measure water losses at the national level. https://chiffrecle.oieau.fr/2118

[163] http://ot.azores.gov.pt/store/inc/docs_pota/2258/DLR_9_2023_A.pdf

[164] Some systems have very high-water loss values (up to 63%) while others have lower (around 7%). On the other hand, the report mentions that some systems don't even have monitoring capacities to effectively assess water losses. Furthermore, that report relies on data from the authorities that manage said systems and some have not provided that data. Nevertheless, that report backs that value of 40%.

[165] This trend is not applied at the national level, where the general trend of water losses was lower over time (17.52% in 2010 and 15.36% in 2020).

Water abstraction[166]

Due to the orographic conditions of the **Portuguese OR,** underground water sources have a higher relevance when compared to the mainland. In **Madeira, water abstraction from surface sources decreased** from 2011 to 2020. However, surface freshwater abstraction increased at the national level from 2011 to 2020. In Madeira water abstraction from ground sources increased from 2011 to 2020. The trend at national level was the same between 2011 and 2020, as the amount of m^3 in 2020 was higher than in 2011. In **the Azores**, groundwater is, historically, the main source of drinking water. In this region, a total of 31,255,000 m^3 of fresh water were abstracted in 2006, of which 30,343,000 m^3 was from ground sources.

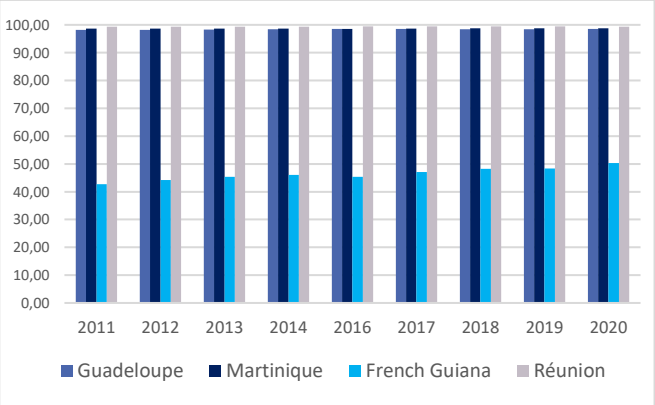
Differences exist across the islands of the **Canary Islands** due to the different origins of water resources. Western islands use mainly underground sources, while the eastern ones use seawater desalination[167]. Data evidence that surface **water abstraction decreased** between 2010 and 2020, whereas both **groundwater abstraction and desalination increased**. In the first case, it increased between 2010 and 2020, with 2012 being the year in which the most significant increase occurred, at 29,100 m^3. Regarding the abstraction of water through desalination, it increased between 2010 and 2020.

2.3 Drinking water and sanitation

The aftermath of the COVID-19 pandemic, as well as the Russian invasion of Ukraine, have posed various challenges to economies across the globe, and their effects have particularly challenged the OR energy systems. The ongoing energy crisis is producing several side effects that have a negative impact on the living conditions of citizens in the European Union, and hence, major efforts are needed to mitigate them. Existing challenges and shortcomings related to **electricity, cooling and heating** in the OR are analysed using a wide variety of indicators to assess the current state of development and the evolution over recent years.

2.3.1 Overall trends

Graph 7: Electricity in the accommodation (% of households)



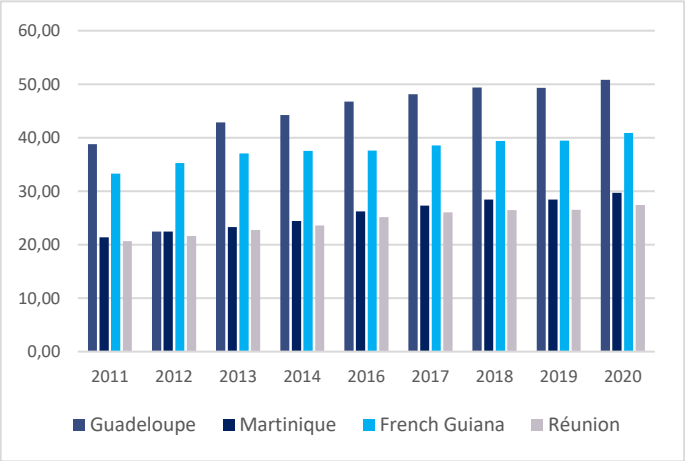
Through the analysis, several trends have been identified. On a macro level, it can be observed how there is a consistent decline in **annual electricity consumption**, which applies to the great majority of regions in the period analysed. However, in parallel, **electricity consumption in households** has surged across regions, with a particularly noticeable spike in 2021. Due to the intrinsic multifactorial nature of these variables, it is difficult to determine a single reason for such an increase. Nevertheless, such an increase in consumption of electricity

[166] No data in the case of the French OR.

[167] https://link.springer.com/article/10.1007/s12053-021-10016-7

in households might indicate a higher capacity of access by consumers. This is supported by several improvements made in infrastructure across all OR. For instance, data shows how regions have exponentially increased distribution lines and poles, connection points for data consumption, among other relevant indicators. These investments are in line with the priorities of their regional European Regional Development Fund (ERDF) Operational Programmes which emphasise the importance of improving energy efficiency and energy system infrastructure. As a result, the percentage of households with access to electricity in the French OR is close to 100%, with the exception of French Guiana, which currently is at 50%. The percentage of rooms with air-conditioning has also increased across all regions within French OR over the 2011-2020 period, as shown in **Error! Reference source not found.**.

Graph 8. Air-conditioned room (% of households)



However, as global socio-economic conditions have worsened in recent years, several challenges have emerged. One of the most noticeable shortcomings for consumers is the surge in **energy prices**, which directly impacts the pricing of electricity, cooling and heating. Based on the data collected, the average price of energy has progressively increased[168], especially in the 2020-2022 period. These increases in prices are higher than the increase in the average income of households, which poses several financial challenges to households. In the **Canary Islands**, statistics show that over the past years it has become increasingly difficult for **dwellings to afford to maintain an adequate temperature**[169], slightly higher than the national average of Spain (17.5% out of the total population in 2021 versus 14.3% at the national level). Finally, data indicates how regions have positively progressed towards a greener and more sustainable energy system, as one of the top priorities of their ERDF Programmes for 2012-2027 is the overall increase of the **production of energy from renewable origin.** Across the OR, the share of the total electricity generated from renewable sources has increased over the last decade.

2.3.2 Access

To understand access conditions and capabilities of OR towards electricity, cooling and heating, several indicators have been selected to provide an accurate picture of how access has evolved over the course of the last decade. Access to electricity, heating and cooling relies on reliable and regular availability and use of electrical, cooling and heating services by individuals and communities. To narrow down the analysis of these broad areas, sub-categories have been created to classify key factors that have a major impact on determining the level of access of OR. The selected **sub-categories (electricity**

[168] For further information on the evolution of electricity prices in the European Union and its effects on consumers and non-consumers, refer to the latest update on electricity price statistics by Eurostat.

[169] The Spanish National Institute of Statistics (INE) obtains data regarding the percentage of dwellings that maintain an adequate temperature through the annual living conditions survey. In this survey, the questions asked to participants are "Can your dwelling maintain a warm temperature in winter?" and "Can your dwelling maintain a cool temperature in summer?". It must be noted that responses vary based on the region of the respondent, since Spain is characterised for having a wide variety of climates, and hence, there is not a fixed definition of what a cool temperature entails.

consumption, heating and cooling and sources of energy production) are subject to data availability based on the region analysed. The following selection of indicators serves as proxies to analyse access to electricity, evidencing a series of patterns and trends. For instance, the evolution of the overall electricity consumption (and among households, particularly), as well as data on the usage of primary energy, can help in drawing conclusions on access to electricity. The selection of available indicators identified and analysed here is compiled under Annex I, whereas their visualisations can be found in Annex II.

One of these sub-categories, **electricity consumption**, is measured through consumption data by delivery points[170], the annual consumption of electricity (also in per-capita terms), the final consumption of electricity in households and the consumption of primary energy in households. These indicators provide relevant information that helps to identify potential changes in consumer behaviour, stability of electricity consumption patterns and general trends of electricity demand and usage in the region. In parallel, **heating and cooling** are assessed through the analysis of annual gas consumption and the percentage of people who cannot afford to keep their dwellings at an adequate temperature, as these indicators help determine whether there are increasing issues in access and efficient use related to heating and cooling. Finally, analysing the **sources of energy production** through the share of renewable energy in electricity generation enables to understand the evolution of renewable sources and their relevance.

Electricity consumption

In **Guadeloupe** and **Martinique,** consumption data by delivery points spread across the islands shows a systematic consumption maintained from 2017 to 2021. However, **annual electricity consumption** has slightly decreased in both regions over the same period (by 2.43% and 2.84%, respectively). In contrast, **French Guiana** and **Réunion** have increased their annual consumption in comparison to the national average of 2.11%. Réunion's increase stood at 5.30% while French Guiana recorded an overall increase of 30.5%. In addition, one of the most pertinent findings when analysing data on **final consumption of electricity in households** in all French regions is that both 2020 and 2021 stand as important outliers within the 2016-2021 period[171]. **Consumption in households in all French regions increased, on average, by 32% from 2020 to 2021**. Since consumption of electricity in all sectors and households are multifactorial variables that can be influenced by distinct consumer and market behaviours, it is difficult to determine a single factor that accounts for the totality of such a pronounced increase[172]. However, by comparing the per capita electricity consumption per household in the French OR with the French average in the same period analysed (2017-2021), it can be observed that, on average, the French OR consume 2.8% less. Therefore, it is unlikely that the observed increase in consumption

[170] Delivery points used by EDF (Électricité de France) allow the identification and measuring of electricity consumption in a specific geographical area. Thanks to delivery points, different consumption patterns can be validated and identified across a region.

[171] The pronounced spike in electricity consumption in households cannot be determined with existing evidence and data, since such changes may be attributed to diverse factors that are external to changes in consumption patterns, such as methodological changes in the collection of data.

[172] In 2020, one of the potential factors that might have contributed to the overall decrease in electricity consumption is the side effects of the COVID-19 pandemic. According to France Stratégie, the sudden fall in economic activity caused by COVID-19 and the subsequent lockdown of the population caused the demand for electricity consumption to decrease in France (Impacts of the Covid-19 crisis on the electricity system, France Strategy (strategie.gouv.fr)).

across the different French OR is related to wasteful spending since consumption patterns are in line with the national benchmark.

The Azores and **Madeira** share similar patterns of **annual electricity consumption** and **final consumption of electricity in households**. Both regions decreased their annual electricity consumption in the 2010-2021 period by 2.16% and 9.08% respectively, with similar trends observed at the national level. In parallel, households in both the Azores and Madeira increased their consumption in the 2010-2021 period (by 3.45% and 5.72%, respectively), with relevant spikes of consumption taking place in 2012 and 2021. At the national level, in contrast, households decreased their consumption by 2.26%.

In the **Canary Islands, annual electricity consumption** decreased by 10.79% over the 2010-2021 period. At the national level, annual electricity consumption decreased by 0.40% between 2013 and 2021. Nonetheless, such a decrease is mostly explained by changes in consumption produced in 2020, as consumption fell by 11.40%, affecting all productive sectors of the Canary Islands' economy. **The final consumption of electricity in households** increased by 4.89% while at the national level, it decreased by 3.34% between 2010-2021. A spike in consumption took place in 2011 (a 20% increase compared to the previous year), and a downward trend was observed from 2019 to 2021.

Heating and cooling

During the 2014-2021 period, **Madeira** experienced an increase in its annual **natural gas consumption**. This may relate to the fact that natural gas was introduced on the island in 2014 and, by 2021, its consumption increased by 45.61%[173]. The climatic conditions of both **Portuguese OR** provide them with mild temperatures throughout most of the year, reducing the need for heating or cooling. This reflects the fact that, on the household energy consumption survey (2020), the average consumption for house heating was 0.007 tonnes of oil equivalent (toe) in Madeira and 0,026 in the Azores, compared to 0.156 in Portugal. The **spending on heating and cooling of houses** increased between 2010 and 2020 in both **Madeira** and **the Azores** at a higher rate than the Portuguese national average. However, this can also relate to the increase in energy costs because the total amount of spending on energy increased significantly. It may also mean greater ease of access to cooling/heating systems within the Portuguese OR. Household spending in energy in the Azores and Madeira follows a similar pattern, as both have increased their spending by 31.62% and 27.93% respectively. Trends in household expenditure on energy in the Azores and Madeira correlate positively with the national average in the same period, as in Portugal household expenditure on energy increased by 28.45%[174].

Both in the **Canary Islands** and Spain mainland, there is a challenge in reducing the **percentage of people who cannot afford to keep their dwellings at an adequate temperature.** The share of people facing difficulties in maintaining an adequate indoor temperature increased from 4.6% in 2010 in the Canary Islands to 17.5% in 2021. A similar increase was experienced at the national level (7.5% in 2010 to 14.3% in 2021). Overall,

[173] Note that natural gas is used only as an energy production source. This energy source is not used in the Azores, but in Portugal, on average, the annual gas consumption increased by 40,84% during the same period. However, the indicator at the national level accounts for both domestic and industrial consumers.

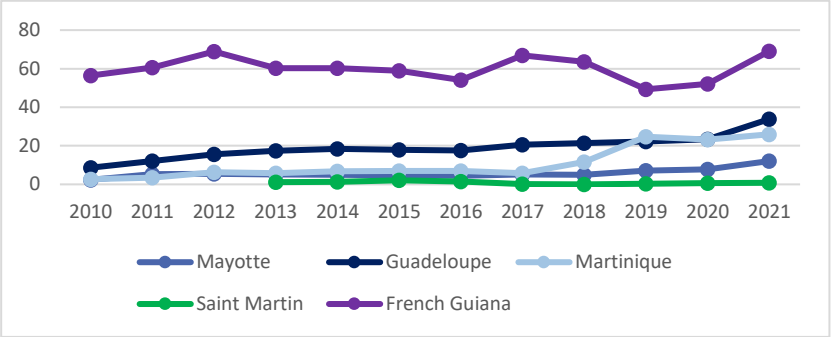
[174] Data on the average income of households shows that, in the 2012-2020 period, Madeira, Azores and Portugal at the national level have recorded increases (12.97%, 7.47% and 16.18%, respectively). However, these increases are lagging behind those observed in energy spending. Therefore, households in Madeira and the Azores are experiencing a higher energy expenditure than at the national level, while income of households is growing at a slower pace than the national average.

the increase has been higher in the Canary Islands compared to Spain in the period 2010-2021, with a higher overall rate in 2021. However, the share of houses with insulation problems in 2021 in the Canary Islands stood at 16.12% compared to 18.79% in Spain[175].

These trends can be explained by rising temperatures in the Canary Islands[176] (as observed with the unprecedented record setting temperatures in October 2023), the increase of energy prices and the identified deficiencies in the insulation of public infrastructure and buildings. In addition, and since the climate of the Canary Islands have always been characterised by mild and cool temperatures all year long, air-conditioning is not prevalent in most households in the archipelago. In fact, only 6.33%[177] of households are equipped with air-conditioning.

Sources of energy production

Graph 9. Renewable energy share of electricity generation (%)



In the **French OR**, the **share of renewable energy in electricity generation** varies greatly depending on the region. For instance, in 2021, 69.08% of electricity capacity and generation in **French Guiana** came from renewable energies, while in **Saint Martin** (0.81% in 2021) and **Mayotte** (12.08% in 2021) the share is considerably lower. **Guadeloupe's** (33.84% in 2021) and **Martinique's** (25.96% in 2021) renewable energy shares are higher but still much lower than **French Guiana**. When analysing the evolution of this indicator in the 2010-2021 period, an upward trend in most regions can be observed. In this period, **Mayotte** (9.71%), **Guadeloupe** (25.19%), **Martinique** (23.26%) and **French Guiana** (12.62%) have all increased their share of renewable energy. In contrast, the share decreased by 0.34% in **Saint Martin.** The **French OR** have stepped up investments to produce renewable energies. One of the common priorities within their ERDF Programmes for 2021-2027 is the progressive increase in the production and distribution of renewable energy[178], by improving energy facilities and infrastructure, as well as experimental projects on renewable energies.

The production of energy in the last ten years in **the Azores** and **Madeira** has experienced substantial changes with the inclusion of renewable energies, as both archipelagos have increasingly invested in the diversification of renewable energy production[179]. The **total production of electricity from renewable origin** in the 2010-2021 period has increased

[175] https://www.ine.es/dynt3/inebase/index.htm?padre=8981&capsel=9595

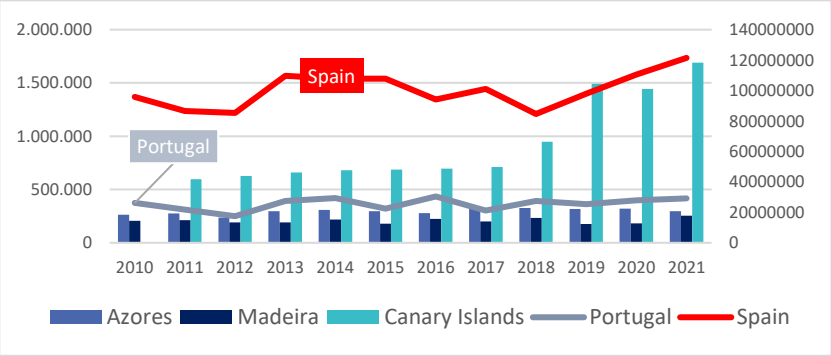
[176] Record-setting temperatures in October have been reported by local media in the Canary Islands.

[177] This data is based on a survey carried out by the INE (Instituto Nacional de Estadística).

[178] Priorities on Cohesion Policy for French OR have been extracted from both national and regional Operational Programmes.

[179] Interview with key regional stakeholder from the Azores.

Graph 10. Total production of electricity coming from renewable origin (Left axis shows production by OR, right axis shows production at the national level, both in MWh)



by 12.97% and 22.82% respectively, growing at a higher rate than the average national increase of 11.27%.

In the case of the **Canary Islands**, over the last few decades, renewable energies have experienced significant growth and adoption[180]. Furthermore, the archipelago's inherent conditions and geographical characteristics are favourable to the development of renewable energies, and the **production of electricity from renewable sources** has seen substantial growth during the 2010-2021 period, with an overall increase of 183%.

2.3.3 Infrastructure

To ensure access to electricity, heating, and cooling across OR, infrastructure needs to fulfil a certain number of requirements to guarantee the generation, transmission, and distribution of energy to individuals and households. To measure the conditions and evolution of infrastructure over the 2010-2021 period in the OR, two sub-categories have been selected (**public grid size and infrastructure** and **number of establishments in the energy, heating and cooling industry)**. By analysing **public grid size and infrastructure,** an accurate picture can be drawn from the assessment of the length of distribution lines, the number of tension poles and the different connection points to the public electricity network. These are fundamental pillars within the transmission and distribution grid, particularly low and medium-tension distribution lines, which are responsible for supplying and deploying electricity to households and buildings. These indicators show how a particular region has increased and improved its infrastructure over the years, potentially generating beneficial impacts on other indicators, such as the overall percentage of energy non-supplied and the number of service interruptions and cutbacks. In parallel, the **number of establishments in the energy, heating and cooling industry** shows how a region has been actively promoting investments within SMEs and the overall industry.

Public grid size

The size and extension of the public grid have a major impact on the extent and reliability of electricity supplied. As population is spread across the territory, the size of the grid needs to properly cover all areas and municipalities. One of the main challenges that the OR encounter in terms of infrastructure is linked to their specific spatial distribution, as relatively isolated municipalities often lack an effective supply. An ineffective supply can lead to increased cutbacks and service interruptions. To address this shortcoming, a larger grid size also ensures an increasing degree of reliability and access to electricity, which favours

[180] The Annual Energy Report of the Canary Islands in 2021 provides a detailed overview of the increasing evolution and importance of renewable energies in the region.

the grid network and consumers, as cutbacks and service interruptions become less frequent and shorter.

The **French OR** show similar patterns of progress when it comes to the **total number of distribution lines and poles**[181]. In general, high-tension lines have increased marginally, while medium and low-tension lines have increased substantially over the 2011-2021 period in all regions, ranging from 15% increases in extension up to maximums of 33%. These trends show how infrastructure improvements have prioritised the expansion of medium and, particularly, low-tension distribution lines, which are the ones that have a greater effect on the accessibility of electricity to consumers. Trends revert when it comes to distribution poles, as on average, the total number of high-medium tension poles has increased at a higher rate than low-tension poles. However, both have grown at a sustained rate (28% and 15%, respectively).

In **the Azores** and **Madeira**, **connection points to the public electricity network for domestic consumption** in the 2010-2021 period have increased respectively by 7.28% and 5.95%, showing patterns of growth similar to that of Portugal as a whole (6.26%).

The **Canary Islands** show how investing in better and larger infrastructure may translate into overall better access to electricity. The **evolution of the electricity grid distribution lines (under 220kv)**[182] has followed a positive progression over the last few years of the 2010-2021 period, with a total 40.14% increase. In addition, the **number of position of substations** and the **capacity of transformers** have shown a notable increase over the same period. These improvements in grid infrastructure have likely had an impact on reducing **energy non-supplied**[183] **over the 2010-2021 period. Nonetheless**, the Canary Islands have experienced fluctuations over this period, with peaks in 2010 (4089 MWh) and 2019 (2626 MWh) Additionally, the total **number of service interruptions in the electricity system** has been reduced by 77.78% from 2010 to 2021. In comparison with the national average in the same period, the absolute number of service interruptions in the Canary Islands in 2021 was lower than the national average. Nonetheless, when compared to the total population, in 2021 there were 1.84 service interruptions per million population compared to 0.46 at the national level. Though there have been several improvements in the overall capacity and extension of the grid in the Canary Islands, recent events (such as the power outage of La Gomera on 29 July 2023, El Hierro in May 2023 or the Palmas de Gran Canaria in December 2023) have also shown that certain elements of the grid infrastructure in the Canary Islands are outdated[184]. According to data from the Canary Islands Energy Transition Plan (PTECAN), 47 of the 93 conventional thermal generation units are obsolete (50.53%), a percentage that will increase to 74.19% (69 of 93) by 2030[185].

Number of establishments[186]

[181] Data on the number of distribution lines and poles has been obtained from Électricité de France (EDF). In order to consult graphs related, see Annex 7.2.3.4, graphs 193 to 212.

[182] In Spain, a low-tension grid distributes electricity between 11kv and 132kv. The indicator measures the evolution of distribution lines under 220kv.

[183] As defined by Red Eléctrica Española (REE), energy non-supplied is understood as the energy that is not delivered to the electricity system and hence consumers, due to faults or failures on the network such as service interruptions occurring in the transmission grid.

[184] https://amp.elmundo.es/economia/2023/09/27/65131bfffc6c83dd568b4599.html

[185] https://www.endesa.com/es/la-cara-e/transicion-ecologica/carlos-medina-bajo-luz-velas-gomera-canarias-cero-energetico

[186] Data on number of establishments is currently not available for the French OR.

The evolution of establishments[187] **in extractive industries, including energy, water, waste management and remediation activities** is important for the sustainable development of infrastructure, as it contributes towards increasing the overall resilience of the sector and helps ensure better energy distribution. An increasing number of establishments in these areas not only favours consumers through a better developed and extensive energy infrastructure in the region but also potentially allows to provide more affordable services.

The Azores have experienced considerable growth within the sector, as establishments have increased by 37.84% over the 2021-2021 period, but is still comparatively lower than the Portuguese average, which saw an increase of establishments by 90.54%. In addition, **Madeira** has experienced an increase in its total number of establishments in a wide array of industries, by 143.36% over the 2010-2021 period, higher than the national average which stands at 90.54%.

Regarding the **Canary Islands**, **the evolution of establishments in extractive industries, including only energy, heating and cooling,** has achieved sustainable growth over the 2010-2021 period**,** with an overall increase of 20.27%, slightly higher than the national average of 11.75%.

Energy prices

Because of the ongoing energy crisis and the aftermath of the COVID-19 crisis, the average price of energy (measured by €/MWh) has soared in the European Union, with a particularly alarming upward trend that started back in the first semester of 2021[188]. In that context, the REPowerEU Regulation, and in particular SAFE (Supporting Affordable Energy), introduced flexibility in the Cohesion Policy Funds to provide support to vulnerable households to address energy poverty, among other areas[189].

In the **Canary Islands**, the rise in energy prices has been lower than at the national level (214.89% and 275.84%, respectively) in the 2014-2022 period. As explained in 4.4.2.2, due to these islands' inherent climate conditions, they tend to use less energy for heating and cooling, as temperatures are generally mild throughout the year. As a result, only 19.28% of households in the Canary Islands have a cooling system compared to 49.57% in Spain in 2021[190]. Nonetheless, the exponential rise in energy prices is substantially higher than the increase in the average income of households in the Canary Islands (8.71%[191]) during the same period. In parallel, **Portugal** has experienced a higher increase in energy prices, resulting in a 349.75% increase between 2010-2020, more accentuated during the 2020-2022 period. Between both years, Spain and Portugal's average energy price[192] increased by 414.22% and 393.94% respectively.

[187] The number of establishments in the Canary Islands refers only to the energy, heating and cooling industry. For Portugal, all extractive industries are considered due to database limitations. This indicator shows the total number of companies (both SMEs and bigger enterprises) registered in sectors related to the energy, heating and cooling industries, including activities such as the production and distribution of electricity, gas, steam, and air conditioning.

[188] For further information on the evolution of electricity prices in the European Union and its effects on consumers and non-consumers, refer to the latest update on electricity price statistics by Eurostat.

[189] https://eur-lex.europa.eu/eli/reg/2023/435/oj

[190] https://www.ine.es/dynt3/inebase/index.htm?padre=8981&capsel=9595

[191] Data on the average income of households has been obtained from the Spanish National Institute of Statistics (INE).

[192] Average energy prices for Spain have been obtained from Red Eléctrica Española (REE), while Portugal's have been obtained from OMIE.

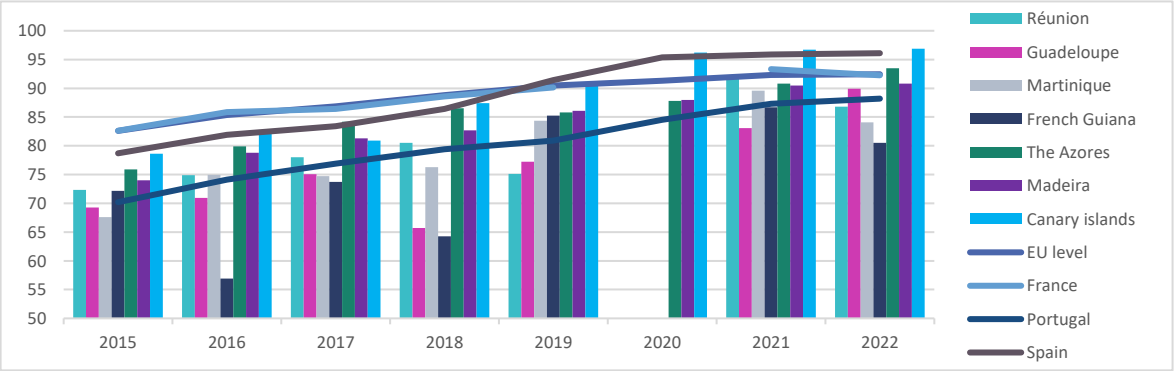
2.4 Connectivity

As remote and geographically dispersed territories, connectivity is particularly important for the OR. Both through the internet and telephone, connectivity can bring people and businesses together regardless of location and help the OR overcome constraints stemming from their remote location by ensuring seamless communication. Hence, the 2022 Communication "Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU's outermost regions" highlights the importance of the digital transition with improved connectivity for the OR. This section provides an assessment of the coverage of this basic need across the OR by first giving an overview of the overall trends, followed by more detailed examinations of access and infrastructure in the respective OR.

2.4.1 Overall trends

The level of access to the internet and telephone as well as the existence and quality of the respective infrastructure differs greatly between the OR. This difference is particularly visible between and within the **French OR**. **Internet access** (see graph 11) is particularly identified as a challenge in **Guadeloupe, Mayotte,** and **Saint Martin** as well as the remote/non-coastal areas of **French Guiana**. Even though all **French OR** show a clear upward trend both in broadband and mobile connections, they all remain **significantly below the French national average**. Internet infrastructure is a more prominent challenge in **French Guiana, Martinique, Mayotte,** and **Réunion**, where the focus is placed on improving the infrastructure. The analysis shows that the **internet infrastructure** in the French OR **varies considerably**.

Graph 11: Share of households with Internet Access (in %)[193]

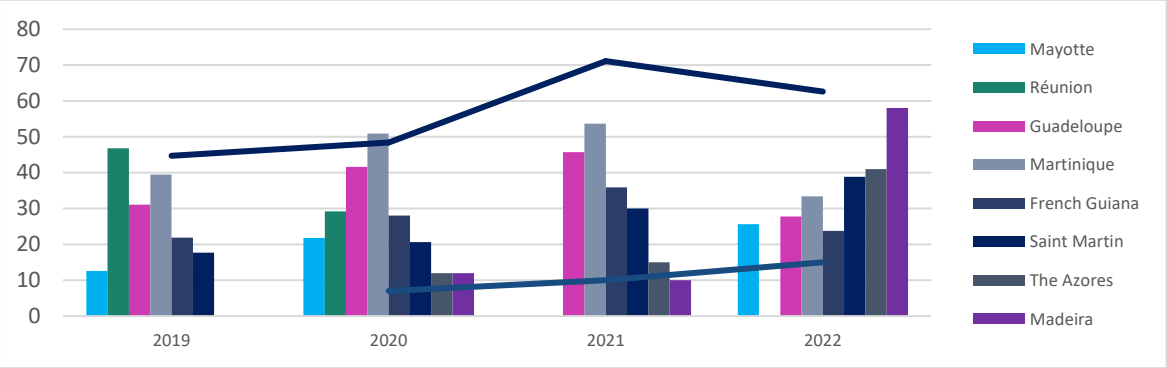


As of 2022, the highest **coverage** is observed in **Réunion** with over 80% of households and businesses having FttH (Fibre to the Home) options, whereas in **Mayotte** and **Saint Martin**, the coverage remains between 25-50%. Nonetheless, also within the regions, significant differences remain. In **French Guiana**, for example, the coastal areas are far better connected than the inland, which suffers from scarce connections to the coast[194]. On the connection quality, i.e., **download speed**, **Réunion** had the highest speed in 2022 at 38.8 Mbits/s, but all French OR (23-38.8 Mbits/s) remained below the national average (62 Mbits/s). For **mobile infrastructure**, all French OR show a substantial growth of data traffic in recent years, though average download speeds (see graph 12) remain between 24 and 39 Mbits/s in 2022, far below the French average of 63 Mbit/s.

[193] No data available for Mayotte and Saint Martin, no data for France and French OR for 2020

[194] Interview with key regional stakeholder

Graph 12: Average mobile download speed (in Mbit/s)[195]



For the **Portuguese OR**, access to internet and telephone does not represent a challenge. As of 2022, the share of households with **internet access** (and broadband access[196]) stands at 93.5% (89%) in **the Azores** and 91% (87%) in **Madeira**, compared to averages of 88% (85%) in Portugal and 92% (90%) in the EU (see graph 11).

The **Canary Islands** features similar or higher internet access and usage than the national average since the share of households with internet access (and broadband access) is 97% (97%) compared to 96% (96%) at the national level, and 92% (90%) in the EU (see graph 11).

In relation to the number of **telephone connections** per 100 inhabitants, it remains below the national average in the two Portuguese OR, though the differences remain marginal[197]. For **internet infrastructure**, the quality is rather high as the Portuguese average download speed in 2022 (108 Mbit/s) is almost matched in **the Azores** (91Mbit/s) and **Madeira** (94 Mbit/s). Nonetheless, the ageing infrastructure is a challenge for future internet connection stability and speed, as the lifespan of the current submarine cables end in 2024 (CAM cable connecting the continent to the Azores and Madeira) and 2025 (cable connecting the continent to Madeira[198]). On **mobile infrastructure**, both the Azores and Madeira show a high quality with download speeds of 41 Mbit/s and 58 Mbit/s as of 2022, above the Portuguese average of 15 Mbit/s (see graph 12).

With regards to the **Canary Islands**, the number of telephone connections per 100 inhabitants remains below the national average, though the differences remain marginal[199]. Data shows that the FttH coverage (92%) is higher than the national average (90%) in 2022. However, the deployment of mobile networks in this region is slightly slower than in the mainland with full 4G coverage of residential areas in both the region and the country, but only 75% 5G coverage in the Canary Islands compared to a national average of 82% in 2022.

[195] No data available for the Canary Islands

[196] Data point referring to broadband access is shown between brackets for each of the regions.

[197] Telephone connections per 100 inhabitants: Azores: 48, Madeira: 48, Portugal: 50.

[198] See section 2.4.3. on infrastructure, in particular the subsection on coverage and quality, to see the results of the second CEF Digital 2022 Calls for Proposals.

[199] Mobile phone connections per 100 inhabitants in 2018: Canary Islands: 83.6, Spain: 91.7. Landline connections per 100 inhabitants in 2018: Canary Islands: 41.3, Spain: 41.8.

2.4.2 Access

To analyse access to internet and telephone in the OR, a set of indicators has been collected, separated into internet access, internet usage, and telephone. **Internet access** includes indicators on the share of the population that has access to (high-speed) internet both through broadband and through mobile connections. **Internet usage** refers to the share of people regularly making use of these connections, the services the internet is used for, and the data consumed by residents. Lastly, in **telephone**, indicators on the landline and mobile phone connection show trends in usage for each region. The identified indicators are compiled under Annex I while their visualisations are compiled under Annex II.

Internet Access

For the **French OR**, on average, **internet access continues to be a challenge**. Especially in the case of **Guadeloupe, Mayotte,** and **Saint Martin**, an expansion of internet and broadband access has been identified as a focus area on the respective ERDF-ESF[200] Operational Programmes for 2014-2020 requiring additional efforts to increase the access to internet as well as the coverage of broadband networks. The same can be said for the remote (i.e. non-coastal) areas of **French Guiana**, which suffer from low levels of access to internet and insufficient connectivity to the rest of the region. In recent years, the access rates to (high-speed) internet have risen in all French OR (also **Martinique** and **Réunion**) and the disparities with regard to the mainland were reduced both for internet access itself and for access to broadband connections[201]. Nonetheless, access rates in 2022 remain below the national average of 92%, ranging from 81% (French Guiana) up to 90% (Guadeloupe) in 2022. For mobile internet connections, access rates are also below the French average, with the share of **SIM cards active on the 4G network** considerably below the national share of 82% in all French OR (54% - 72%)[202].

In the **Portuguese OR,** the coverage of internet access is rather **comprehensive**. In 2022, both **the Azores** and **Madeira**[203] had a share of **households with internet access** higher than the Portuguese average, while slightly below the EU average. This comes after a significant increase over the last decade. The same trend is also observed for **broadband,** whose access rate is only marginally below the general rate of internet access in 2022. While the share of households with broadband internet is higher than the national average, the number of broadband internet access points per 100 inhabitants remains slightly below the national average[204].

The **Canary Islands** are characterised by a **high access rate to the internet** with the objective to reach the remaining population to achieve 100% coverage with high-speed internet. As of 2022 and after a continuous increase over the last decade, the share of

[200] ERDF-ESF Operational Programme for Guadeloupe et St Martin 2014-2020 (https://ec.europa.eu/regional_policy/in-your-country/programmes/2014-2020/fr/2014fr05m2op001_en) and ERDF-ESF Operational Programme for Mayotte 2014-2020 (https://ec.europa.eu/regional_policy/in-your-country/programmes/20142020/fr/2014fr16m2op012_en#:~:text=Programme%20description&text=The%20ERDF%2DESF%20Programme%20for,22%25%20of%20the%20overall%20budget.).

[201] See Graphs in Annex II, **Error! Reference source not found.**.

[202] Proportion of active 4G SIM Cards of all SIM cards (2021) in Guadeloupe, Saint Martin, & St Barthélémy: 54%, Martinique: 56%, French Guiana: 54%, Réunion: 72%, Mayotte: 54%

[203] Households with internet access in Portugal: 88.2%, Azores: 93.5%, Madeira: 90.2% (data from 2022)

[204] Broadband access point per 100 inhabitants in Portugal: 41.6, Azores: 40.1, Madeira: 40.8 (data from 2022)

households with internet access in the Canary Islands is 97%, above both the Spanish (96%) and the EU (92%) average. The same trend is observed for **broadband internet**, to which 97% of households had access in 2022, higher than both the Spanish and the EU average.

Internet usage

In line with the lower access rate in the **French OR**, internet usage in all the French regions also remains below the national average. Especially in **Guadeloupe** and **Martinique**, the share of people connecting regularly is far below the national average[205]. Nonetheless, average monthly mobile data consumption shows a **stark increase in internet usage over mobile networks** over the last 5 years. It also shows differences between the OR. While most OR consume an average of 5,000-6,000 MB per month over mobile networks, this number reaches 8,400 MB in **Réunion**.

In the **Portuguese OR**, where most people have access to the internet, usage habits differ from the mainland. In both OR, **using the internet for advanced private** purposes has become increasingly more popular over the last decade, and is now more common than in the mainland[206]. Nonetheless, online forms are less common in the OR when compared to the Portuguese average and significantly less common when compared to the EU average[207].

Internet usage in the **Canary Islands** has experienced a **significant increase** over the last decade. By 2022, regular usage is, just like internet access, similar to the Spanish and EU average[208]. Nonetheless, the internet is still used less for purchases, as the share of people who bought something via the internet is considerably lower in the Canary Islands (38%) compared to the Spanish average (54%). This difference might be the result of many online vendors not shipping products to the Canary Islands[209].

Telephone

In the **French OR**, both the number of **landline** and **mobile phone connections** have been stable over the last years, while mobile phone connections outnumber landline connections to different degrees in the regions, from just below three times as many mobile connections as landline connections in **Réunion**, up to 14 times as many in **Mayotte** (as of 2021). The number of **SIM cards relative to the population**, at 1.22 SIM cards per inhabitant in France in 2022, differs between OR. In **Mayotte** (1.02), **French Guiana** (1.06), and **Réunion** (1.11), there are fewer SIM cards per inhabitant than the French average, while in **Martinique** (1.54) and **Guadeloupe**, **Saint Martin** and St Barthélémy (combined data for all: 1.57), the number is higher.

[205] France: 70% connecting daily & 81% in the three months before the survey; Martinique: 52% & 71%; Guadeloupe: 51% & 68%; French Guiana: 61% & 71%; data from 2017; no data available for Mayotte, Réunion or Saint Martin

[206] Using the internet for advanced services for private purposes in 2022: Portugal 81.9%, Azores: 82.8%. Madeira: 84.1%

[207] Send online filled forms for public administration and private purposes in 2021: EU: 80% Portugal 34.2%, Azores: 27.6%. Madeira: 28.9%

[208] Connecting to the internet (almost) every day: EU: 80% (2021), Spain: 87% (2022), Canary Islands: 85% (2022)

[209] Canarias7. (2022, January 27). Un 50% de las tiendas online no realiza envíos a Canarias. https://www.canarias7.es/economia/tiendas-online-realiza-20220127144941-nt.html

In the **Portuguese OR**, telephone connections have been **continuously rising** in recent years but continue to remain below the national average. In **the Azores**, the number of **telephone accesses per 100 inhabitants** has been rising from 38 in 2012 to 48 in 2021, whereas the same number rose from 35 in 2012 to 48 in 2021 in **Madeira**. Both, however, remain below the Portuguese average of 50.

The **Canary Islands** remain slightly **below the Spanish average** in telephone access. In the Canary Islands, there were 41.3 **landline connections per 100 inhabitants** in 2018. This is an increase from 40.7 in 2017 but still lower than the Spanish average of 41.8. Most recent data from 2022 shows that 62.5% of Canary Islands' households have access to landline connection, still below the national level of 69.9%[210]. For **mobile connections**, there were 83.6 per 100 inhabitants in 2018, an increase from 81 in 2018 but still below the Spanish average of 91.7. However, both Spain and the Canary Islands register a value of 99.5% in terms of the percentage of households with a mobile phone[211].

2.4.3 Infrastructure

To analyse the infrastructure available for internet and telephone in the EU OR, a set of indicators has been collected, and trends analysed. To assess the **coverage and quality of the internet infrastructure**, the number of households and businesses with the option to connect to (high-speed fibre) internet networks as well as average download speeds are assessed. To show the **mobile coverage and quality,** the same indicators are assessed for mobile networks. To see trends around affordability, the average monthly **price** of subscriptions is assessed. The breakdown of the available indicators is presented in Annex I with visualisation of these in Annex II.

Internet coverage and quality

In the **French OR**[212], there has been a considerable surge in coverage of high-speed internet connections, though differences between regions remain high. The highest share of **homes and businesses covered by FttH networks** is observed in **Réunion**, whose ERDF Operational Programme for 2014-2020 outlined it as a priority, and where more than 80% of homes and businesses are covered by the FttH network in 2022. In **Guadeloupe** and **French Guiana**, this share reached 50-80% in 2022, a considerable surge for French Guiana, where coverage in 2017 was still below 10%. In **Martinique** and **Saint Martin**, this coverage, despite an increase in recent years, remains at 25-50%. Despite the increased coverage of FttH, average **download speeds** remain far below the French average of 62.6 kbit/s. In most OR[213], the speeds increased in recent years, reaching 27 Mbit/s in **Guadeloupe**, 33. Mbit/s in **Martinique**, 23.8 kbit/s in **French Guiana**, and 25.6 Mbit/s in **Mayotte**. However, in **Réunion,** the average speed decreased between 2019 and 2022 from 44.7 Mbit/s to 38.8 Mbit/s. Moreover, in Réunion, the implementation of a new and

[210] https://www.ine.es/jaxi/Datos.htm?tpx=55148

[211] Ibid.

[212] No data available for Mayotte

[213] No data available for Saint Martin

faster second **submarine cable** to South Africa (METISS) in 2020 has improved the internet connection speed and stability in the OR[214]. In 2023 the

Connecting Europe Facility awarded a grant for the construction and installation of a submarine communication cable connecting French Guiana to Europe via the EllaLink submarine cable with a maximum EU contribution of 29.94 million euro. Another project aims to increase digital connectivity and resilience high-performance bandwidth in the Caribbean French Outermost Regions, in this case with a maximum EU contribution of 3.65 million euro[215].

The infrastructure in **Portuguese OR** is quite similar to the national average. The **download speed of residential connections** has increased in both the **Azores** (from 70 Mbit/s in 2020 to 91 Mbit/s in 2022) and in **Madeira** (from 85 Mbit/s in 2020 to 94 Mbit/s in 2022). Whereas in 2020 these were above the national average of 50 Mbit/s, this was not the case in 2022, when the Portuguese average rose to 108 Mbit/s. Despite these high numbers, the infrastructure is facing some challenges. First, there are variations in the connection quality with worse quality in less urban areas[216]. Submarine cables are expected to become obsolete in 2024 (between mainland Portugal and the Azores), 2025 (between mainland Portugal and Madeira) and 2028 (between the Azores and Madeira), making timely preparation for their replacement a key priority[217]. In this context, the Connecting Europe Facility awarded a grant to support the Atlantic CAM in Portugal, which has a maximum EU contribution of 40.5 million euro[218].

The infrastructure of the **Canary Islands** is very similar to mainland Spain. The **coverage of FttH** has reached 92% in 2022, up from 35% in 2015. The deployment pace in this period was faster than the Spanish average, which rose from 45% to 90% in the same timeframe. In this context, the Connecting Europe Facility awarded a grant to support the project for the deployment of a new submarine cable between the Islands of El Hierro and Tenerife, a project that has a maximum EU financial contribution of 13.25 million euro[219].

Mobile coverage and quality

The infrastructure in place allows for significant increases in **mobile data traffic** in all French OR, whereas **mobile download speeds** remain far below the national average of 63 Mbit/s**.** The lowest download speeds in 2022 were measured in **French Guiana** (23.8 Mbit/s), **Mayotte** (25.6 Mbit/s), and **Guadeloupe** (27.8 Mbit/s), with slightly higher speeds in **Réunion** (29.2 Mbit/s in 2020), **Martinique** (33.4 Mbit/s), and **Saint Martin** (38.8 Mbit/s).

The mobile infrastructure in the Portuguese OR allows faster speeds than the mainland, as the average **download speed of mobile connections** has increased quickly. In **the Azores**, the average speed rose from 12 Mbit/s in 2020 to 41 Mbit/s in 2022, while in

[214] Gérard, L. H. a. D. (2021). Metiss, le câble internet sous-marin plus puissant est en service. Réunion la 1ère. https://la1ere.francetvinfo.fr/reunion/metiss-le-cable-internet-sous-marin-plus-puissant-est-en-service-962113.html

[215] https://hadea.ec.europa.eu/system/files/2023-12/CEF%20DIGITAL%20List%20of%20selected%20Project%20under%20Call%202.pdf

[216] Interview with key regional stakeholder from Portugal.

[217] Council of Ministers Resolution no. 104/2022, of 2nd November: https://diariodarepublica.pt/dr/detalhe/resolucao-conselho-ministros/104-2022-202899922

[218] https://hadea.ec.europa.eu/system/files/2023-12/CEF%20DIGITAL%20List%20of%20selected%20Project%20under%20Call%202.pdf

[219] https://hadea.ec.europa.eu/system/files/2023-12/CEF%20DIGITAL%20List%20of%20selected%20Project%20under%20Call%202.pdf

Madeira, it rose from 12 Mbit/s in 2020 to a very high 58 Mbit/s in 2022. In comparison, the national average rose from 7 Mbit/s in 2020 to 15 Mbit/s in 2022. Hence, the Portuguese OR have an average mobile download speed that is **2.7 and 3.8 times faster than the national average**.

The infrastructure of the **Canary Islands** is very similar to mainland Spain. For mobile networks, **4G coverage** in the Canary Islands increased at a faster rate than the Spanish average, both reaching full coverage of residential areas in 2018. For **5G coverage**, the deployment in the Canary Islands is below the Spanish average but still rather high, increasing from 44% in 2021 to 75% in 2022, compared to the respective Spanish averages of 59% and 82%.

Pricing[220]

The pricing of internet and telephone subscriptions has a slight upward trend in the French OR[221]. The **average price of residential connections** (internet, telephone and television) has been slightly increasing in **Guadeloupe and Saint Martin** from 2017 (43.50€) to 2021 (45.70€). In **Martinique**, in the same timeframe, the price has increased from 44.50€ to 49.10€. For **French Guiana**, the average price of residential connections (internet, telephone and television) has increased between 2017 (45.80€) and 2021 (49.90€). The price also increased from 2017 (42.20€) to 2020 (46.40€) in **Mayotte**, decreasing again in 2021 (45.70€). For **Réunion,** the average price has slightly increased from 2017 (42.50€) to 2021 (45.50€).

For the **Canary Islands**, the price index of communication is only marginally higher than the Spanish average. The development over the last decade is similar, with prices decreasing an average of 12% since 2012 in both Spain and the Canary Islands.

3. Main takeaways and recommendations

For Part 1 of the study, the main takeaways and recommendations stemming from the analysis are summarised below. Part 2 of the study (the regional fiches) provides additional recommendations based on a tailored analysis per region.

Adequate housing

Affordable housing has been identified as a crucial need in ensuring access to adequate housing across all OR. Housing prices have risen in the OR while the purchasing power of their citizens remains below the national level. As a result, homeownership has become increasingly inaccessible to citizens across the OR, as shown by an increase in tenancy rates and a reduction in homeownership rates.

[220] No information has been found on pricing for the Portuguese OR.

[221] No comparable information has been found for mainland France.

Proposed recommendation – Prices of housing

- Implement actions to limit and/or mitigate the increase in housing prices. These actions could include increasing the availability and supply of housing, rehabilitation of housing and reducing the number of vacant dwellings[222].

The lack of social housing to meet the growing demand across most OR is also related to the increasing housing pricing. Despite the inclusion of social housing across policies of the different OR, supply continues to be insufficient. Increasing supply could also help to address the affordability challenge in all OR.

Proposed recommendation – Social housing needs

- Foster projects to increase the supply of social housing to meet rising demand, thus also contributing to making housing more affordable to more people.

As regards **infrastructure**, the **French OR** have seen a positive trend in terms of the share of solid houses or buildings, and of the proportion of facilities supplied in the houses. Nonetheless, **connection to the sewerage system remains a core need in the French regions.**

Proposed recommendation – Adequate housing infrastructure

- In the French OR, seek to ensure adequate housing infrastructure, particularly in relation to connection to the sewerage system and availability of hot water, and consider such recommendation in future policies and plans.
- Promote climate-resilient and energy-efficient housing infrastructure across the OR, taking into consideration the needs and specificities of these regions. In the Canary Islands, seek to improve households' insulation, while in the Azores actions could focus on the rehabilitation of housing.

Drinking Water and sanitation

Drinking water **quality and affordability** have been identified as key areas in terms of providing access to drinking water and sanitation in the French OR, particularly in French Guiana, Réunion and Mayotte. This is particularly relevant for **Mayotte** since this region is facing its **most severe water crisis** of the last decades.

Proposed recommendation – Water quality and access to drinking water

- Upgrade and build additional water infrastructure as appropriate to **improve water quality** in the French OR, in particular in Mayotte, together with developing **mechanisms** to detect the causes of under quality.

[222] https://ec.europa.eu/futurium/sites/futurium/files/long_version_en.pdf.pdf

Affordable water represents a challenge for **all the OR** due to the increase in water prices.

Proposed recommendation – Water prices

- Consider **investing in smart water metres**, which can detect and reduce water leaks and, consequently, reduce the final consumption of water and water bills for consumers.

Water infrastructure represents a challenge for **all the OR**. **Outdated facilities** cause an increased **number of service interruptions** in the French OR, especially in Martinique and Mayotte, and **higher levels of water losses** in Saint Martin, Réunion and Mayotte. Higher levels of water losses have also been observed in the **Portuguese OR** and in the **Canary Islands**. The main challenge in the Canary Islands is the **scarcity of water resources,** which leads to the need to increase the volume of water reused since it has been recently decreasing.

Proposed recommendation – Water infrastructure

- Promote **higher investment and research** on various **materials** to reduce water supply interruptions and water losses and increase the durability of infrastructure (i.e., materials more resistant to higher water temperatures and presence of damaging substances such as chlorine).
- **Invest** in the **modernisation of storage** infrastructure and increase the number of storage tools, such as **storm tanks,** underground reservoirs, or dual drainage systems (for wastewater and rainwater).
- Increase the amount of **water reused, by investing in new technological solutions** that allow higher volumes of water to be reused by industry and in gardens and recreational sports areas[223].

One of the main **gaps identified across the OR is the need to build climate-resilient infrastructure** to guarantee access to drinking water and sanitation. This is of particular concern in the Portuguese OR.

Proposed recommendation – Climate resilience

- **Invest** in **climate resilient infrastructure** – in particular for drinking water- for risk prevention and mitigation, to avoid water infrastructure being affected by the consequences of climate change; take into account available best practices.

Electricity, cooling and heating

Annual electricity consumption has generally decreased across all regions, while electricity consumption in households has experienced a noticeable increase, in particular in 2021. This higher consumption in households might denote that access to

[223] For instance, one type of reused water is “greywater” which refers to reuse of the wastewater that derives from sinks, washing machines and showers. https://www.globalwatergroup.com.au/our-blog/difference-between-blackwater-and-greywater

electricity is becoming increasingly available, supported by a progressive and common **improvement of the grid infrastructure of all the OR**. **The regions have expanded the size of their infrastructure, adding tension lines and poles,** as well as increasing connection points for data consumption, translating in fewer cutbacks and service interruptions in most OR. The **Azores, Madeira** and the **Canary Islands** register a low heating consumption, whereas the maintenance of an **adequate temperature** at dwellings during summer is challenging in some regions, such as the Canary Islands.

Proposed recommendation – Energy efficiency and infrastructure

- Promote the implementation of energy efficiency measures in buildings to maintain adequate temperature.
- Increase investments in new energy infrastructure and for the **maintenance of grid infrastructure**, with precise monitoring of power plants, to mitigate and avoid potential power outages. To ensure access to energy, Investments should **improve relevant components of the grid** such as distribution lines, capacity of transformers and poles.

The Canary Islands, Madeira and the **Azores** have increased the total production of electricity from renewable energies, which has risen remarkably over the last years[224]. The **French OR** have also shown positive progress towards increasing the share of renewable energies in electricity generation. Since none of the OR's electricity networks are connected to the European grid, this increase is a positive trend as energy generation systems have historically relied on fossil fuels.

Proposed recommendation – Renewable energy

- Invest in **infrastructure** to generate renewable energies, to decrease dependence on traditional fossil fuels; and diversify generation sources based on the characteristics of each outermost region (**sun, wind, geo-thermic** and **marine**).

All regions are faced with potential social challenges emerging from the energy crisis. Due to several factors that have accentuated OR vulnerabilities (increase in the frequency of natural disasters and higher energy prices), a number of regions saw how the average income of households has risen at a lower rate than energy prices.

Proposed recommendation – Energy poverty

- Foster energy poverty monitoring programmes across all OR and launch awareness-raising campaigns on energy efficiency. Energy efficiency programmes can help households to reduce their energy bills and **mitigate energy poverty risks**. Monitoring and diagnosis mechanisms could ensure that measures developed support households as intended.

[224] Further evidence can be found under section 2.3.

Connectivity

Overall, the OR show a clear, and in some cases very strong, upward trend in connecting to the internet both through broadband and mobile connections.

However, the **French OR** **remain below the national average in (high-speed) internet access and (regular) usage.** As regards internet infrastructure, **options for high-speed Fibre to the Home (FttH) connections, while improving, remain below the national average (except for Réunion).** For telephone connections, there are significant differences among the French OR, with mobile phones outnumbering landlines from 3 times (in Réunion) up to 14 times (in Mayotte).

In the **Canary Islands**, **internet access is above both the Spanish and EU averages,** and internet usage is only marginally below. For high-speed internet coverage, the Canary Islands are above the national average, while slightly **below the national average in terms of telephone access and deployment of 5G coverage.**

Proposed recommendation – Connectivity and access & 5G

- **Continue efforts** in the French OR to further increase both the access to the internet and the coverage of services.
- Consider **increasing the coverage of 5G networks** in the Canary Islands to have a high level of internet infrastructure and prepare for upcoming technological changes.
- Further invest in the **expansion of mobile networks and increasing their capacity**, given that they may act as a substitute for (high-speed) broadband connections in more remote areas.
- Develop measures to overcome the stagnation of **capacities and download speeds** (both mobile and broadband).

Connectivity is of special relevance for the OR, given they are geographically distant from the mainland European continent. Despite the general increase in coverage of high-speed internet connections across the OR, the French OR face lower internet connection speed than mainland France. Additionally, the Portuguese OR and the Canary Islands face a lack of adequate connection in rural areas. Therefore, it is crucial to ensure the adequate connectivity infrastructure is in place and that it remains functional over time.

Proposed recommendation – Submarine cables

- Pursue efforts to ensure **connectivity through submarine cables** in all the relevant OR as well as their **timely replacement** to ensure continued and stable connection. Further measures should be developed and implemented to **overcome potential future decreases in average speeds**. These measures could build on recent initiatives such as EllaLink, and CANALINK as well as

Increasing digital connectivity and resilience high-performance bandwidth in Caribbean French Outermost Regions, financed through CEF calls.

ANNEXES

- Annex I: List of indicators
- Annex II: List of tables and graphs
- Annex III: Graphs and figures
- Annex IV: Desk research
- Annex V: Key sources of information consulted

3.1 Annex I: List of indicators

3.1.1 Adequate housing

Table 1- List of indicators adequate housing

Area	Sub-area	Indicator	Region
ACCESS	Habitability	Average number of rooms per person	EU, France, Réunion, Guadeloupe, Martinique, French Guiana, Portugal, Azores, Madeira, Spain, Canary Islands
		Main residences by over-occupation	Réunion, Guadeloupe, Martinique, French Guiana
		Overcrowding rate (%)	EU, Portugal, Azores, Madeira, Spain, Canary Islands
	Tenacy regime	Distribution of population: Homeowner	EU, France, Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin, Spain, Canary Islands,
		Conventional family dwellings of usual residence owned	Portugal, Azores, Madeira
		Distribution of population: Tenant	EU, France, Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin, Portugal, Azores, Madeira
		Distribution of population: Tenant under market price	Spain and Canary Islands
		Distribution of population: Tenant over market price	Spain and Canary Islands
		Distribution of population: Housed for free	Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin, Spain, Canary Islands

Area	Sub-area	Indicator	Region
	Social housing	Number of social housing units per 10,000 inhabitants	France, Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Portugal, Azores, Madeira
		Social housing. Number of definitive qualifications.	Spain and Canary Islands
	Affordability	Average rent per square metre of living space	France, Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Spain and Canary Islands
		Median house rental value per m^2 of new lease agreements of dwellings (€/m^2)	Portugal, Azores and Madeira
		Population with high expenditure on housing	Spain and Canary Islands
		Median of housing cost burden	Portugal, Azores and Madeira
		Mortgage credit granted to singular persons per inhabitant (€/ inhab.)	Portugal, Azores and Madeira
		Housing price Index	Spain and Canary Islands
		Rental Housing Price Index (IPVA)	Spain and Canary Islands
INFRASTRUCTURE	Housing typology	Number of households made of steel	Mayotte
		Wooden houses or buildings	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin
		Makeshift dwellings	Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin
		Traditional huts	Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin
		Proportion of resident population in non-conventional	Portugal, Azores and Madeira

Area	Sub-area	Indicator	Region
		dwellings of usual residence	
		House in substandard housing: shack, shanty, shack-like, prefabricated or similar	Spain and Canary Islands
		Household with serious deficiencies in housing construction	Spain and Canary Islands
		Solid houses or buildings	Réunion, Guadeloupe, Martinique, French Guiana, Saint Martin
		% of classic living quarters	Portugal, Azores and Madeira
	Facilities	Electricity in the accommodation	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana
		Hot water in the accommodation	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana
		Bath or shower and WC inside	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Portugal, Azores and Madeira
		Solar water heater	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana
		Air-conditioned room	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Portugal, Azores and Madeira
		Sewerage	Mayotte, Réunion, Guadeloupe, Martinique, French Guiana, Portugal, Azores and Madeira
		Presence of bain and/or WC inside	Saint Martin
		Hot/cold water with/without electricity	Saint Martin
		Sewerage system: connection to sewer	Saint Martin

Area	Sub-area	Indicator	Region
		network, connection to septic tank, connection to a sump, waste water disposal on the ground	
		Share of Household with unhealthy situations: dampness, dirt and odours	Canary Islands
		Heating infrastructure distribution	Spain and the Canary Islands
		Water infrastructure distribution	Spain and the Canary Islands

3.1.2 Water and sanitation

Table 2 - List of indicators drinking and water sanitation

Area	Sub-area	Indicator	Region
ACCESS	Consumption	Estimated number of inhabitants supplied	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Average consumption per customer	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Domestic volume accounted for per inhabitant served.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Litres of water per day and per person according to the World Health Organisation	All
		Volume of drinking water consumed per capita	France
		Index of consumption	Saint Martin

Area	Sub-area	Indicator	Region
		Proportion of population using at least basic sanitation services	Saint Martin
		Domestic volume per inhabitant supplied	Portugal, Azores, Madeira.
		Percentage of drinking water	EU, Portugal, Madeira.
		Proportion of dwellings served by water supply	Portugal, Azores, Madeira.
		Amount (m^3) of fresh water supplied per inhabitant	EU, Portugal, Azores, Madeira
		Domestic volume per inhabitant served	Spain, Canary Islands
	Management	Maximum number of working days to open connections for new subscribers.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion.
		Proportion of population using safely managed drinking water services	Saint Martin
		Percentage of dwellings served by wastewater drainage systems	EU, Portugal, Madeira
		Total volume of water registered and distributed by households	Spain and Canary Islands
		Percentage of the population supplied by Cobertura del Sistema Nacional de Aguas de Consumo.	Spain and Canary Islands

Area	Sub-area	Indicator	Region
		Volume of water available for potabilisation	Spain and Canary Islands
		Volume of non-drinking water available	Spain and Canary Islands
		Volume of water supplied to the network	Spain and Canary Islands
		Wastewater collection and treatment	Spain and Canary Islands
		Volume of water reused per inhabitant per day	Canary Islands.
		Volume of water reused in agriculture, industry and gardens and recreational areas.	Spain and Canary Islands.
	Affordability	Rate of unpaid water bills from the previous year	Guadeloupe, Martinique, Mayotte, Réunion.
		Price of water per m^3 for 120 m^3 including VAT.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin.
		Water prices (€/m^3)	Azores and Madeira
		Unit cost of water.	Spain and Canary Islands
	Quality	Percentage of compliance of distributed water samples taken for sanitary control with microbiological quality limits.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion

Area	Sub-area	Indicator	Region
		Percentage of compliance of distributed water samples taken for sanitary control with physico-chemical quality limits.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Progress in the protection of water resources.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Proportion of population using improved drinking water sources free from faecal and priority chemical contamination	Saint Martin
		Analyses not complying with the parametric value.	Portugal, Azores, Madeira.
		Analyses in compliance with the parametric value.	Portugal, Azores, and Madeira
		Number of health inspections notified.	Spain and Canary Islands
INFRASTRUCTURE	Conditions of water infrastructure	Average renewal of drinking water networks	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion
		Occurrence of unscheduled service interruptions	Guadeloupe, Martinique, French Guiana, Réunion, Mayotte
		Proportion of population using sanitation facilities connected to sewer networks	Saint Martin
		Proportion of population using piped drinking water sources	Saint Martin
		Length of the sewerage network per inhabitant	Canary Islands

Area	Sub-area	Indicator	Region
		Number of storm tanks.	Canary Islands
	Water losses	Linear network loss index.	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin.
		Proportion of the volume of water distributed lost by leak in the pipes	France
		Water supply losses.	Madeira
		Volume of actual water losses as a percentage of the total volume of unregistered water	Spain and Canary Islands
		Actual losses per km of supply network.	Canary Islands
	Water abstraction	Freshwater abstraction from surface water.	Portugal, Azores and Madeira
		Freshwater abstraction from groundwater.	Portugal, Azores and Madeira
		Surface water abstraction.	Canary Islands
		Groundwater abstraction.	Canary Islands
		Desalination abstraction.	Canary Islands

3.1.3 Electricity, cooling, and heating

Table 3 - List of indicators electricity, cooling, and heating

Area	Sub-area	Indicator	Region
ACCESS	Electricity consumption	Consumption data and energy delivery points at regional level (MWh/Site)	Guadeloupe, Martinique, French Guiana, Réunion
		Annual electricity consumption (GWh)	France, Guadeloupe, Martinique, French Guiana, Réunion, Portugal, Azores, Madeira, Spain, Canary Islands
		Final consumption of electricity in housing (Mw/h)	France, Guadeloupe, Martinique, French Guiana, Réunion, Portugal, Azores, Madeira, Spain, Canary Islands
		Consumption of electric energy by inhabitant (kWh/ inhab.)	Portugal, Azores, Madeira
		Consumption of primary energy in housing (private households' toe)	Portugal, Azores, Madeira
	Heating and cooling	Percentage of people who cannot afford to keep the dwelling at an adequate temperature	Spain, Canary Islands
		Annual gas consumption (Terajoules)	Portugal, Madeira
	Sources of energy production	Total production of electricity coming from renewable origin (MWh)	Portugal, Madeira, Azores, Canary Islands
INFRASTRUCTURE	Public grid size and infrastructure	Length (in km) of high-tension lines	Guadeloupe, Martinique, French Guiana, Réunion,
		Length (in km) of medium tension lines	Guadeloupe, Martinique, French Guiana, Réunion,
		Length (in km) of low-tension lines	Guadeloupe, Martinique, French Guiana, Réunion,
		High/Medium tension poles	Guadeloupe, Martinique, French Guiana, Réunion,

Area	Sub-area	Indicator	Region
		Medium/Low tension poles	Guadeloupe, Martinique, French Guiana, Réunion,
		Connection points to the public electricity network for domestic consumption (main sector)	Portugal, Azores, Madeira
		Evolution of the electricity grid distribution lines (km of circuit under 220kv)	Canary Islands
		Number of service interruptions in the electricity system	Spain, Canary Islands
		Average time of service interruptions (minutes)	Spain, Canary Islands
		Number of positions of substations	Canary Islands
		Capacity of transformers (MVA)	Canary Islands
		Energy non supplied (MWh)	Spain, Canary Islands
	Number of establishments in the energy, heating and cooling industry	Establishments in the extractive industries, energy, water, waste management or remediation activities	Portugal, Madeira, Azores, Spain, Canary Islands
	Energy prices	Average price of energy (€/Mwh)	Spain, Portugal

3.1.4 Connectivity

Table 4 - List of indicators connectivity

Area	Sub-area	Indicator	Region
ACCESS	Internet Access	Households that have internet access at home (%)	EU, France, Guadeloupe, Martinique, French Guiana, Réunion, Portugal, Azores, Madeira, Spain, Canary Islands
		Proportion of active 4G SIM cards of all SIM cards (%)	France, Guadeloupe, Martinique, French

Area	Sub-area	Indicator	Region
			Guiana, Mayotte, Réunion
		Households that have broadband access (%)	EU, Portugal, Azores, Madeira, Spain, Canary Islands
		Number of broadband internet access points per 100 inhabitants	Portugal, Azores, Madeira
		Very high-speed broadband internet subscriptions	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin
		Very-high-speed access as a proportion of total Internet access (%)	Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin
	Internet Usage	Individuals regularly using the Internet (every day or almost every day)	EU, France, Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Spain, Canary Islands
		Share of individuals who connected to the Internet in the last three months (%)	France, Guadeloupe, Martinique, French Guiana, Spain, Canary Islands
		Average monthly mobile data consumption (in Megabytes)	Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion
		Proportion of population sending online filled in forms over the Internet for public administrations for private purposes in the last 12 months (%)	EU, Portugal, Azores, Madeira
		Share of the population using Internet for advanced services for private purposes in the first 3 months of the year (%)	Portugal, Azores, Madeira
		Share of individuals that have bought through the Internet in the last 3 months (%)	Spain, Canary Islands
	Telephone	Number of landline phone connections	Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion

Area	Sub-area	Indicator	Region
		Landline connections per 100 inhabitants	Spain, Canary Islands
		Number of SIM Cards	Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion
		Number of SIM cards relative to the population	France, Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion
		Mobile phone connections per 100 inhabitants	Spain, Canary Islands
		Telephone access per 100 inhabitants	Portugal, Azores, Madeira
INFRASTRUCTURE	Internet coverage and quality	Dwellings that can connect to the FttH network	Guadeloupe, Martinique, French Guiana, Réunion, Saint Martin
		FttH coverage rate (the proportion of homes or business premises that can be connected to one or more FttH networks)	Guadeloupe, Martinique, French Guiana, Réunion, Saint Martin, Spain, Canary Islands
		Download speed (in kbit/s)	France, Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin
		Average download speed at residential connections (in Mbit/s)	Portugal, Azores, Madeira
	Mobile coverage and quality	Mobile data traffic	Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion
		Average download speed at mobile connections (in Mbit/s)	France, Guadeloupe, Martinique, French Guiana, Mayotte, Réunion, Saint Martin, Portugal, Azores, Madeira
		4G Coverage of residences (%)	Spain, Canary Islands
		5G Coverage of residences (%)	Spain, Canary Islands

Area	Sub-area	Indicator	Region
	Pricing	Average monthly bill of residential connections (internet, telephone, & television) in EUR	Guadeloupe & Saint Martin & Saint Barthélémy, Martinique, French Guiana, Mayotte, Réunion
		Price Index: Cost of Communications	Spain, Canary Islands

3.2 Annex II: List of tables and graphs

List of Tables

List of Graphs

3.3 Annex III: Graphs and figures

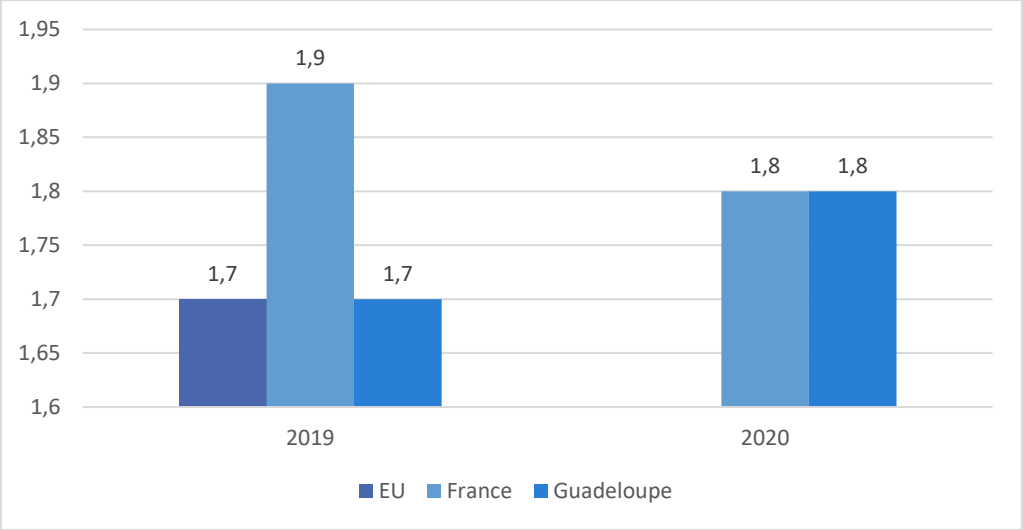
3.3.1 Adequate housing

Access

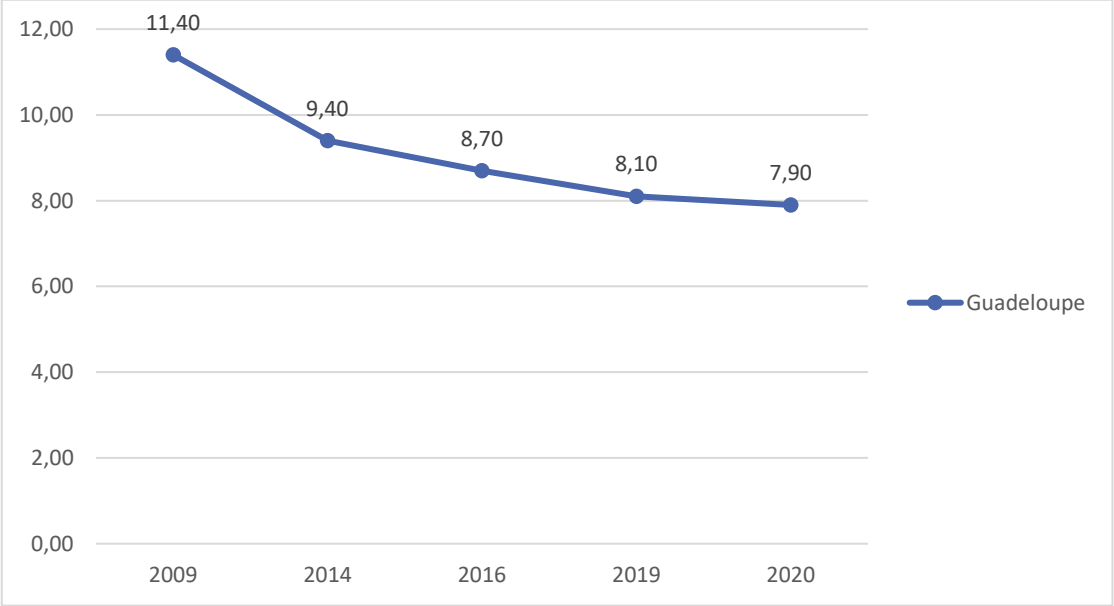
3.3.1.1 Habitability

FRENCH OR

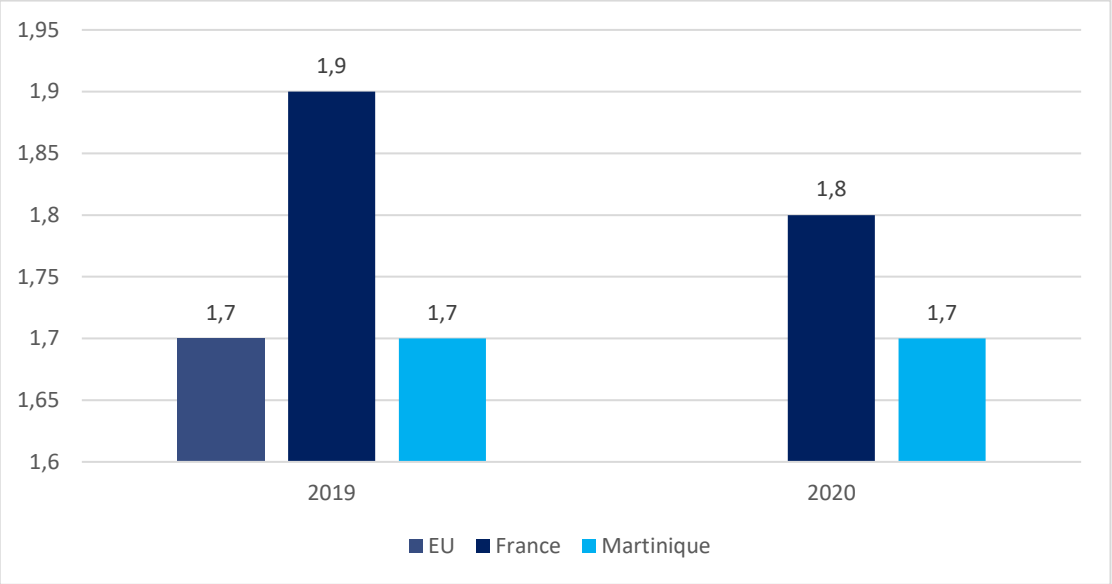
Graph 13: Average number of rooms per person in Guadeloupe



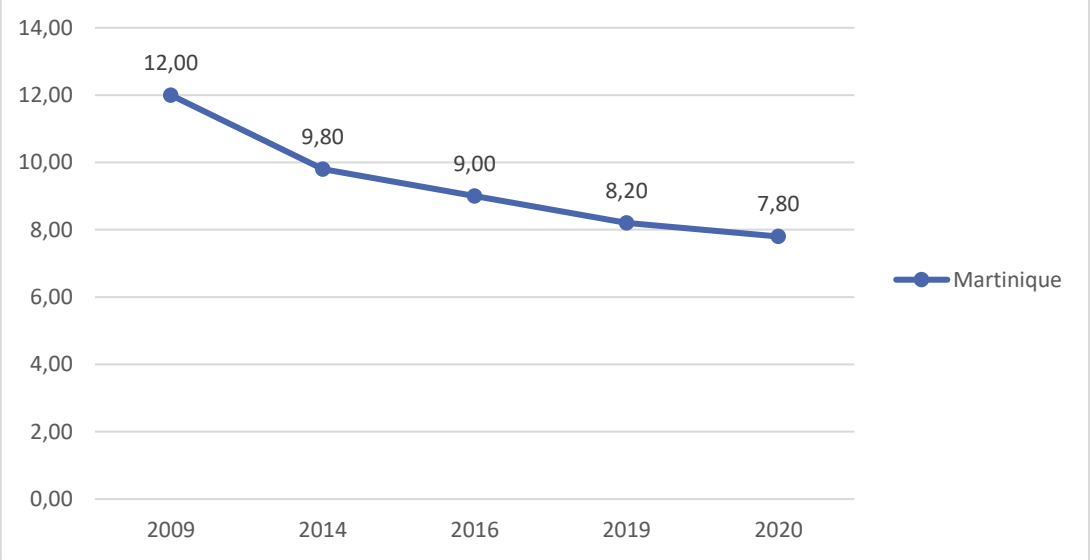
Graph 14: Main residences by over-occupation



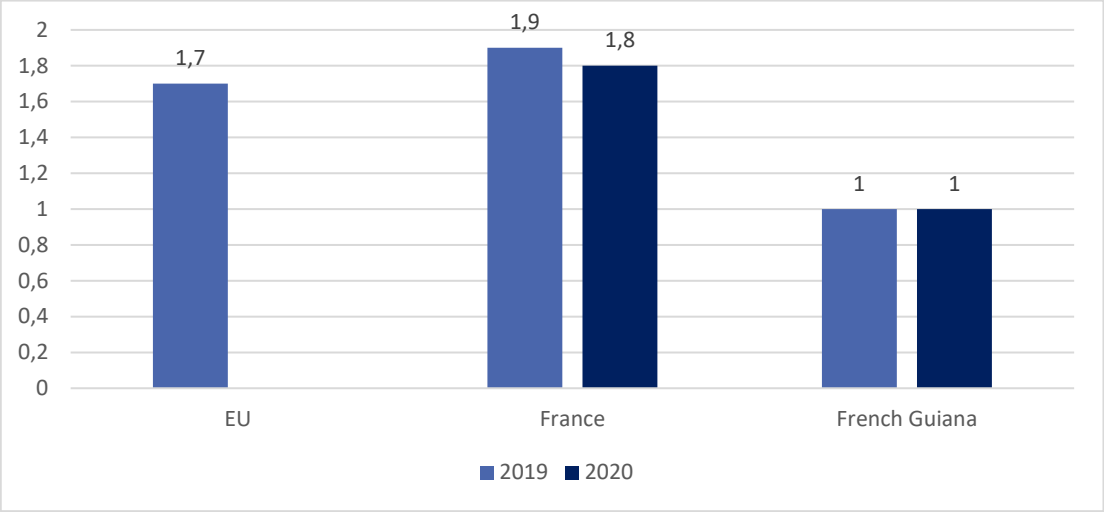
Graph 15: Average number of rooms per person in Martinique



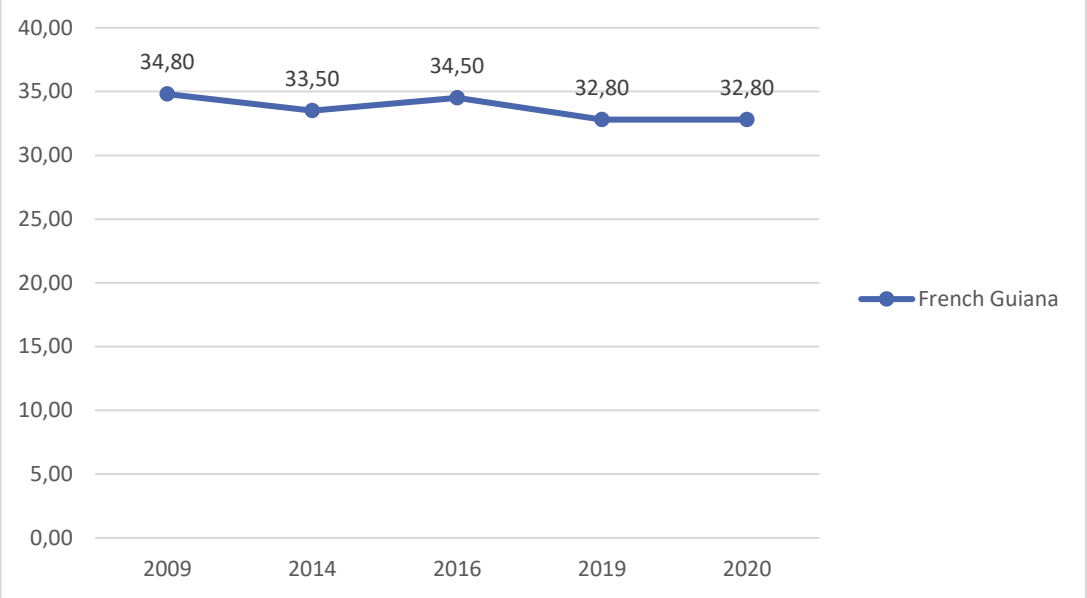
Graph 16: Main residences by over-occupation



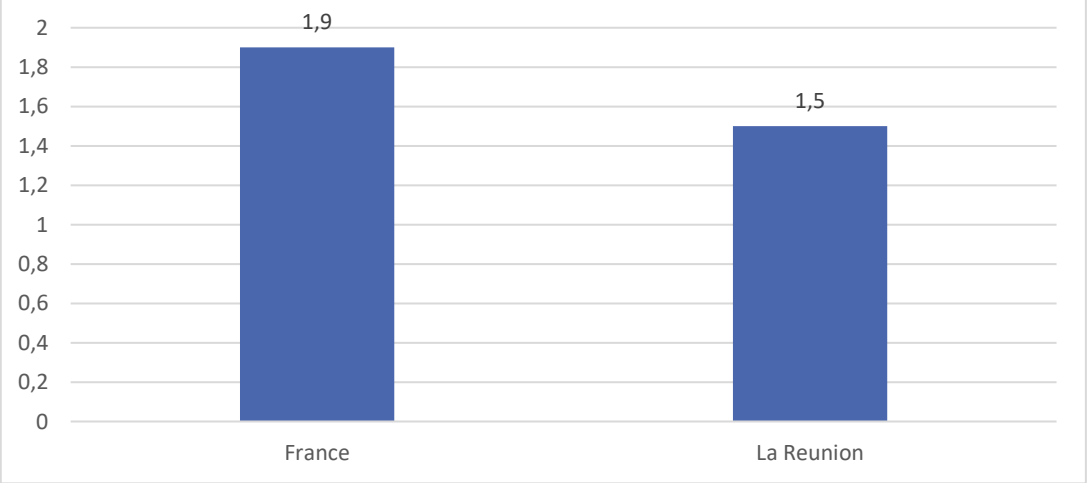
Graph 17: Average number of rooms per person in French Guiana



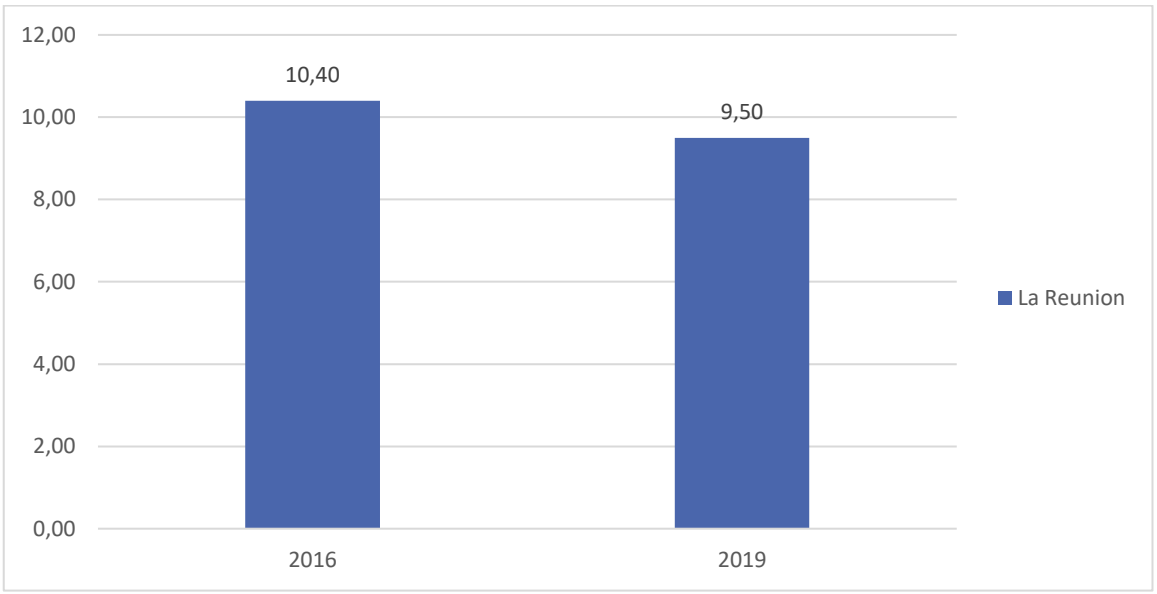
Graph 18: Main residences by over-occupation



Graph 19: Average number of rooms per person in Réunion in 2019

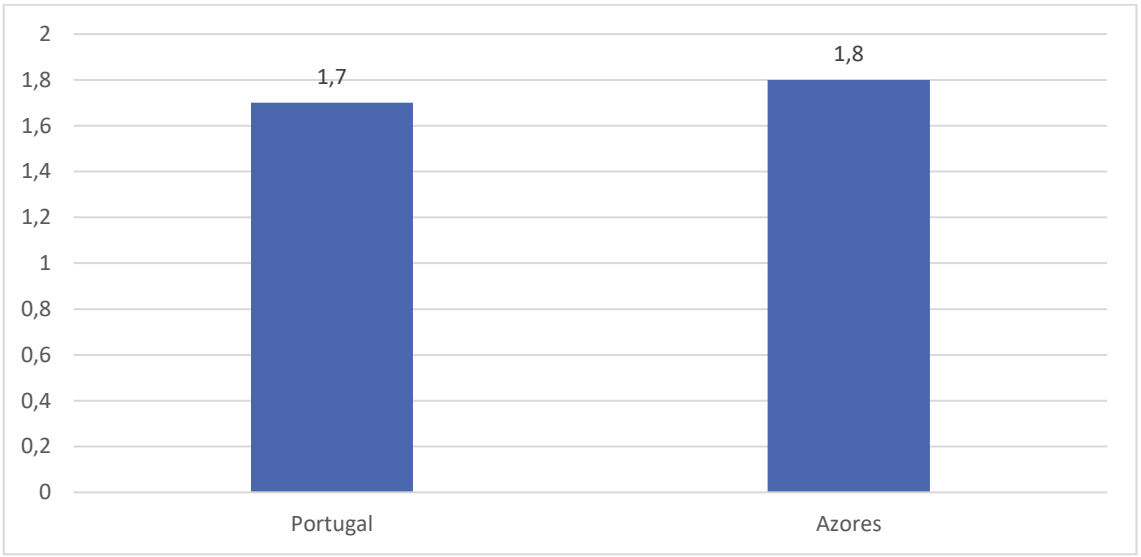


Graph 20: Main residences by over-occupation

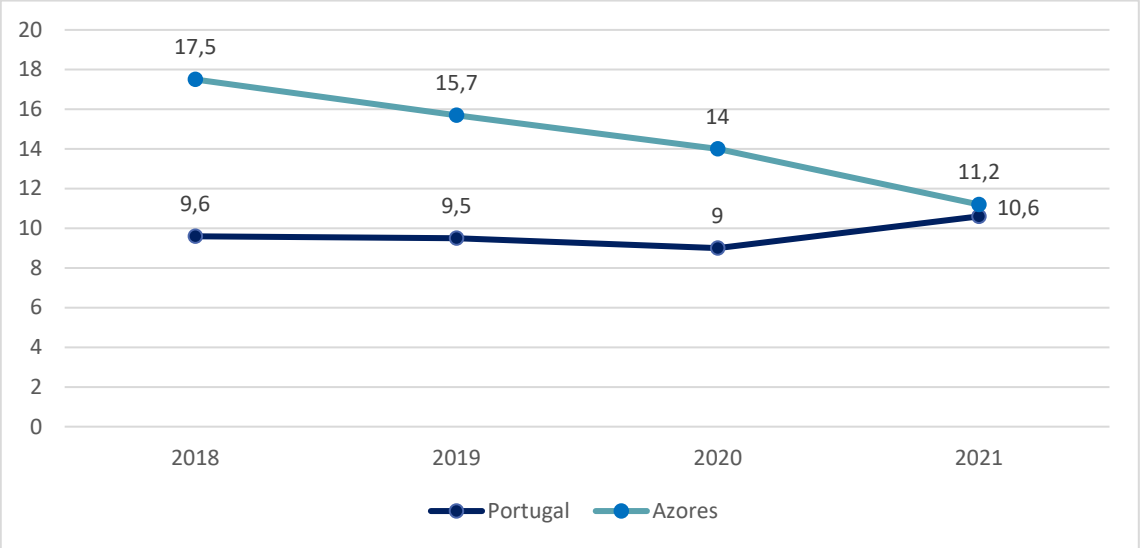


PORTUGUESE OR

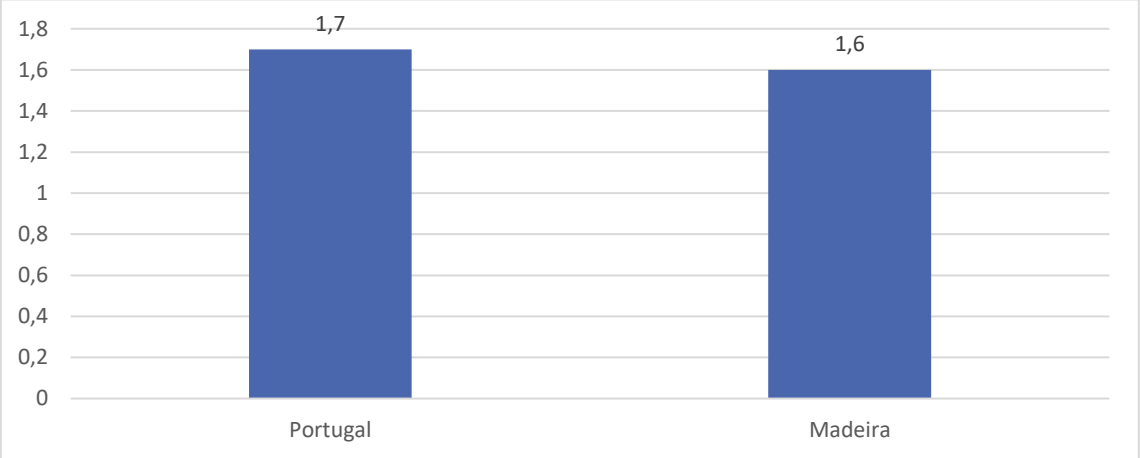
Graph 21: Average number of rooms per person in the Azores in 2014



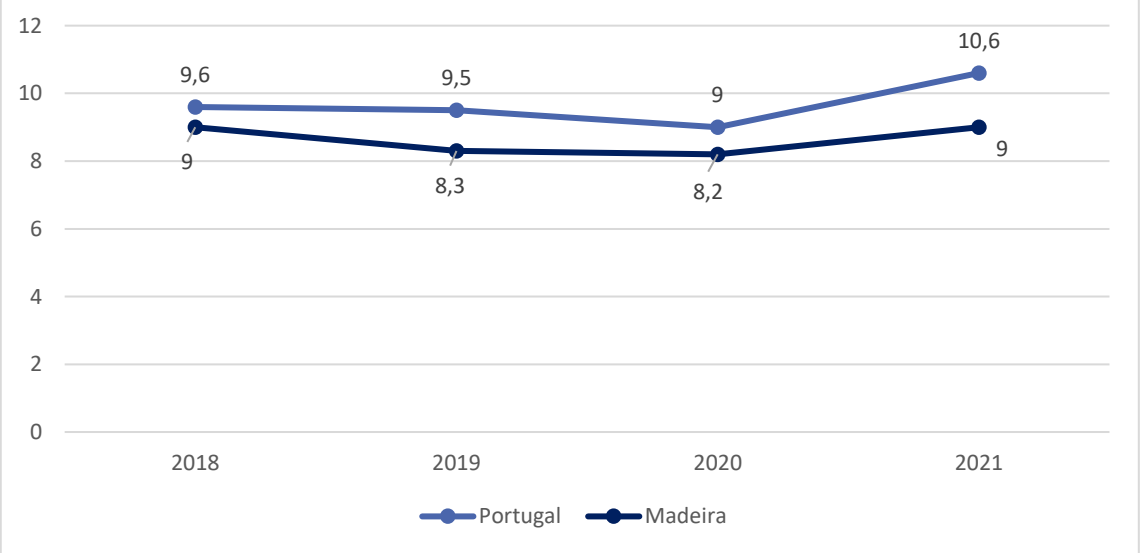
Graph 22: Overcrowding rate in the Azores



Graph 23: Average number of rooms per person in Madeira in 2014

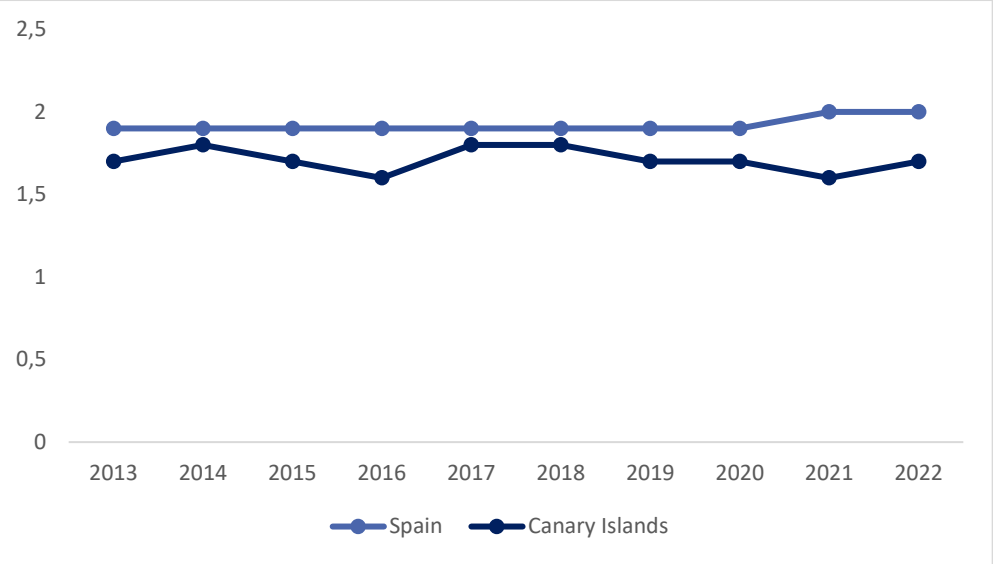


Graph 24: Overcrowding rate in Madeira

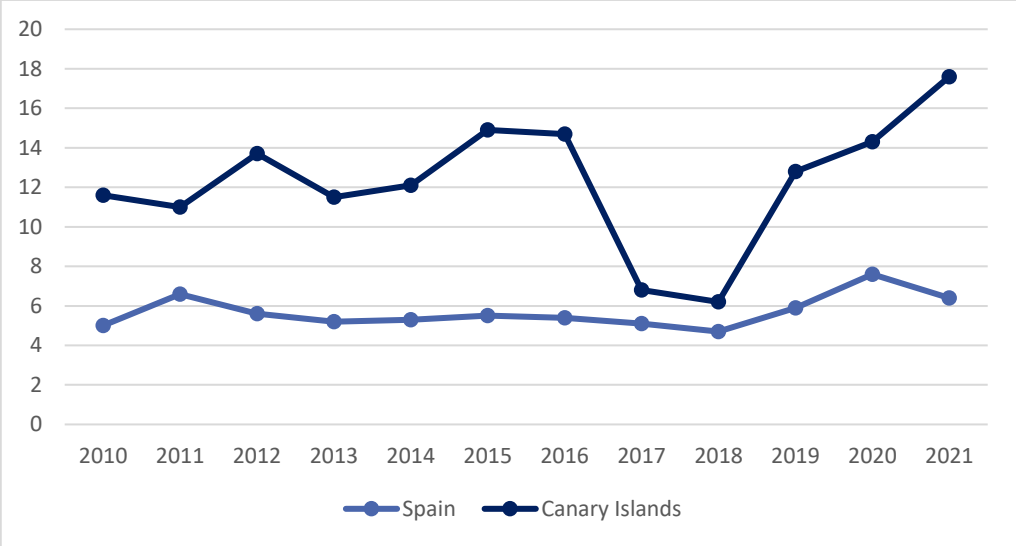


SPANISH OR

Graph 25: Average number of rooms per person in Canary Islands



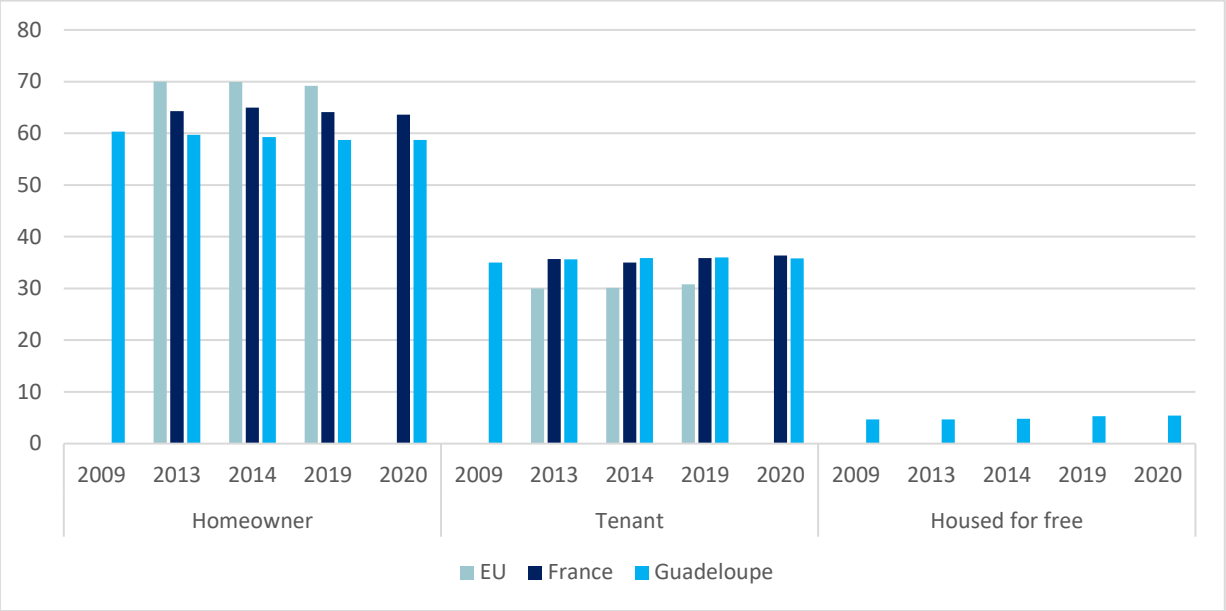
Graph 26: Overcrowding rate in Canary Islands



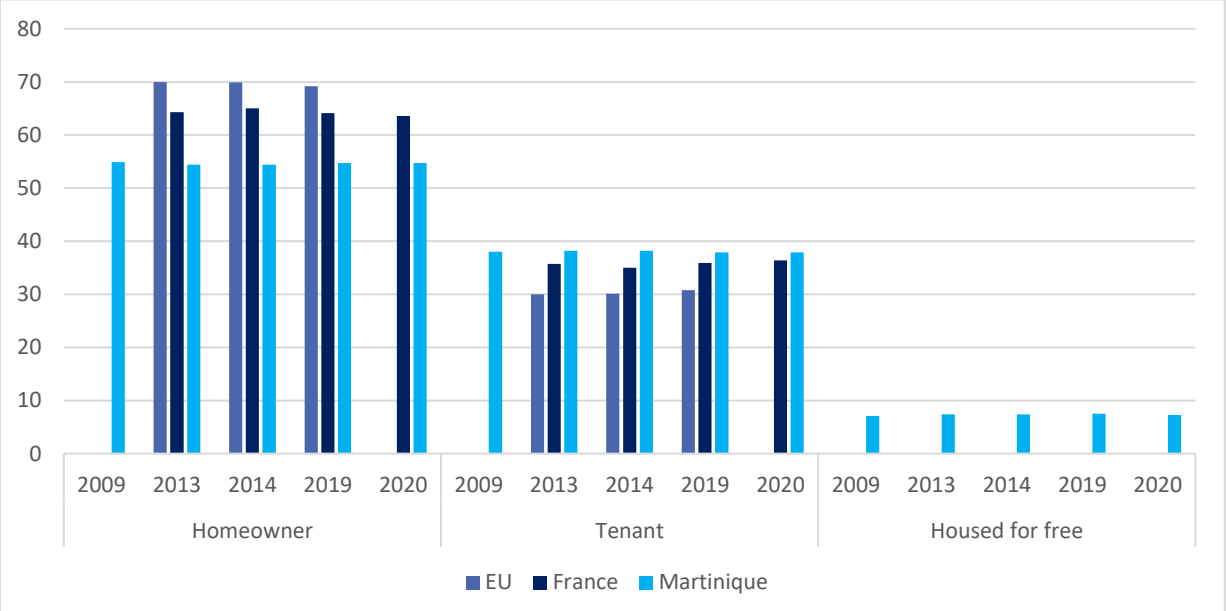
3.3.1.2 Tenancy regime

FRENCH OR

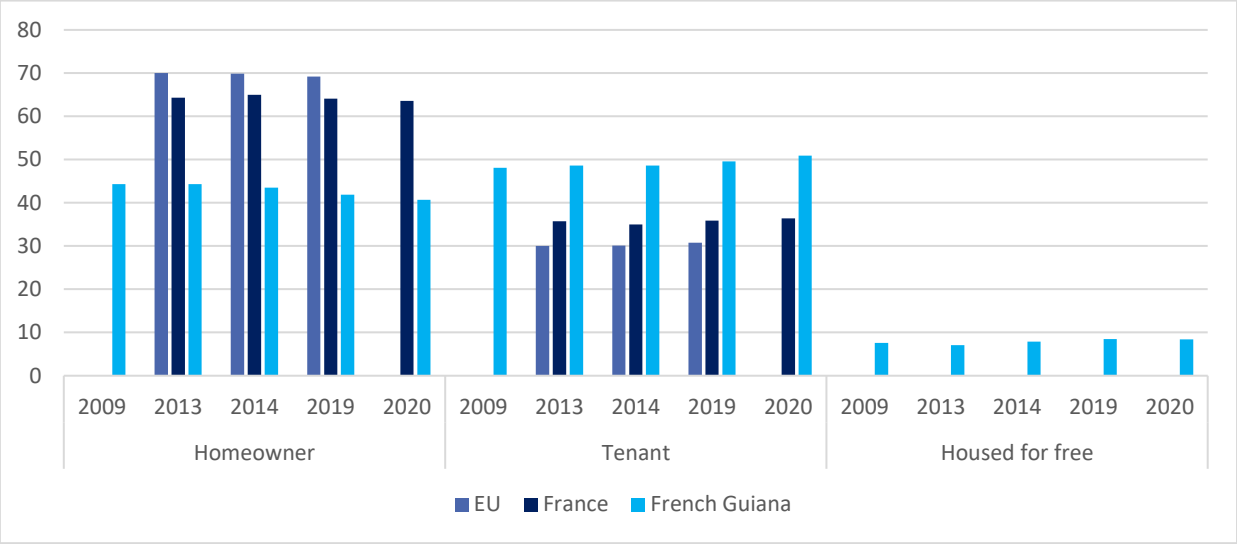
Graph 27: Distribution of tenancy regime in Guadeloupe



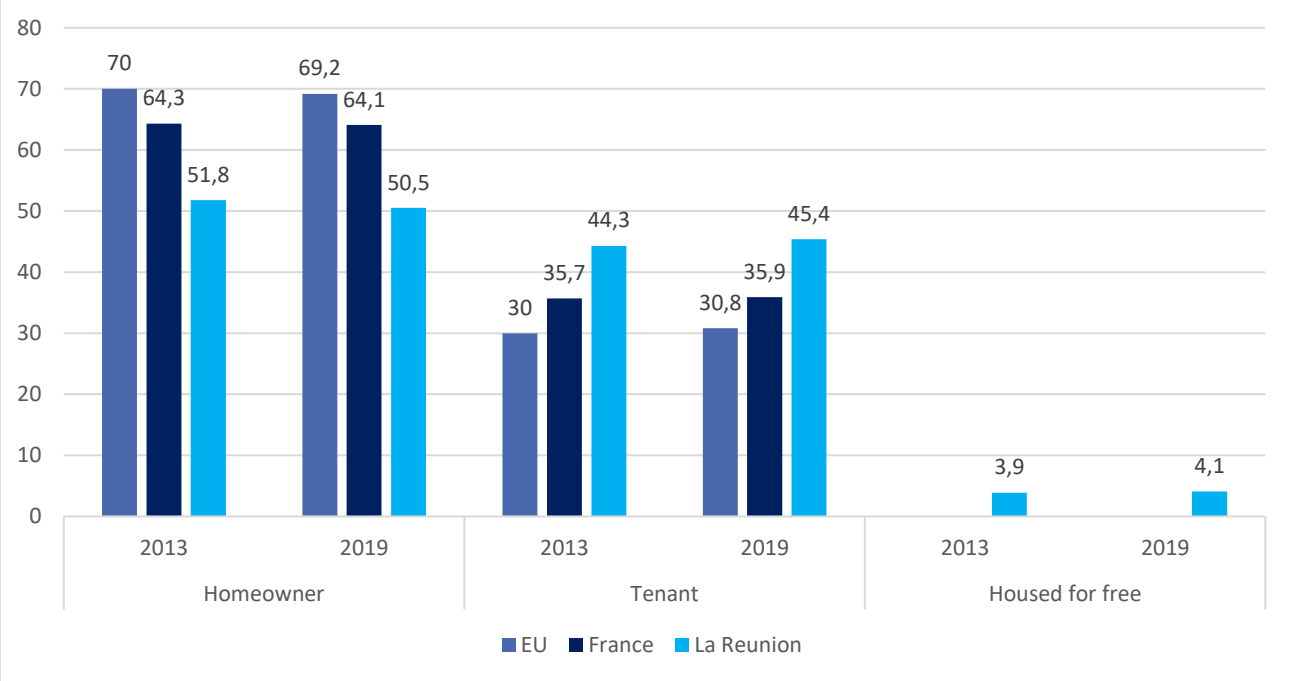
Graph 28: Distribution of tenancy regime in Martinique



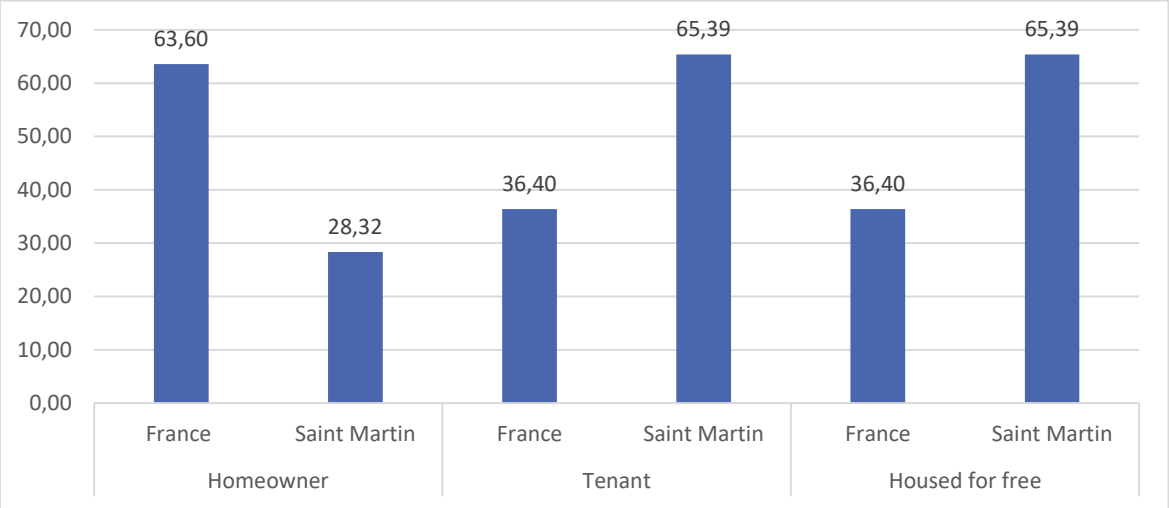
Graph 29: Distribution of tenancy regime in French Guiana



Graph 30: Distribution of tenancy regime in Réunion

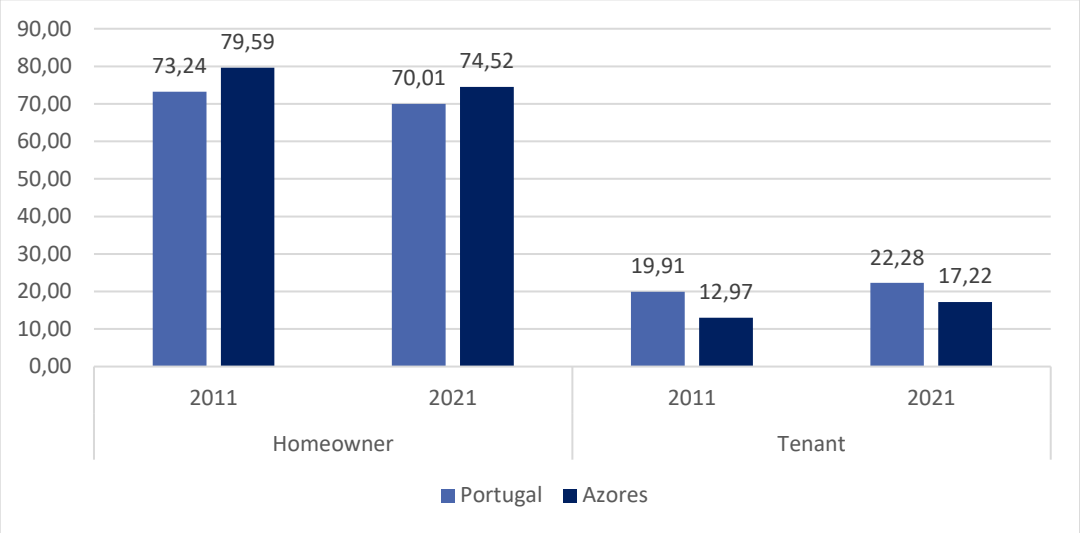


Graph 31: Distribution of tenancy regime in Saint Martin in 2020

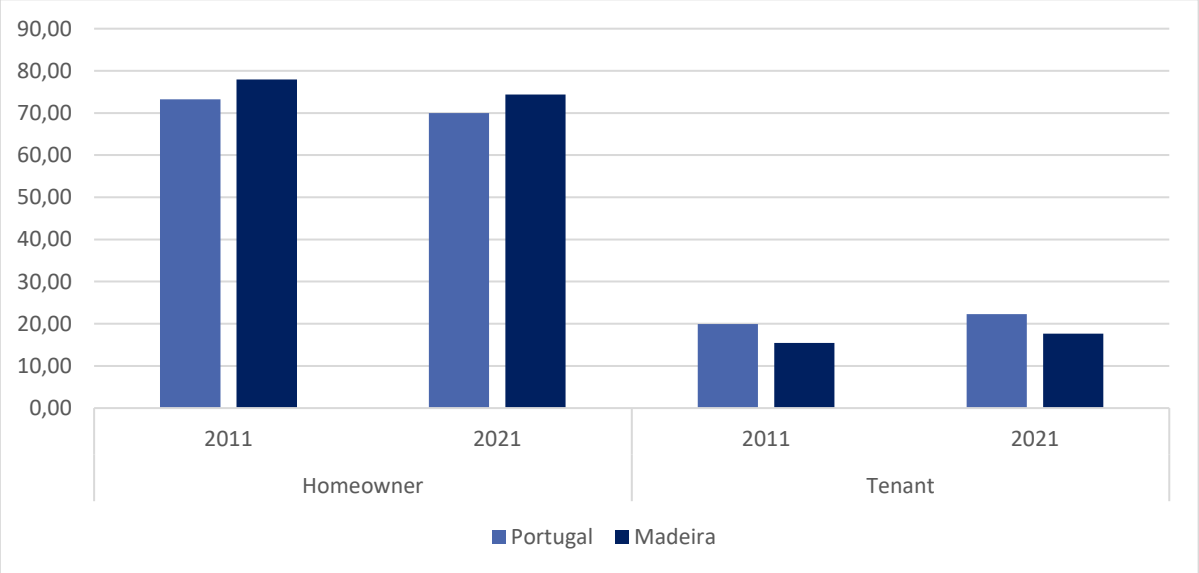


PORTUGUESE OR

Graph 32: Distribution of tenancy regime in the Azores

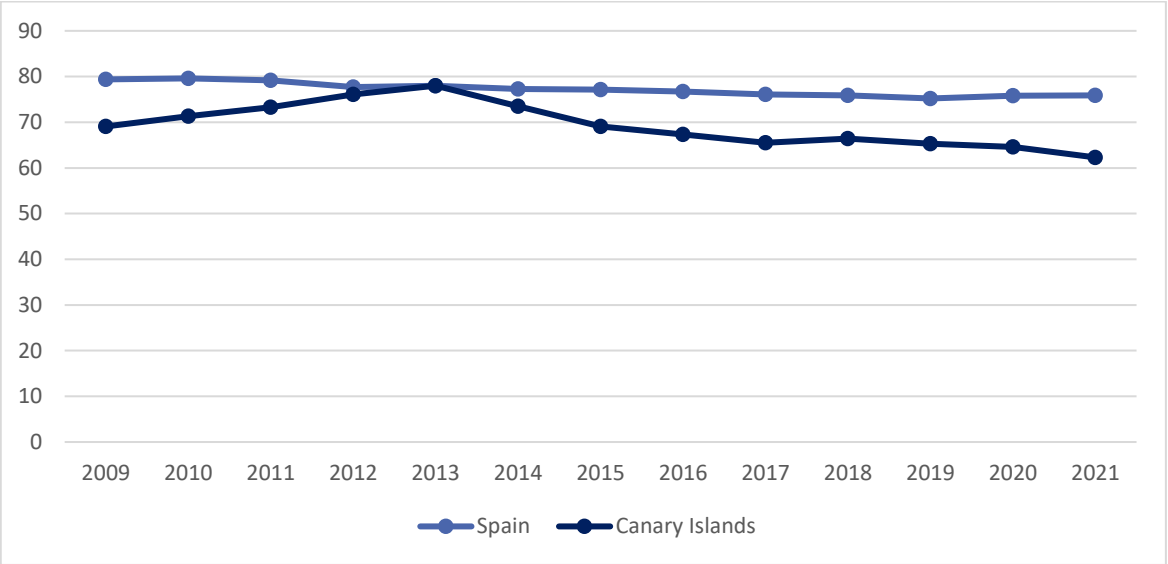


Graph 33: Distribution of tenancy regime in Madeira

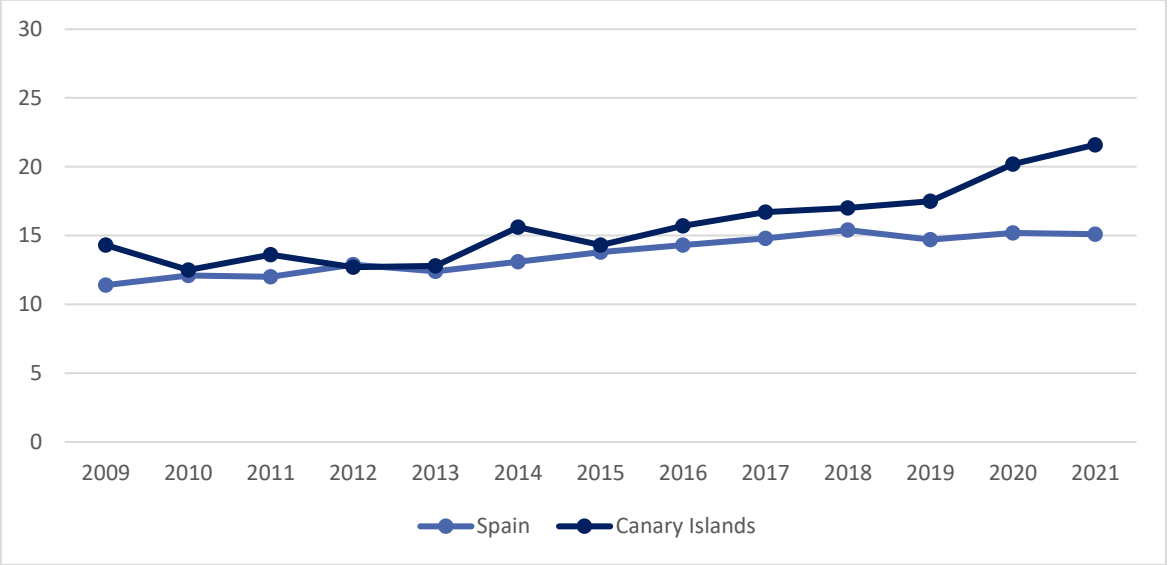


SPANISH OR

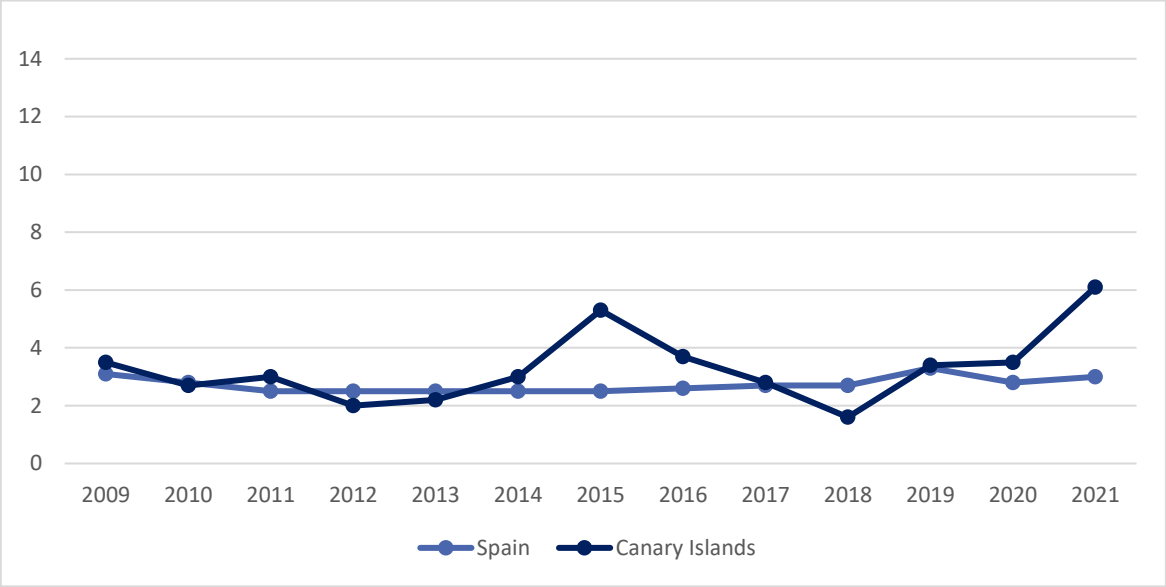
Graph 34: Proportion of homeowner in Canary Islands



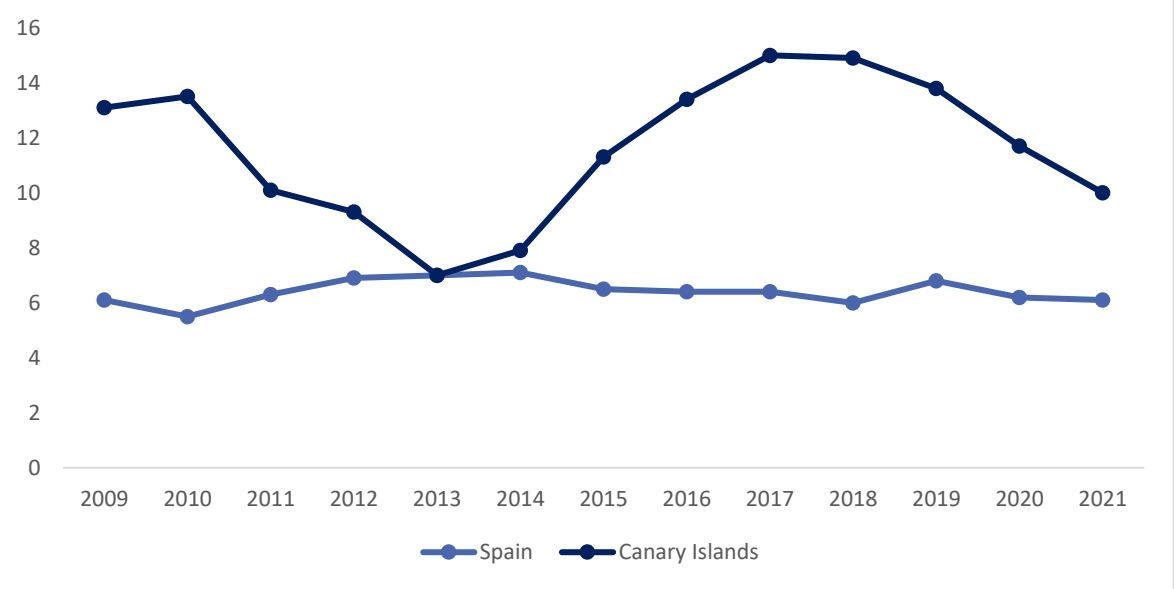
Graph 35: Proportion of tenant under market price in Canary Islands



Graph 36: Proportion of tenant over market price



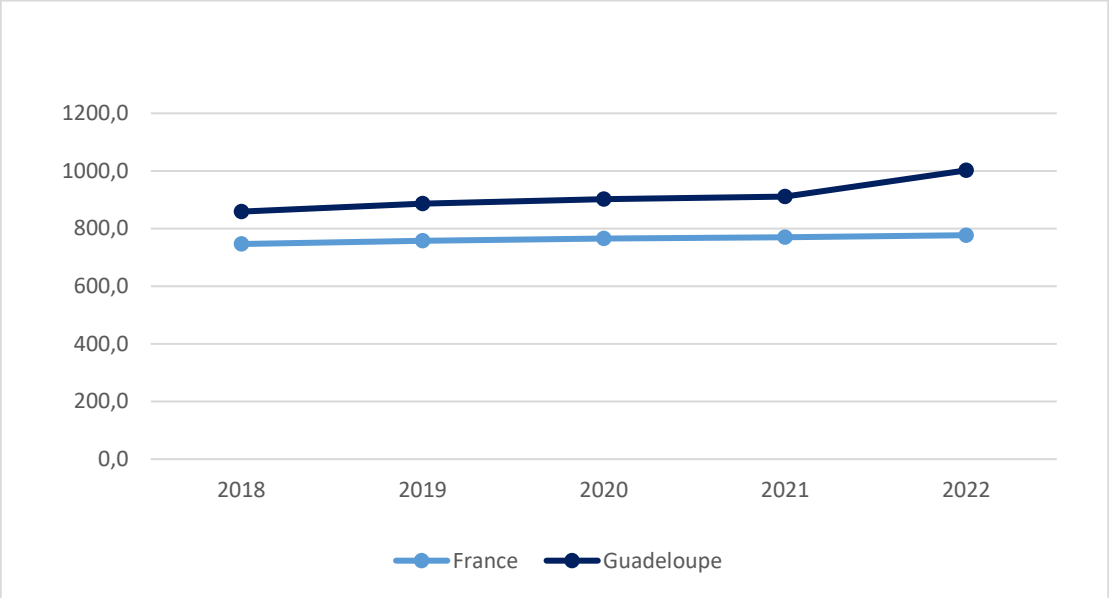
Graph 37: Proportion of housed for free in Canary Islands



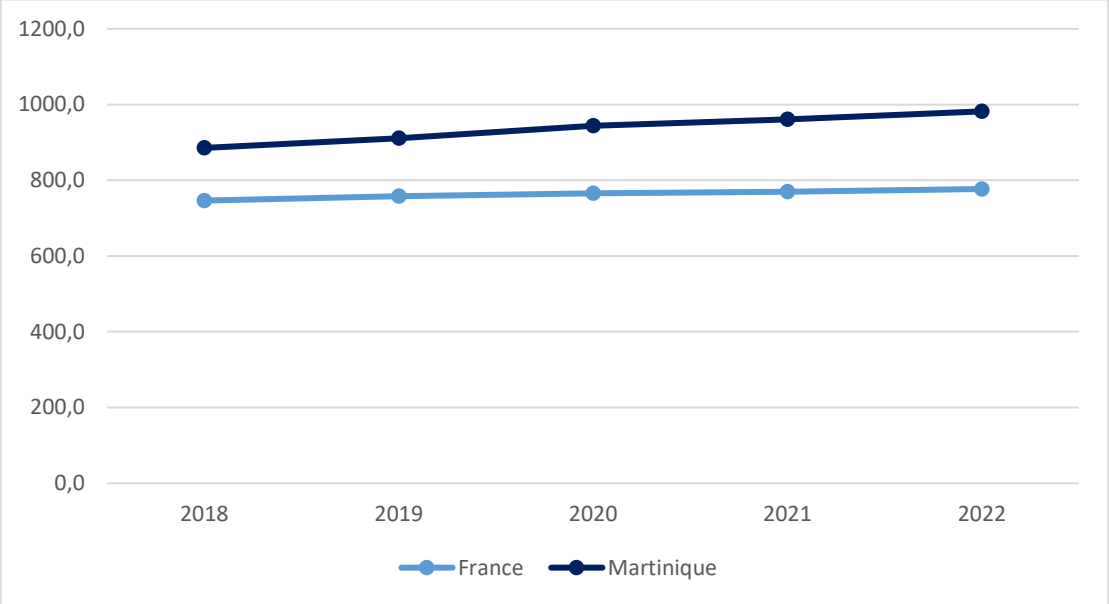
3.3.1.3 Social housing

FRENCH OR

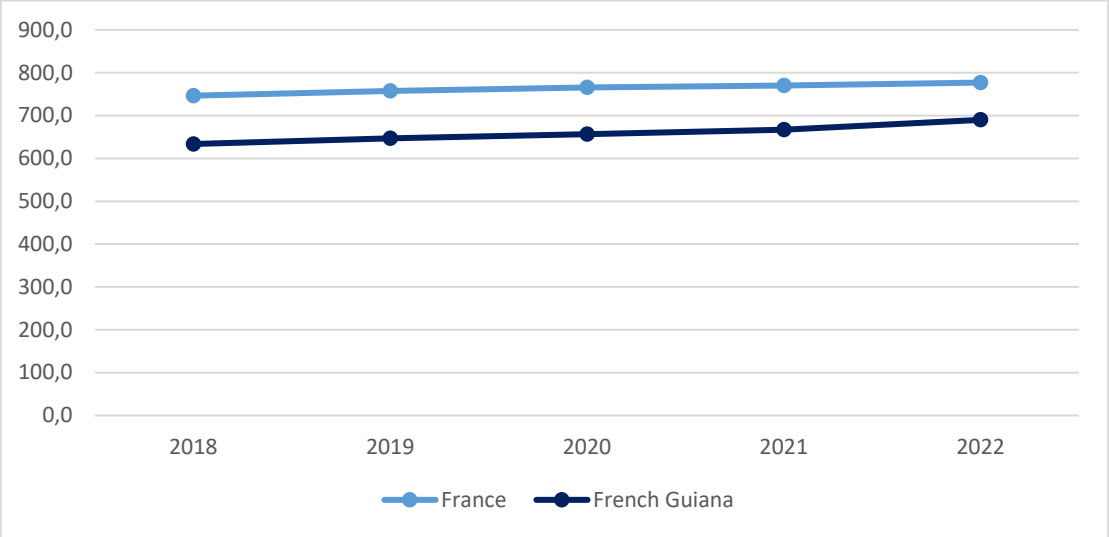
Graph 38: Number of social housing per 10000 habitants in Guadeloupe



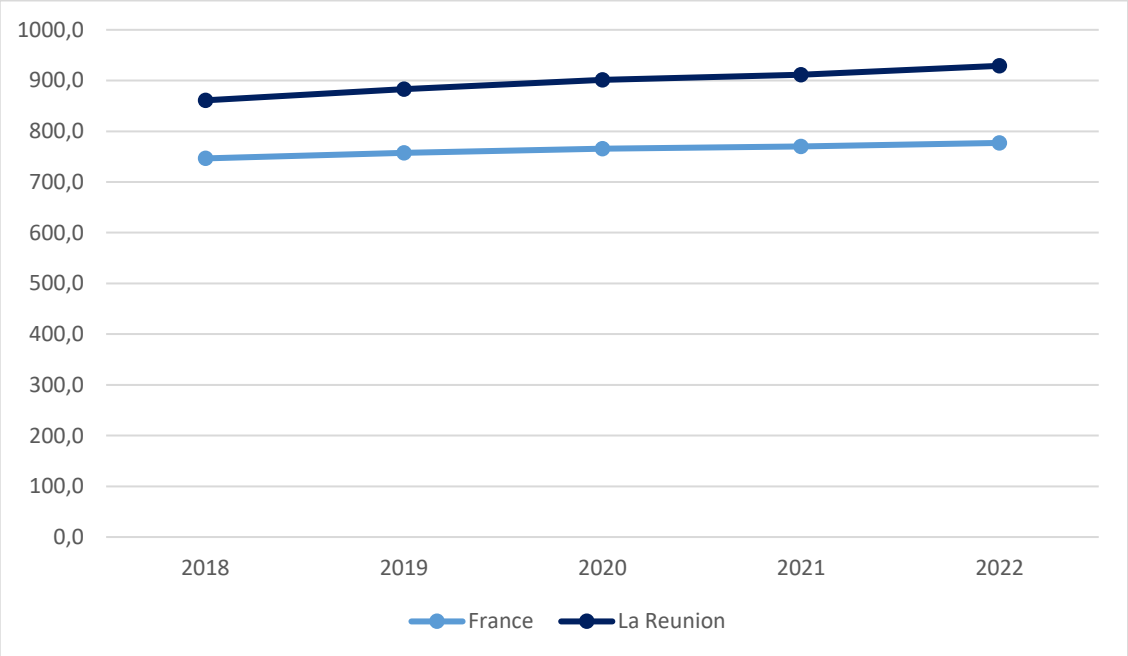
Graph 39: Number of social housing per 10000 habitants in Martinique



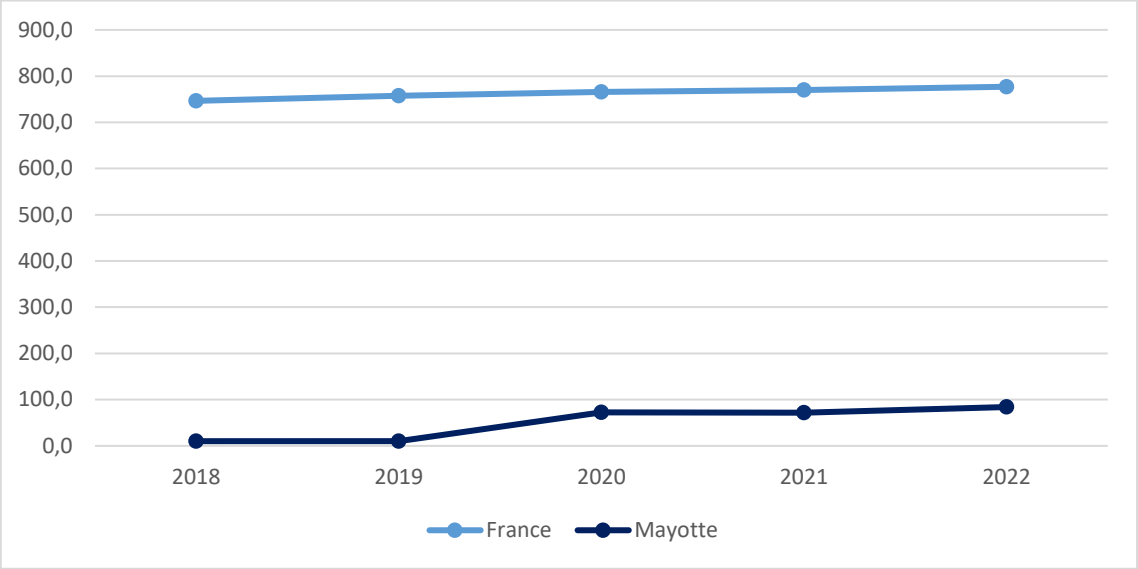
Graph 40: Number of social housing per 10000 habitants in French Guiana



Graph 41: Number of social housing per 10000 habitants in Réunion

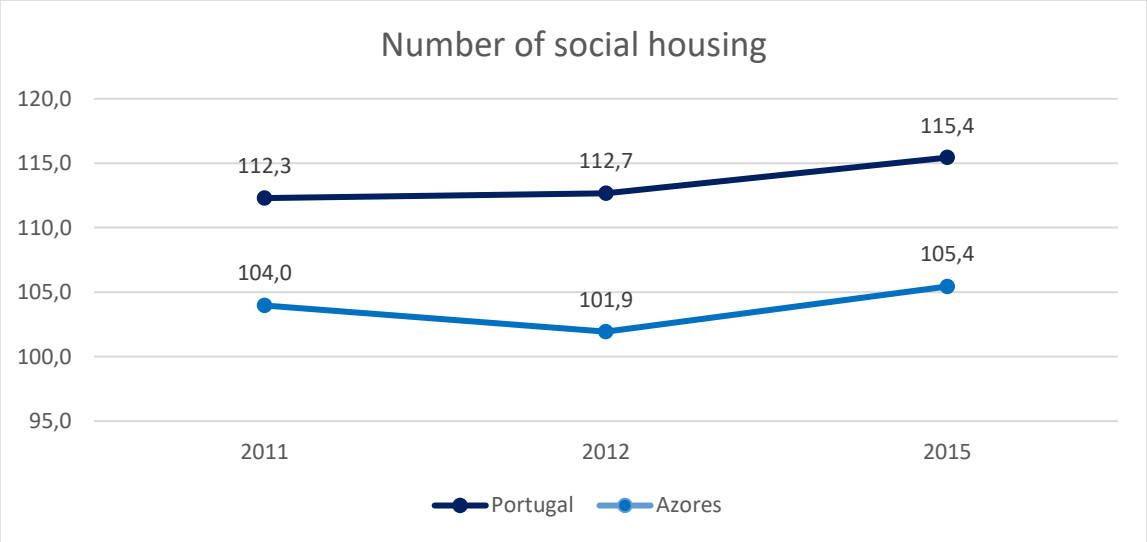


Graph 42: Number of social housing per 10000 habitants in Mayotte

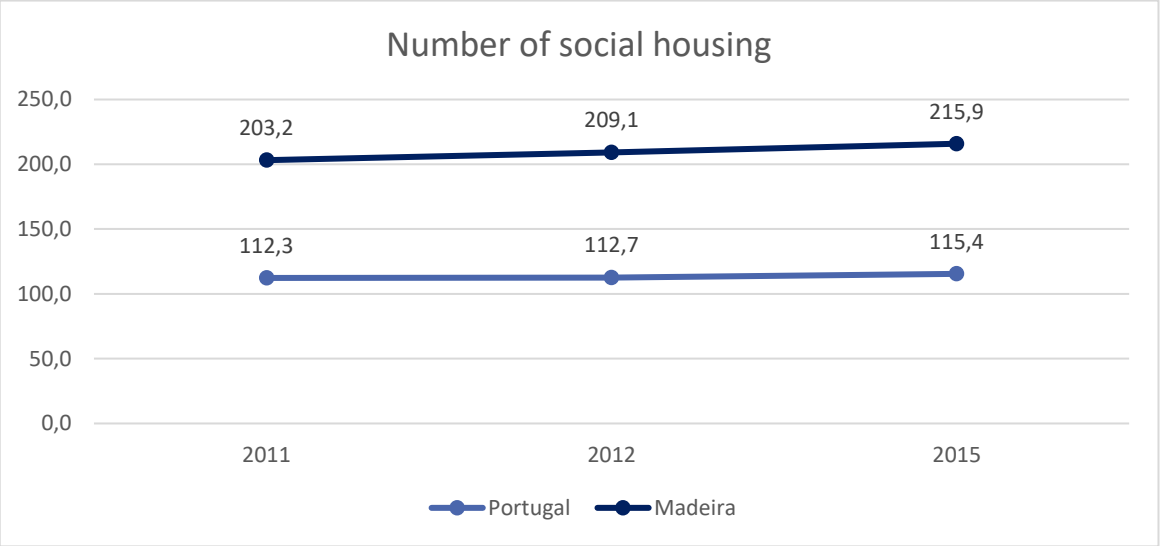


PORTUGUESE OR

Graph 43: Number of social housing per 10000 habitants in the Azores

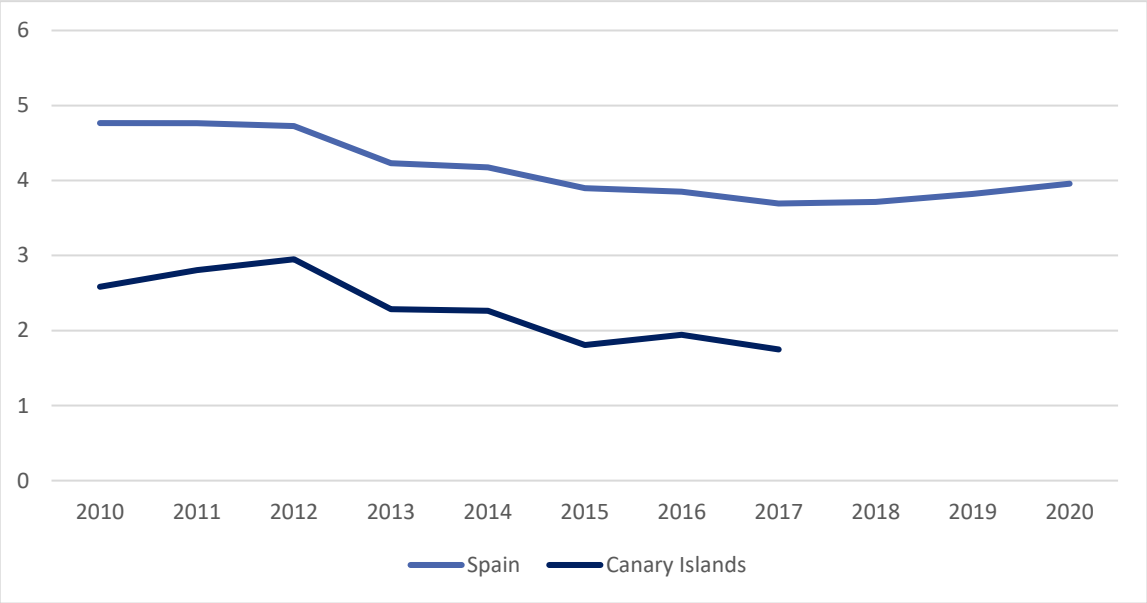


Graph 44: Number of social housing per 10000 habitants in



SPANISH OR

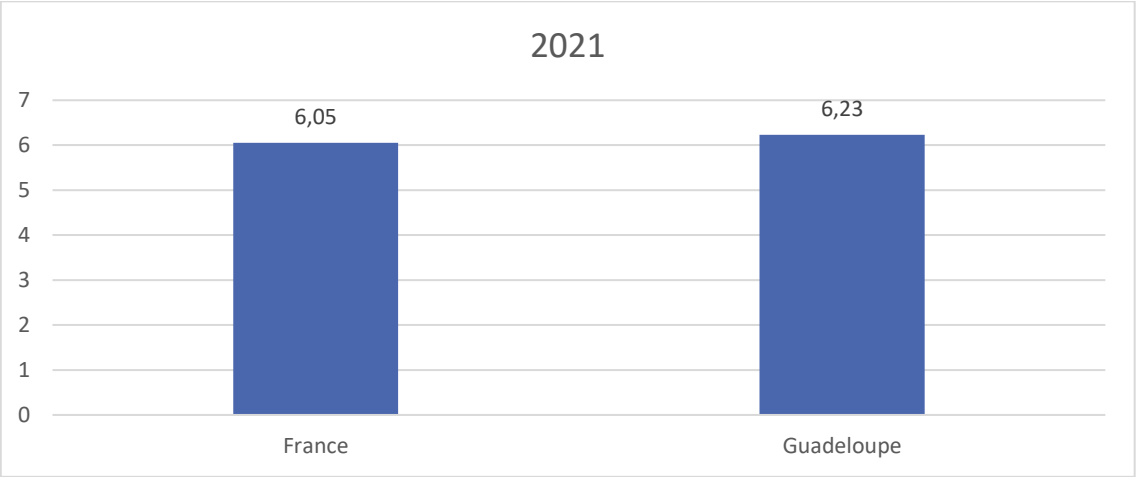
Graph 45: Social housing number of definitive qualifications in Canary Islands (in log_{10} scale)



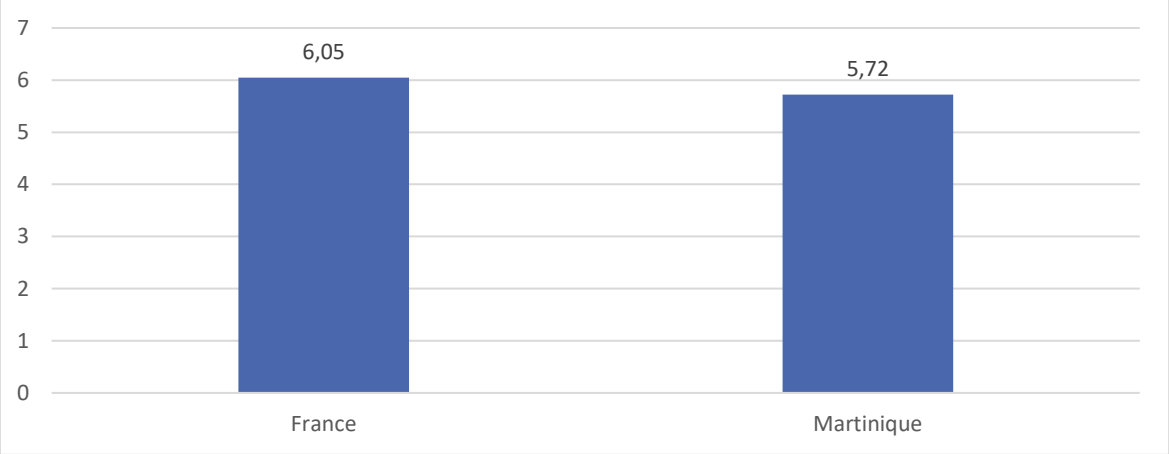
3.3.1.4 Affordability

FRENCH OR

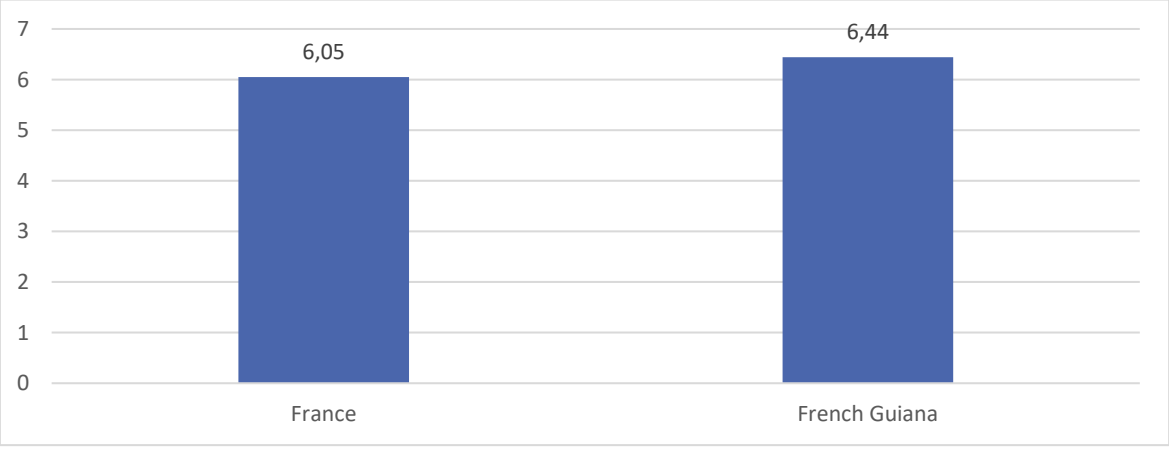
Graph 46: Average rent per square metre of living space in Guadeloupe in 2021



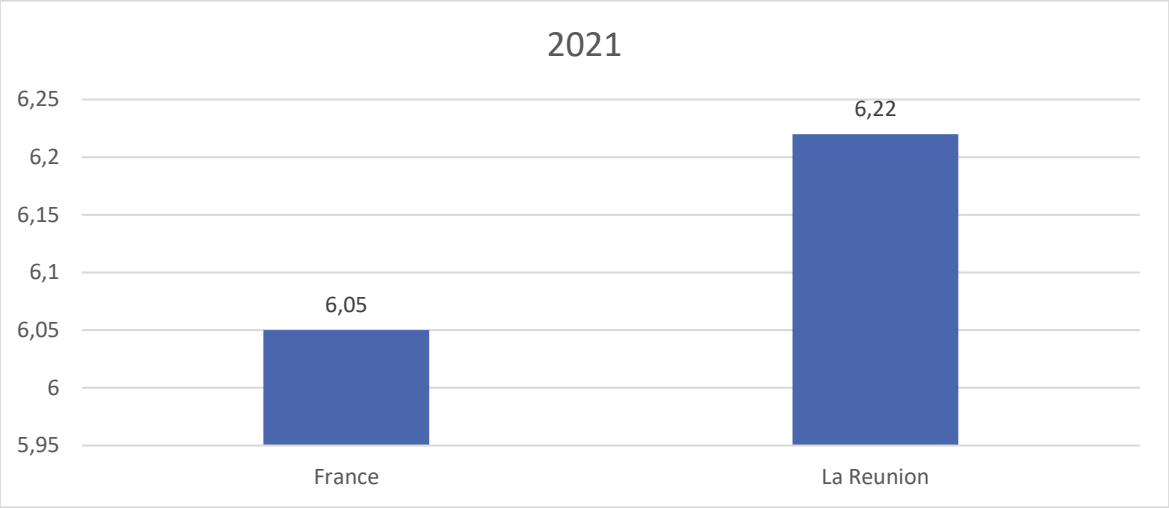
Graph 47: Average rent per square metre of living space in Martinique in 2021



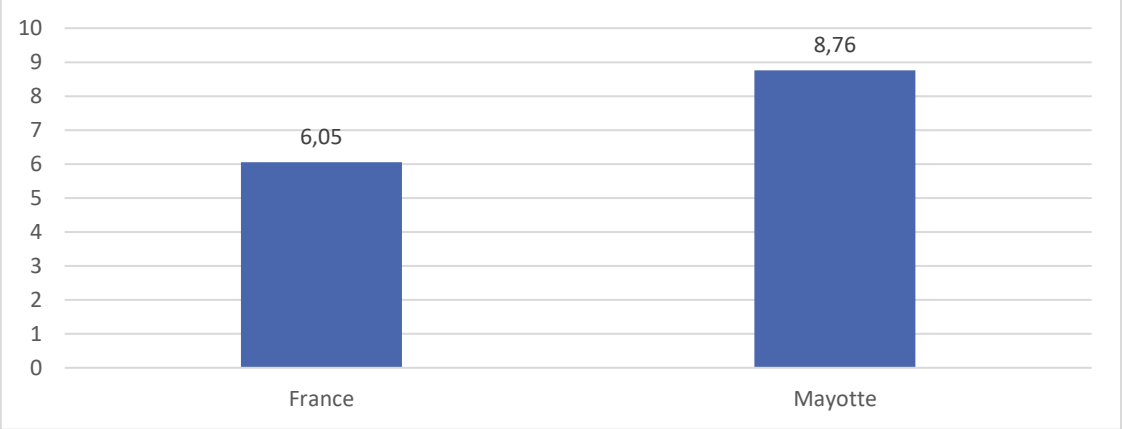
Graph 48: Average rent per square metre of living space in French Guiana in 2021



Graph 49: Average rent per square metre of living space in Réunion in 2021

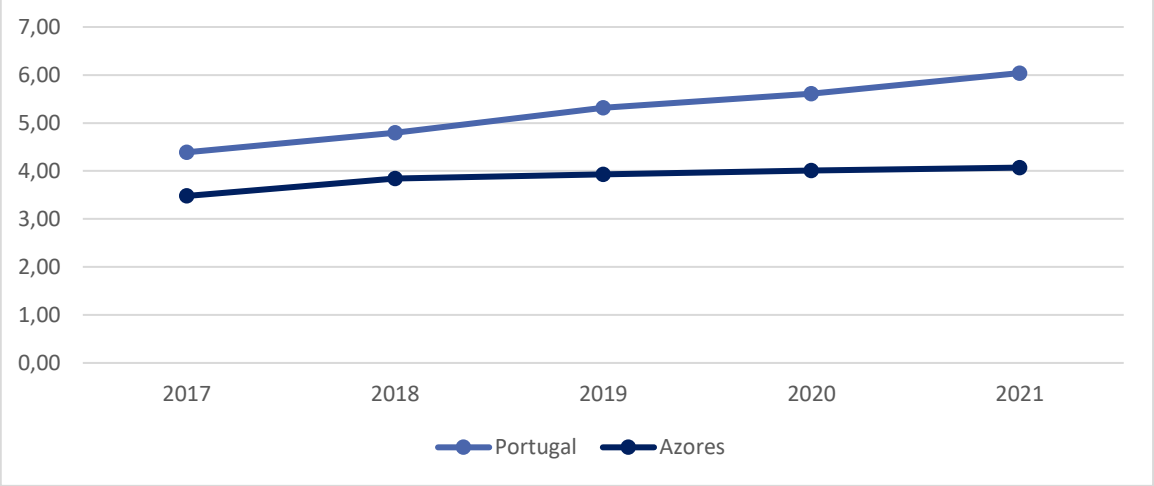


Graph 50: Average rent per square metre of living space in Mayotte in 2021

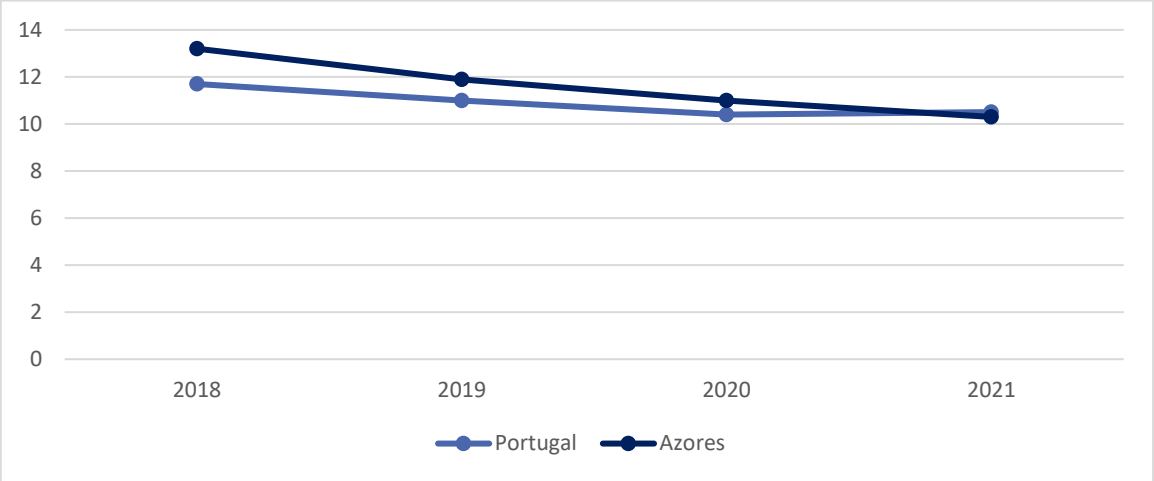


PORTUGUESE OR

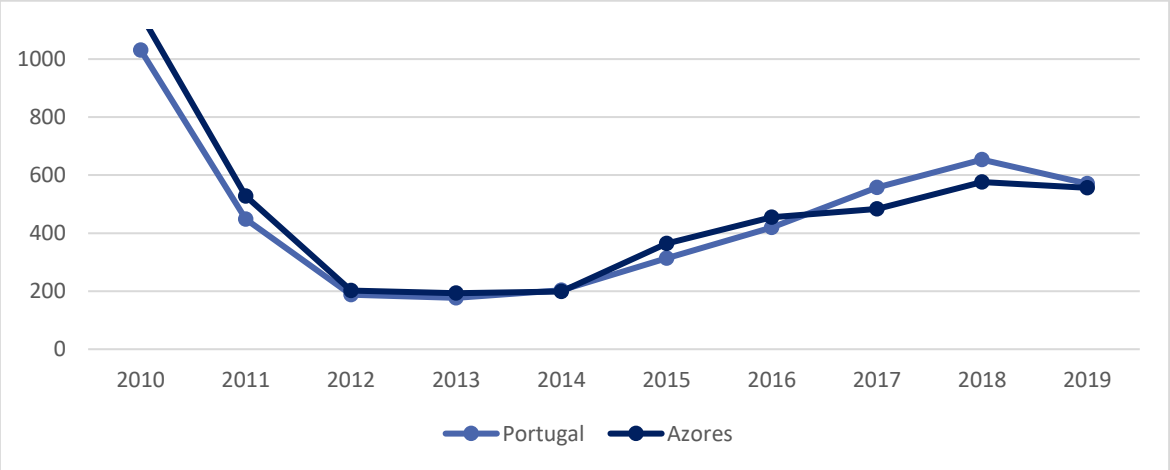
Graph 51: Median house rental value per m2 of new lease agreements of dwellings



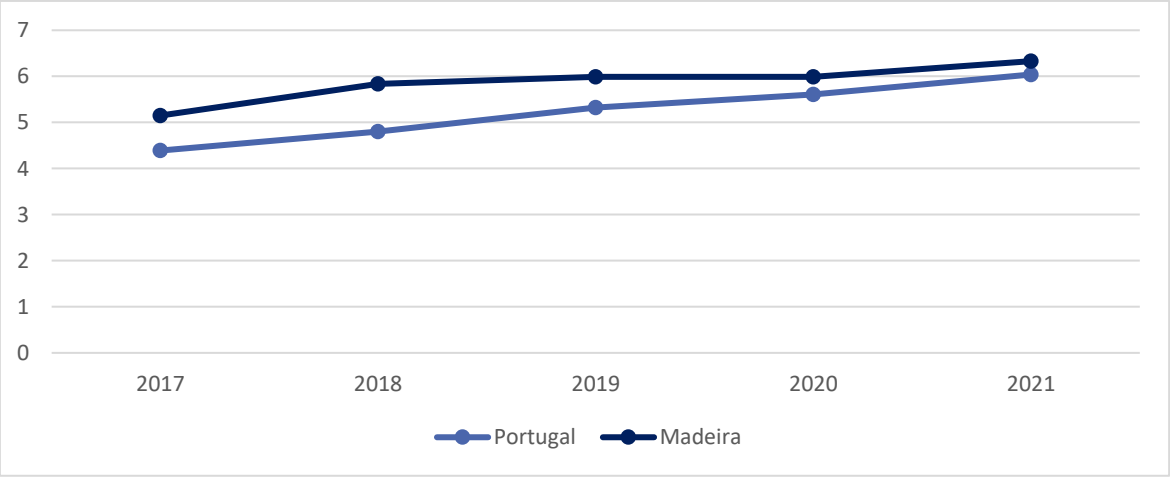
Graph 52: Median of housing cost burden



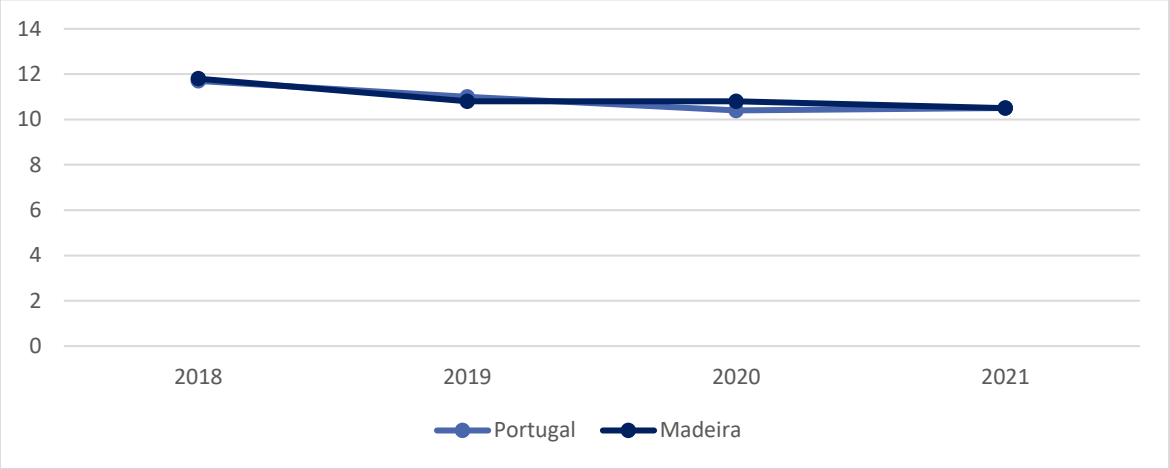
Graph 53: Mortgage credit granted to singular persons per inhabitant (€/ inhab.)



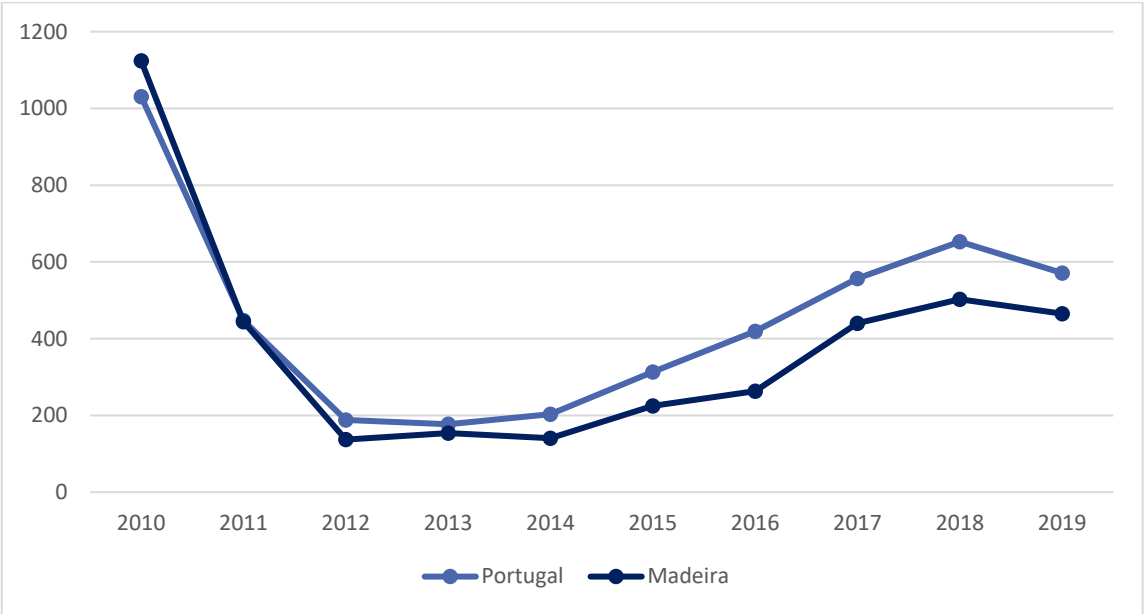
Graph 54: Median house rental value per m2 of new lease agreements of dwellings



Graph 55: Median of housing cost burden

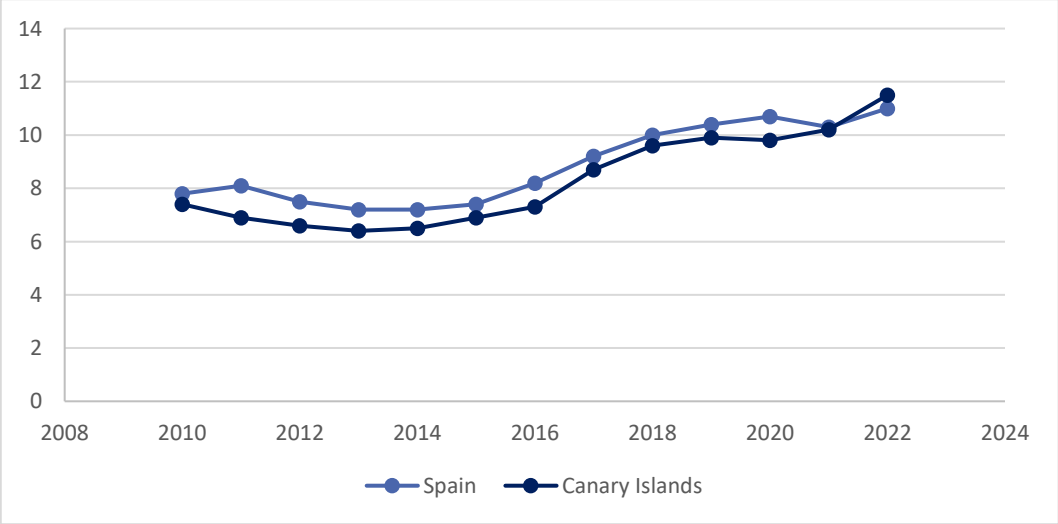


Graph 56: Mortgage credit granted to singular persons per inhabitant (€/ inhab.)

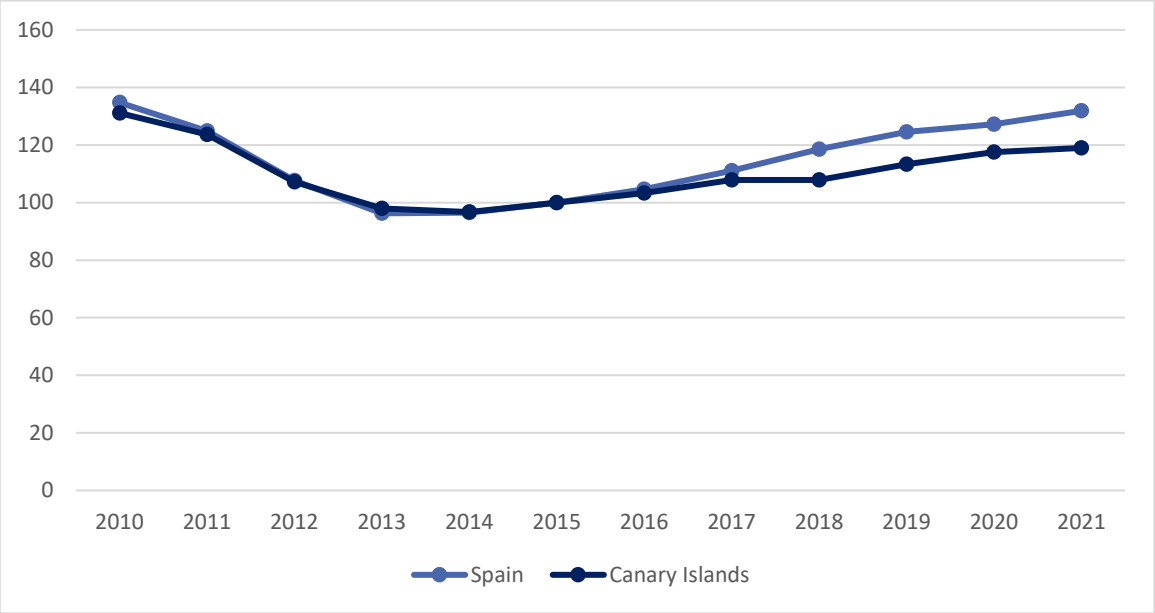


SPANISH OR

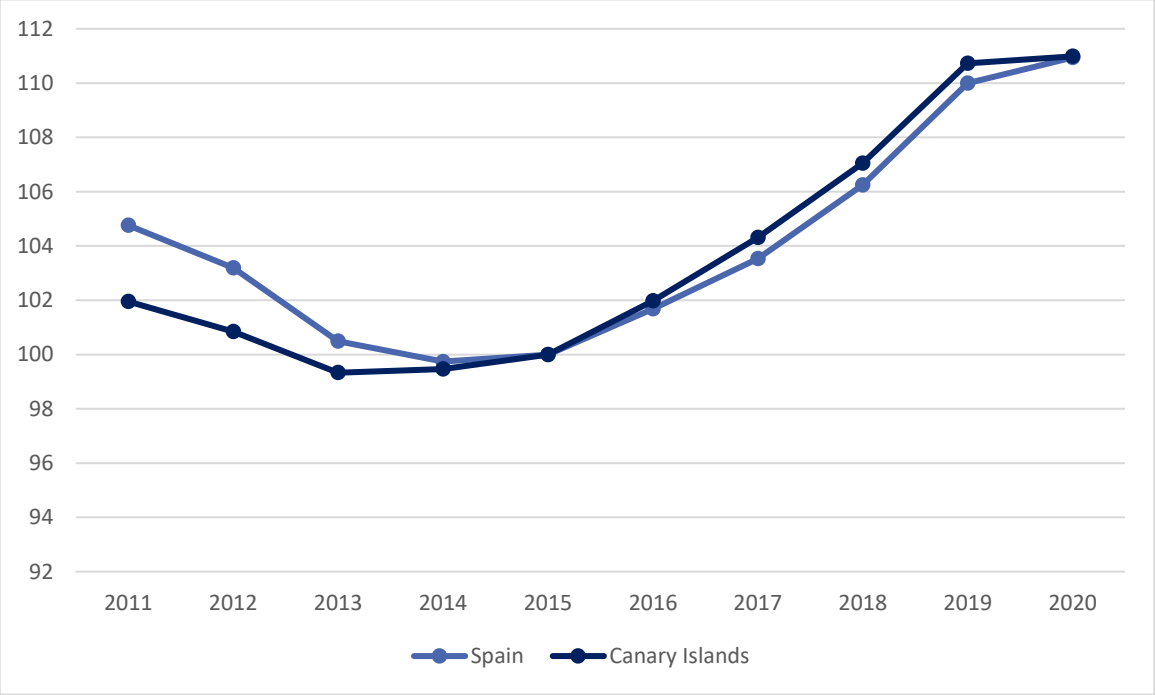
Graph 57: Average rent per square metre of living space



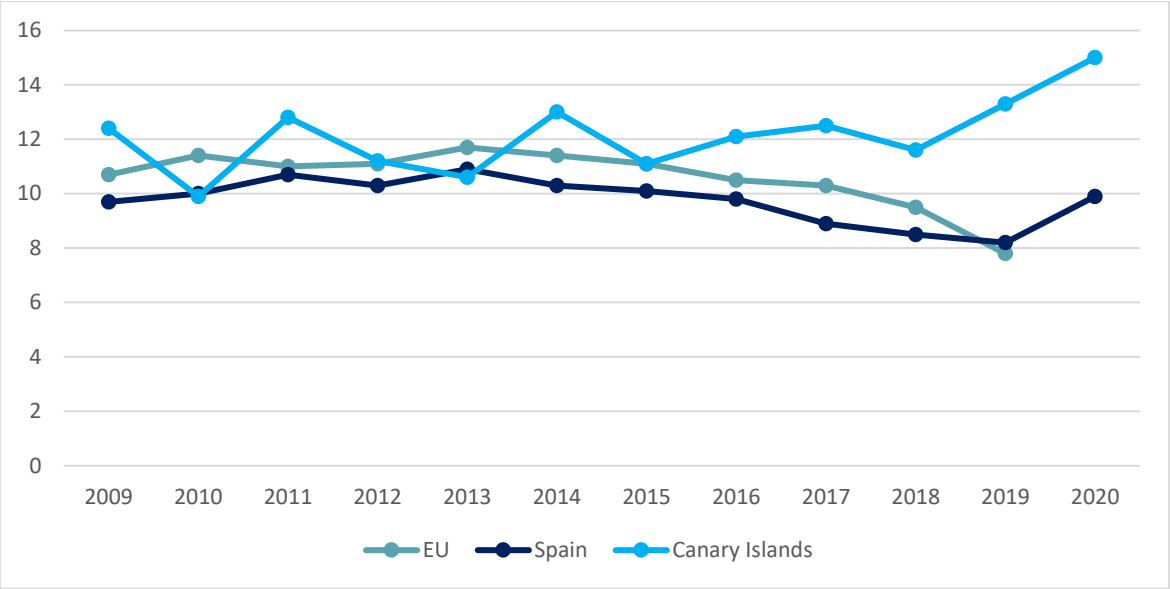
Graph 58: Housing Price Index



Graph 59: Rental Housing Price Index



Graph 60: Share of population with high expenditure on housing

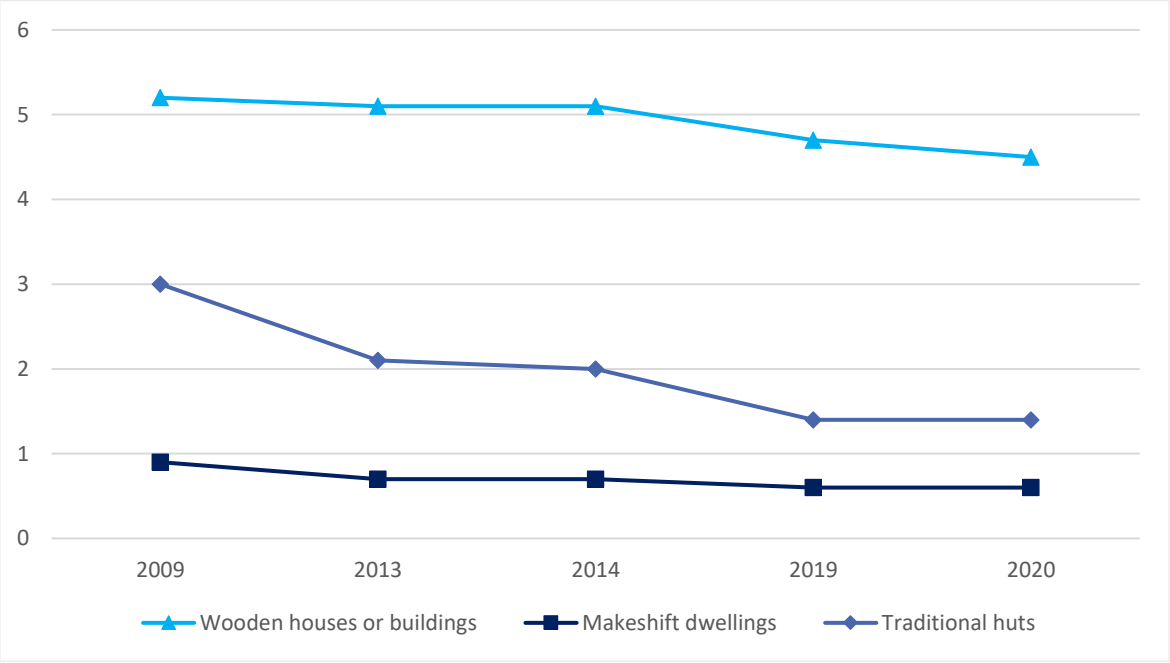


INFRASTRUCTURE

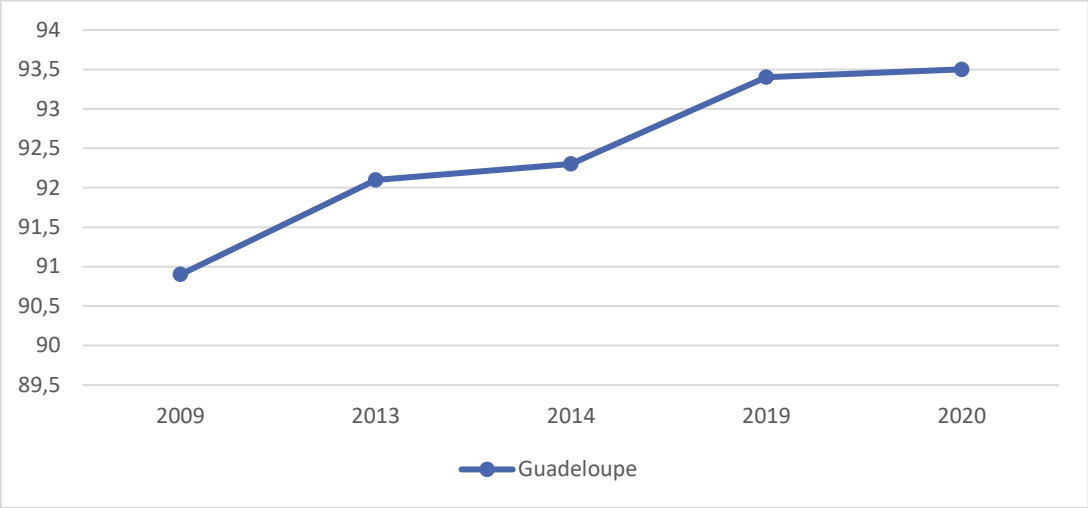
3.3.1.5 Housing typology

FRENCH OR

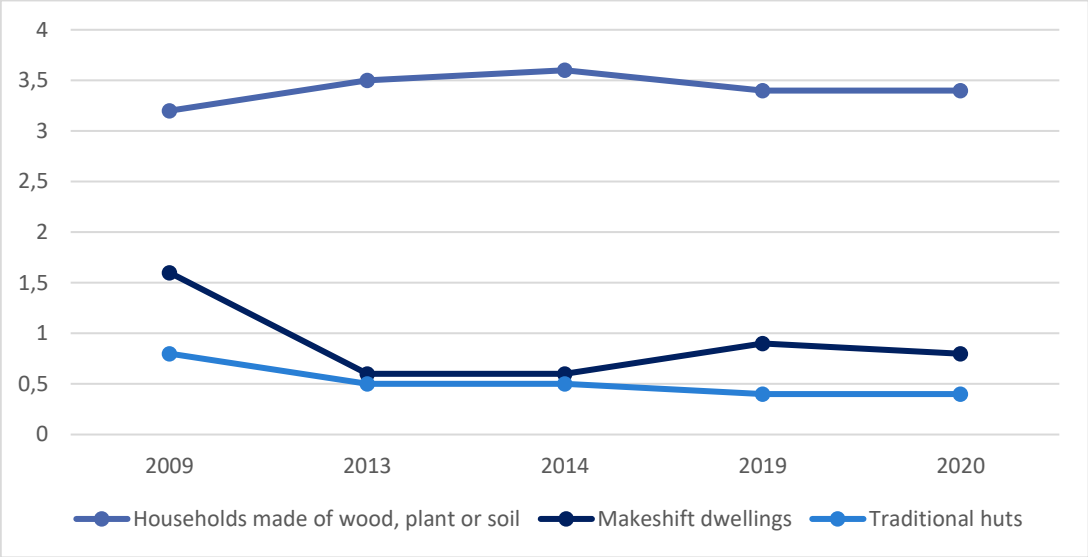
Graph 61: Proportion of substandard housing in Guadeloupe



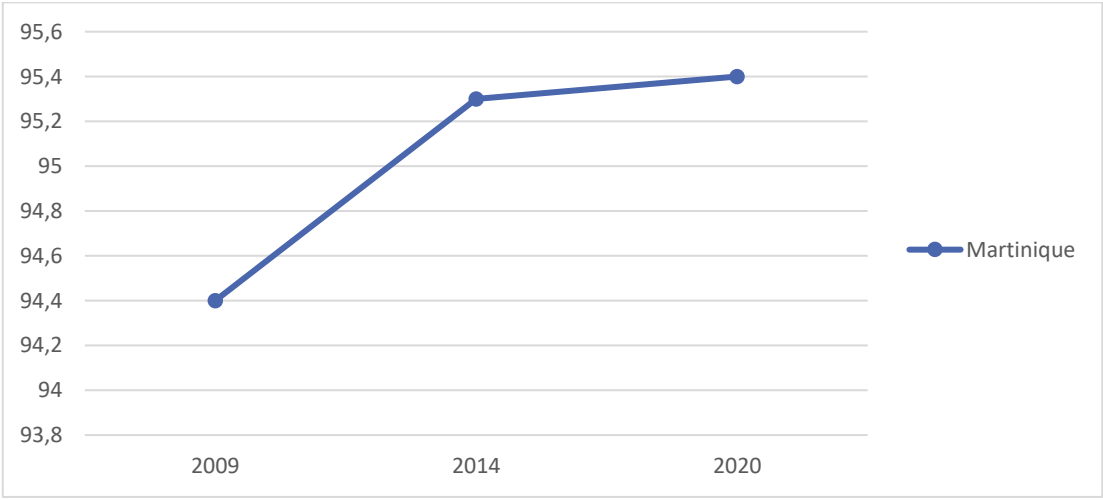
Graph 62: Proportion of solid houses or buildings



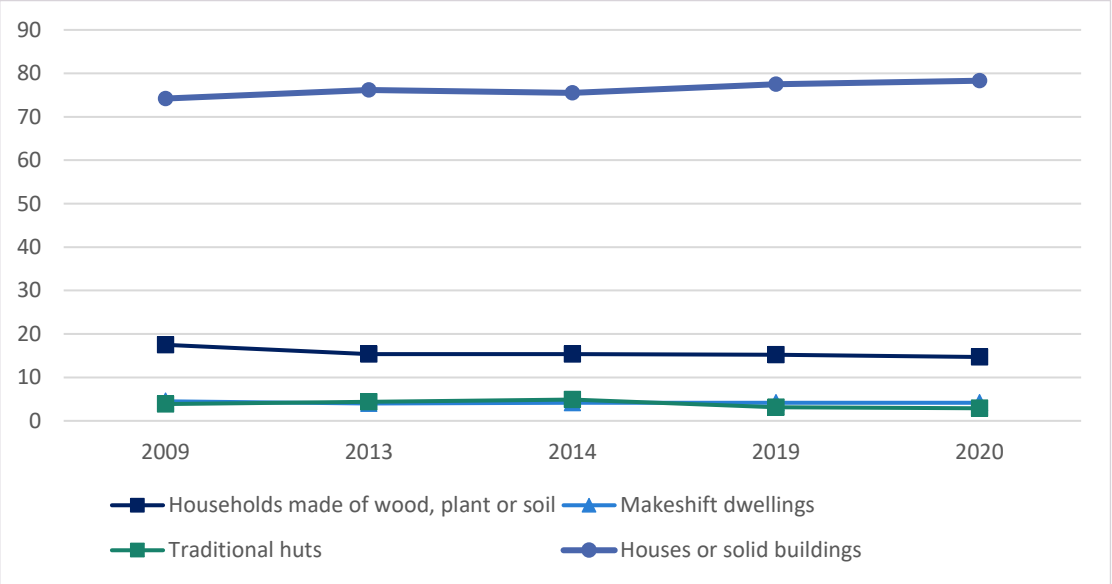
Graph 63: Proportion of substandard housing in Martinique



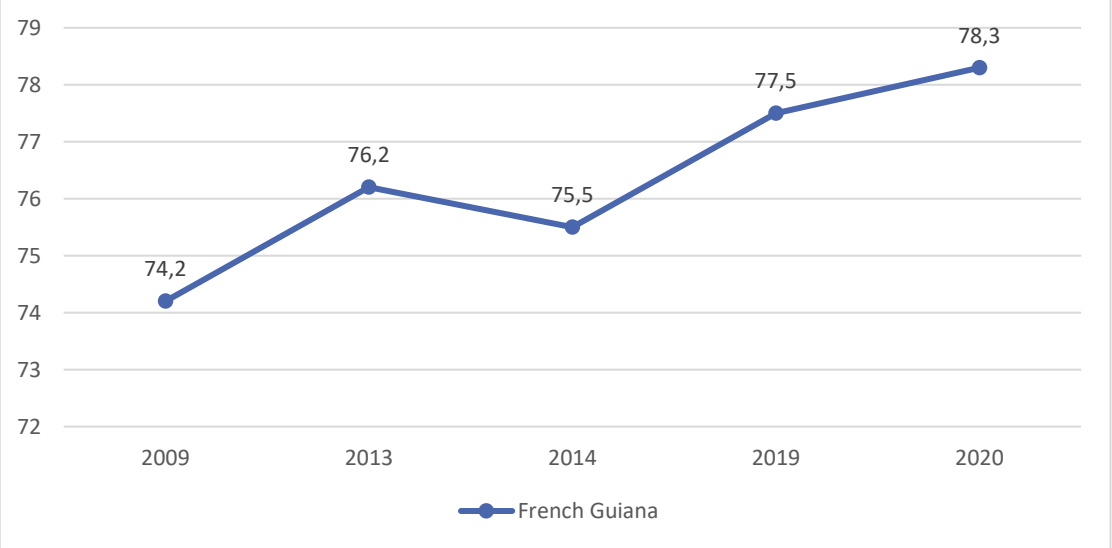
Graph 64: Proportion of solid houses or buildings



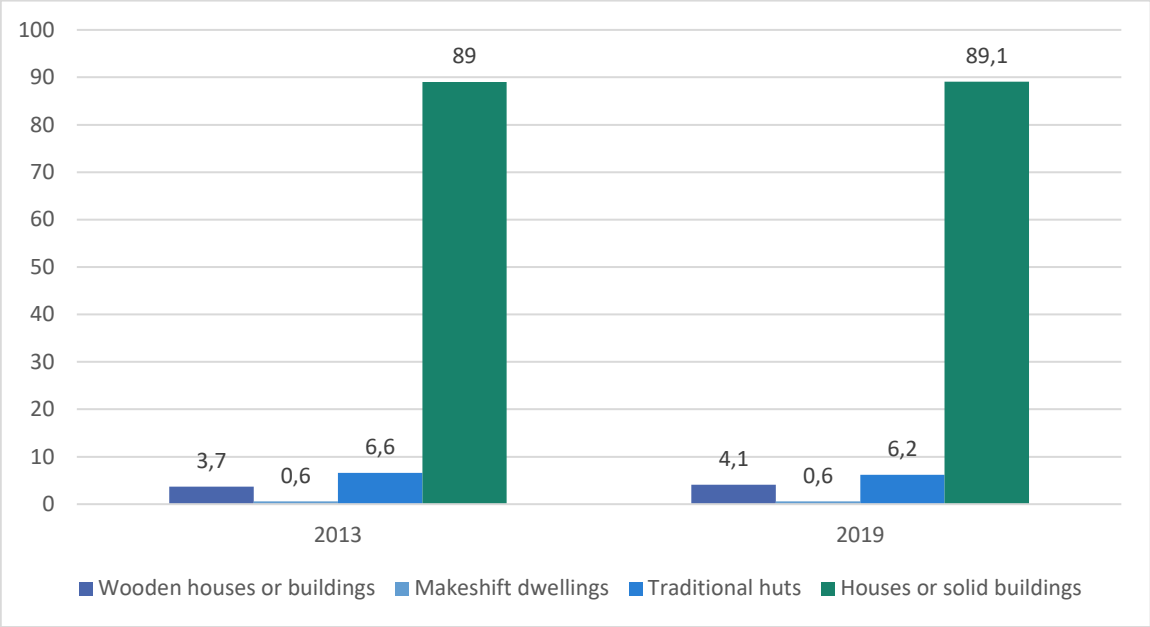
Graph 65: Proportion of substandard housing in French Guiana



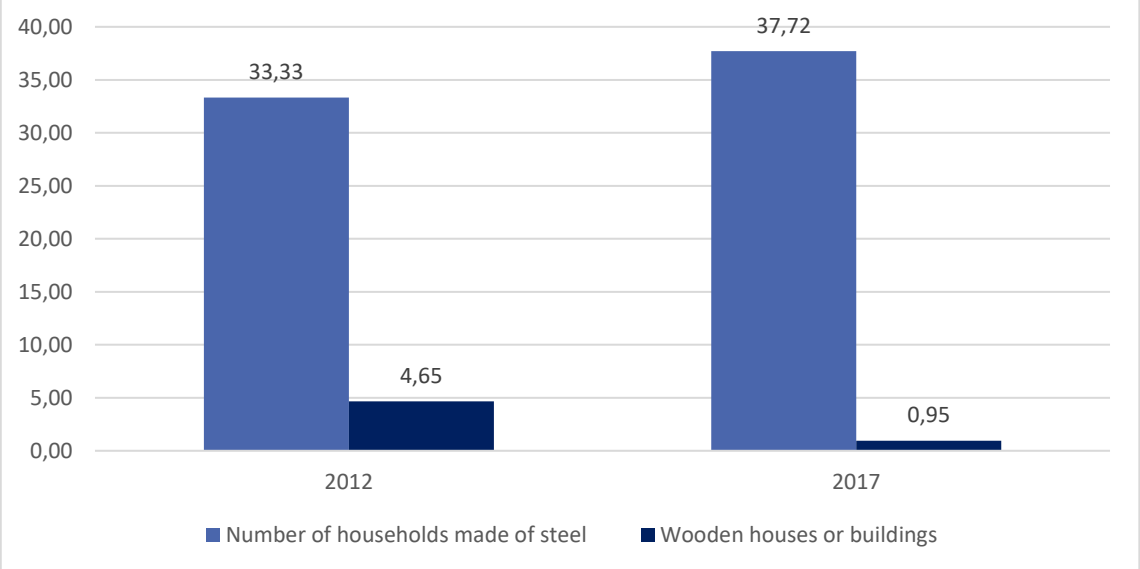
Graph 66: Proportion of solid houses or buildings



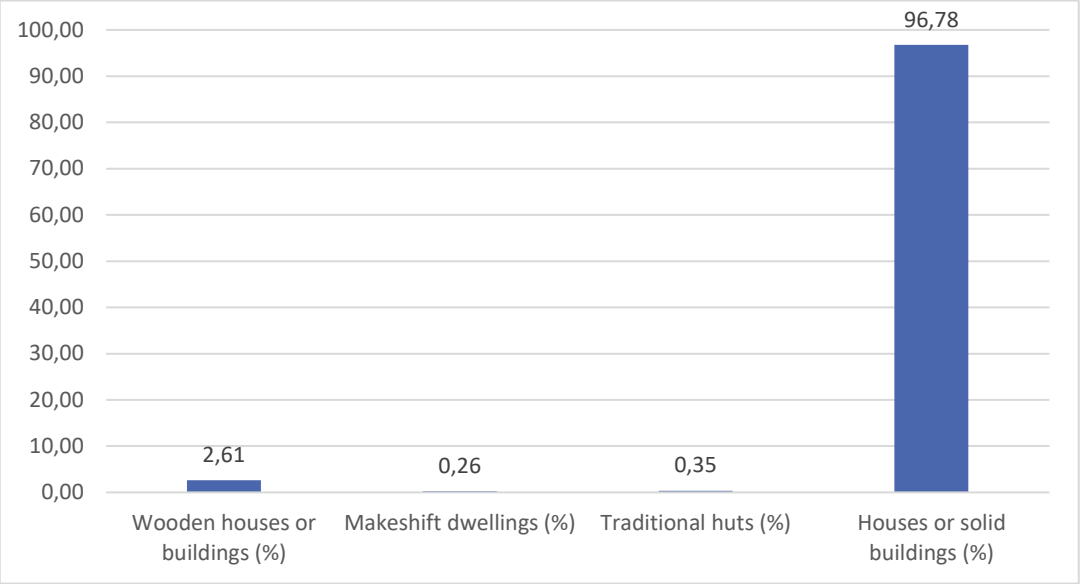
Graph 67: Distribution of housing typology in Réunion



Graph 68: Proportion of substandard housing in Mayotte

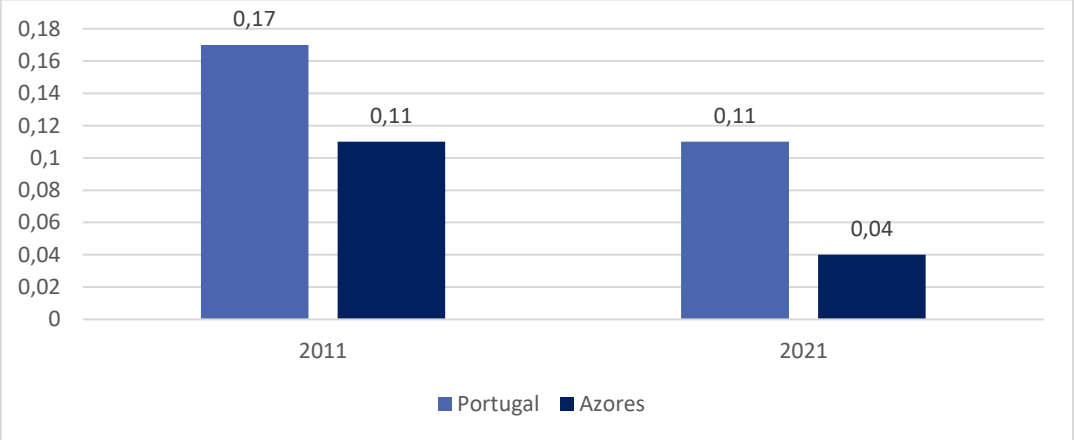


Graph 69: Distribution of housing typology in Saint Martin in 2020

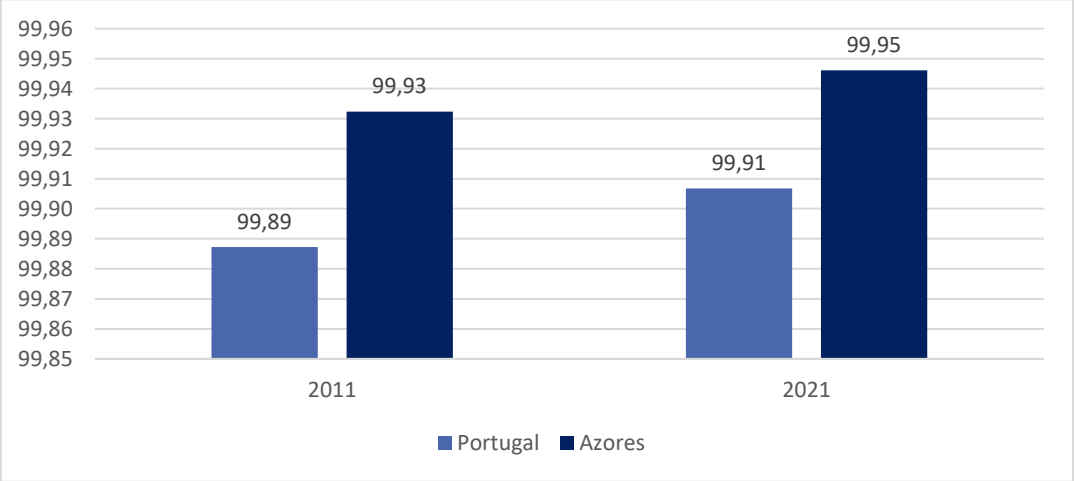


PORTUGUESE OR

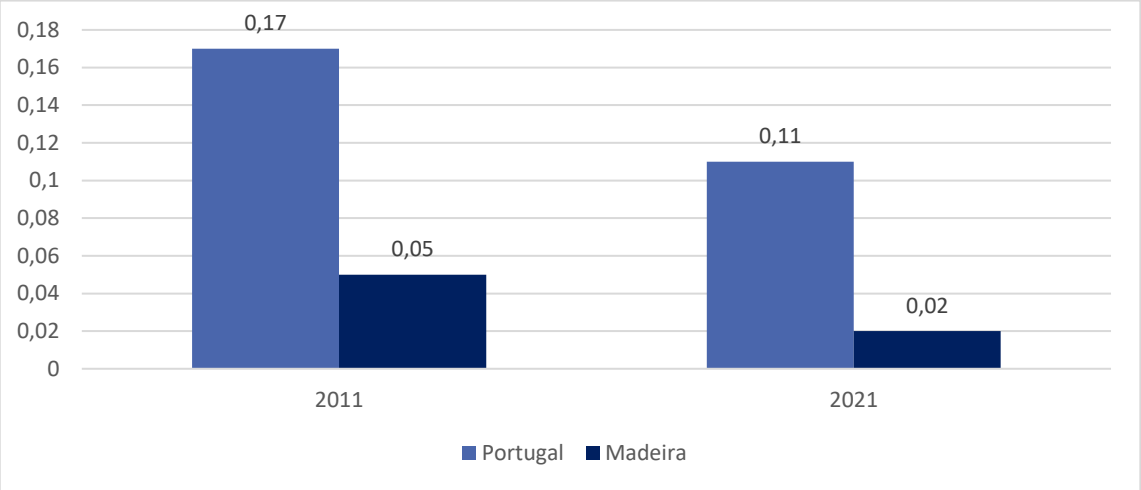
Graph 70: Proportion of makeshift dwellings in the Azores



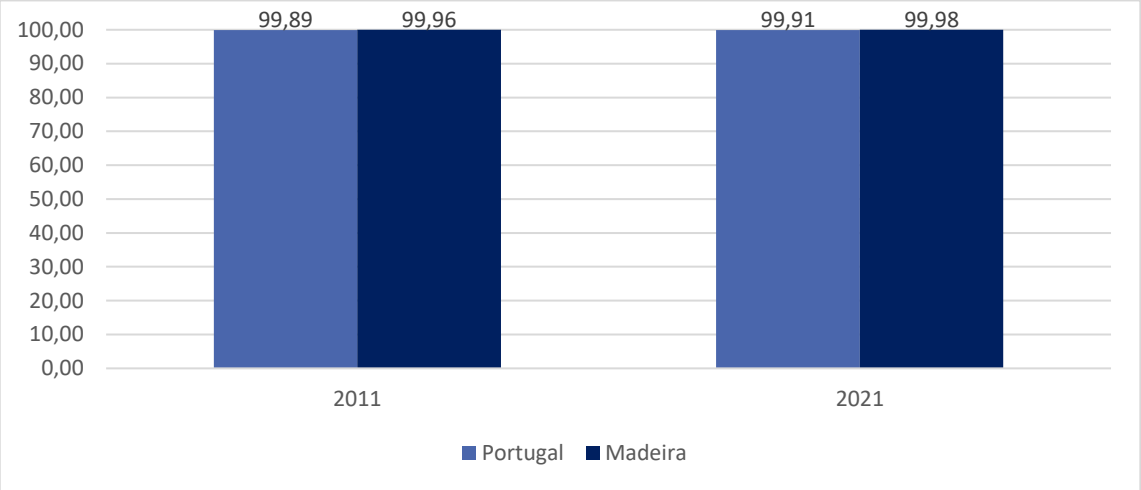
Graph 71: Percentage of classic living quarters in the Azores



Graph 72: Proportion of makeshift dwellings in Madeira

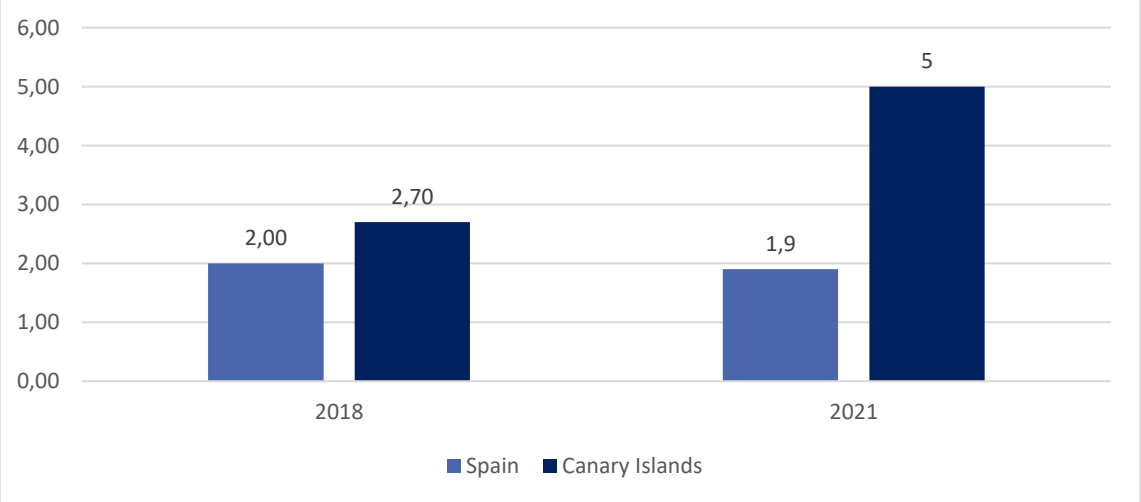


Graph 73: Percentage of classic living quarters in Madeira

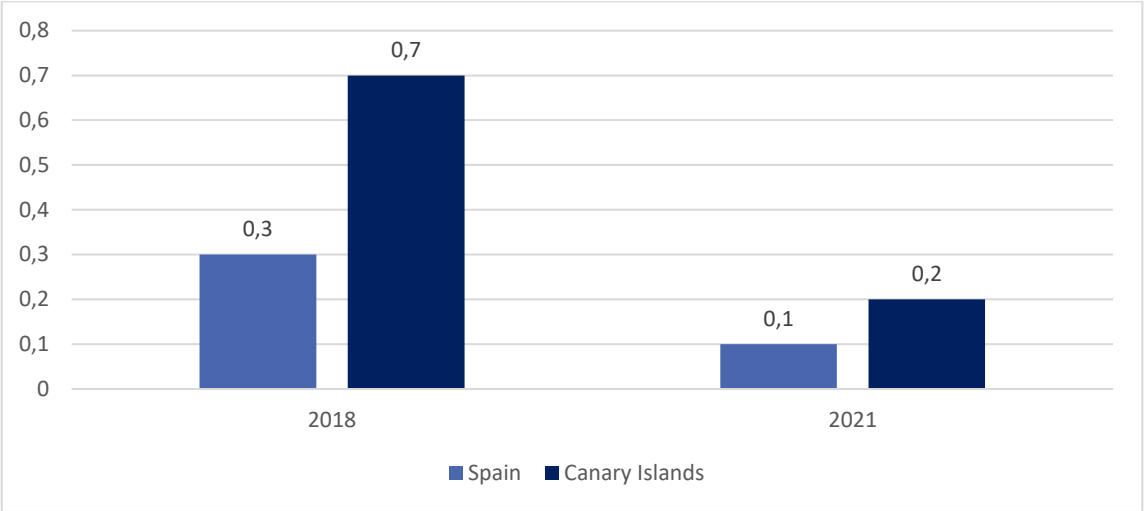


SPANISH OR

Graph 74: Proportion of households with serious deficiencies in housing construction



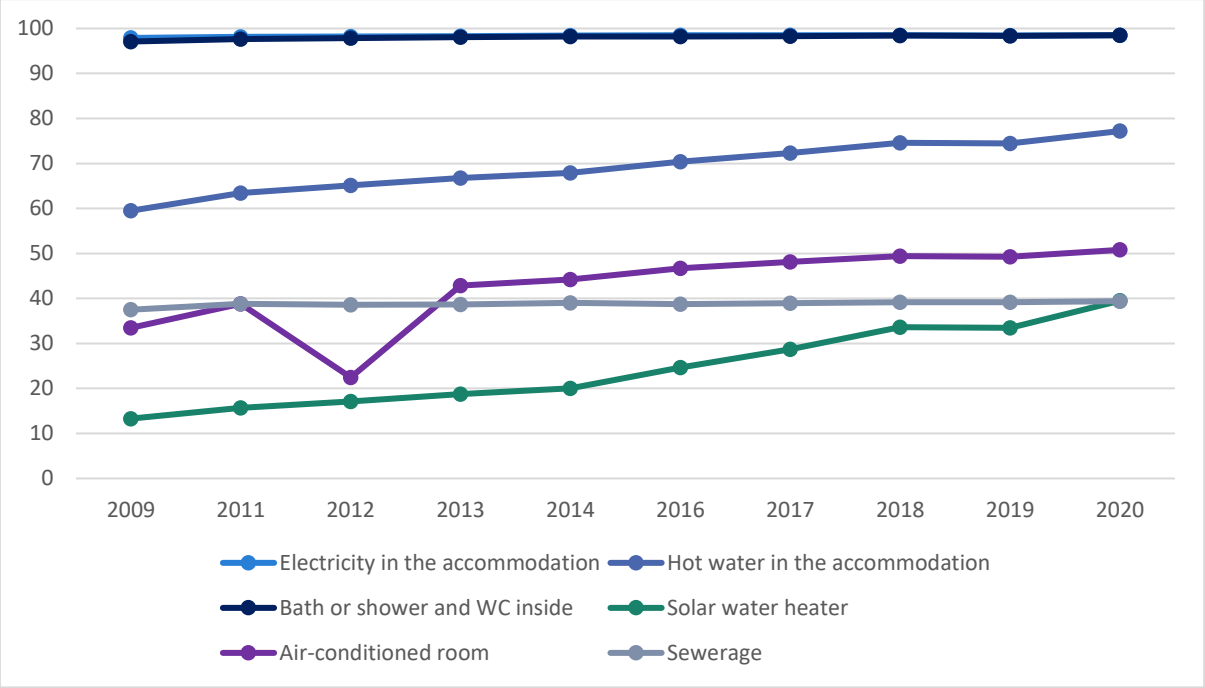
Graph 75: Proportion of substandard housing (shack, shanty, shack-like, prefabricated or similar)



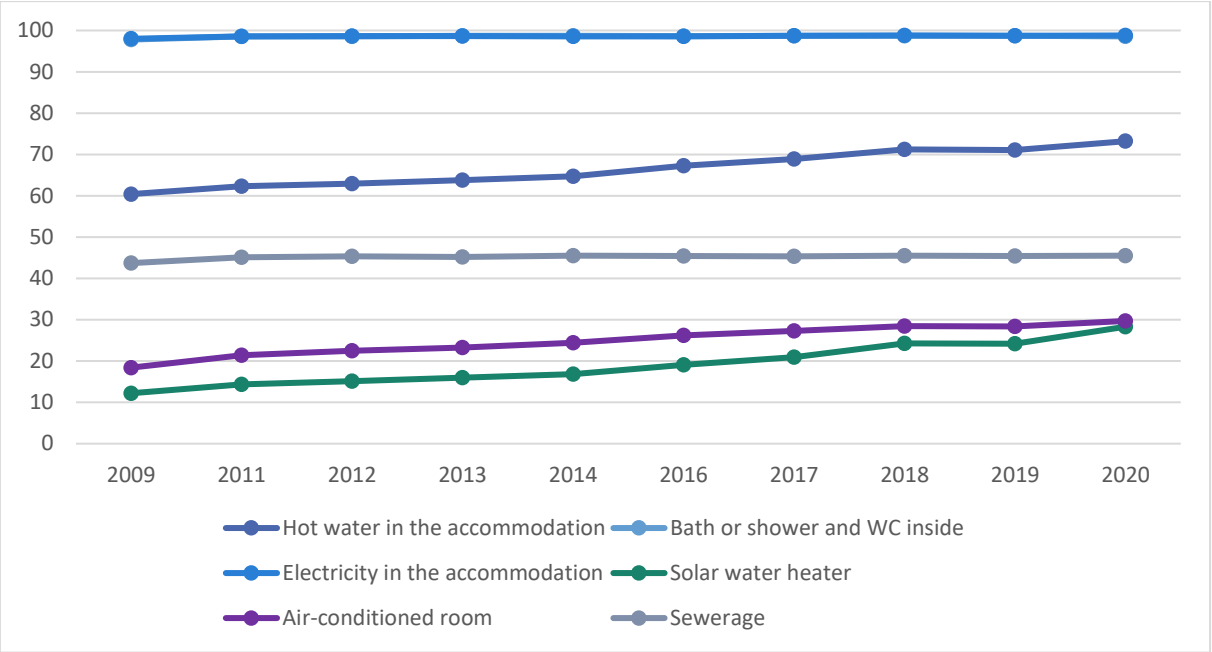
3.3.1.6 Facilities

FRENCH OR

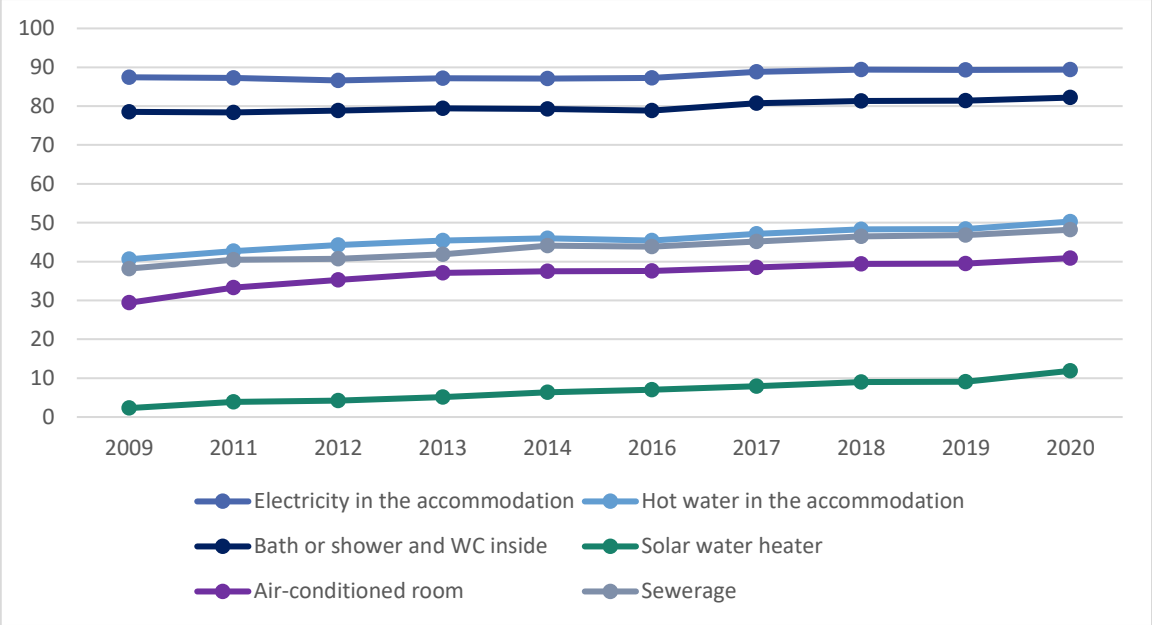
Graph 76: Proportion of facilities supplied in Guadeloupe



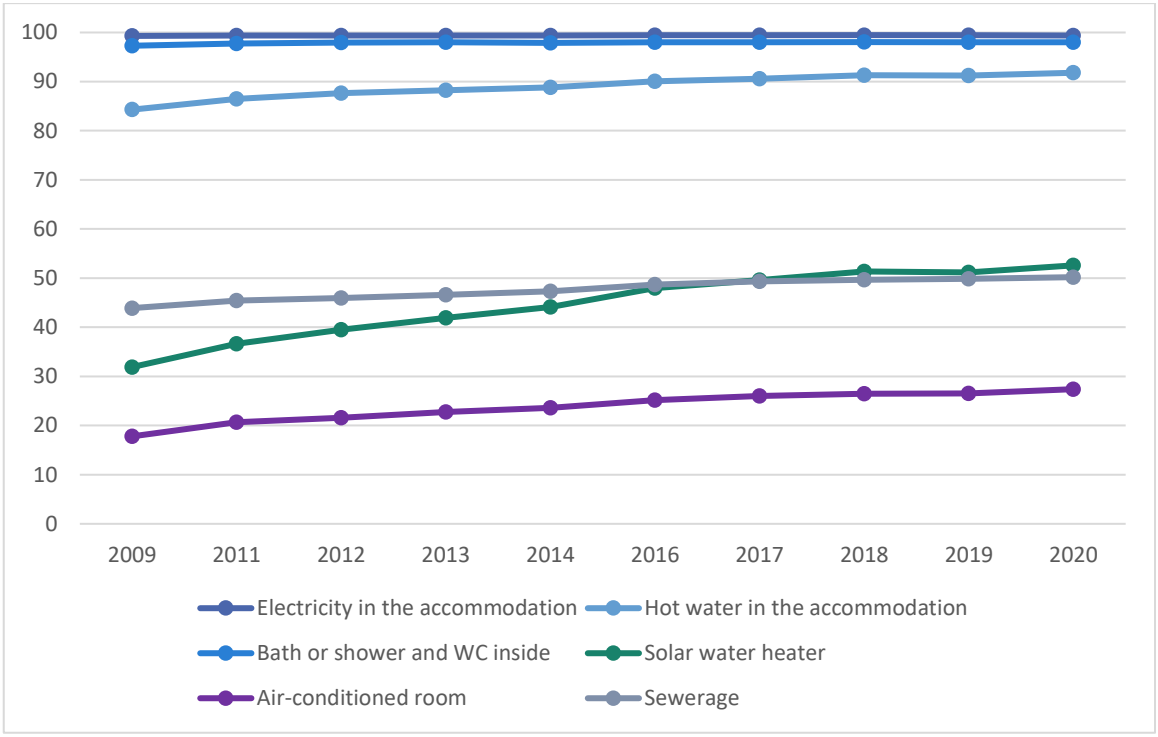
Graph 77: Proportion of facilities supplied in Martinique



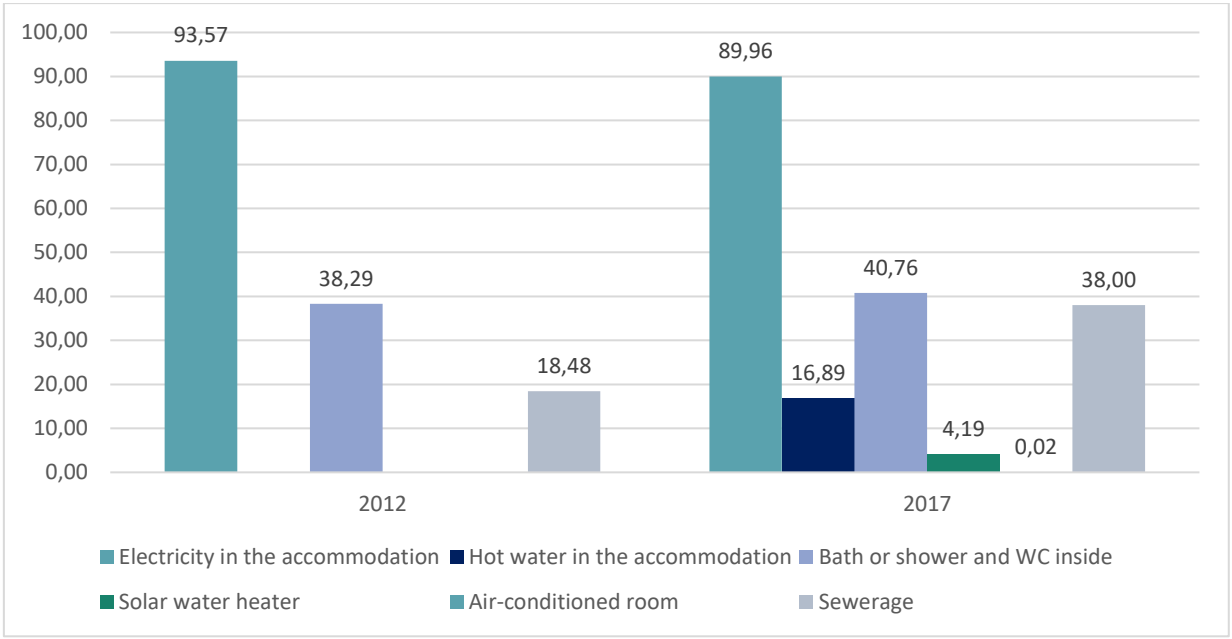
Graph 78: Proportion of facilities supplied in French Guiana



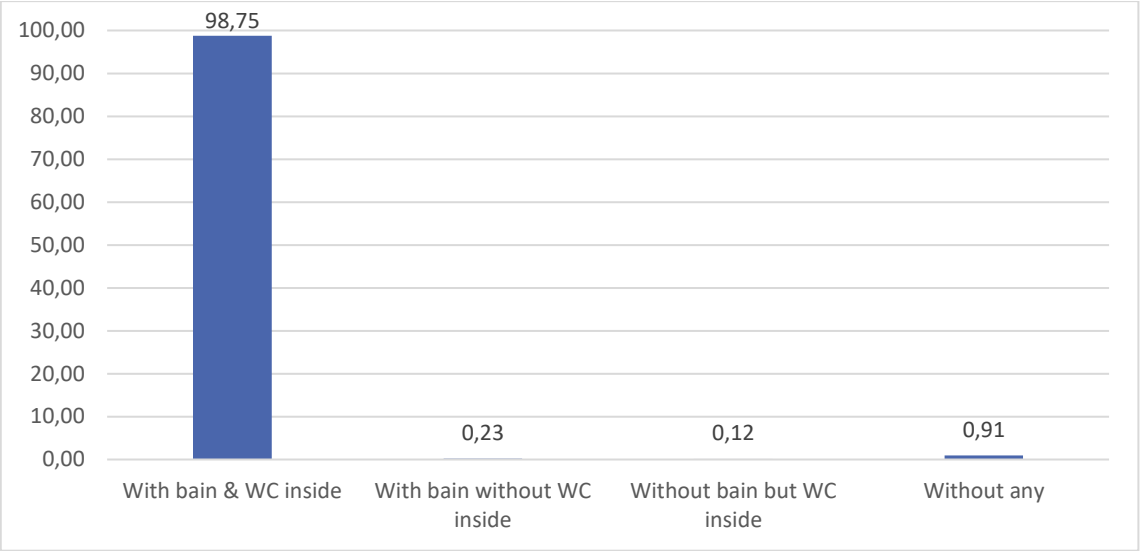
Graph 79: Proportion of facilities supplied in Réunion



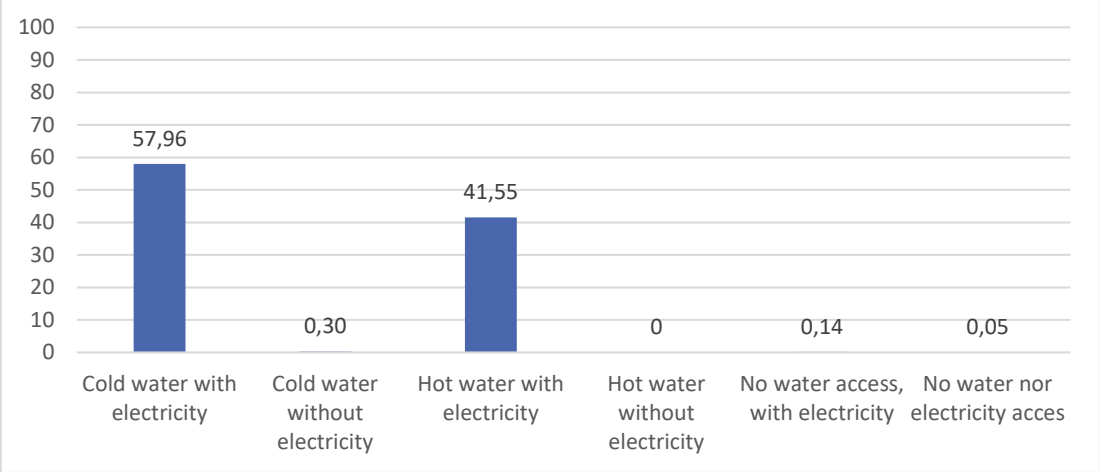
Graph 80: Proportion of facilities supplied in Mayotte



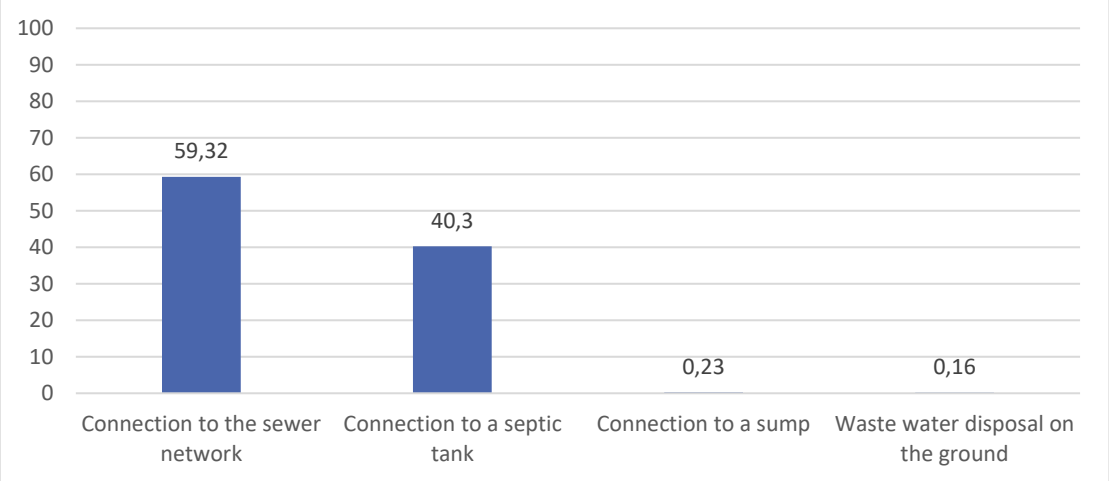
Graph 81: Distribution of sanitation facilities in Saint Martin 2020



Graph 82: Distribution of water and electricity facilities in Saint Martin in 2020

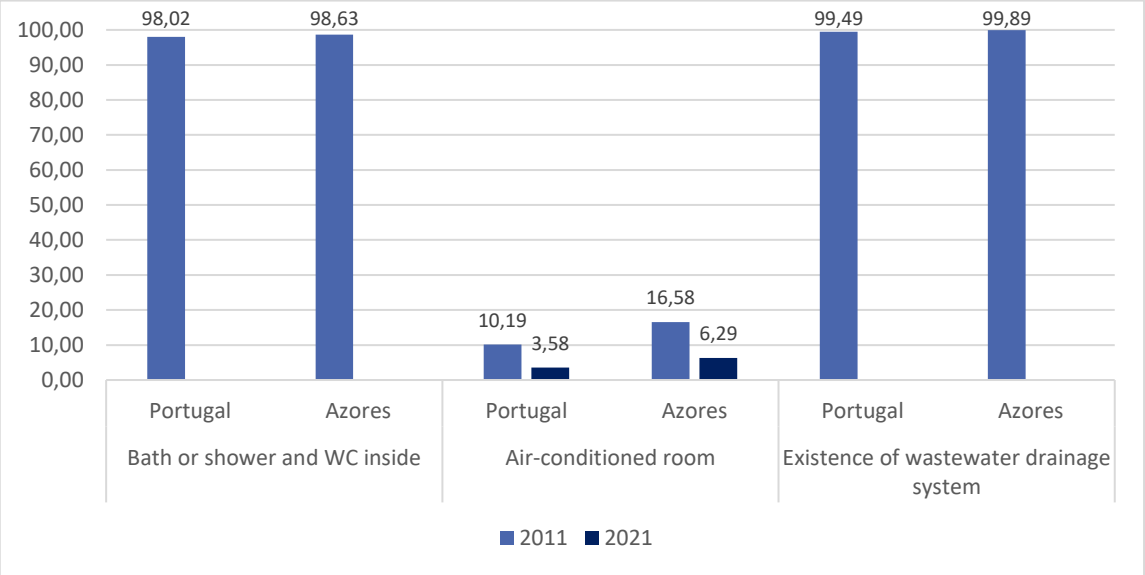


Graph 83: Distribution of sewerage facility in Saint Martin in 2020

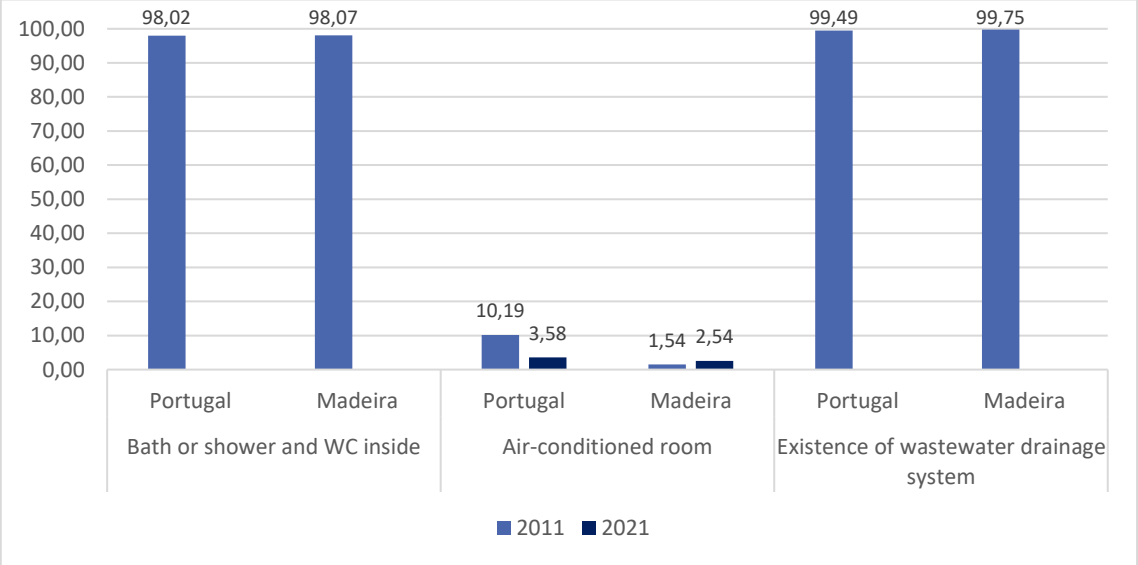


PORTUGUESE OR

Graph 84: Distribution of facilities supplied in the Azores

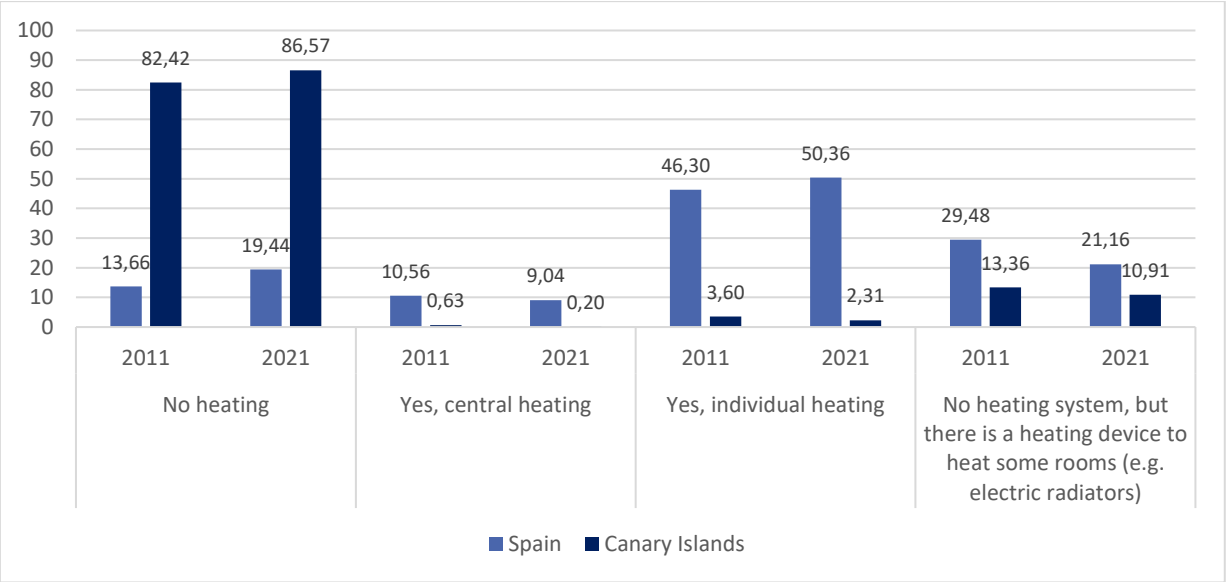


Graph 85: Distribution of facilities supplied in Madeira

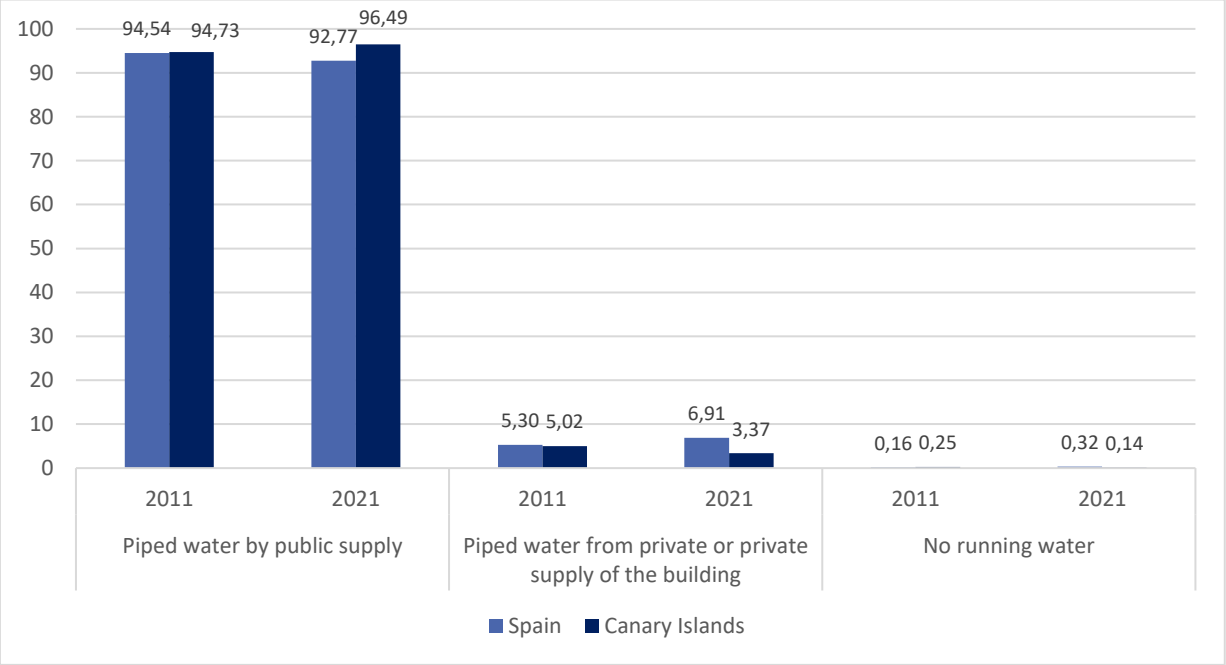


SPANISH OR

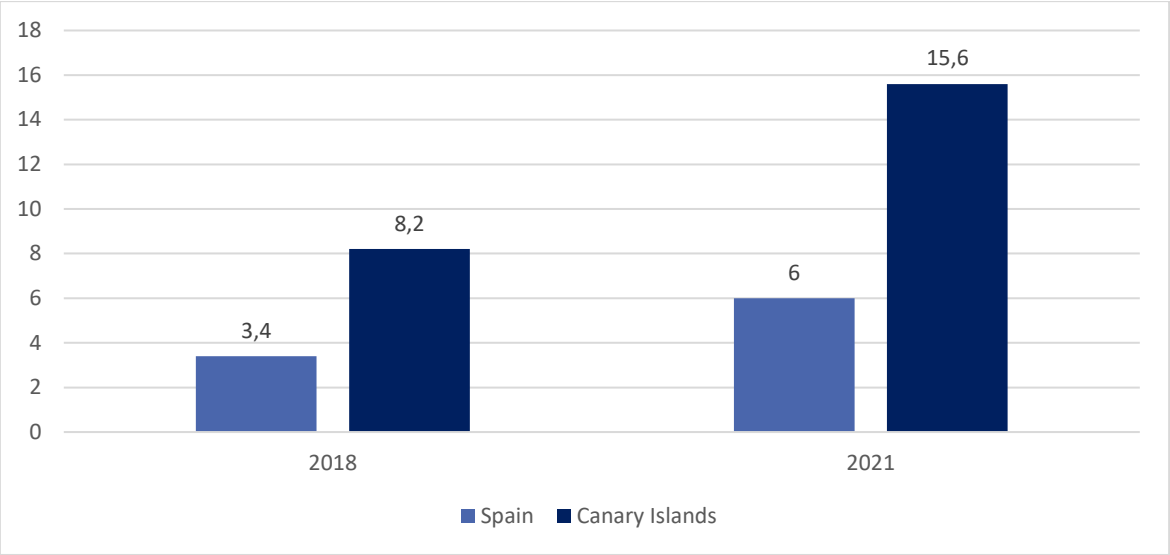
Graph 86: Heating infrastructure distribution



Graph 87: Water infrastructure distribution



Graph 88: Proportion of households with unhealthy situations: dampness, dirt and odours



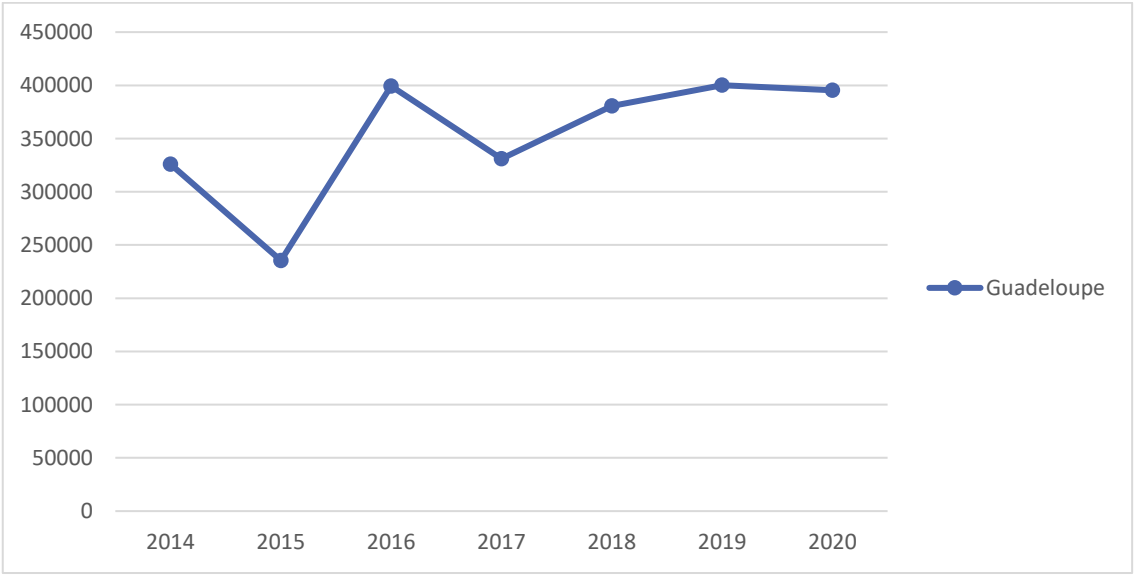
3.3.2 Water and sanitation

ACCESS

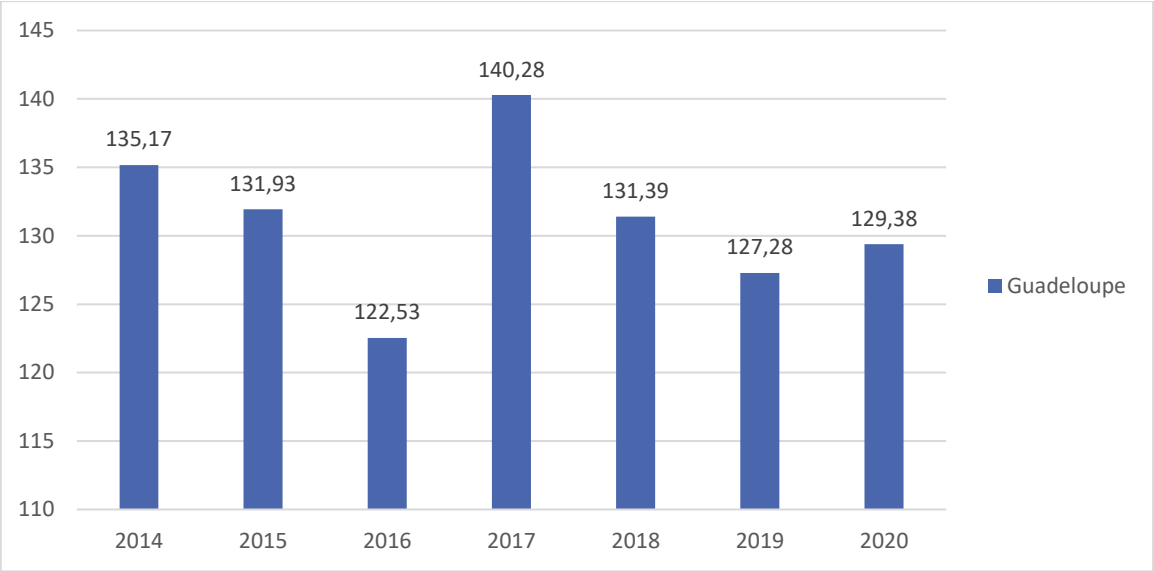
3.3.2.1 Consumption and quality

FRENCH OR

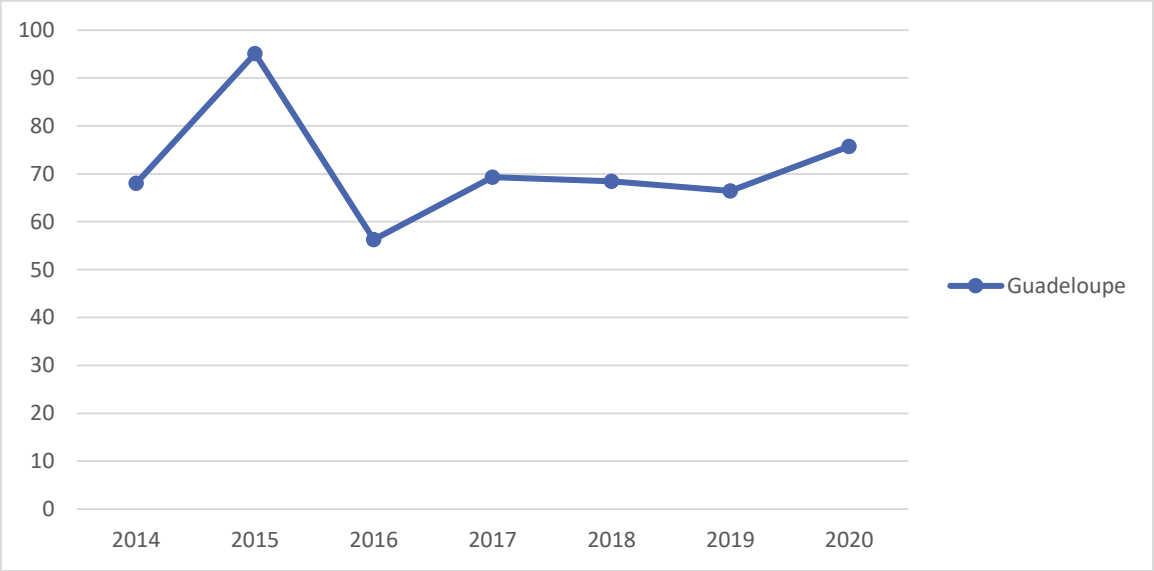
Graph 89: Estimated number of inhabitants served (habitants)



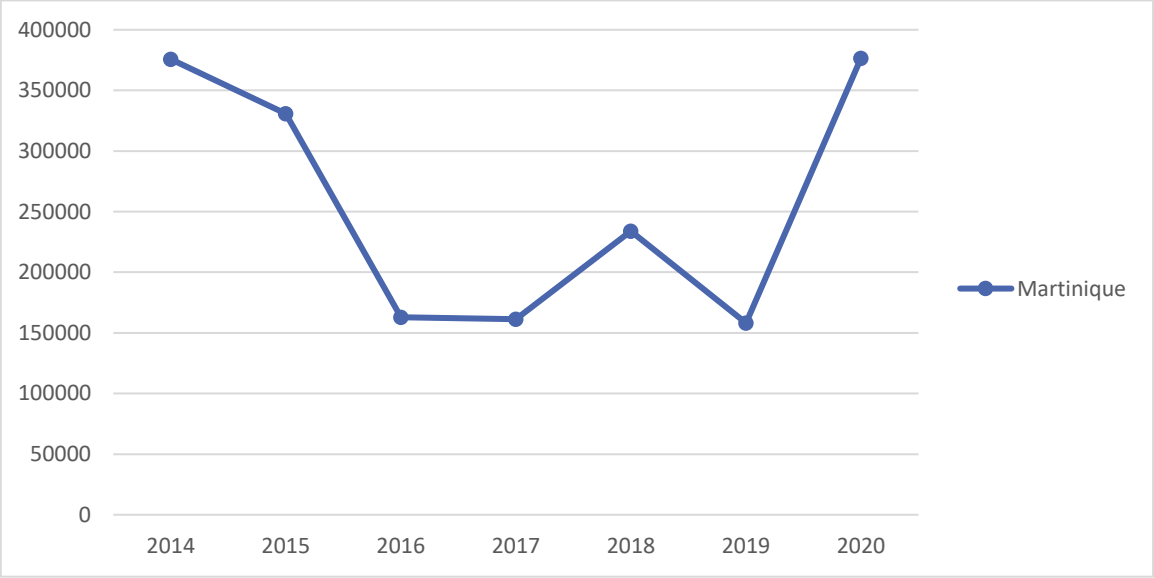
Graph 90: average consumption per customer (m^3/customer)



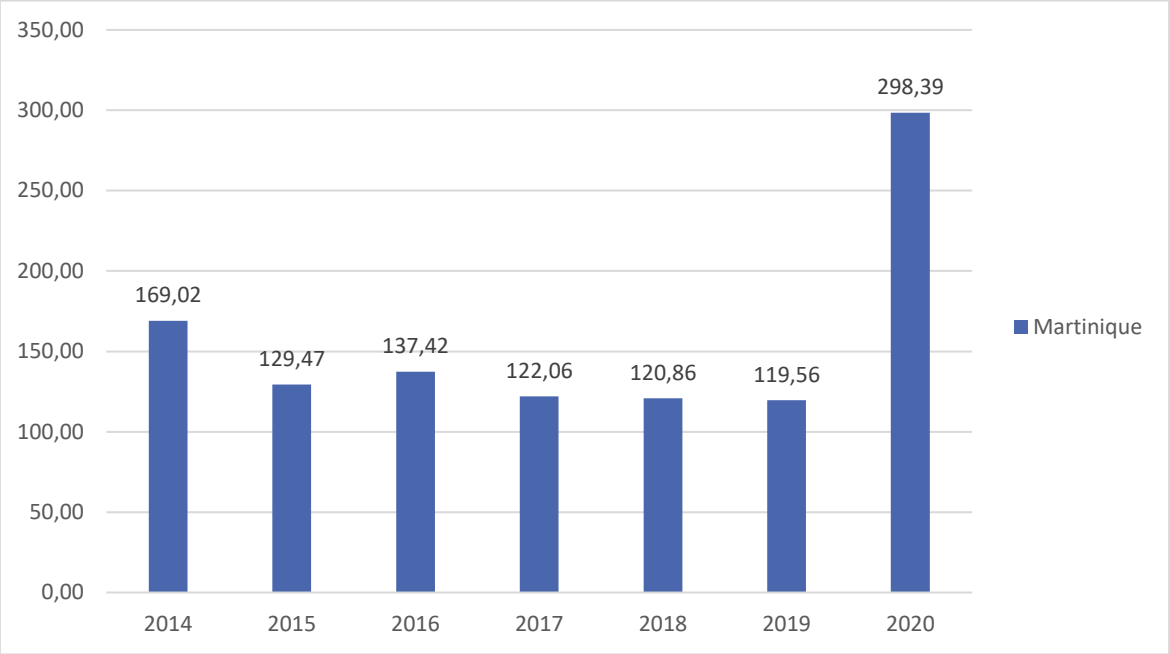
Graph 91: domestic volume accounted for per inhabitant served (m3)



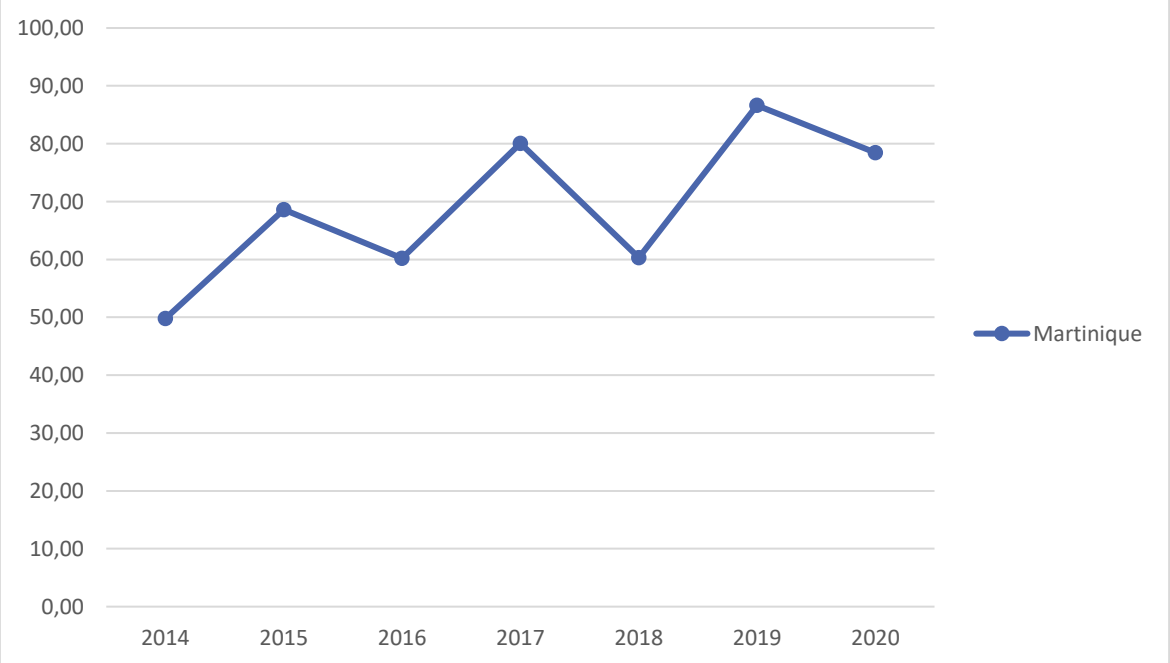
Graph 92: estimated number of inhabitants served (habitants)



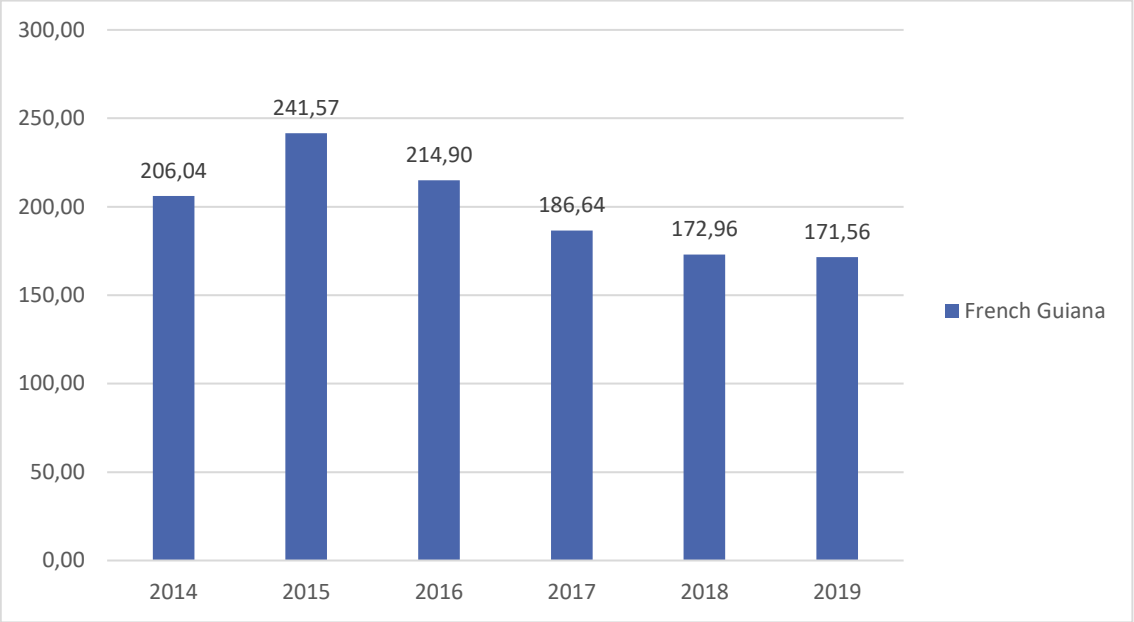
Graph 93: average consumption per customer (m3/customer)



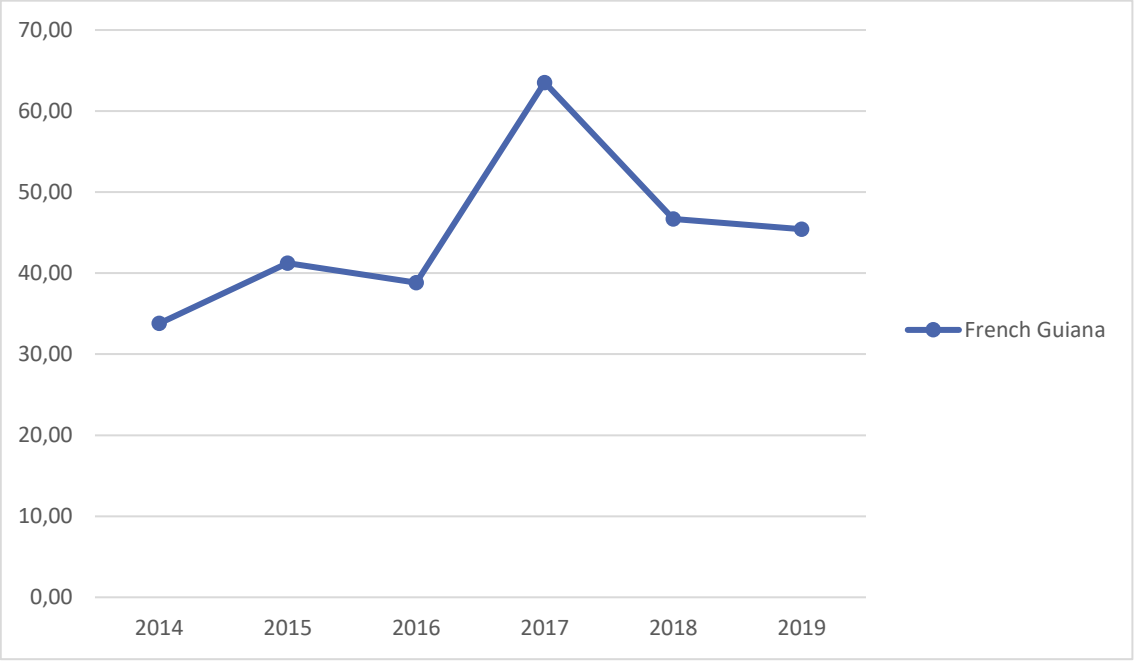
Graph 94: domestic volume accounted for per inhabitant served (m^3)



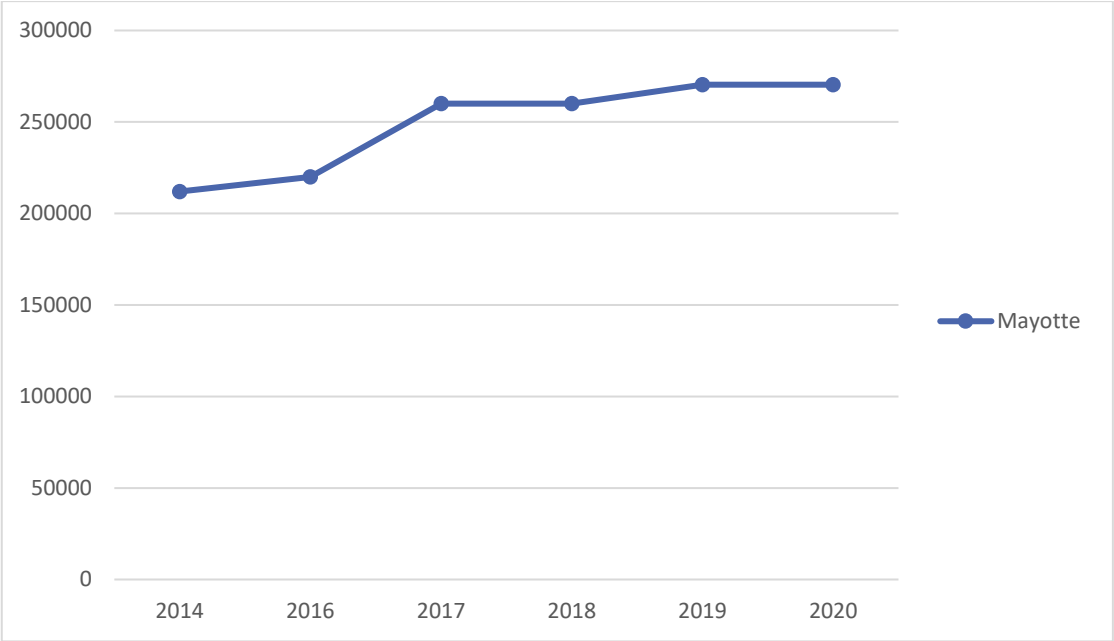
Graph 95: average consumption per customer (m^3/customer)



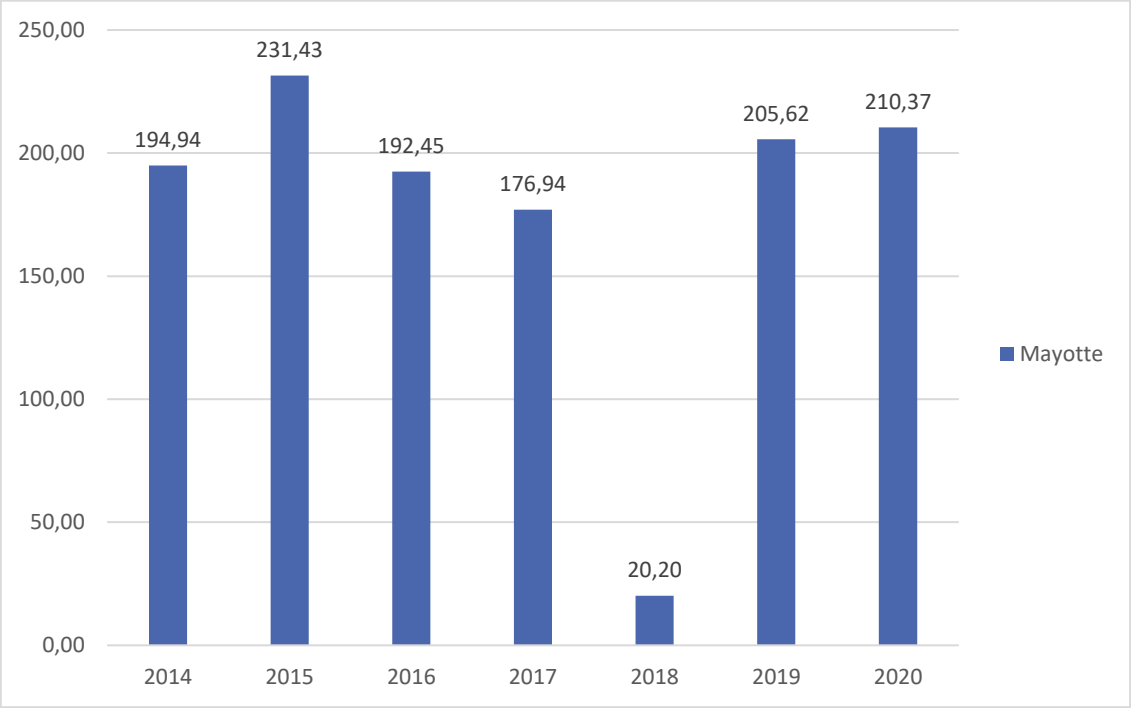
Graph 96: domestic volume accounted for per inhabitant served (m^3)



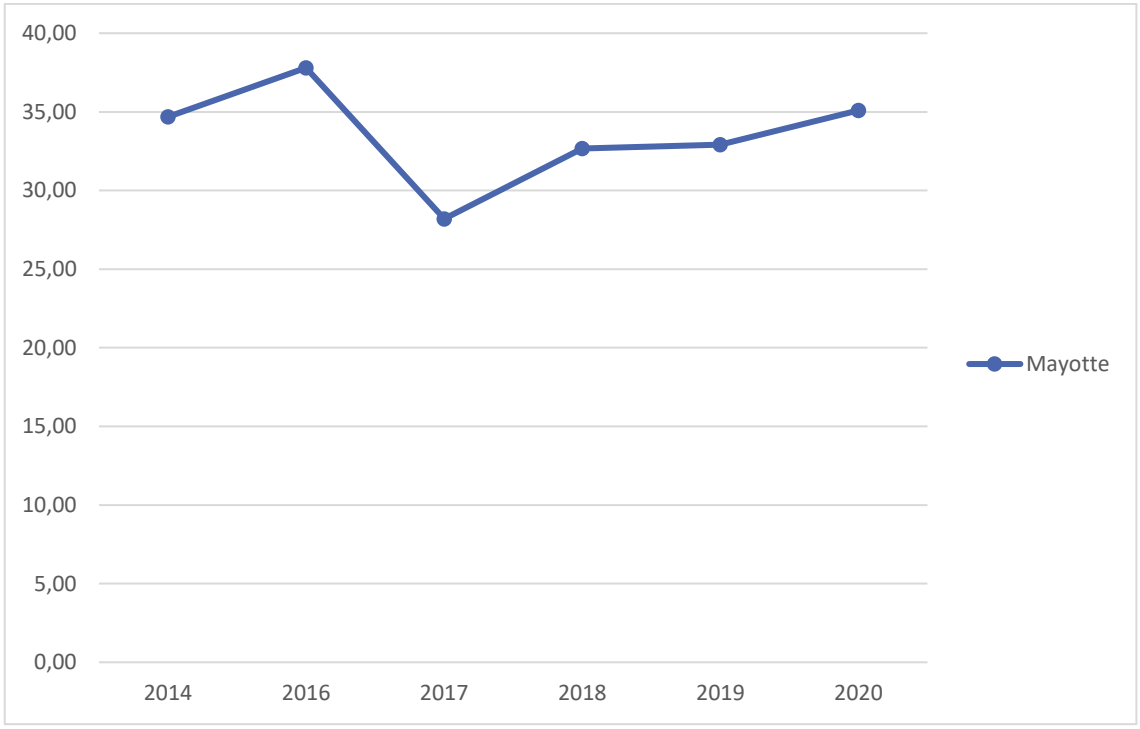
Graph 97: estimated number of inhabitants served (habitants)



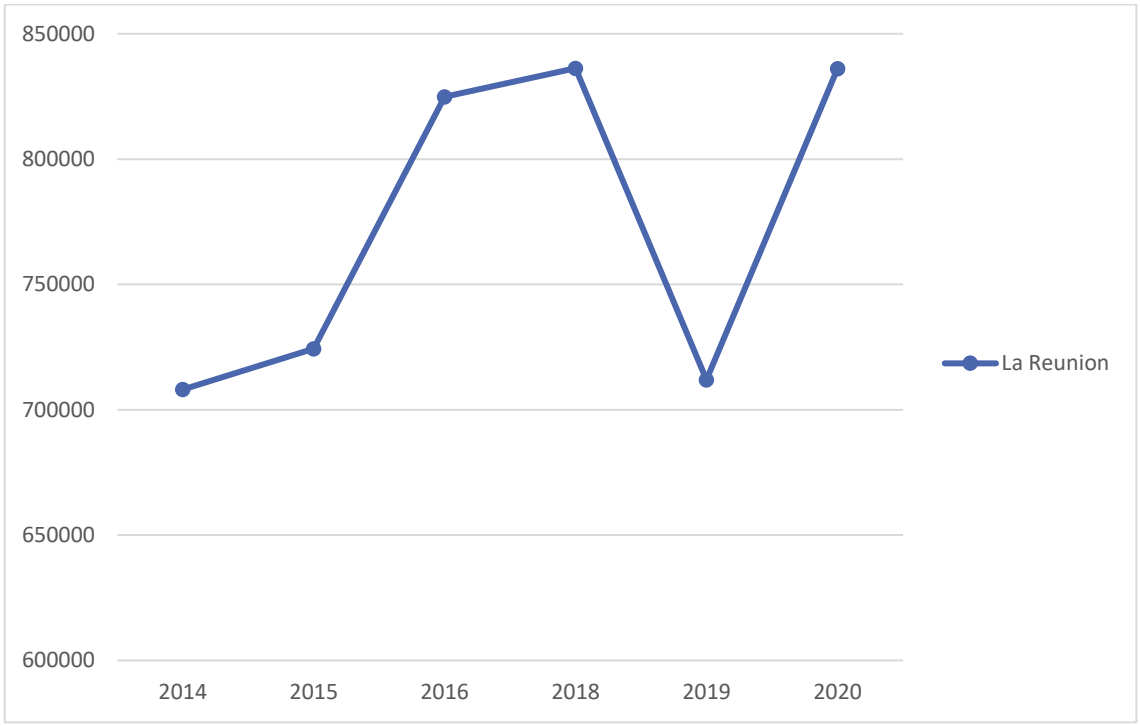
Graph 98: average consumption per customer (m^3/customer)



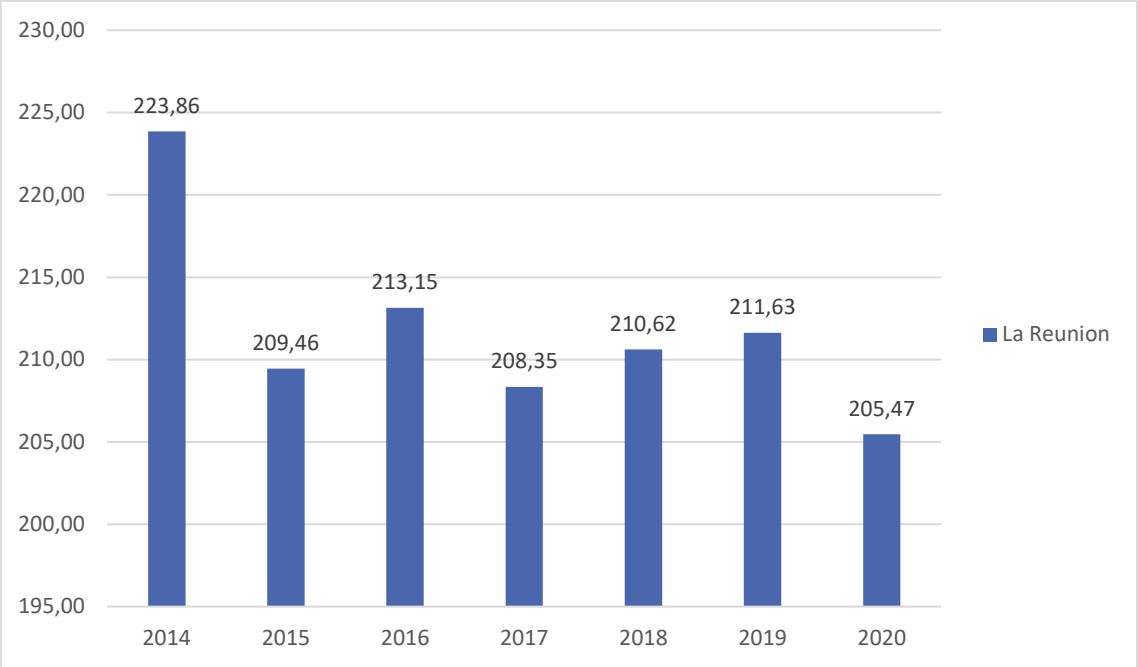
Graph 99: domestic volume accounted for per inhabitant served (m^3)



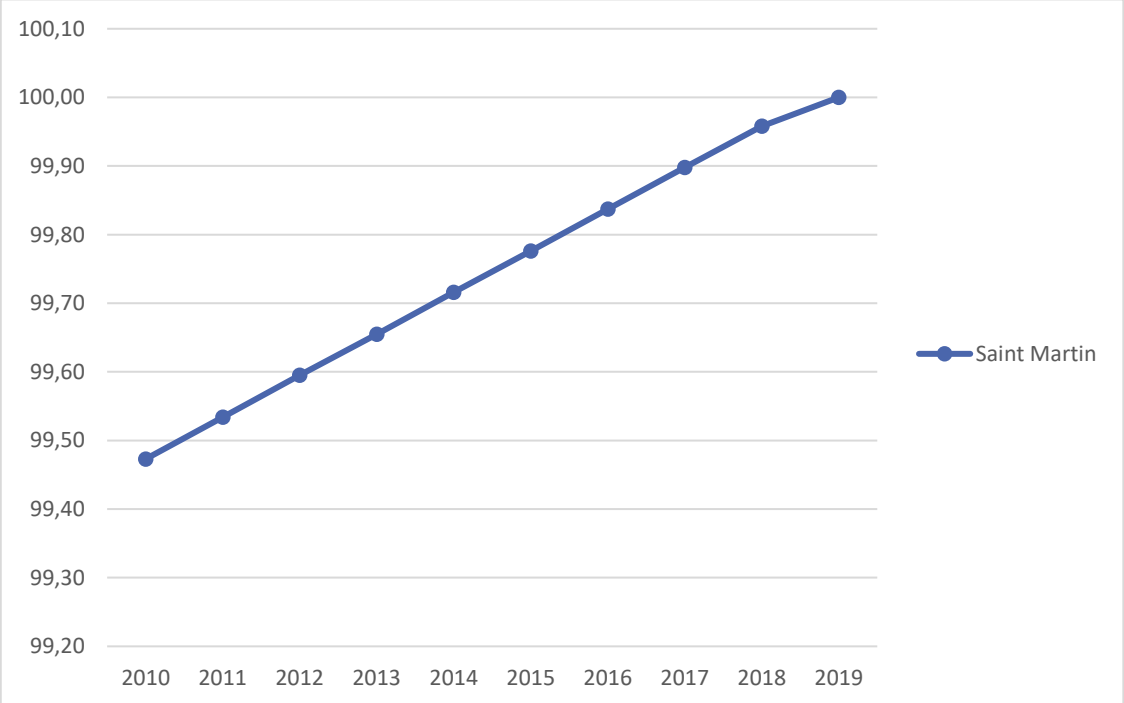
Graph 100: estimated number of inhabitants served (habitants)



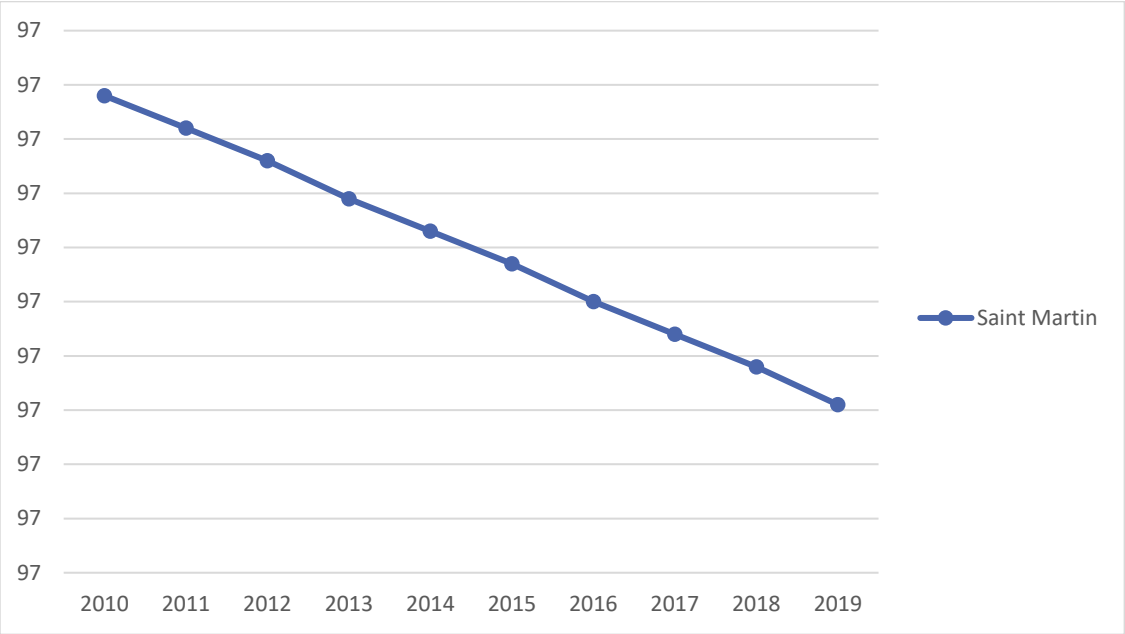
Graph 101: average consumption per customer (m^3/customer)



Graph 102: Proportion of population using at least basic sanitation services (%)

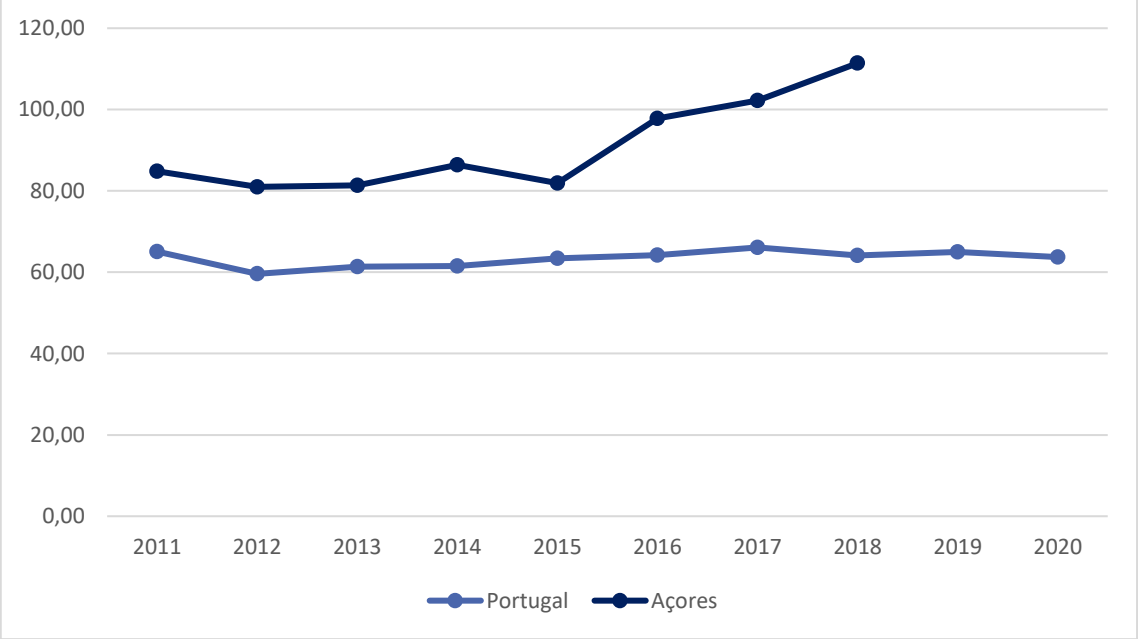


Graph 103: proportion of population using safely managed drinking water services (%)

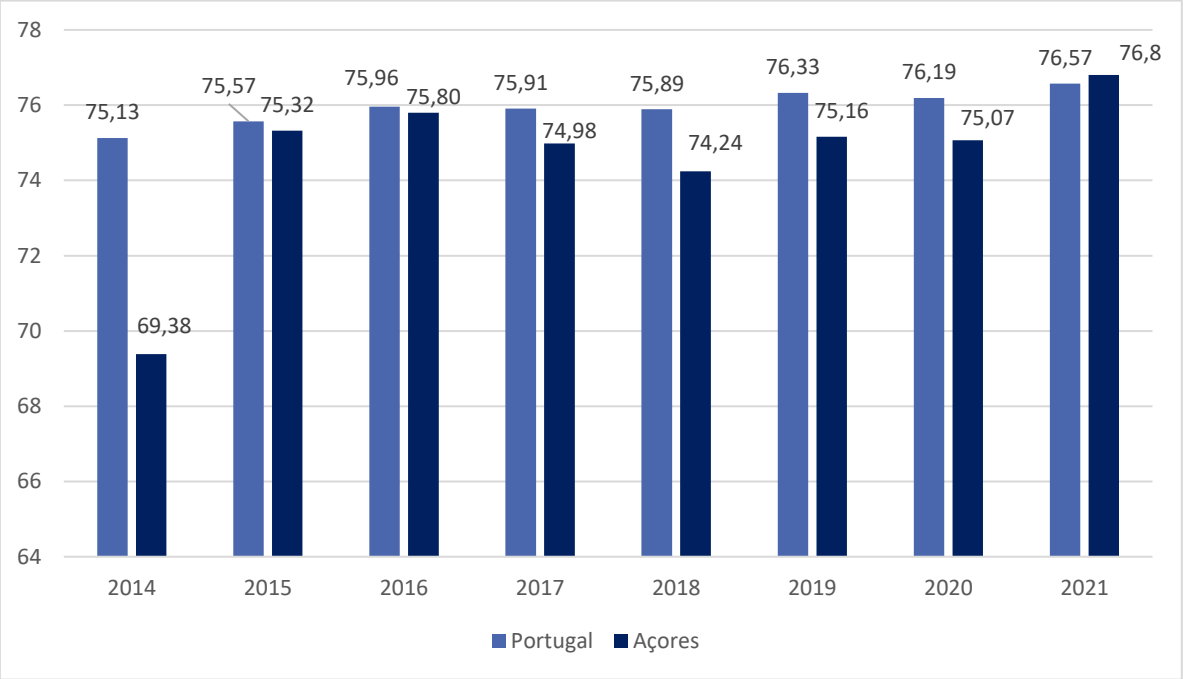


PORTUGUESE OR

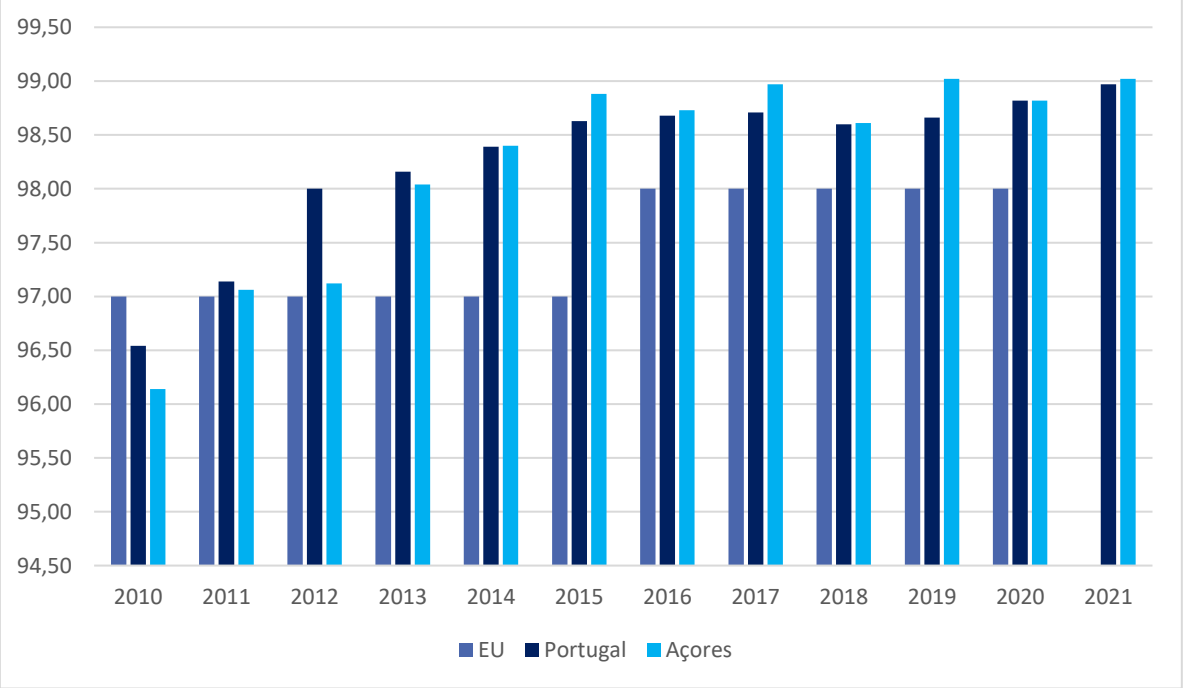
Graph 104: domestic volume accounted for per inhabitant served (m^3/habitant)



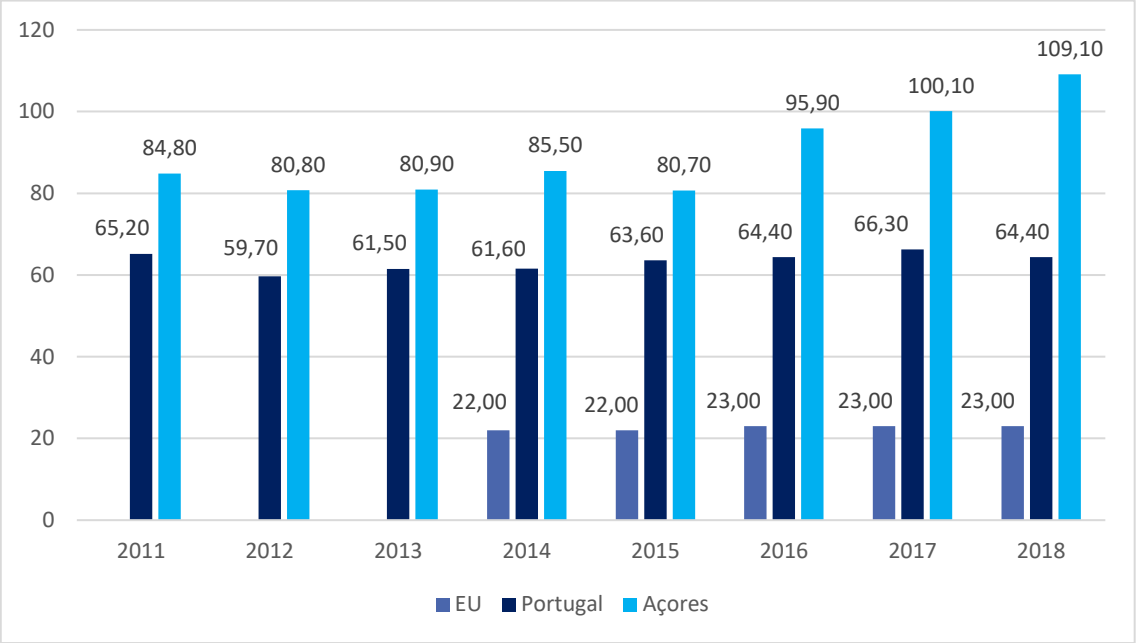
Graph 105: Percentage of analyses in compliance with the parametric value (%)



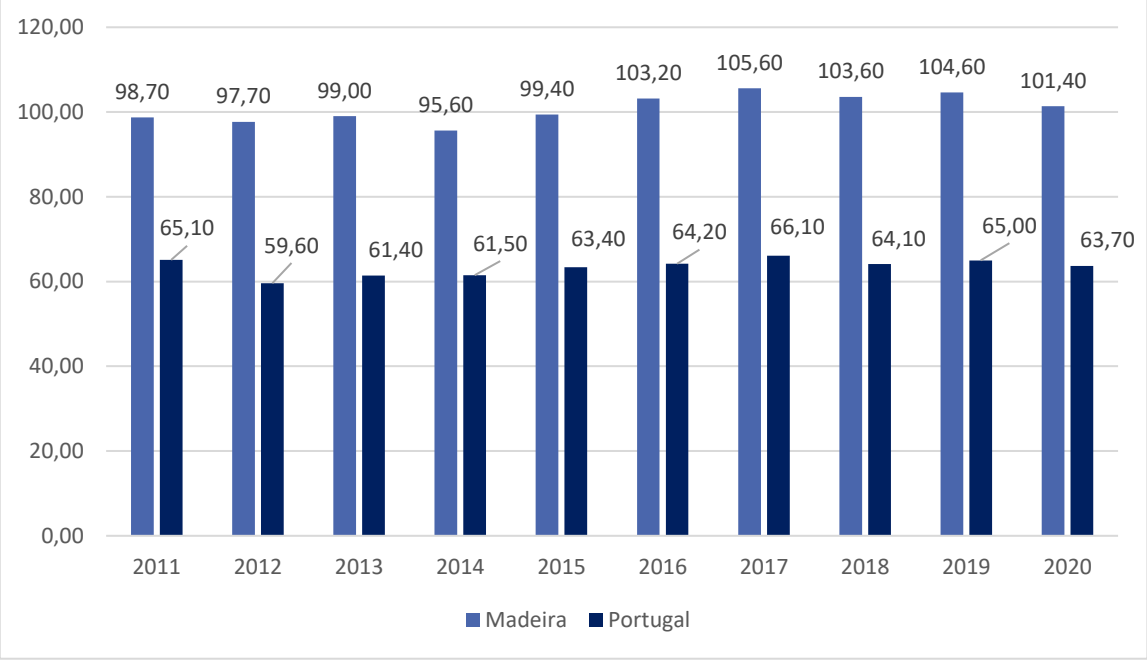
Graph 106: percentage of drinking water (%)



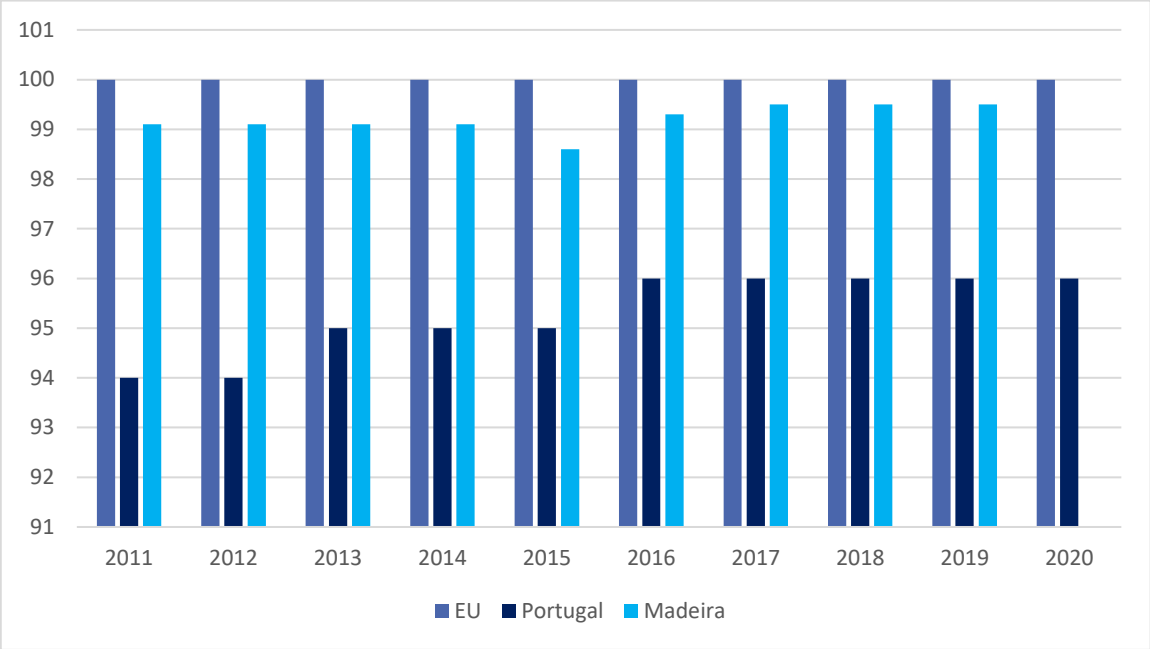
Graph 107: fresh water supplied per inhabitant (m^3/inhabitant)



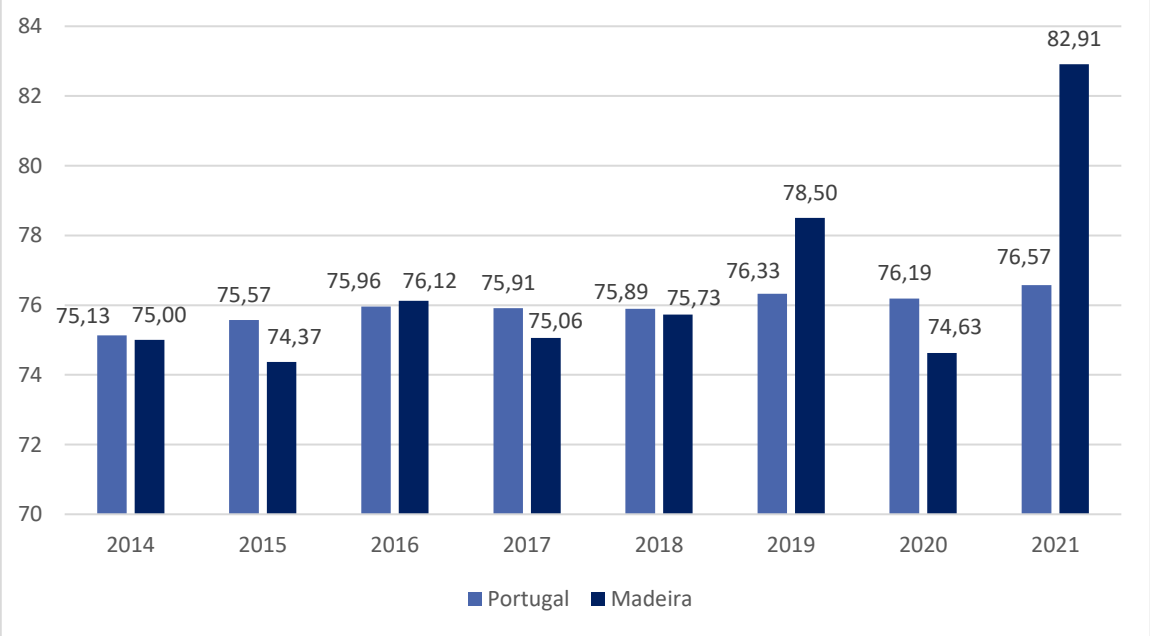
Graph 108: domestic volume accounted for per inhabitant served (m^3/habitant)



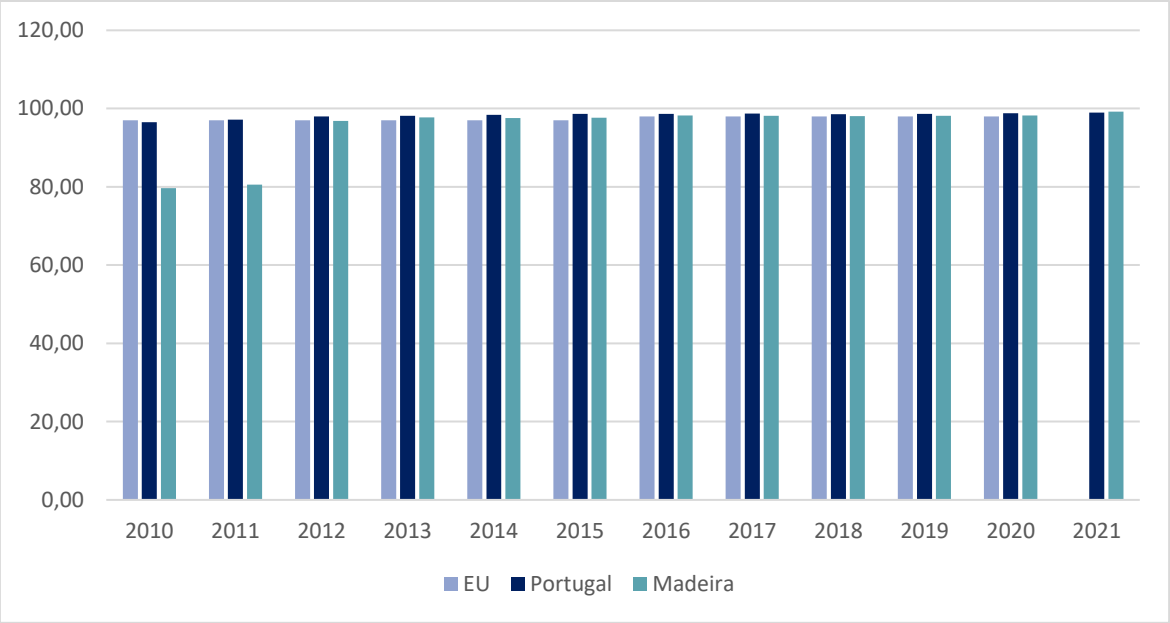
Graph 109: proportion of dwellings served by water supply (%)



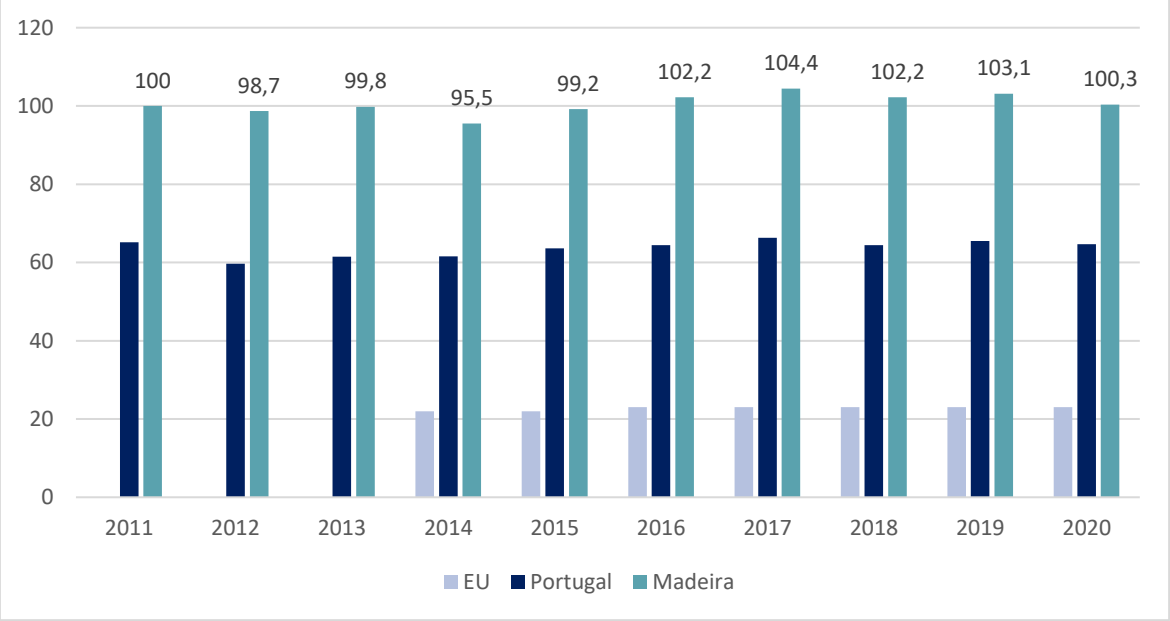
Graph 110: percentage of analyses in compliance with the parametric value (%)



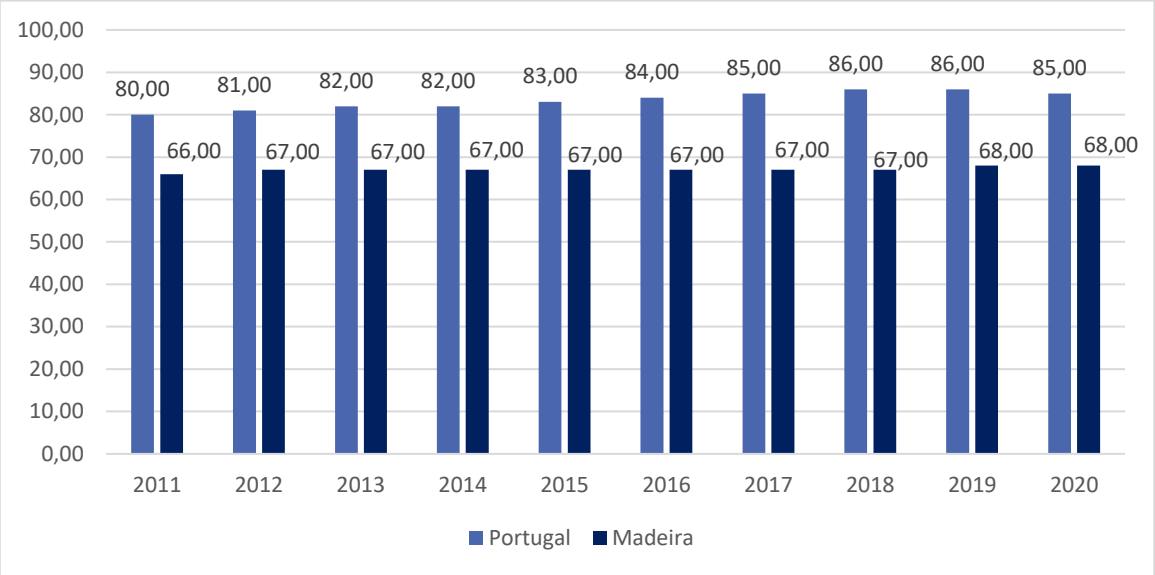
Graph 111: percentage of drinking water (%)



Graph 112: fresh water supplied per inhabitant (m^3/inhabitant)

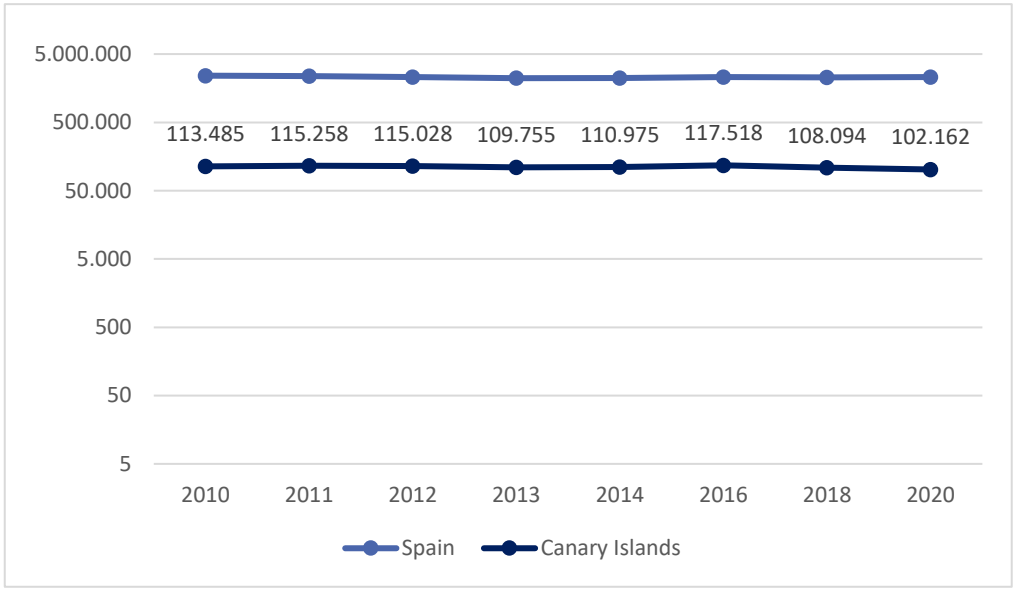


Graph 113: dwellings served by wastewater drainage systems (%)

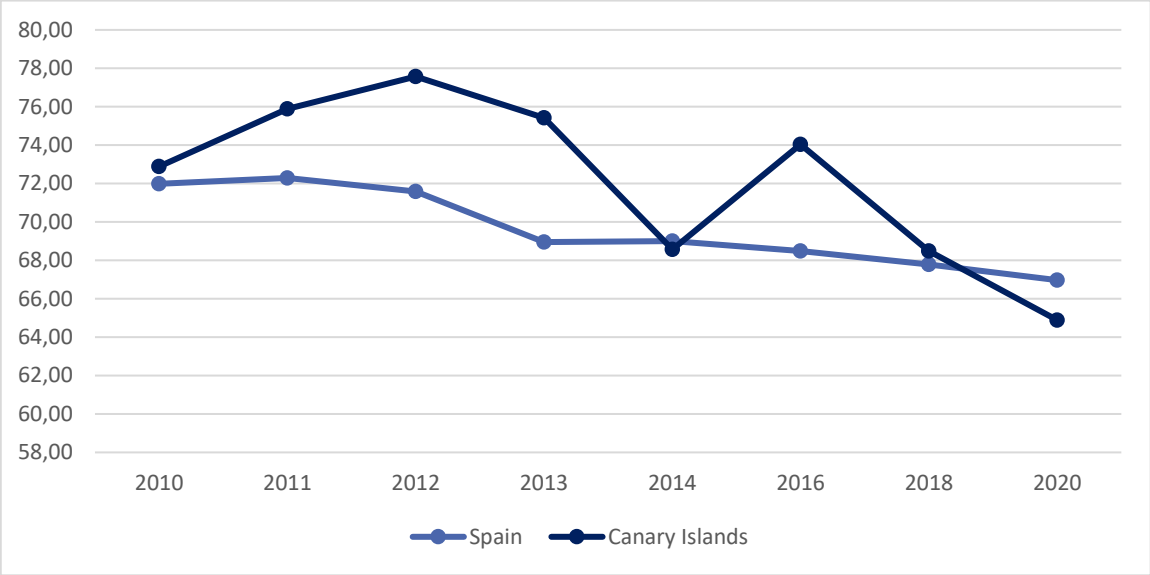


SPANISH OR

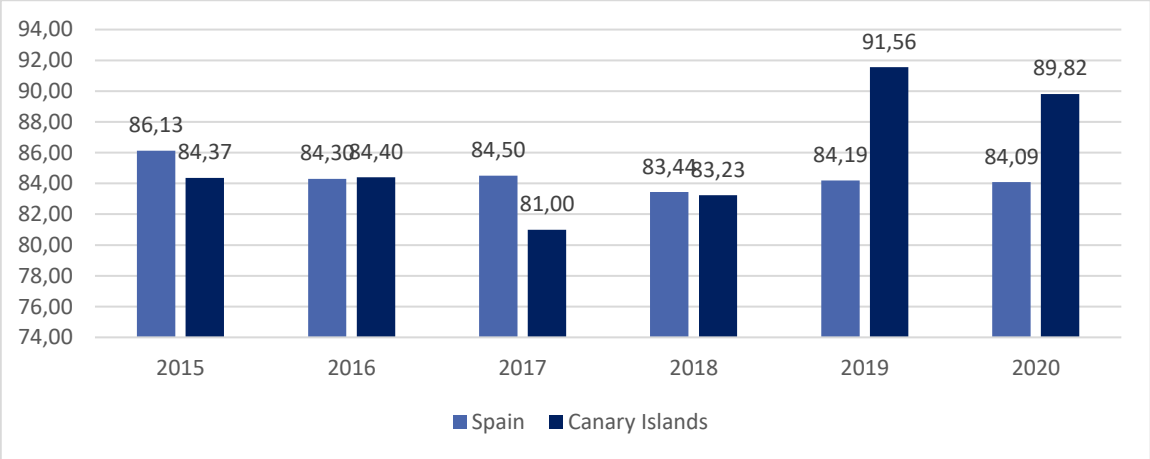
Graph 114: total volume of water (thousands of m^3) registered and distributed by households. Logarithmic scale



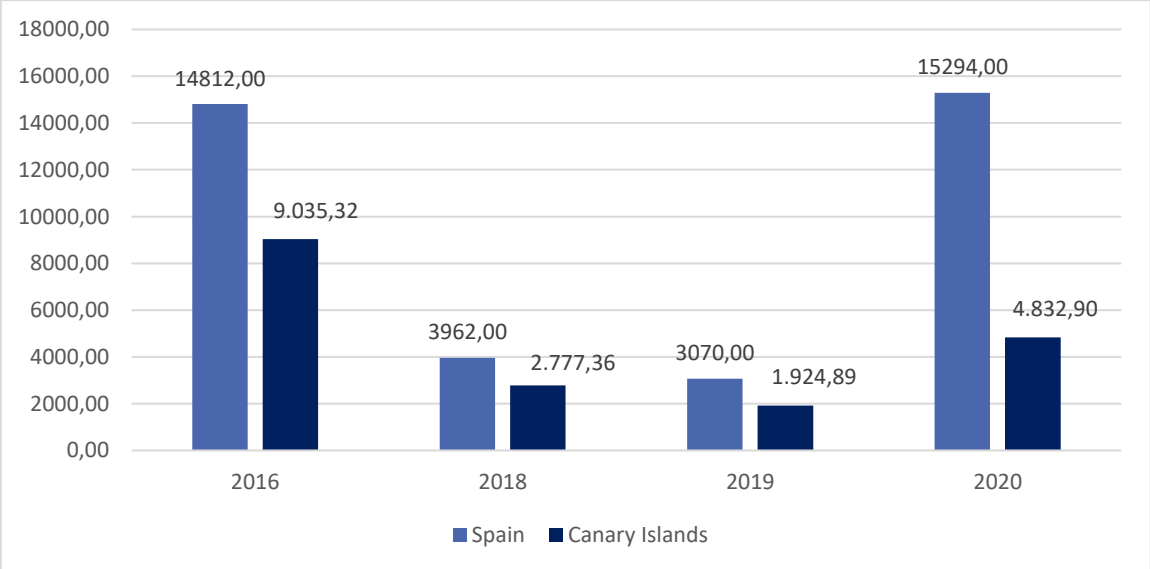
Graph 115: domestic volume accounted for per inhabitant served (m3)



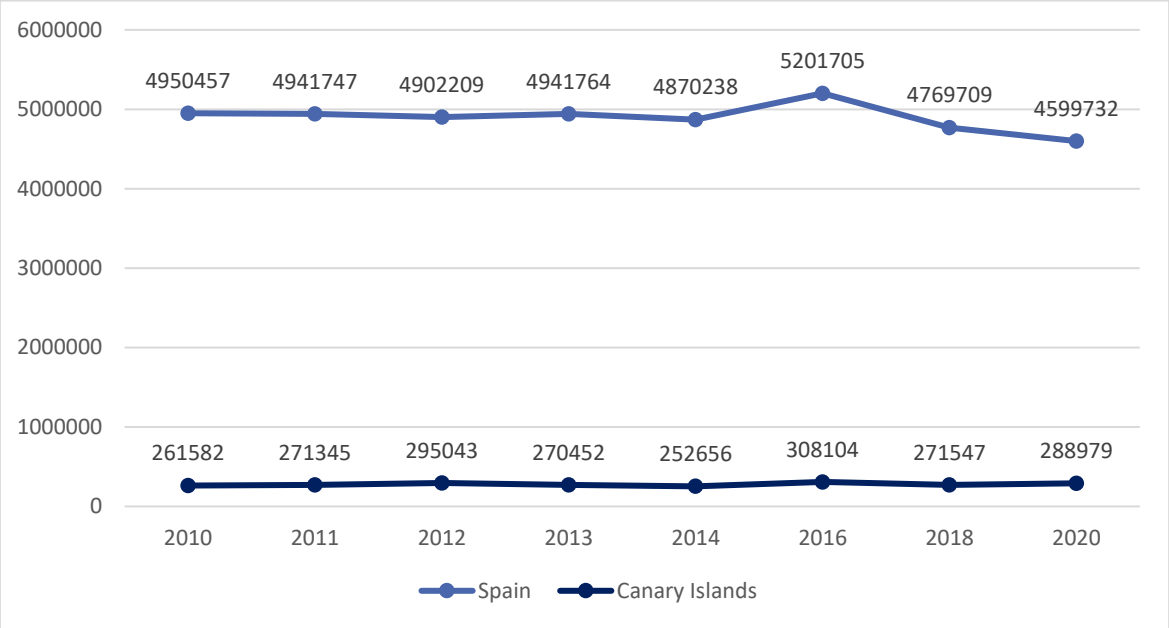
Graph 116: percentage (%) of population supplied with Cobertura del Sistema Nacional de Aguas de Consumo



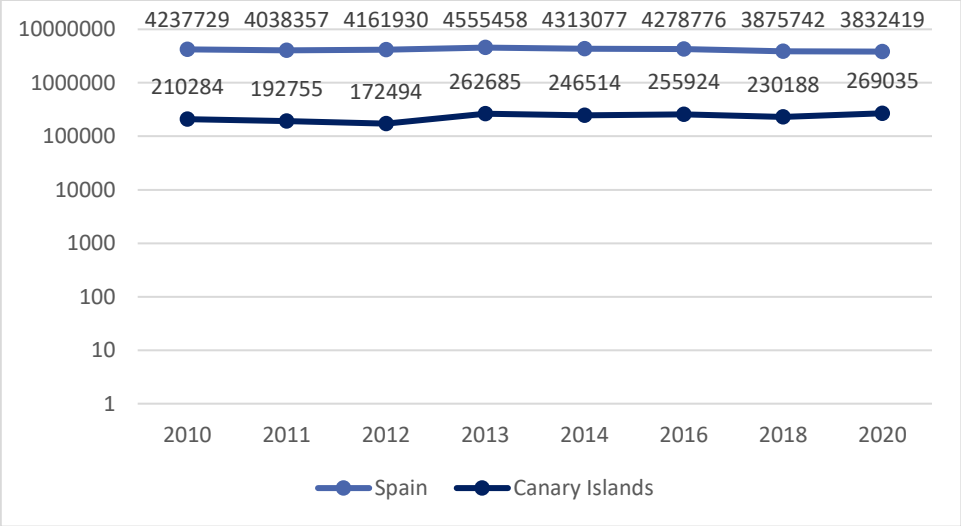
Graph 117: number of health inspections notified.



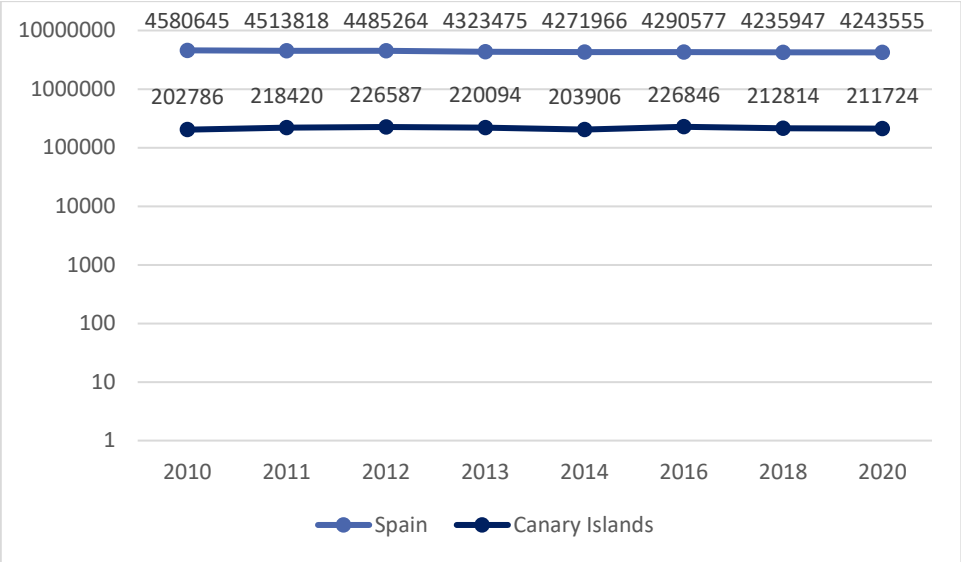
Graph 118: volume of water available for potabilisation (thousands of m3).



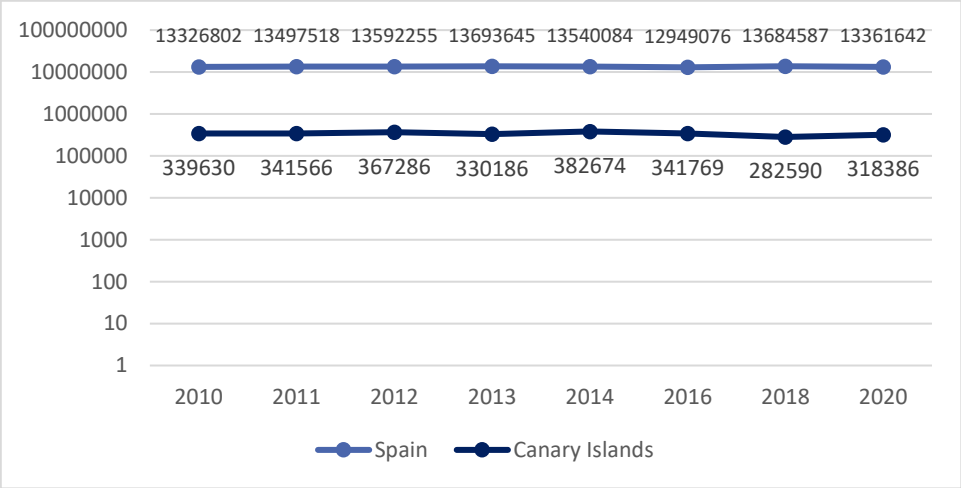
Graph 119: volume of available non-potabilised water (thousands of m3) Logarithmic scale



Graph 120: volume of water supplied to the network (thousands of m3) Logarithmic scale



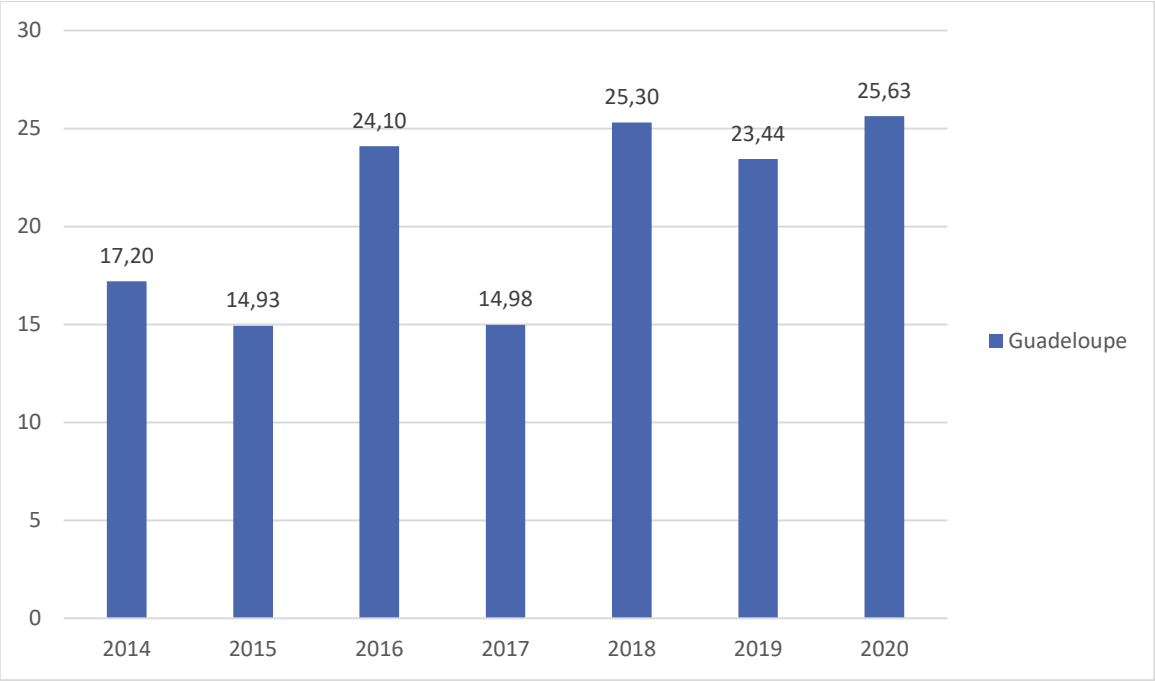
Graph 121: wastewater collection and treatment (m3/day) Logarithmic scale



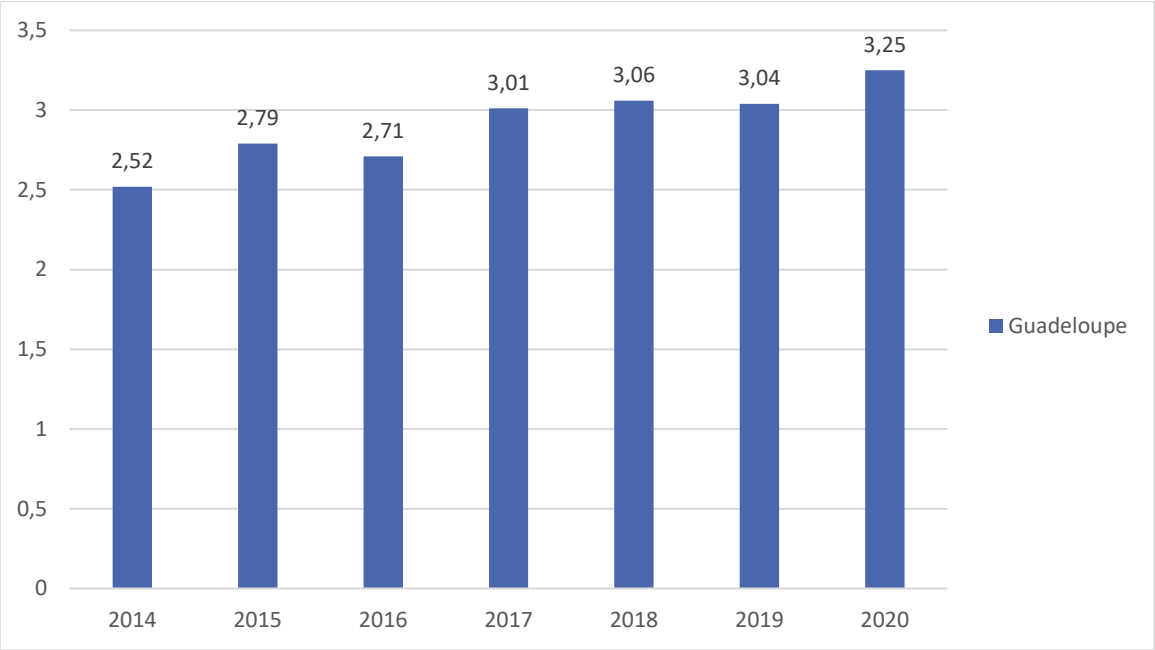
3.3.2.2 Uses and prices

FRENCH OR

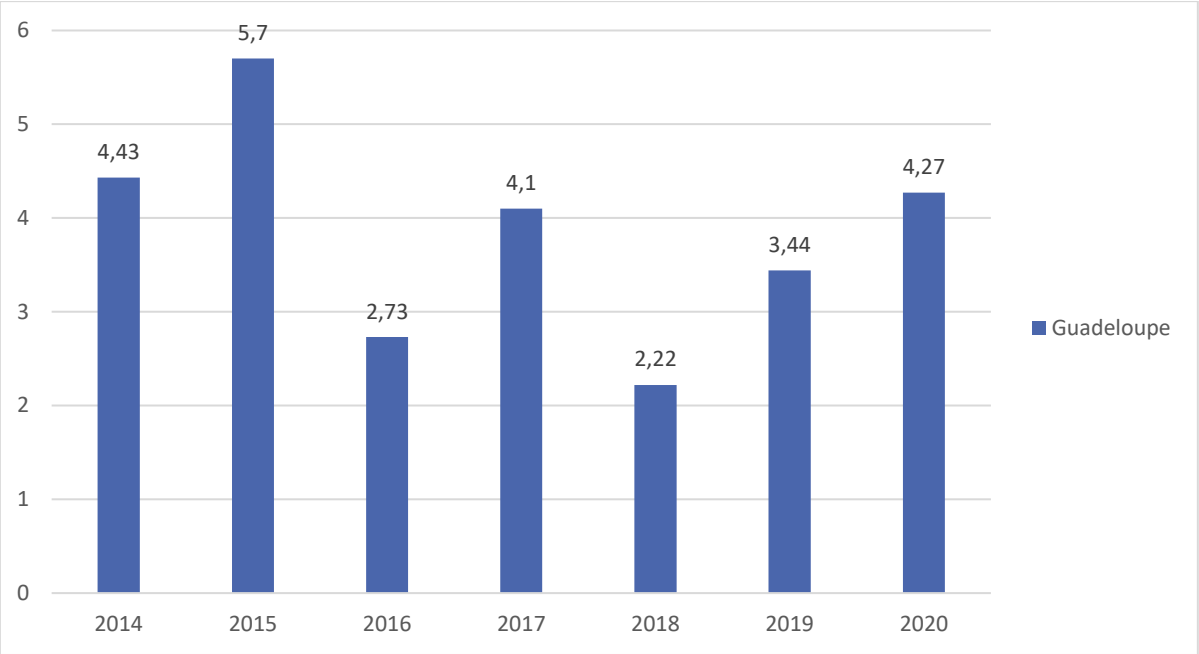
Graph 122: rate of unpaid water bills from the previous year (%)



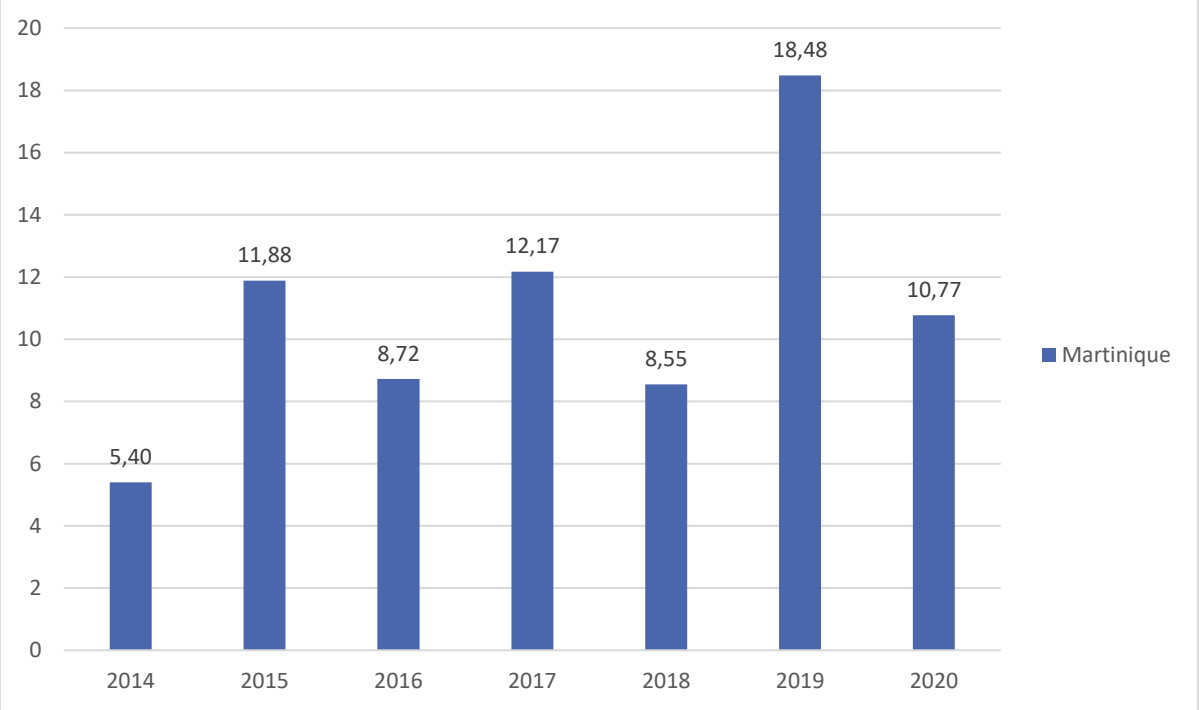
Graph 123: price per m3 for 120 m3 including VAT (€/m3)



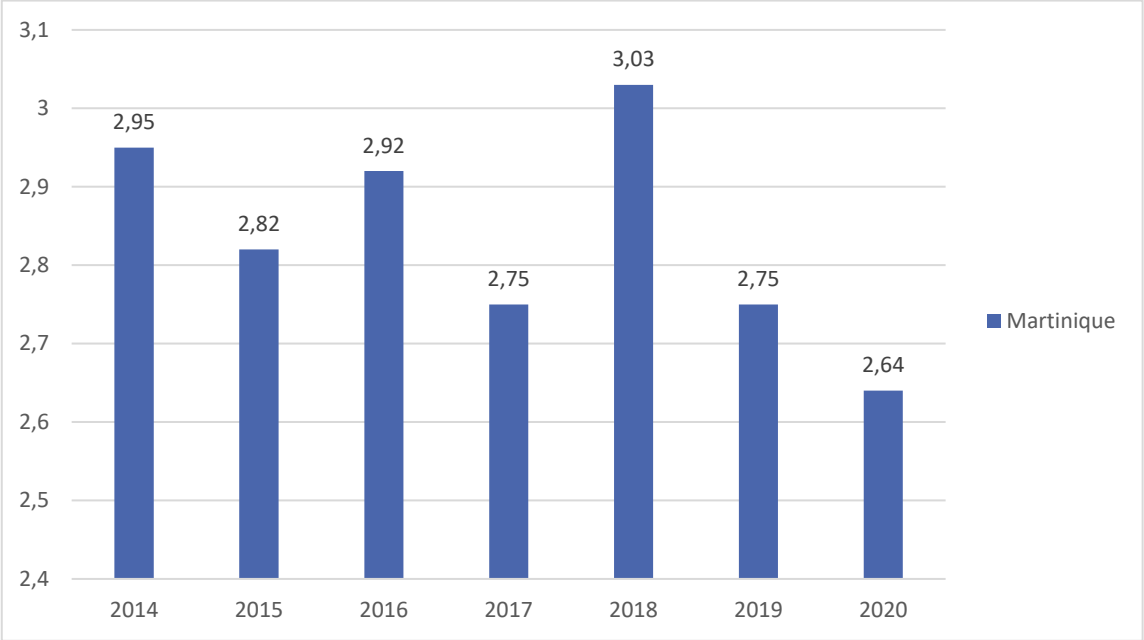
Graph 124: maximum period for opening connections for new subscribers as defined by the service (number of working days)



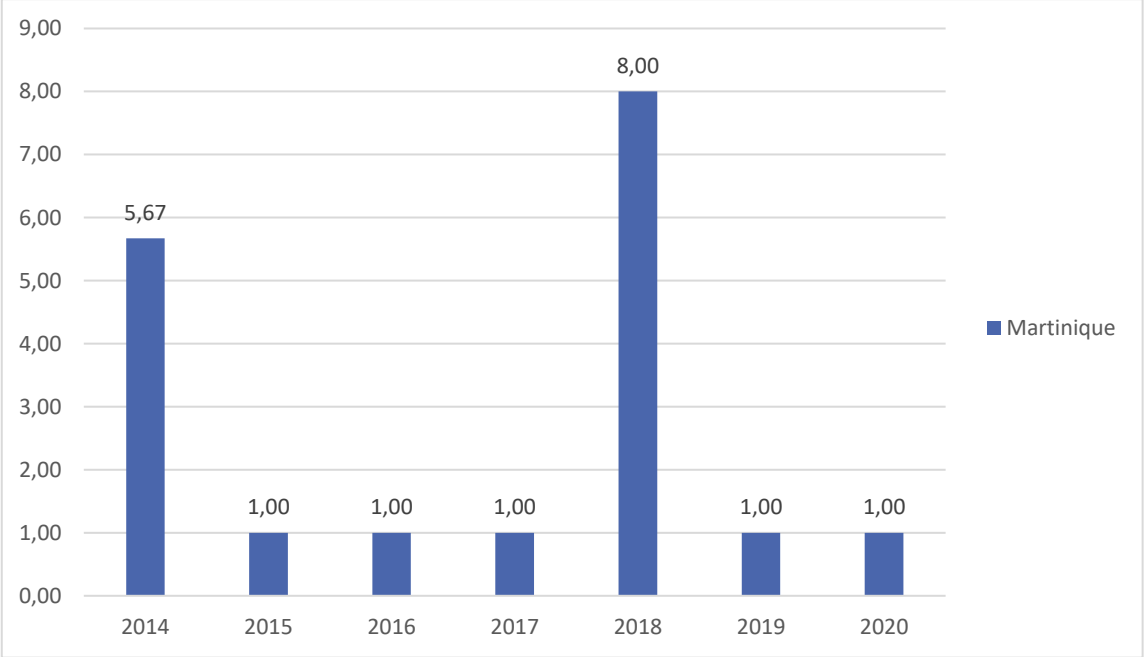
Graph 125: rate of unpaid water bills from the previous year (%)



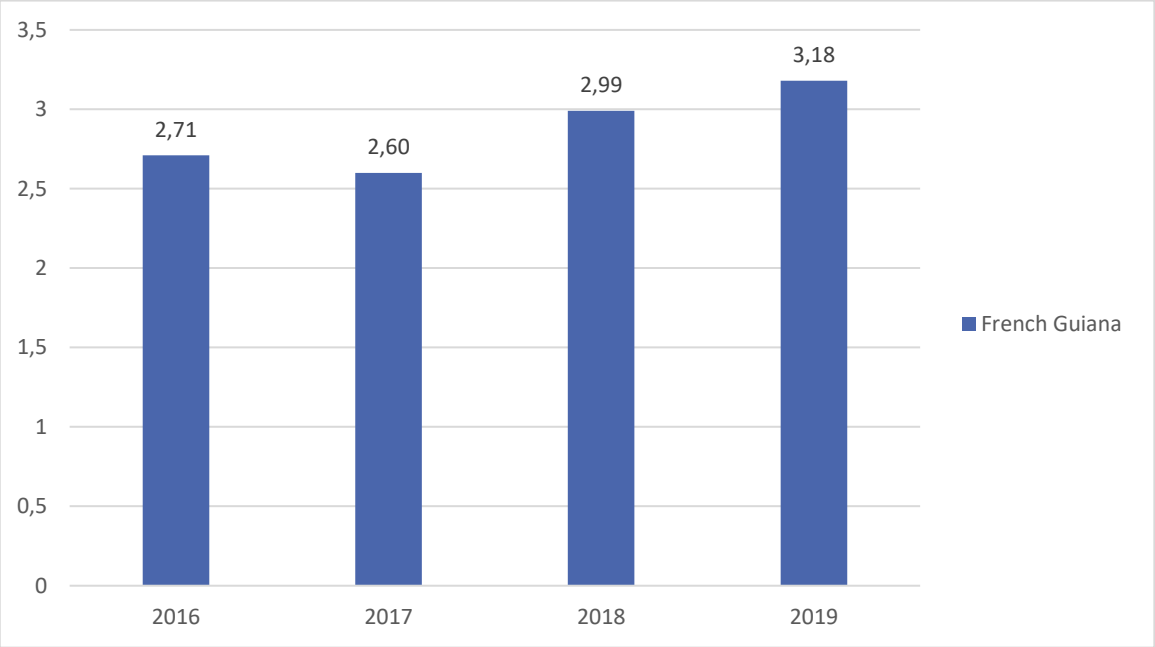
Graph 126: price per m3 for 120 m3 including VAT (€/m3)



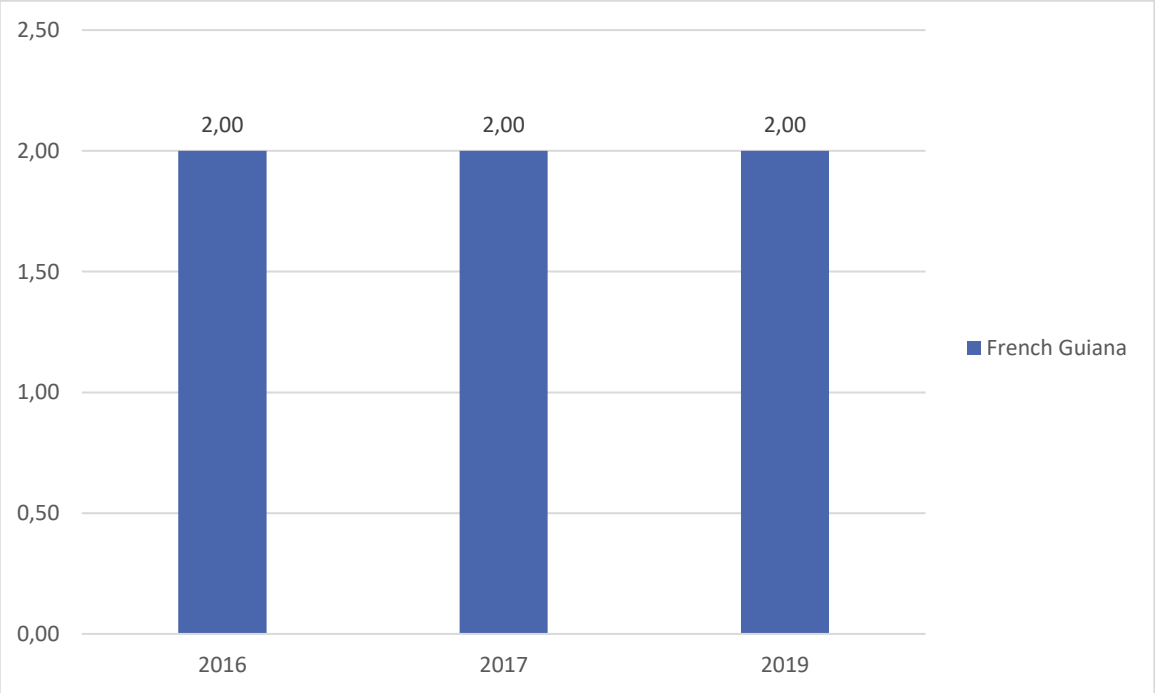
Graph 127: maximum period for opening connections for new subscribers as defined by the service (number of working days)



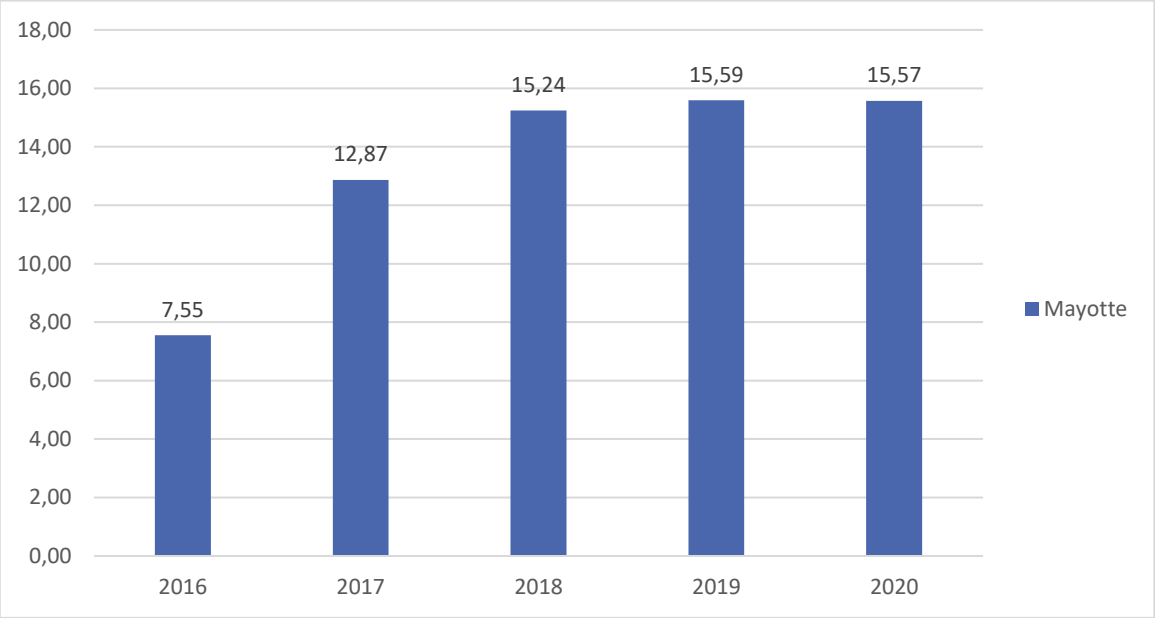
Graph 128: price per m3 for 120 m3 including VAT (€/m3)



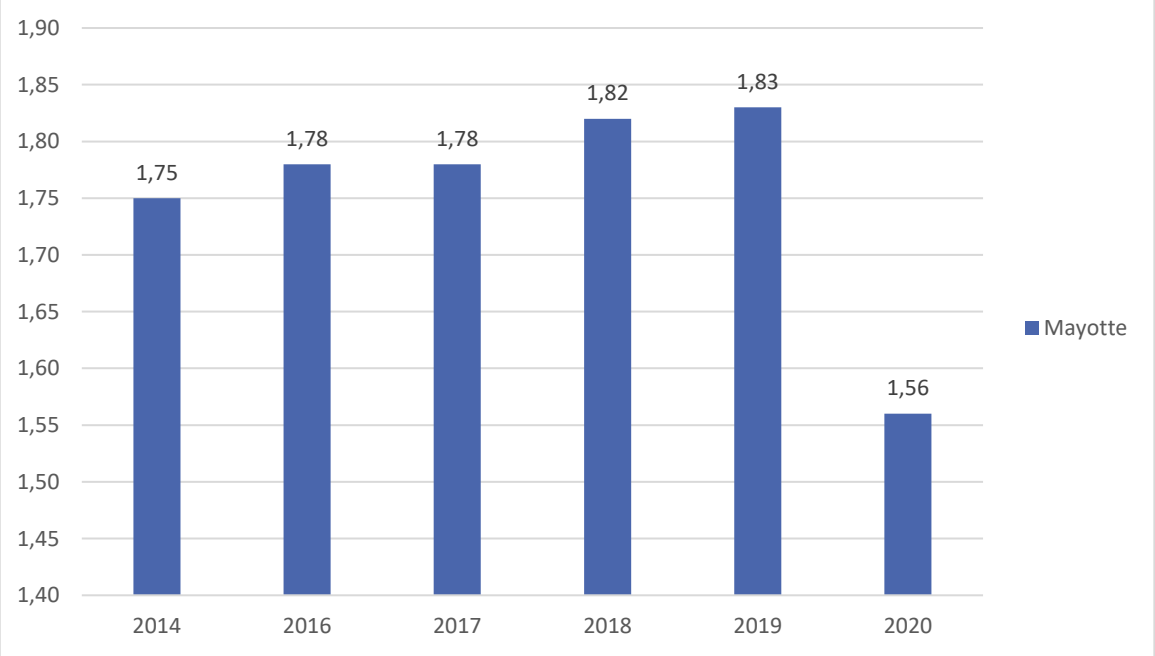
Graph 129: maximum period for opening connections for new subscribers as defined by the service (number of working days)



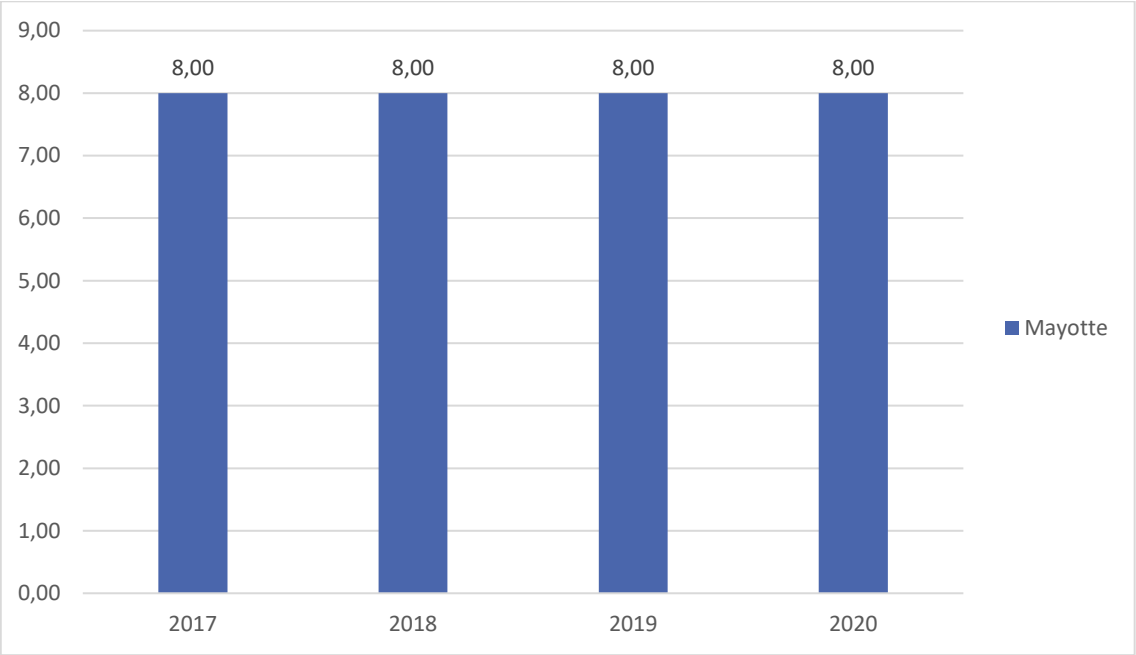
Graph 130: rate of unpaid water bills from the previous year (%)



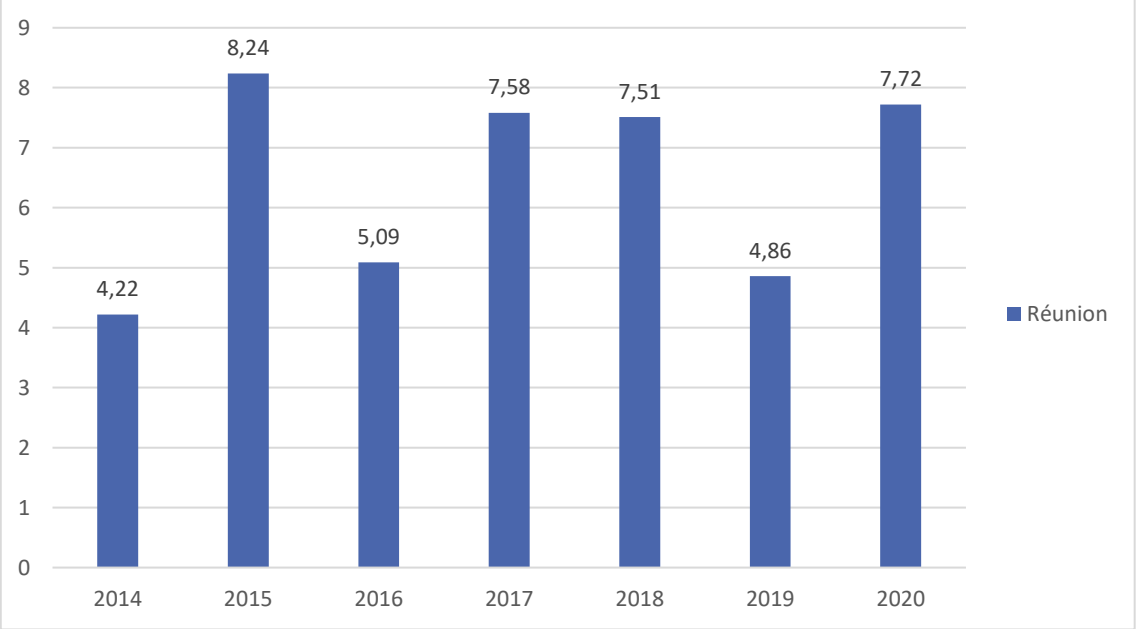
Graph 131: price per m3 for 120 m3 including VAT (€/m3)



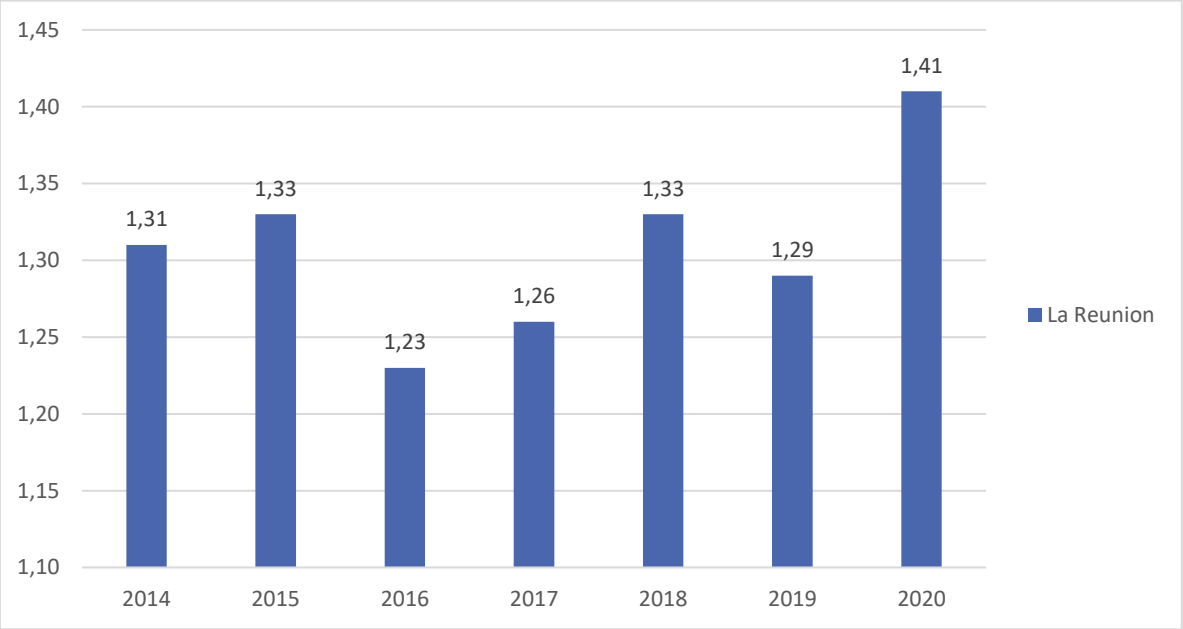
Graph 132: maximum period for opening connections for new subscribers as defined by the service (number of working days)



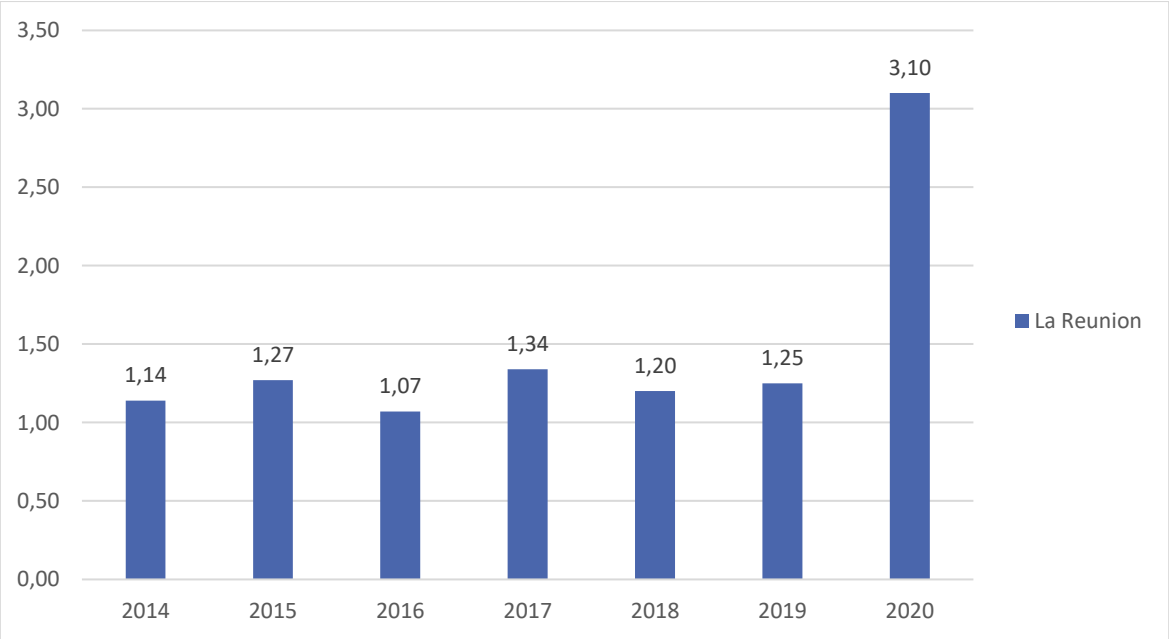
Graph 133: rate of unpaid water bills from the previous year (%)



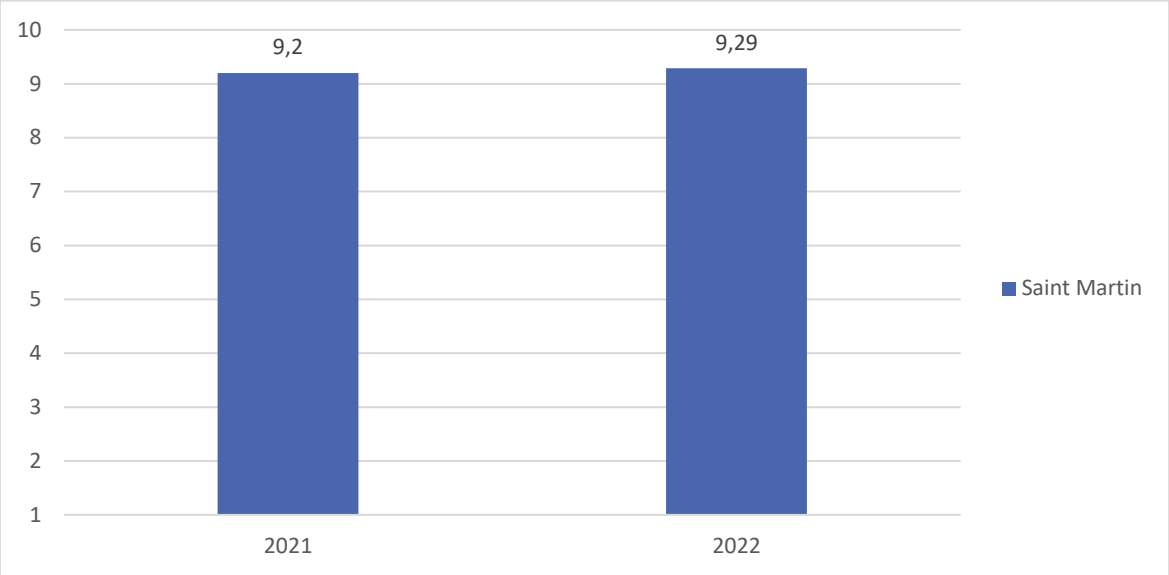
Graph 134: price per m3 for 120 m3 including VAT (€/m3)



Graph 135: maximum period for opening connections for new subscribers as defined by the service (number of working days)

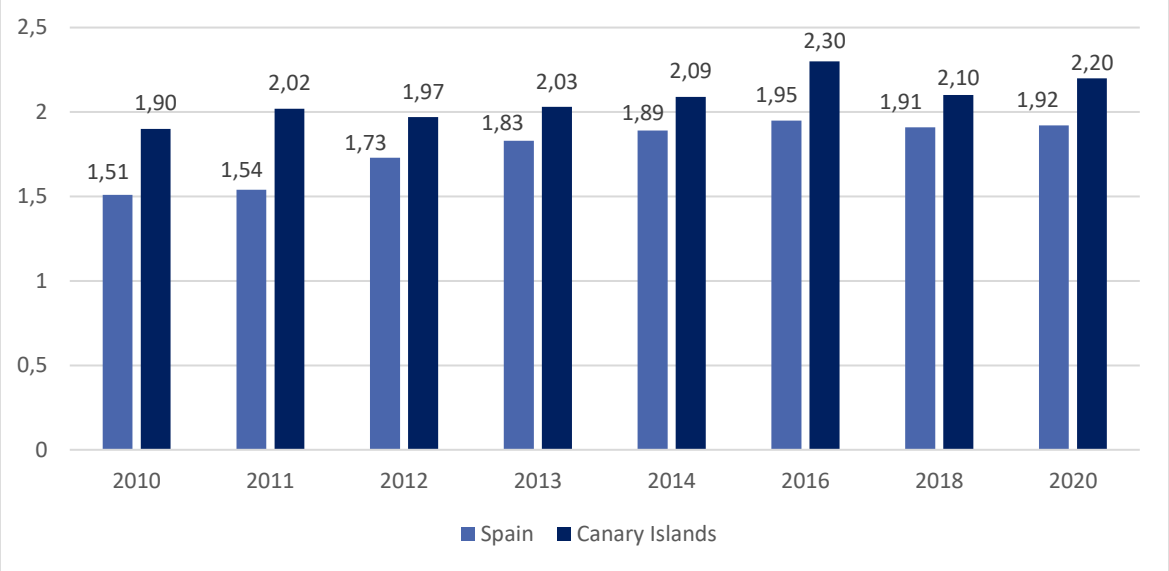


Graph 136: price per m3 for 120 m3 including VAT (€/m3)

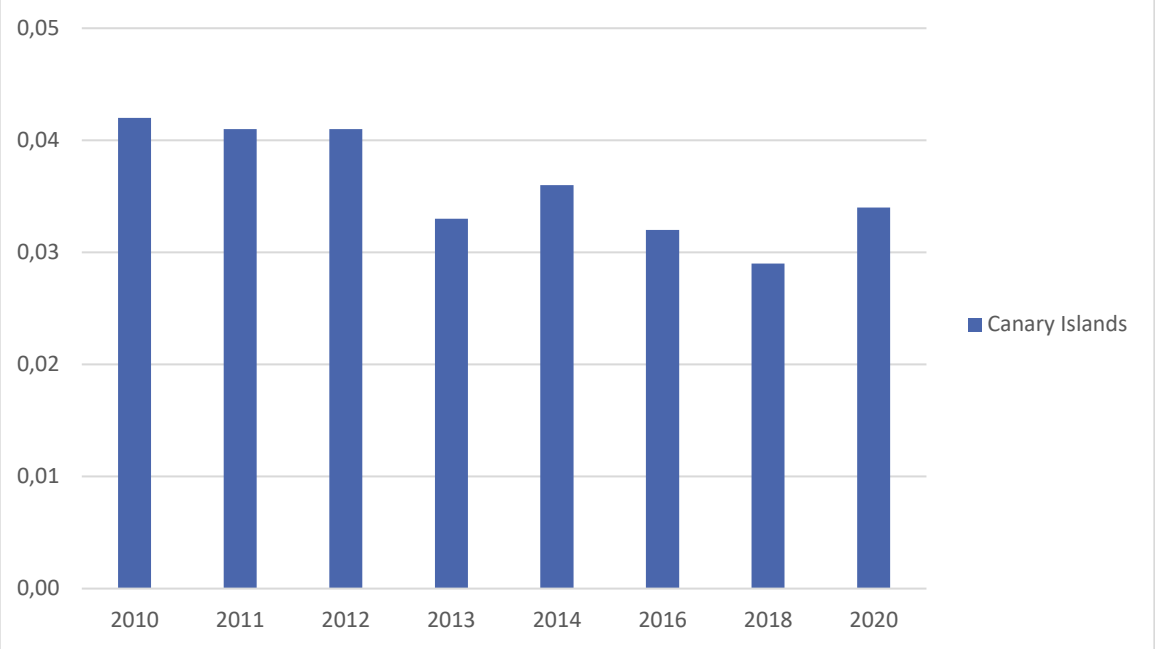


SPANISH OR

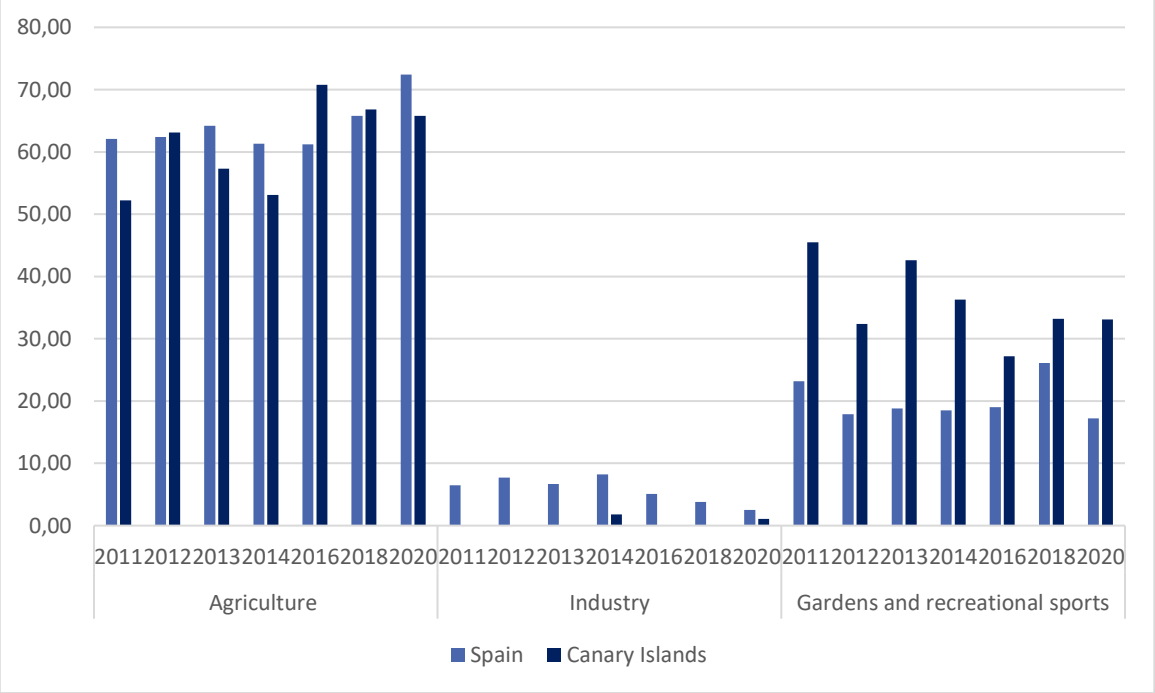
Graph 137: unit cost of water (€/m3)



Graph 138: volume of water reused (m3/inhabitant/day)



Graph 139: uses of water reused (%): agriculture, industry, and gardens and recreational sport areas.

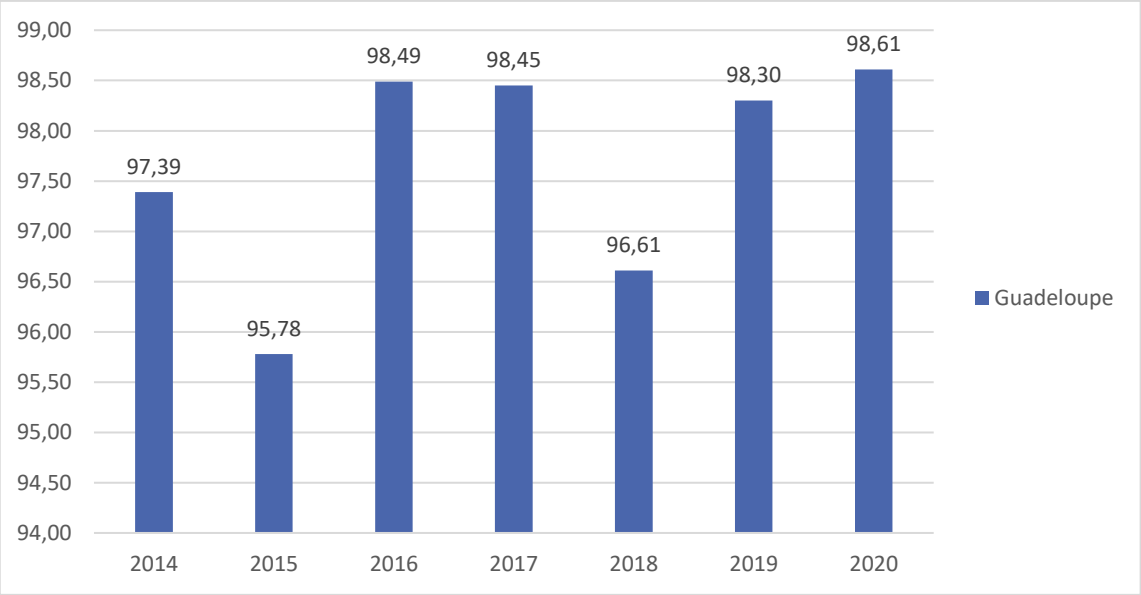


INFRASTRUCTURE

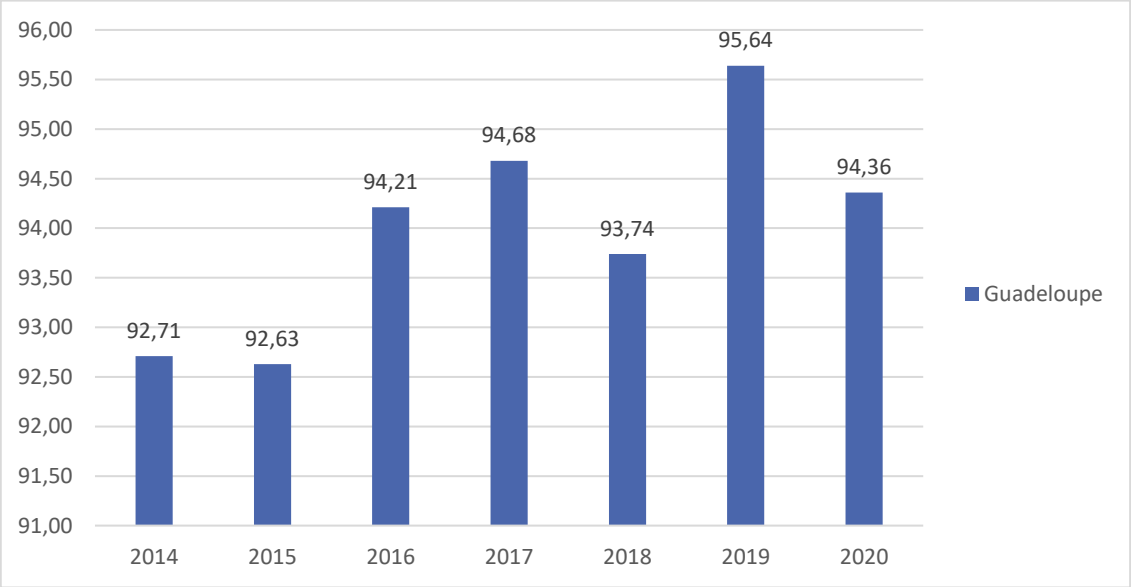
3.3.2.3 Quality

FRENCH OR

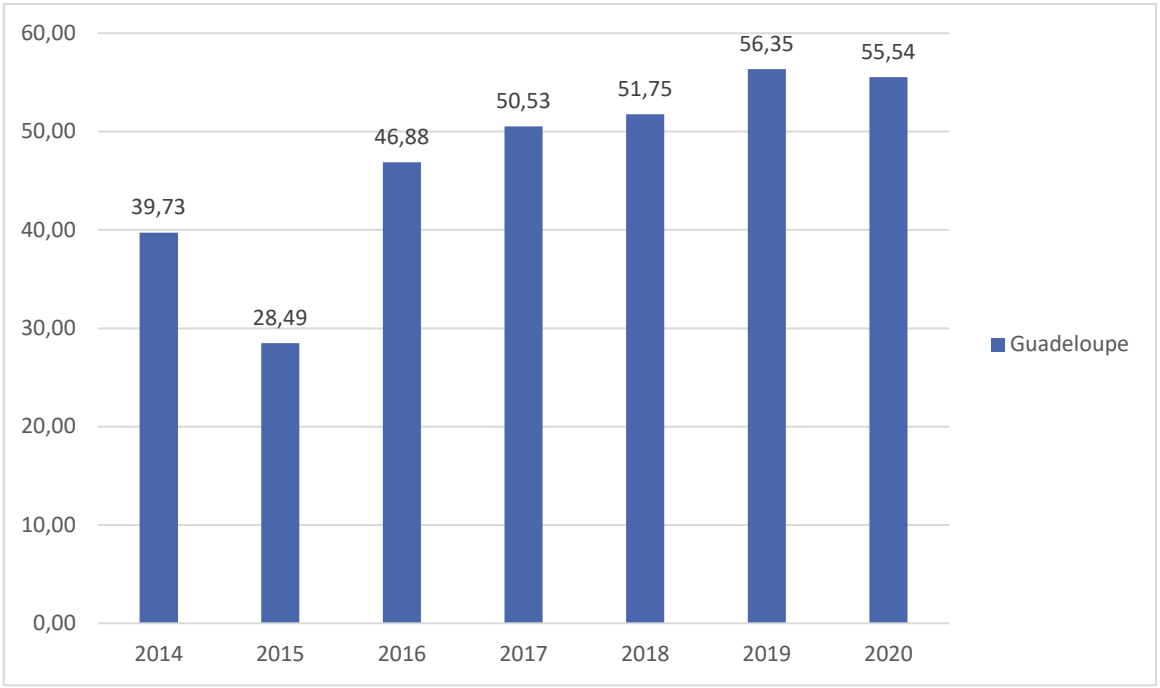
Graph 140: compliance rate (%) of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology.



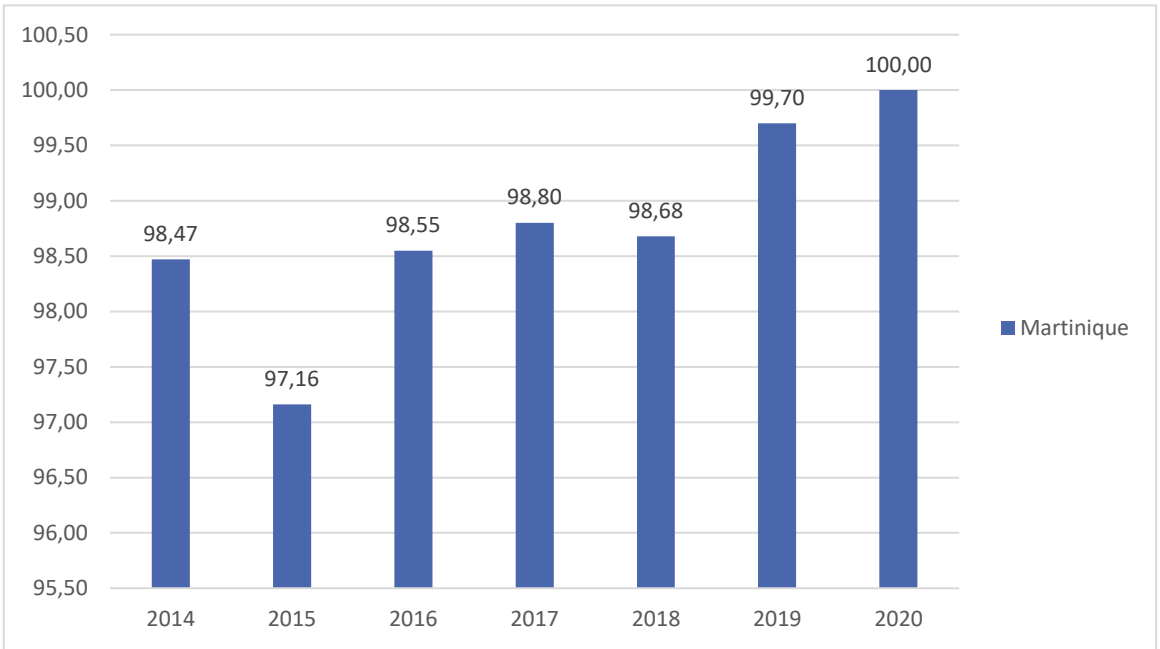
Graph 141: compliance rate (%) of samples of distributed water taken for sanitary control in relation to quality limits for physico-chemical parametres.



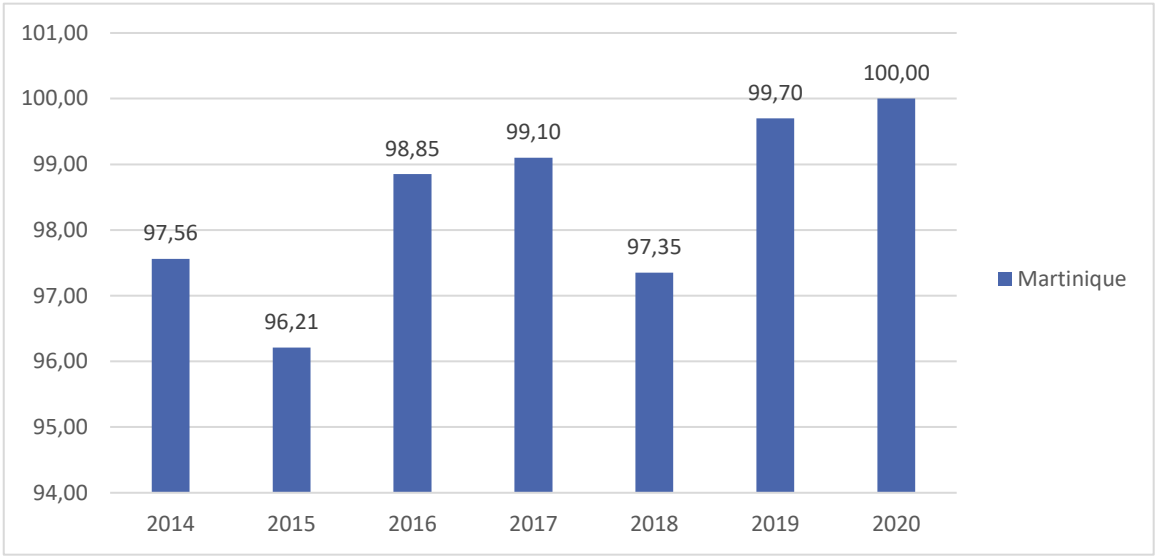
Graph 142: index (%) of progress in protecting water resources.



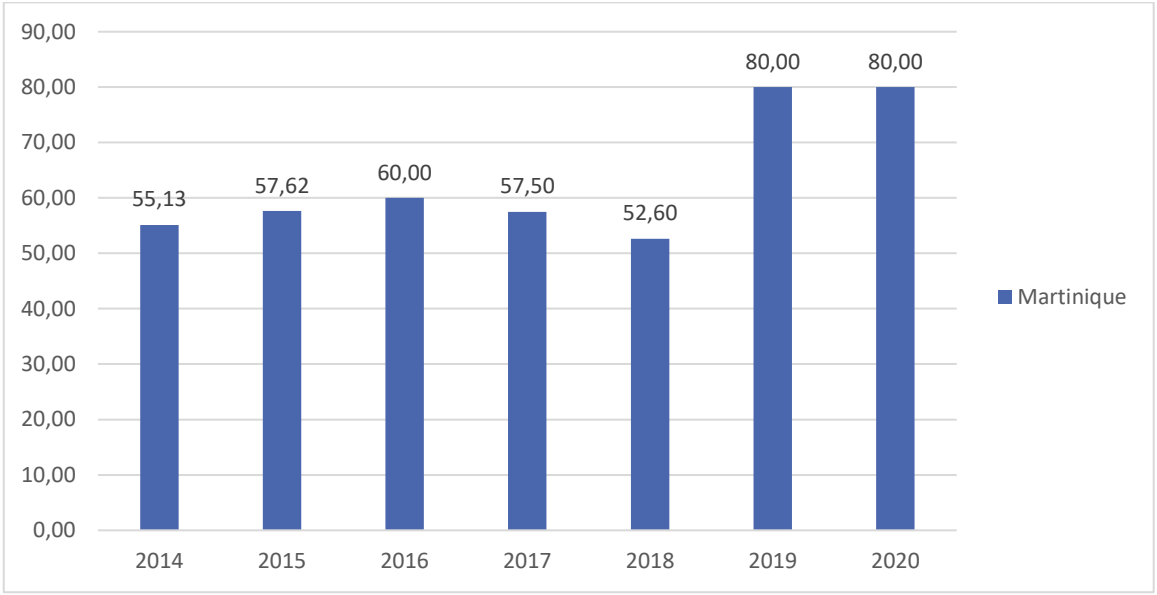
Graph 143: compliance rate (%) of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology.



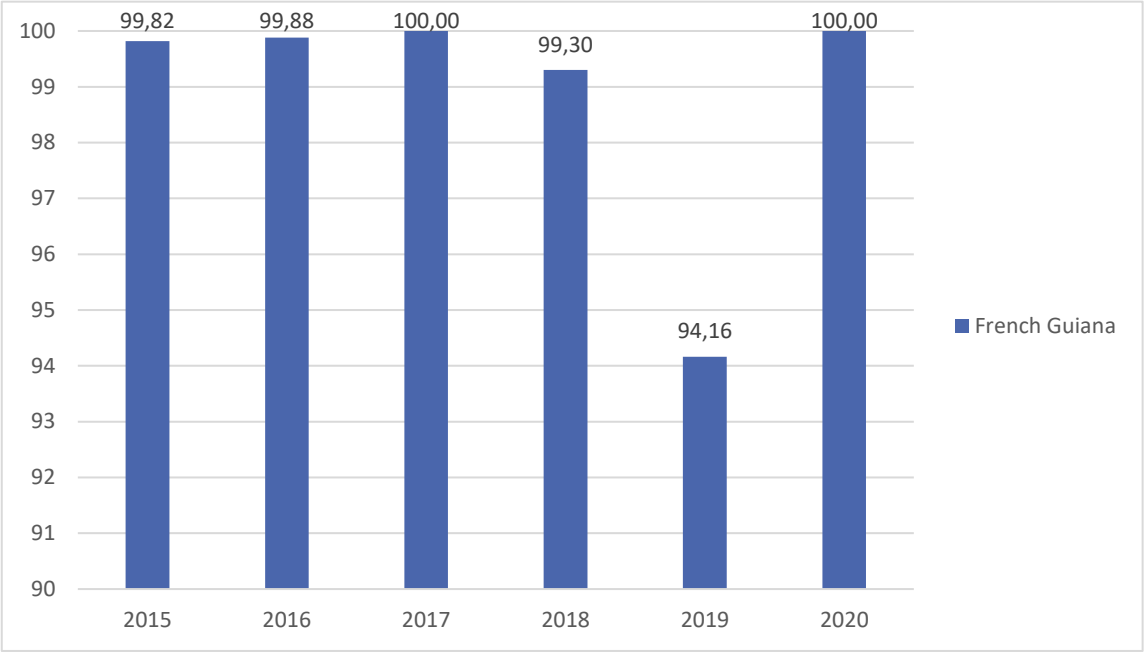
Graph 144: compliance rate (%) of distributed water taken for sanitary control in relation to quality limits for physico-chemical parametres.



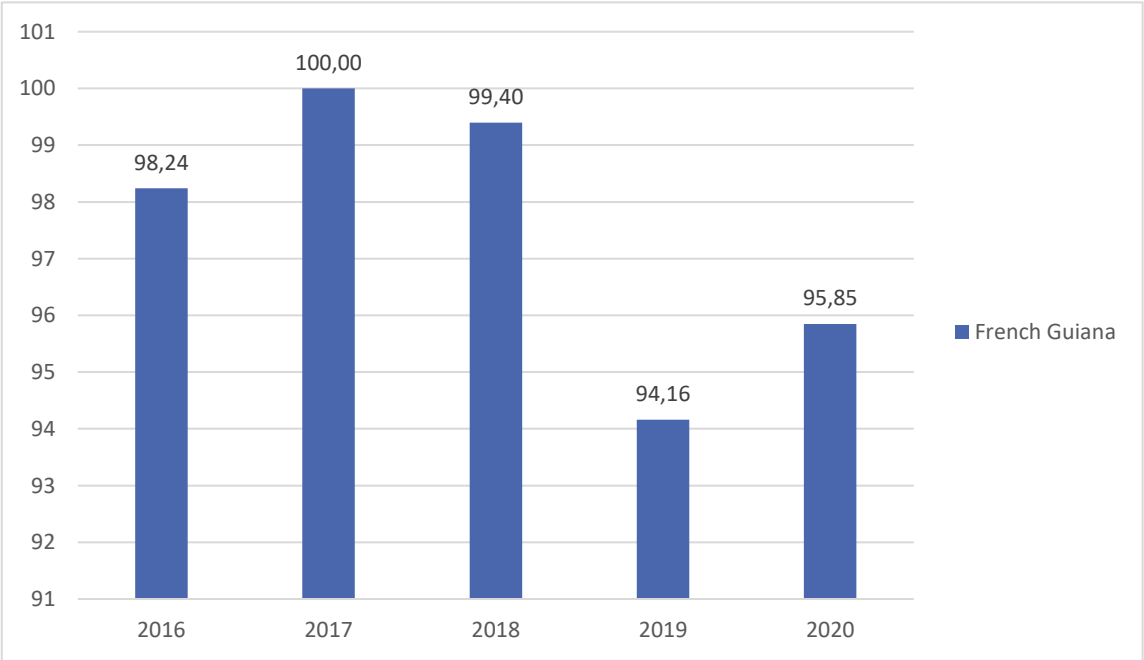
Graph 145: index (%) of progress in protecting water resources.



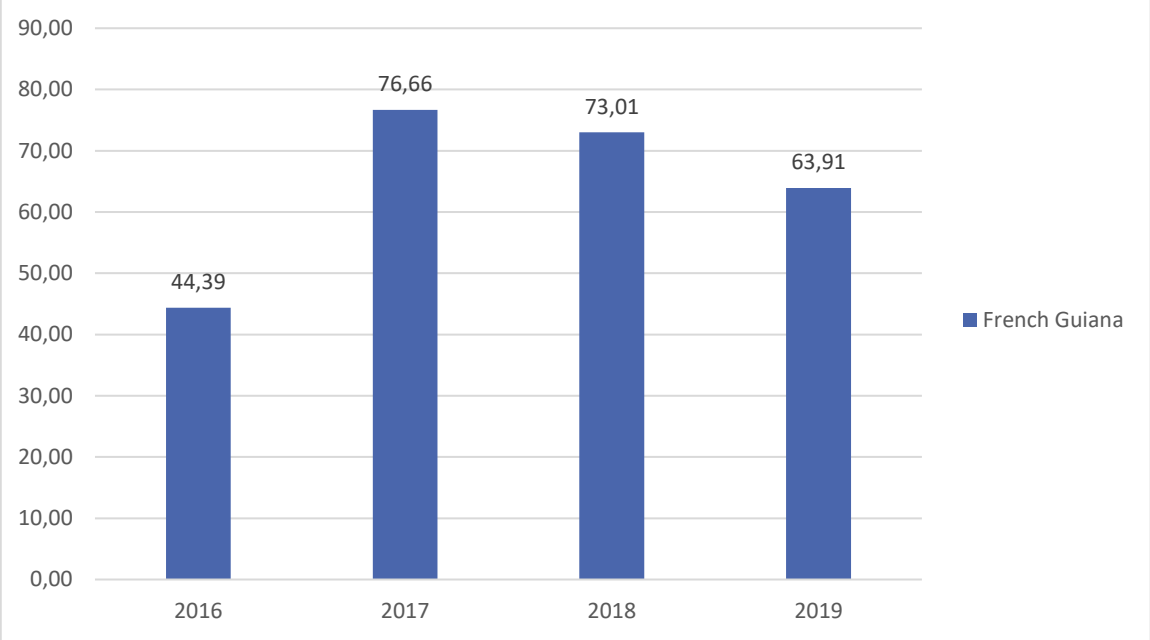
Graph 146: compliance rate (%) of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology.



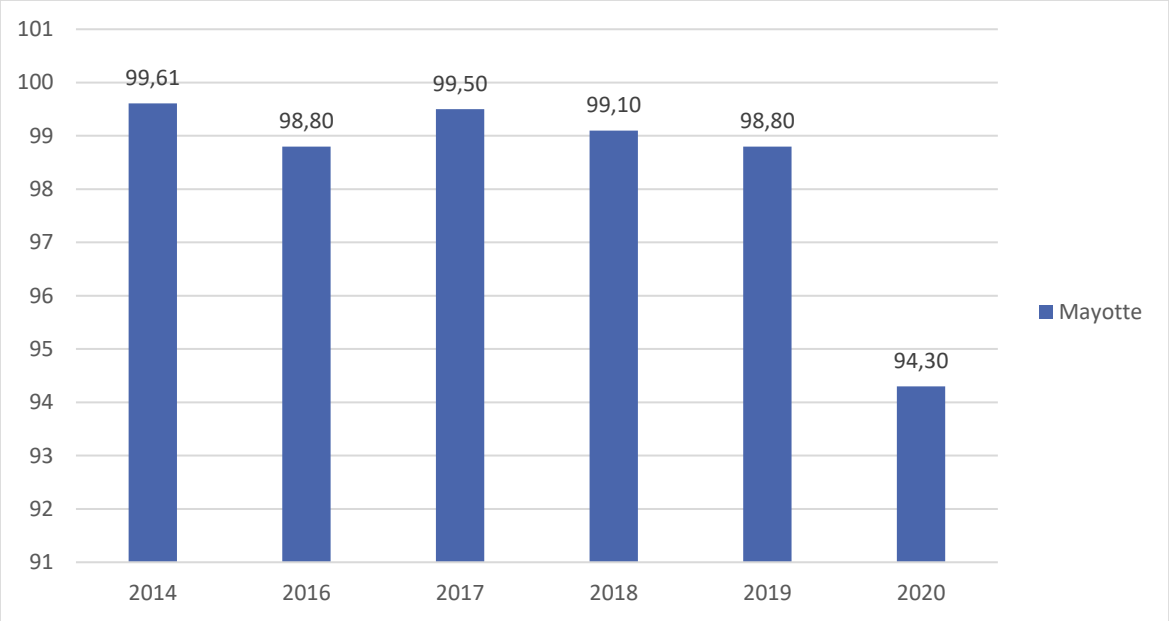
Graph 147: compliance rate (%) of samples of distributed water taken for sanitary control in relation to quality limits for physico-chemical parametres.



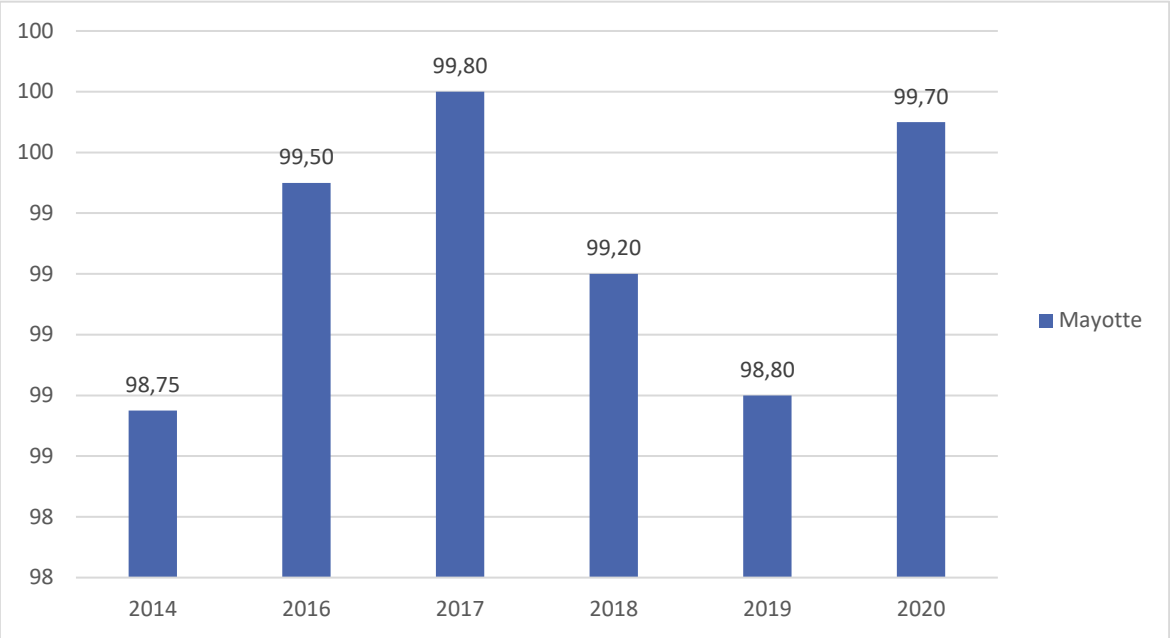
Graph 148: index (%) of progress in protecting water resources.



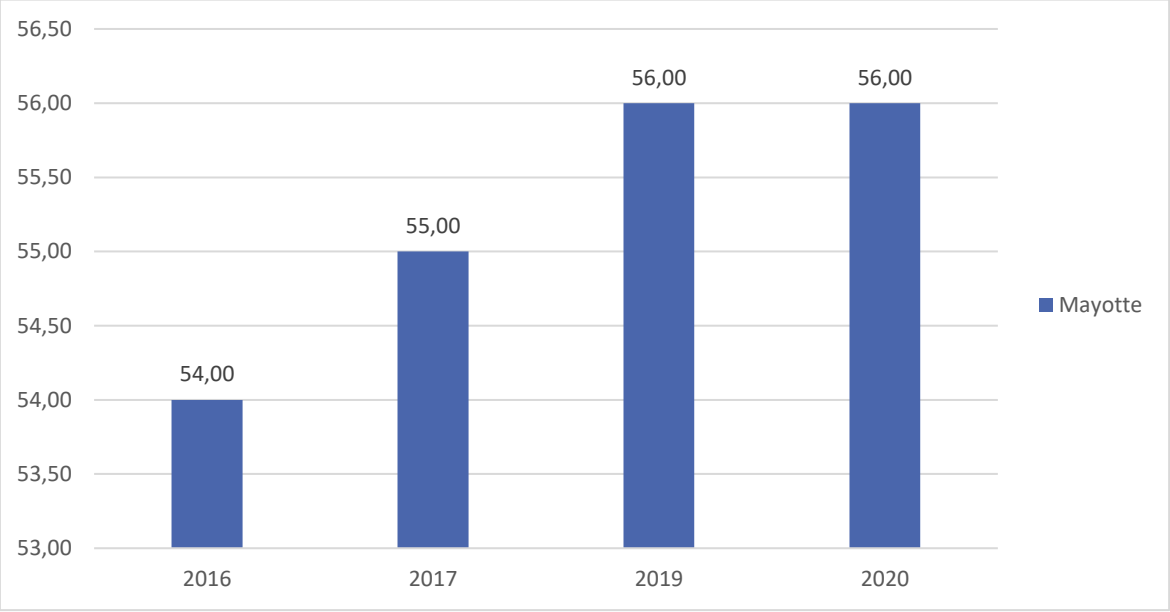
Graph 149: compliance rate (%) of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology.



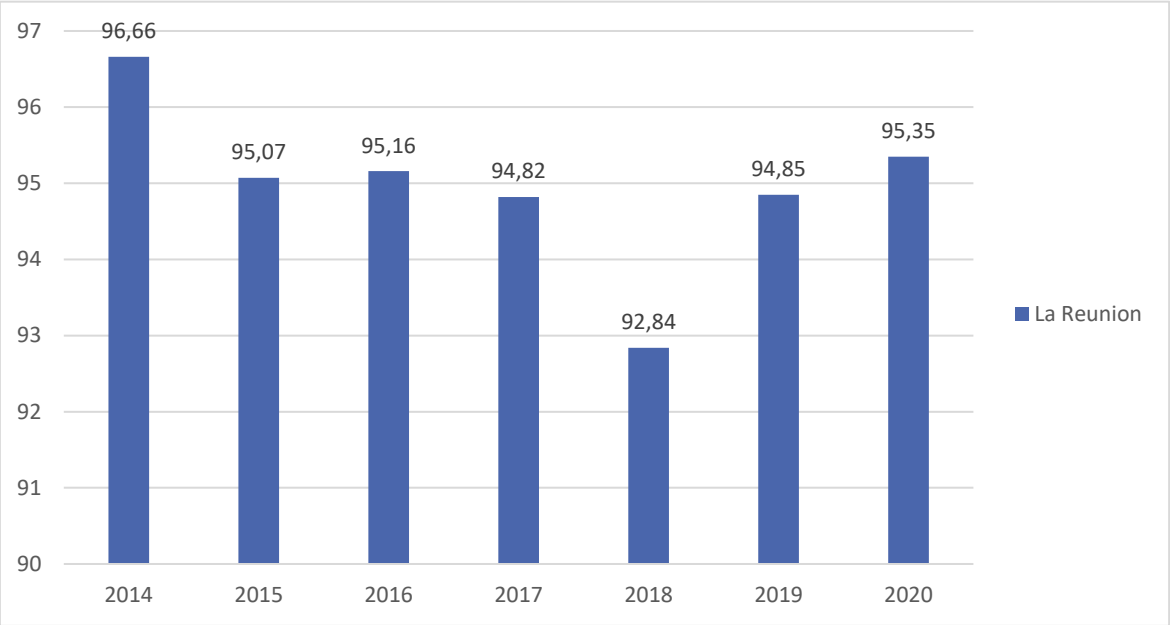
Graph 150: compliance rate (%) of samples of distributed water taken for sanitary control in relation to quality limits for physico-chemical parametres.



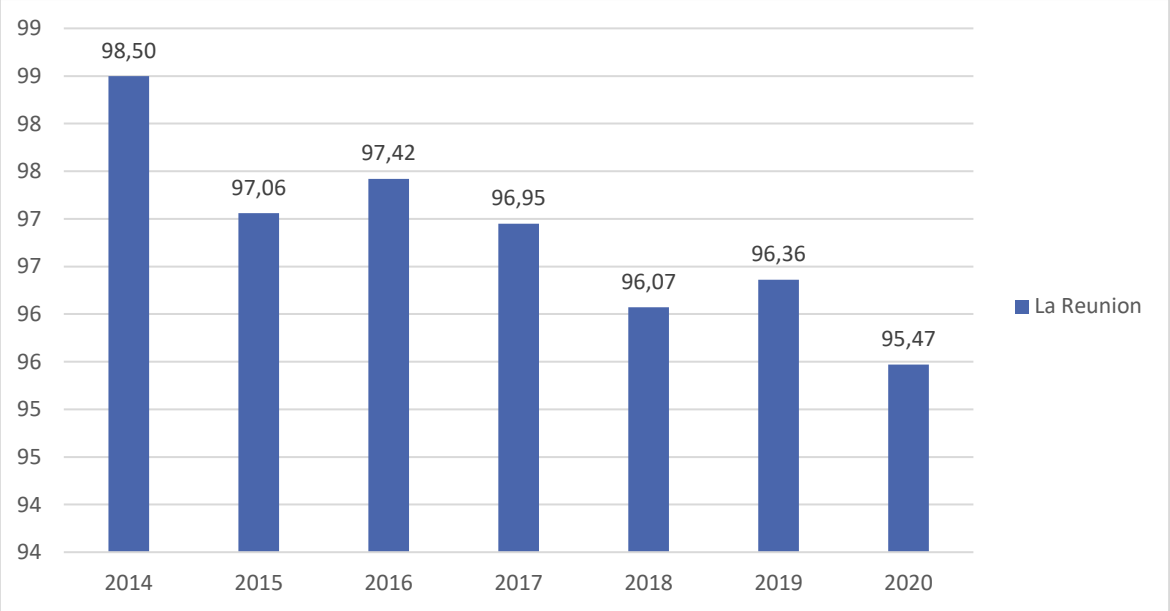
Graph 151: index (%) of progress in protecting water resources.



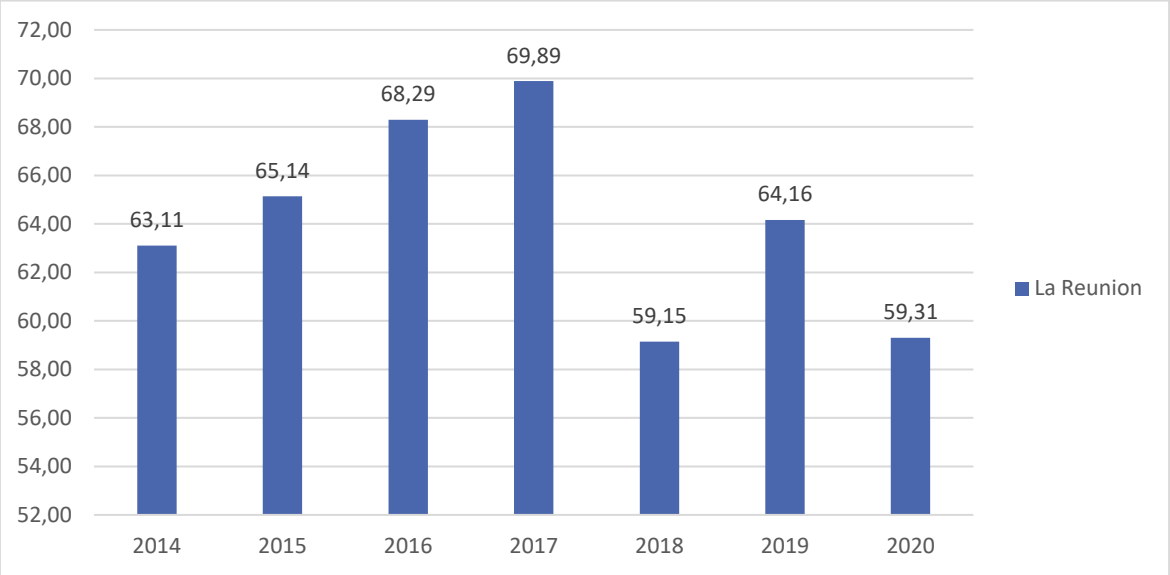
Graph 152: compliance rate (%) of samples of distributed water taken for sanitary control in relation to the quality limits for microbiology.



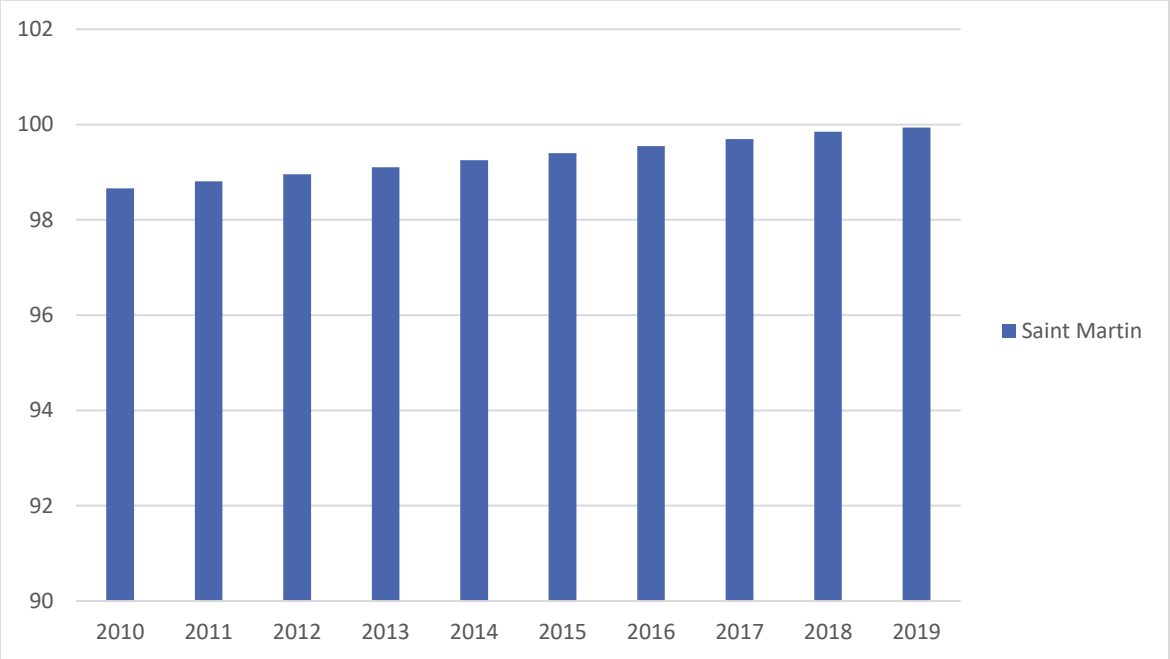
Graph 153: compliance rate (%) of samples of distributed water taken for sanitary control in relation to quality limits for physico-chemical parametres.



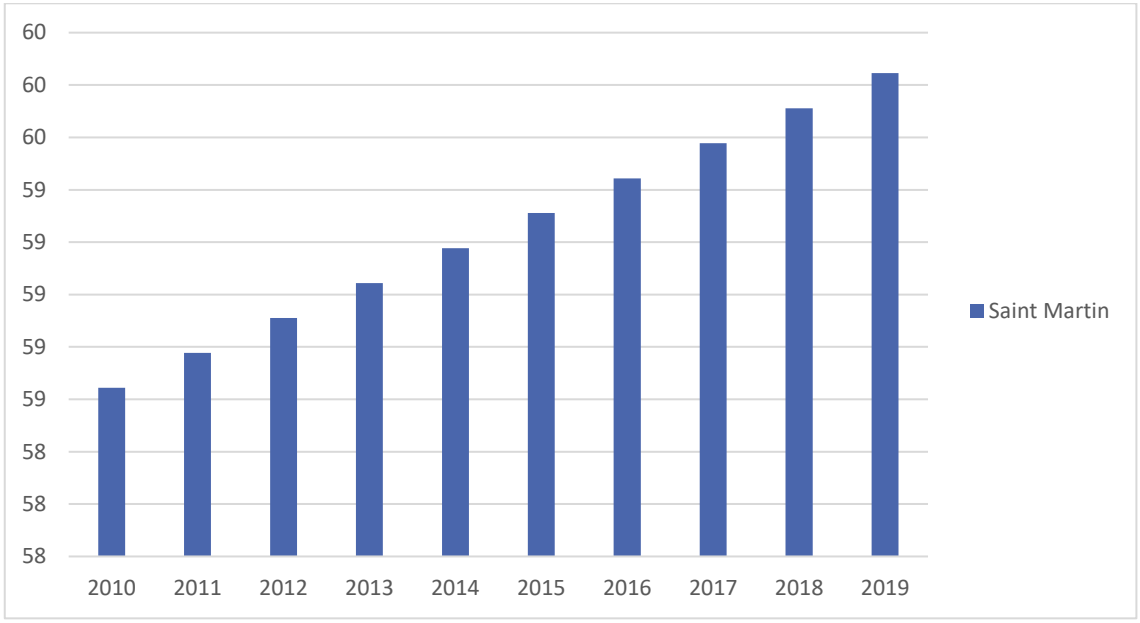
Graph 154: index (%) of progress in protecting water resources.



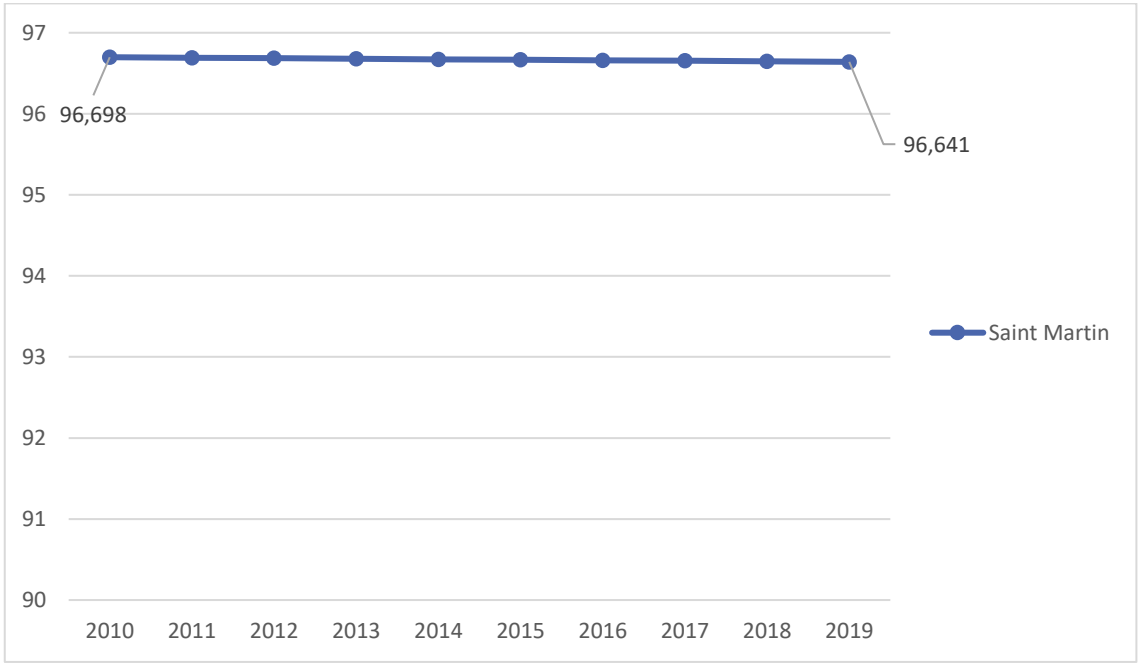
Graph 155: proportion of population using piped drinking water sources (%)



Graph 156: proportion of population using sanitation facilities connected to sewer networks (%)

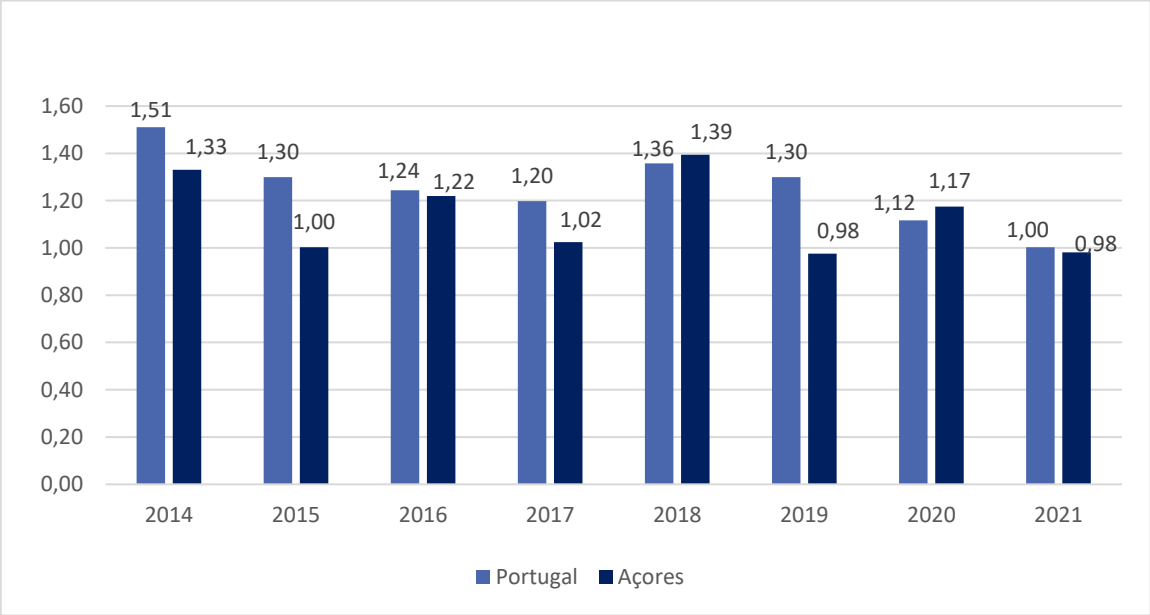


Graph 157: proportion of population using of improved drinking water sources free from faecal and priority chemical contamination (%)

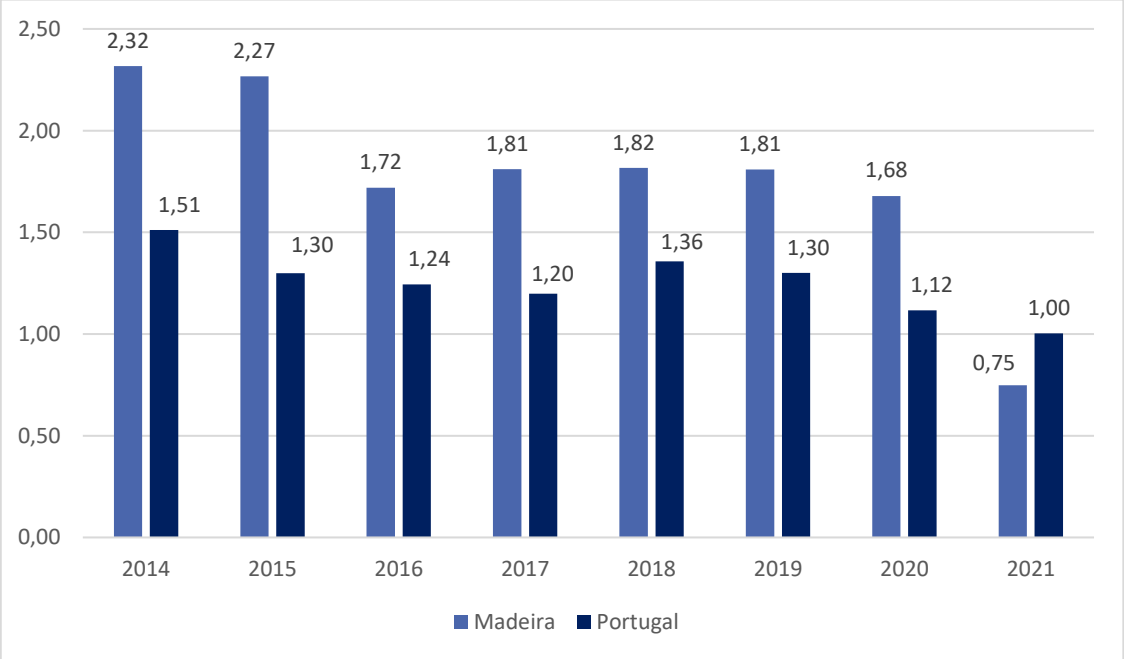


PORTUGUESE OR

Graph 158: percentage (%) of analyses in non-compliance with the parametric value.



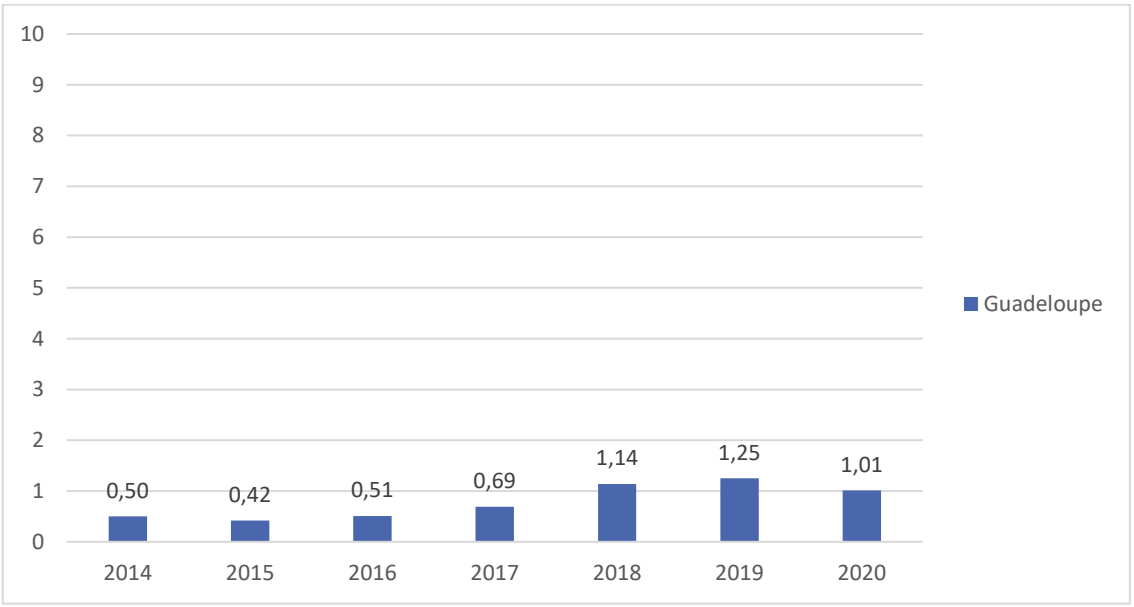
Graph 159: percentage (%) of analyses in non-compliance with the parametric value.



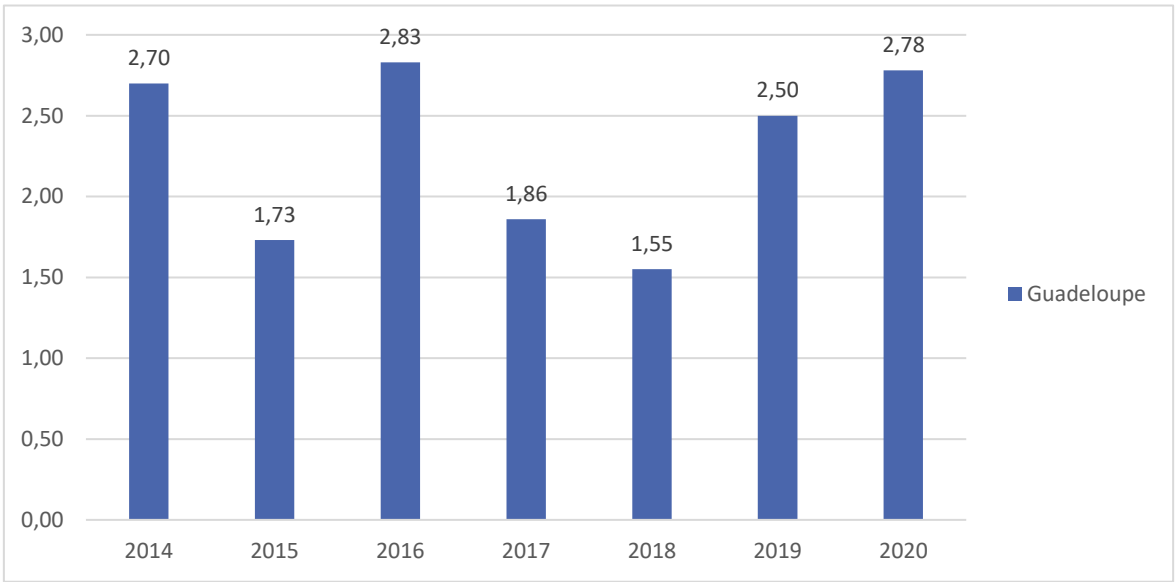
3.3.2.4 Service

FRENCH OR

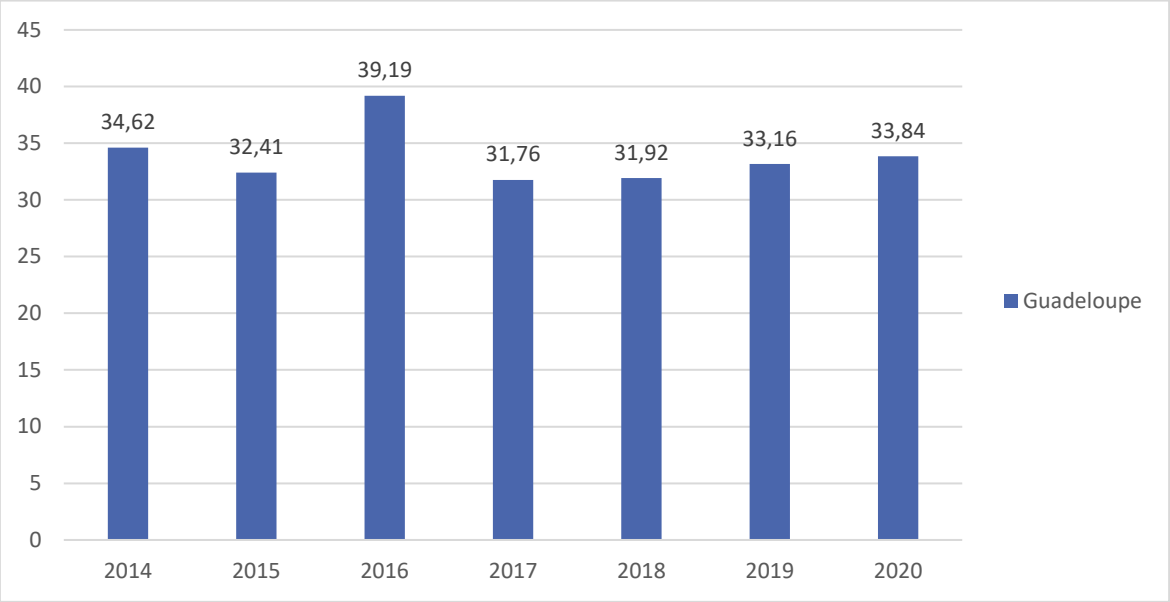
Graph 160: average renewal rate of drinking water networks (%)



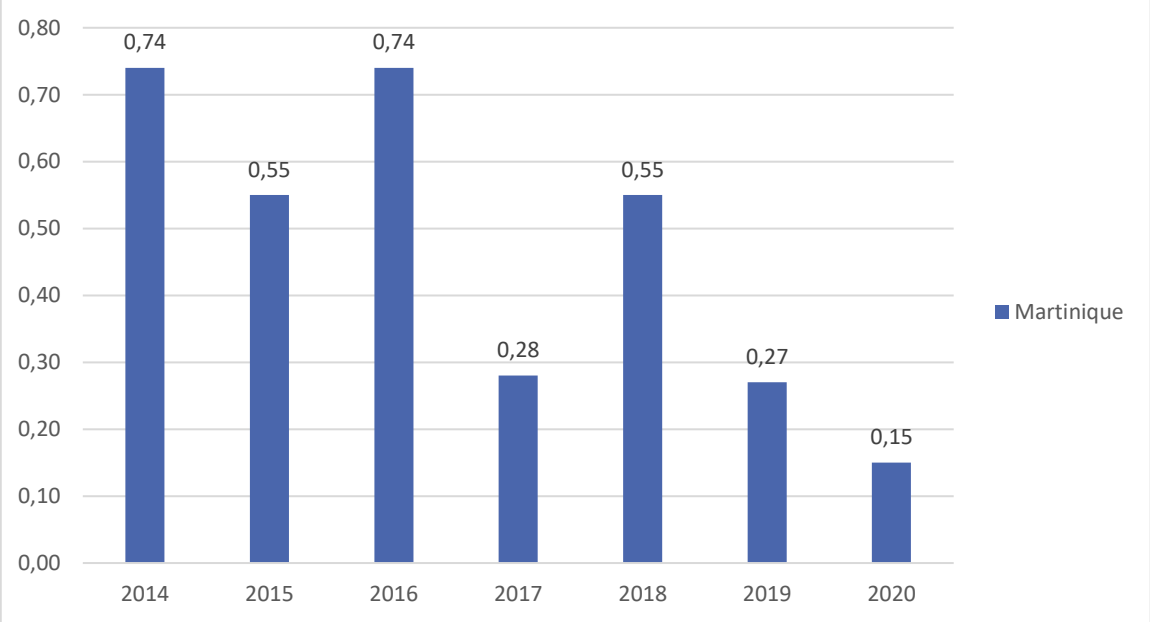
Graph 161: rate of occurrence of unscheduled service interruptions (%)



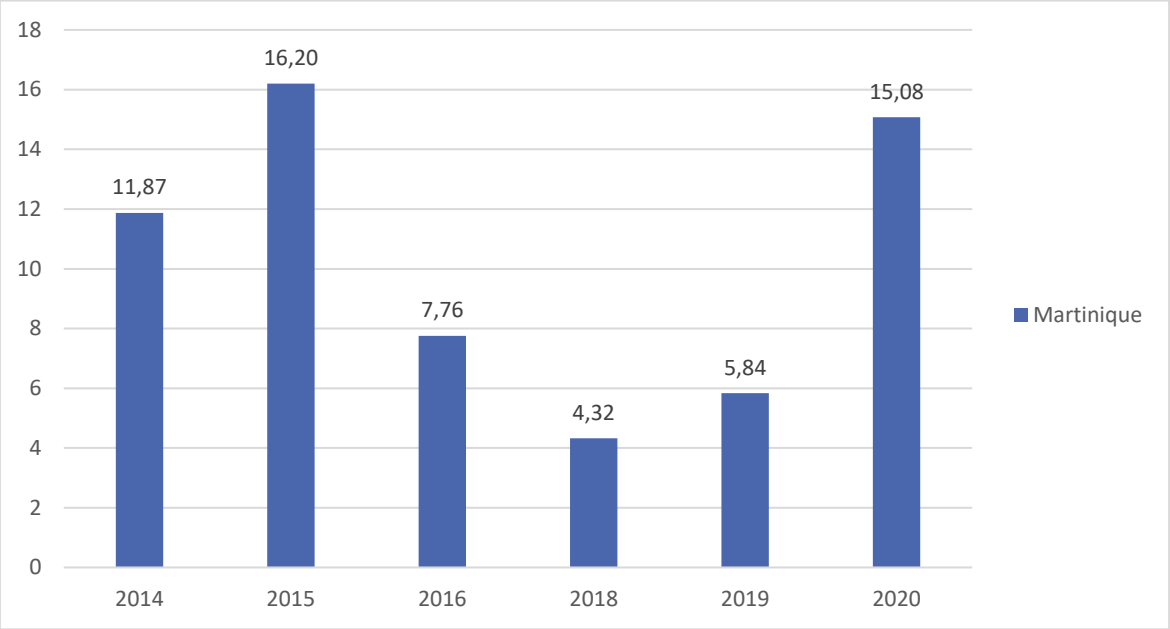
Graph 162: linear network loss index (m3/km/day).



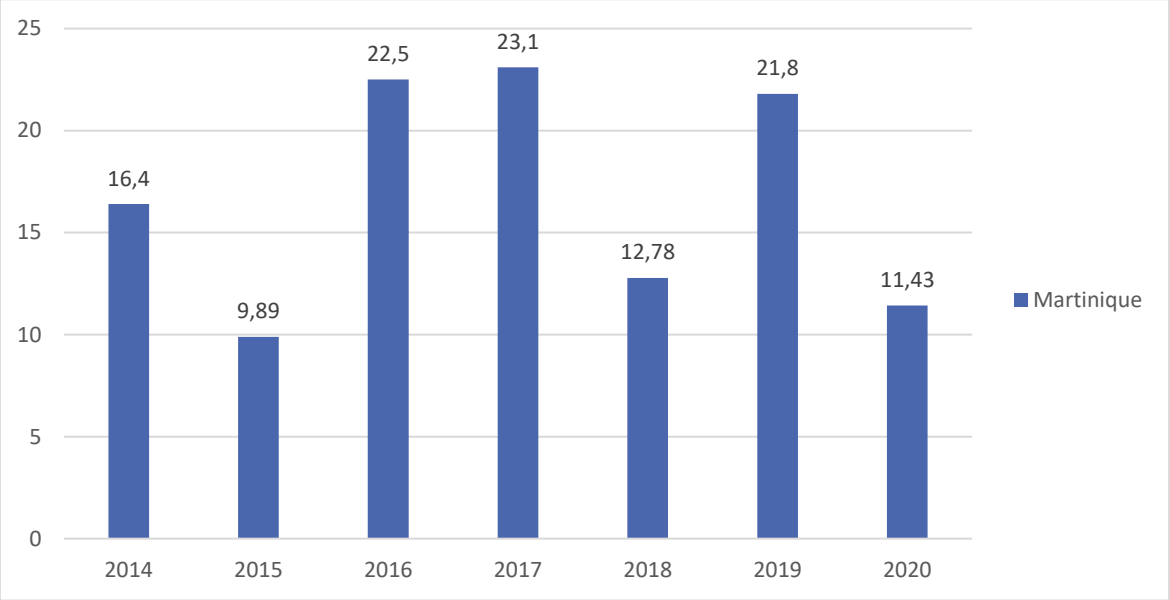
Graph 163: average renewal rate of drinking water networks (%)



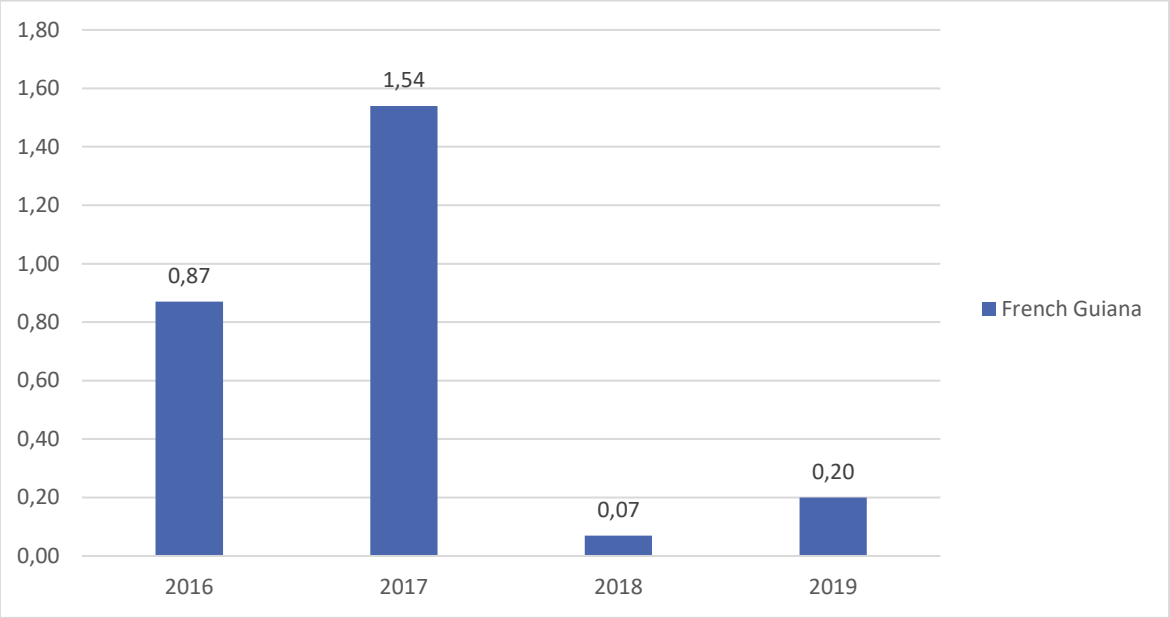
Graph 164: rate of occurrence of unscheduled service interruptions (%)



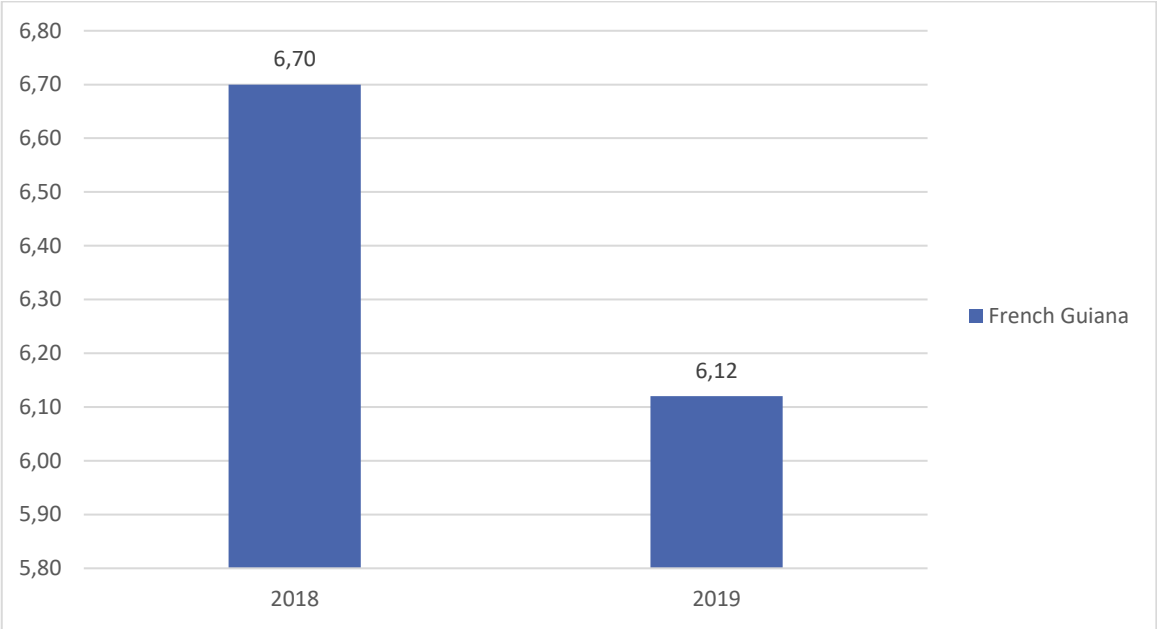
Graph 165: linear network loss index (m3/km/day)



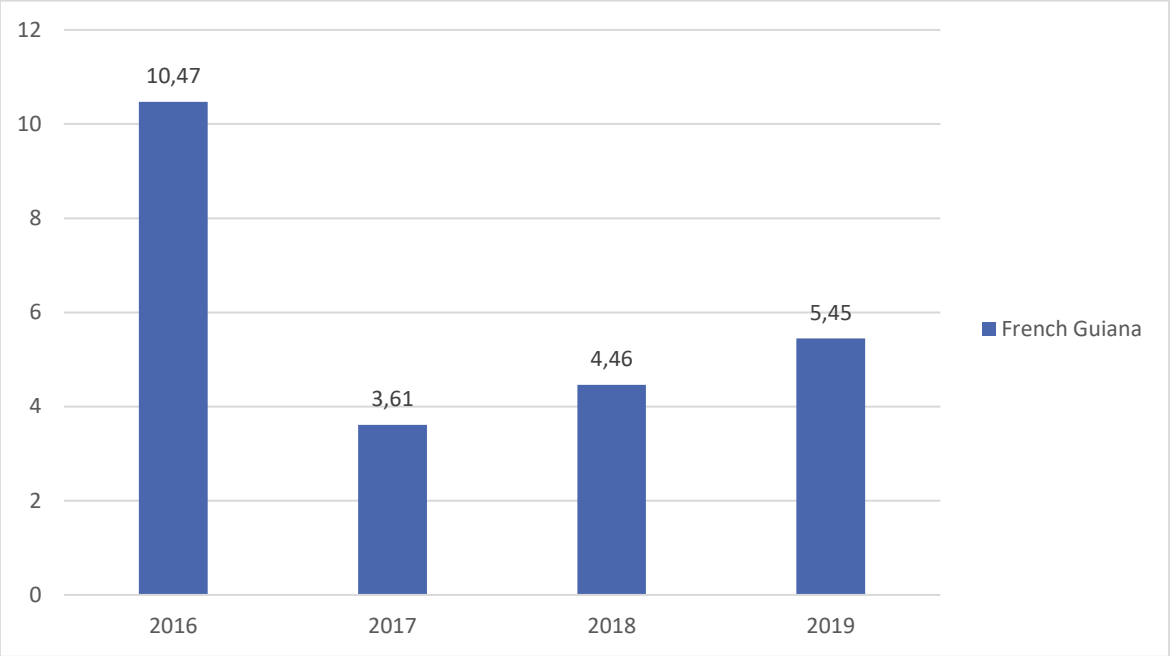
Graph 166: average renewal rate of drinking water networks (%)



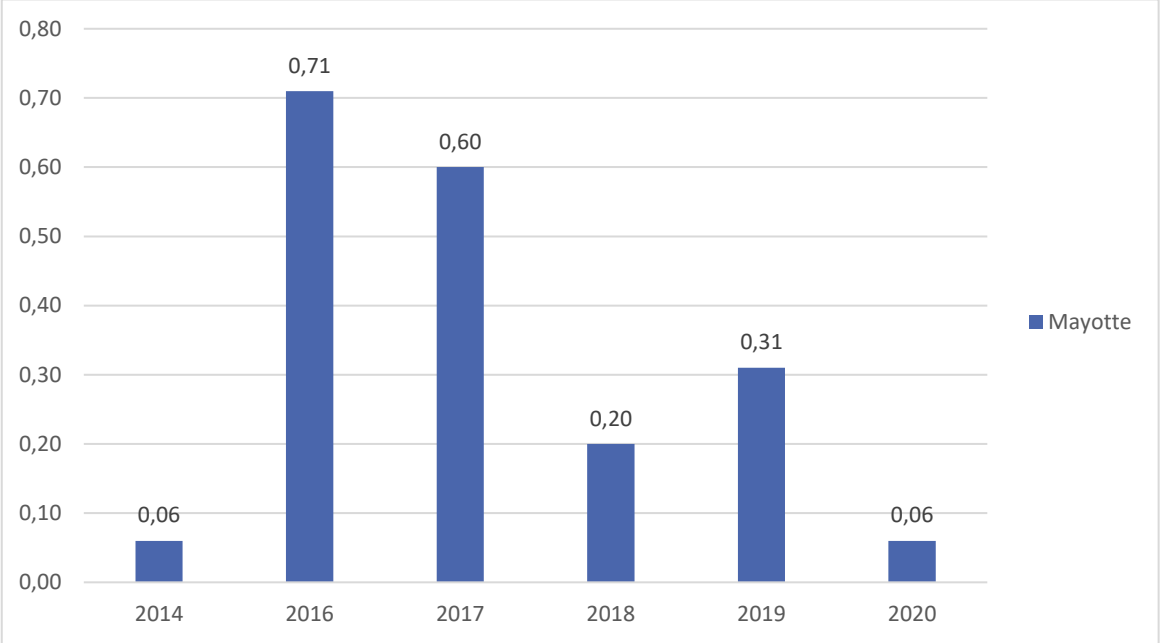
Graph 167: rate of occurrence of unscheduled service interruptions (%)



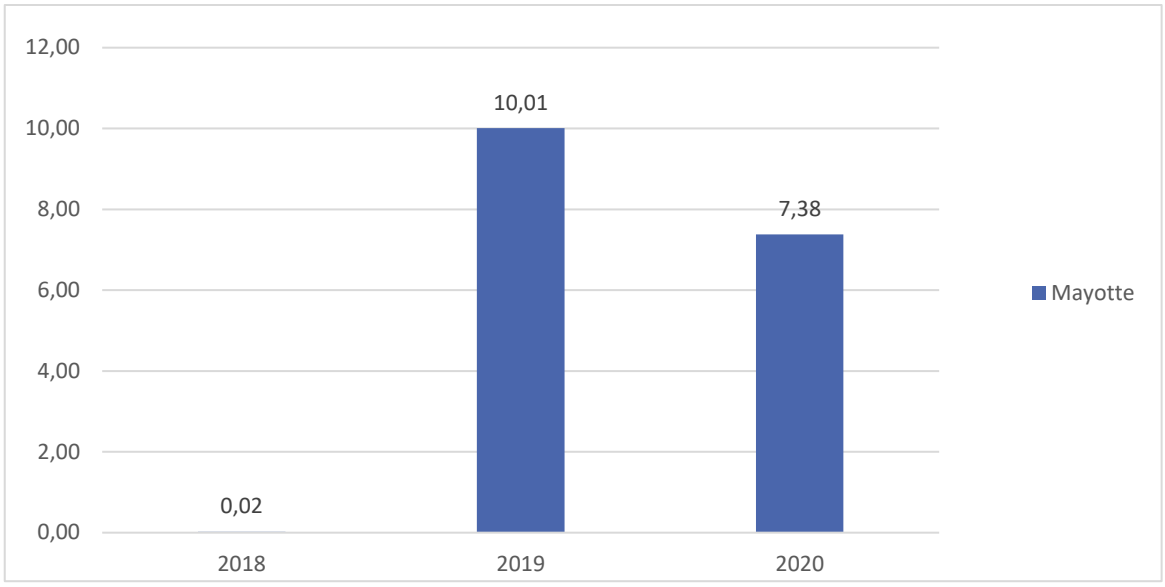
Graph 168: linear network loss index (m3/km/day)



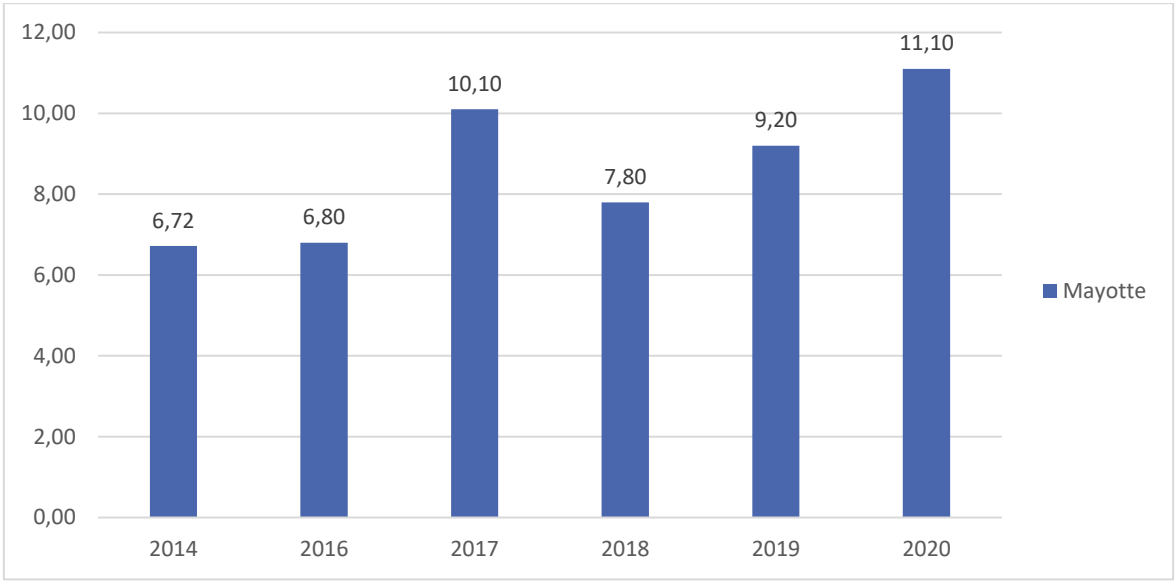
Graph 169: average renewal rate of drinking water networks (%)



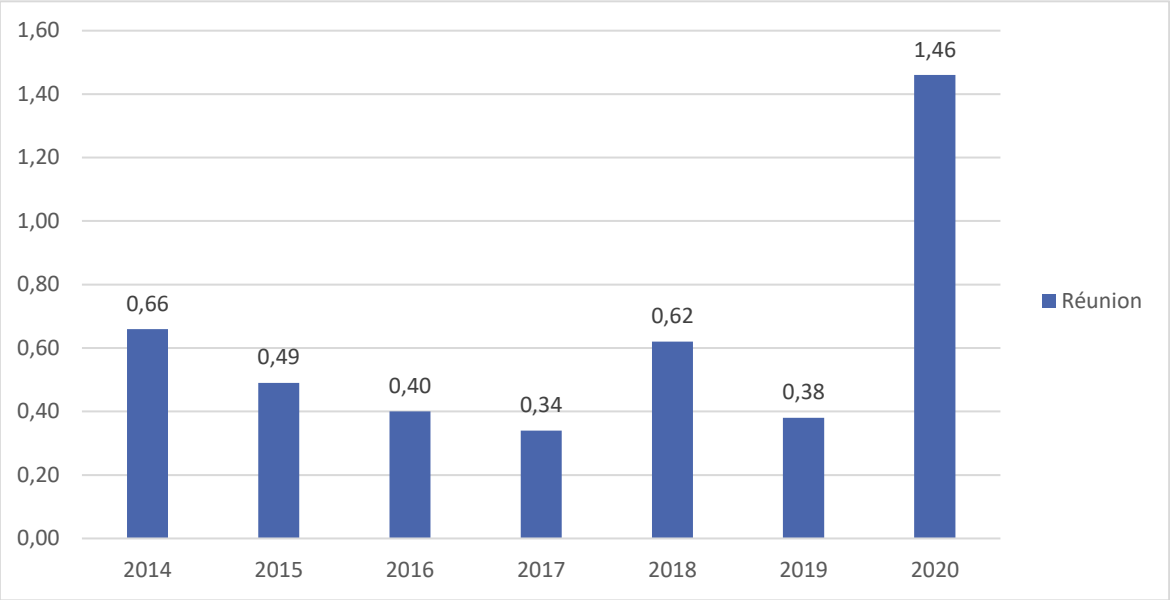
Graph 170: rate of occurrence of unscheduled service interruptions (%)



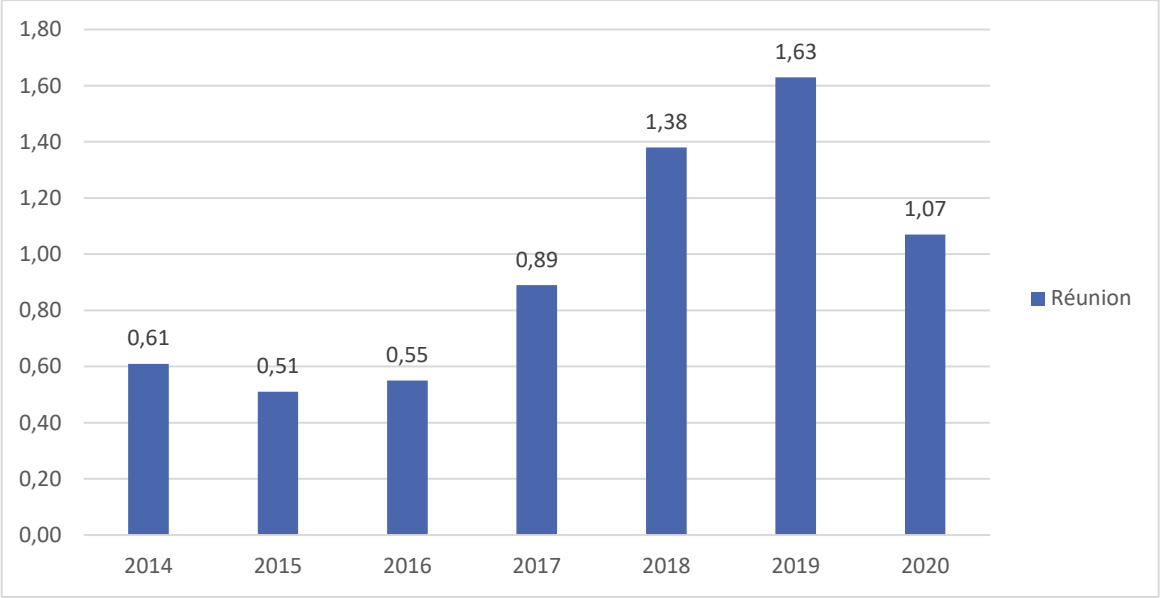
Graph 171: linear network loss index (m3/km/day)



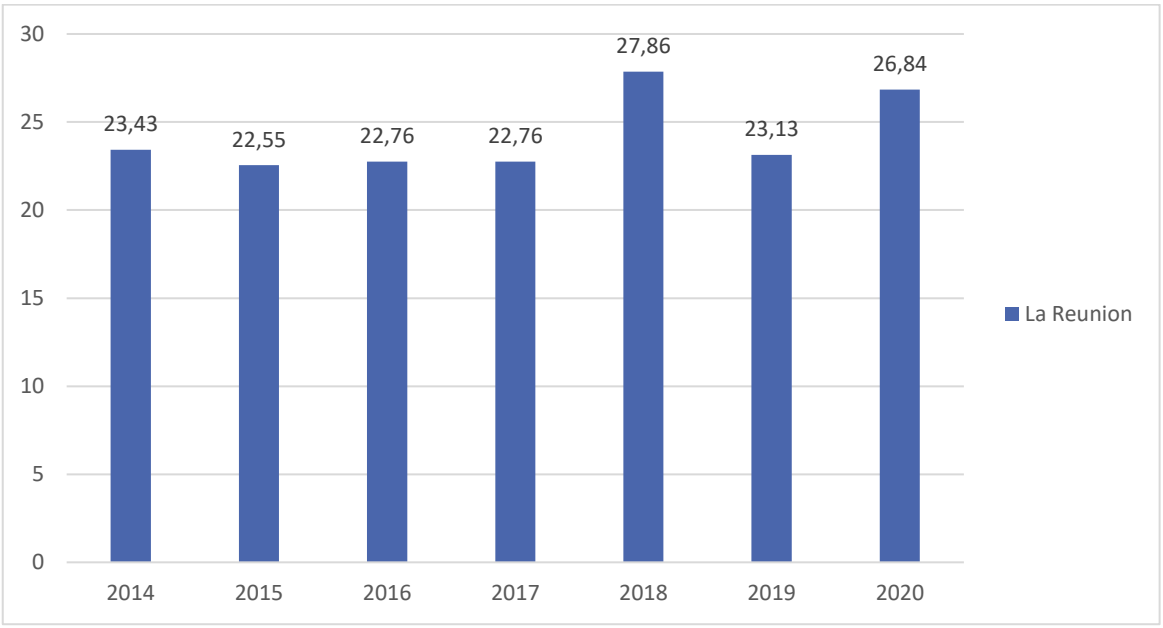
Graph 172: average renewal rate of drinking water networks (%)



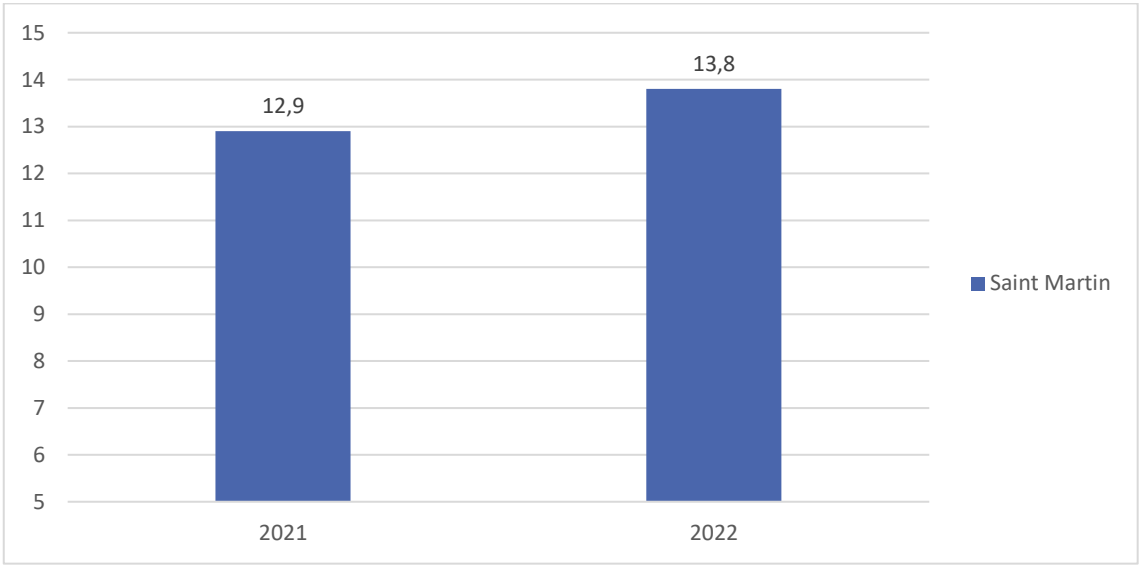
Graph 173: rate of occurrence of unscheduled service interruptions (%)



Graph 174: linear network loss index (m3/km/day)

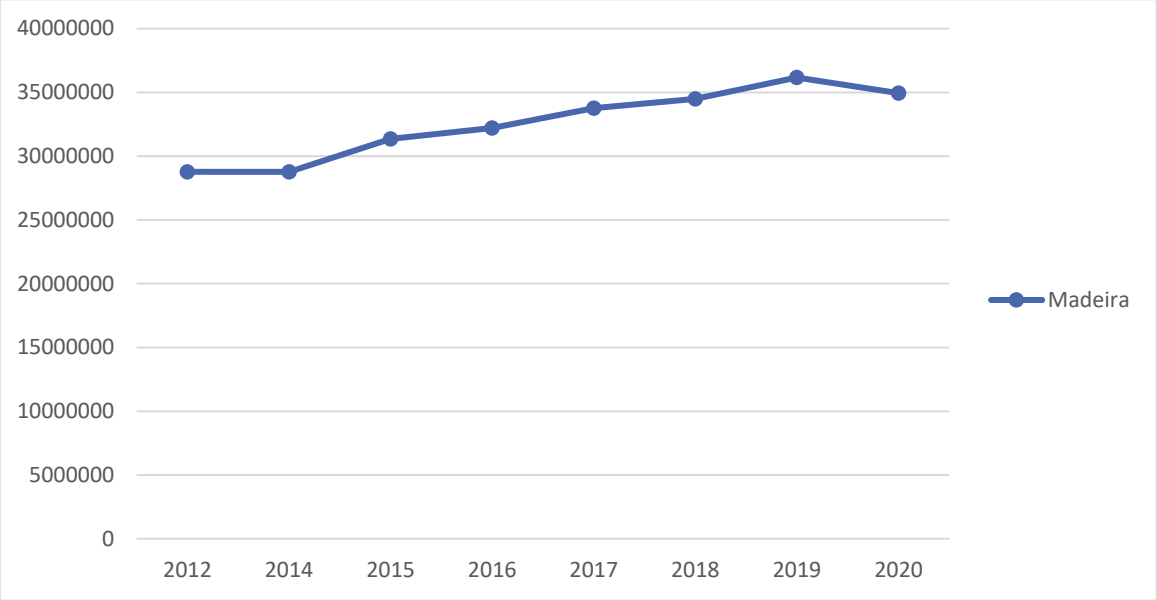


Graph 175: linear network loss index (m3/km/day)

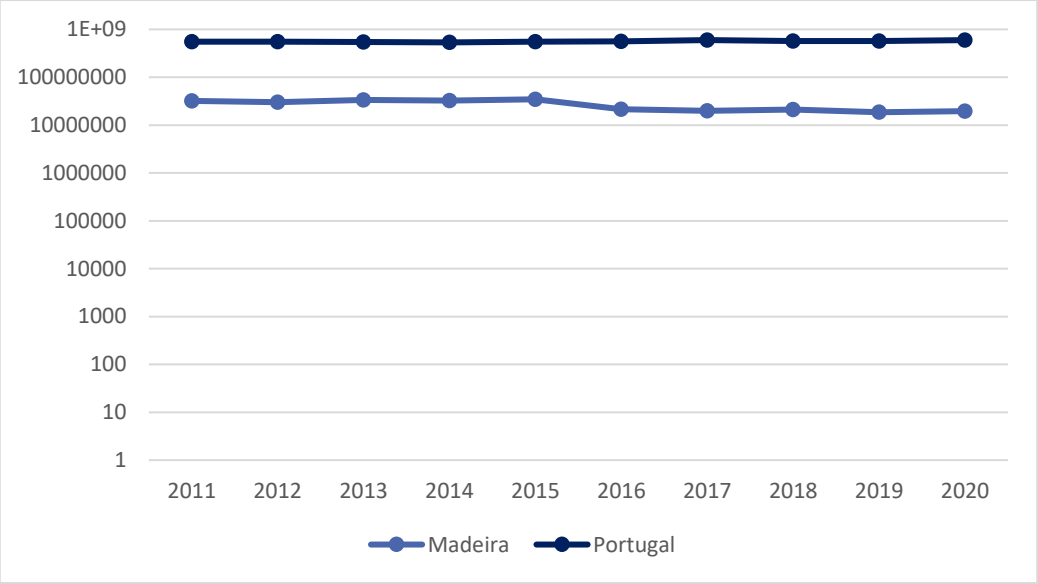


Portuguese OR

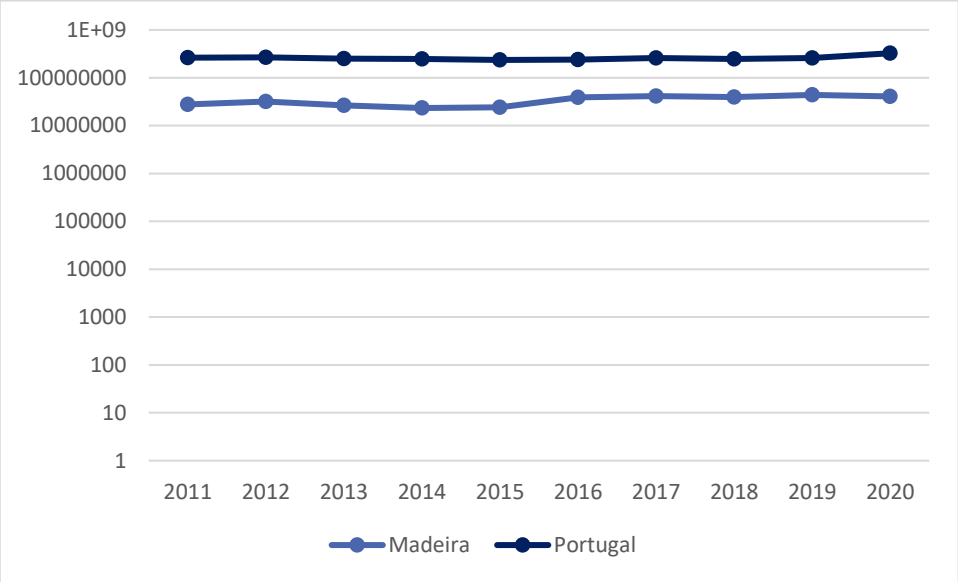
Graph 176: losses in water supply systems (m3).



Graph 177: freshwater abstraction: surface water (m3) Logarithmic scale

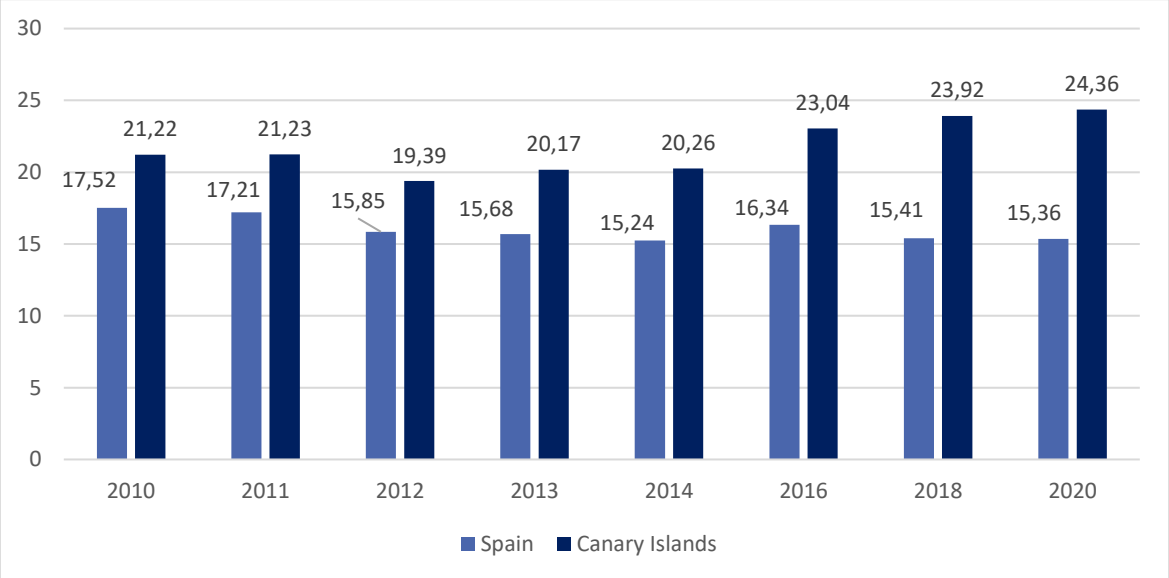


Graph 178: freshwater abstraction: groundwater (m3) Logarithmic scale

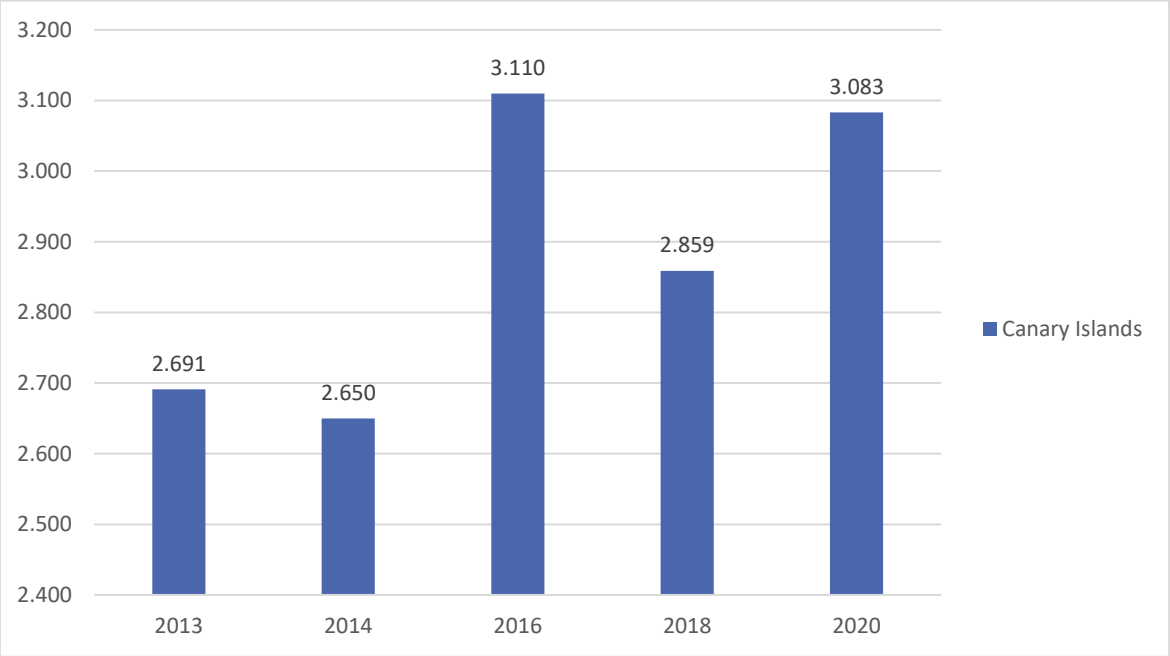


SPANISH OR

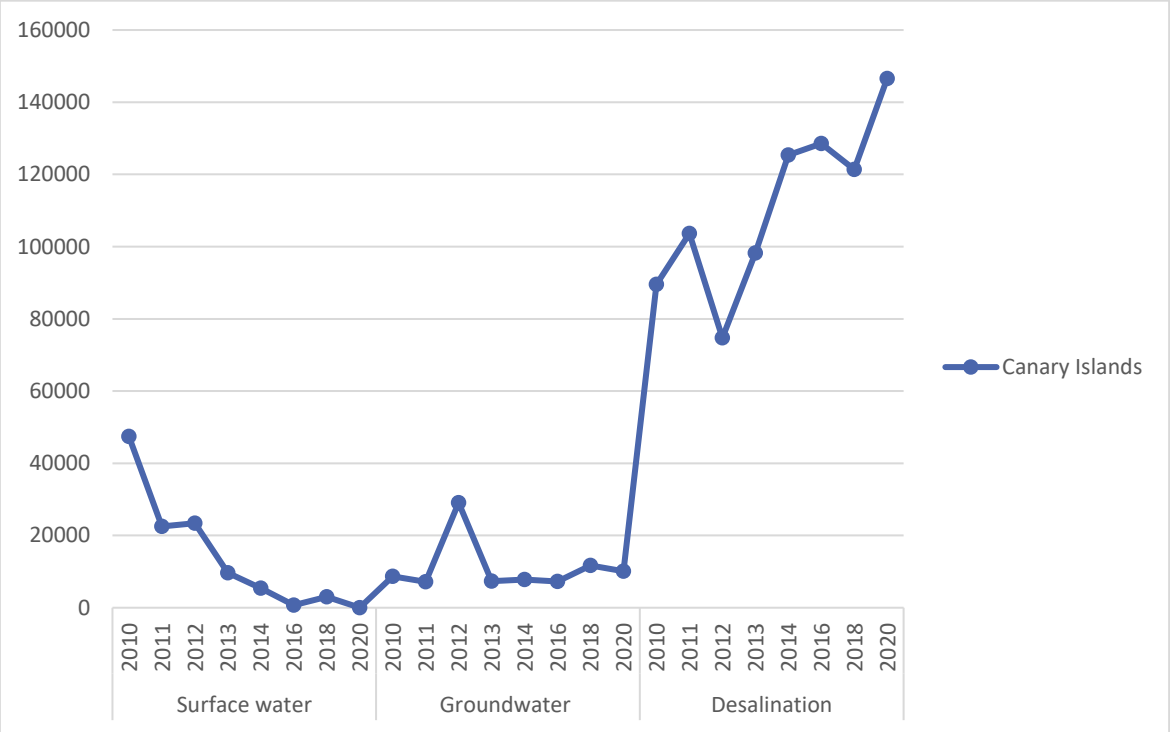
Graph 179: volume of unregistered water. Actual losses (%)



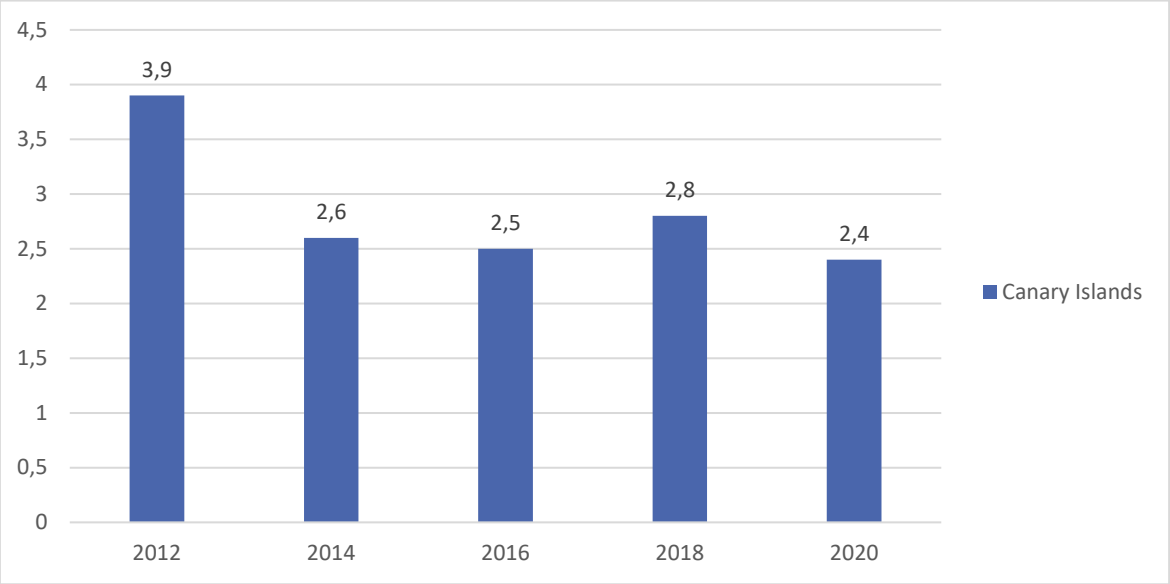
Graph 180: actual losses per kilometre of supply network (m3/km).



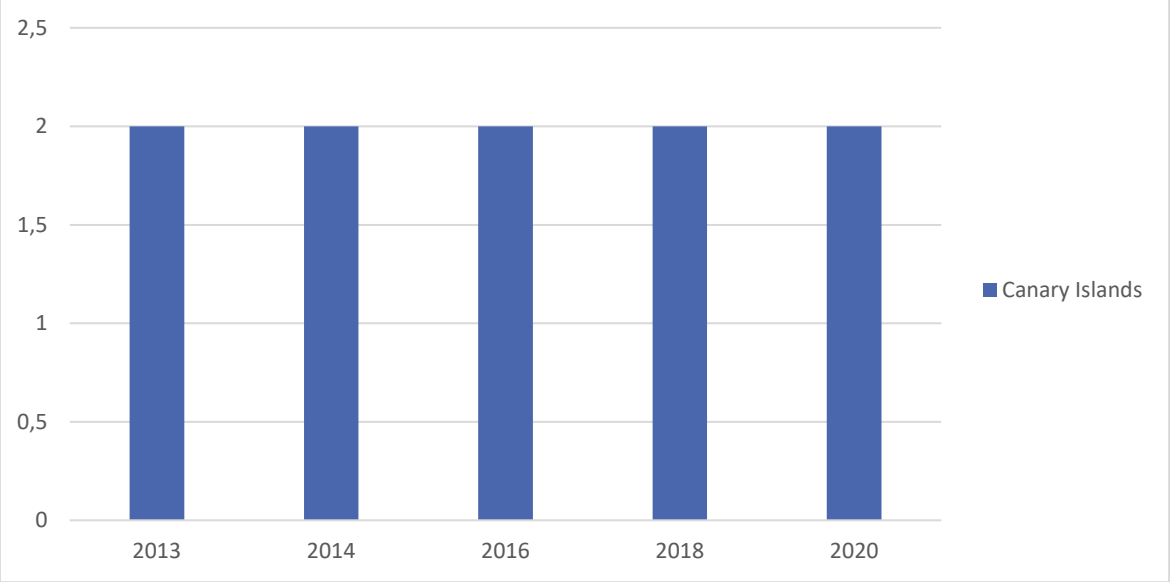
Graph 181: abstraction of water: surface water, groundwater, and desalination (thousands of m3).



Graph 182: length of sewerage network per inhabitant (m/inhabitant).



Graph 183: Number of storm tanks.



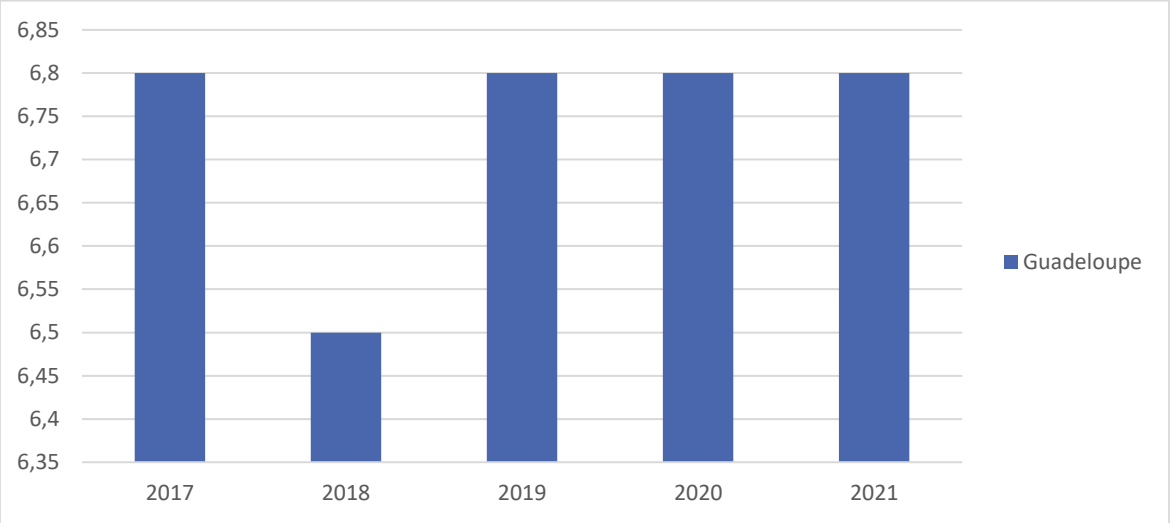
3.3.3 Electricity, cooling and heating

ACCESS

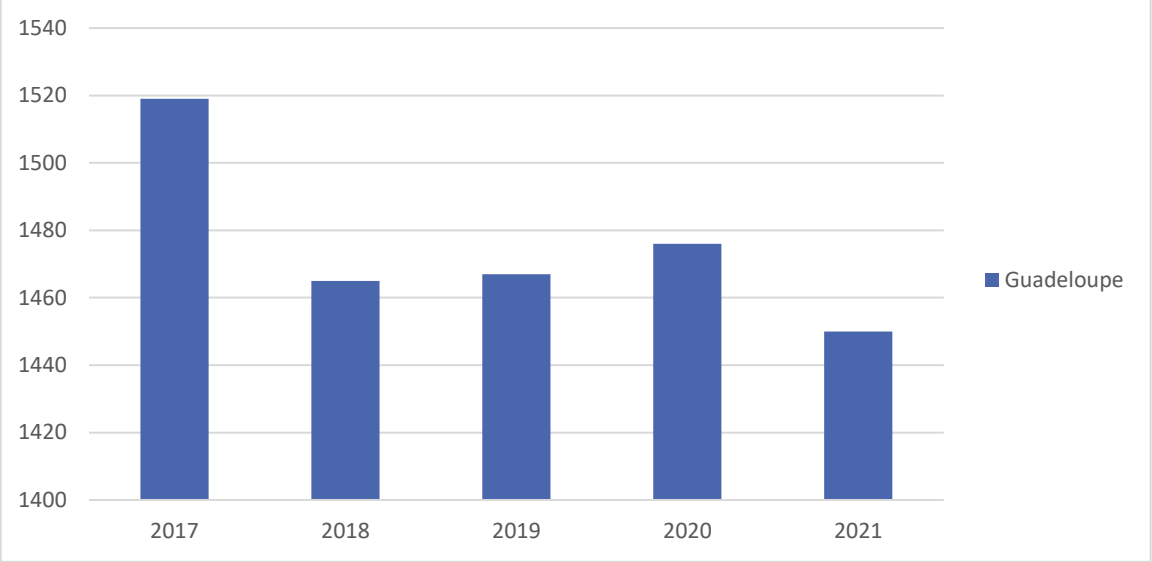
3.3.3.1 Electricity consumption

FRENCH OR

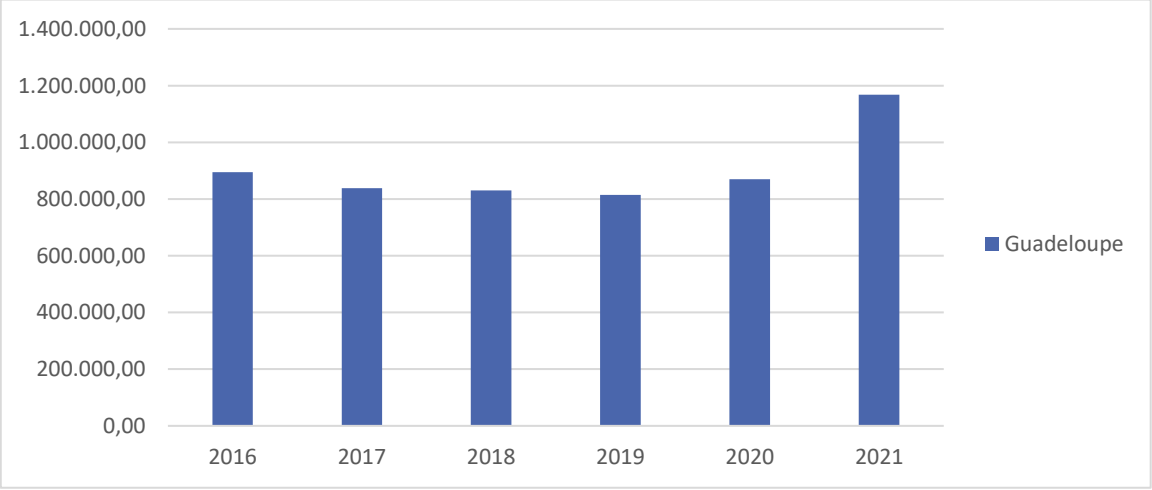
Graph 184: Consumption per delivery point (MWh)



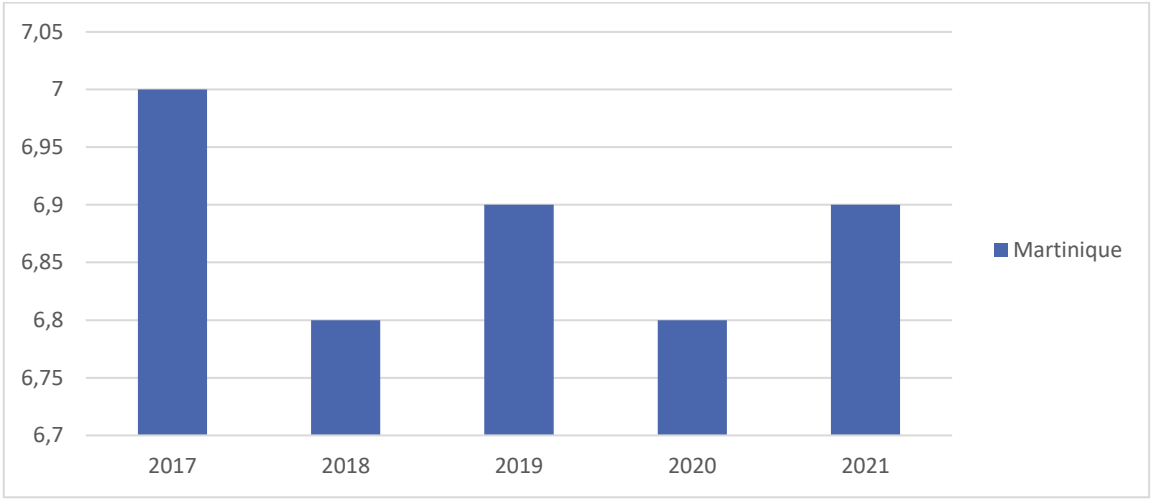
Graph 185: Annual electricity consumption (GWh)



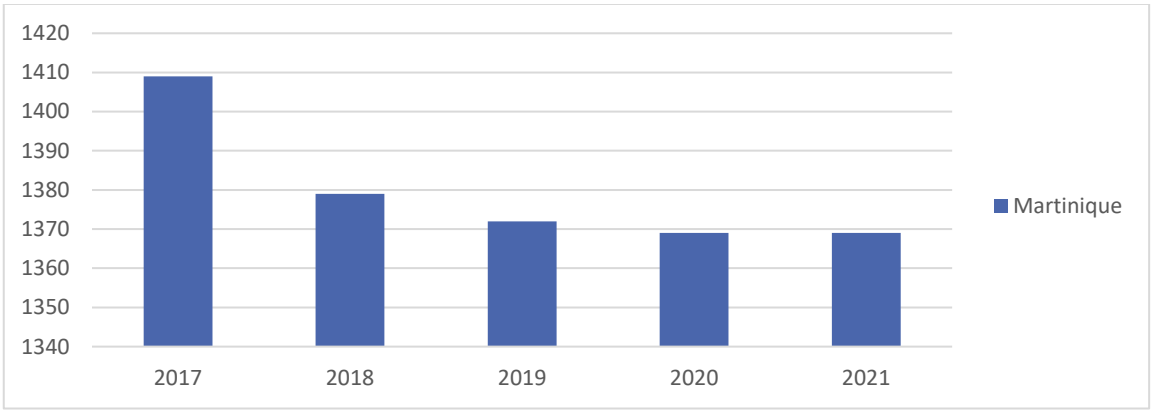
Graph 186: Final consumption of electricity in housing (MW/h)



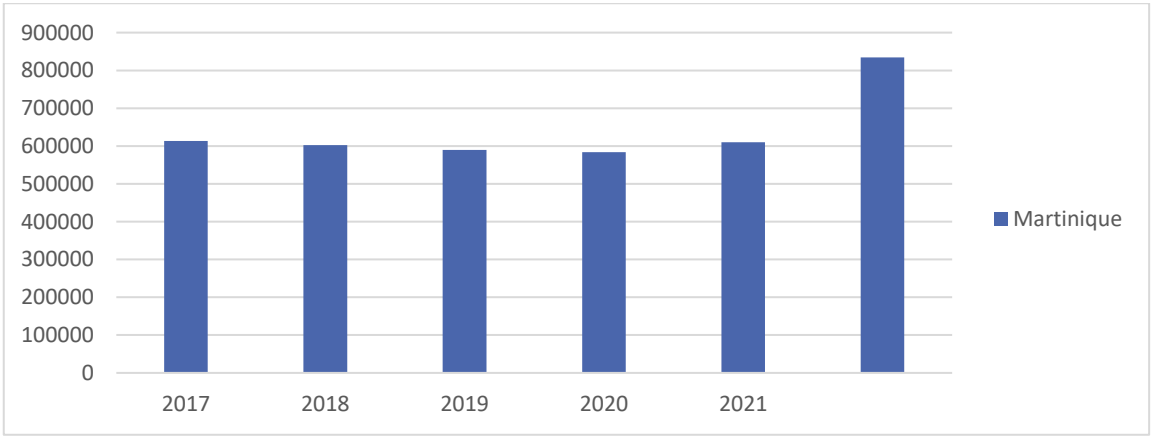
Graph 187: Consumption per delivery point (MWh)



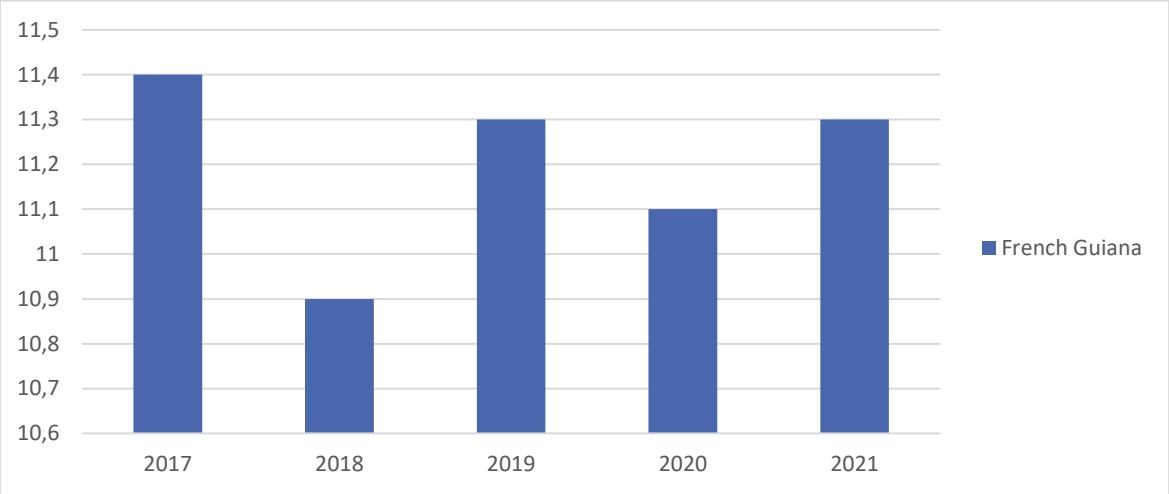
Graph 188: Annual electricity consumption (GWh)



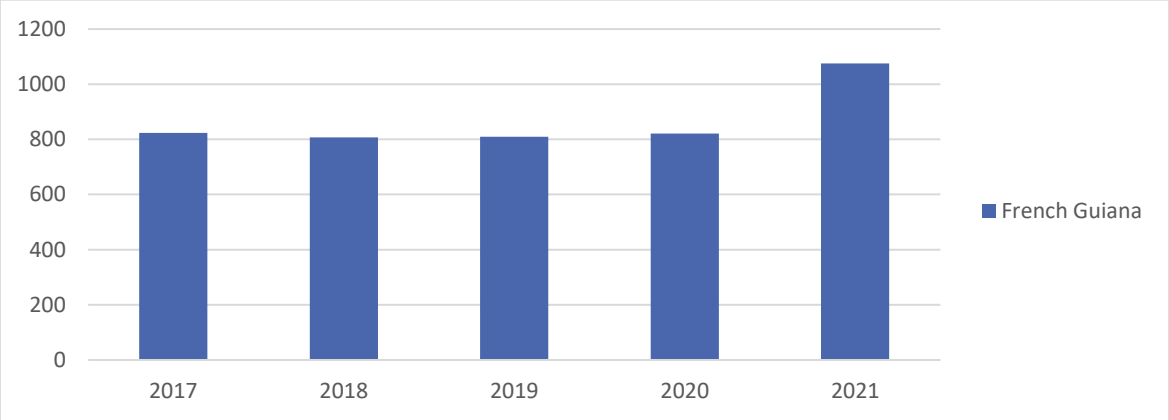
Graph 189: Final consumption of electricity in households (Mw/h)



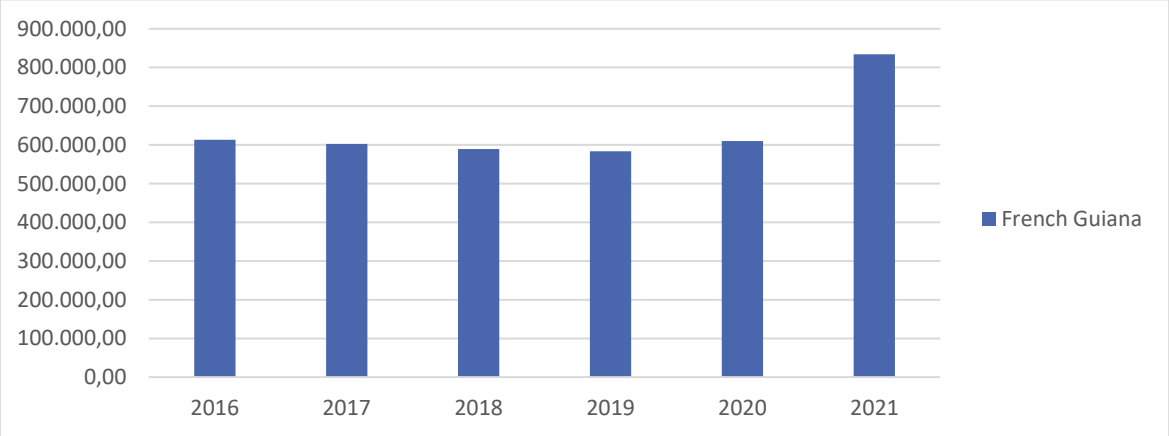
Graph 190: Consumption per delivery point (MWh)



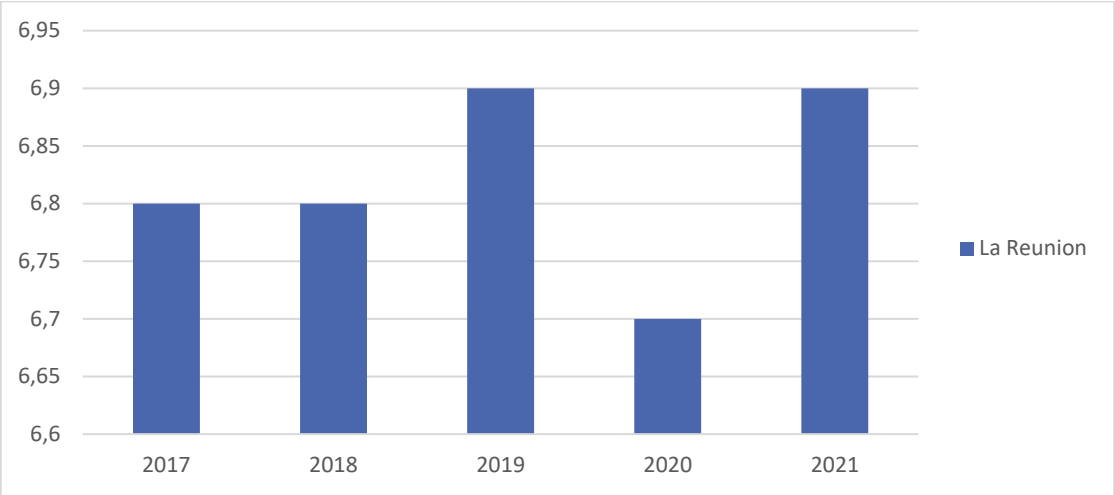
Graph 191: Annual electricity consumption (GWh)



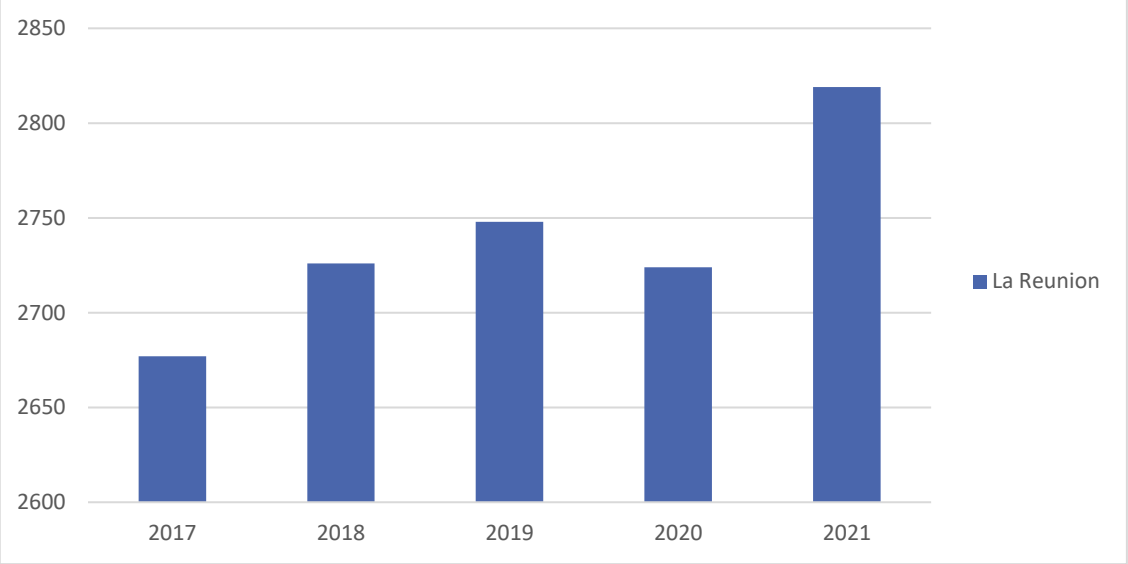
Graph 192: Final consumption of electricity in housing (Mw/h)



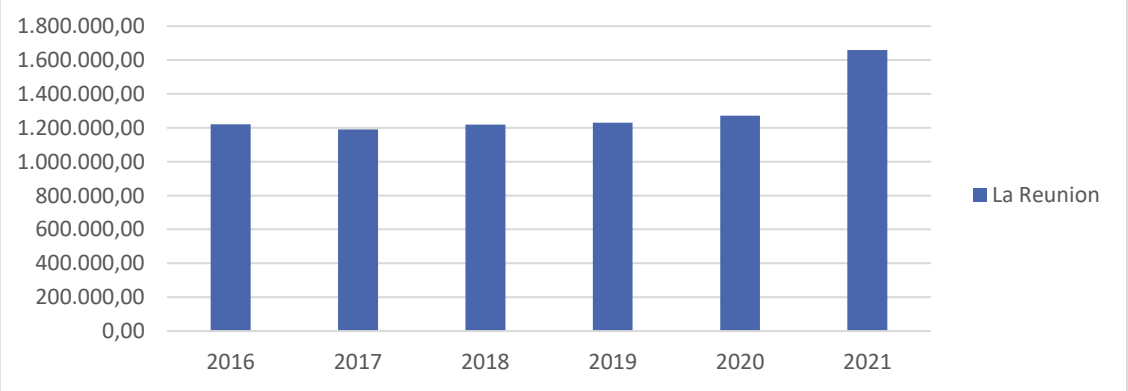
Graph 193: Consumption per delivery point (MWh)



Graph 194: Annual electricity consumption (GWh)

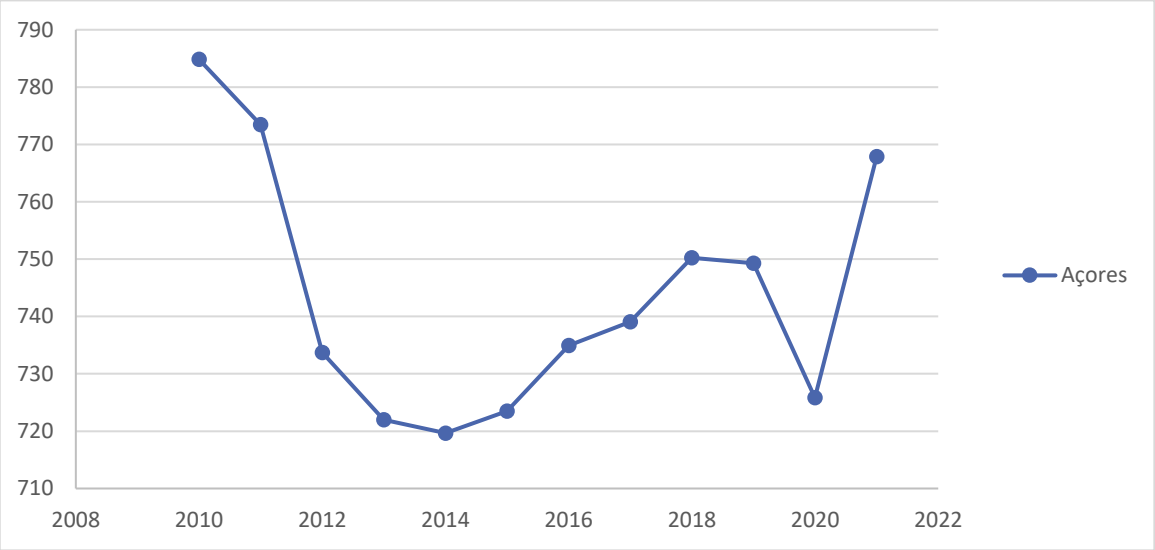


Graph 195: Final consumption of electricity in housing (Mw/h)

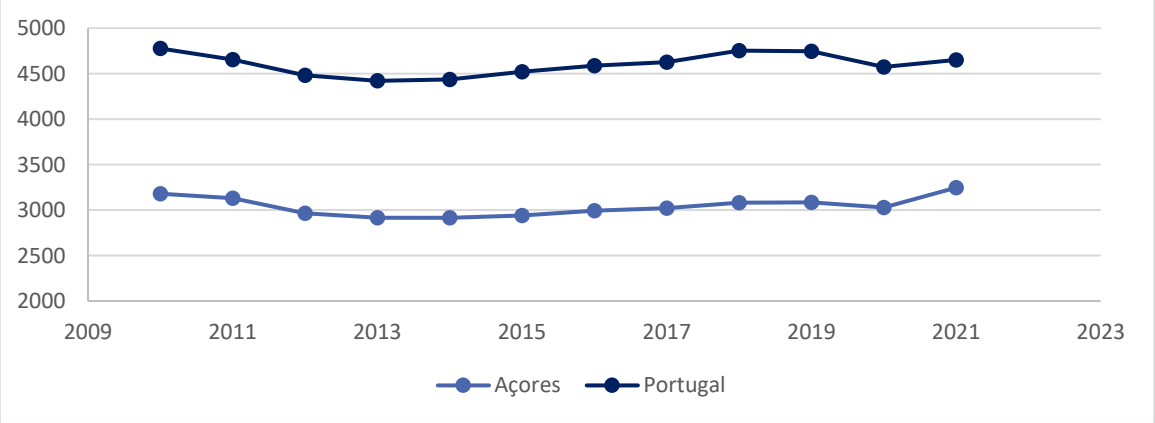


PORTUGUESE OR

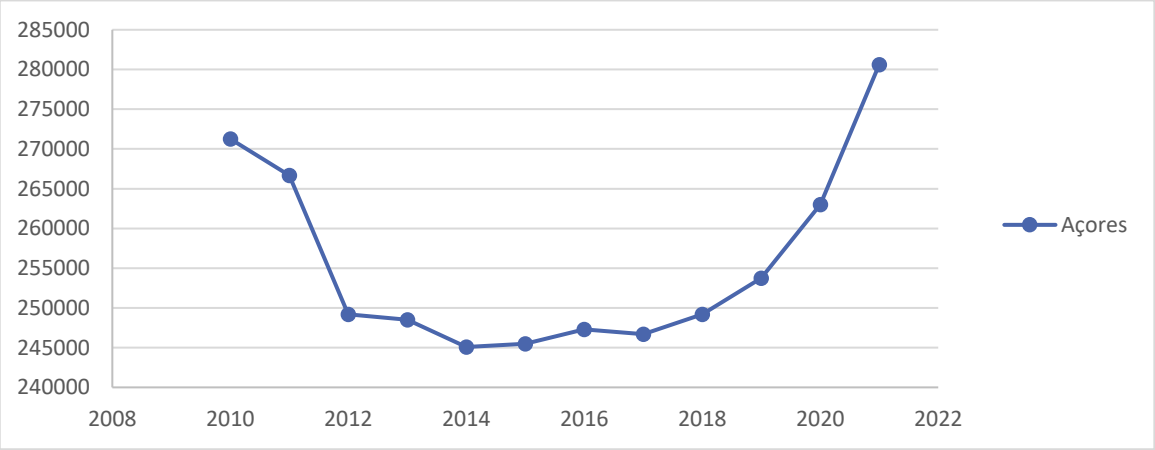
Graph 196: Annual electricity consumption (GWh)



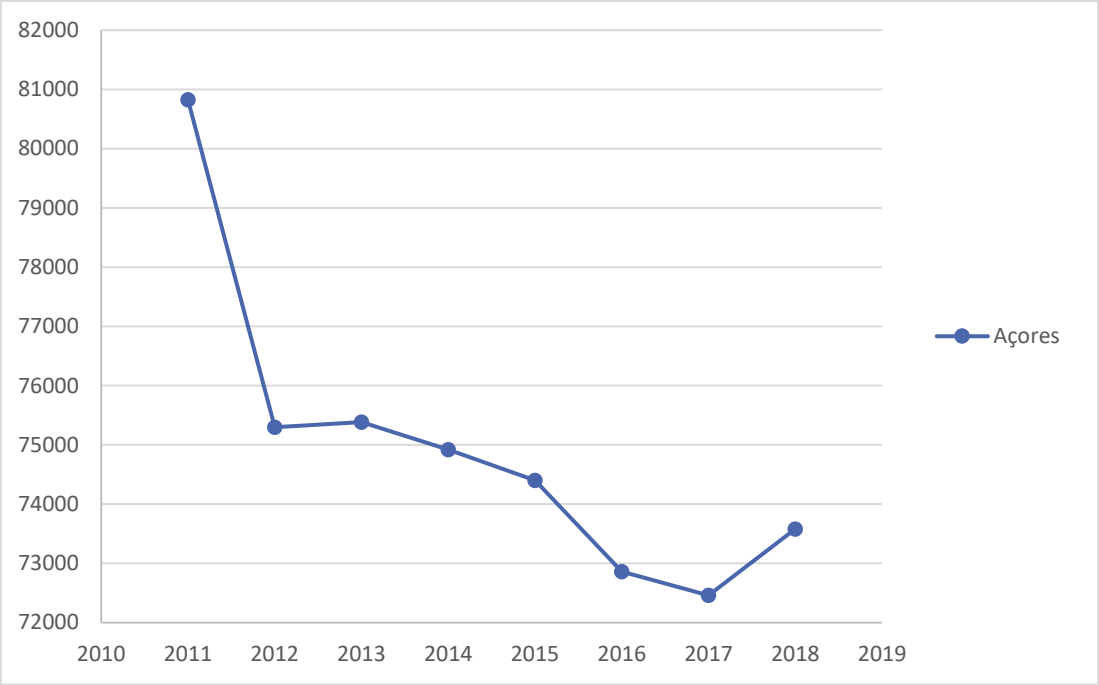
Graph 197: Consumption of electric energy by inhabitant (kWh/ inhab.)



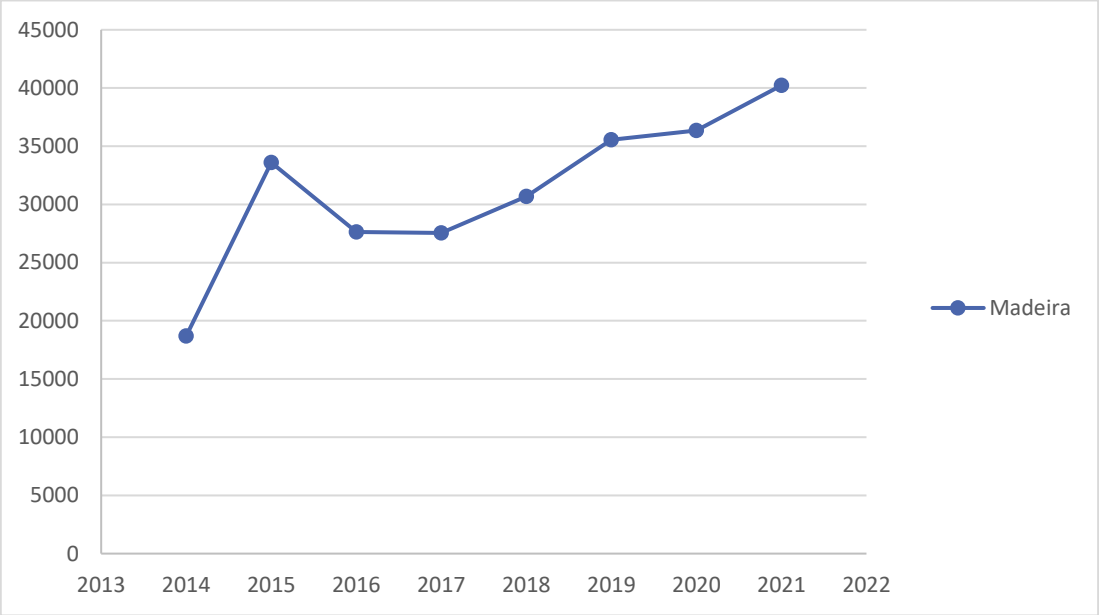
Graph 198: Final consumption of electricity in housing (Mw/h)



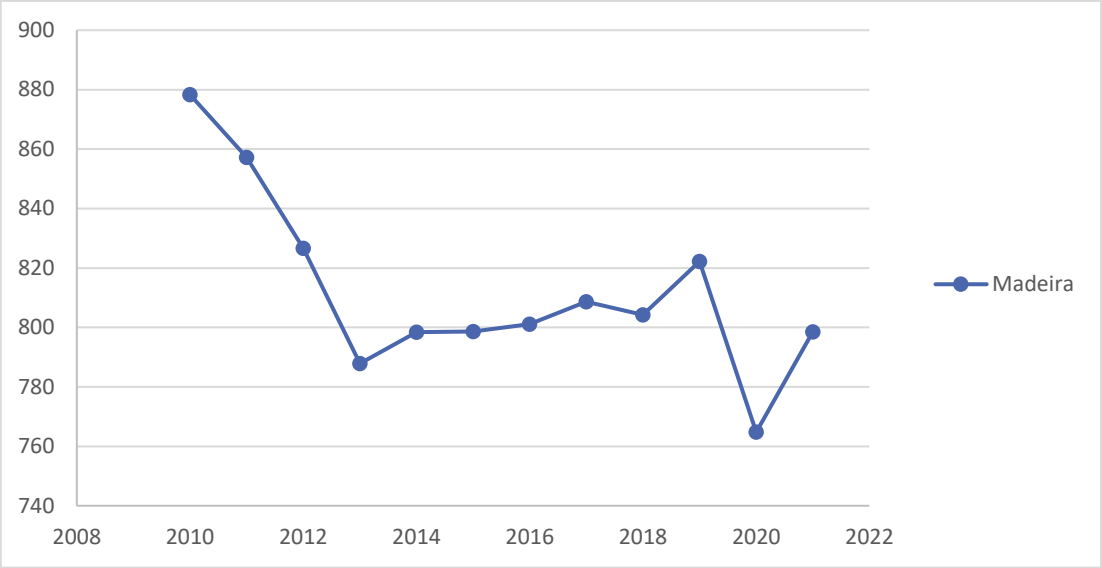
Graph 199: Consumption of primary energy in housing (private households' toe)



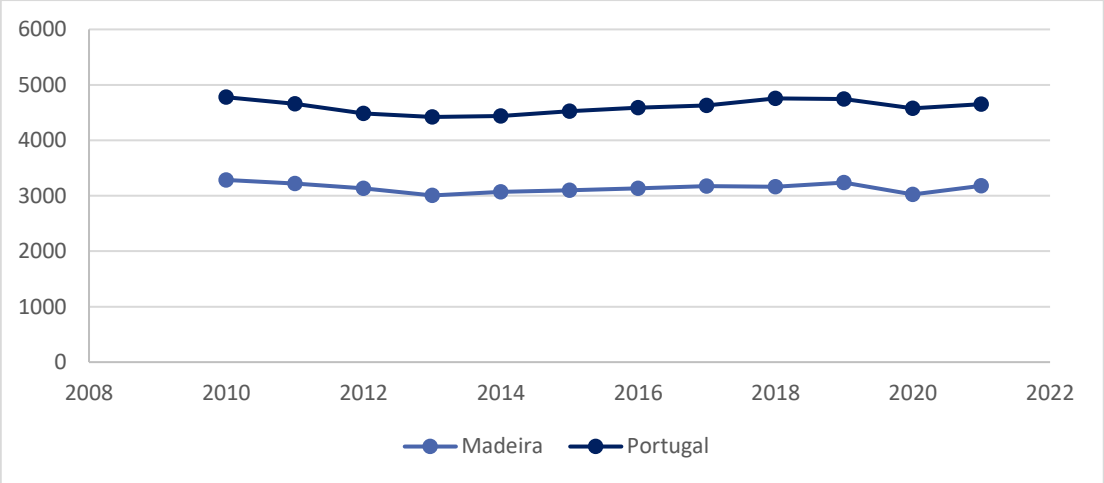
Graph 200: Annual natural gas consumption (Nm³ (thousands))



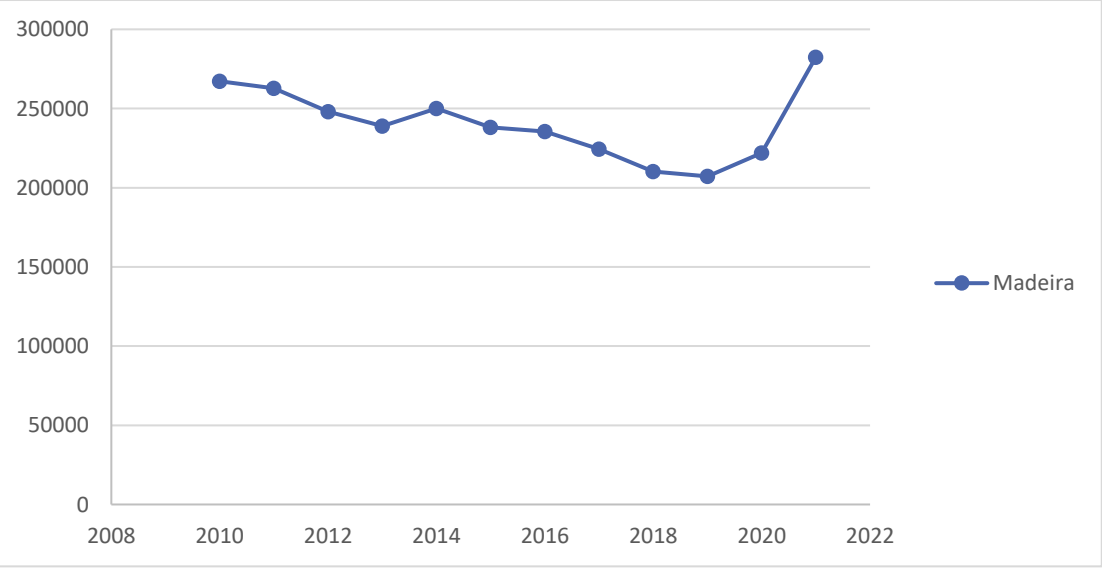
Graph 201: Annual electricity consumption (GWh)



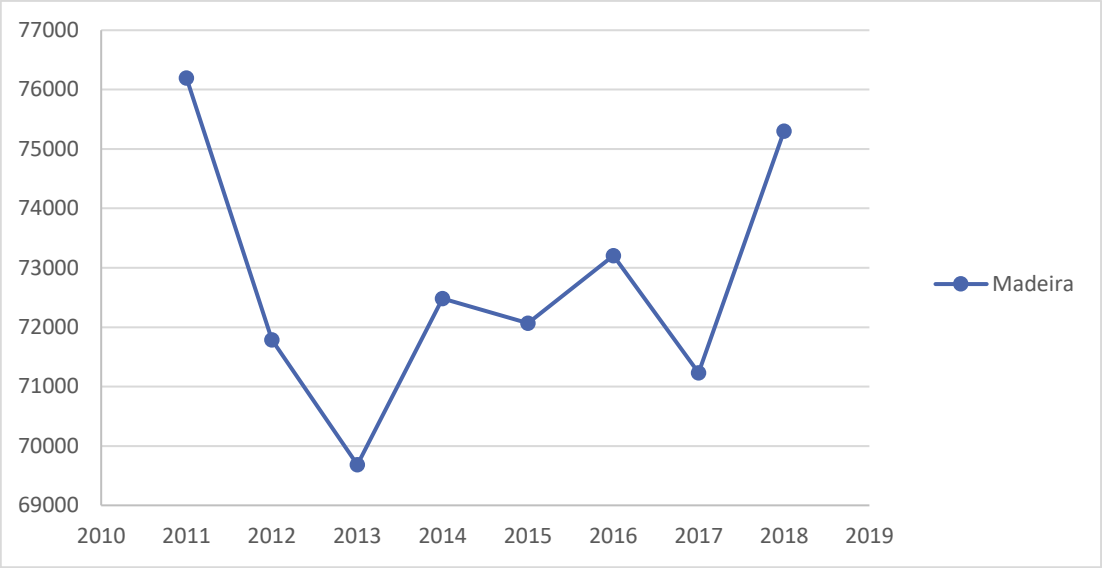
Graph 202: Consumption of electric energy by inhabitant (kWh/ inhab.)



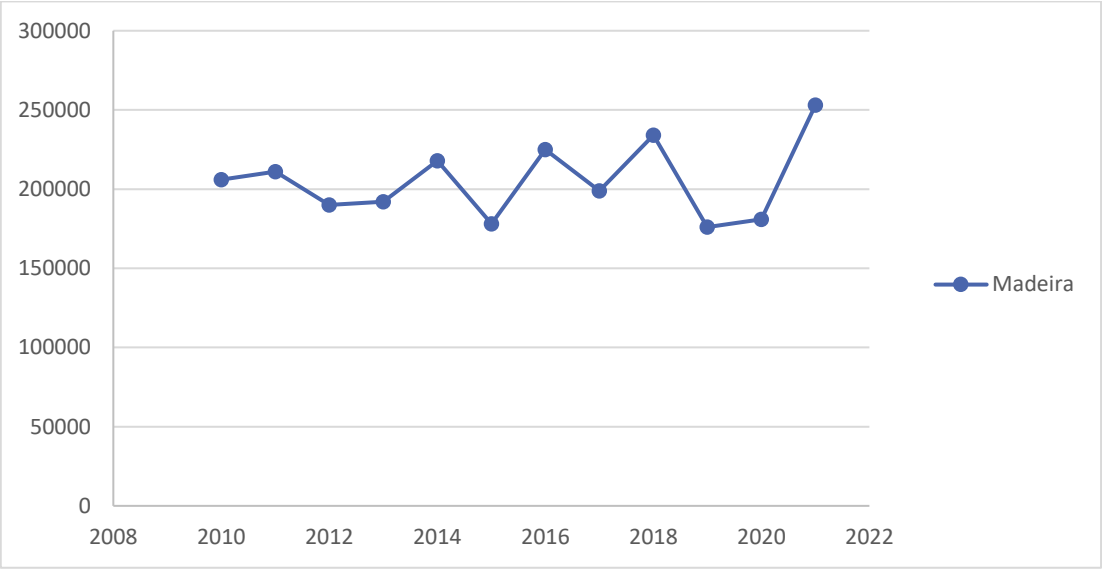
Graph 203: Final consumption of electricity in housing (Mw/h)



Graph 204: Consumption of primary energy in housing (private households toe)

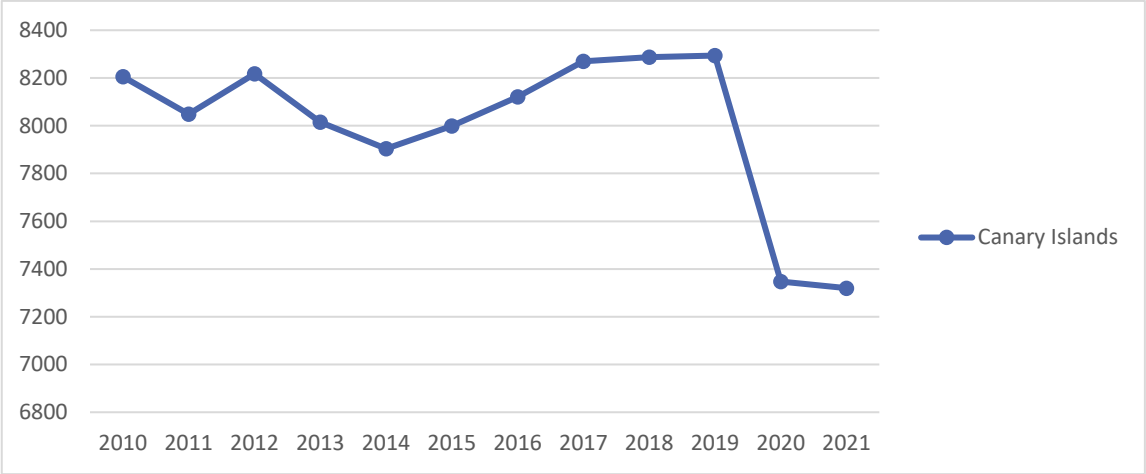


Graph 205: Total production of electricity coming from renewable origin (MWh)

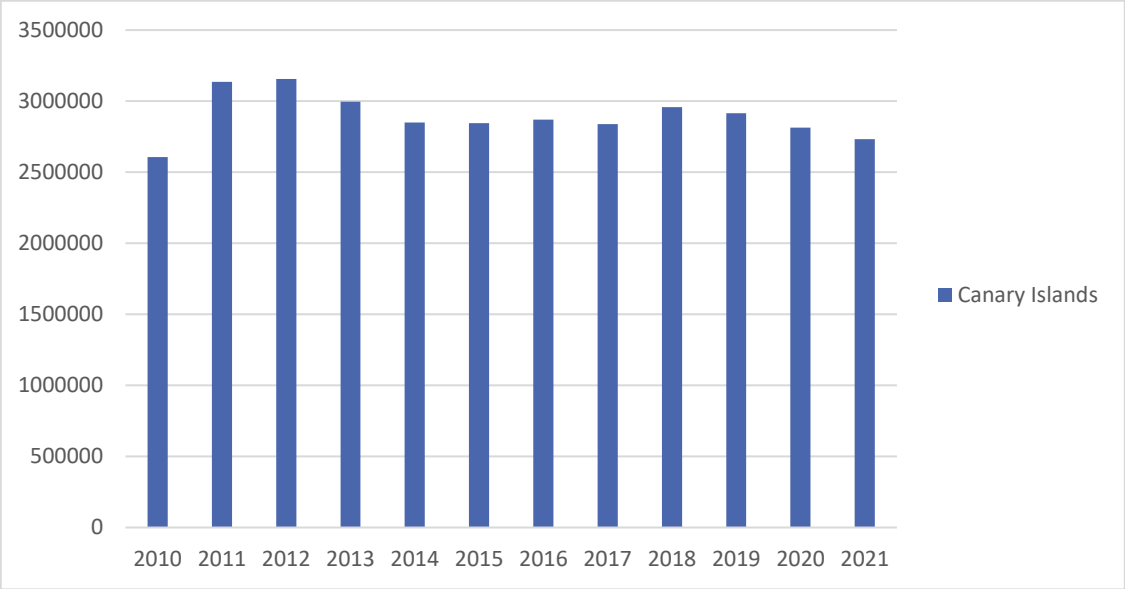


SPANISH OR

Graph 206: Annual electricity consumption (GWh)



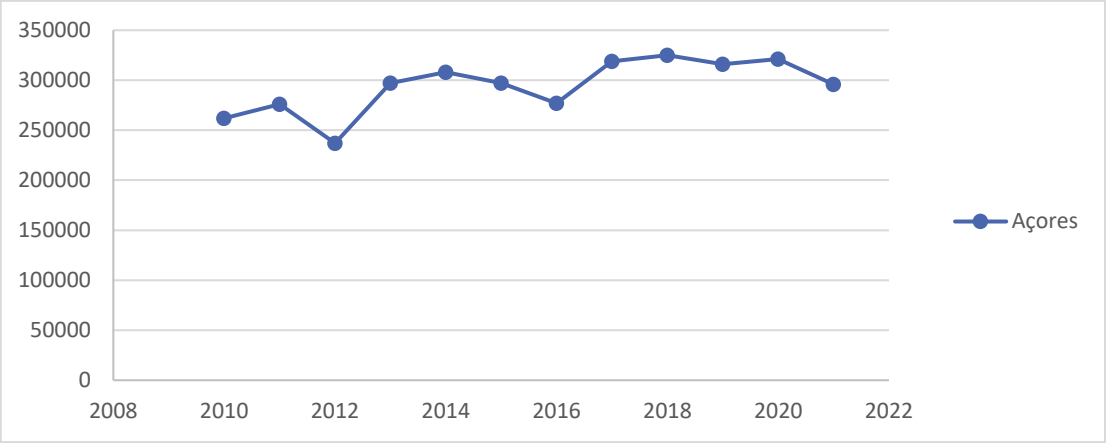
Graph 207: Final consumption of electricity in housing (Mw/h)



3.3.3.2 Sources of energy production

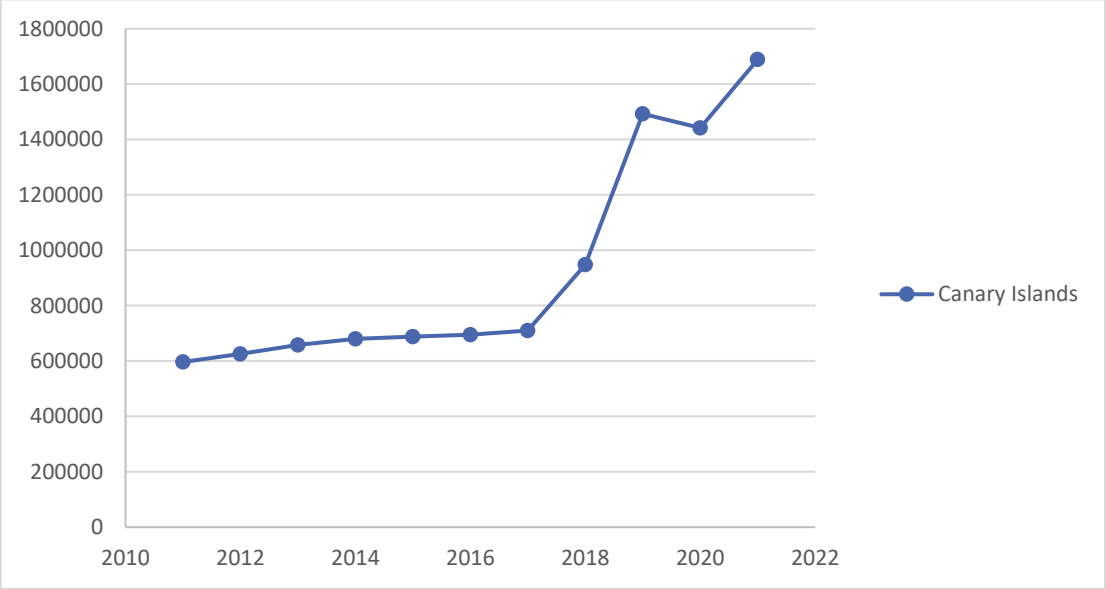
PORTUGUESE OR

Graph 208: Total production of electricity coming from renewable origin (MWh)



SPANISH OR

Graph 209: Total production of electricity coming from renewable origin (MWh)

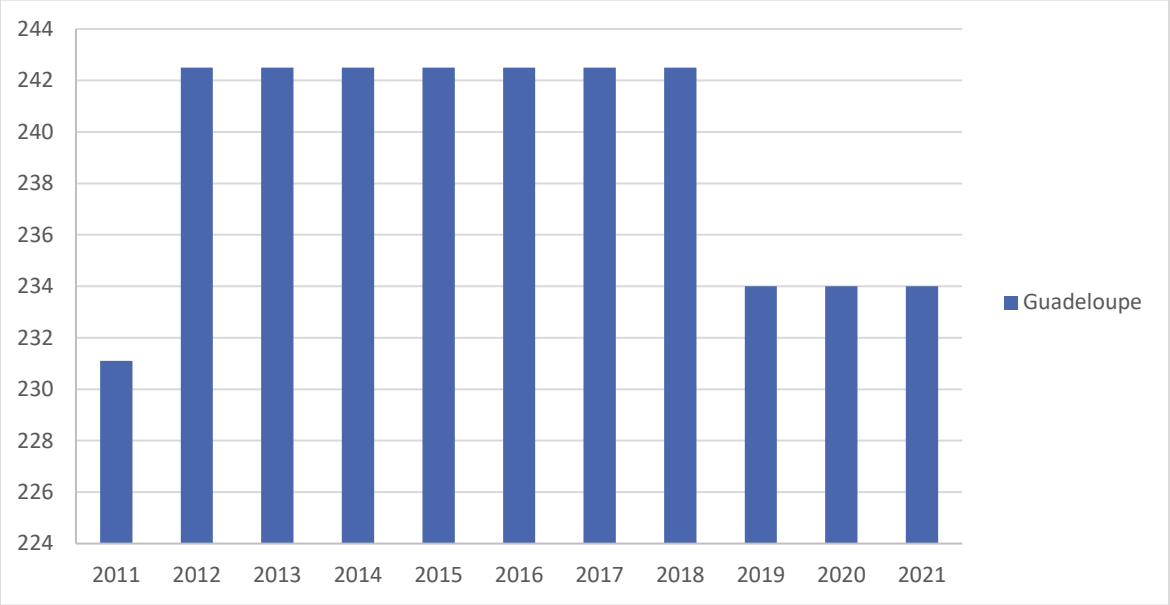


INFRASTRUCTURE

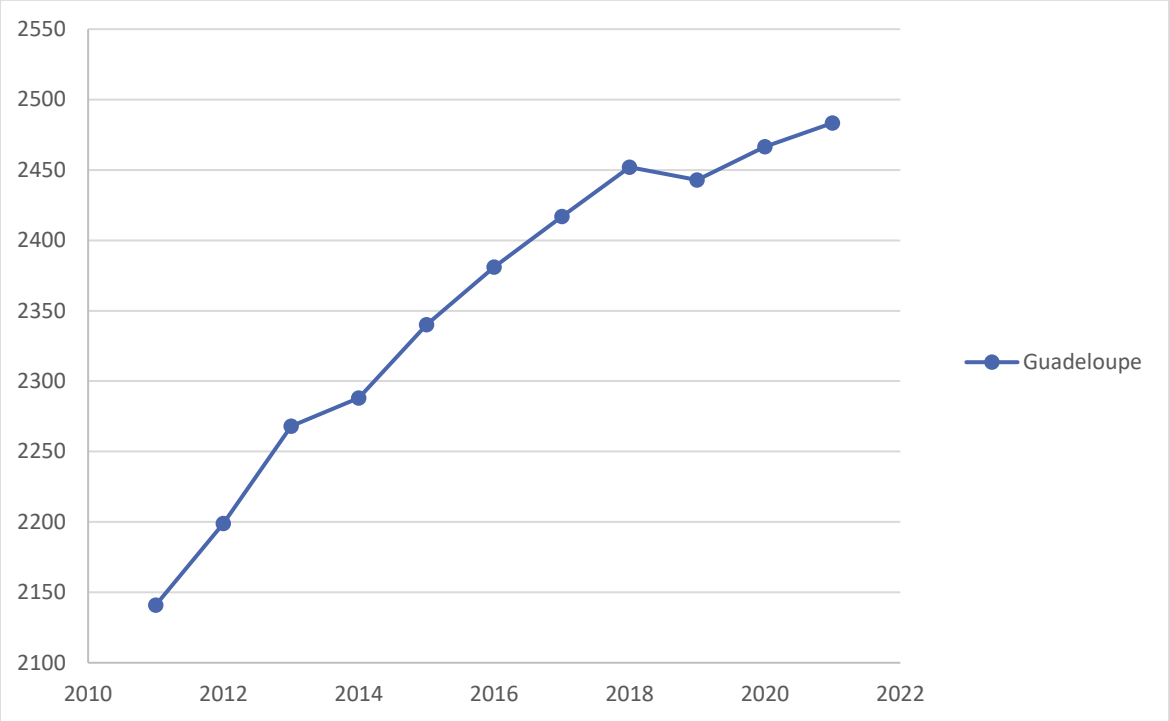
3.3.3.3 Public grid size and infrastructure

FRENCH OR

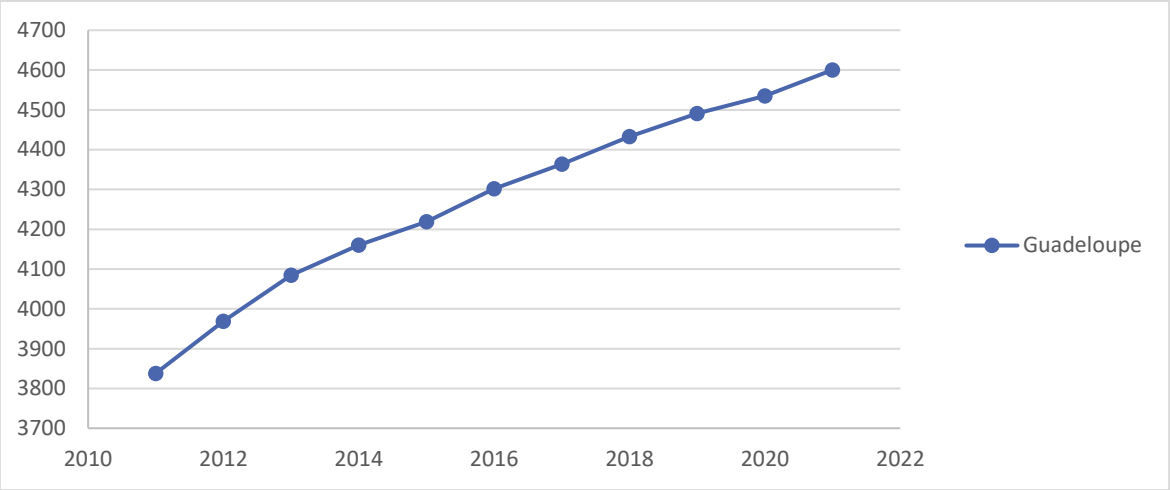
Graph 210: Length (in km) of high-tension lines



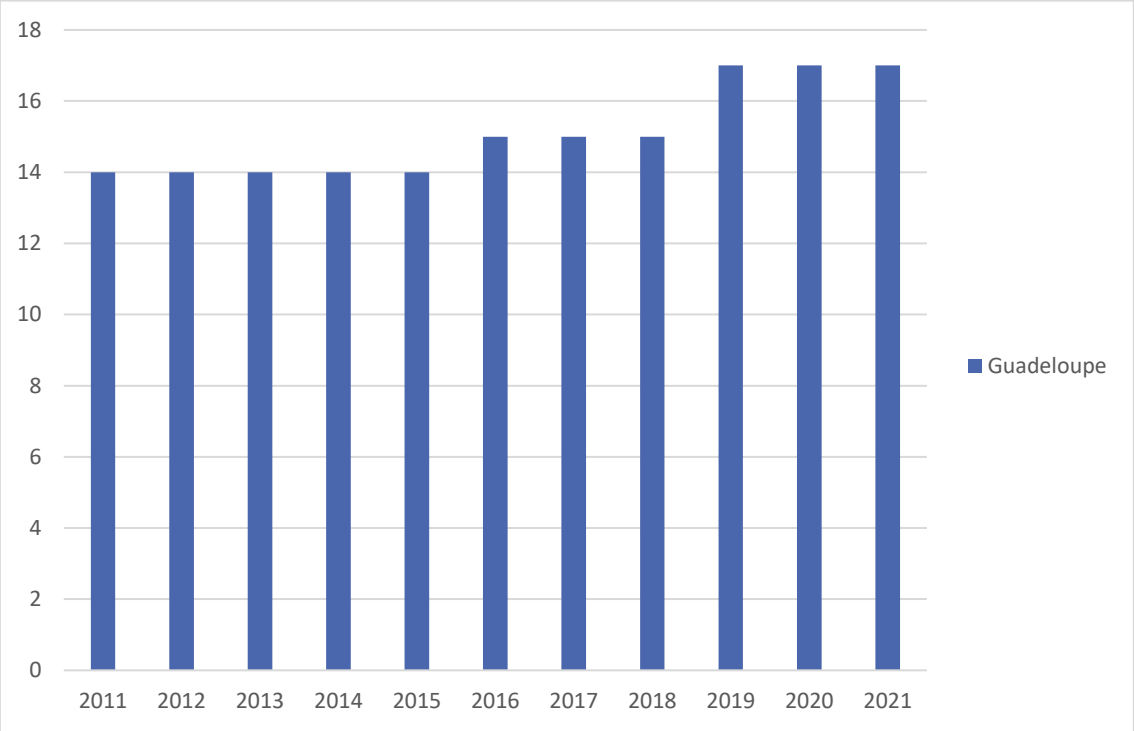
Graph 211: Length (in km) of medium-tension lines



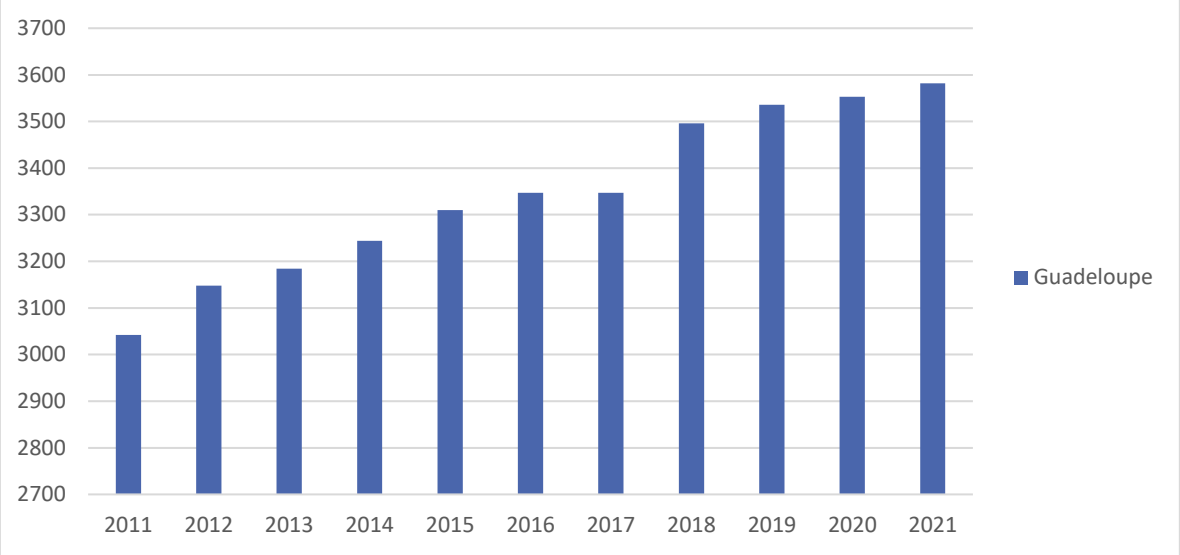
Graph 212: Length (in km) of low-tension lines



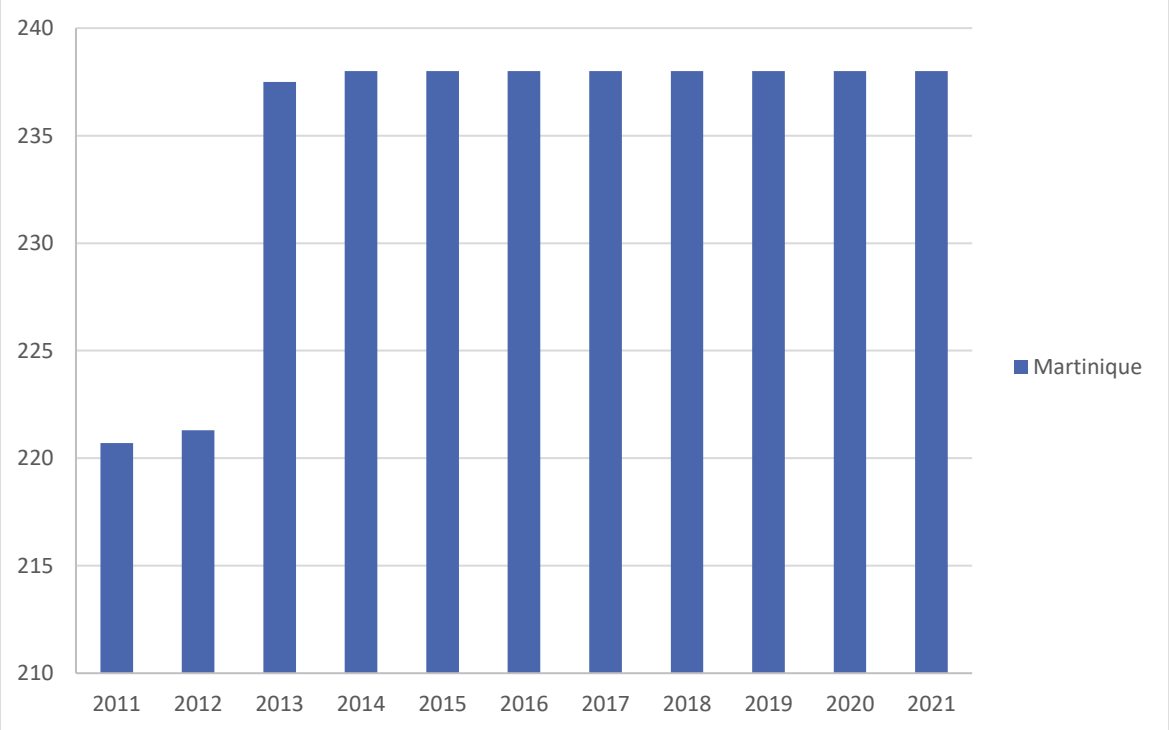
Graph 213: Number of high/medium tension poles



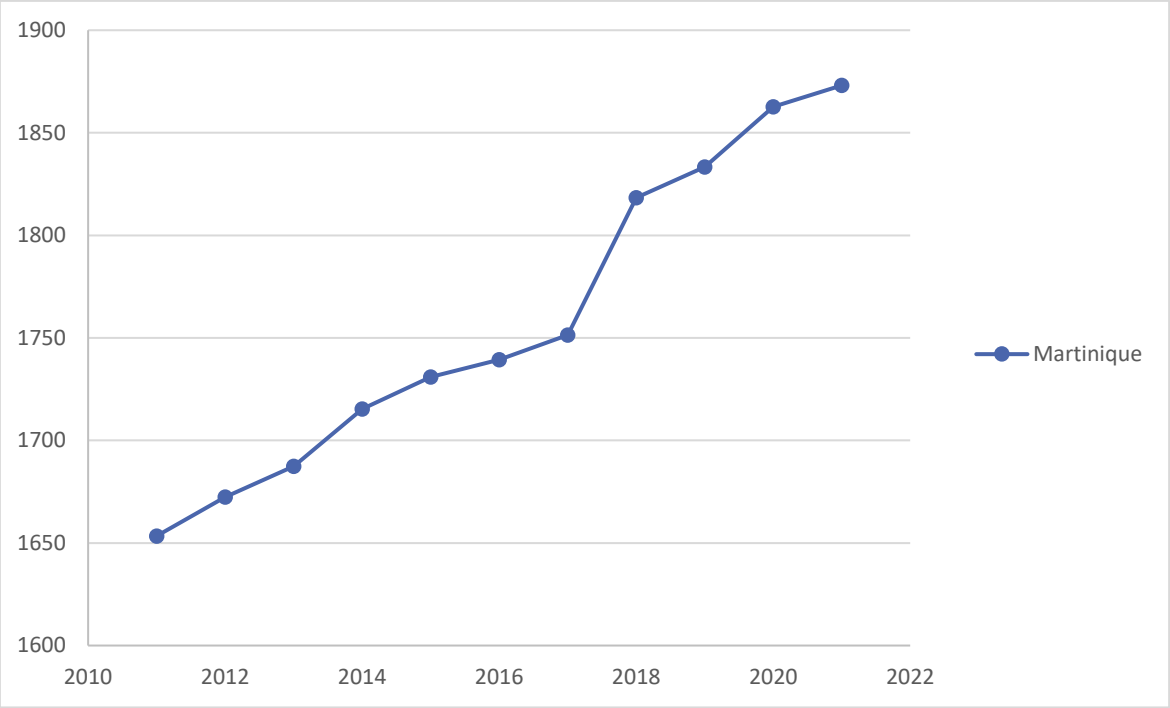
Graph 214: Number of medium-low tension poles



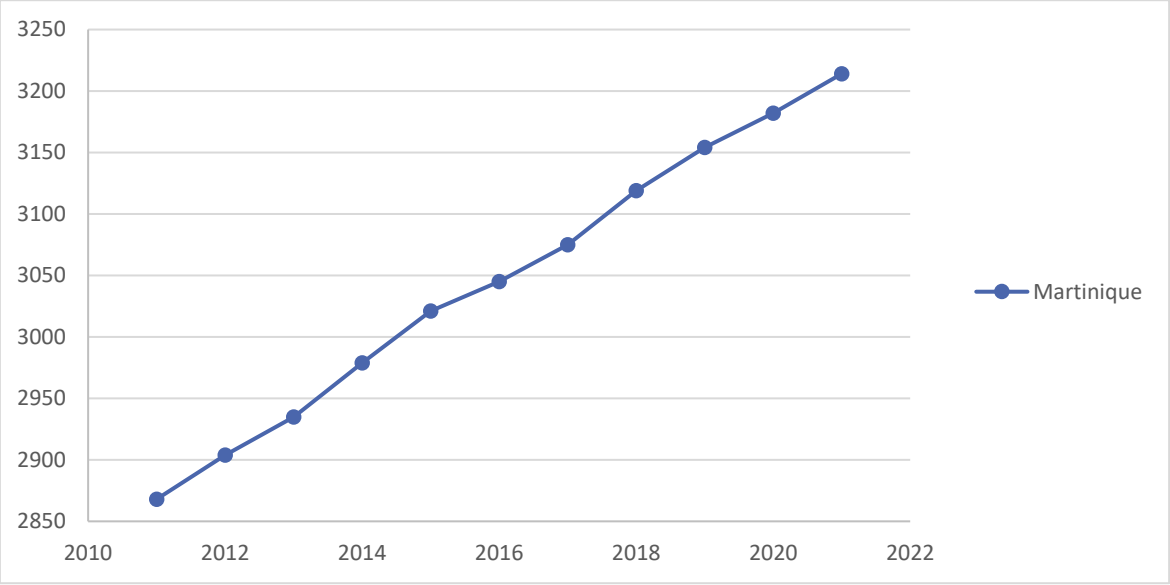
Graph 215: Length (in km) of high-tension lines



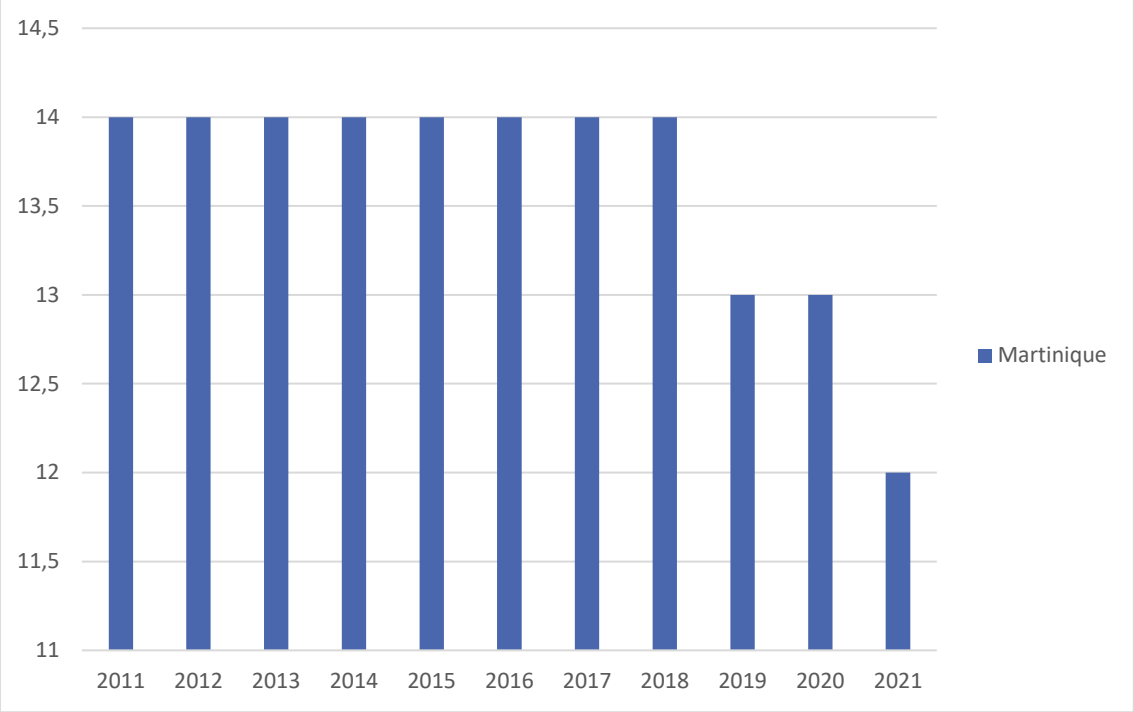
Graph 216: Length (in km) of medium tension lines



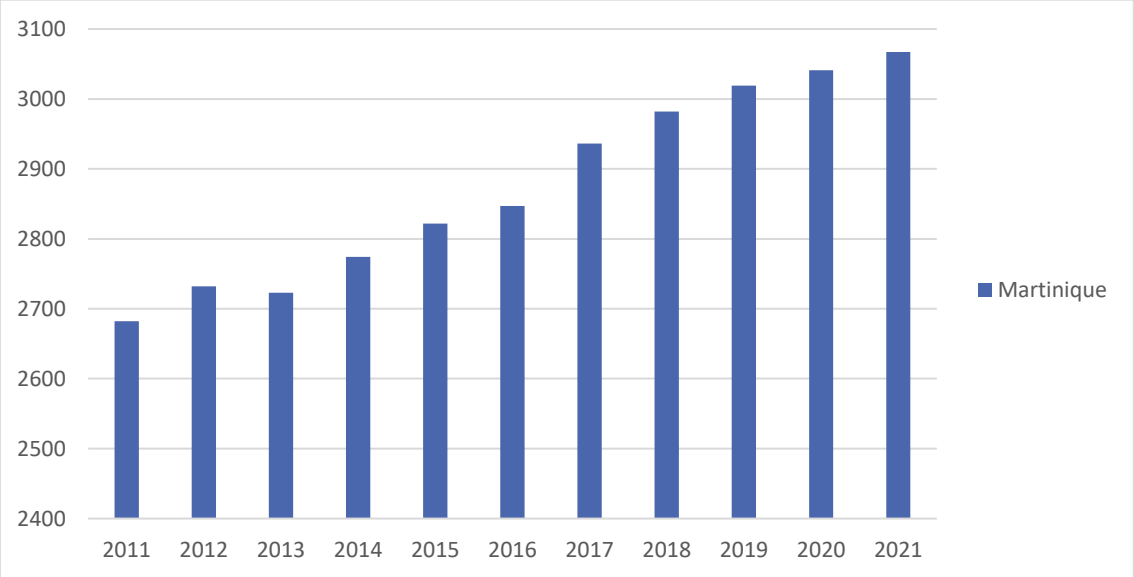
Graph 217: Length (in km) of low-tension lines



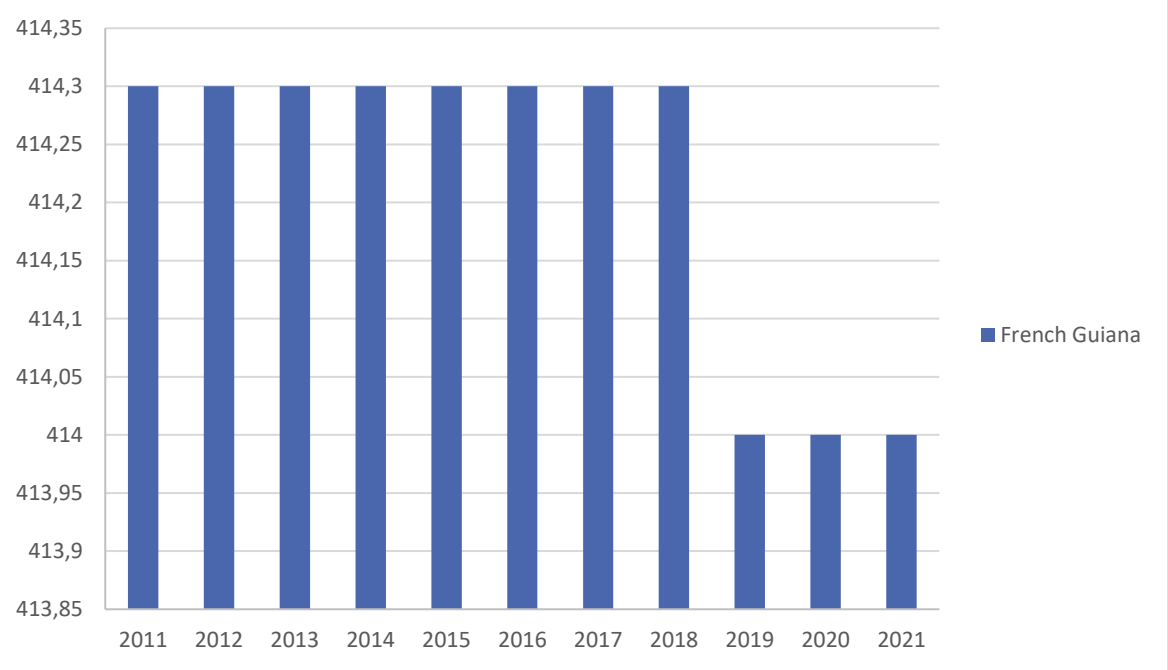
Graph 218: Number of high/medium tension poles



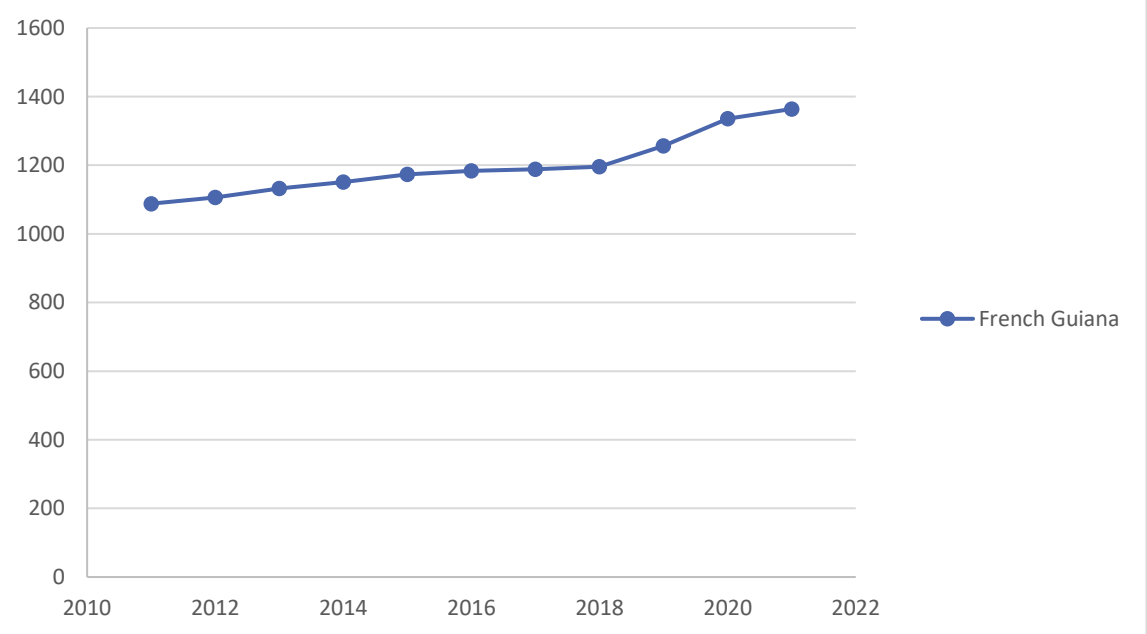
Graph 219: Number of medium/low tension poles



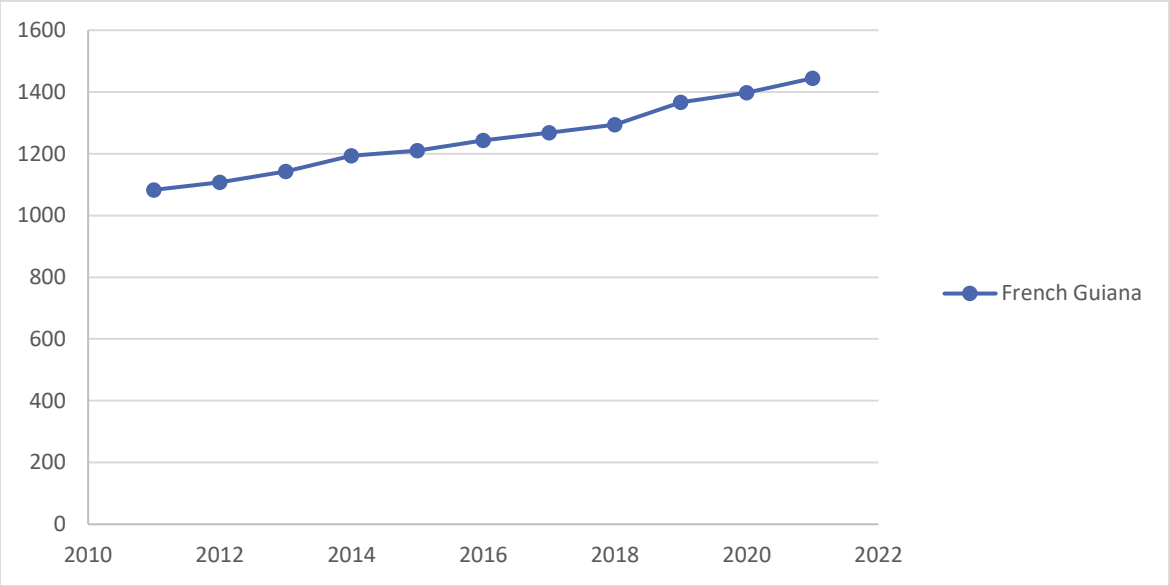
Graph 220: Length (in km) of high-tension lines



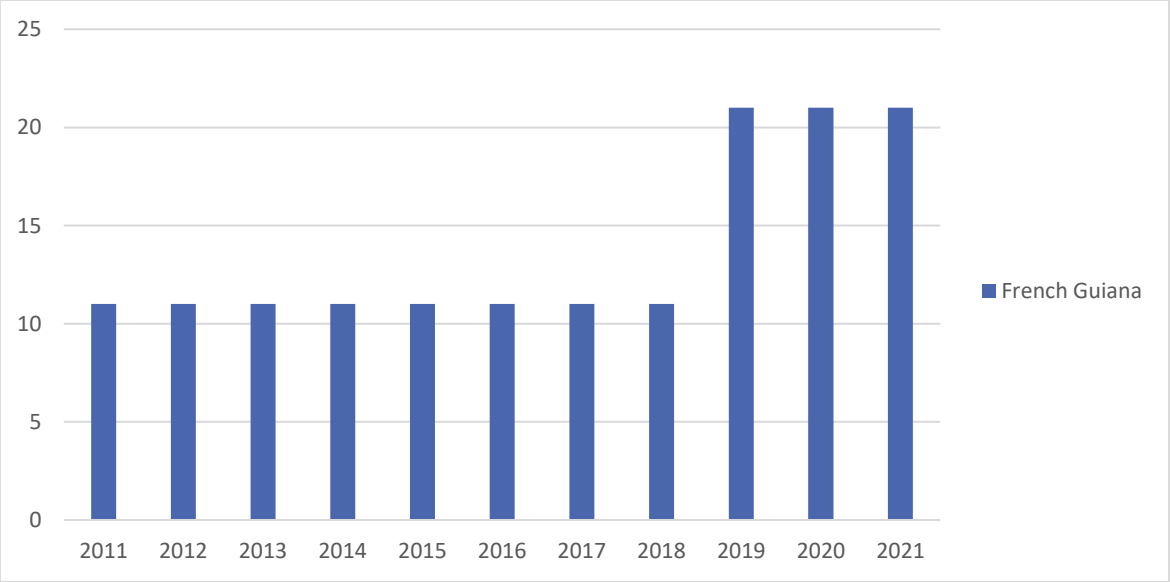
Graph 221: Length (in km) of medium tension lines



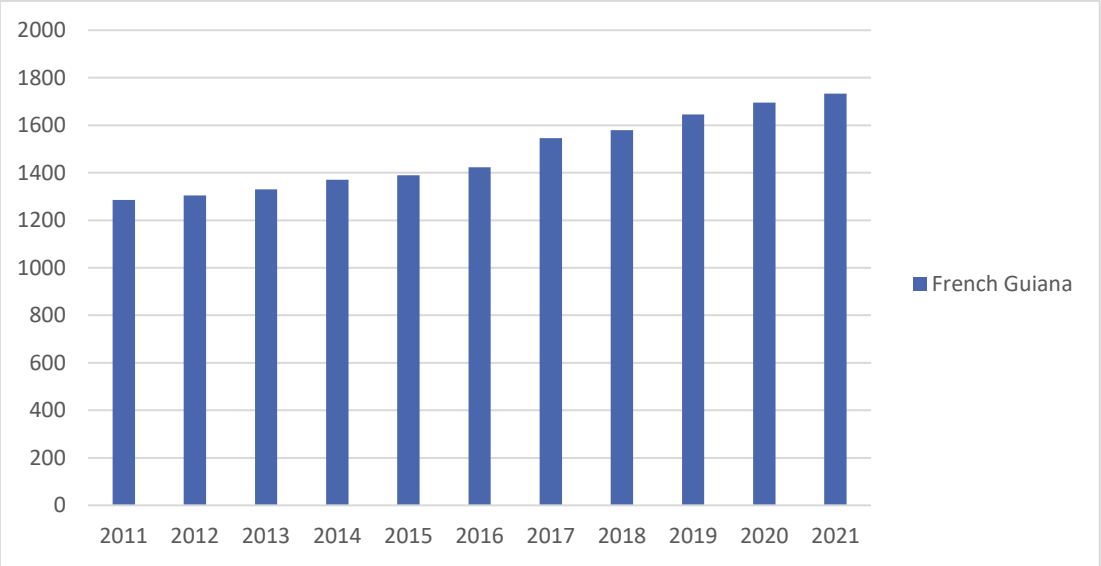
Graph 222: Length (in km) of low-tension lines



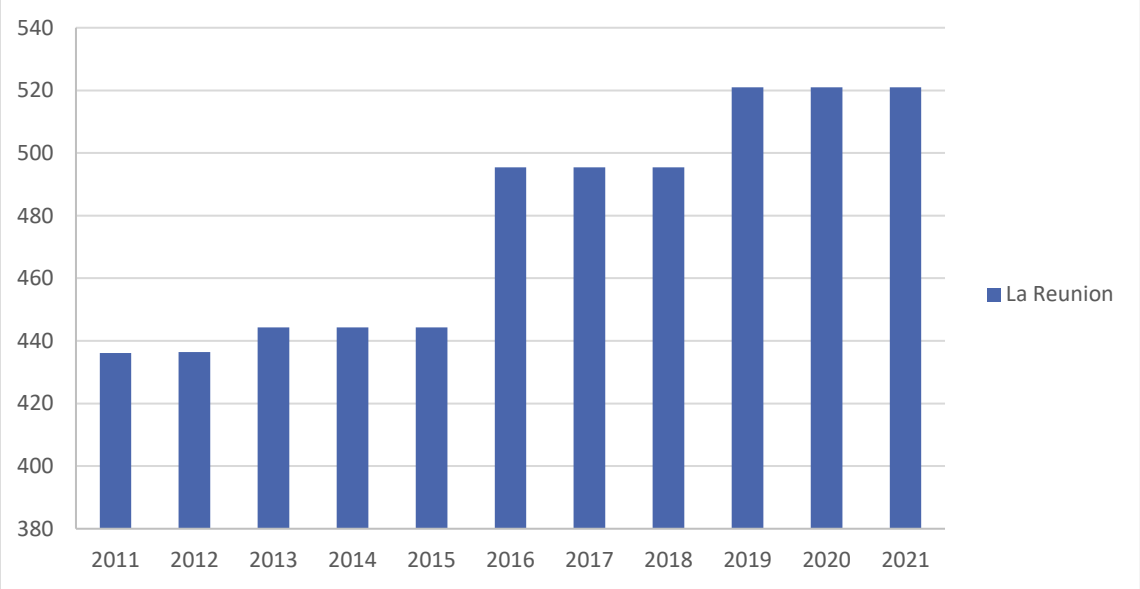
Graph 223: Number of high/medium tension poles



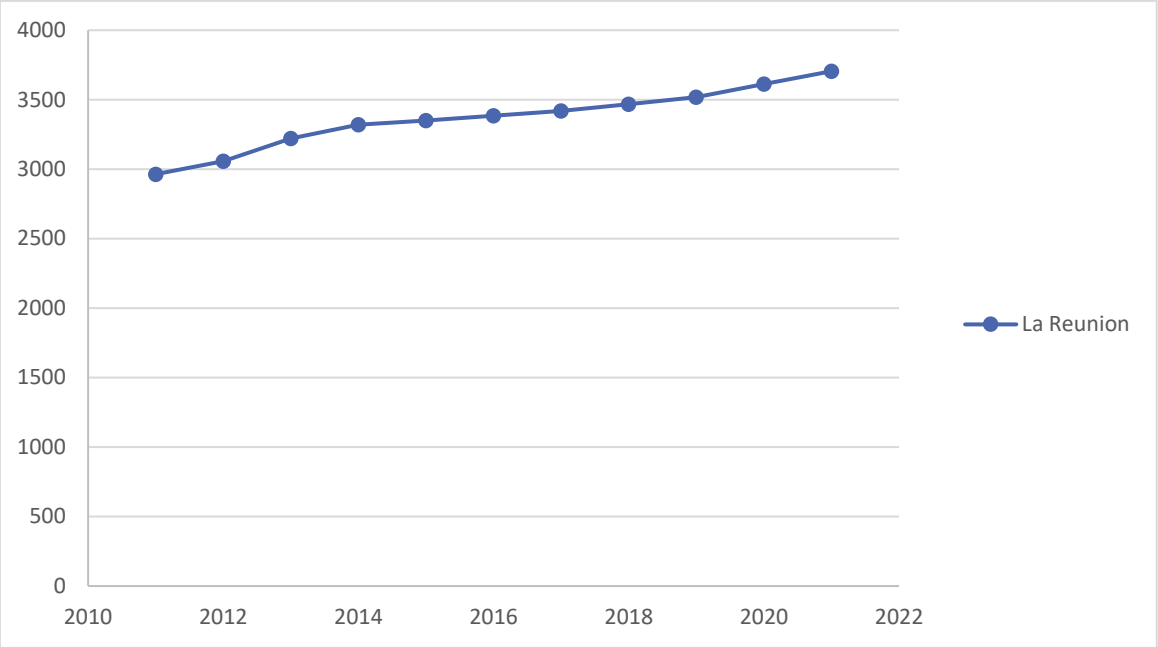
Graph 224: Number of medium/low tension poles



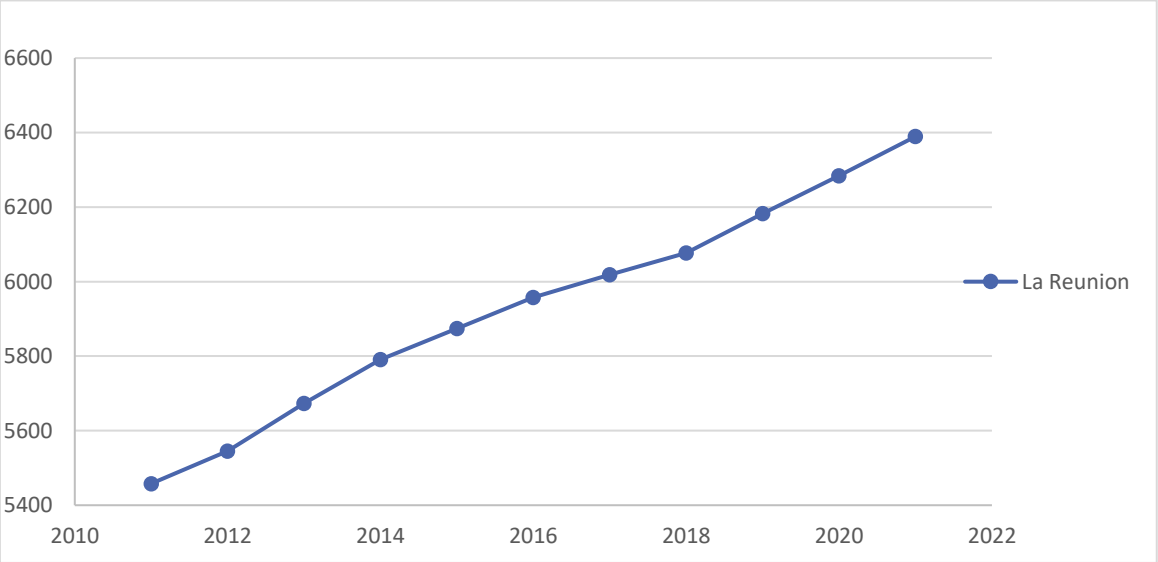
Graph 225: Length (in km) of high-tension lines



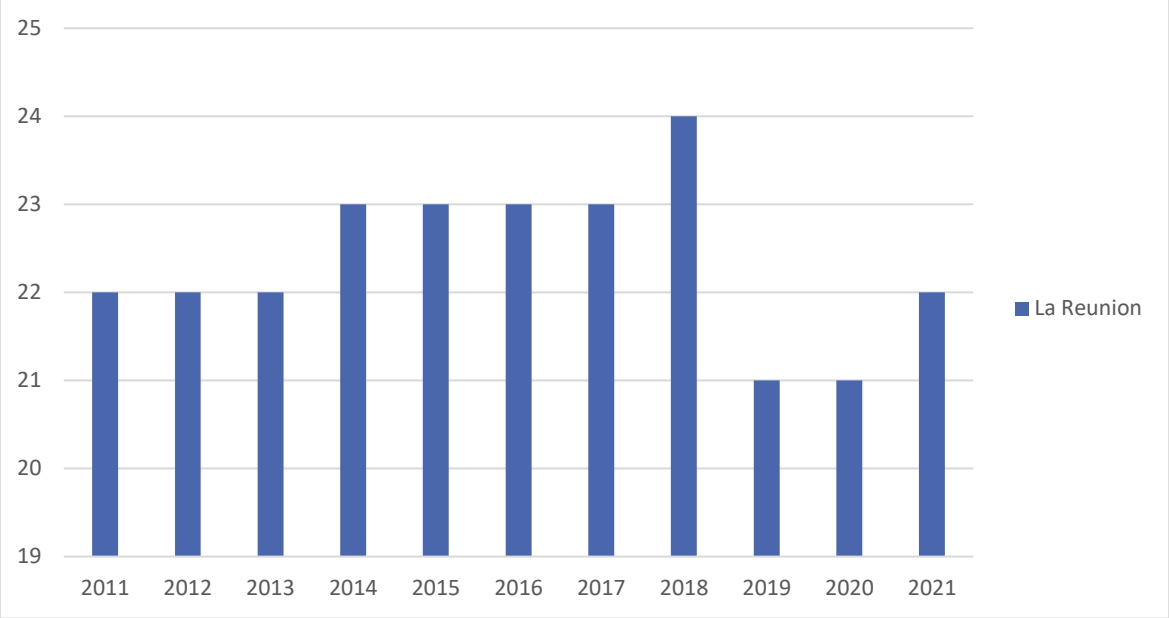
Graph 226: Length (in km) of medium-tension lines



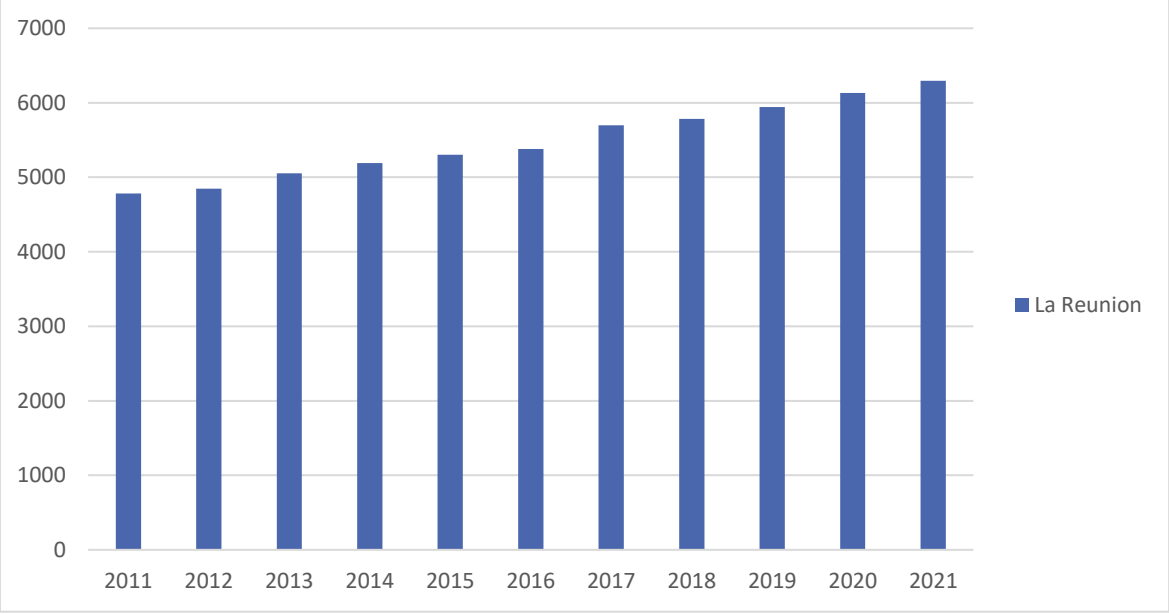
Graph 227: Length (in km) of low-tension lines



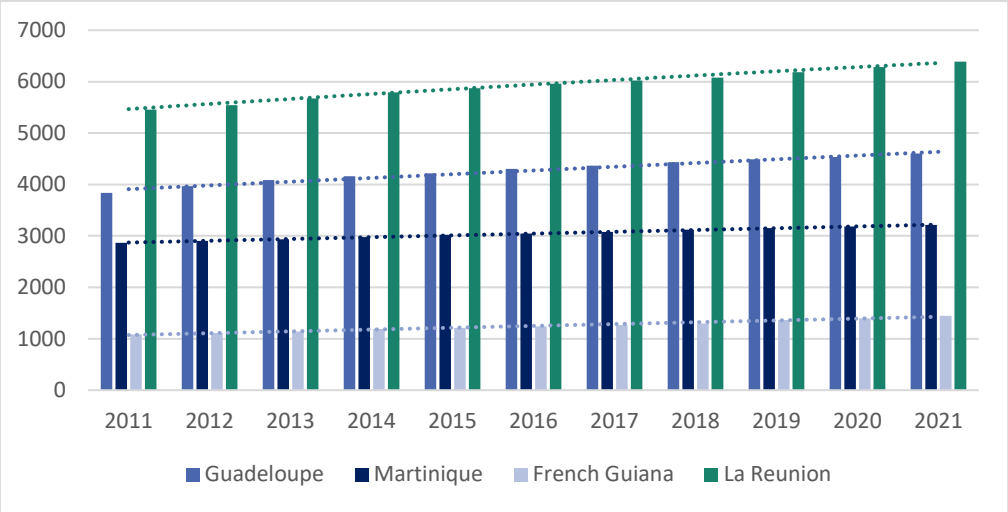
Graph 228: Number of high/medium tension poles



Graph 229: Number of medium/low tension poles

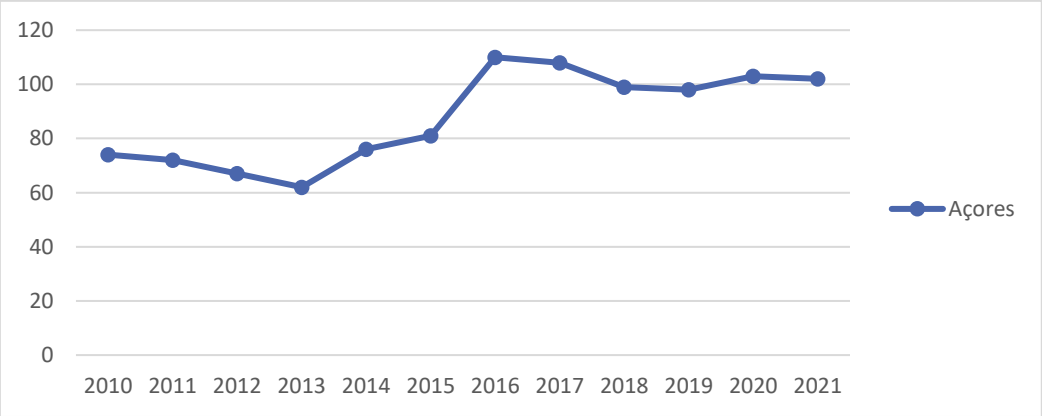


Graph 230. Length (in km) of low-tension lines

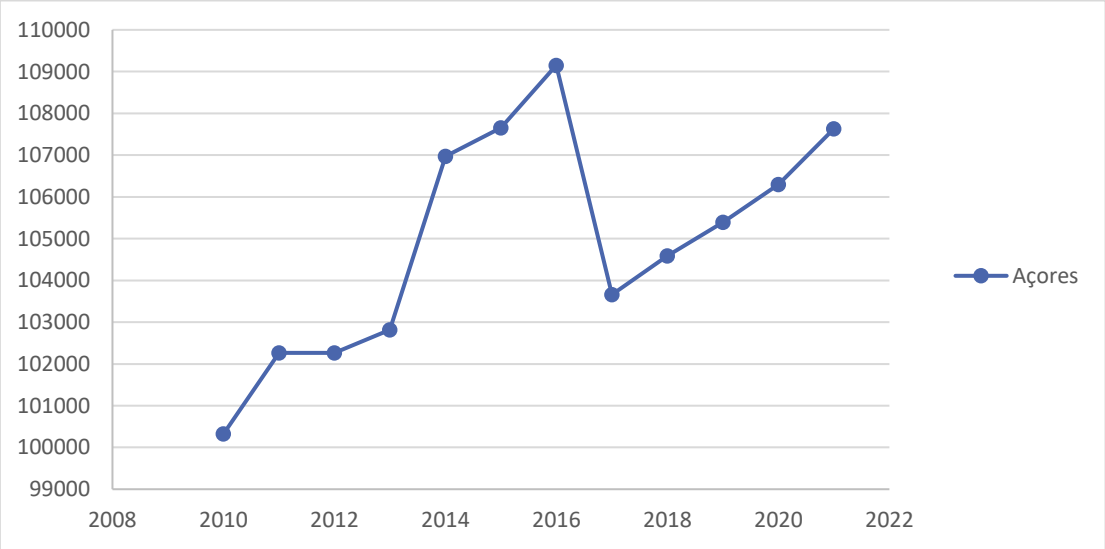


PORTUGUESE OR

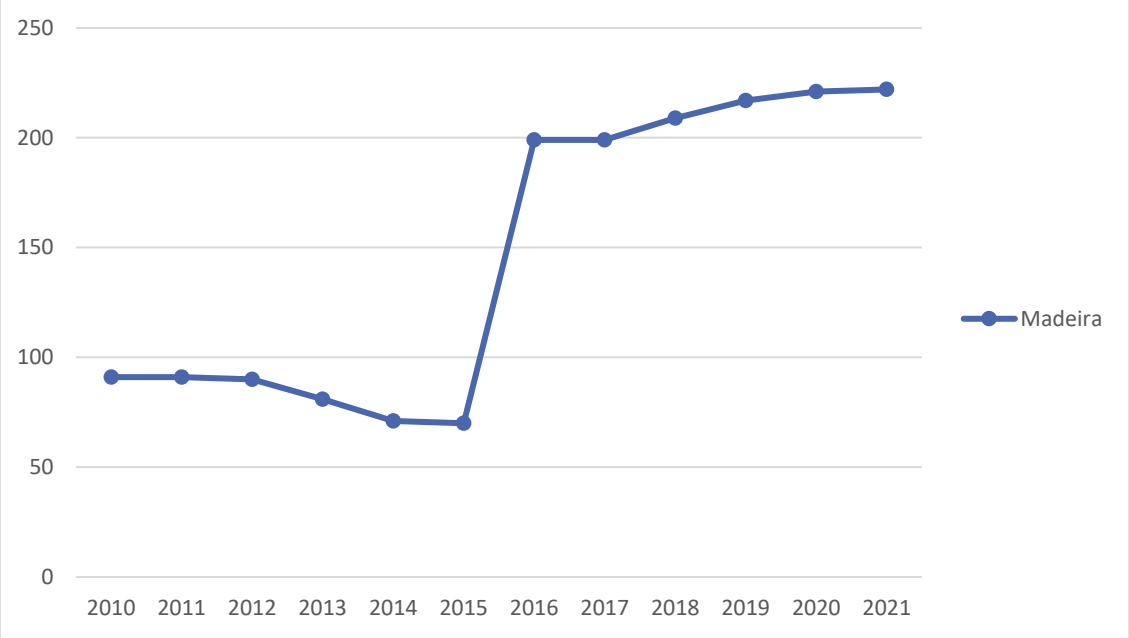
Graph 231: Establishments in the extractive industries, energy, water, waste management or remediation activities



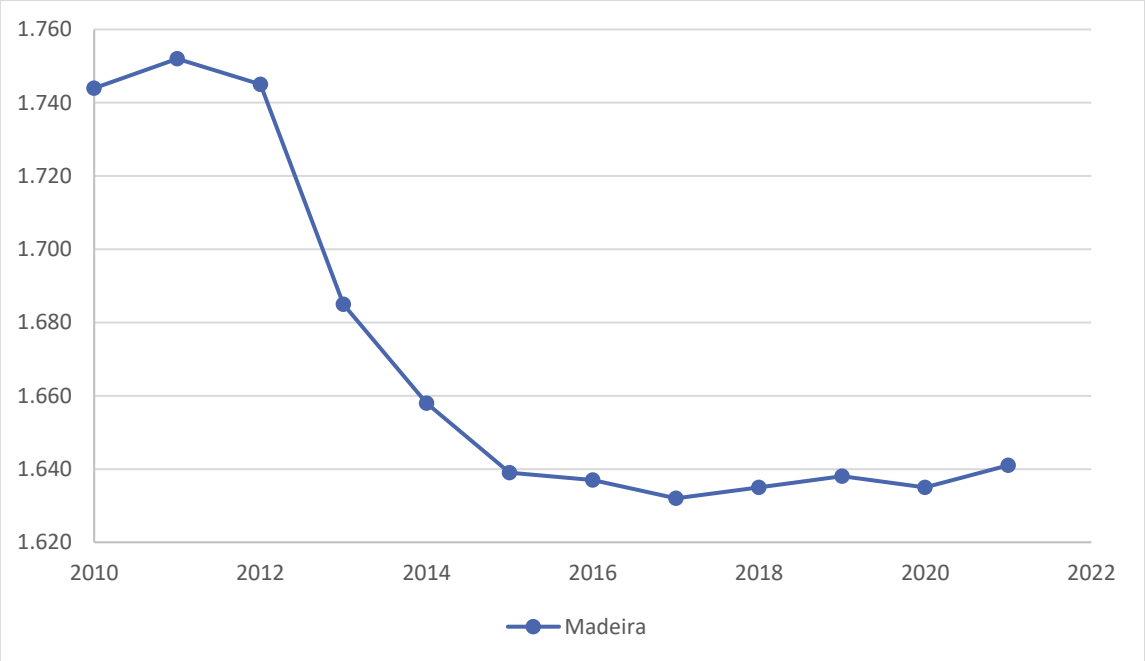
Graph 232: Connection points to the public electricity network for domestic consumption (main sector)



Graph 233: Establishments in the extractive industries, energy, water, waste management or remediation activities

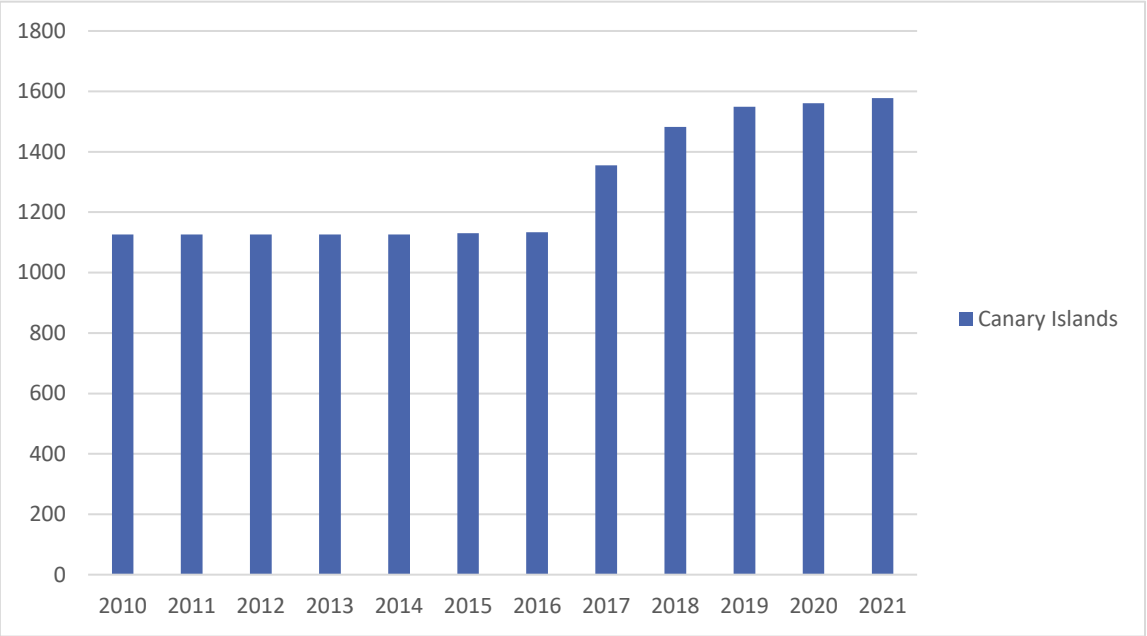


Graph 234: Connection points to the public electricity network for domestic consumption (main sector)

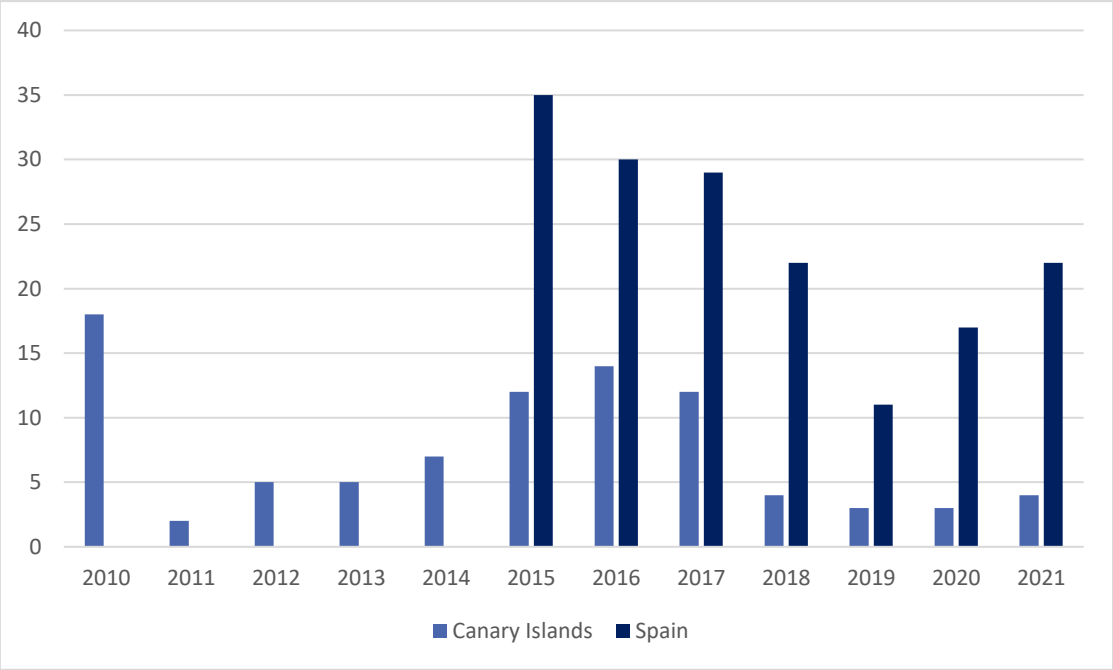


SPANISH OR

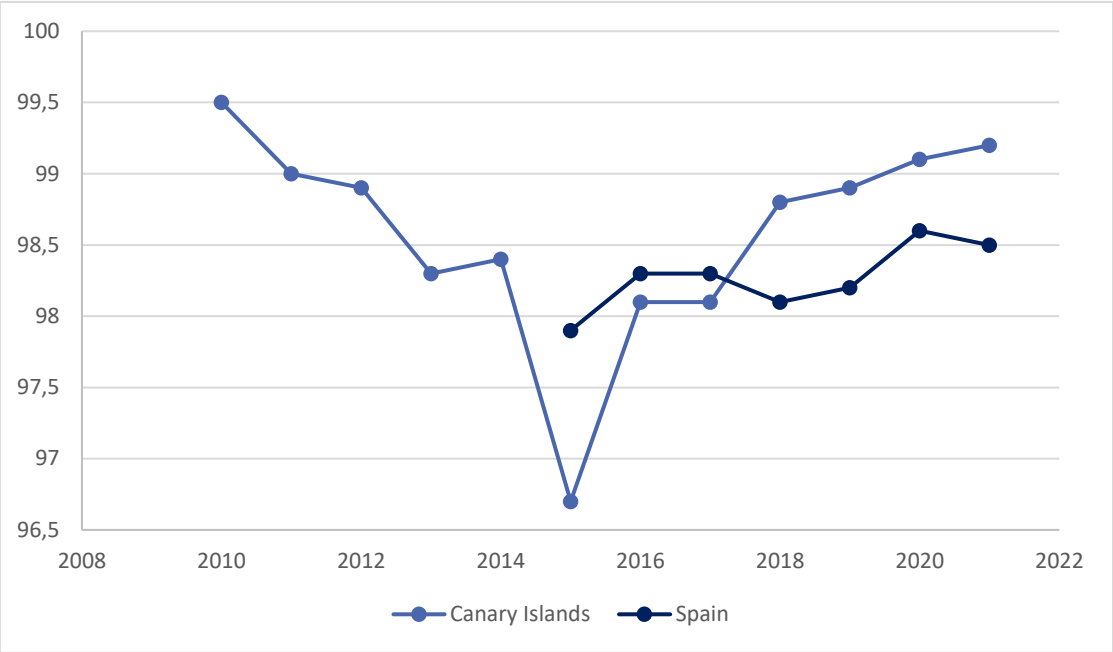
Graph 235: Evolution of the electricity grid distribution lines (km of circuit under 220kv)



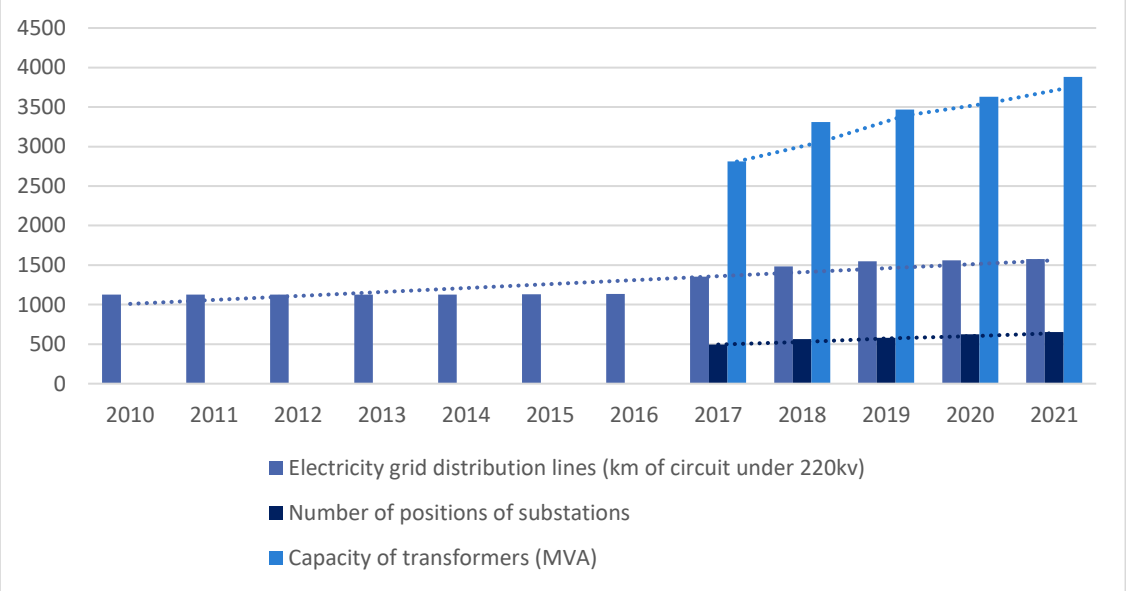
Graph 236: Number of service interruptions in the electricity system



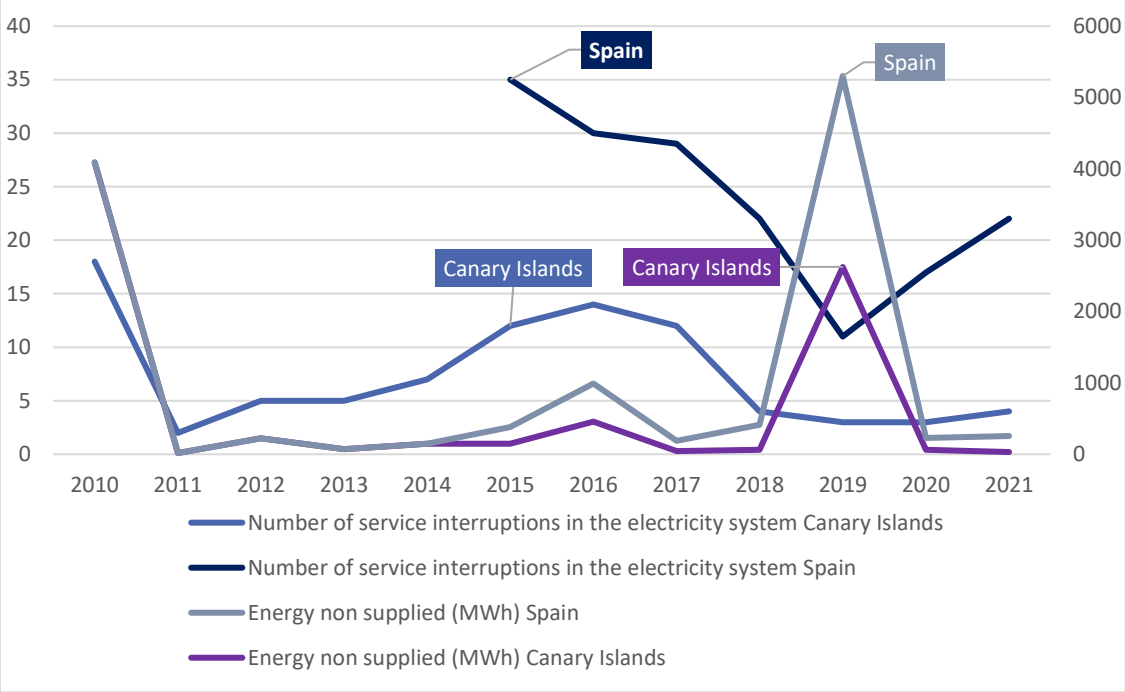
Graph 237: Availability of the electricity grid (%)



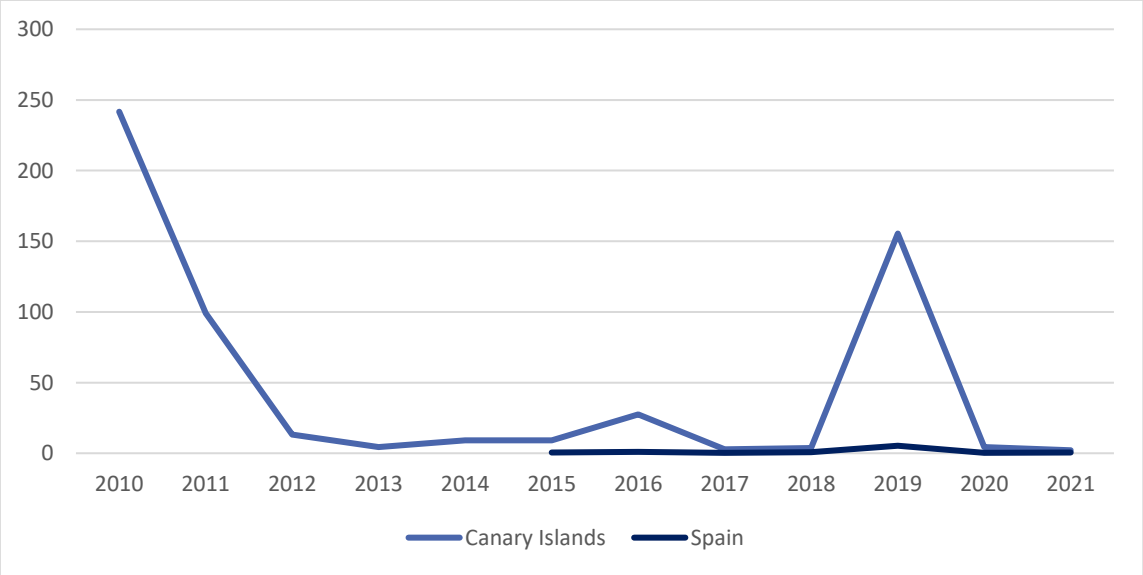
Graph 238. Evolution of grid infrastructure in the Canary Islands



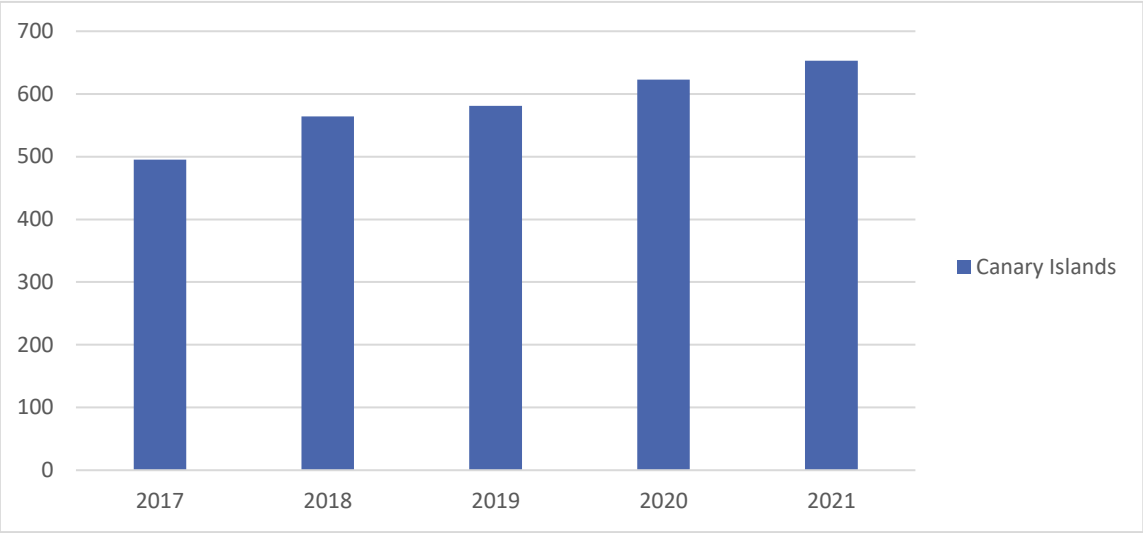
Graph 239: Evolution of number of service interruptions in the electricity system and energy non-supplied



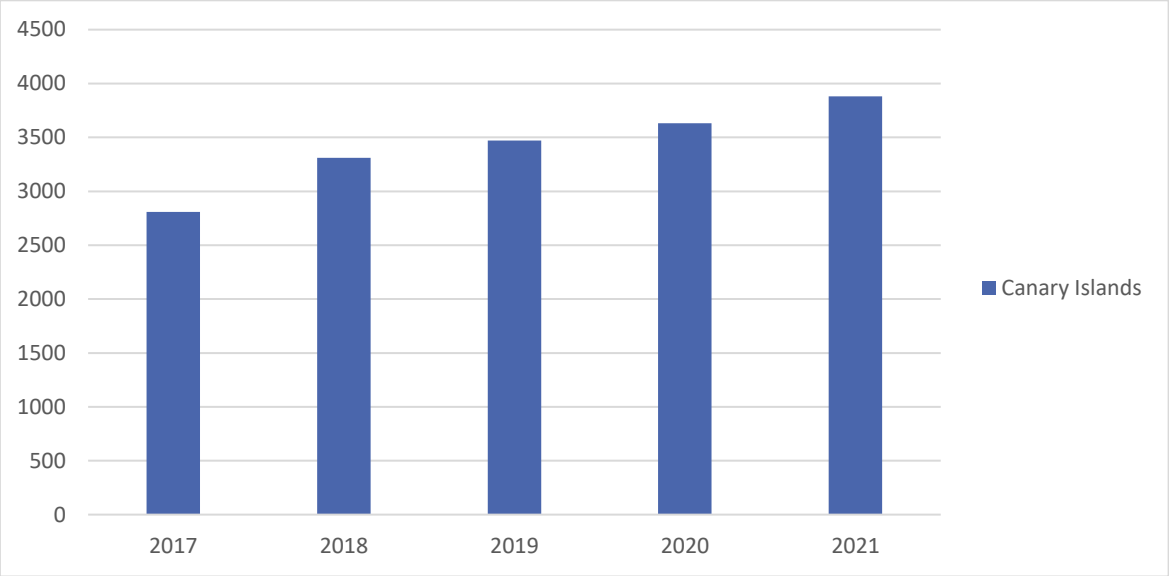
Graph 240: Average time of service interruptions (minutes)



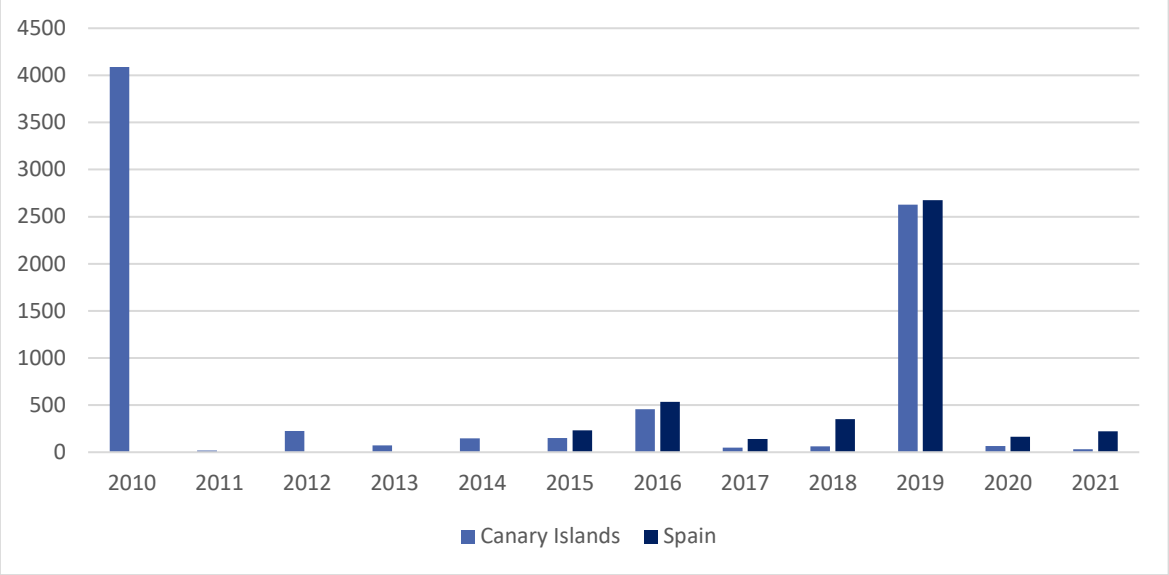
Graph 241: Number of positions of substations



Graph 242: Capacity of transformers (MVA)



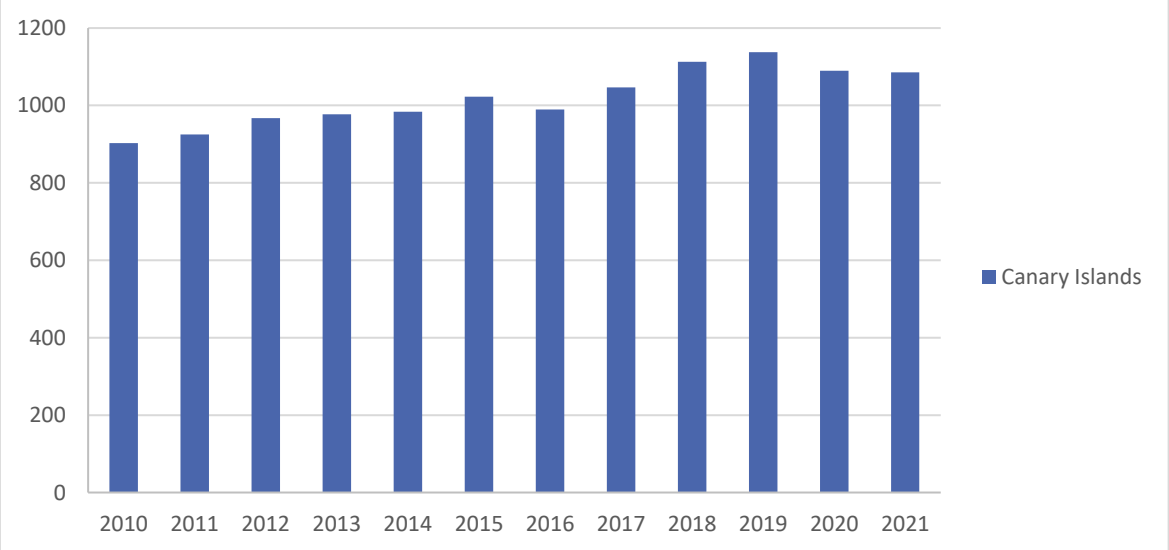
Graph 243: Energy non supplied (MWh)



3.3.3.5 Number of establishments in the energy, heating and cooling industry

SPANISH OR

Graph 244: Establishments in the extractive industries, energy, water, waste management or remediation activities



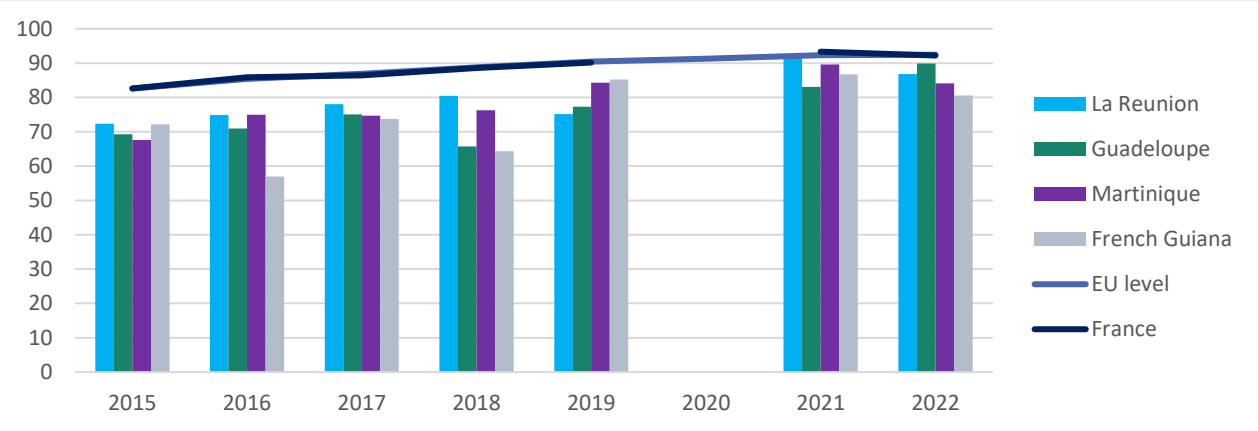
3.3.4 Connectivity

ACCESS

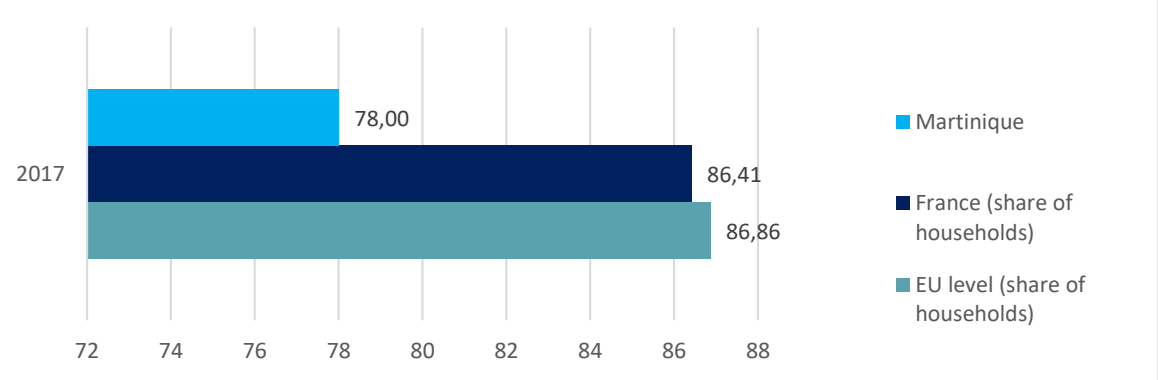
3.3.4.1 Internet Access

FRENCH OR

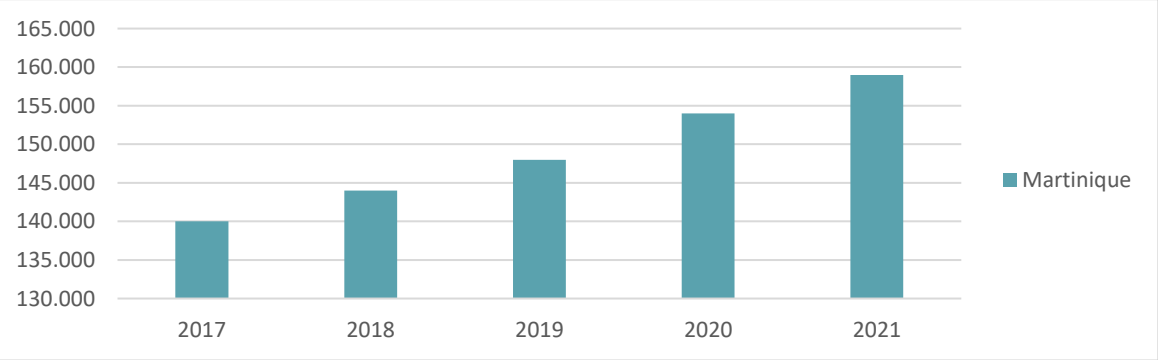
Graph 245: Households that have internet access at home (in % of households)



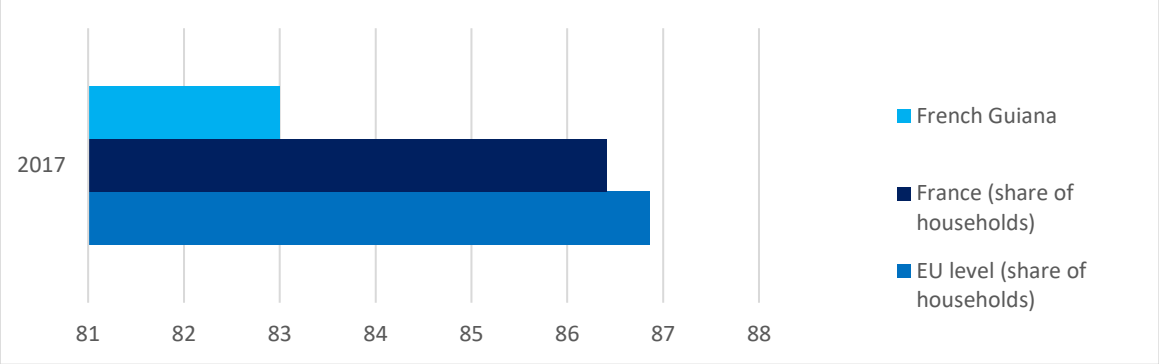
Graph 246: Individuals that have internet access at home (%)



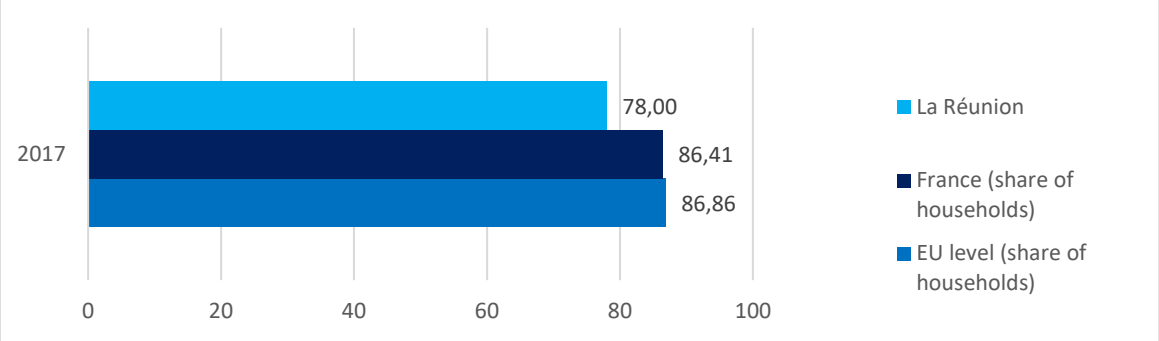
Graph 247: Very high-speed broadband internet subscriptions



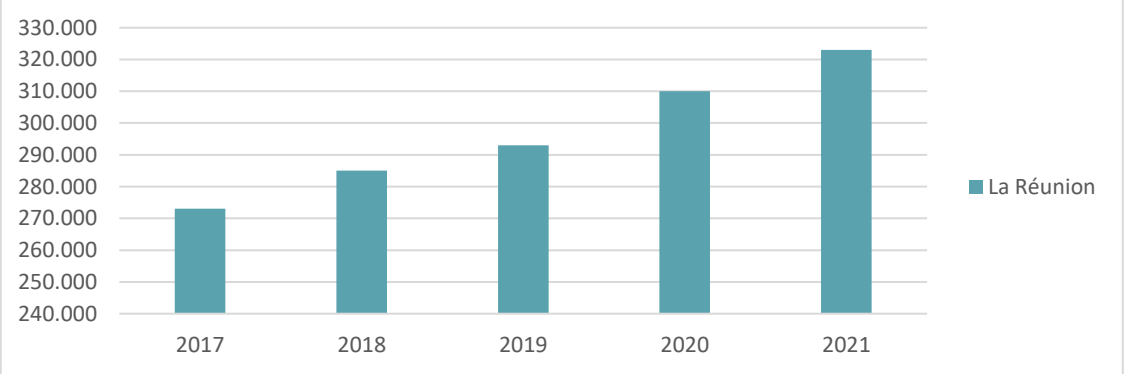
Graph 248: Individuals that have internet access at home (%)



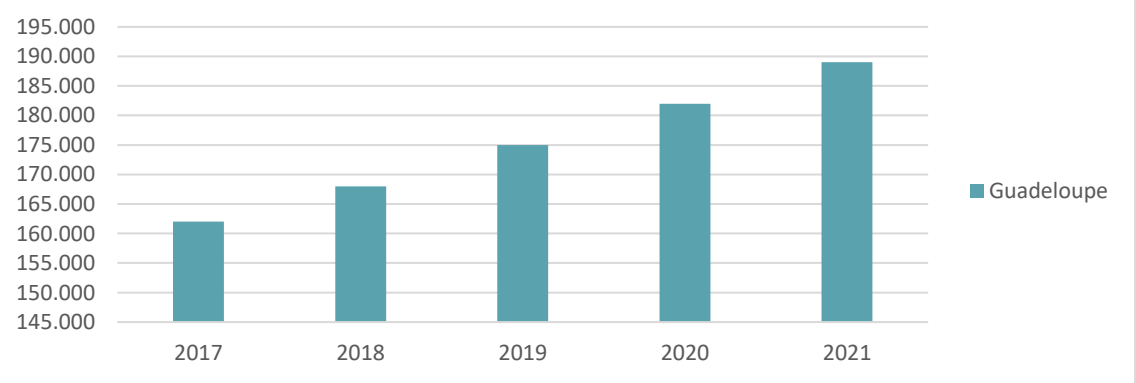
Graph 249: Individuals who have internet access at home (%)



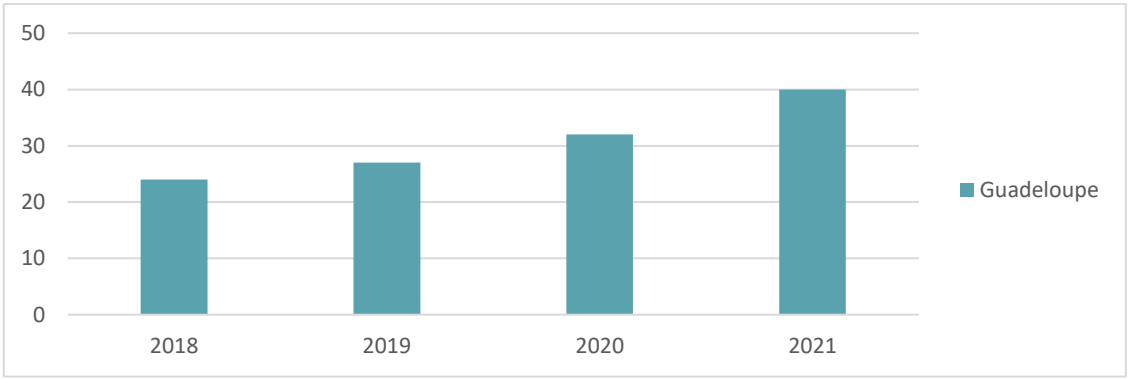
Graph 250: Very high-speed broadband internet subscriptions



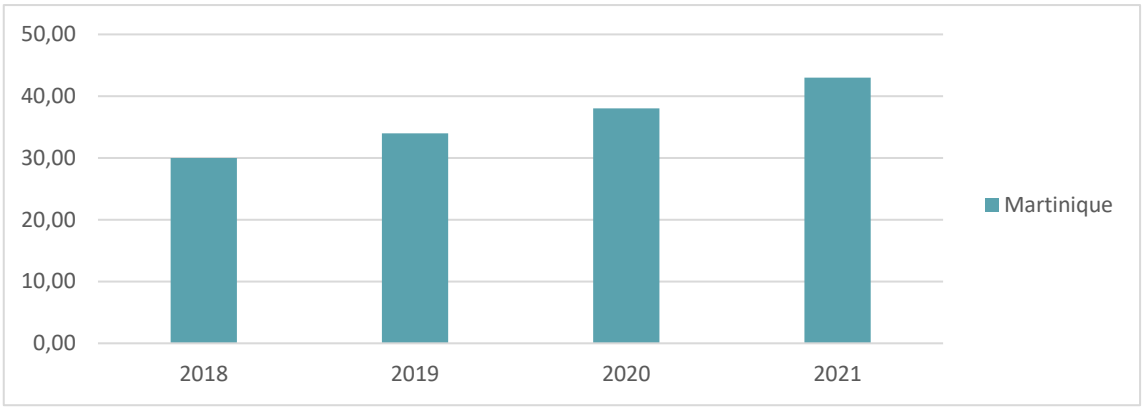
Graph 251: Very high-speed broadband internet subscriptions



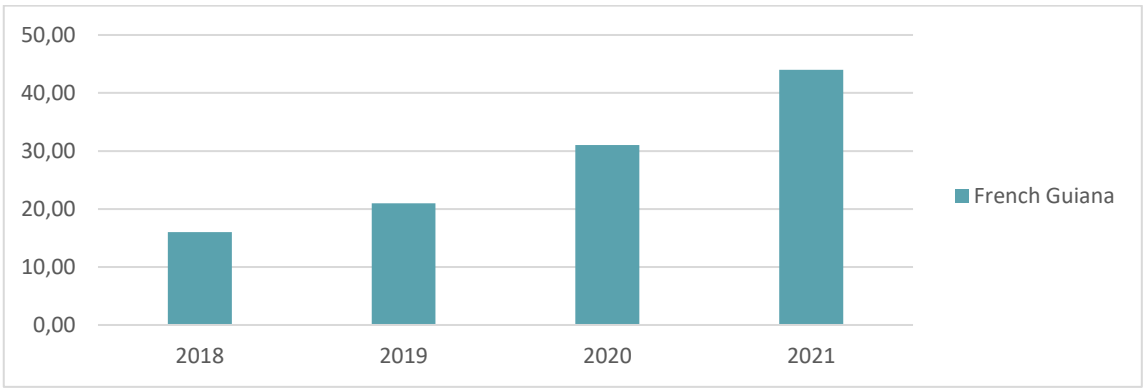
Graph 252: Very-high-speed access as a proportion of total Internet access (%)



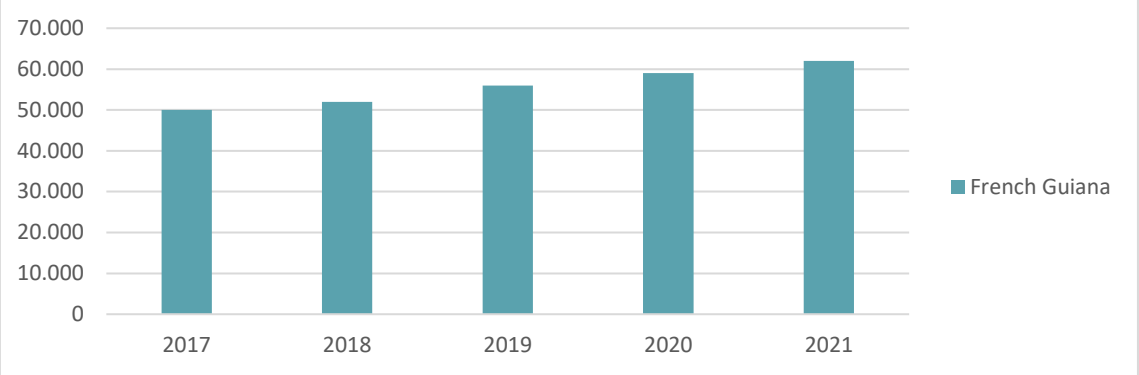
Graph 253: Very-high-speed access as a proportion of total Internet access (%)



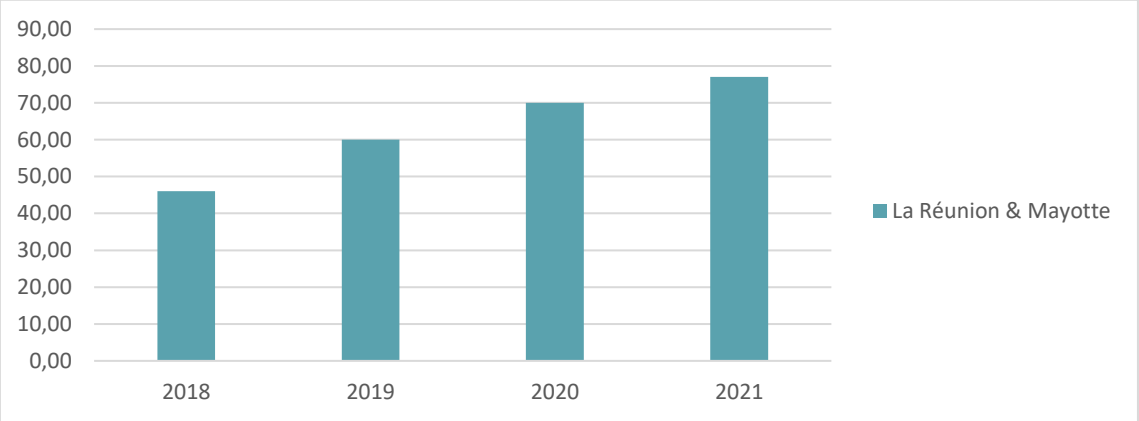
Graph 254: Very-high-speed access as a proportion of total Internet access (%)



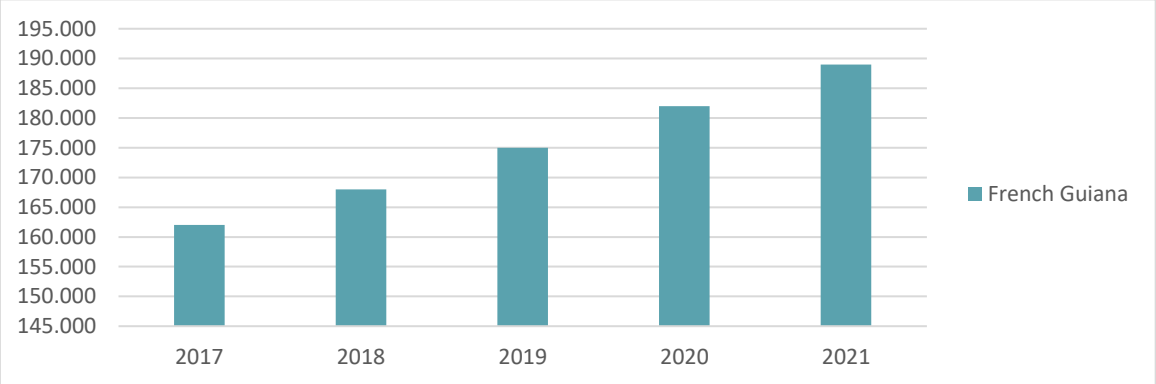
Graph 255: Very high-speed broadband internet subscriptions



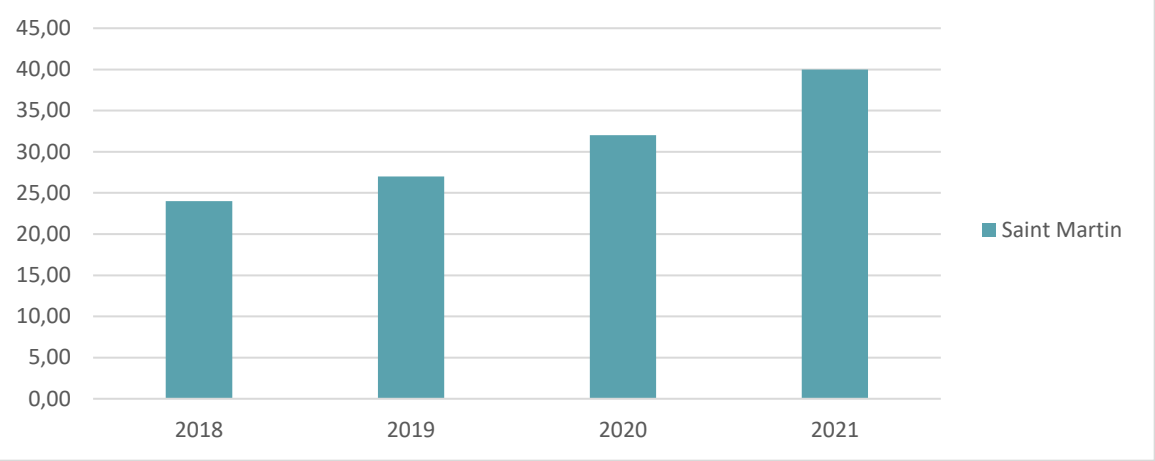
Graph 256: Very-high-speed access as a proportion of total Internet access in Réunion & Mayotte (%)



Graph 257: Very high-speed broadband internet subscriptions

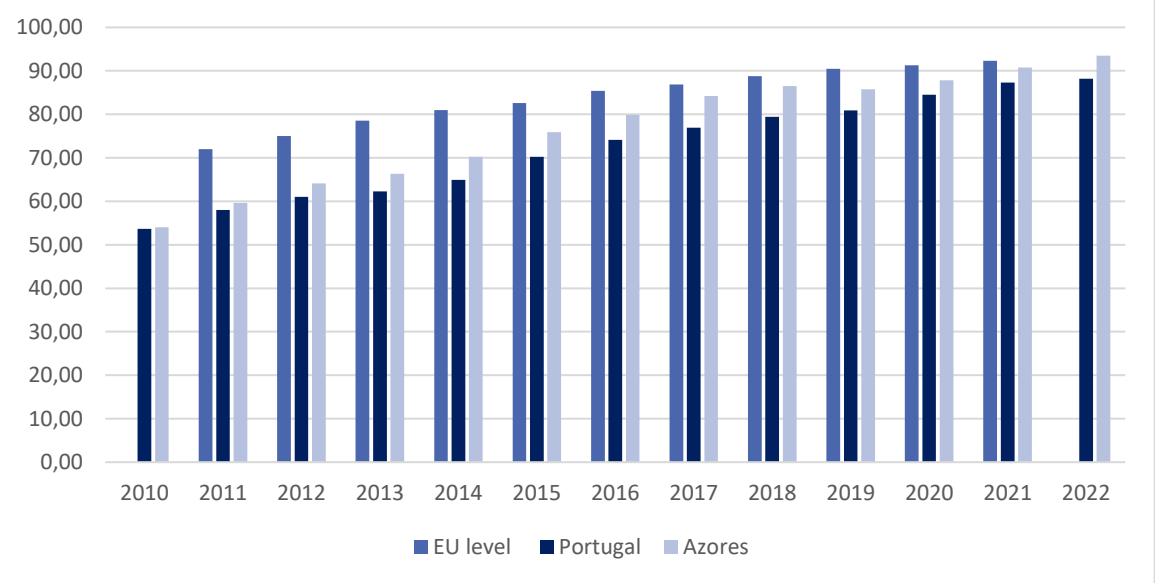


Graph 258: Very-high-speed access as a proportion of total Internet access (%)

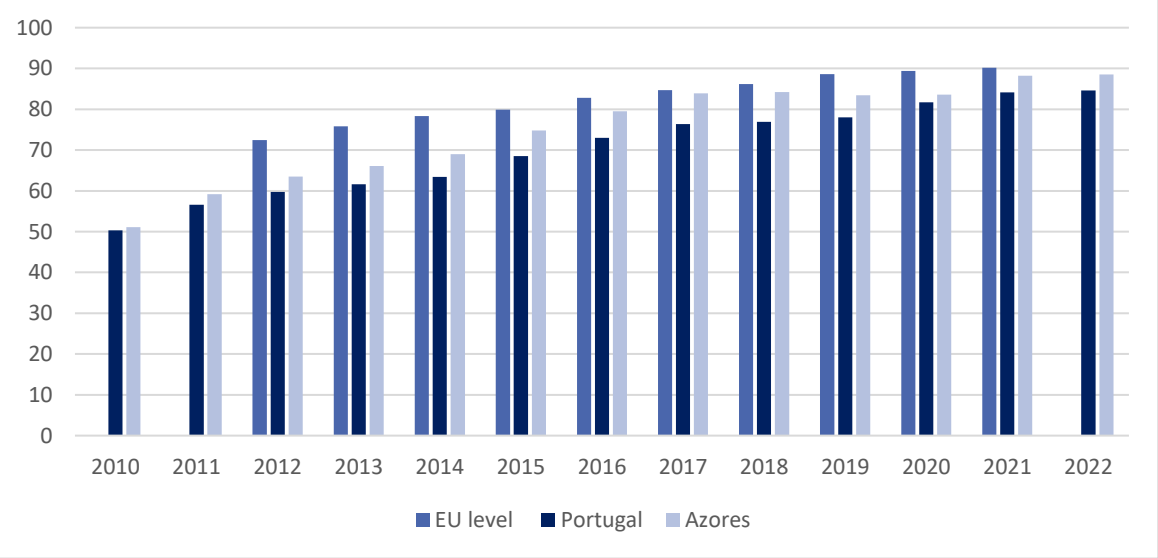


PORTUGUESE OR

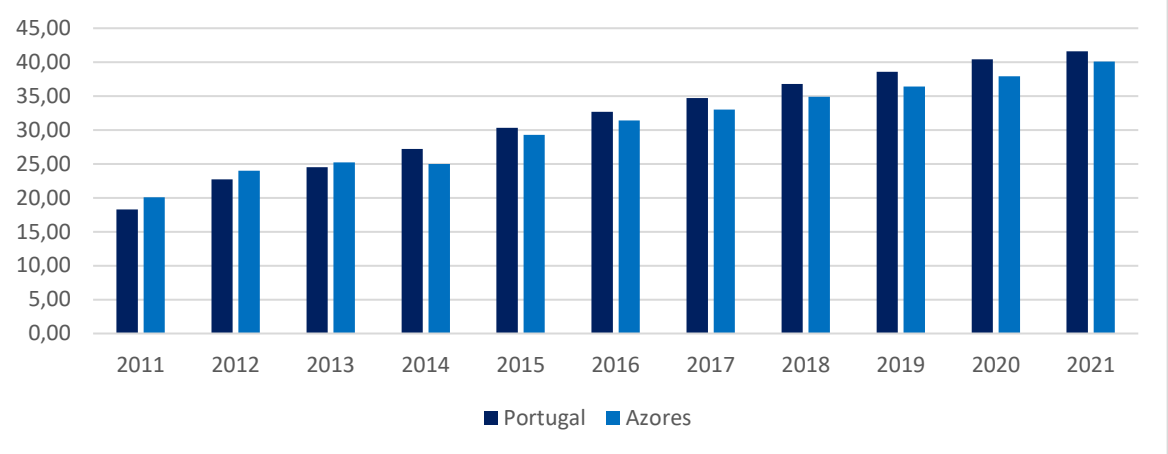
Graph 259: Households that have internet access at home (%)



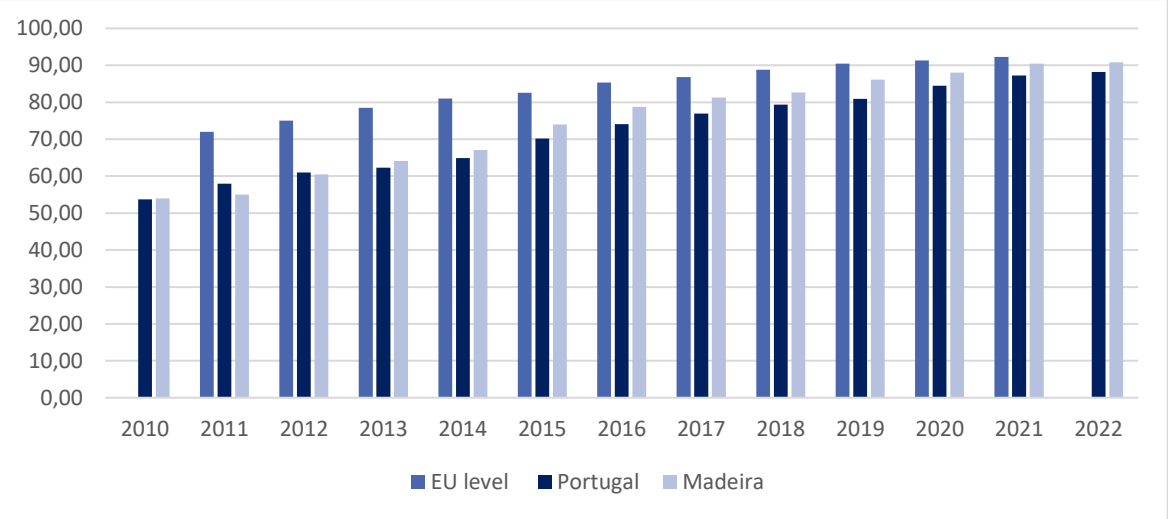
Graph 260: Households that have broadband access (%)



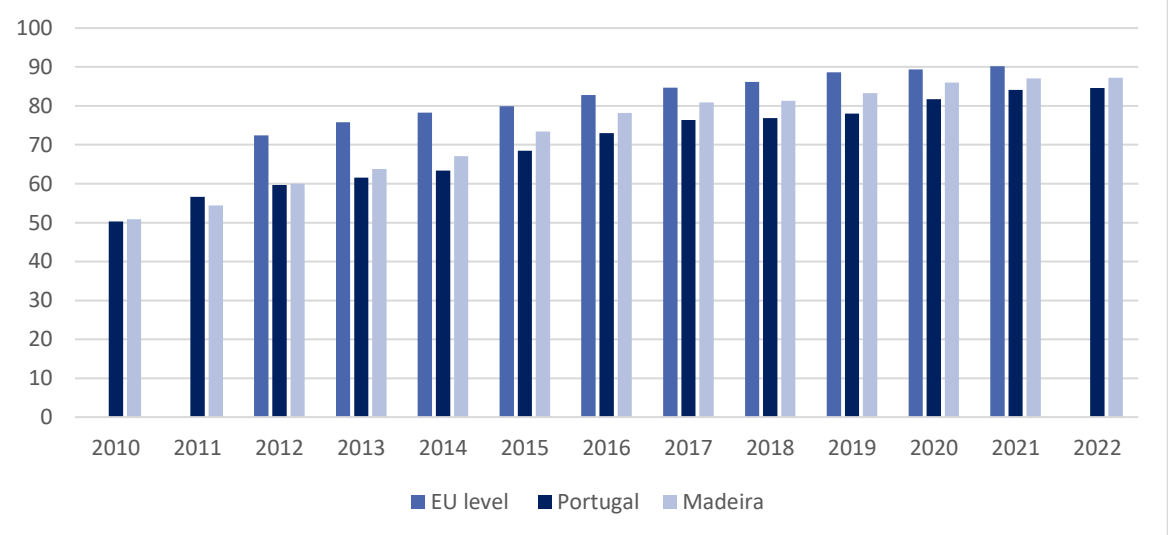
Graph 261: Number of broadband internet access points per 100 inhabitants



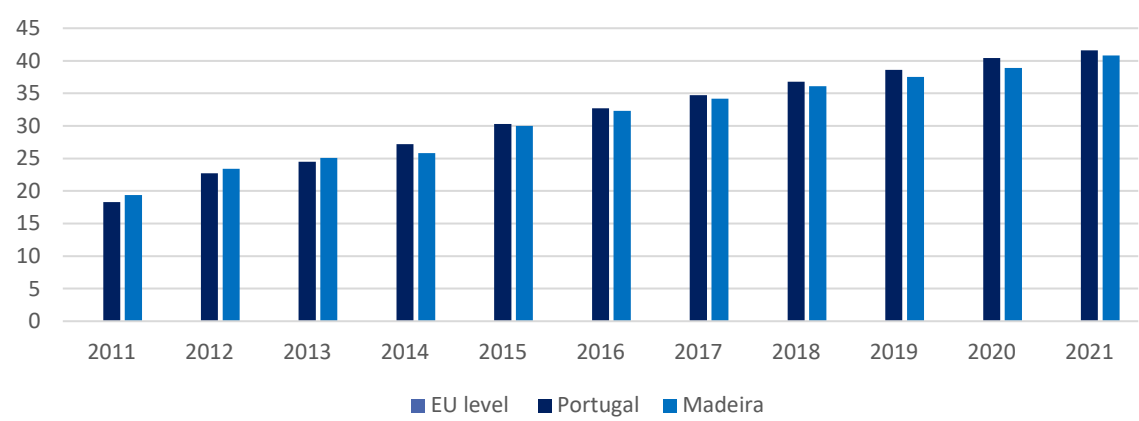
Graph 262: Households that have internet access at home (%)



Graph 263: Households that have broadband access (%)

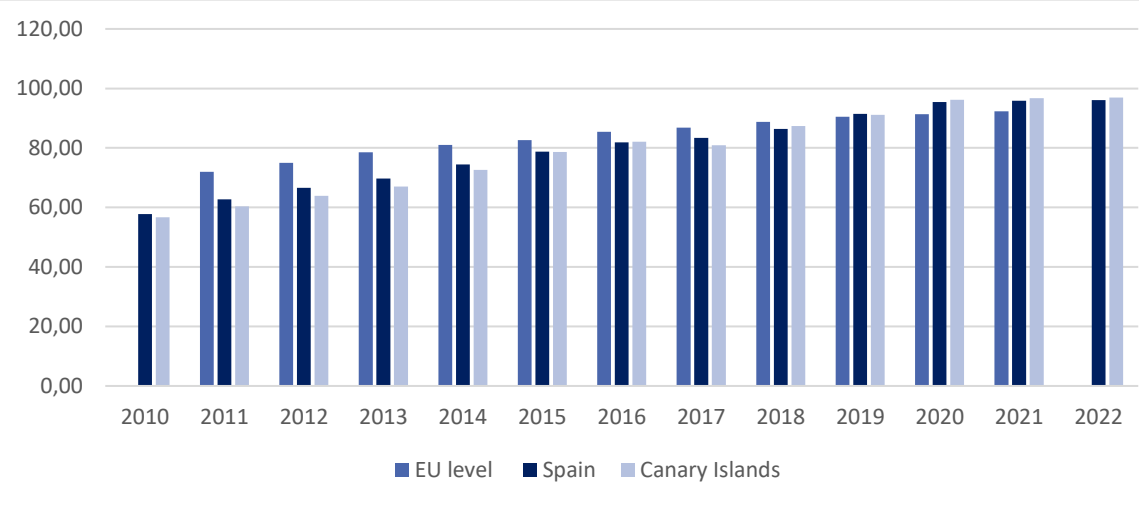


Graph 264: Number of broadband internet access points per 100 inhabitants

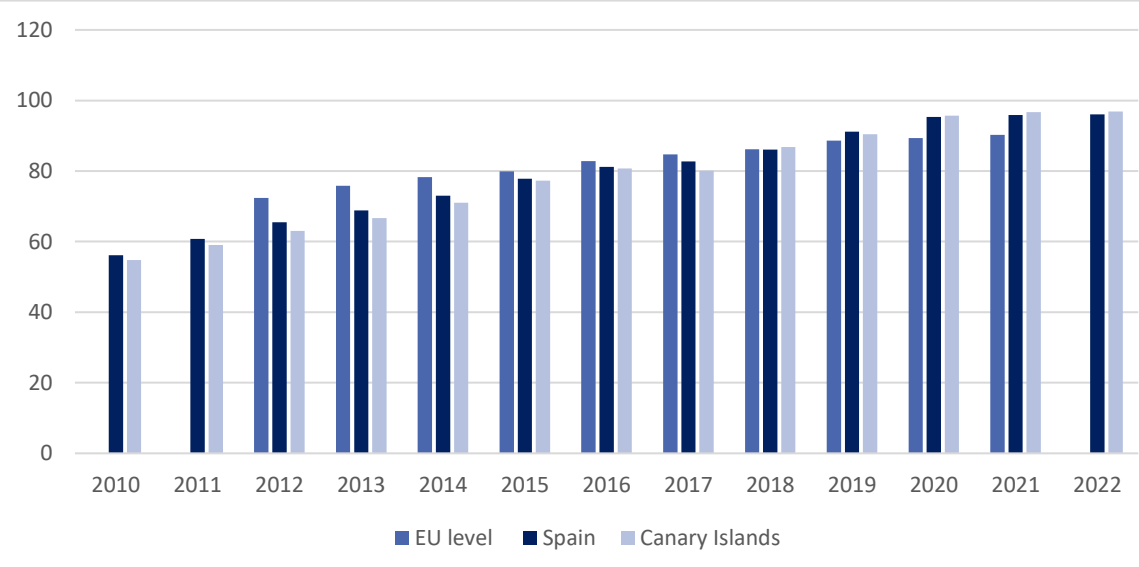


SPANISH OR

Graph 265: Households that have internet access at home (%)



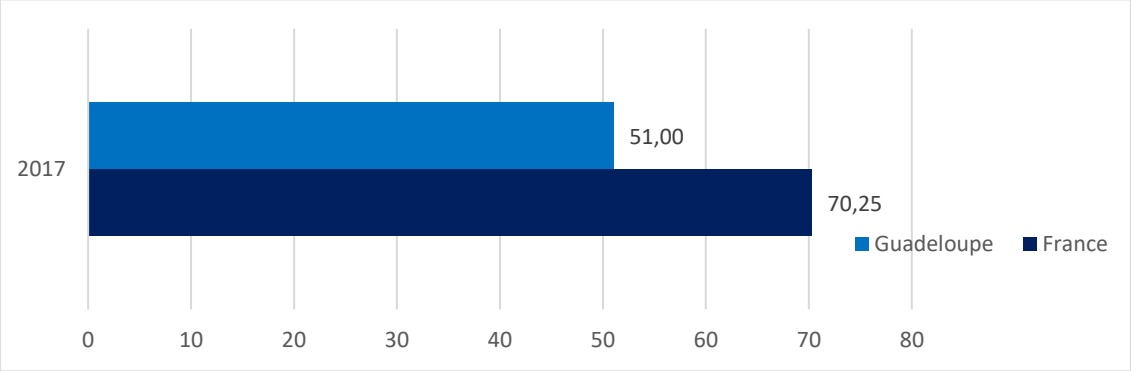
Graph 266: Households that have broadband access (%)



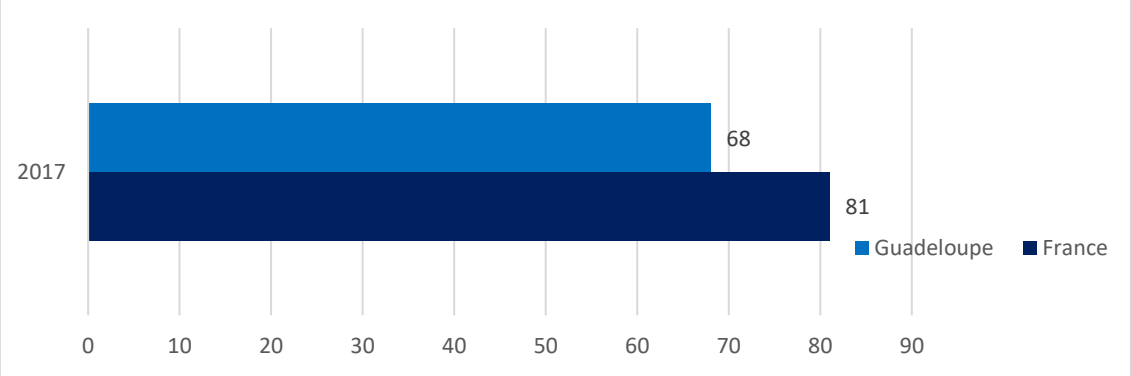
3.3.4.2 Internet Usage

FRENCH OR

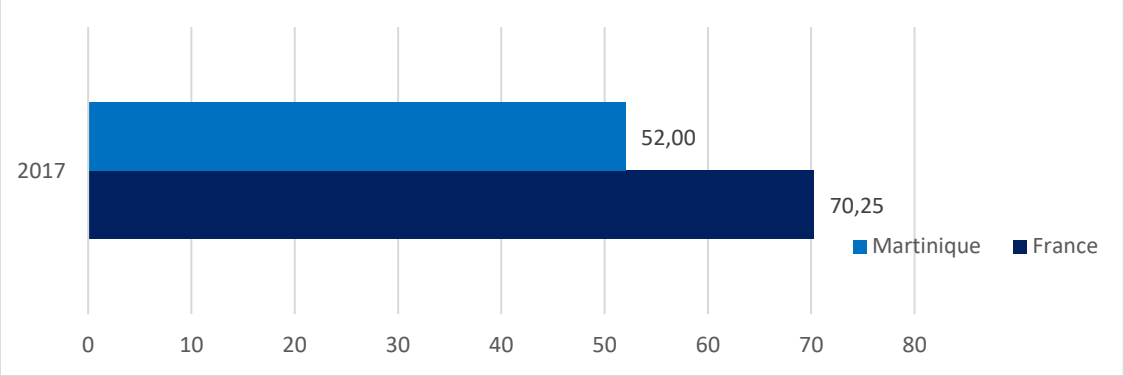
Graph 267: Individuals regularly using the Internet (every day or almost every day) (%)



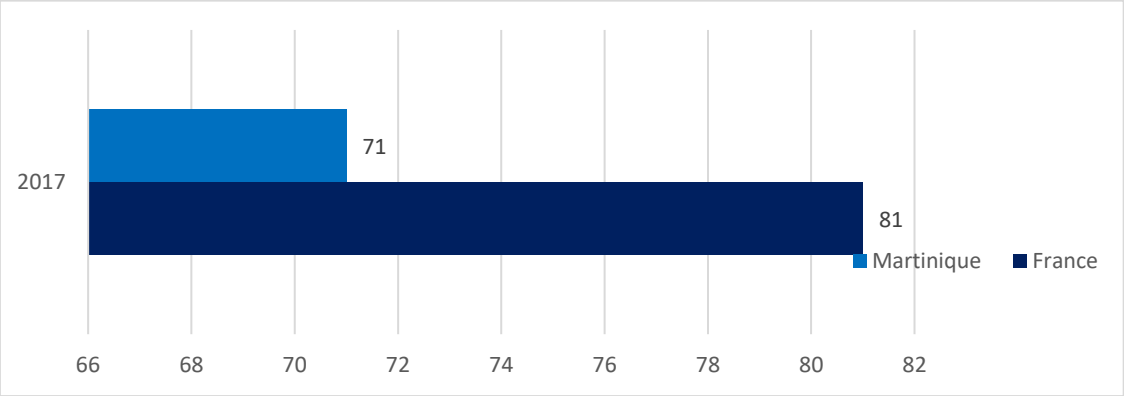
Graph 268: Share of individuals who connected to the Internet in the last three months (%)



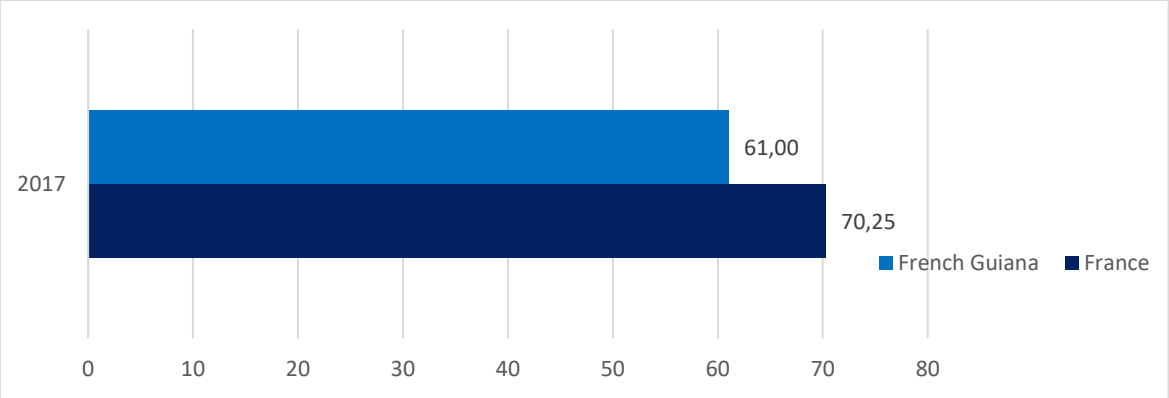
Graph 269: Individuals regularly using the Internet (Every day or almost every day) (%)



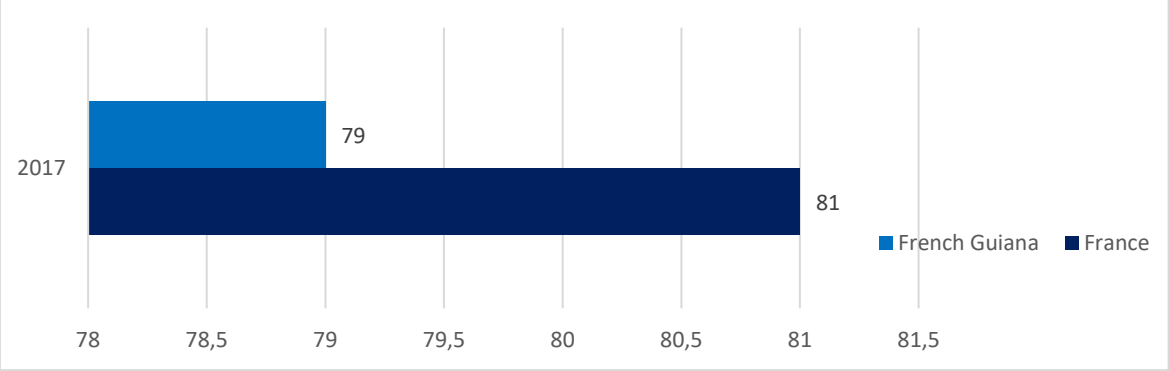
Graph 270: Share of individuals who have connected to the Internet in the last three months.



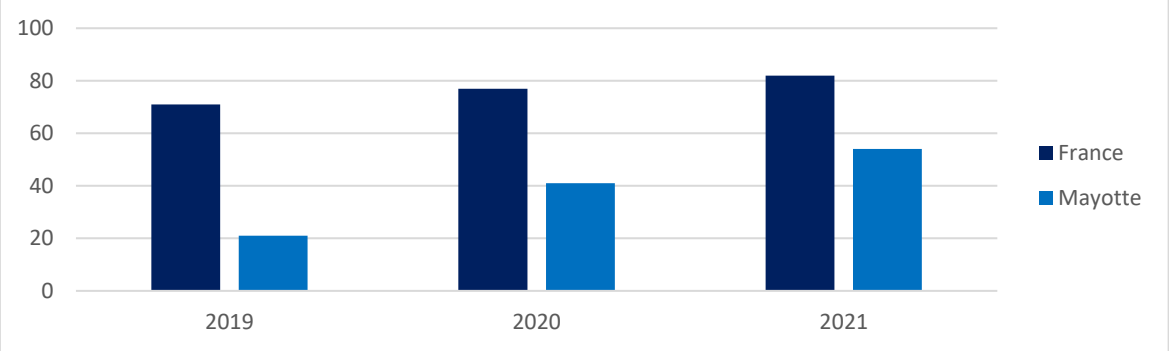
Graph 271: Individuals regularly using the Internet (Every day or almost every day) (%)



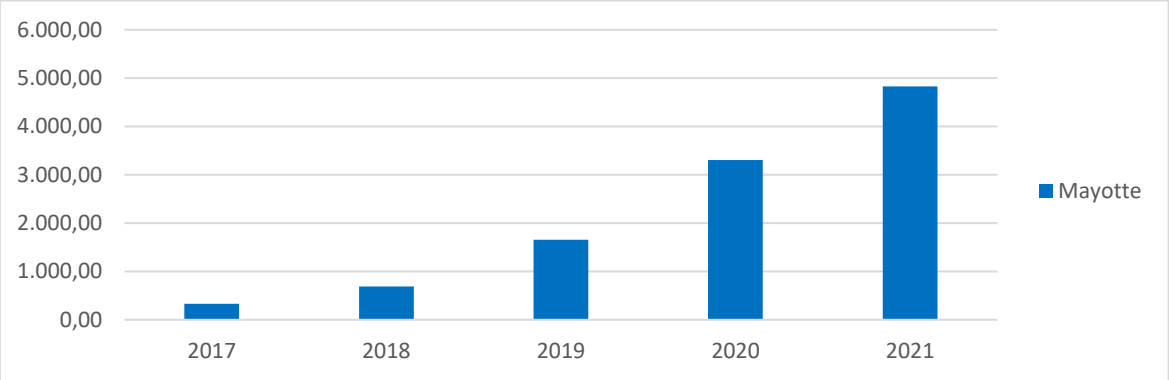
Graph 272: Share of individuals who have connected to the Internet in the last three months



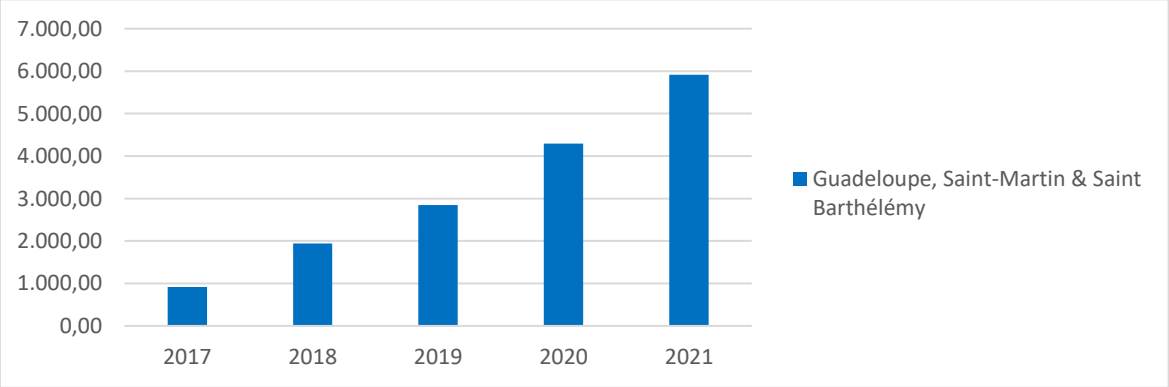
Graph 273: Download speed in (kbits/sec)



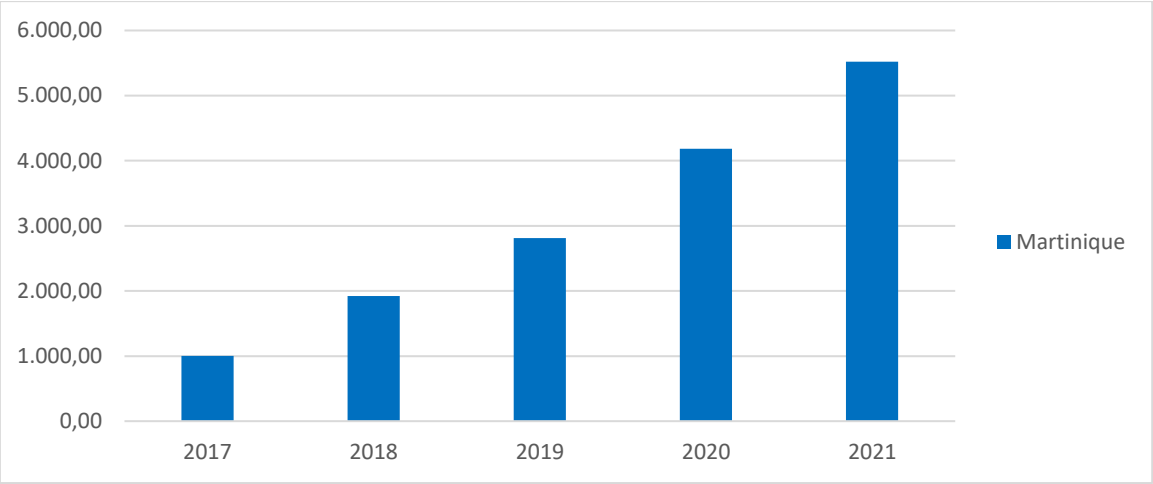
Graph 274: Average monthly mobile data consumption (in Megabytes)



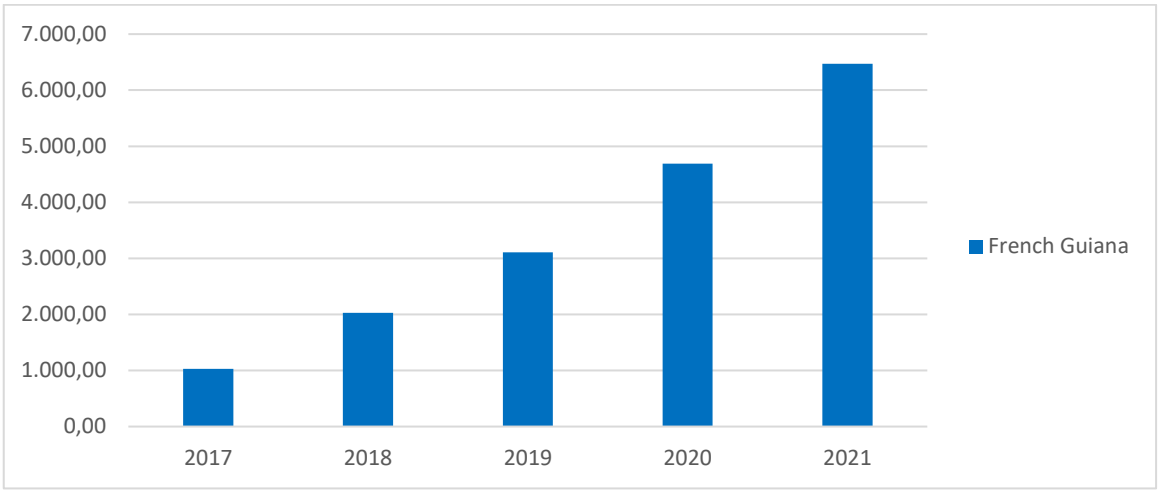
Graph 275: Average monthly mobile data consumption in Guadeloupe, Saint Martin & Saint Barthélémy (in Megabytes)



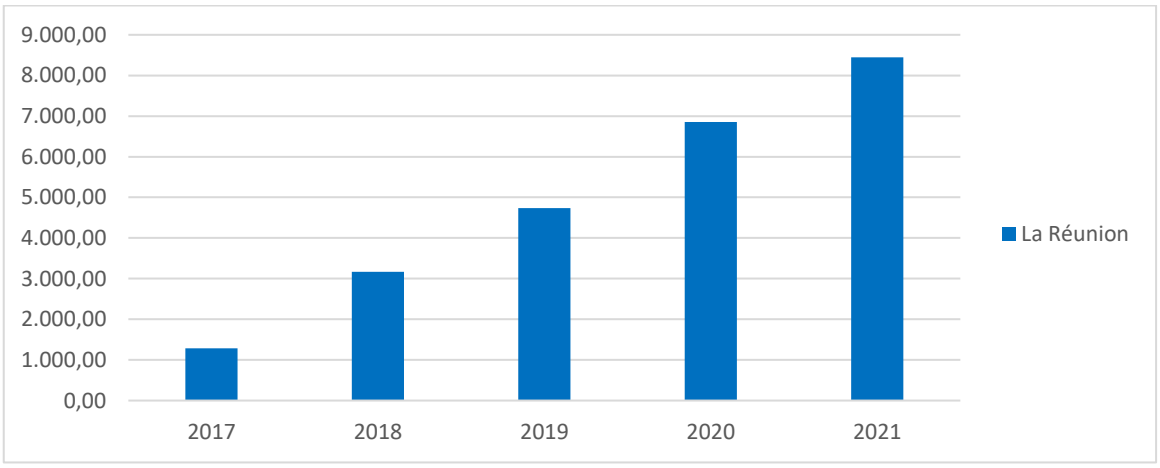
Graph 276: Average monthly mobile data consumption (in Megabytes)



Graph 277: Average monthly mobile data consumption (in Megabytes)

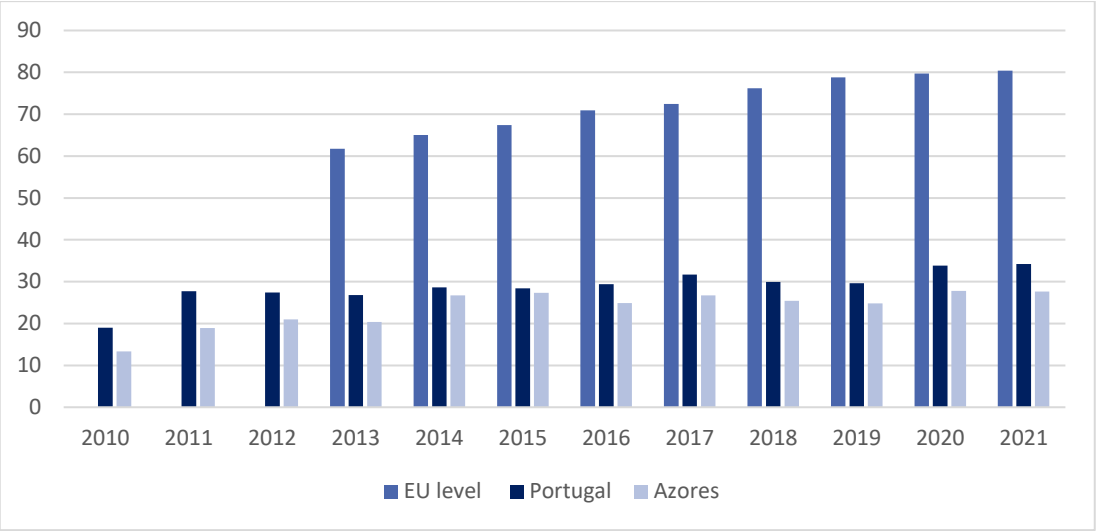


Graph 278: Average monthly mobile data consumption (in Megabytes)

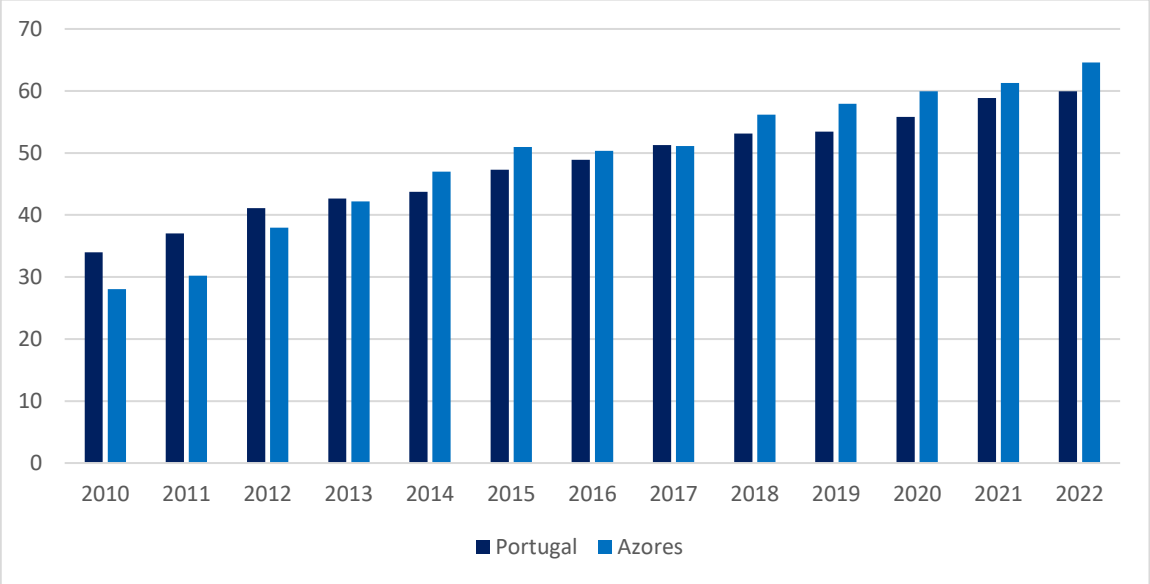


PORTUGUESE

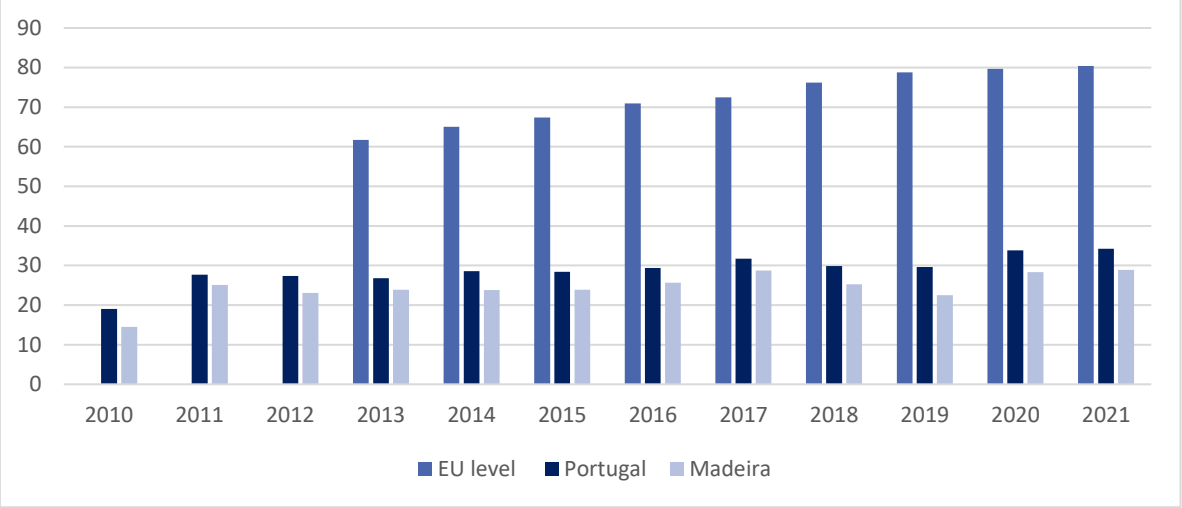
Graph 279: Proportion of population sending online filled in forms over the Internet for public administrations for private purposes in the last 12 months (%)



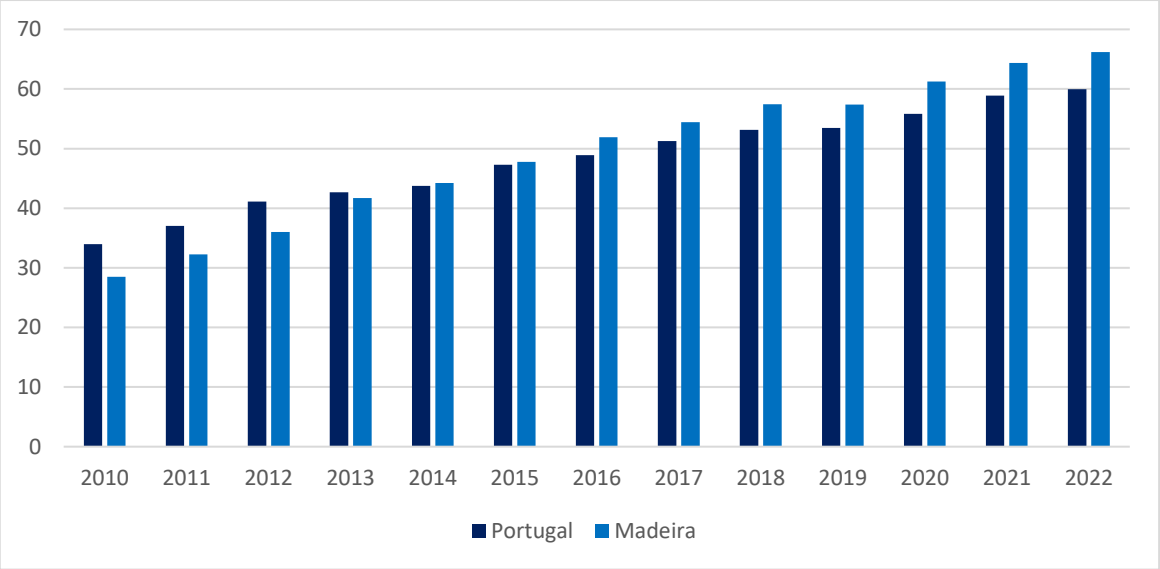
Graph 280: Share of the population using Internet for advanced services for private purposes in the first 3 months of the year (%)



Graph 281: Proportion of population sending online filled in forms over the Internet for public administrations for private purposes in the last 12 months (%)

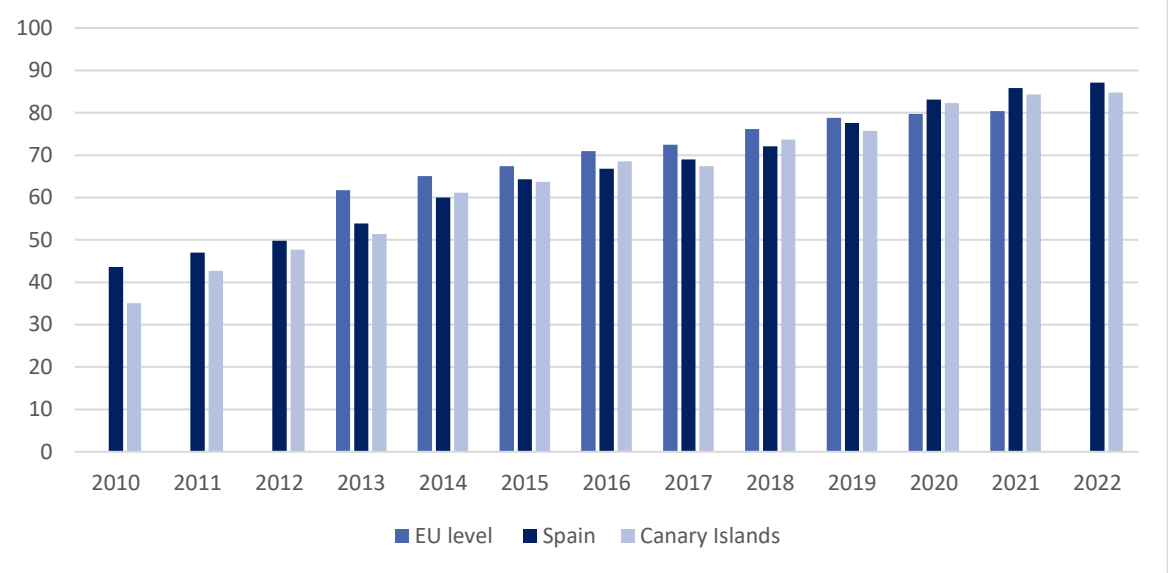


Graph 282: Share of the population using Internet for advanced services for private purposes in the first 3 months of the year (%)

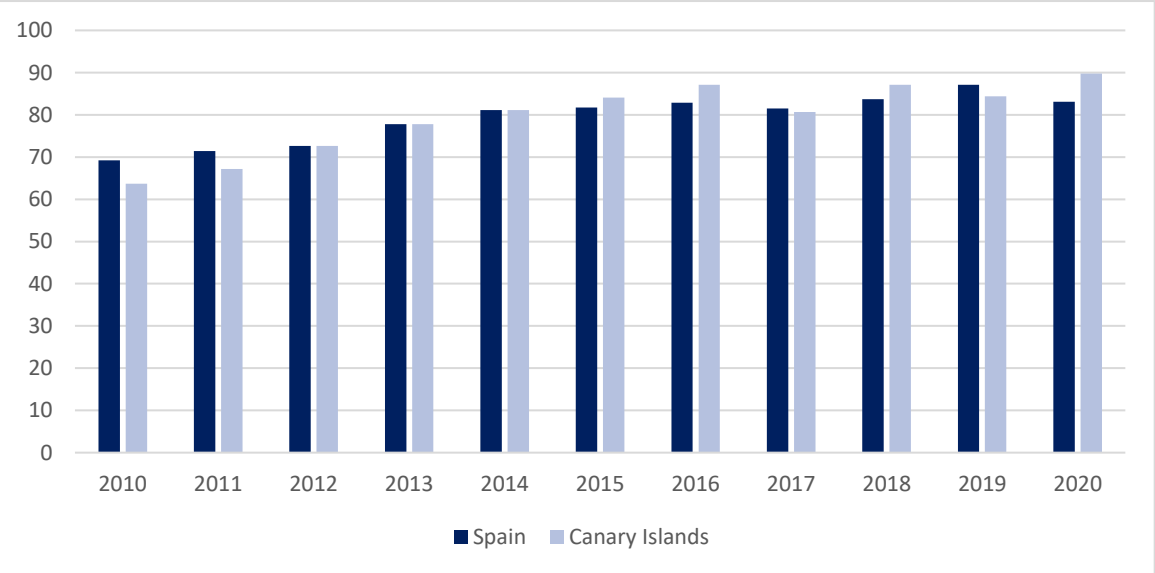


SPANISH OR

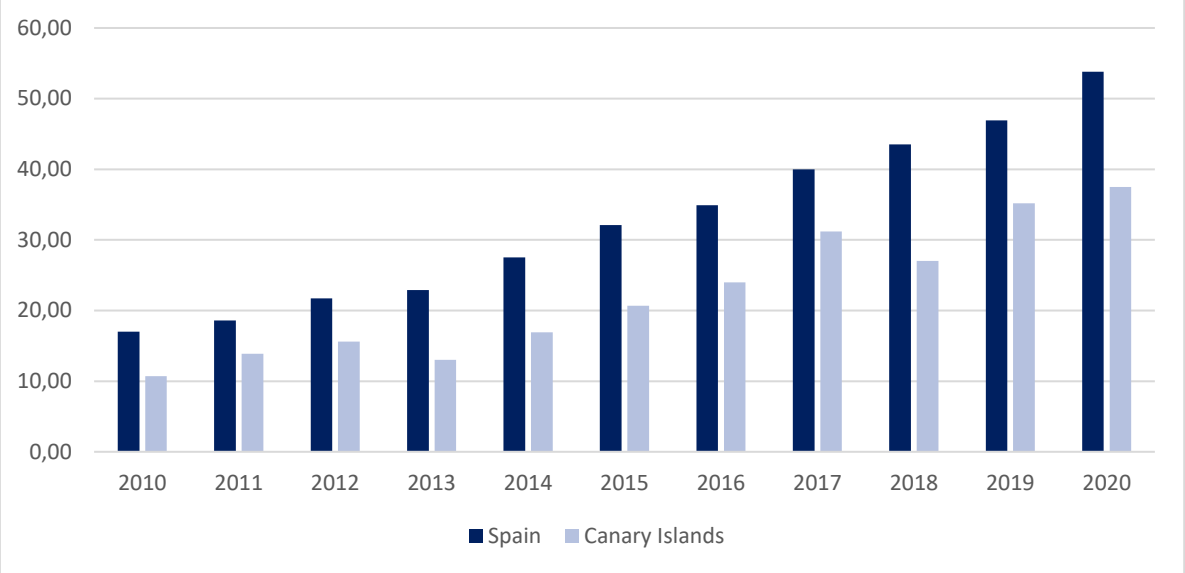
Graph 283: Individuals regularly using the Internet (Every day or almost every day) (%)



Graph 284: Share of individuals who have connected to the Internet in the last three months (%)



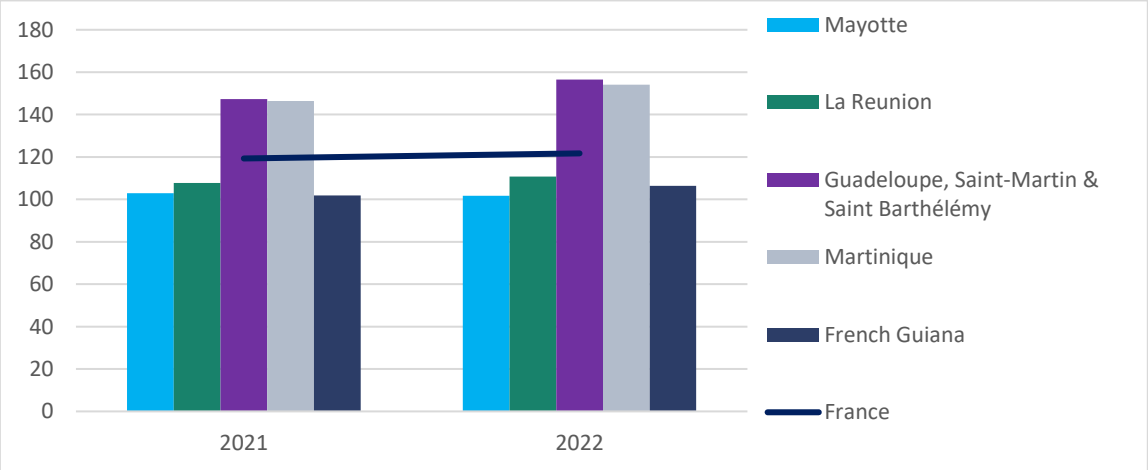
Graph 285: Share of individuals that have bought through the Internet in the last 3 months (%)



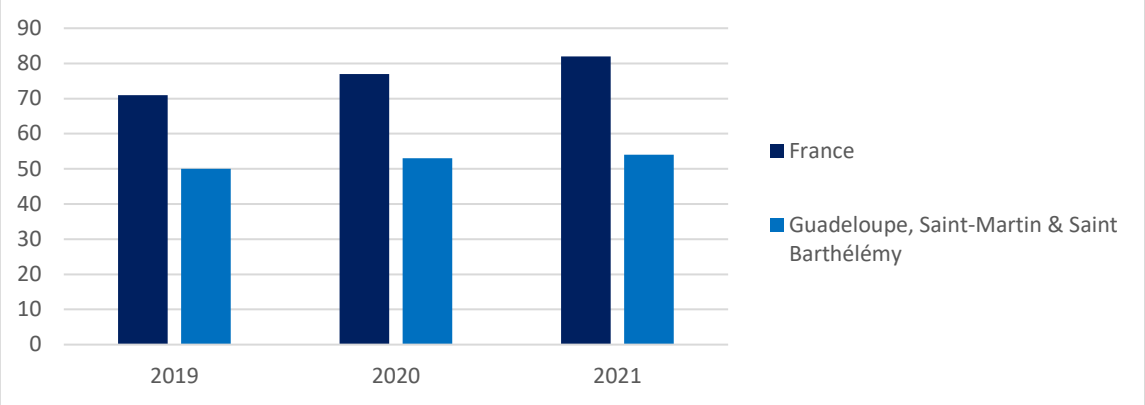
3.3.4.3 Telephone

FRENCH OR

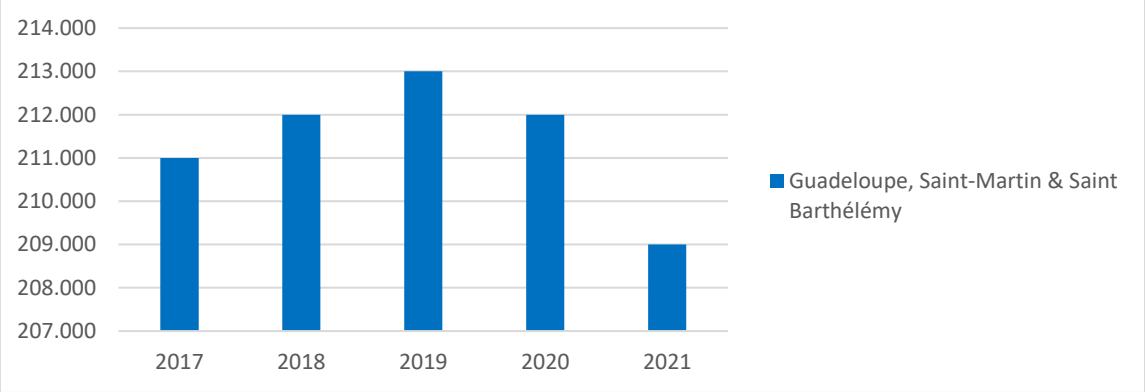
Graph 286: Number of SIM cards relative to population (in %)



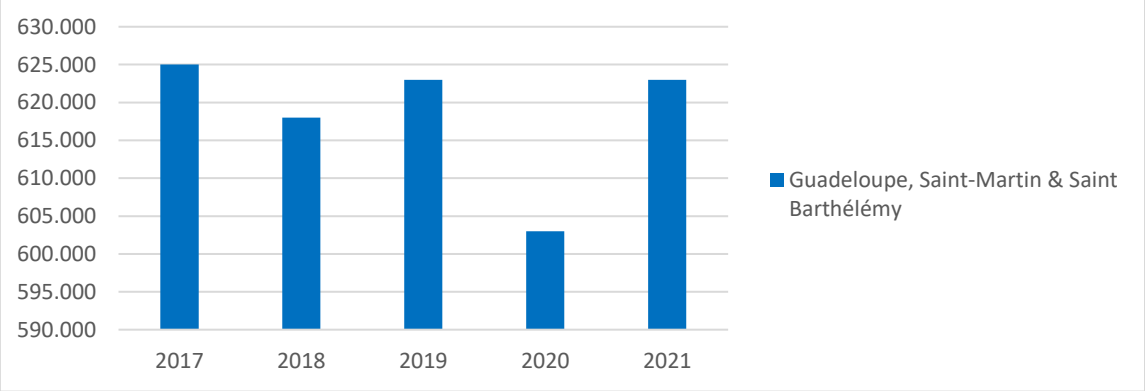
Graph 287: Proportion of active 4G SIM cards of all SIM cards (%)



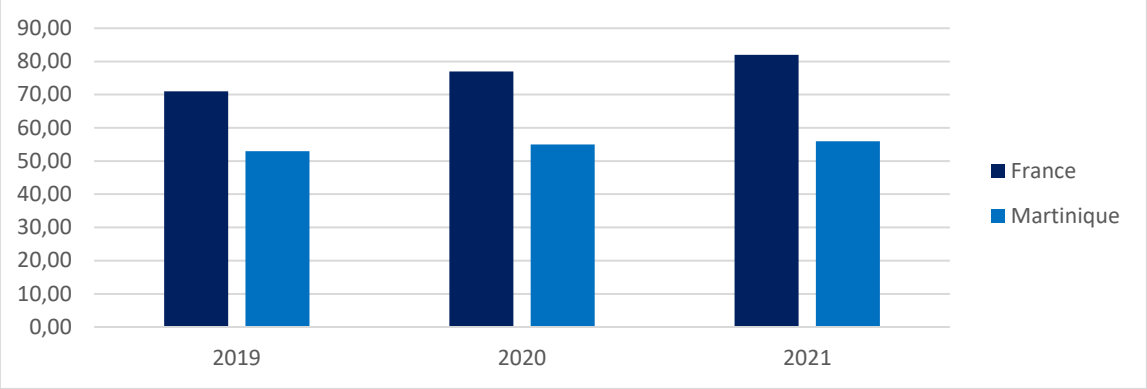
Graph 288: Number of landline phone connections in Guadeloupe, Saint Martin & Saint Barthélémy



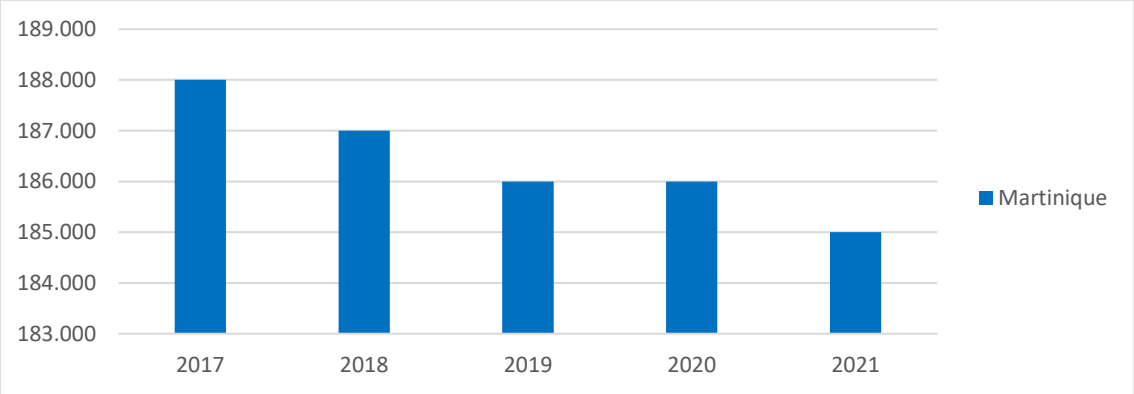
Graph 289: Number of SIM Cards in Guadeloupe, Saint Martin & Saint Barthélémy



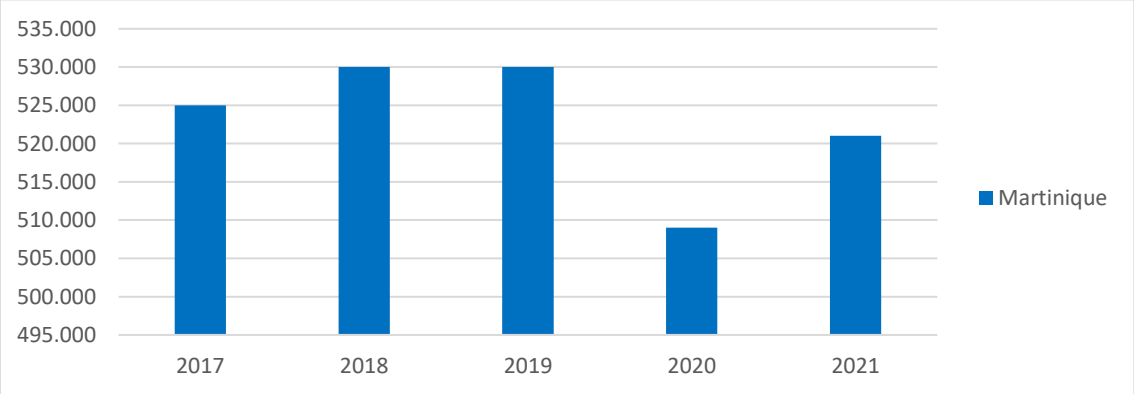
Graph 290: Proportion of active 4G SIM cards (%)



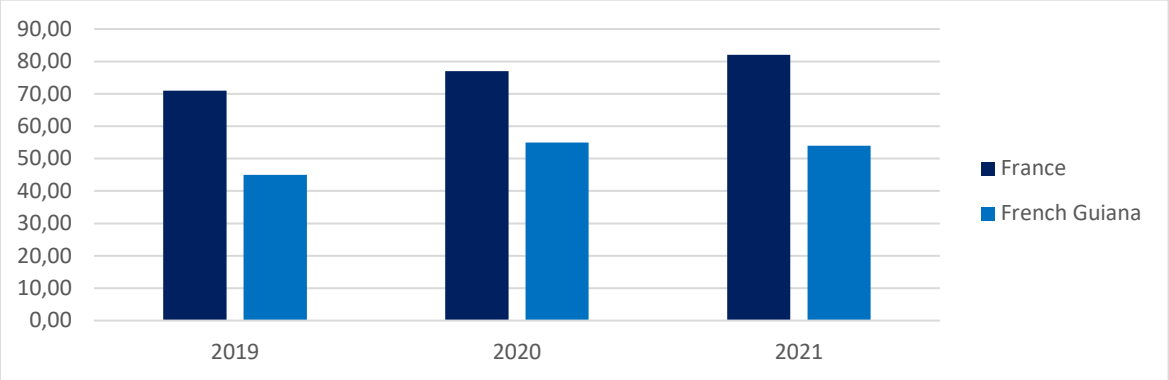
Graph 291: Number of landline phone connections



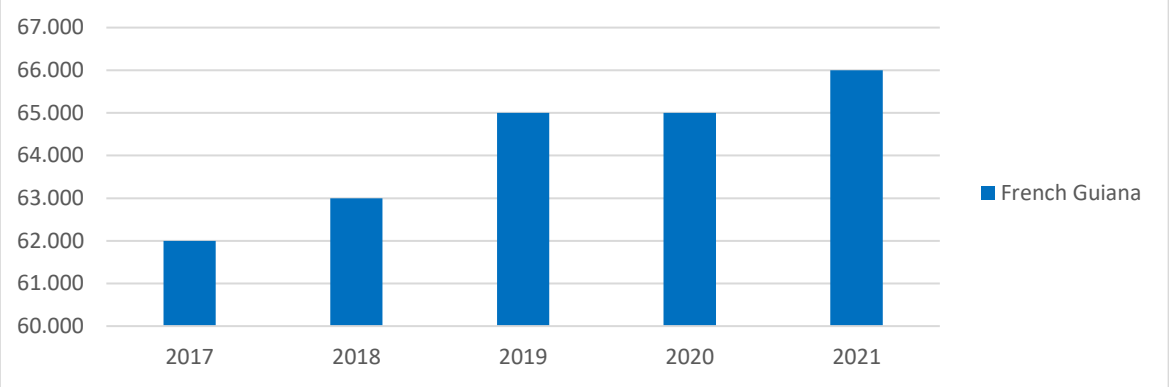
Graph 292: Number of SIM Cards



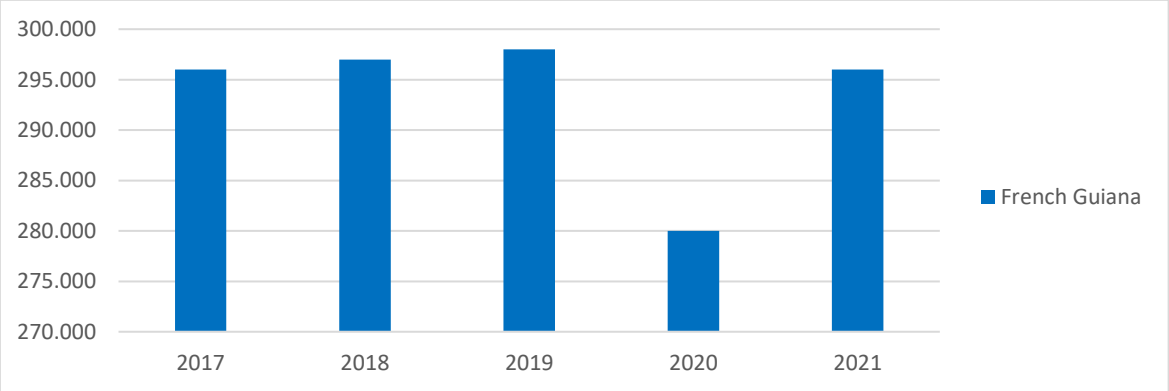
Graph 293: Proportion of active 4G SIM cards (%)



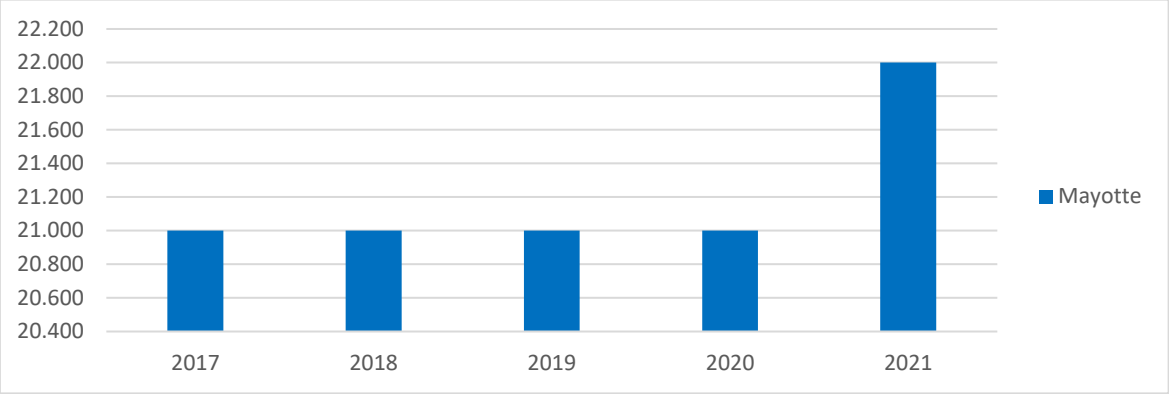
Graph 294: Number of landline phone connections



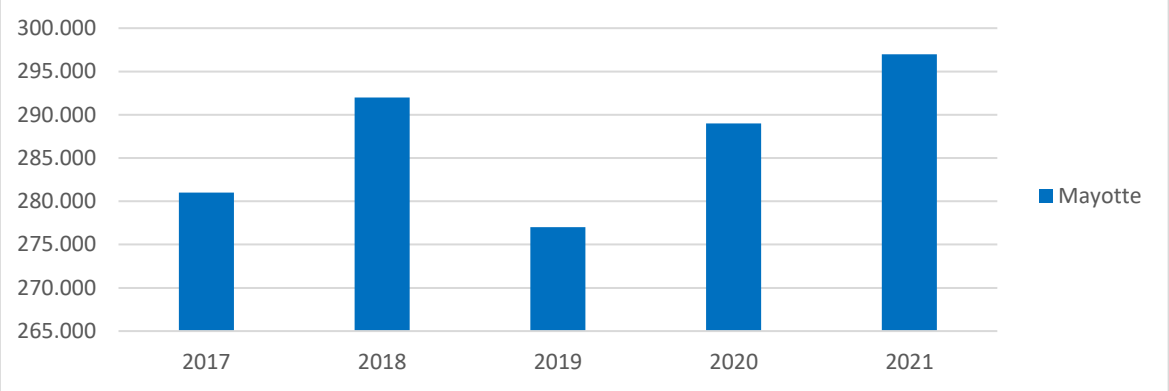
Graph 295: Number of SIM Cards



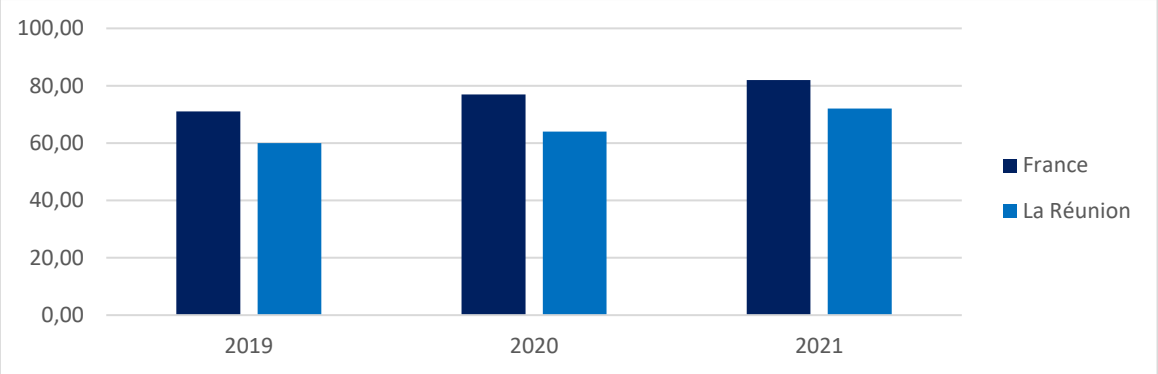
Graph 296: Number of landline phone connections



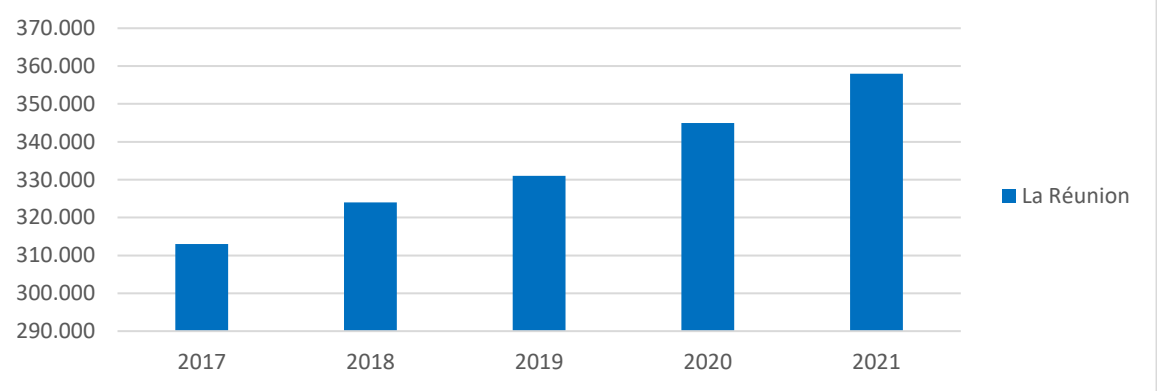
Graph 297: Number of SIM Cards



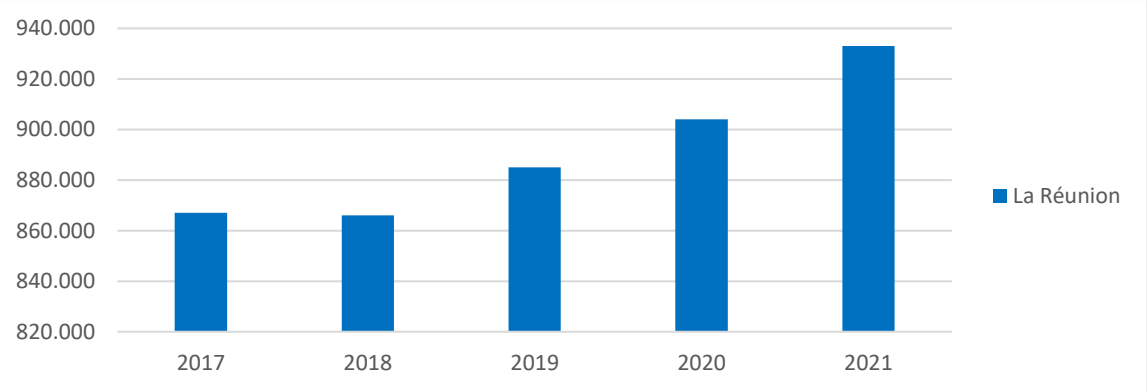
Graph 298: Proportion of active 4G SIM cards by overseas department (%)



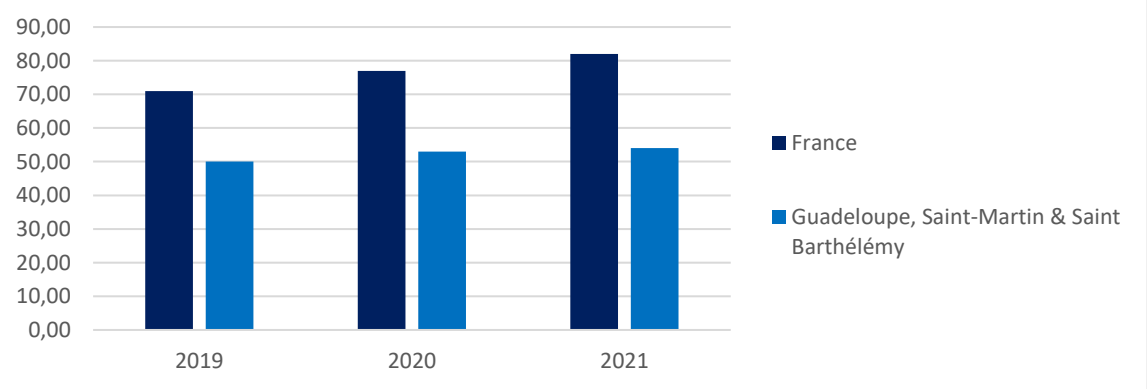
Graph 299: Number of landline phone connections



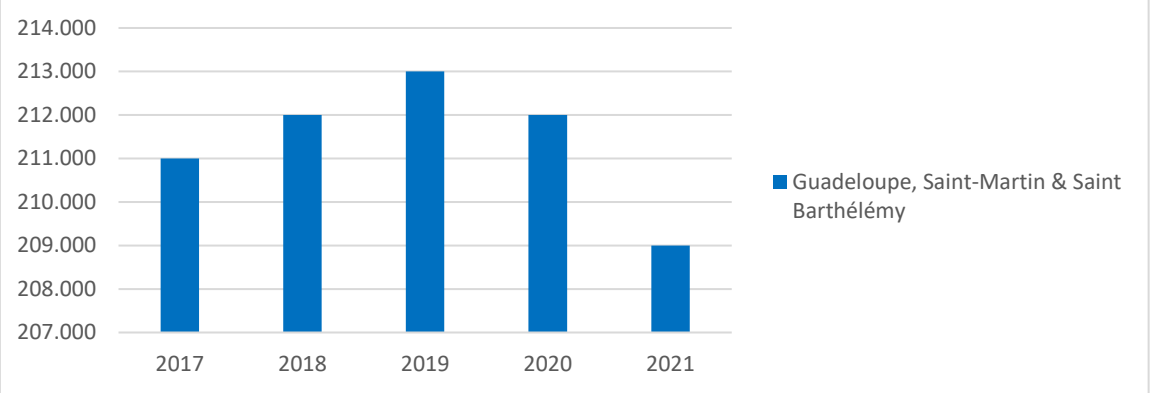
Graph 300: Number of SIM Cards



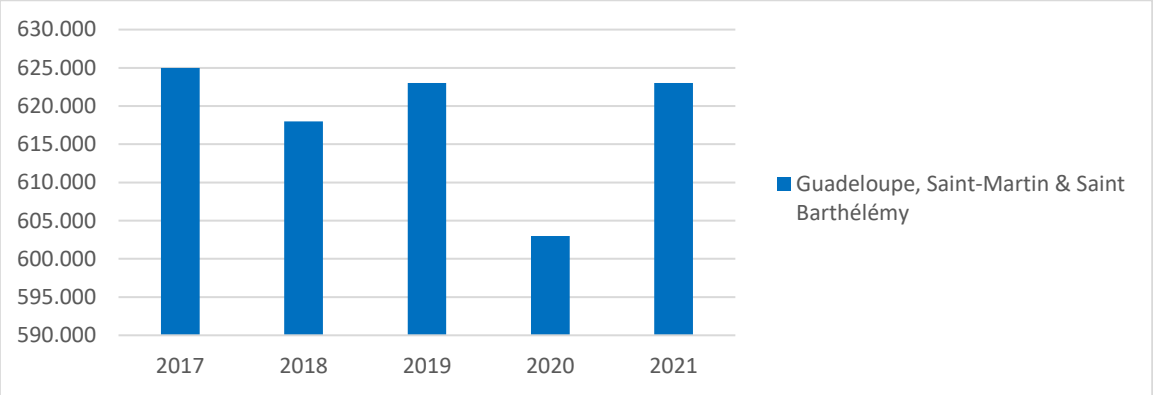
Graph 301: Proportion of active 4G SIM cards by overseas department (%)



Graph 302: Number of landline phone connections in Guadeloupe, Saint Martin & Saint Barthélémy

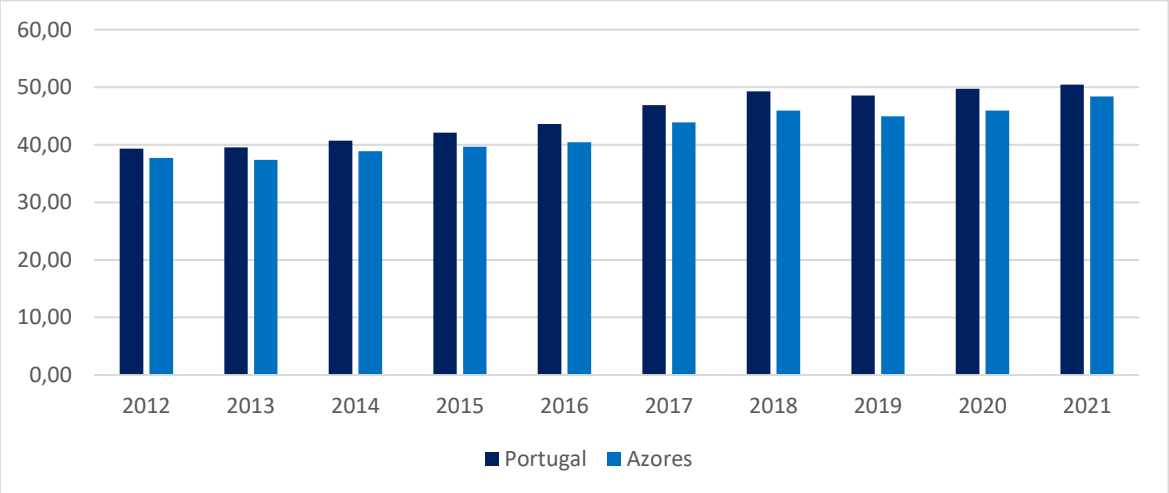


Graph 303: Number of SIM Cards in Guadeloupe, Saint Martin & Saint Barthélémy

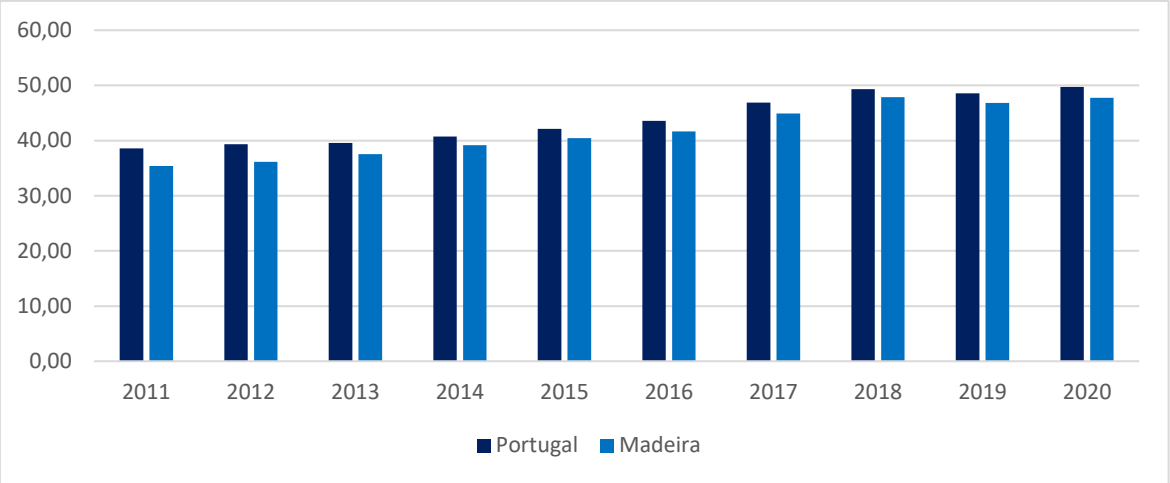


PORTUGUESE OR

Graph 304: Telephone access per 100 inhabitants

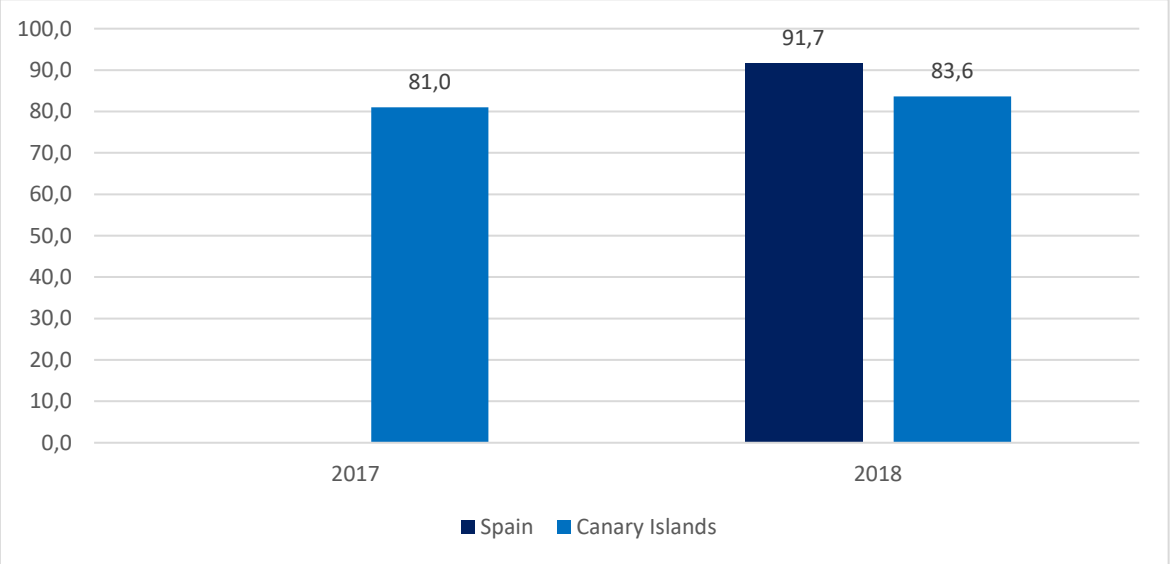


Graph 305: Telephone access per 100 inhabitants (%)

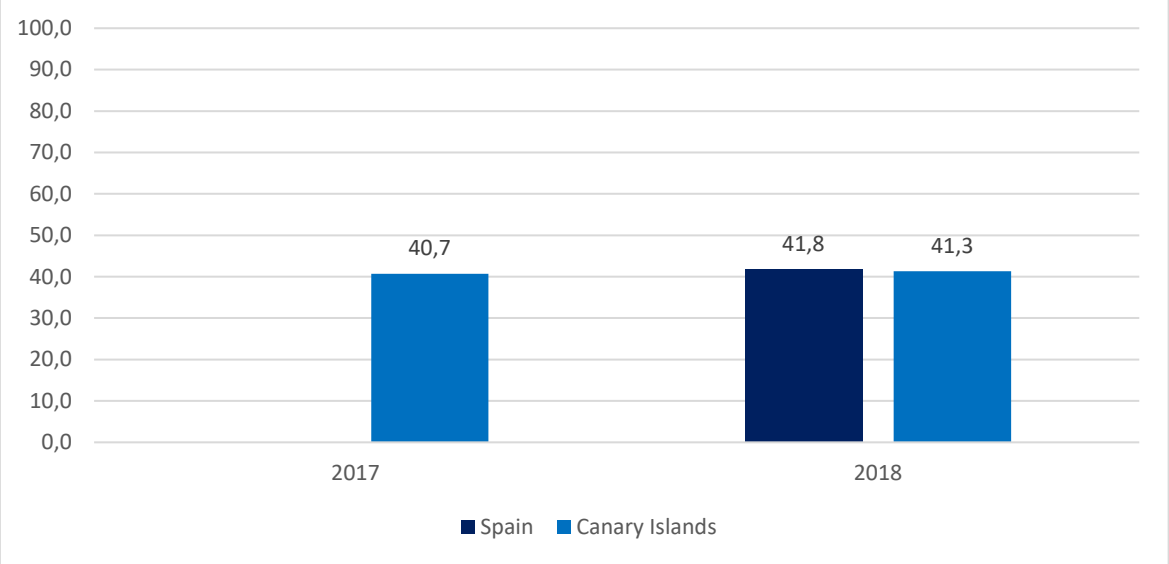


SPANISH OR

Graph 306: Mobile phone connections per 100 inhabitants



Graph 307: Landline connections per 100 inhabitants

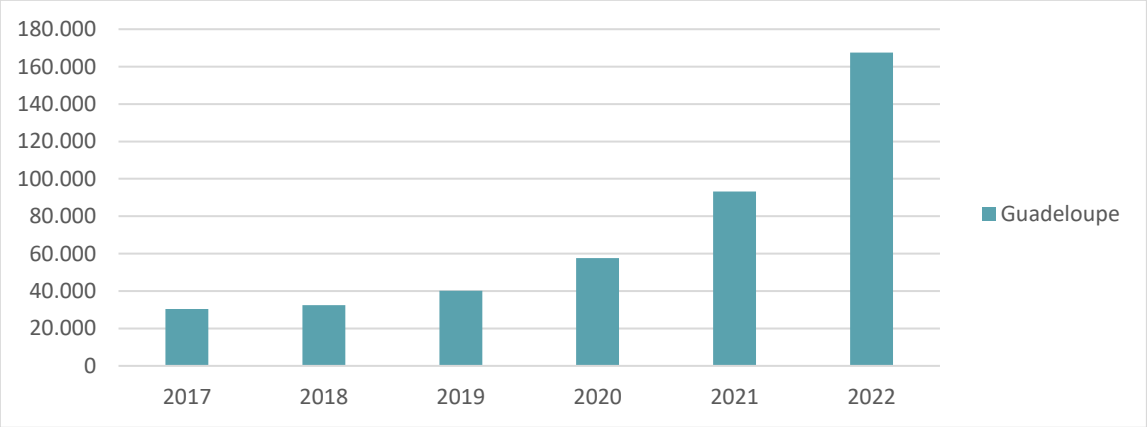


INFRASTRUCTURE

3.3.4.4 Internet coverage and quality

FRENCH OR

Graph 308: Dwellings that can connect to the FttH network



Graph 309: Download speed (in kbits/s)

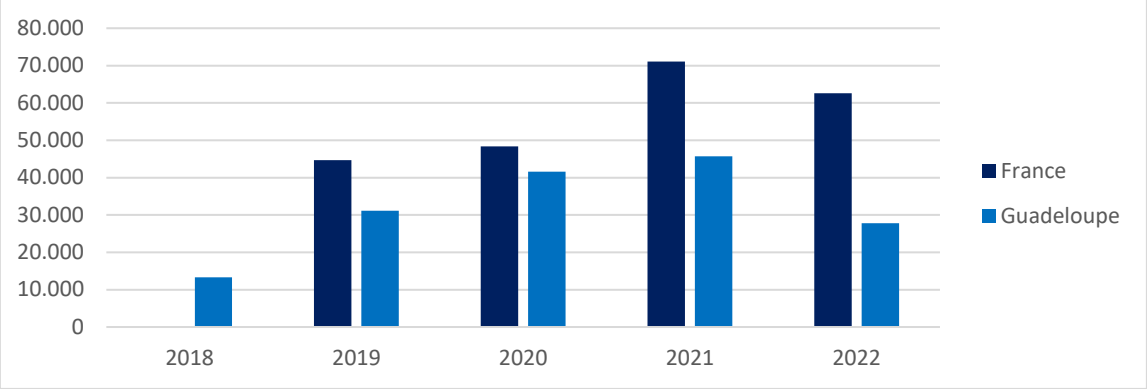


Table 5 - FttH coverage rate (the proportion of homes or business premises that can be connected to one or more FttH networks)

	2017	2018	2019	2020	2021	2022
Guadeloupe	10-25%	10-25%	10-25%	10-25%	25-50%	50-80%

Graph 310: Dwellings that can connect to the FttH network

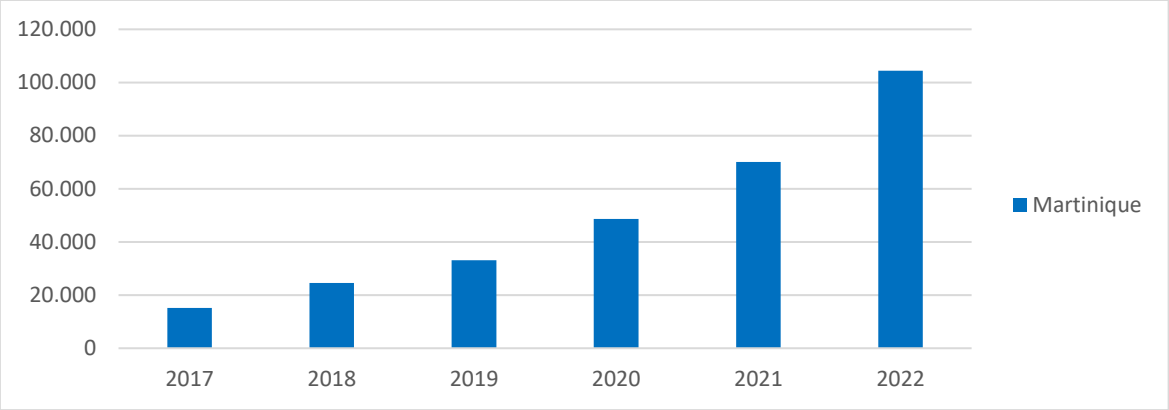
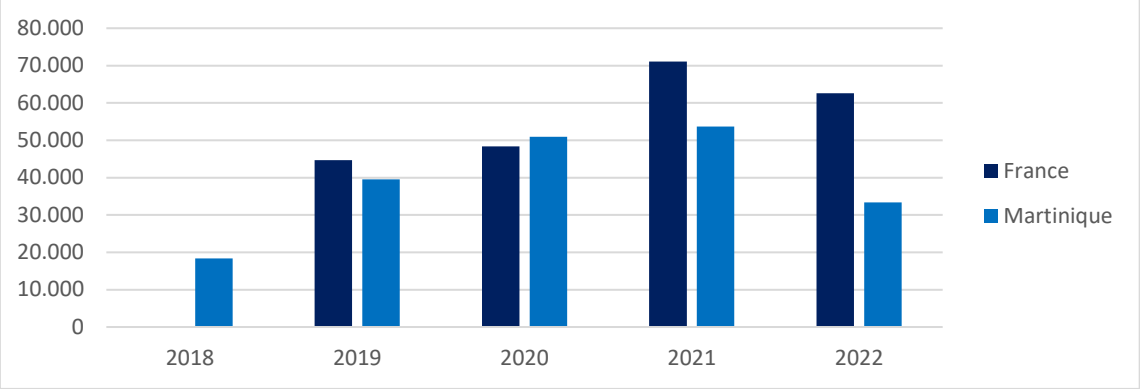


Table 6 - FttH coverage rate (the proportion of homes or business premises that can be connected to one or more FttH networks)

	2017	2018	2019	2020	2021	2022
Martinique	0-10%	10-25%	10-25%	10-25%	25-50%	25-50%

Graph 311: Download speed (in kbits/s)



Graph 312: Dwellings that can connect to the FttH network

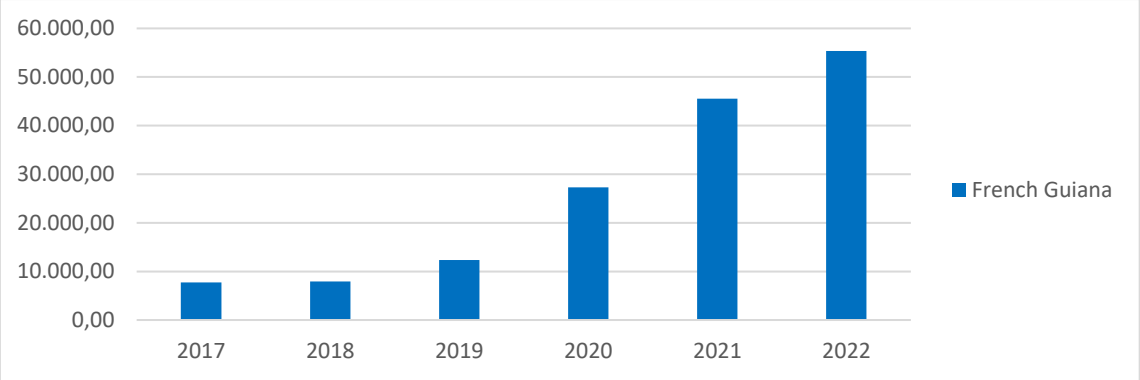
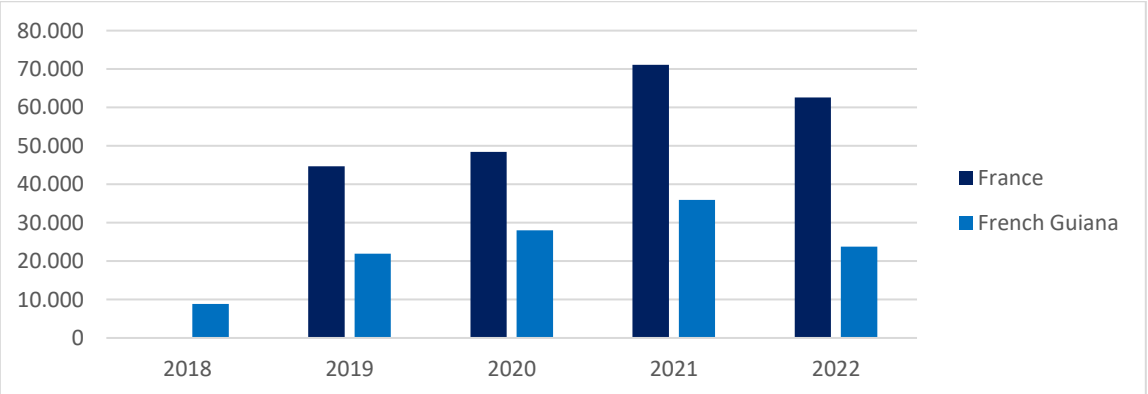


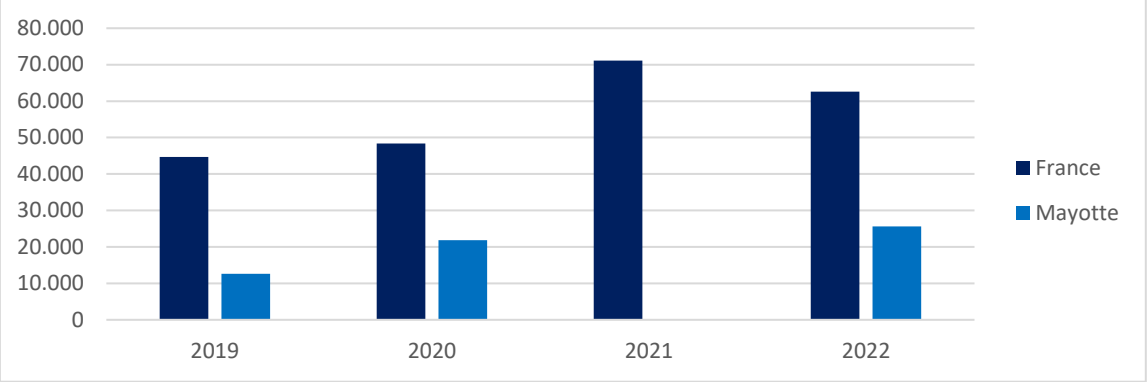
Table 7 - FttH coverage rate (the proportion of homes or business premises that can be connected to one or more FttH networks)

	2017	2018	2019	2020	2021	2022
French Guiana	0-10%	0-10%	10-25%	25-50%	25-50%	50-80%

Graph 313: Download speed (in kbits/s)



Graph 314: Download speed (in kbits/s)



Graph 315: Dwellings that can connect to the FttH network

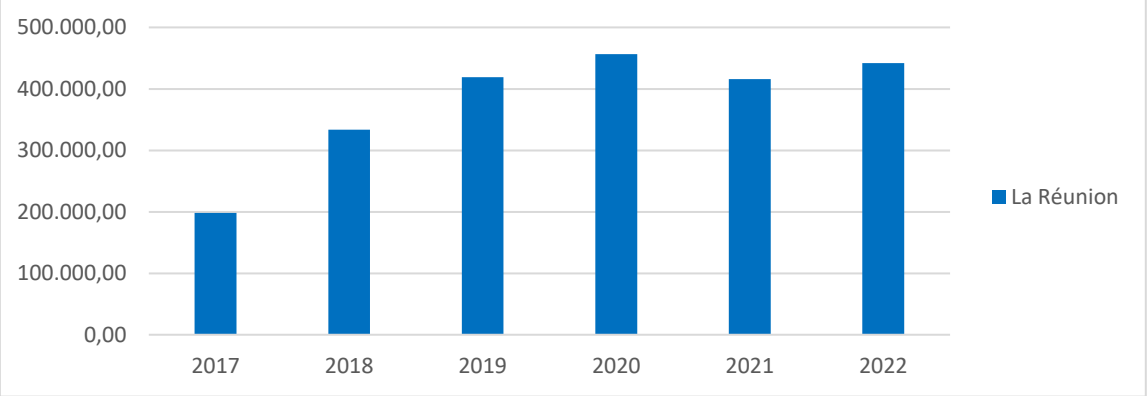
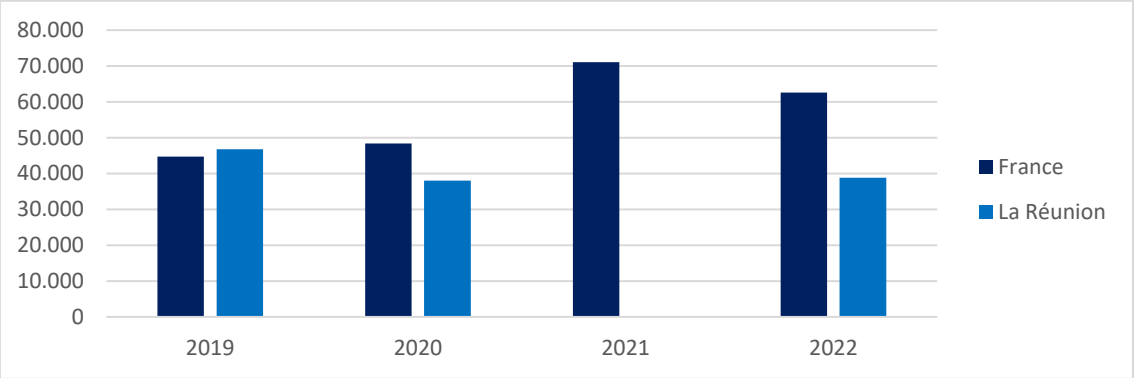


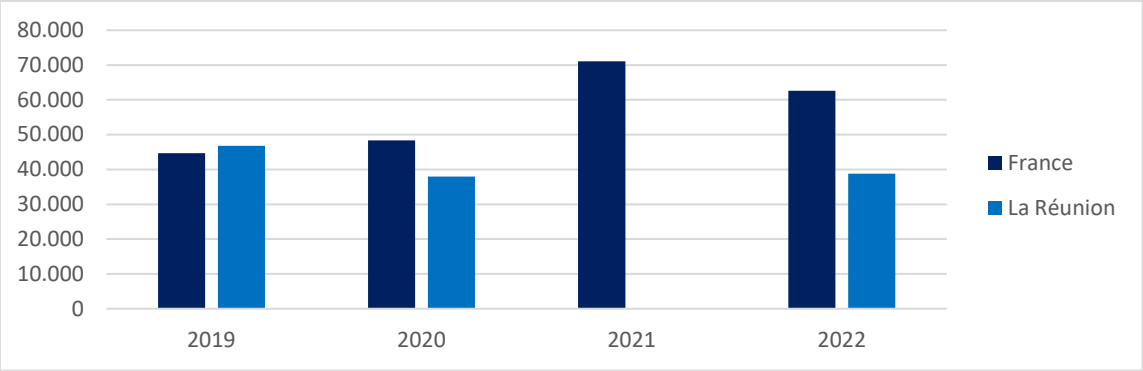
Table 8 - FttH coverage rate (the proportion of homes or business premises that can be connected to one or more FttH networks)

	2017	2018	2019	2020	2021	2022
Réunion	50-80%	More 80%	More 80%	More 80%	More 80%	More 80%

Graph 316: Download speed (in kbits/s)



Graph 317: Download speed (in kbits/s)



Graph 318: Dwellings that can connect to the FttH network

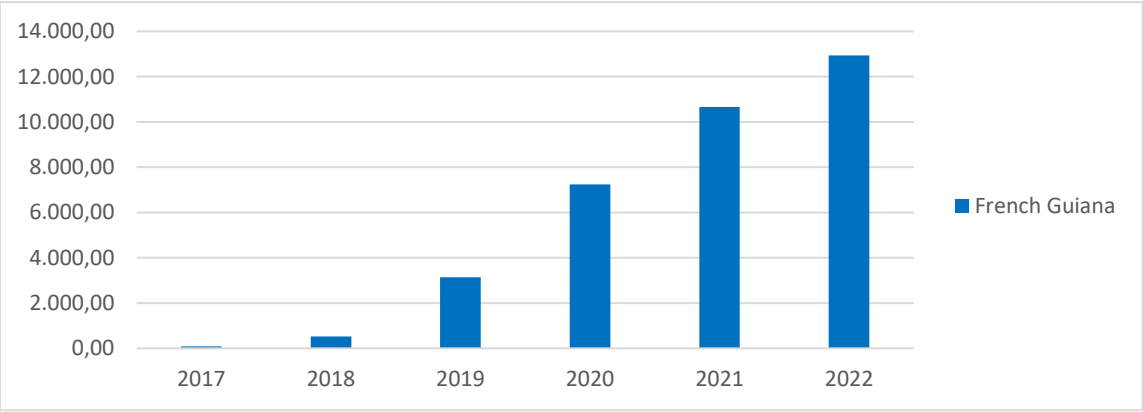
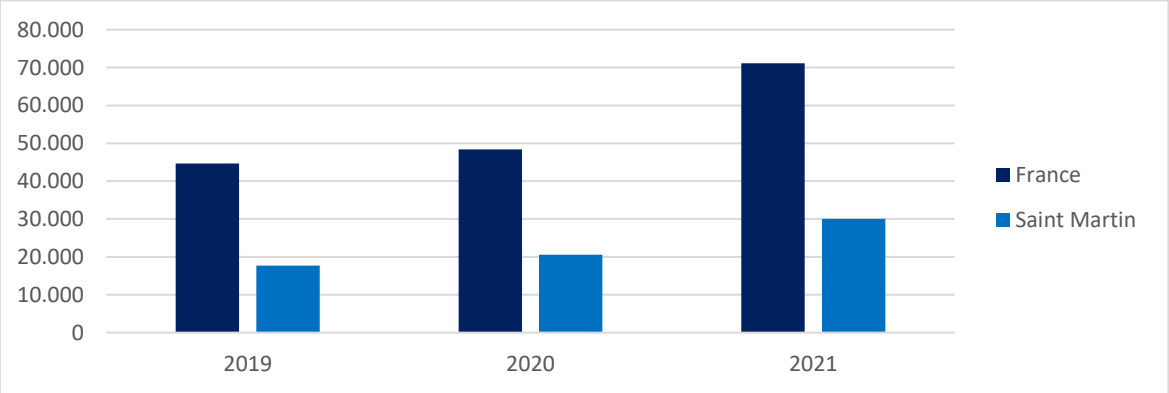


Table 9 - FttH coverage orate (the proportion of homes or business premises that can be connected to one or more FttH networks)

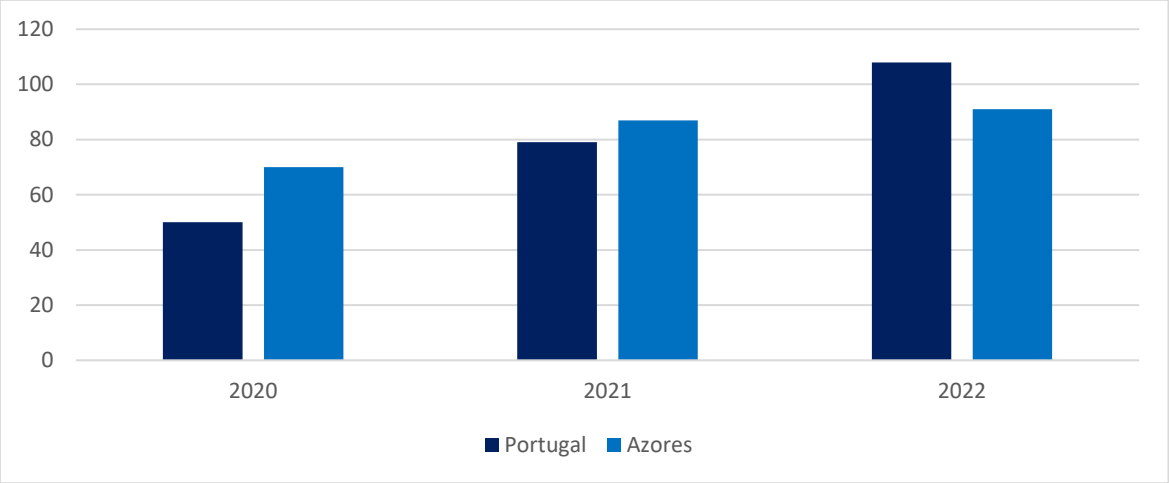
	2017	2018	2019	2020	2021	2022
Saint Martin	0-10%	0-10%	10-25%	25-50%	25-50%	25-50%

Graph 319: Download speed (in kbits/s)

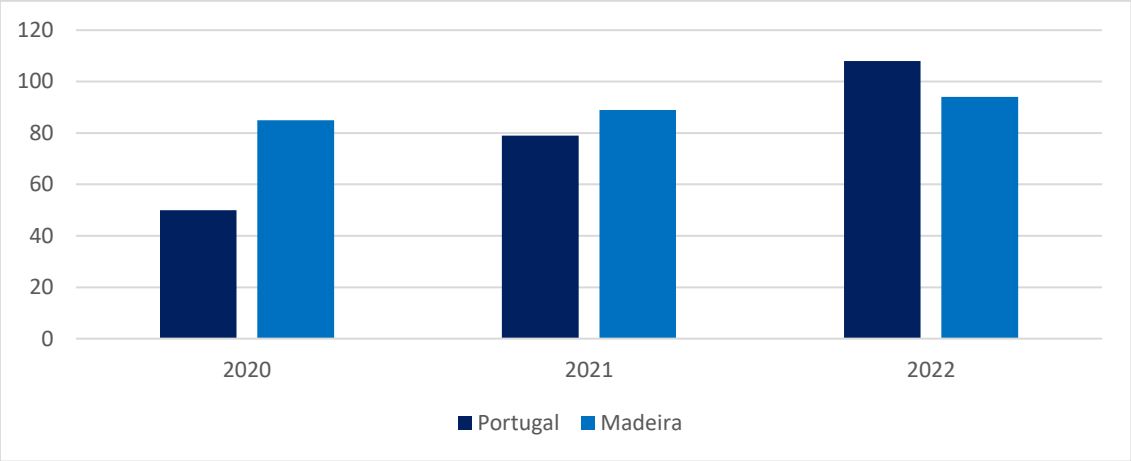


PORTUGUESE OR

Graph 320: Average download speed at residential connections (in Mbit/s)

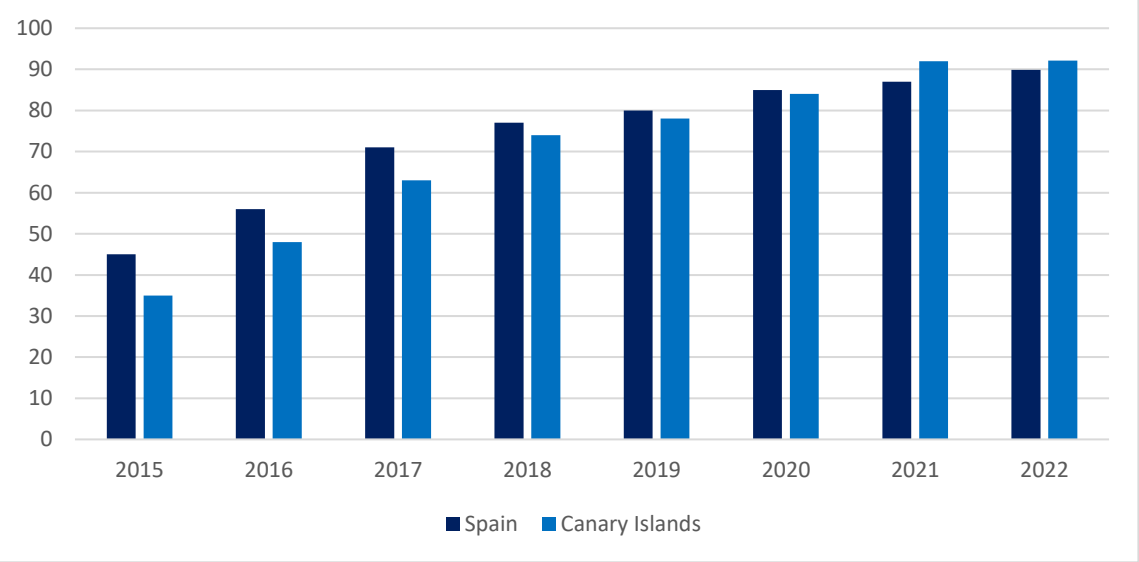


Graph 321: Average download speed at residential connections (in Mbit/s)



SPANISH OR

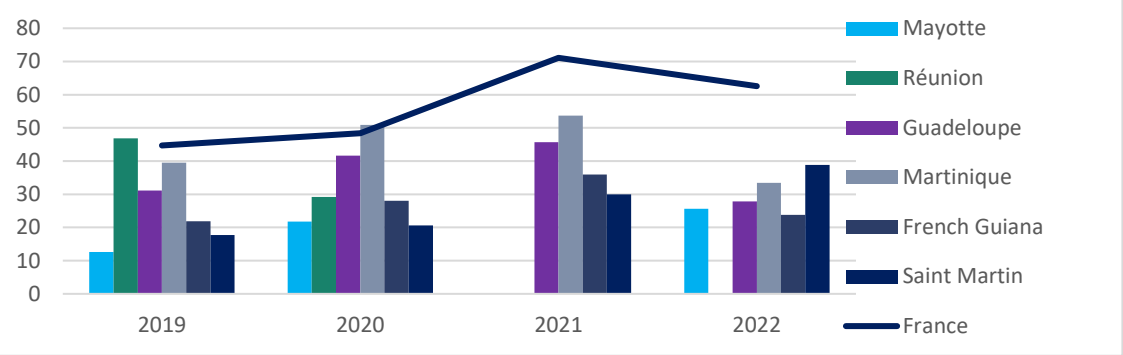
Graph 322: FttH Coverage (%)



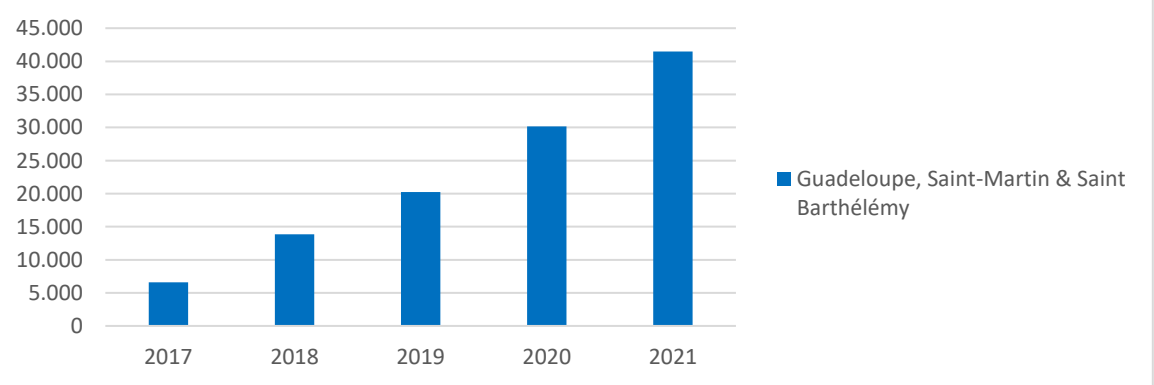
3.3.4.5 Mobile coverage and quality

FRENCH OR

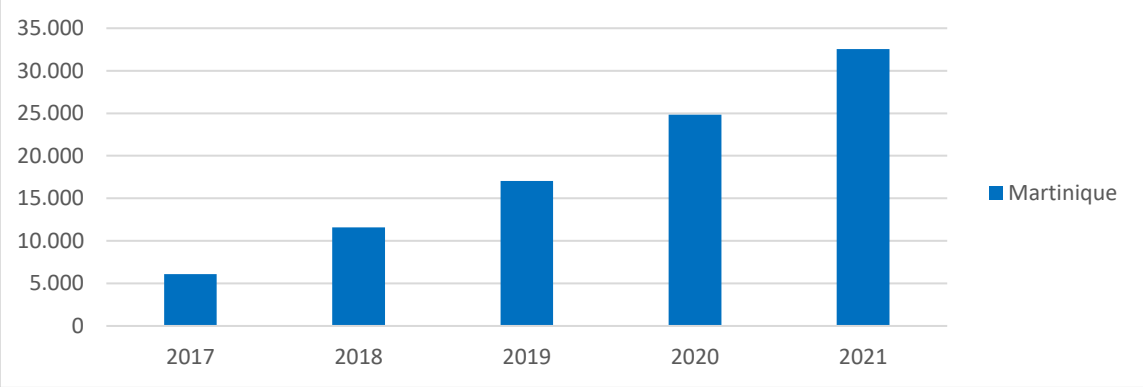
Graph 323: Average speed of mobile downloads (in Mbit/s)



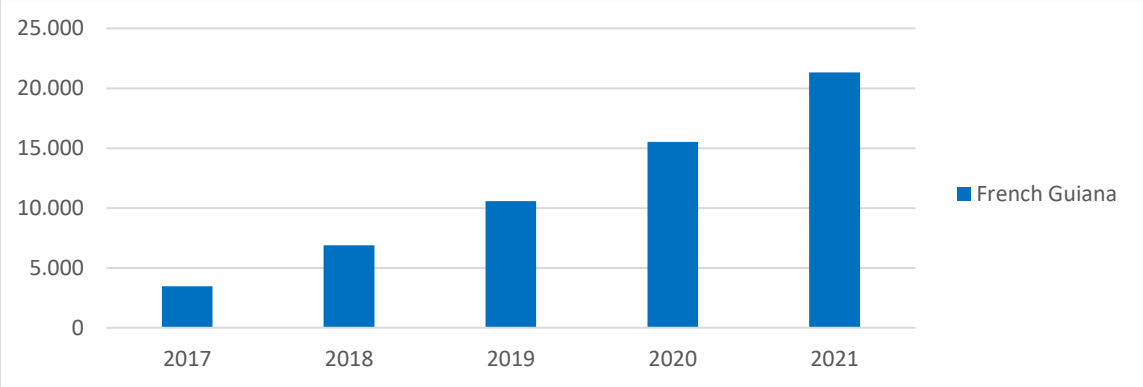
Graph 324: Mobile data traffic in Guadeloupe, Saint Martin & Saint Barthélémy (in Terabytes)



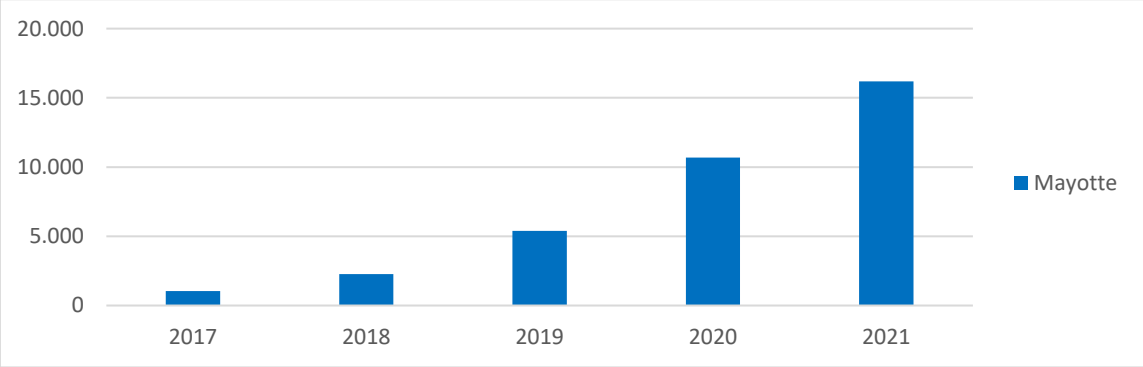
Graph 325: Mobile data traffic (in Terabytes)



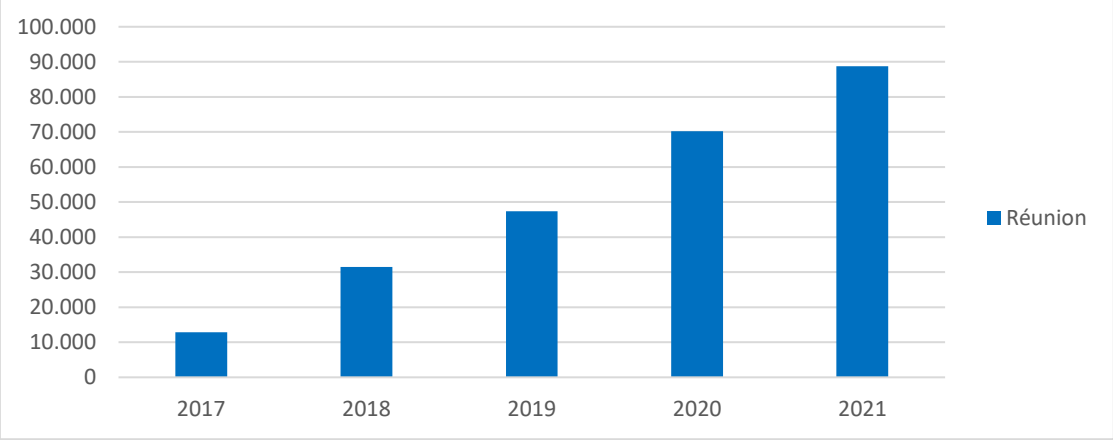
Graph 326: Mobile data traffic (in Terabytes)



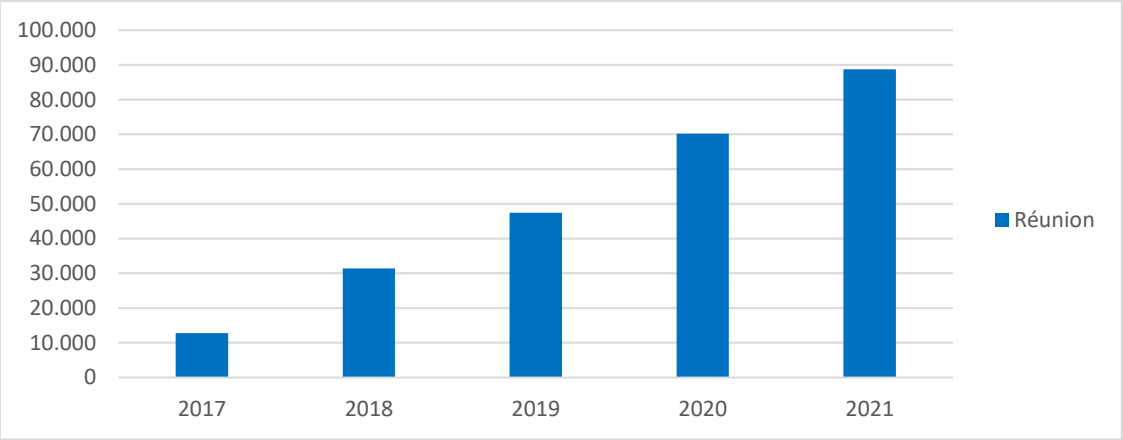
Graph 327: Mobile data traffic (in Terabytes)



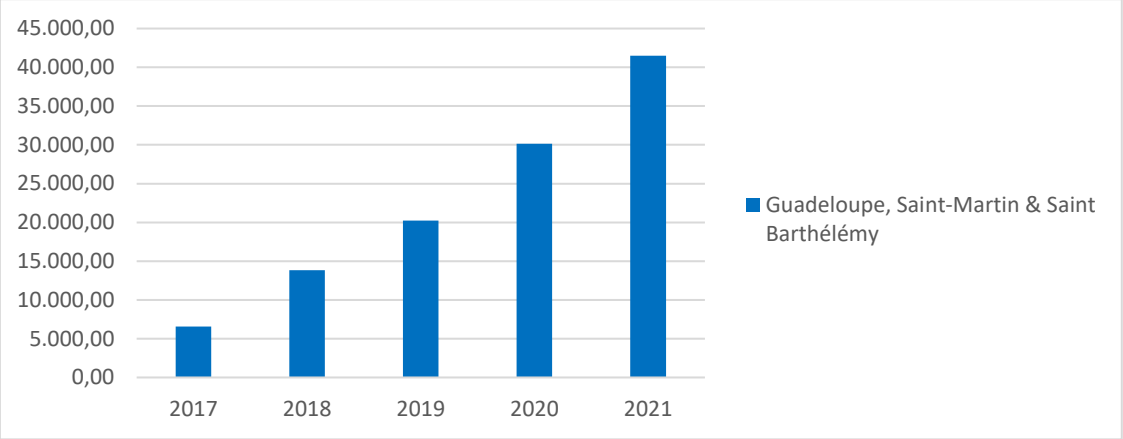
Graph 328: Mobile data traffic (in Terabytes)



Graph 329: Mobile data traffic (in Terabytes)

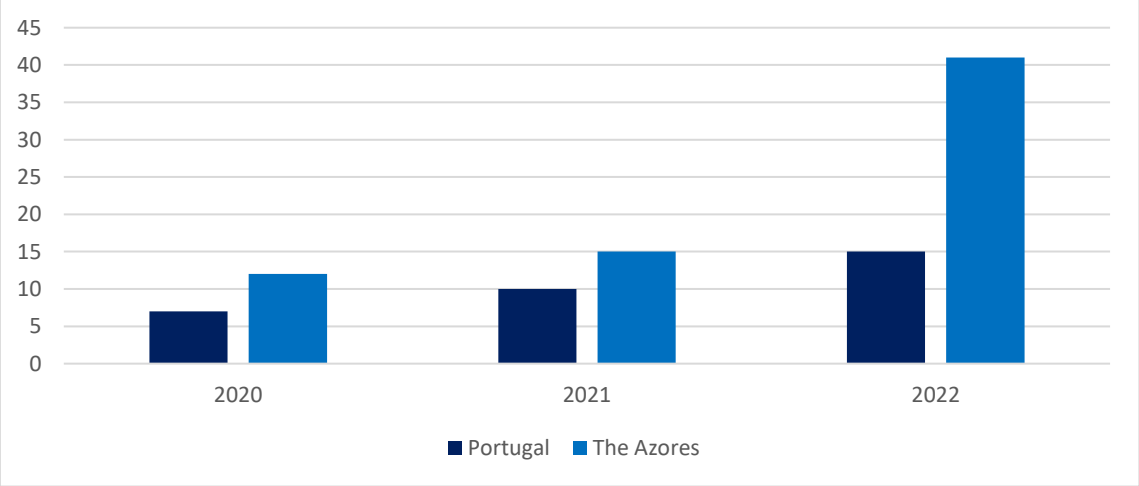


Graph 330: Mobile data traffic in Guadeloupe, Saint Martin & Saint Barthélémy (in Terabytes)

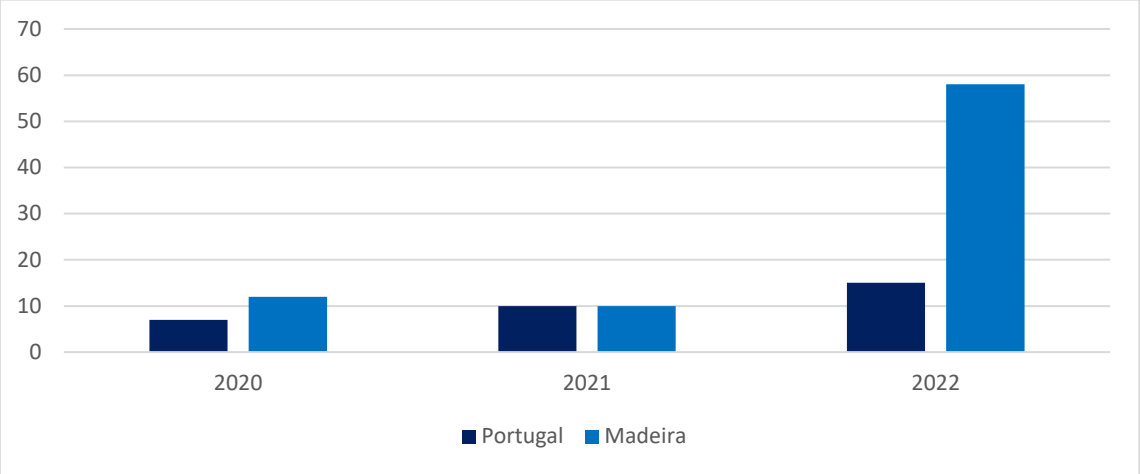


PORTUGUESE OR

Graph 331: Average download speed at mobile connections (in Mbit/s)

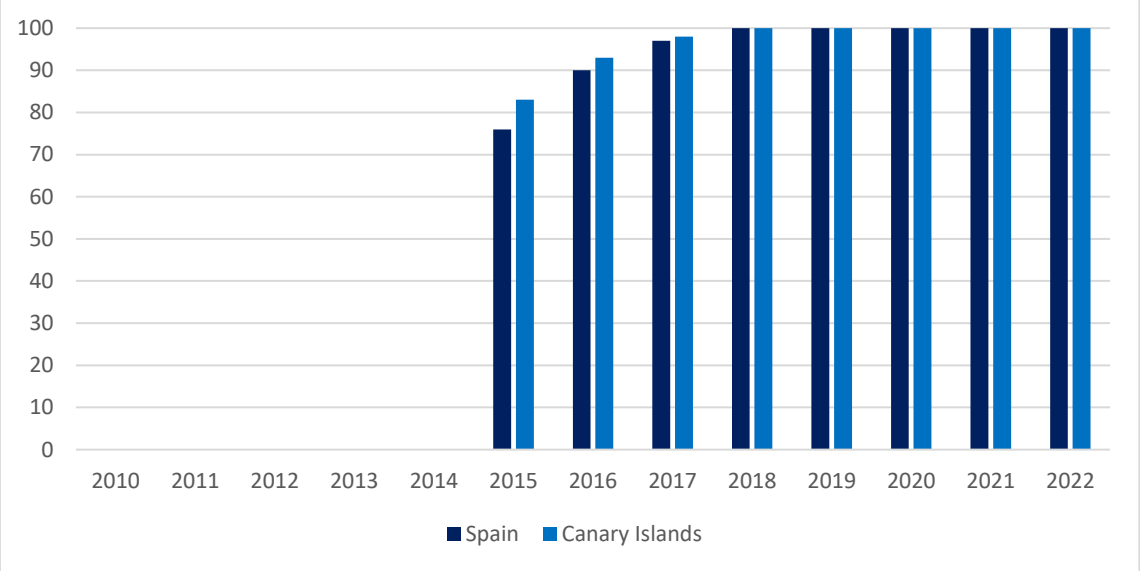


Graph 332: Average download speed at mobile connections (in Mbit/s)

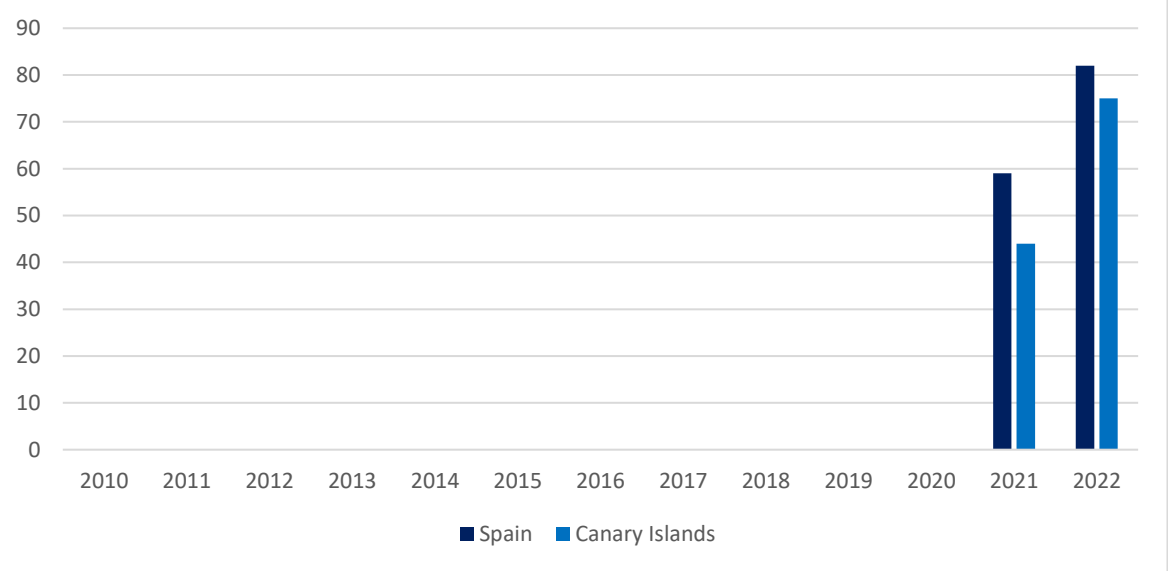


SPANISH OR

Graph 333: 4G Coverage of residences (%)



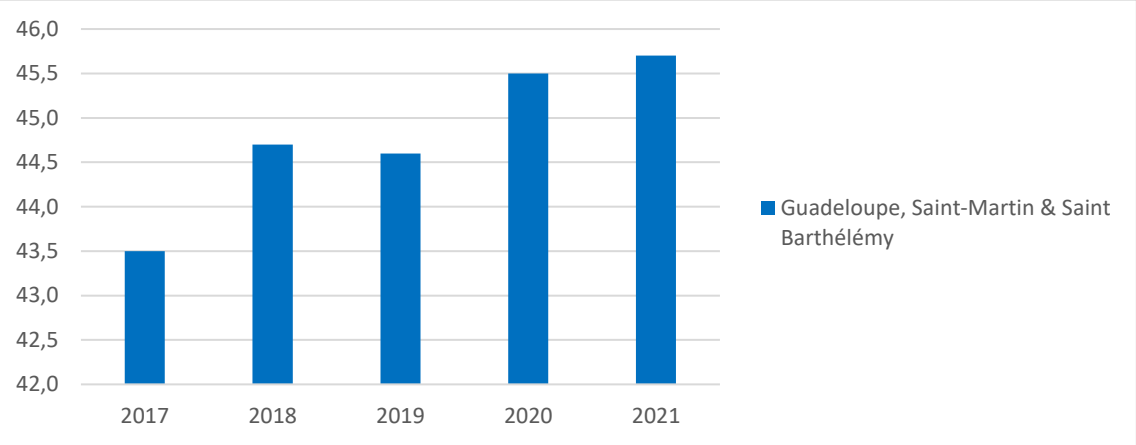
Graph 334: 5G Coverage of residences (%)



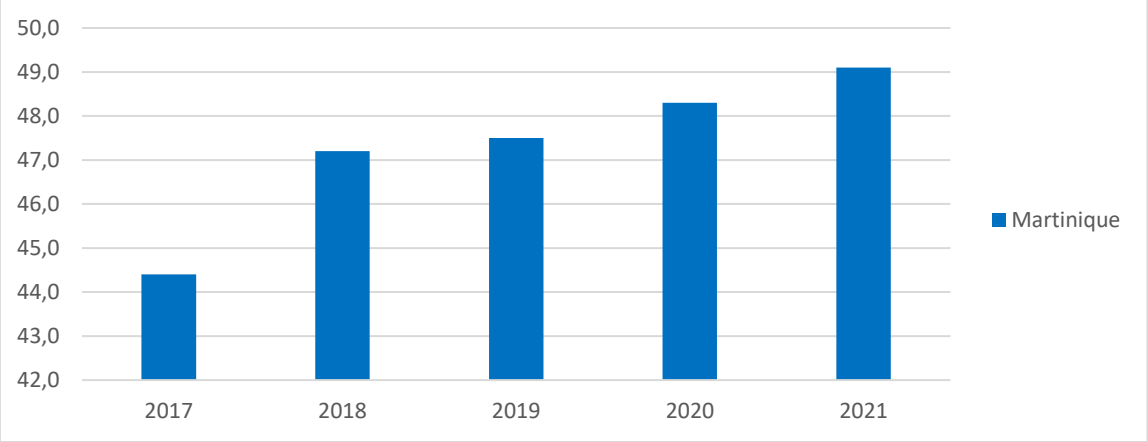
3.3.4.6 Pricing

FRENCH OR

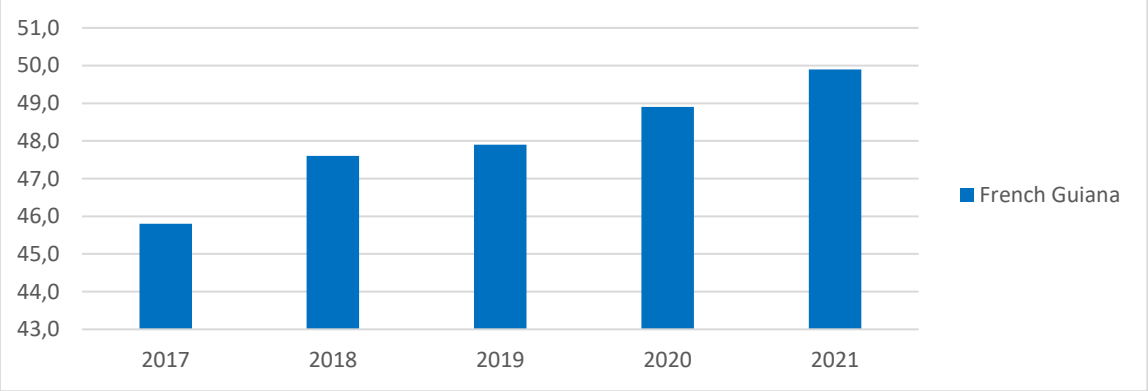
Graph 335: Average monthly bill of residential connections (internet, telephone, & television) in EUR in Guadeloupe, Saint Martin & Saint Barthélémy



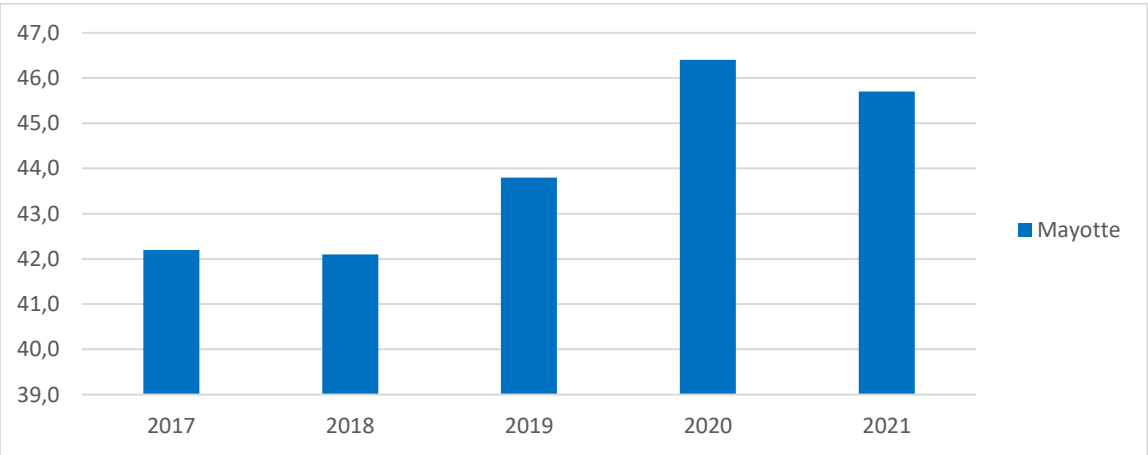
Graph 336: Average monthly bill of residential connections (internet, telephone, & television) in EUR



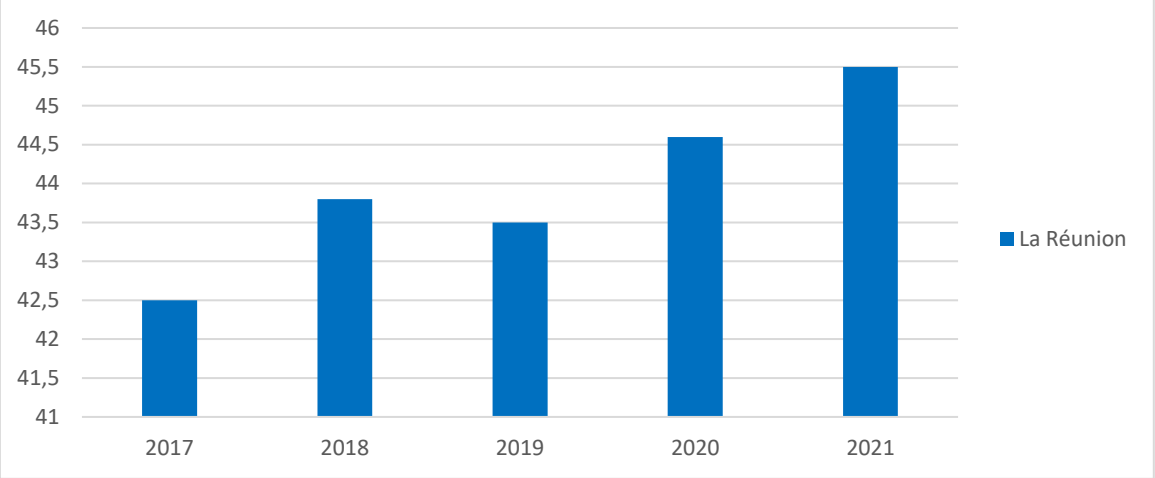
Graph 337: Average monthly bill of residential connections (internet, telephone, & television) in EUR



Graph 338: Average monthly bill of residential connections (internet, telephone, & television) in EUR

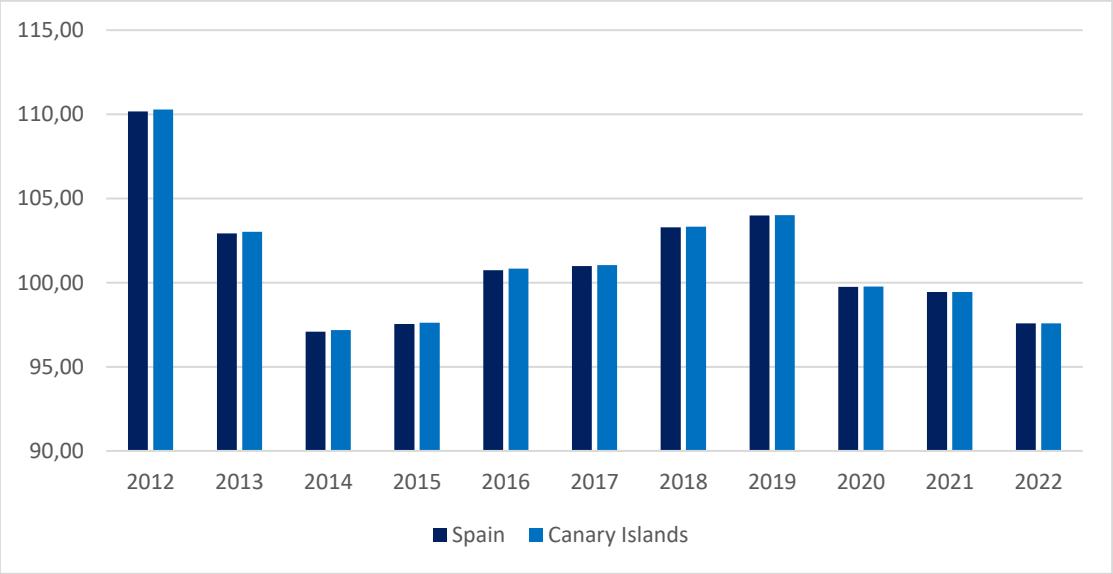


Graph 339: Average monthly bill of residential connections (internet, telephone, & television) in EUR



SPANISH OR

Graph 340: Price Index: Cost of Communication (base 2021)



3.4 Annex IV: Desk research

Table 10 - Desk research

Areas	Dimension covered (Access or Infrastructure)	Region(s)	Title (including link)	Source and year
All	All	All	Communication “Putting people first, securing sustainable and inclusive growth, unlocking the potential of the EU’s outermost regions	European Commission (2022)
All	All	All	Study on the impact of the COVID-19 pandemic on the outermost regions (OR)	European Commission (2022)
Adequate housing	Access	All	Priorities 2022-2023: Adequate Housing, Cities and Climate Change and Localising the Sustainable Development Goals	UN-Habitat (2022)
Adequate housing	Access and infrastructure	Portuguese regions	Recuperar Portugal, Construindo o futuro. PRR	Ministério do Planeamento (2021)
Safe drinking water and sanitation	Access and infrastructure	French regions	La gestion de l'eau et de l'assainissement dans les Outre-mer	Conseil économique, social et environnemental (2022)
Safe drinking water and sanitation	Access and Infrastructure	French regions	Human Rights to Water and Sanitation In Overseas Departments and Regions	Coalition Eau (2022)
Safe drinking water and sanitation	Access and Infrastructure	French regions	Améliorer la résilience des services publics d’eau potable et d’assainissement dans les DROM et à Saint Martin.	Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement (2021)
Safe drinking water and sanitation	Access and Infrastructure	All	Droit a l´eau dans les outre-mer: quel plaidoyer?	Coalition Eau (2021)
Adequate housing	Access	French regions	L'état du mal-logement	Fondation Abbé Pierre (2022)
Adequate housing	Access	French regions	Plan logement outre-mer 2019-2022	Ministère de la Transition énérgetique (2023)
Adequate housing	Access	French regions	La politique du logement dans les outre-mer – Rapport d’information	Senat (2021)

Safe drinking water and sanitation Adequate housing	Access and Infrastructure	French regions	Les outre-mer face au défi du changement climatique	Observatoire National sur les Effets du Réchauffement Climatique (2012)
Internet and telephone networks	Access and infrastructure	French regions	Les services de communication de électroniques	Autorité de régulation des communications électroniques, des postes et de la distribution de la presse (ARCEP) (2021)
All	Access	French regions	Les tendances démographiques et migratoires dans les régions ultrapériphériques : quel impact sur leur cohésion économique, sociale et territoriale ? : résumé exécutif	Institut National d'études Démographiques (2013)
Four basic needs	Infrastructure	Guadeloupe	ERDF-ESF Operational Programme for 2014-2020 Guadeloupe et St Martin	ERDF (2014-2020)
Safe drinking water and sanitation	Access	Guadeloupe	Les acteurs de l'eau	Office de l'eau – Guadeloupe (2023)
Safe drinking water and sanitation	Access	Guadeloupe	Expertise "eau potable en Guadeloupe" 2018 Rapport final Proposition de priorités techniques et méthodologiques pour le rétablissement du service d'eau potable sur l'ensemble du territoire	Eddy Renaud (2018)
Safe drinking water and sanitation	Access	Guadeloupe	Soumission d'informations pour un Appel urgent à l'eau potable en Guadeloupe (France)	Eau Secours (2020)
Safe drinking water and sanitation	Access and Infrastructure	Guadeloupe	Diagnostic transversal du secteur de l'eau et de l'assainissement en Guadeloupe	Agence Française de Développement, Agence Française pour la Biodiversité (2018)
Safe drinking water and sanitation	Access and Infrastructure	Guadeloupe	Eau et assainissement : Les chiffres clés	Observatoire de l'Eau de la Guadeloupe, Office de l'Eau Guadeloupe (2021)
Safe drinking water and sanitation	Access and Infrastructure	Guadeloupe	Audit sur l'eau potable en Guadeloupe	Conseil général de l'environnement et du développement durable, inspection générale de l'administration et l'inspection générale des finances (2018)
Safe drinking water and sanitation	Access and Infrastructure	Saint Martin	Saint Martin Eau Potable 2022. Rapport annuel du delegataire.	Saint Martin Eau Potable 2022. Rapport annuel du delegataire.

Safe drinking water and sanitation	Infrastructure	Canary Islands	Water status in the Canary Islands related to energy requirements	Water status in the Canary Islands related to energy requirements (2022)
Adequate housing	Access and Infrastructure	Guadeloupe	Le logement en Guadeloupe - Un parc renouvelé mais peu de propriétaires accédants.	Direction de l'Environnement, de l'Aménagement et du Logement, le Département de Guadeloupe et l'Institut national de la statistique et des études économiques (2017)
Adequate housing	Access and Infrastructure	French regions	Et si le logement ultramarin devenait un laboratoire du changement climatique ?	L'Union Sociale pour l'habitat
Adequate housing	Access and Infrastructure	Guadeloupe	Etude sur le marché locatif privé en 2021 - Communauté d'agglomération de Cap Excellence	Observatoire Local des Loyers de la Guadeloupe (2021)
Adequate housing	Access	Guadeloupe	Bilan des émissions de Prêt à Taux Zéro (PTZ) en 2020 - Guadeloupe	Agence Départementale d'Information sur le Logement a Guadeloupe (2022)
Four basic needs	Infrastructure	Martinique	ERDF Operational Programme for 2014-2020	ERDF (2014-2020)
Safe drinking water and sanitation	Access and infrastructure	Martinique	ERDF Operational Programme for 2007-2013	ERDF 2007-2013
Safe drinking water and sanitation	Access and Infrastructure	Martinique	Le schéma directeur de gestion des eaux du bassin Martinique 2022-2027	Préfet de la région Martinique (2022)
Safe drinking water and sanitation	Access and Infrastructure	Martinique	La nécessaire gestion durable de l'eau en Martinique	Yvan Bertin (2019)
Safe drinking water and sanitation	Access and Infrastructure	Martinique	Les chiffres clés 2020 de l'eau potable et de l'assainissement en Martinique	Office de l'eau (2020)
Safe drinking water and sanitation	Access and Infrastructure	Martinique	Rapport Annuel sur le prix et la qualité du service public de l'assainissement collectif – Exercice 2021	Communauté d'Agglomeration du Pays Nord Martinique (2021)
Safe drinking water and sanitation	Access and Infrastructure	Martinique	Rapport Annuel sur le prix et la qualité du service public de l'assainissement collectif – Exercice 2020	Communauté d'Agglomeration du Pays Nord Martinique (2021)
Adequate housing	Access and Infrastructure	Martinique	Le logement en Martinique: Faible mobilité et parcours résidentiel atypique	Institut national de la statistique et des

				études économiques (2017)
Adequate housing	Infrastructure	Canary Islands	Informe sobre exclusión y desarrollo social en Canarias	Fundación Foessa (2021)
Adequate housing	Access and Infrastructure	Canary Islands	Plan de vivienda de Canarias 2020-2025	Gobierno de Canarias
Adequate housing	Access	Canary Islands	Country Report: Spain	Asylum Information Database (2022)
Adequate housing	Access	Martinique	La demande de logement social en Martinique	L'Union Social Pour l'Habitat (2014-2020)
Four basic needs	Infrastructure	Saint Martin	ERDF-ESF Operational Programme for 2014-2020 Guadeloupe et St Martin	ERDF (2014-2020)
Four basic needs	Access	Saint Martin	Development of the Statistical Institute of Saint Martin*225*	Statistical Institute of Saint Martin
Four basic needs	Access	Saint Martin	Saint Martin : Terre d'accueil et de contrastes	Institut national de la statistique et des études économiques (2017)
Safe drinking water and sanitation	Access and Infrastructure	Saint Martin	Rapport annuel Saint Martin	IEDOM (2015)
Safe drinking water and sanitation	Access and Infrastructure	Saint Martin	The Impact of Hurricane Irma on the Metabolism of St. Martin's Island	Popescu, et. al (2020)
Adequate housing	Infrastructure	Saint Martin	Reconstruction des îles de Saint-Barthélemy et Saint Martin	Gouvernement de France (2021)
Adequate housing	Access and Infrastructure	Saint Martin	Logements et résidences principales en 2019	Institut national de la statistique et des études économiques (2019)
Safe drinking water and sanitation	Access	French Guiana	Bilan qualité des eaux destinées à la consommation humaines 2019-2020-2021	Agence régionale de santé (2022)
Safe drinking water and sanitation	Access	French Guiana	Acompagner les services publics d'eau potable et d'assainissement en Guyane - 2015	Office de l' eau de la Guyane (2015)
Safe drinking water and sanitation	Access and Infrastructure	French Guiana	Rapport d'activité 2019	Office de l' eau de la Guyane (2015)

[225] The team will closely monitor the development of the creation of the Statistical Institute of Saint Martin

Adequate housing	Access and Infrastructure	French Guiana	L'urbanisation spontanée en Guyane : recensement du phénomène en 2015.	Agence d'Urbanisme et de Développement de la Guyane (2018)
Adequate housing	Access and Infrastructure	French Guiana	Le logement en Guyane – Un parcours résidentiel contraint.	La Direction générale de l'outre-mer et l'Institut national de la statistique et des études économiques (2017)
Adequate housing	Access and Infrastructure	French Guiana	L'habitat en Guyane en 2020 : Données et chiffres-clés	Agence d'Urbanisme et de Développement de la Guyane (2020)
Adequate housing	Access	French Guiana	La demande de logement social en Guyane	L' Union Social pour l'Habitat (2014-2020)
Adequate housing	Access and Infrastructure	French Guiana	Quels besoins en logements en Guyane pour les 10 prochaines années ?	Urbalterre Conseil, id territoires (2017)
Adequate housing	Access and Infrastructure	French Guiana	Qualité des eaux destinées à la consommation humaine dans le département de Mayotte. Bilan de l'année 2021	Agence Régionale de Santé Mayotte (2021)
Four basic needs	Access	Mayotte	ERDF Operational Programme for2014-2020 Mayotte	ERDF (2014-2020)
Adequate housing	Access	Mayotte	Le logement social à Mayotte : l'action publique en tension dans le cinquième département d'outre-mer	Violaine Girard (2014)
Adequate housing	Access and Infrastructure	Mayotte	Évolution des conditions de logement à Mayotte - Quatre logements sur dix sont en tôle en 2017	Institut national de la statistique et des études économiques (2019)
Adequate housing	Access and Infrastructure	Mayotte	L'état du logement à Mayotte fin 2013	Institut national de la statistique et des études économiques (2013)
Adequate housing	Access and Infrastructure	Mayotte	Plan Départemental d'Actions pour le Logement et l'Hébergement des Personnes Défavorisées	Département de Mayotte (2018-2023)
All	Access and Infrastructure	Mayotte	Rapport annuel économique Mayotte	IEDOM (2021)
Four basic needs	Infrastructure	Réunion	ERDF Operational Programme for 2014-2020 Réunion	ERDF (2014-2020)
Safe drinking water and sanitation	Access and Infrastructure	Réunion	Le schéma directeur de gestion des eaux Réunion 2022-2027	Comité de l'eau et de la biodiversité (2022)

Safe drinking water and sanitation	Access and Infrastructure	Réunion	Rapport annuel de gestion de l'office de l'eau de Réunion (2022)	Office de l'Eau Reunion (2022). Rapport Annuel de Gestion
Safe drinking water and sanitation	Access and Infrastructure	Réunion	Rapport annuel de gestion de l'office de l'eau de Réunion (2021)	Office de l'Eau Reunion (2021). Rapport Annuel de Gestion
Safe drinking water and sanitation	Access and Infrastructure	Réunion	Chroniques de l'eau Réunion	Office de l'eau de Réunion (2020)
Safe drinking water and sanitation	Access and Infrastructure	Réunion	Note on water use charges and on the implementation of the multiannual intervention programme of the Reunion basin (2021)	Office de l'Eau Reunion (2021)
Safe drinking water and sanitation	Access and Infrastructure	Réunion	Note on water use charges and on the implementation of the multi-year intervention programme intervention programme 2016-2021 of the Reunion basin (2020)	Office de l'Eau Reunion (2020)
Safe drinking water and sanitation	Access and Infrastructure	Réunion	ERDF OperationalProgramme for 2014-2020 Réunion	ERDF (2014-2020)
Adequate housing	Access and Infrastructure	Réunion	Les besoins en logements à Réunion à l'horizon 2035	Institut national de la statistique et des études économiques (2018).
Adequate housing	Access	Réunion	La demande de logement social a Réunion	L'Union Social Pour l'Habitat (2014-2020)
Adequate housing	Access and Infrastructure	Réunion	Bilan des observatoires 2019.	Agorah (2019)
Adequate housing	Access and Infrastructure	Réunion	Les logements à Réunion de 1968 à 2018 (2021)	Institut national de la statistique et des études économiques (2021)
Adequate Housing	Access	Réunion	Enquête logement à Réunion fin 2013 (2016)	Institut national de la statistique et des études économiques (2016)
Adequate Housing	Access and Infrastructure	Réunion	Les logements à Réunion de 2013 à 2019 (2023)	Institut national de la statistique et des études économiques (2023)
Adequate Housing	Access	Réunion	Les propriétaires de logements à Réunion de 1990 à 2014 (2018)	Institut national de la statistique et des études économiques (2018)
Adequate Housing	Access and Infrastructure	Réunion	Les conditions de logement à Réunion (2020)	Institut national de la statistique et des études économiques (2020)

Four basic needs	Infrastructure	Madeira	Regional OP Madeira	ERDF (2014-2020)
Safe drinking water and sanitation	Infrastructure	Madeira	Relatório e contas 2021	ARM - Águas e Resíduos da Madeira, S.A. (2022)
Safe drinking water and sanitation	Access and Infrastructure	Madeira	ERDF Operational Programme for Madeira 2007-2013	Operational Programme 'Madeira' (2007-13)
Safe drinking water and sanitation	Infrastructure	Madeira	Modelação de sistemas de abastecimento de água. O caso de Ilha da Madeira	Losauda, et. al (2019)
Safe drinking water and sanitation	Infrastructure	Madeira	Water reuse in the management of island water resources: the case of the Canary Islands and the Region of Madeira	Delgado et. al (2012)
Electricity, cooling, and heating	Infrastructure	Madeira	Caracterização Da Rede De Transporte E Distribuição Em At E Mt	Empresa de Electricidade da Madeira (2022)
Electricity, cooling, and heating	Infrastructure	Madeira	Relatório da Qualidade de Serviço - Sistema Elétrico	Empresa de Electricidade da Madeira (2021)
Electricity, cooling, and heating	Infrastructure	Madeira	Relatório da Qualidade de Serviço - Sistema Elétrico	Empresa de Electricidade da Madeira (2020)
Electricity, cooling, and heating	Infrastructure	Madeira	Relatório da Qualidade de Serviço - Sistema Elétrico	Empresa de Electricidade da Madeira (2019)
Electricity, cooling, and heating	Access	Azores and Madeira	Estudo sobre a pobreza energética em Portugal	EDP (2018)
Electricity, cooling, and heating	Access	Azores and Madeira	Pobreza Energética em Portugal	Observatório de Ambiente, Território e Sociedade (2021)
Electricity, cooling, and heating	Access	Azores and Madeira	Estratégia Nacional De Longo Prazo Para O Combate À Pobreza Energética 2022-2050	Gabinete Min. do Ambiente e da Ação Climática (2023)
Four basic needs	Access and Infrastructure	Azores	Regional OP Azores (Autonomous Region)	Regional OP Azores (2014-2020)
Adequate housing	Access and Infrastructure	Azores	Estratégia Local de Habitação (ELH) do Município de Vila Franca do Campo	Sociedade Portuguesa de Inovação (2021).
Adequate housing	Access	Azores and Madeira	Report of the Special Rapporteur on adequate housing as a component of the right to an adequate standard of living, and on the right to non-discrimination in this context. Mission to Portugal.	UN Human Rights Council (2017)
Safe drinking water and sanitation	Access and Infrastructure	Azores	ERDF-ESF Programme for 2021-2027	Programa operacional Açores 2030. (2021-2027)

Internet and telephone networks	Access and Infrastructure	Portugal (with reference to Azores)	Relatório Anual Net.mede 2021	Autoridade Nacional de Comunicações (ANACOM) (2021)
Internet and telephone networks	Access and Infrastructure	Portugal	Redes e serviços de alta velocidade em local fixo - 2022	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Infrastructure	Portugal	Serviço de acesso à Internet em local fixo - 2022	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Infrastructure	Portugal	Qualidade do serviço telefónico fixo - 2022	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR na Ilha de São Jorge	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de Lagoa, Açores	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de Santa Cruz da Graciosa	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de Vila Franca do Campo	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de São Roque do Pico	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de Lajes do Pico	Autoridade Nacional de Comunicações (ANACOM) (2022)
Internet and telephone networks	Access and Infrastructure	Azores	Avaliação do desempenho de serviços móveis e de cobertura GSM, UMTS, LTE e NR no Concelho de Madalena do Pico	Autoridade Nacional de Comunicações (ANACOM) (2022)
Four basic needs	Access	Canary Islands	The State of Poverty 2015-2022: Canary Islands	EAPN Canary Islands 82015-2022)
Four basic needs	Infrastructure	Canary Islands	ERDF Operational Programme for 2014-20 Canary Islands	ERDF (2014-2020)
Adequate housing	Access	Canary Islands	Survey on Living conditions	Canarian Statistics Institute
Adequate housing	Access	Canary Islands	Survey of Income and Living Conditions of Canarian Households (EICV-HC)	Canarian Statistics Institute
Safe drinking water and sanitation	Access and Infrastructure	Canary Islands	Rural development programme for the Canary Islands	Factsheet on 2014-2022 Rural

				Development Programme for the Canary Islands
Safe drinking water and sanitation	Access	Canary Islands	Estrategia de salud pública 2022	Ministerio de Sanidad (2022)
Safe drinking water and sanitation	Access and Infrastructure	Canary Islands	ERDF Operational Programme for 2014-2020 Canary Islands	ERDF (2014-2020).
Safe drinking water and sanitation	Access and Infrastructure	Canary Islands	ERDF Programme for 2021-2027 Canary Islands	ERDF (2021-2027)
Internet and telephone networks	Access and Infrastructure	Canary Islands	Informe sobre la Sociedad de la Informacion y las Telecomunicaciones y el Sector TIC y los Contenidos por Comunidades Autónomas Ed. 2019 – Canarias	Observatorio Canario de las Telecomunicaciones y de la Sociedad de la Información (2019).
Internet and telephone networks	Access and Infrastructure	Canary Islands	Informe Banda Ancha en Canarias 2021	Observatorio Canario de las Telecomunicaciones y de la Sociedad de la Información (2022).
Internet and telephone networks	Access and infrastructure	Canary Islands	Informe Banda Ancha en Canarias 2022	Observatorio Canario de las Telecomunicaciones y de la Sociedad de la Información (2022).
Internet and telephone networks	Access and infrastructure	Canary Islands	Datos de cobertura de banda ancha en las Islas Canarias - 2022	Ministerio de Asuntos Económicos y cobertura digital (2022)
Electricity, cooling, and heating	Access and Infrastructure	Canary Islands	Anuario Energético de Canarias 2021	Consejería de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial, Gobierno de Canarias (2021)
Electricity, cooling, and heating	Infrastructure	Canary Islands	El sistema eléctrico canario	Red Eléctrica de España (2016)
Electricity, cooling, and heating	Access	Canary Islands	La pobreza energética en Canarias. Análisis de su incidencia y propuestas de acción	Comisionado de Inclusión Social y Lucha contra la Pobreza, Gobierno de Canarias (2021)
Electricity, cooling, and heating	Infrastructure	Canary Islands	Assessment Report on Technical, Legal, Institutional and Policy Conditions	COME RES (2021).
Internet and telephone networks	Infrastructure	Canary Islands	Informe sobre la Sociedad de la Información y las Telecomunicaciones y el Sector TIC y los Contenidos por Comunidades Autónomas Ed. 2019	Observatorio Nacional de Tecnología y Sociedad (2019)

Internet and telephone networks	Infrastructure	Canary Islands	Informe sobre la Economía y Sociedad Digital por comunidades autónomas – Canarias 2020	Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información (2020)
Adequate housing	Access and infrastructure	French regions	CHIFFRES-CLÉS ET ACTUALITÉS du secteur de l'habitat et du logement social dans les régions et collectivités d'Outre-mer	L'Union Sociale pour l'habitat (2021)
Internet and telephone networks	Access	French regions	Observatoire des marchés des communications électroniques	Regulatory Authority for Electronic Communication, Posts and Press Distribution (Arcep) (2022)
Four basic needs	Access and infrastructure	Portugal	Plano para a Recuperação e a Resiliência	MINISTÉRIO DO PLANEAMENTO (2021)
Four basic needs	Access and infrastructure	Madeira	Madeira Regional Programme 2021-2027	Madeira Regional Programme 2021-2027
Four basic needs	Access and infrastructure	All OR	Outermost regions at a glance – assets, challenges and opportunities	Outermost regions at a glance – assets, challenges and opportunities (2022)
Four basic needs	Access and infrastructure	All OR	THE OUTERMOST REGIONS	THE OUTERMOST REGIONS Challenges and prospects (2018)
Adequate housing	Access	Spain and the Canary Islands	ReviTUR en síntesis Principales evidencias de los efectos del resurgir de las viviendas turísticas en las ciudades españolas y recomendaciones para su tratamiento	Exceltur (2022)

3.5 Annex V: Key sources of information consulted

Table 11: Main sources of information consulted

Areas	Type of source	Region(s)	Source (link)
The four basic needs	International	All (depending on the indicator some OR are not covered)	Eurostat
The four basic needs	International	All (depending on the indicator some OR are not covered)	OECD
The four basic needs	Regional	All Outermost Regions	ERDF Operational Programmes
Adequate housing	National	Canary Islands (Spain)	Living Conditions Survey
The four basic needs	National	Canary Islands (Spain)	National Statistical Institute (INE)
Adequate housing, electricity cooling and heating, internet and telephone networks	Regional	Canary Islands (Spain)	Canary Islands Institute of Statistics (ISTAC)
Adequate housing, safe drinking water and sanitation, electricity, cooling and heating	Regional	Canary Islands (Spain)	Government of the Canary Islands
Adequate housing	Regional	Canary Islands (Spain)	Fundación Foessa
Adequate housing	Regional		
Electricity, cooling and heating	National	Canary Islands (Spain)	Red Eléctrica Española (REE)
Adequate housing, electricity, cooling and heating	National	Azores and Madeira (Portugal)	National Institute Statistics (INE)
The four basic needs	Regional	Azores and Madeira (Portugal)	CF Operational Programmes
The four basic needs	Regional	Azores (Portugal)	Regional Statistical Office of the Azores (SREA)
Adequate housing, electricity, cooling and heating	Regional	Azores (Portugal)	Government of Azores
The four basic needs	Regional	Madeira (Portugal)	Regional Directorate of Statistics of Madeira (DREM)
Adequate housing, electricity, cooling and heating	Regional	Madeira (Portugal)	Government of Madeira

Adequate housing	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin (France)	L'Union Sociale pour l'habitat
Safe drinking water and sanitation, electricity, cooling and heating	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Ministry of Ecological Transition and Territorial Cohesion
Safe drinking water and sanitation	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Ministry of Health and Prevention
Electricity, cooling and heating, internet and telephone networks	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	France Electricity
Adequate housing, electricity, cooling and heating	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	National Institute of Statistics and Economic Studies (INSEE)
Safe drinking water and sanitation	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	National Observatory of Public Water and Sanitation Services (Sispea)
Safe drinking water and sanitation	National	France	Office International de l´eau
Electricity, cooling and heating	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Agence ORE
Adequate housing, electricity, cooling and heating	Regional	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Overseas Rapid Economic Accounts (CEROM)
Adequate housing, safe drinking water and sanitation, electricity, cooling and heating	Regional	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Delegated Central Bank of Overseas Departments (IEDOM)
Safe drinking water	Regional	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Le Conseil Économique Social et Environnemental
Safe drinking water	Regional	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Agence Regionale de Santé
Safe drinking water	National	Portugal	SUWANU Europe
Safe drinking water and sanitation	Regional	Saint Martin	Saint Martin Eau Potable 2022. Rapport annuel du delegataire.

Safe drinking water and sanitation	Regional	Saint Martin	WHO/UNICEF Joint Monitoring Programme (2023)
Internet and telephone networks	National	Martinique, Mayotte, Guadeloupe, French Guiana, Réunion, Saint Martin	Regulatory Authority for Electronic Communication, Posts and Press Distribution (Arcep)
Adequate housing, safe drinking water	Regional	Guadeloupe	Government of Guadeloupe
Electricity, cooling and heating, internet and telephone networks	Regional	Guadeloupe	EDF Guadeloupe
Safe drinking water and sanitation	Regional	Guadeloupe	Guadeloupe Water Office
Adequate housing, safe drinking water and sanitation, electricity, cooling and heating	Regional	Réunion	Government of Réunion
Electricity, cooling and heating, internet and telephone networks	Regional	Réunion	EDF Réunion
Safe drinking water and sanitation	Regional	Réunion	Réunion Water Office
Electricity, cooling and heating, internet and telephone networks	Regional	French Guiana	EDF French Guiana
Safe drinking water and sanitation	Regional	French Guiana	Guyane Water Office
Adequate housing, safe drinking water	Regional	Martinique	Government of Martinique
Safe drinking water and sanitation	Regional	Martinique	Observatoire de l'eau – Martinique
Safe drinking water and sanitation Adequate housing	Regional	Martinique	Le Portail de l’information Géographique en Martinique
Electricity, cooling and heating, internet and telephone networks	Regional	Martinique	EDF Martinique

Electricity, cooling and heating, internet and telephone networks	Regional	Spain, Portugal	OMIE
Adequate housing, safe drinking water	Regional	Mayotte	Government of Mayotte
Electricity, cooling and heating, internet and telephone networks	Regional	Mayotte	Electricité de Mayotte
Adequate housing, safe drinking water	Regional	Saint Martin	Government of Saint Martin
Safe drinking water and sanitation	International	EU and national levels	World Bank
Safe drinking water and sanitation	National and regional	Portugal, Azores, and Madeira	Pordata
Safe drinking water and sanitation	National and regional	Spain and Canary Islands	Calidad del Agua de Consumo Humano en España. Informe Técnico. Ministerio de Sanidad.
Connectivity	EU and national	EU, France, Portugal, Spain	Eurostat
Connectivity	Regional	Réunion. Gudaeloupe, Martinique, French Guiana	INSEE
Connectivity	Regional	Azores, Madeira	INE
Connectivity	Regional	Spain, Canary Islands	Observatorio Nacional de las Telecomunicaciones y de la Sociedad de la Información (2020)

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

– by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
– at the following standard number: +32 22999696 or
– by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications at: https://op.europa.eu/en/publications. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: http://eur-lex.europa.eu

Open data from the EU

The EU Open Data Portal (http://data.europa.eu/euodp/en) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

KN-05-24-084-EN-N

Publications Office
of the European Union