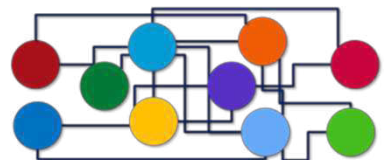




CAMERA DI COMMERCIO
SASSARI

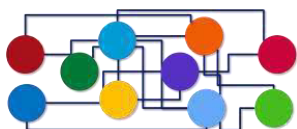
Economic Observatory 2018 North Sardinia

TERRITORIAL
SOCIO-ECONOMIC
REPORT









This document has been created by **Francesco Piredda** and **Gianmario Serra**, supervised by **Pietro Esposito** (Institute Secretary General) and co-ordinated by **Monica Cugia** (manager of Economics and Statistics Promotion Service).

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INTRODUCTION

Dear Reader,

One of the typical duties of the Chamber of Commerce of North Sardinia has always been to provide financial executives with a clear and precise overall picture of the economic trends in the region.

The increasing turbulence, and permanent disappearance of regional borders in the marketplace, make it imperative for today's entrepreneurs to have all possible decision-making tools available to them.

This book contains more detailed social and economic information than the previous edition, in order to supply salient data relating to regional economic forecasting.

The content and graphics have been revised for this current edition, with particular emphasis on technology, and the value of start-ups. The dispersal of technology throughout the Digital Enterprise Points (Punti d'Impresa Digitale – PID), is a key criterion for the Chamber of Commerce. Start-ups will contribute increasingly to Sardinia's traditional economy, in order to incorporate new technology, marketplaces, and communication pathways with consumers.

The Survey is aimed at small businesses: the backbone of the Chamber of Commerce, with the intention of increasing contextual awareness of business environments, and supporting strategies, development, productivity, hospitality and sustainability.

We hope to arouse our readers' curiosity and augment awareness of the strength and presence of the North Sardinian economy. Wishing you a pleasant reading!

Secretary General
(Dott. Pietro Esposito)

President
(Gavino Sini)



5

7

14

21

28

THE TERRITORY

On February 4 2016 the regional law n. 2 pertaining to the structure of local authorities, lead to the abolition of the province of Cagliari, together with four other provinces created in 2001. Prior to the reform, the province of Sassari had 66 districts, and the new partition further expanded its borders to include the municipalities of Olbia-Tempio (26 towns). The province of Sassari now includes 92 districts, two more (Budoni and San Teodoro) than it did prior to the 2001 reform.

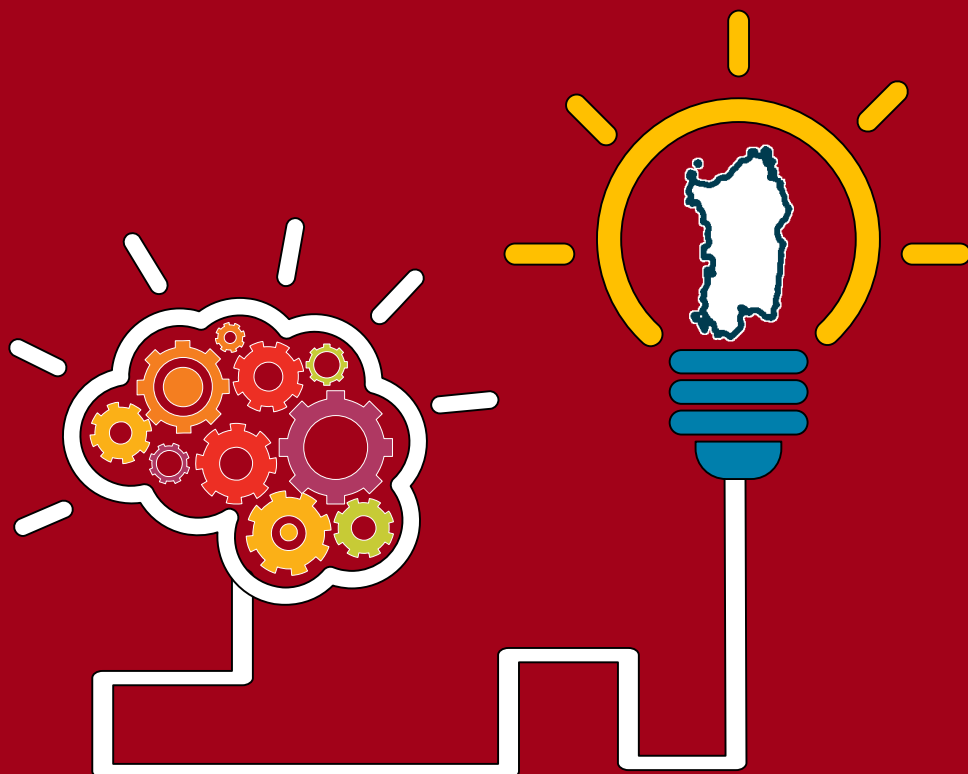
Due to these legislative changes in 2001 and 2016, and the lack of inter-regional communication relating to various databases in each region that have been consulted in order to compile this document, it has not been possible to give a wholly accurate depiction of the territorial dimensions of north Sardinia, relating to all the topics discussed. Under the authority of the Chamber of Commerce of Sassari, these reforms have not brought about any change to its own regional borders, and they remain as before the 2001 reform, establishing the 8 provinces of Sardinia.

On 8 August 2017 the Ministry of Economic Development decreed that in relation to the reorganisation of chambers of commerce, industry, craft and agriculture (reshaping the Italian chambers system while reducing the overall number of bodies from 105 to 60), Sassari's Chamber of Commerce retains regional autonomy over 90 municipalities, comprising the former provinces of Sassari and Olbia-Tempio under the 2001 reform, excluding those of Budoni and San Teodoro.

This document comprises data compiled within territory governed by the Sassari Chamber of Commerce wherever possible.

Chapter 1

SUMMARY



Main socio-economic changes in Sardinia and in North Sardinia

SUMMARY

FIGURES FOR NORTH SARDINIA



Enterprise dynamics



2017 has been a positive year for businesses registered to the Sassari Chamber of Commerce. The growth rate of +1,13% reflects the difference between 3,401 registrations and 2,761 business closures (excluding ex officio closures). Limited companies lead the way with a balance of +700 new businesses and a growth rate of +5.2%

ENTERPRISES

56.022

GROWTH

+1,13%

ICT COMPANIES

803

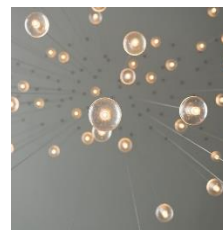
**LIMITED
COMPANIES**

312



Innovation and Digital Technology

Businesses operating in the Information Communication Technology (ICT) industry are slowly becoming more structured and modern legislatively. In recent years sole traders have been replaced by limited companies, which represent nearly 40% of the whole industry in 2017. In terms of innovation capacity, the region has developed more slowly than the national average.



Trade and Commerce



In 2017, with €198 million of exported goods and €358 million of imported goods and services, an increase of 24 million and 56 million respectively, compared to 2016, North Sardinia's trade deficit increased from €127 to €160 million. It is worth mentioning the excellent performance of the agricultural sector, producing over €8 million (+117%).

EXPORT

+14,0%

IMPORT

+18,7%

RESIDENTS

493.788

VARIATION

-683



Demographic Development

In the year 2016 North Sardinia lost 683 residents. However this figure constitutes only 13.7% of the total regional depopulation (-5,003), mitigated by the increasing number of foreign immigrants (+914), making a total of 1,869 newly registered residents vs 955 nationals.





Tourist Flow



In 2017 over 1.5 million visitors were recorded by North Sardinian accommodation facilities. This trend has grown consistently since 2013, when 990,000 visitors were recorded. 81,000 more arrivals were recorded in 2017 than the previous year: 98% (79,000) of these were foreign nationals.

INCOMINGS

1.525.540

GROWTH

+5,6%

ENERGY CONSUMPTION

+2,5%

WASTE

+1,6%



Energy and Environment

North Sardinia increased electrical consumption in 2017 by 2.5%, well above the 1.6% regional increase recorded. In 2016 municipal waste increased by 1.6% compared to the previous year. An increase of 6% was seen for recycling in the same period. In 2016 North Sardinia also recorded an increase of over 6,000 in the number of vehicles, of which over 4,000 were cars.



Education



North Sardinia has a student population of over 55,000, which has remained roughly the same during 2016 and 2017. In 2017, 21.2% of those aged between 18 and 24 did not enrol in further education. This somewhat alarming figure is worse than that of the national average.

SCHOOLS

578

STUDENTS

55.425

HOSTS
129
HOSTING
CAPACITY
684



School-Work Experience

A steady increase is seen in the number of businesses registered on the National Registry of School-Work Experience who are willing to host high school students. In September 2018, North Sardinia recorded 129 newly registered businesses with a maximum hosting capacity of 684 pupils.





Cultural Heritage



A notable growth in cultural tourism has been seen in figures provided by the Ministry of Cultural Heritage, Activities and Tourism (MIBACT), in terms of tourist numbers, revenue at museums and archaeological sites. 25% of tourists visiting Sardinia in 2017 stayed in North Sardinia, providing a revenue of more than €500,000.

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139.734

INCOME

515.565 €

EMPLOYED

+3,7%

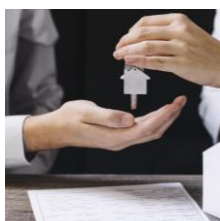
UNEMPLOYMENT

16,9%



Job Market

After a big drop in 2016, the number of employees rose significantly in 2017 by 6,000. This growth was driven primarily by the construction (+3.245) and services industries, both in downturn the previous year. Good news also on unemployment which has decreased from 19% to 16.9% in 2017.



Property Market



In 2017 trade in residential real estate has increased by 2.7%, much less than the 23.2% boom recorded the previous year. Commercial real estate sales are stable in North Sardinia, with an increase of only 10 units compared to 2016.

RESIDENTIAL sales

7.055

GROWTH

+2,7%

CRIME

16.045

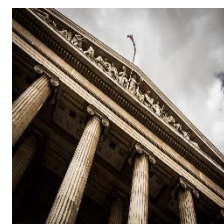
2016/2015

-16,3%



Safety and Security

2016 figures confirmed the increase in reported crimes which characterised the 5 previous years. The majority of crimes recorded in North Sardinia are thefts, nearly 7,000 in 2016, with petty crimes at 4,330.





Economy and Revenue



The 2016 Sardinia's gross domestic product was in decline despite increasing prices. After a year's break from decline, the downward trend in the industrial sector is again in effect. The figures regarding income reported by taxpayers in North Sardinia in 2017 highlight a slight increase since 2016, reaching about €5.5 billion.

GDP
31,5 mld
2016/2015
-0,9%

Chapter 2

ENTERPRISE DYNAMICS



✓ North Sardinia's evolution of entrepreneurial dynamics in recent years

Source:
Infocamere Stockview

And yet it moves!

Despite the confidence crisis affecting the national economy over the last ten years, people in North Sardinia have never lost their enthusiasm for entrepreneurship.

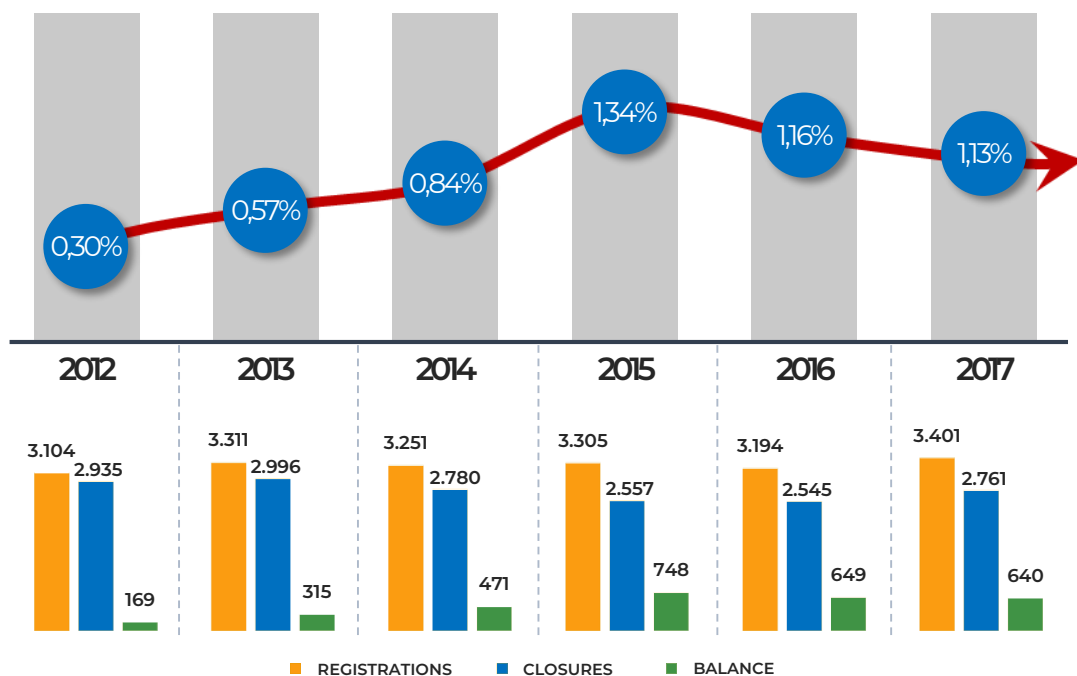
North Sardinia has recorded the registration of 3,401 new enterprises in the last year, in contrast to 2,761 failed businesses, an increase of 640 new enterprises. The total number of registered businesses in 2017 was 56,022.

North Sardinia has seen a growth rate of 1.13%, driven largely by the highly developed entrepreneurial skills in the Gallura area, ranked 29th by the 105 national chambers of commerce, and achieving second place in the national ranking.

ENTERPRISES

In comparison to 2016 and 2015, North Sardinian entrepreneurialism in 2017 diminished significantly. Nevertheless, these figures are an improvement on those recorded 2012-2014, showing under 1% consistent average.

NORTH SARDINIA - Growth rate 2012 - 2017



WITHIN THE INDUSTRIES

Year 2017



AGRICULTURE

The increase of 251 new businesses has been largely due to business registrations by entrepreneurs aged under 35.



SERVICES

In 2017, 538 new registrations and 425 closures, have produced a total of 113 new businesses.



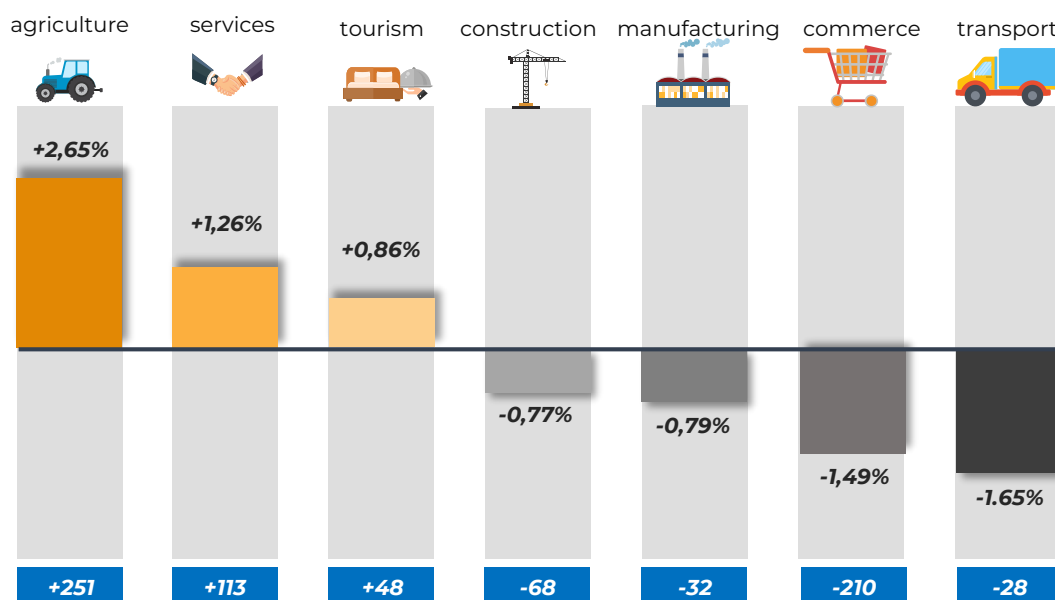
CONSTRUCTION

The Construction industry has lost 68 enterprises: 360 newly opened and 428 shut down.

SECTORS OF ECONOMIC ACTIVITY

For the second year running, Agriculture is North Sardinia's most dynamic industry, growing at a consistently rapid pace. Construction is experiencing a downturn, which is by now endemic (a loss of 68 enterprises in the last year). Moreover, the trade industry has sustained a heavy loss of 210 businesses.

NORTH SARDINIA – Enterprise Loss & Growth by Industry - 2017



MANUFACTURING

32 business were lost in 2017: 127 registrations, 159 closures.



TOURISM

In the accommodation and culinary services sector 337 new businesses were opened and 289 closed.



TRADE

The trade industry has recorded a loss of 210 enterprises, despite being the sector with the highest number of active businesses in 2017.



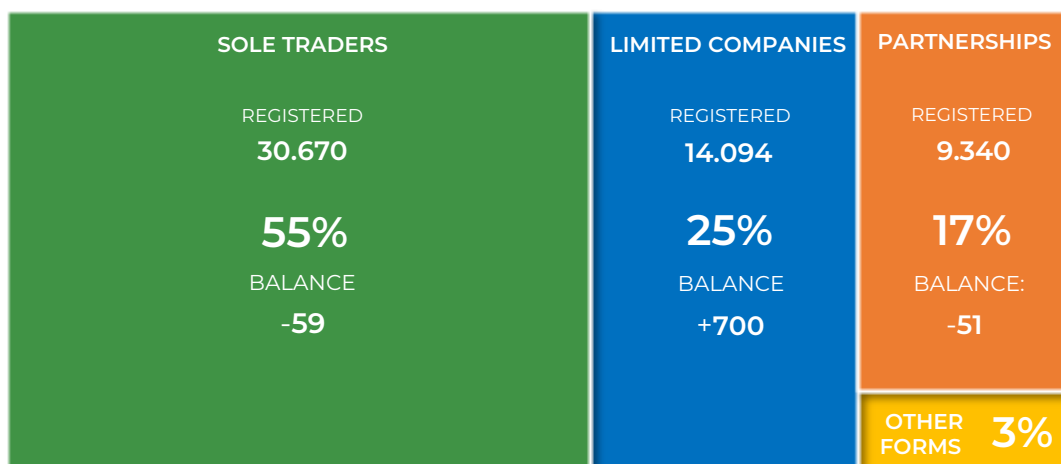
TRANSPORT

31 business opened and 59 closures, with a negative balance due almost entirely to land transport.

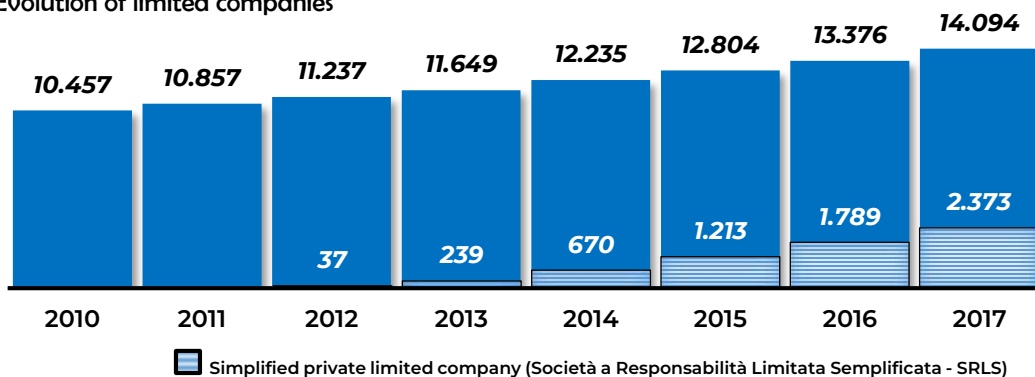
BUSINESS FORMAT

In 2017 the most significant contribution to the annual figures was the growth of limited companies. This is gradually shaping the entrepreneurialism in North Sardinia, offering business formats which are more articulate and competitive in today's market. It is worth mentioning the turnaround of sole traders in 2017.

NORTH SARDINIA – Enterprise Figures for Different Types of Business Structure - 2017

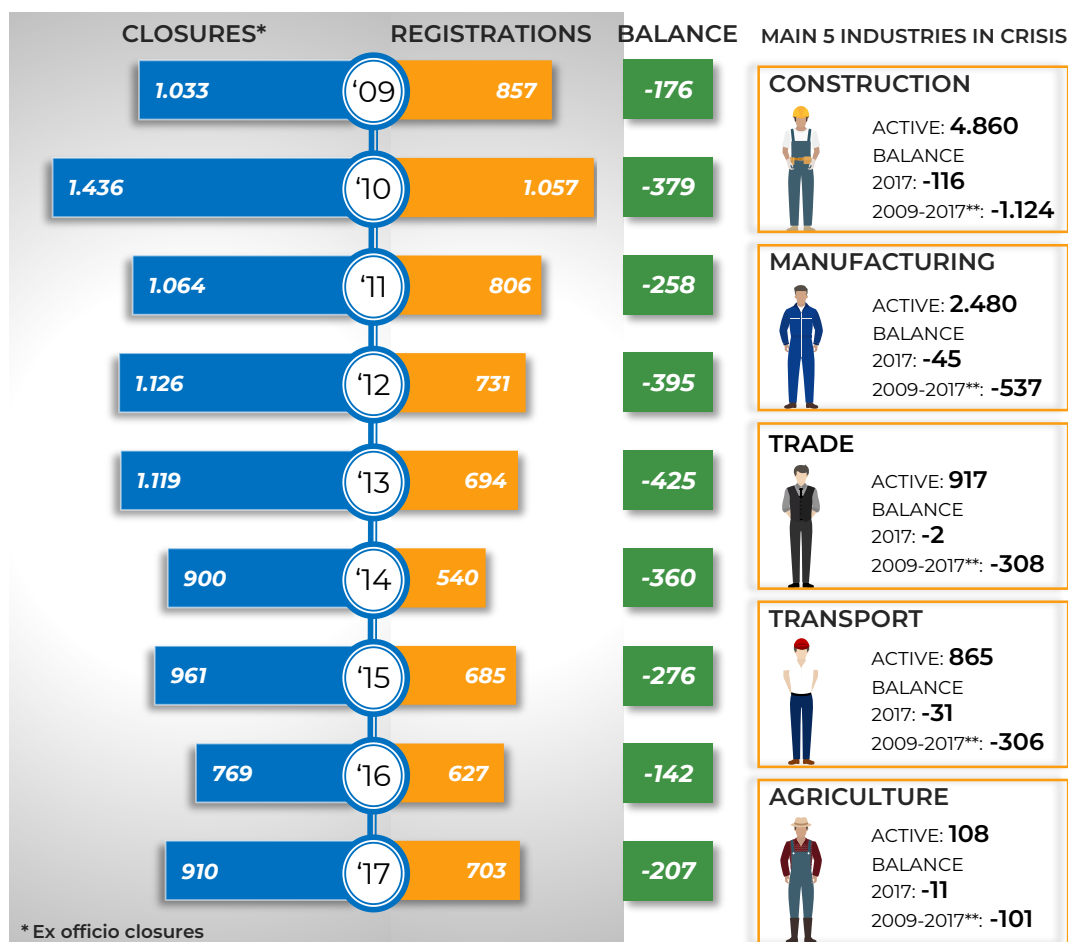


Evolution of limited companies



CRAFT INDUSTRY

In North Sardinia the number of artisanal businesses has decreased at a steady pace: in the last 9 years, a loss of about 2,600 businesses has been recorded. The regression of the artisanal industry has been affected primarily by the trends in construction and manufacturing.



**sum of the balances from 2009 to 2017

YOUTH ENTREPRENEURSHIP

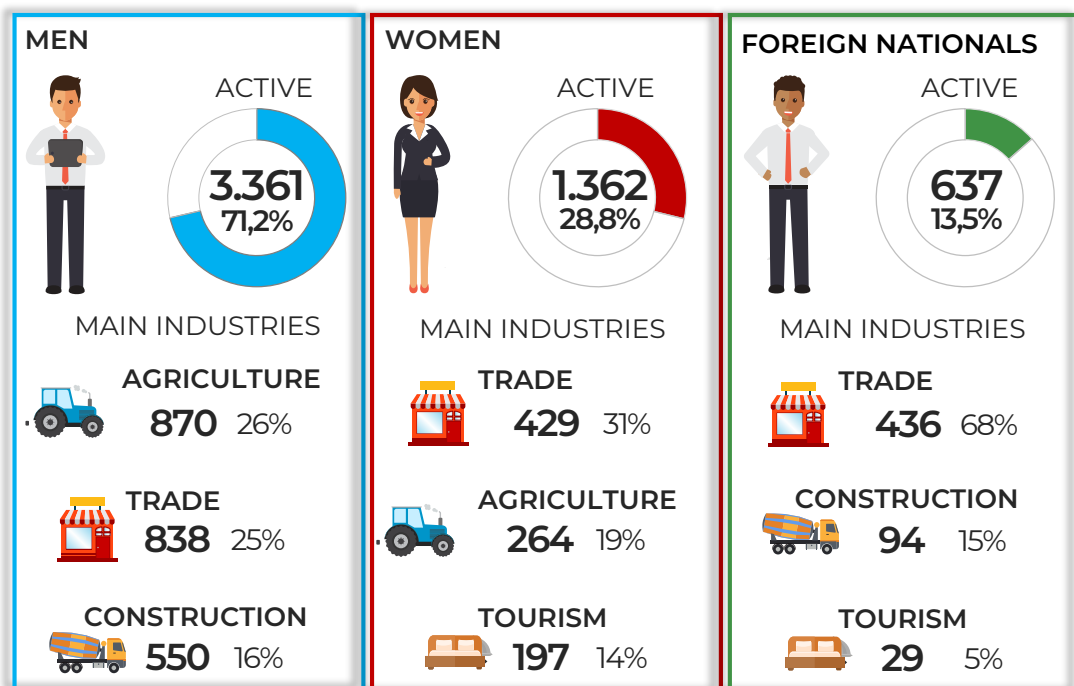


The increasing number of young entrepreneurs in 2017 is due primarily to young Italian and foreign entrepreneurs. The increase in enterprises managed by entrepreneurs under 35 to 722 is notable in comparison to the previous annual average increase of 640. Those managed by young female entrepreneurs (266) have been fundamental to this growth.

NORTH SARDINIA - Number of YOUNG Entrepreneurship - 2017

ACTIVE	REGISTRATIONS	DEREGISTRATIONS	DIFFERENCE	GROWTH RATE
4.723	1.115	393	+722	+13,2%

YOUNG entrepreneurs by category - 2017





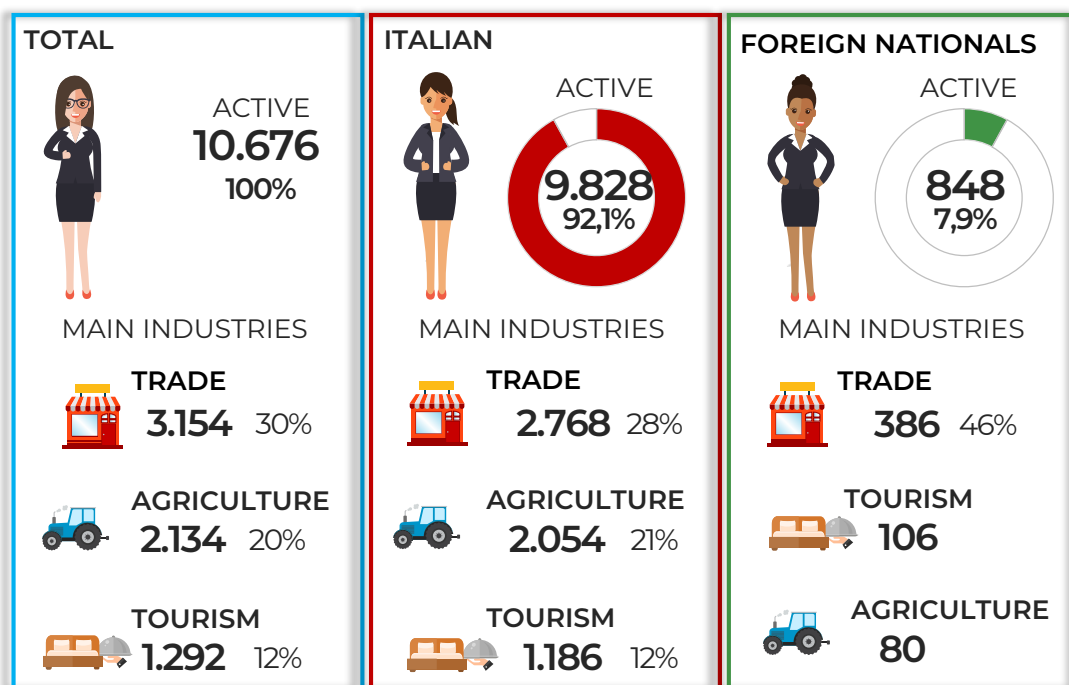
FEMALE ENTREPRENEURS

In relative terms the contribution of female entrepreneurs has been moderate (218 new business), whilst being statistically significant to the overall number of enterprises (23.4%). Female entrepreneurship is clearly a driving force.

NORTH SARDINIA - Numbers of FEMALE Entrepreneurs - 2017

ACTIVE	REGISTRATIONS	DEREGISTRATIONS	DIFFERENCE	GROWTH RATE
10.676	1.012	794	+218	+1,7%

FEMALE entrepreneurs by category - 2017



FOREIGN-OWNED ENTERPRISES

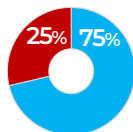
A dramatic fall occurred in 2017 as the number of businesses run by non-nationals has slowed down. This constitutes a decrease of 7.4% in comparison to 8.1% in 2016.

NORTH SARDINIA – Enterprises Managed by Non-Nationals - 2017

ACTIVE	REGISTRATIONS	CANCELLATIONS	DIFFERENCE	GROWTH RATE
3.404	240	286	-46	-1,1%

ACTIVE ENTERPRISES

WOMEN
848



MEN
2.256



MAIN INDUSTRIES



TRADE

2.028 60%



CONSTRUCTION

510 15%

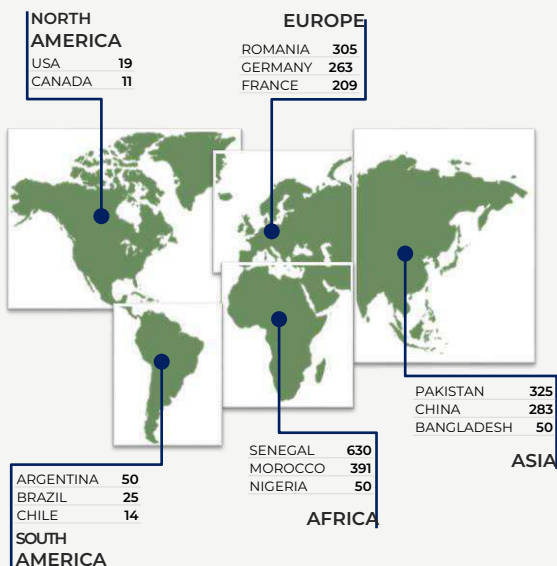


TOURISM

229 7%

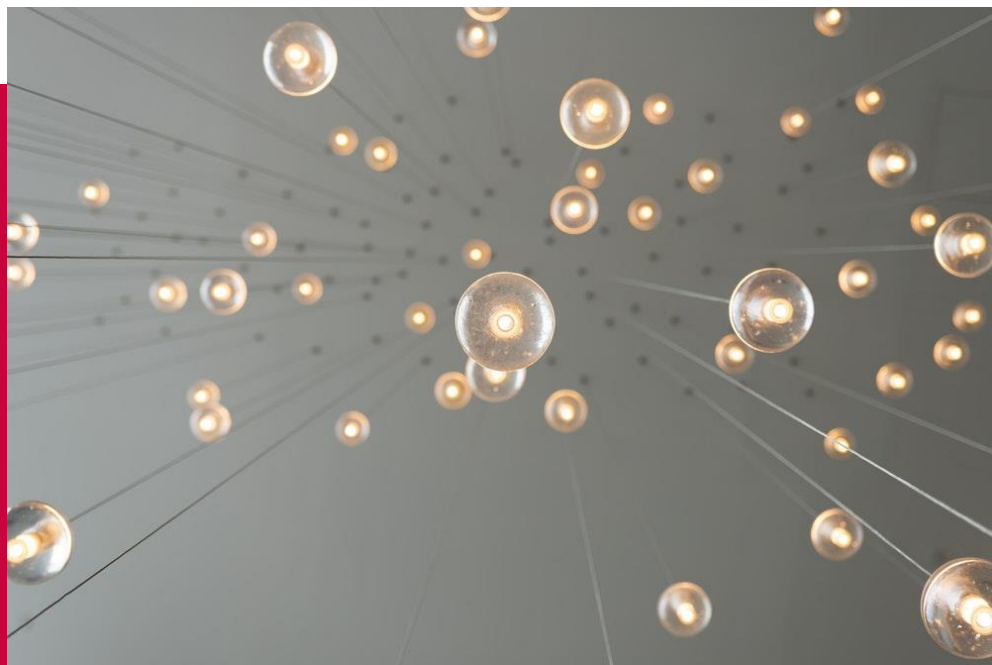
IMMIGRANT MANAGERS

Main countries of origin of managers and company owners



Chapter 3

INNOVATION



✓ Monitoring indicators for innovation capability and new innovative start-ups

Sources:

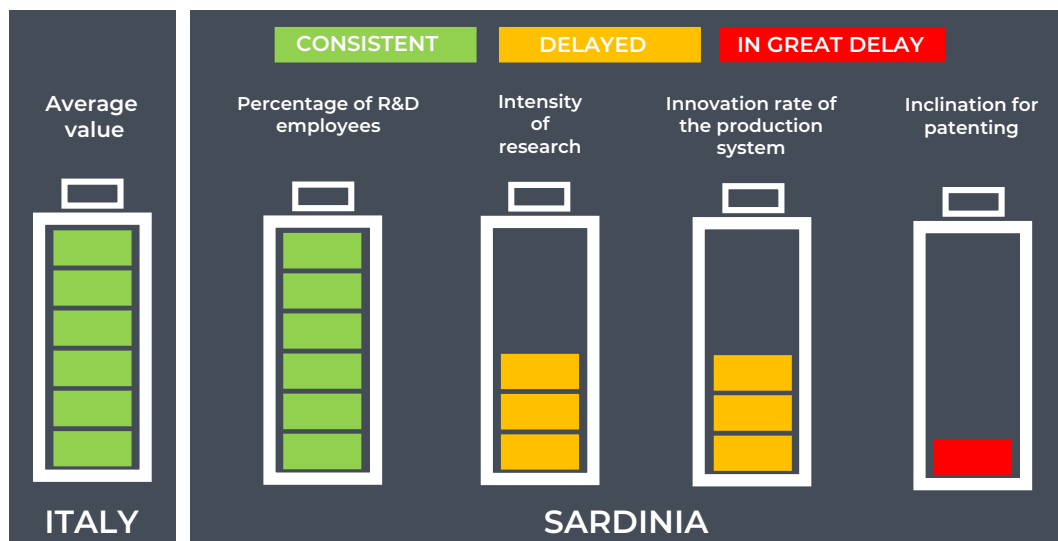
Infocamere Stockview, startup.registroimprese.it Istat BES 2017

Innovation is a strategic driving force behind the revitalization of local economy. Innovation is almost mandatory in today's competitive market. Investment in Research and Development has increased in the last year in Sardinia and the percentage of employees in this field is consistent with the national average. Despite the significant growth of requested patents in North Sardinia as compared to 2016, there is a long delay in processing in comparison to the national average waiting time due to patent capacity. The presence of limited companies within the overall number of companies in the ICT industry is increasingly important, largely thanks to the birth of new Simplified Private Limited Companies (SRLS).

During the third trimester of 2018 the consistent growth of start-ups has largely been in the former province of Cagliari. Roughly three quarters of the start-ups, located in the area between the former provinces of Sassari and Olbia-Tempio, operating in the service industry, have a turnover of less than €100,000, and a share capital not higher than €5,000.

ICT INDUSTRY

In 2015, spending on Research and Development by public/private companies and institutions in Sardinia reached €275 million, an annual increase of 10.7%. The intensity of research (cost of spending to the regional GDP) has been 0.83%, nearly the same value as the previous year, but lower than the national figure of 1.34%. The island recorded the greatest delay in the field of patenting, with only 5 patents per million inhabitants, compared to the national average of 60. Taking into account Sardinian companies' inclination for innovation, the rate has improved: 39.6 companies with more than 10 employees are innovative (close to the national value of 44,6).



SARDINIA ICT companies 2017 indexes and variation '16/'17

Spending in R&D

275
million of €
(+10,7%)



Companies with a website

56,8%
(-0,5%)



Employed in creative companies

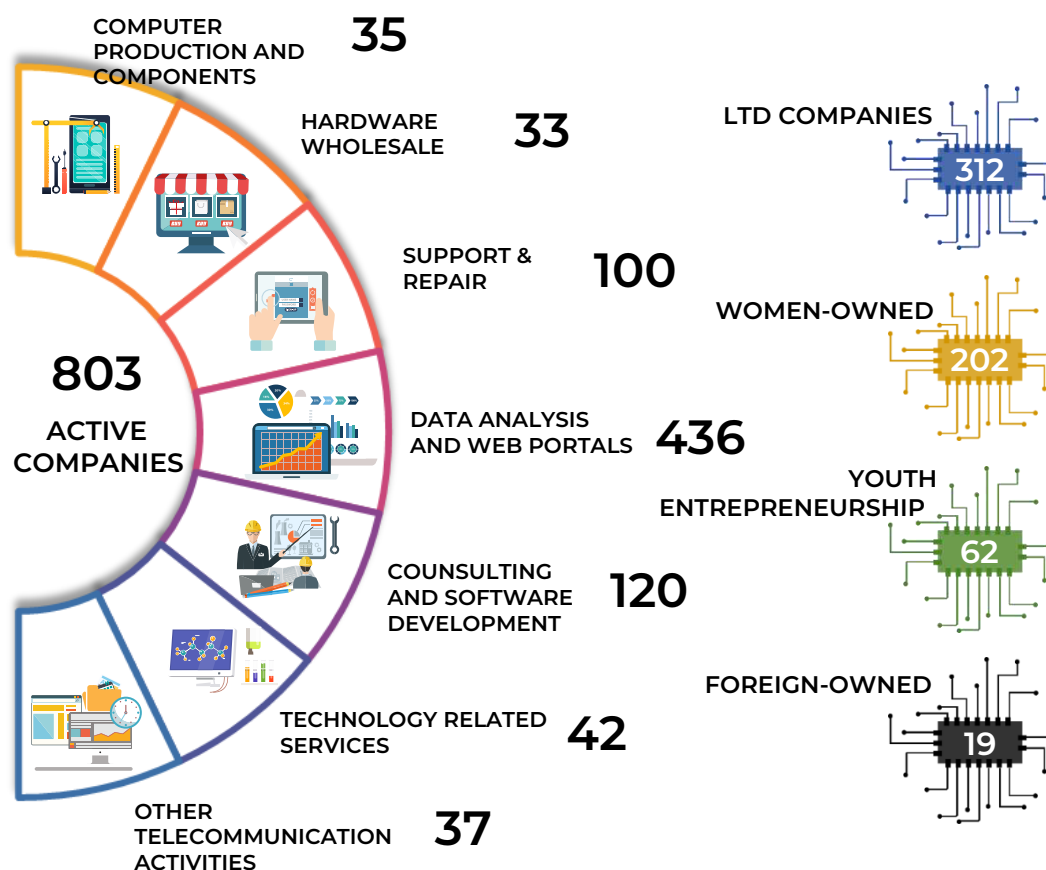
2,1%
(+0,1%)



ICT COMPANIES OF NORTH SARDINIA

In March 2018 there were 803 Information Communication and Technology companies in North Sardinia. Half of these were operating with data processing, hosting and related activities. Limited companies represent 40 % of the overall ICT companies, pushed by the newly developed Simplified Limited Companies (SRLS). The high percentage of women-owned enterprises amounts to 25% of the province total.

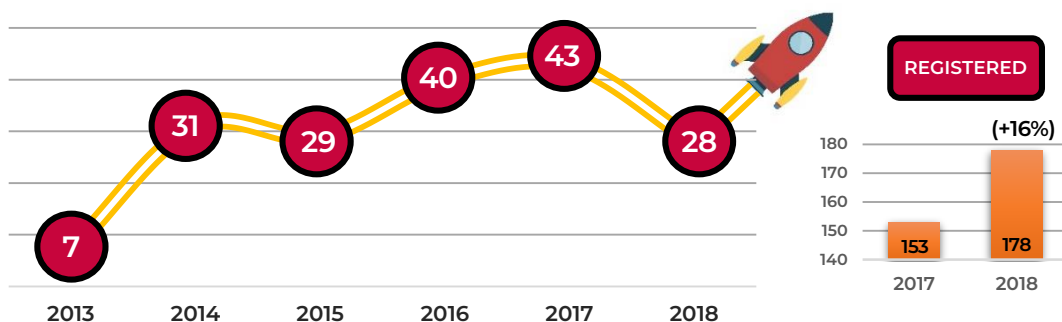
NORTH SARDINIA ITC companies by activity sector, March 2018



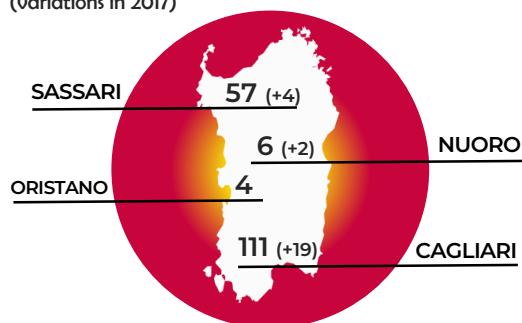
INNOVATIVE START-UPS IN SARDINIA

The number of innovative Italian start-ups registered in the special section of the Registry of Businesses amounted to 9,609 in the third quarter of 2018 (according to the Chamber of Commerce database), of which 178 are in Sardinia: approximately 1.85% of the national total. 94% of Sardinian innovative companies are located in a concentrated area between the former provinces of Cagliari (62%) and Sassari (32%). A greater increase has been recorded in the Cagliari region, where the number of start-ups has risen from 92 to 111 (+21%) compared to the third quarter in 2017. In North Sardinia a growth of 27% has been recorded in the Olbia-Tempio area (from 11 to 14 businesses), whereas no variation was recorded in the Sassari area.

SARDINIA Third Quarter 2018 Start-ups by year of registration in the Registry of Businesses



2018 STARTUPS by province
(variations in 2017)



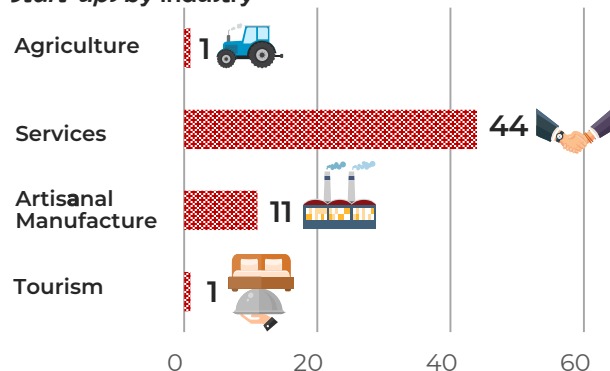
2018 STARTUPS by legal status

	SASSARI	CAGLIARI	ORISTANO	NUORO
SRL	45	92	2	5
SRLS	10	12	1	1
SCaRL	1	1	--	--
COOPERATIVE COMPANIES	1	6	1	--

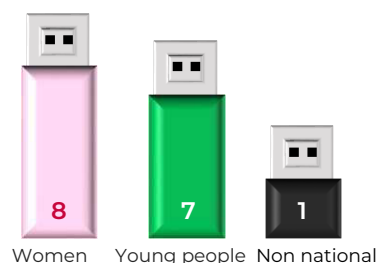
NORTH SARDINIA'S INNOVATIVE START-UPS

An annual 57,4 growth of start-ups in North Sardinia was seen by September 2018 (+5.6%). Start-ups represent 0.4% of the 14,094 limited companies registered in the province of Sassari. 8 of these are run predominantly by women, 7 are run by young people, and one has a foreign management. 5 have a high technological dynamic (4 of them in the service sector and 1 in manufacturing). 77% of all North Sardinian start-ups are service companies where nearly half of them are software developers and IT consultants.

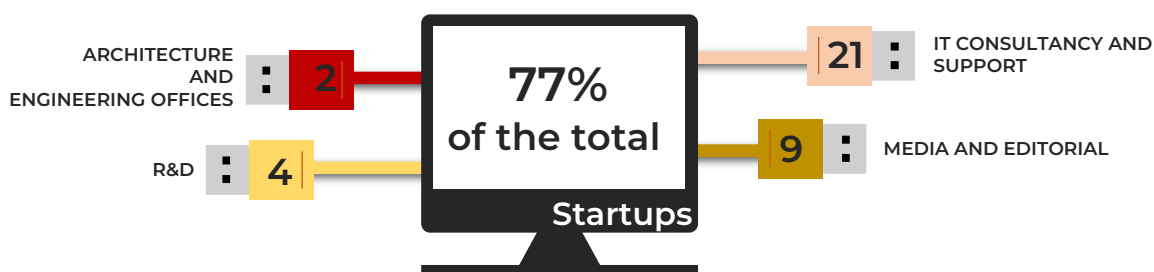
Start-ups by industry



Break-down of Start-ups management by type



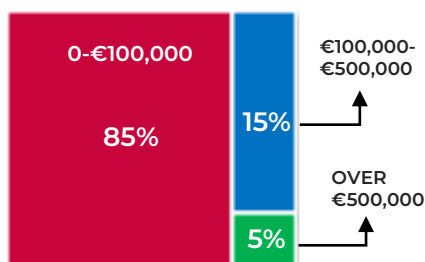
Break-down of SERVICE industry start-ups



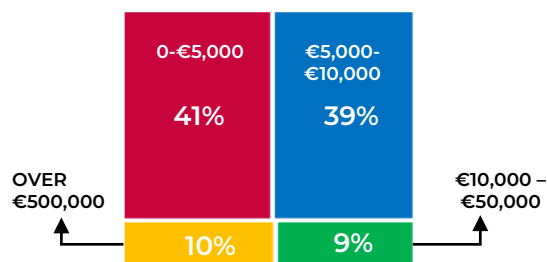
START-UP BUDGETING

Chambers of Commerce budget analysis shows that start-ups in North Sardinia have on average a turnover of less than €10,000, 4 employees, and a social capital between €1,000 and €10,000.

Number of start-ups by production sector



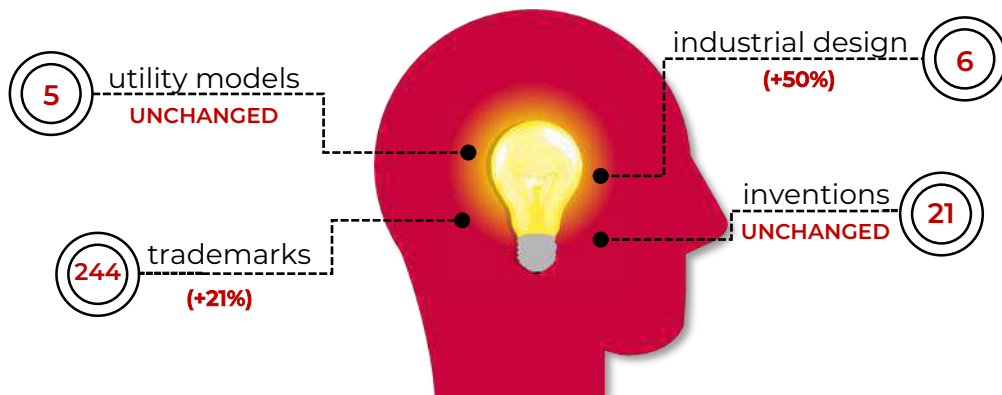
Number of start-ups by share capital category



INNOVATION CAPABILITY: patents

According to the data filed in 2017 at the Chamber of Commerce of Sassari, trademarks have increased by 21% (from 203 to 244), industrial design has doubled, whereas figures relating to utility models and inventions have not changed since 2016.

NORTH SARDINIA: patenting requests in 2017 and variation '16/'17



Chapter 4

TRADE AND COMMERCE



✓ Trade development between North Sardinia and the rest of the world

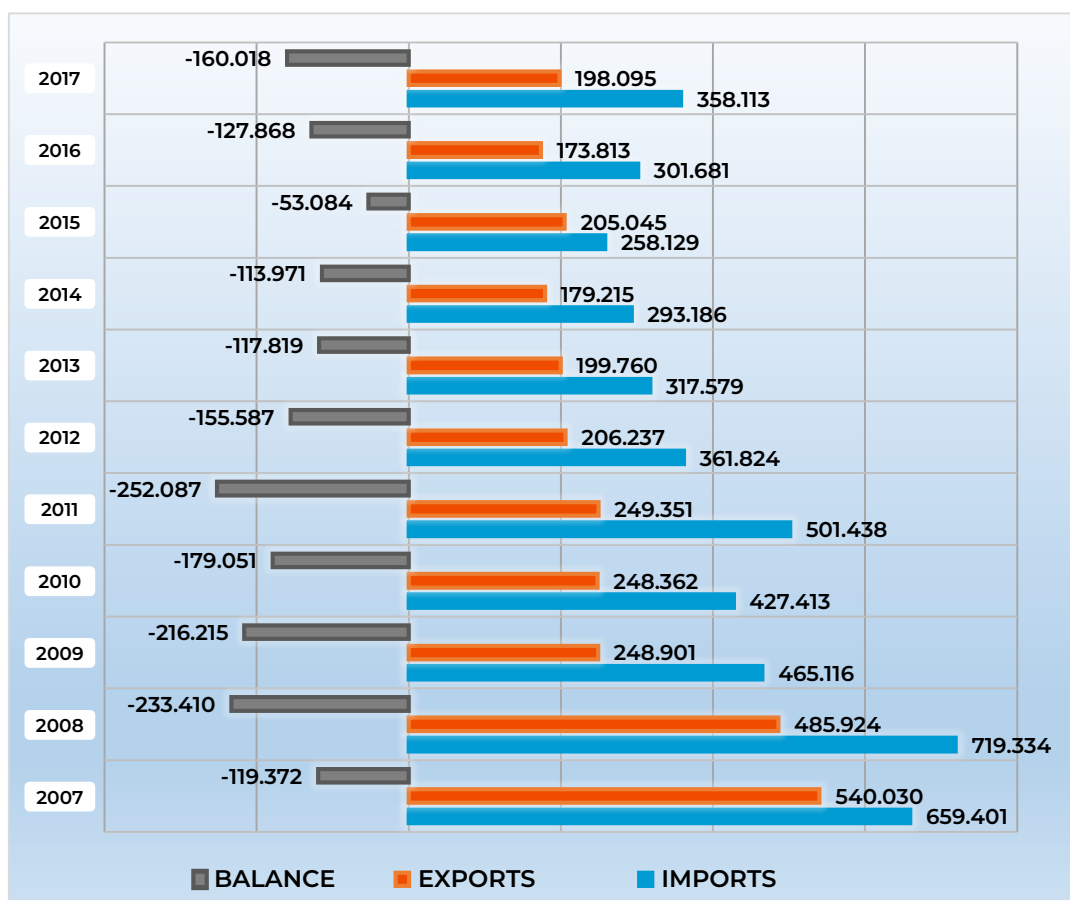
Sources:
Istat, coeweb.istat.it

The latest figures show an increasing international trade deficit. Despite the growth of exports in 2017, the balance of trade still leans towards imports. Imports of mineral extraction products coming mainly from Russia have doubled compared to 2016, and in 2017 constituted a third of all imported goods. Exports have increased in nearly all product sectors, especially food farming, chemicals and transport.

IMPORT-EXPORT

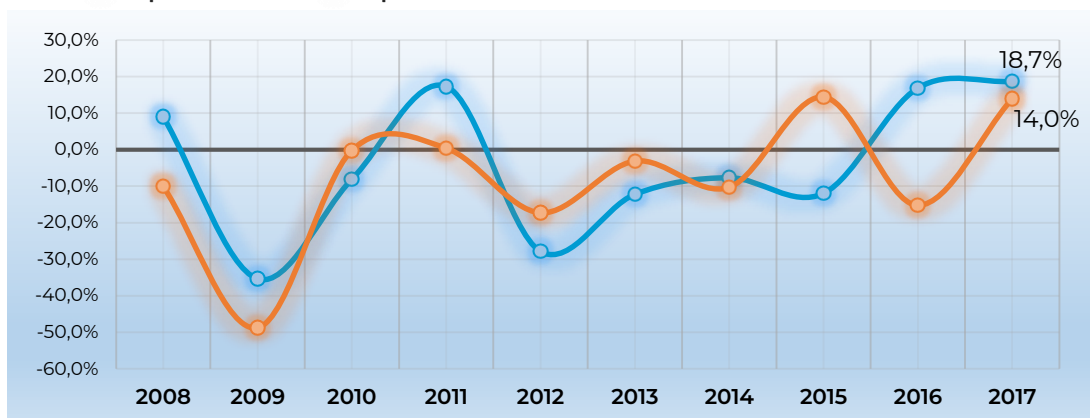
In 2017 the international trade of products and services has created an economic flow of over half a billion Euro. The balance of trade deficit (difference between import and export) has risen from €128,000,000 in 2016 to €160,000,000 in 2017.

NORTH SARDINIA - Trade Development – €1000's



NORTH SARDINIA - Imports and Exports - percentage annual comparison

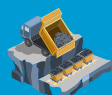
● imports ● exports



MAIN PRODUCTS

NORTH SARDINIA - The three most imported and exported products - year 2017

IMPORT



EXTRACTED MINERALS

123.971.256 € (+110%)



FOOD

73.294.624 € (+4%)



CHEMICALS

29.279.568 € (+26%)

EXPORT



FOOD

87.038.805 € (+5%)



CHEMICALS

35.926.696 € (+27%)

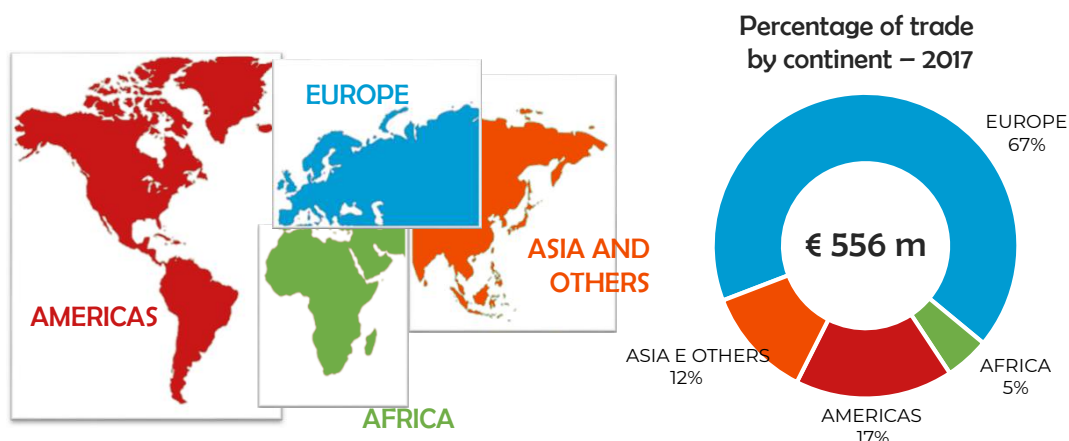


WOOD AND CORK

20.986.419 € (-9%)

TRADE BY CONTINENT

The import/export growth trends recorded in North Sardinia are due entirely to buying and selling in European countries, where mining products have significantly increased and the export of food and chemicals has intensified.

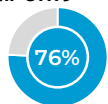


NORTH SARDINIA –values in €million, and percentage change 2016/2017

AMERICAS	EUROPE	AFRICA	ASIA AND OCEANIA
IMPORTS	IMPORTS	IMPORTS	IMPORTS
13,8 (+8%)	271,5 (+27%)	23,9 (-7%)	48,9 (-2%)
EXPORTS	EXPORTS	EXPORTS	EXPORTS
79,2 (-3%)	100,2 (+32%)	2,3 (+18%)	16,4 (+14%)
DIFFERENCE	DIFFERENCE	DIFFERENCE	DIFFERENCE
+65,4	-171,3	-21,6	-32,4

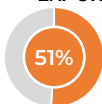
EUROPE

IMPORTS



OF THE WORLD TOTAL

EXPORTS



PERCENTAGE BY SECTOR

5,7%
15,5 m €

AGRICULTURE

7,8%
7,8 m €36,3%
98,5 m €

MINERAL EXTRACTION

1,3%
1,3 m €57,6%
156,5 m €

MANUFACTURING

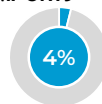
89,2%
89,3 m €0,4%
1,0 m €

OTHER

1,7%
1,7 m €

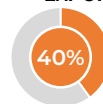
AMERICAS

IMPORTS



OF THE WORLD TOTAL

EXPORTS



PERCENTAGE BY SECTOR

0,9%
0,1 m €

AGRICULTURE

0,1%
0,04 m €0,3%
0,04 m €

MINERAL EXTRACTION

0%
0 m €98,2%
13,6 m €

MANUFACTURING

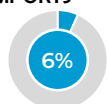
99,8%
79,1 m €0,6%
0,09 m €

OTHER

0,1%
0,04 m €

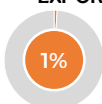
AFRICA

IMPORTS



OF THE WORLD TOTAL

EXPORTS



PERCENTAGE BY SECTOR

0,6%
0,14 m €

AGRICULTURE

0%
0 m €0,1%
0,03 m €

MINERAL EXTRACTION

13,0%
0,3 m €98,3%
23,5 m €

MANUFACTURING

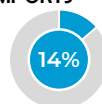
82,0%
1,9 m €1,0%
0,25 m €

OTHER

5,0%
0,1 m €

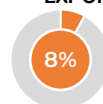
ASIA AND OCEANIA

IMPORTS



OF THE WORLD TOTAL

EXPORTS



PERCENTAGE BY SECTOR

0,1%
0,07 m €

AGRICULTURE

2,7%
0,4 m €52,0%
25,4 m €

MINERAL EXTRACTION

1,3%
0,3 m €47,8%
23,3 m €

MANUFACTURING

93,3%
15,3 m €0,11%
0,05 m €

OTHER

2,7%
0,4 m €

EUROPEAN UNION TRADE (28 countries)

EUROZONE (19 COUNTRIES)

ITALY		
AUSTRIA	GERMANY	MALTA
BELGIUM	GREECE	NETHERLANDS
CYPRUS	IRELAND	PORTUGAL
ESTONIA	LATVIA	SLOVAKIA
FINLAND	LITHUANIA	SLOVENIA
FRANCE	LUXEMBOURG	SPAIN

EUROPEAN UNION NON-EUROZONE (9 COUNTRIES)

BULGARIA
CROATIA
DENMARK
POLAND
UNITED KINGDOM
CZECH REPUBLIC
ROMANIA
SWEDEN
HUNGARY



In the “Eurozone” exports are increasing and imports are dropping. Despite the growth of imports, the deficit of the balance of trade has dropped from €108 million in 2016 to €78 million in 2017.

EUROZONE		EXPORT	% CHANGE 17/16	% WEIGHT EU	BALANCE OF TRADE
	FRANCE	26.135.857	13%	28%	-17.379.009
	GERMANY	18.244.038	18%	20%	-3.334.498
	BELGIUM	10.648.945	48%	11%	-4.514.227
	SPAIN	9.639.868	34%	10%	-23.644.014
	PORTUGAL	4.823.047	109%	5%	-224.076
	GREECE	2.594.633	54%	3%	1.456.755
	NETHERLANDS	1.412.562	-50%	2%	-17.057.796
	AUSTRIA	1.100.715	9%	1%	-1.806.018
	SLOVENIA	763.638	-10%	1%	-56.030
OTHER 10 COUNTRIES		1.180.804	-11%	1%	-11.465.272
TOTAL EUROZONE		76.544.107	22%	82%	-78.024.185

Trade between European countries has improved. Exports grew by 32% whilst the difference between imports and exports decreased from 114 million in 2016 to roughly 75 million in 2017.

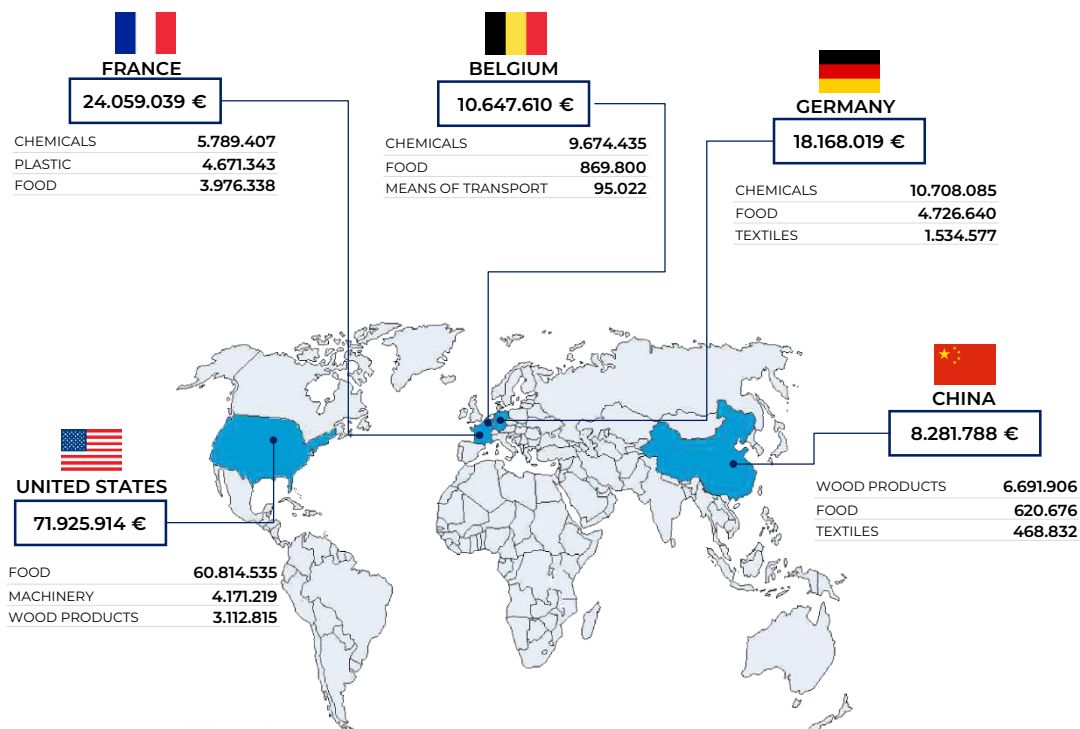
EU NON EUROZONE		EXPORT	% CHANGE 17/16	% WEIGHT EU	BALANCE OF TRADE
UNITED KINGDOM		7.650.429	145%	8%	4.524.986
ROMANIA		1.976.420	300%	2%	-63.592
DENMARK		1.532.019	685%	2%	-1.725.018
CZECH REPUBLIC		1.455.518	298%	1%	1.325.409
OTHER 5 NON EURO		4.242.045	13%	5%	-1.257.640
EUROPEAN UNION TOTAL		93.400.538	32%	100%	-75.220.040

MANUFACTURING EXPORTS

The figures for net exports in North Sardinia are strongly affected by the manufacturing industry. In 2017 exports in this sector increased by 11% compared to the previous year, representing 94% of overall export. Nearly 50% of these exports are food products, particularly dairy products which are sent to the United States, followed by chemical and wood products.

NORTH SARDINIA – Manufacturing Industry – 2017

Leading 5 countries and primary exports



Chapter 5

DEMOGRAPHIC DEVELOPMENT



Analysis of Demographic Change and Fluctuation in Resident Population

Sources:
Istat, demo.istat.it

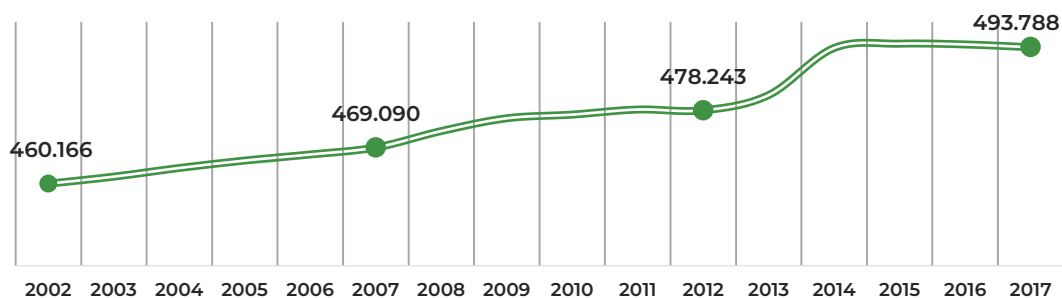
Analysis of 2017 demographic indicators has shown a decrease in resident population in the northern part of the Island, which is greater than the previous year. Demographic dynamics are still highly influenced by a large decrease in balance between births and deaths. Considering the territorial partition, the available data shows that population has evolved differently in different areas in relation to the change in border partitioning. In the north-west there are nearly 1,000 less residents than in 2016, whereas in the north-east the balance there is an increase of over 300 residents.

According to the Italian National Institute for Statistics (Istat), changes will be characterised by increasing depopulation, a drop of the birth rate and an increase of the ageing index. These changes will restructure local population. The figures of this chapter refer to 1 January 2017.

POPULATION

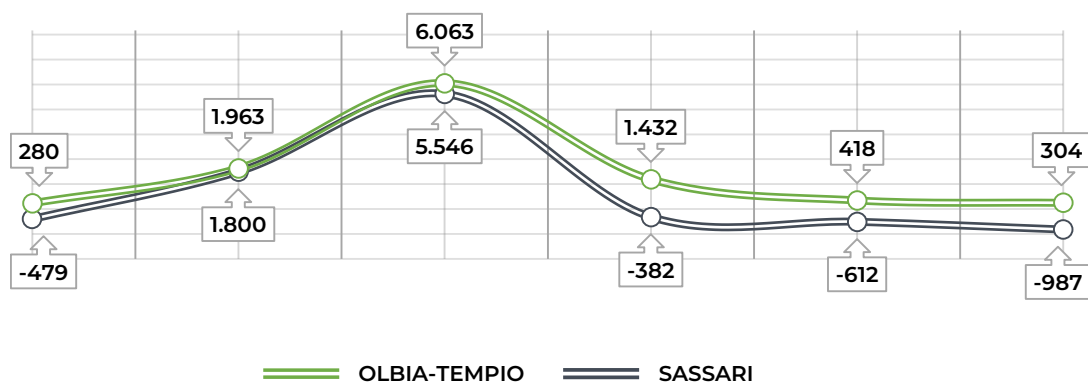
There were 1,653,135 residents in Sardinia on 1 January 2017, with a decrease of 5,003 inhabitants compared to the previous year. Only 14% of this loss (683 residents) was sustained in North Sardinia

NORTH SARDINIA – Development of Resident Population 2002-2017



Divergent dynamics influenced population changes in the two regions of North Sardinia: in Gallura there was an annual increase of 300 residents for 2017; conversely, Sassari lost nearly 1,000 inhabitants.

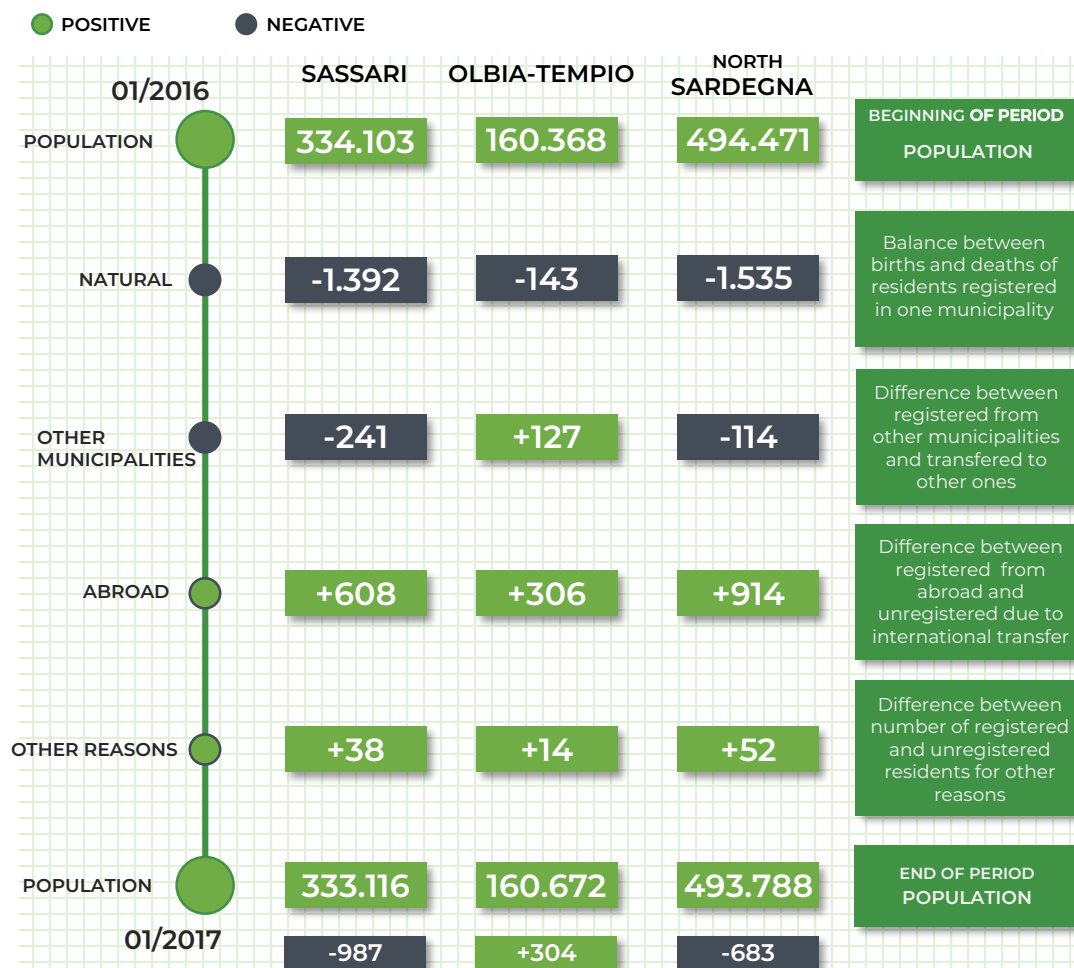
NORTH SARDINIA – change of resident population compared to the previous year



POPULATION DYNAMICS

Given the unavoidable link between population dynamics and economic development, it is crucial to understand which variables (natural or migratory) affect the resident population.

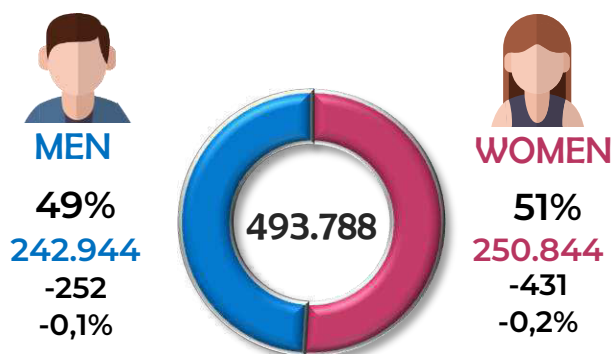
NORTH SARDINIA - resident population dynamics



MAIN DEMOGRAPHIC INDICATORS

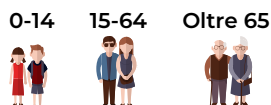
In 2017 a greater percentage of women than men has again been recorded. The elderly population is growing at a steady pace affected by three fundamental indicators: ageing, structural dependency and elderly dependency index.

NORTH SARDINIA – resident population by gender - 2017



By 1 January 2017 a decrease in both female and male population was seen. The reduction in female residents represents roughly half of the decrease in men (-431 vs -252).

NORTH SARDINIA – population structure indexes – 2015-2017



According to Istat, people younger than 14 years old, aged between 15 and 64 and older than 65 are considered inactive. These three age groups are needed in order to calculate some population structure indexes.

$$\left(\frac{\text{Oltre 65}}{\text{0-14}} \right) \times 100$$

AGEING

YEAR	SASSARI	OLBIA TEMPIO
2015	180,9	143,8
2016	188,3	148,5
2017	194,8	153,2

$$\left(\frac{\text{Oltre 65}}{\text{15-64}} \right) \times 100$$

ELDERLY DEPENDENCY

SASSARI	OLBIA TEMPIO
32,8	28,2
33,8	29,1
34,6	29,9

$$\left[\left(\frac{\text{Oltre 65} + \text{0-14}}{\text{15-64}} \right) \right] \times 100$$

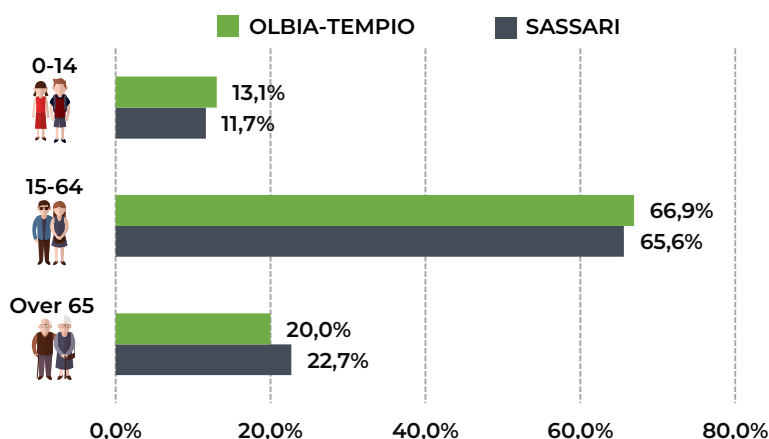
STRUCTURAL DEPENDENCY

SASSARI	OLBIA TEMPIO
51,0	47,9
51,7	48,7
52,3	49,4

FERTILITY IN NORTH SARDINIA

Analysing the two regions Sassari and Olbia-Tempio, the overall population trend shows extremely diverse dynamics. A population increase has been recorded on the north east side of Sardinia, brought about by younger, productive people.

NORTH SARDINIA – population structure by age group (%) - 2017

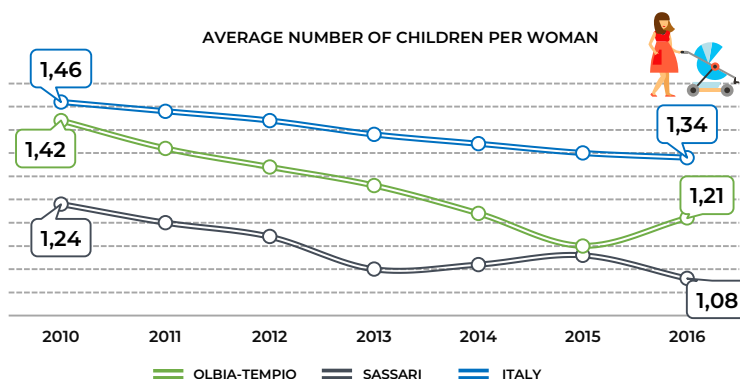


AVERAGE AGE

OLBIA
TEMPIO
44,4

SASSARI
46,0

Fertility rate and average age at delivery - 2016



AVERAGE AGE AT DELIVERY

OLBIA
TEMPIO
31,8

SASSARI
32,2

ITALY
31,8

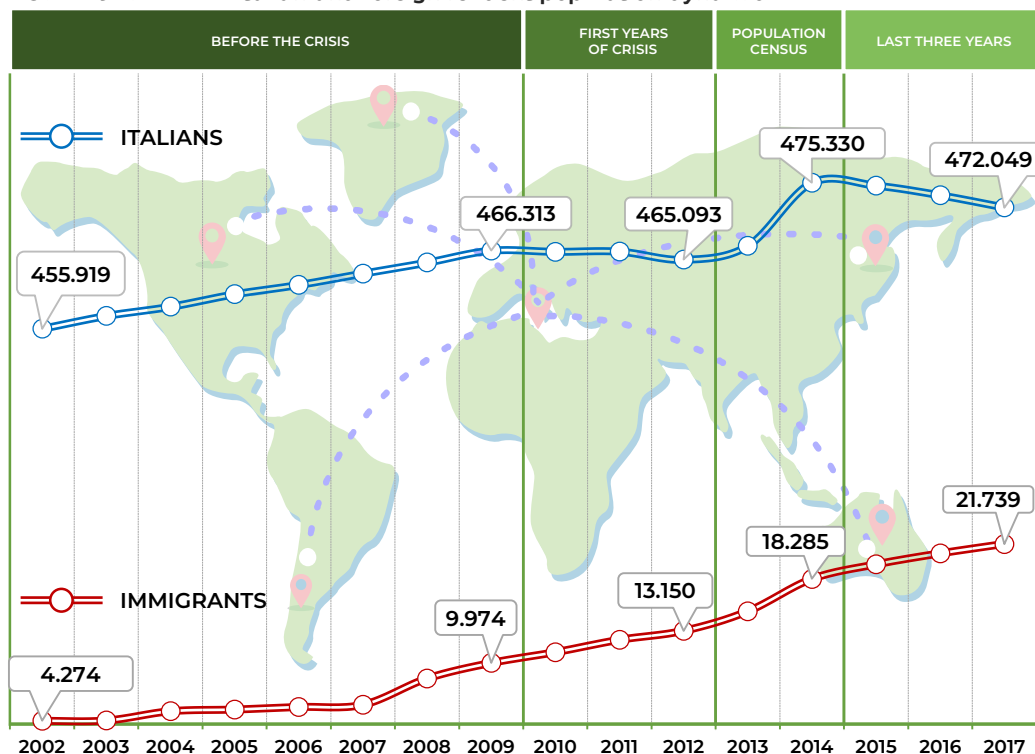
ITALIAN AND FOREIGN RESIDENTS

The overall data analysis regarding the resident population must consider the movement of foreign citizens.

In 2017 the population decrease of 683 residents in North Sardinia is determined by two opposing trends: the drop in number of Italian citizens (1,164 less than 2016) and the rise of immigrants (+931).

Highlighted in the chart below are resident population changes in North Sardinia as experienced at various stages over a 15 years period, often following opposing trends.

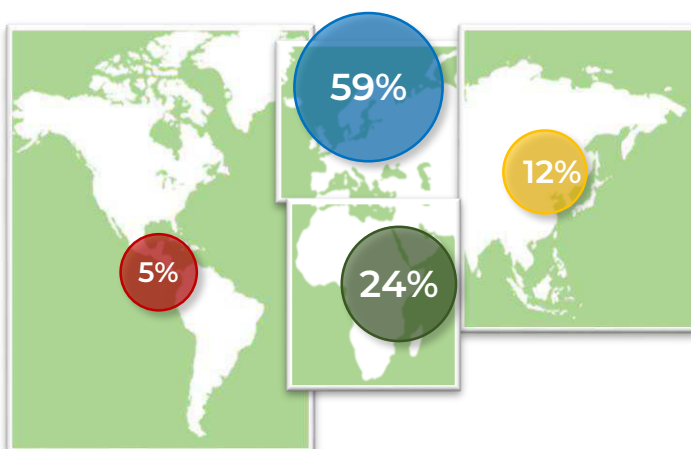
NORTH SARDINIA - Italian and foreign resident population dynamics



IMMIGRANT ORIGINS

NORTH SARDINIA – 2017

AREA	RESIDENTS
EUROPE	12.806
AFRICA	5.310
ASIA AND OTHERS	2.563
AMERICAS	1.060
TOTAL	21.739



GROWTH OF **+4,5%**

More than half of foreign residents come from European countries. Over one third of them are Romanian citizens, followed by Africans (from Senegal and Morocco) and Chinese (with just over 1,000 residents).

PRINCIPAL 10 COUNTRIES OF ORIGIN

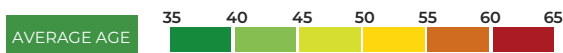
		RESIDENTS
1	ROMANIA	7.661
2	SENEGAL	1.923
3	MOROCCO	1.889
4	CHINA	1.090
5	POLAND	710
6	UKRAINE	699
7	NIGERIA	581
8	GERMANY	560
9	PAKISTAN	531
10	BANGLADESH	437



POPULATION PROJECTIONS

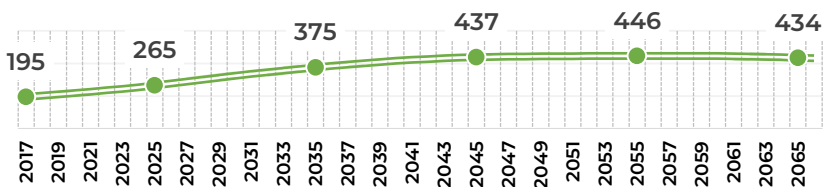
Projections made by ISTAT on the future dynamics of regional population highlight the growth of the ageing index. According to these projections, in less than fifty years the ratio between residents over 65 and residents under 15 should change from 195 elderly people for every 100 young people to more than 400. During the same time-frame the average age in regional populations should increase from today's 46, to 54.3 in 2065.

SARDINIA– population structure indexes – 2017/2066



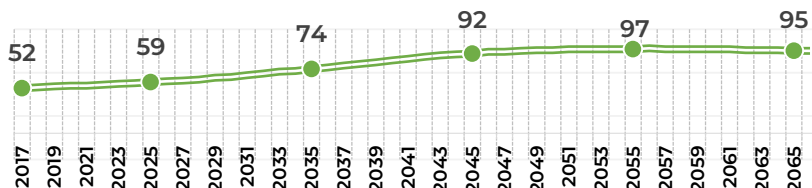
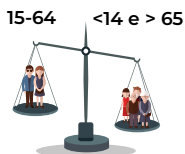
AGEING INDEX

By 2065 more than 400 over 65 for every 100 under 14



STRUCTURAL DEPENDENCY INDEX

By 2065 there will be 95 inactive residents for every 100 residents of working age



Chapter 6

TOURIST FLOW



✓ Accommodation capacity, and national and international tourist behavioural dynamics.

Sources:
Sardegna Statistiche, Port Authorities, Assaeroporti, Bank of Italy

The number of Italian and foreign tourists visiting the Island is growing. This positive trend has been recorded from 2011 to 2017, excluding 2012. We are dealing therefore with a significant change.

In this chapter we will analyse the main features of this industry: accommodation structure, influx of residential tourists, seasonal time-frames, and tourist countries of origin.

From 2017 tourism related data takes into account the new territorial partition made of 4 provinces (Sassari, Nuoro, Oristano and Sud Sardegna) and the city of Cagliari. These new parameters do not allow a separate analysis of the areas previously belonging to the provinces of Sassari and Olbia.

ACCOMMODATION

The year 2017 witnessed a drop in the number of accommodation facilities in North Sardinia despite an increased overall number of beds. This is due to a significant decrease in the number of camp sites and resorts (from 125 units in 2016 to only 37 in 2017) set against a marked increase in entrepreneurially managed rental properties.

NORTH SARDINIA – number of accommodation facilities - 2017



**ACCOMMODATION
FACILITIES**

2.009



BEDS

112.853



TOURIST

1.525.40



HOTEL INDUSTRY

THE NUMBERS OF

FACILITIES



417

BEDS



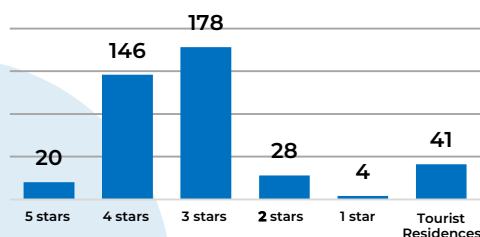
60.366

TOURISTS



1.167.062

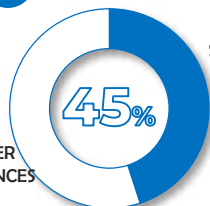
CATEGORIES



PERCENTAGE OF ISLAND TOTAL



FACILITIES



BEDS



TOURISTS





OTHER ACCOMMODATION FACILITIES

THE NUMBERS OF

FACILITIES



1.592

BEDS



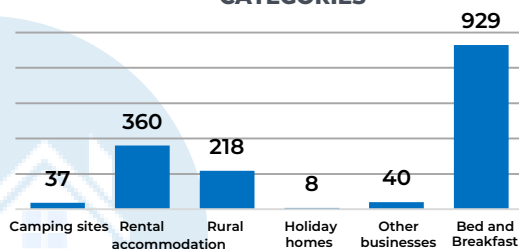
52.487

TOURISTS



358.388

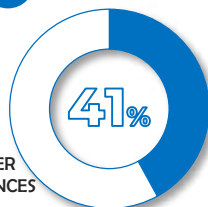
CATEGORIES



PERCENTAGE OF ISLAND TOTAL



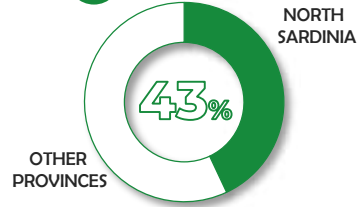
FACILITIES



BED



TOURISTS



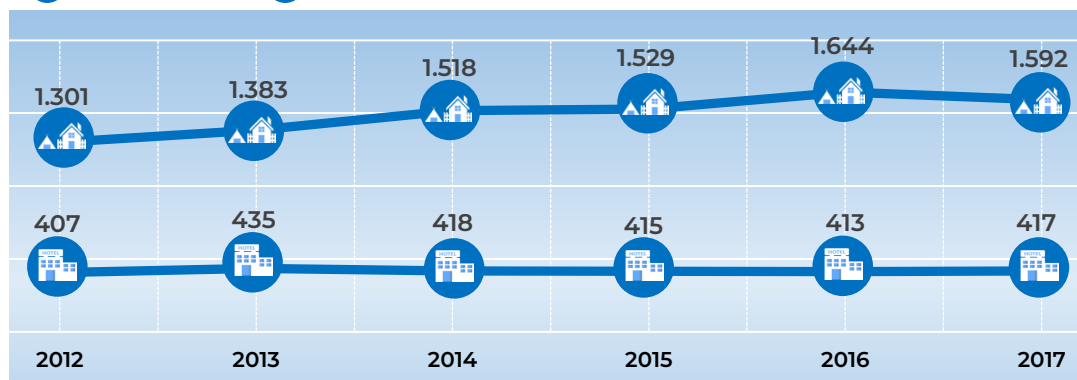
NORTH SARDINIA – accommodation dynamics – 2011/2017



HOTELS



OTHER FACILITIES

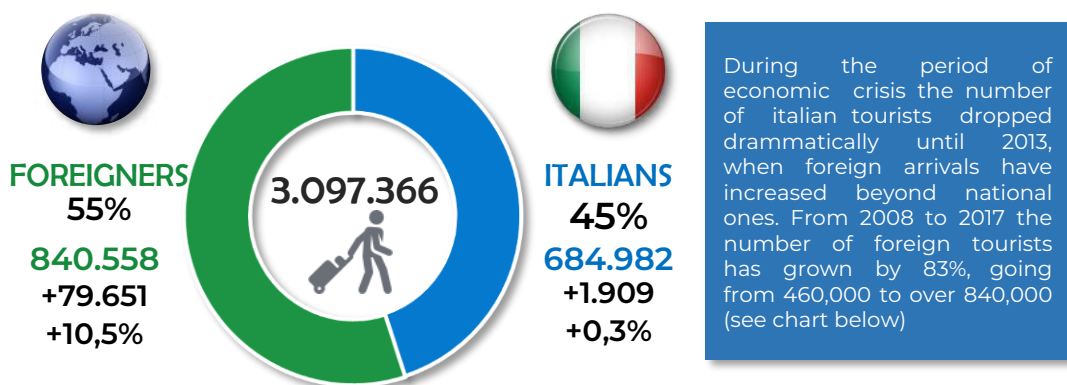


ITALIAN AND FOREIGN TOURISTS

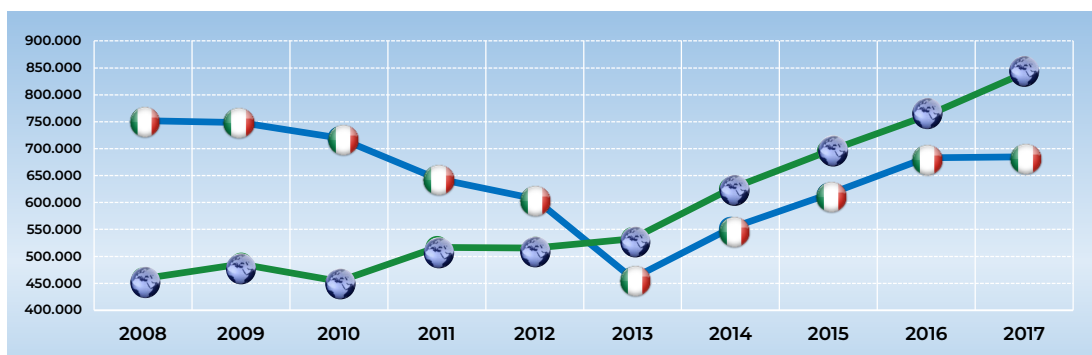
In 2017 for the first time, accommodation providers in North Sardinia have experienced a record of over 1.5 million visitors. This growth represents a significant increase of 10.5% in number of foreign tourists: roughly 840 visitors, over 70,000 more than in 2016).

56% of tourists hosted in Sardinia in 2017 were accommodated in the north of the island.

NORTH SARDINIA – Italian and foreign tourists- 2017



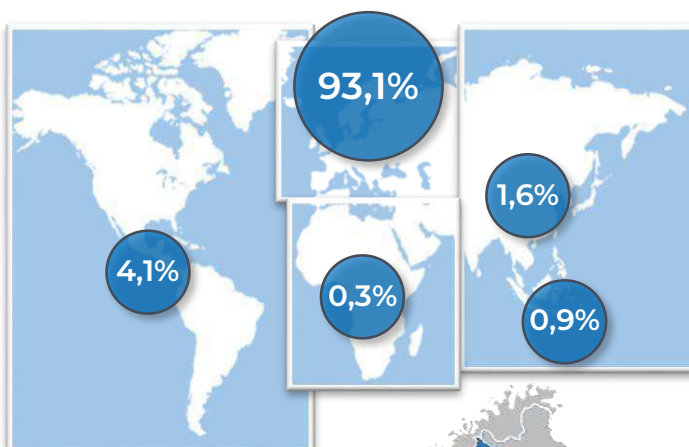
NORTH SARDINIA –dynamics of Italian and foreign tourist arrivals



ORIGINS OF FOREIGN TOURISTS

NORTH SARDINIA – 2017

AREA	TOURISTS
EUROPE	782.691
AMERICAS	34.047
ASIA	13.811
OCEANIA AND OTHERS	7.188
AFRICA	2.821
TOTAL	840.558

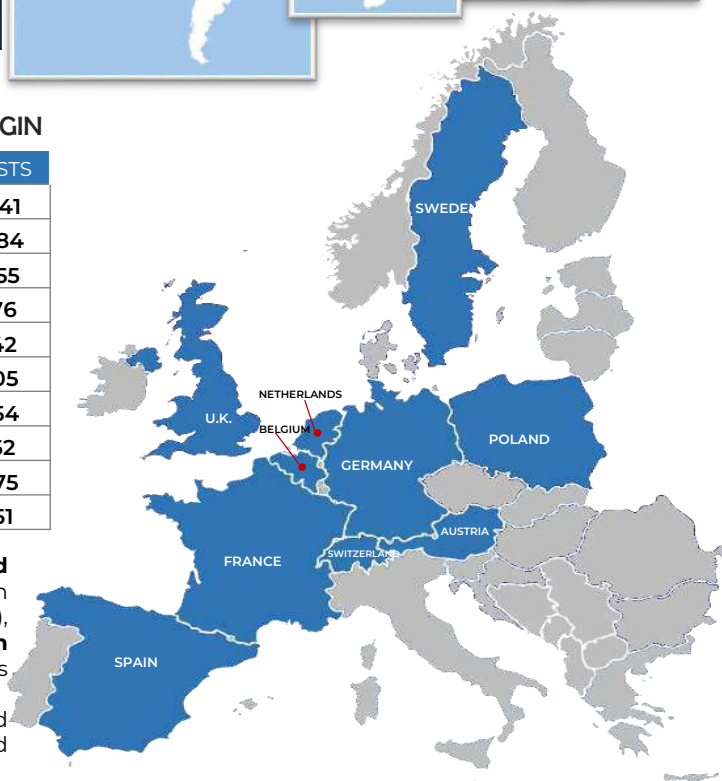


10 LEADING COUNTRIES OF ORIGIN

		TOURISTS
1	GERMANY	183.641
2	FRANCE	163.984
3	SWITZERLAND	80.455
4	UNITED KINGDOM	69.176
5	SPAIN	51.042
6	NETHERLANDS	35.605
7	SWEDEN	35.454
8	AUSTRIA	31.652
9	POLAND	20.975
10	BELGIUM	17.651

In eleventh place is the **United States**, the first non-European country (with 14,313 tourists), followed by **Russia** and the **Czech Republic** (10,793 and 10,781 visitors respectively).

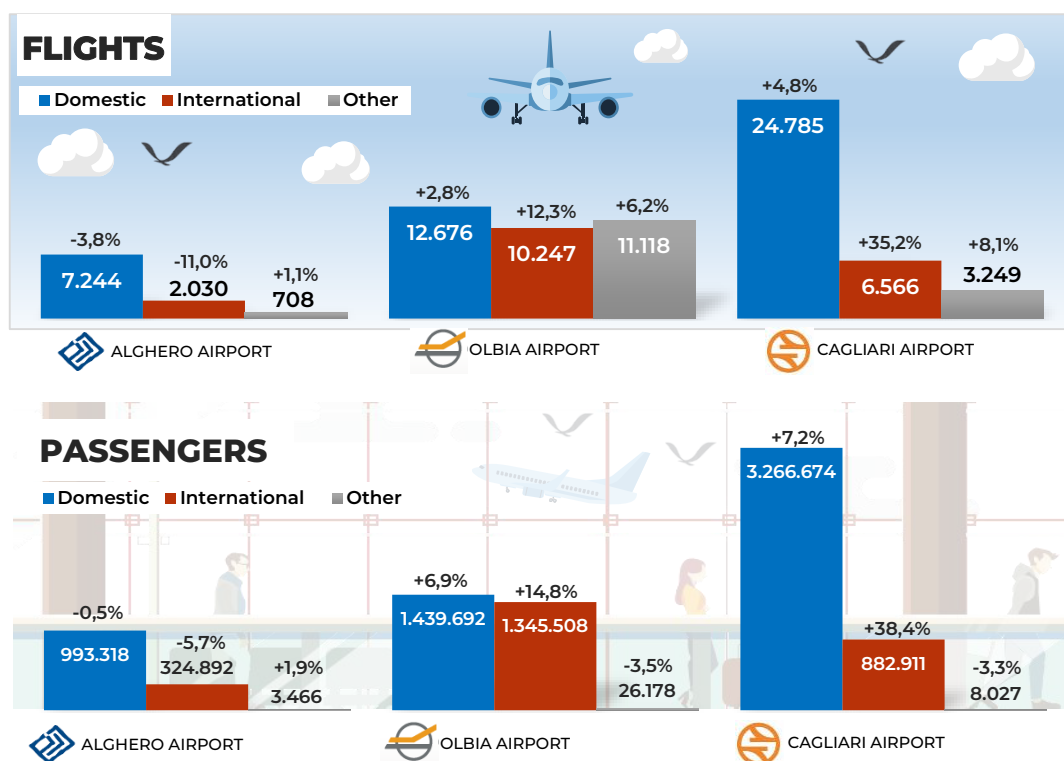
All other countries ranked contribute less than 10 thousand tourists each.



AIR TRAVEL

2017 has been a positive year for air travel in Sardinia with a steady augmentation of air traffic. Cagliari airport exceeded 4 million passengers for the first time, followed by Olbia with 2.8 million an annual increase of 10%. In contrast Alghero airport had another bad year with a reduction of 5.1% of overall flights and a 1.8% loss in passengers. However, the reduction of air traffic at Riviera del Corallo airport, has slowed down compared to the previous year, when flights dropped by 16.2% and the number of passengers by 19.8%.

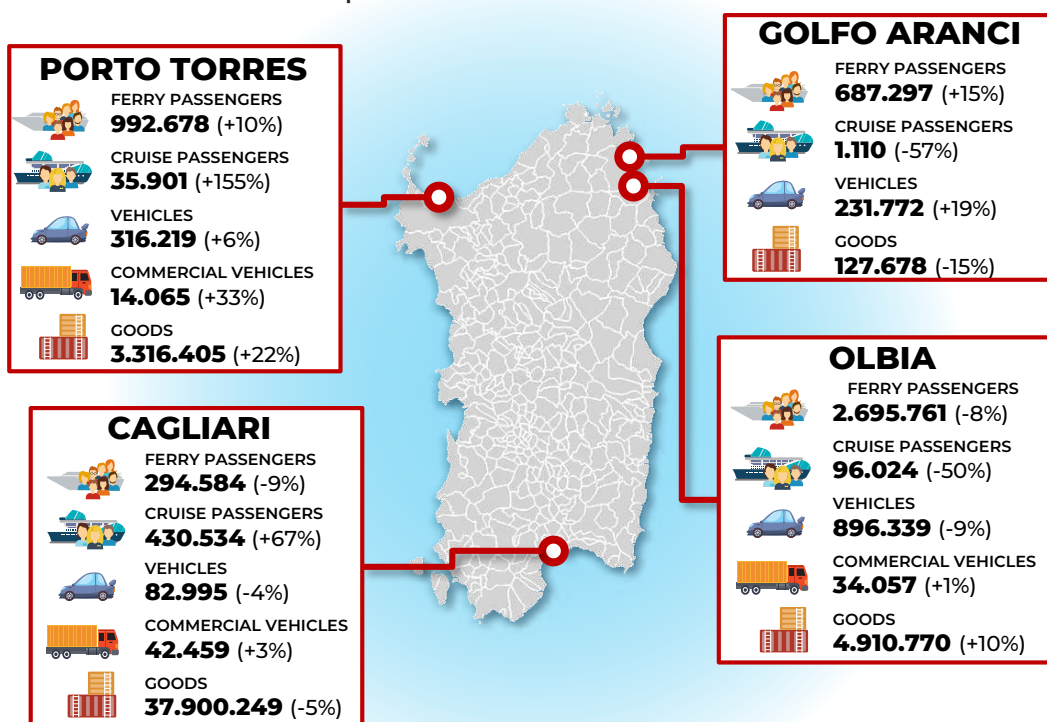
SARDINIA – airport statistics - 2017



MARITIME TRANSPORT (over 25 miles)

In 2017 around 4,5 million passengers (94% of the regional total) passed through the 3 ports of North Sardinia: Porto Torres, Olbia and Golfo Aranci. 133,000 of them arrived on cruise ships, much less than the 210,000 in 2016. The diagram below shows an overview of the numbers for each port of Sardinia.

SARDINIA – statistics for main ports - 2017



Of the 565 thousand cruise passengers in 2017, over 430 thousand arrived in Cagliari, 96 thousand in Olbia, 36 thousand in Porto Torres and just over 1,000 in Golfo Aranci. The port of Cagliari is the only 'home port' in Sardinia, where cruises can not only stop but also take new passengers on board.

TOURIST SPENDING IN SARDINIA

According to an international tourism study by the Bank of Italy in 2017, tourist spending in and out of the country increased compared to 2016. Despite a drop in the number of travellers in 2016, there has been a growth in tourist spending. This is attributable to the increase in average daily spending per capita by foreign tourists, which reached €97 in 2017 compared to €87 in 2016 and €76 in 2015.

SARDINIA – statistics of main ports - 2017

	OVERALL			DAILY
	TRAVELLERS (thousands)	SPENDING (million euro)	OVERNIGHTS (number of nights)	SPENDING PER NIGHT (euro)
FOREIGNERS IN SARDINIA	 1.109 (+11%)	 828 (+33%)	 8.577 (+23%)	 97 (+9%)
SARDINIANS ABROAD	302 (+9%)	309 (+33%)	3.688 (+7%)	84 (+25%)
BALANCE	807 (+13%)	519 (+34%)	4.889 (+39%)	13 (-41%)

With a €97 euro per night spend for each foreign visitor, Sardinia ranks ninth among Italian resorts. Liguria sees the highest spend (€131), and Molise the lowest (€36).

Chapter 7

ENERGY AND ENVIRONMENT



**Energy consumption,
waste sorting and recycling,
and transport.**

Sources:
TERNA, ISPRA, ANFIA, ACI

Waste and traffic are the main elements affecting the environment of each region in terms of energy consumption, affected largely by production activities and people. For this reason we have chosen to initially illustrate these demographics, then subsequently discuss environmental factors.

Figures by Terna (production and electrical consumption), ISPRA (fwaste) and ACI (monitoring vehicle numbers) institutes show an overall growth in their fields of competence.

In North Sardinia:

POWER - Thanks to the success of the energy industry it has been possible to create an energy surplus, that can be sold to other Italian regions and abroad.

WASTE - The increasing growth of recycling (paper, glass, plastic and organic waste) continued in 2016.

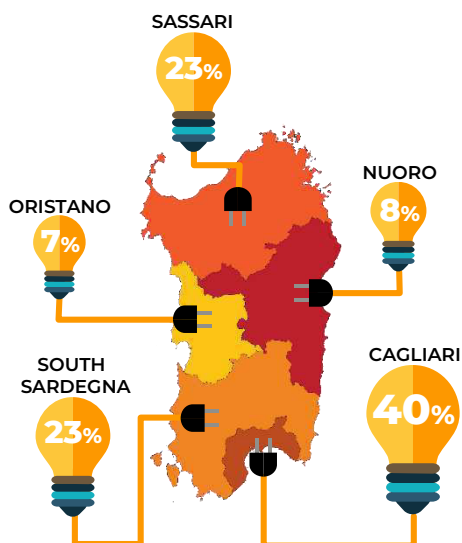
CARS - In 2016 there were 9,550 new vehicle registrations, 1,100 more than in 2015.

ELECTRICAL POWER

The statistics regarding electricity consumption in Sardinia referenced, are published by Terna in their annual report "Statistical figures about electricity in Italy", available at www.terna.it. Terna manages 4,323 km of high, and extra-high voltage power lines and 25 power stations, in Sardinia. Sardinia's electrical consumption is 8,426 GWh (data from 2017). Nearly 45% used industrially, 27% by the service industry, and 25 % was domestic consumption, while the remaining 3% was used in the agriculture sector. In 2017 Sardinia produced 12,335 GWh of electricity, accumulating a large surplus of energy which is transferred abroad and to the rest of Italy.

SARDINIA – electricity – 2017

CONSUMPTION 8.426 GWH



PRODUCTION 12.335 GWH



HYDROPOWER:

324 GWH
Hydroelectric power stations
2,6%



THERMAL ENERGY:

9.481 GWH
Oil, natural gas, biomass power stations, etc.
76,9%



WIND AND SOLAR POWER:

2.639 GWH
Wind parks and photovoltaic power stations
21,4%

ACTIVITY SECTORS

Electricity consumption in North Sardinia increased by 2.5% (47 GWh) in 2017, compared to the previous year, reaching 1,937 GWh. As shown in the diagram, electricity consumption has increased for all economic sectors, especially agriculture (+4.4%) and manufacturing (+3.3%).

NORTH SARDINIA – consumption by industry sector – 2017

AGRICULTURE



52,2 GWH (+4,4%)
2,7%

SERVICES



783,9 GWH (+1,4%)
40,5%

INDUSTRIES



393,8 GWH (+3,3%)
20,3%

HOUSEHOLD



706,8 GWH (+3,0%)
36,5%

37% of the net 3,865 GWh produced by North Sardinia was generated by renewable sources in 2016; 77% coming from wind parks, 18% from solar power stations.

NORTH SARDINIA –energy from renewable sources – 2016

RENEWABLE
ENERGY

1.425 GWH



37%

OF THE OVERALL ENERGY PRODUCTION
OF THE PROVINCE

WIND ENERGY



1.098 GWH
77%

SOLAR ENERGY



251 GWH
18%

BIOENERGY



43 GWH
3%

HYDROELECTRIC ENERGY

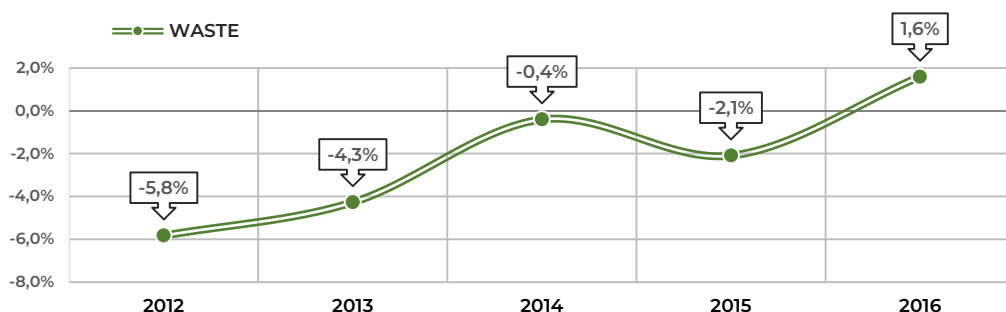


33 GWH
2%

WASTE

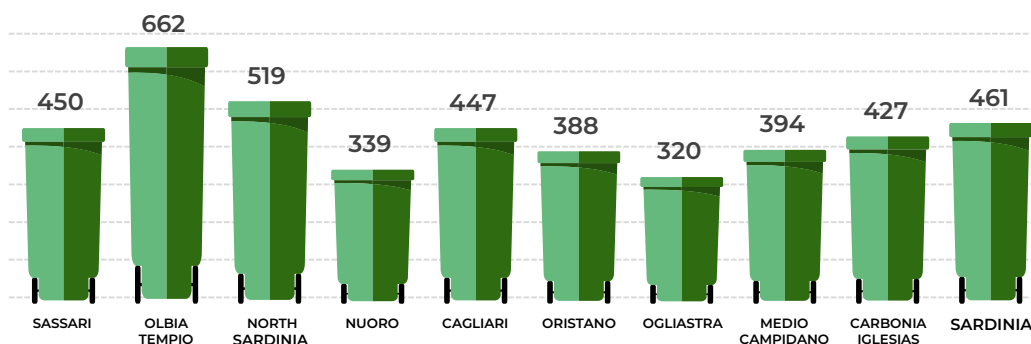
The most recent report published by ISPRA (Italian Institute for Environmental Protection and Research) showed a rise in waste generation in North Sardinia in 2016, which was over 250,000 tons: an annual increase of 1,6. This shows an upward trend in contrast to the drop in waste generation over the previous 5 years.

NORTH SARDINIA – percentage increase in waste generation – 2012/2016



Gallura is the area with the highest annual waste generation per capita (662 kg), followed by Sassari (450 kg per capita). The regional average of 461 kg for each inhabitant is slightly lower than the national one (497 kg).

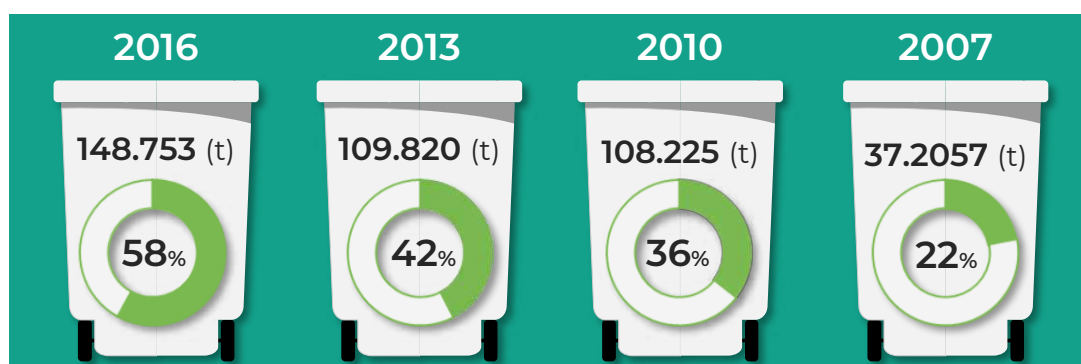
SARDINIA – household waste generation per capita (kg) - 2016



WASTE SORTING AND RECYCLING

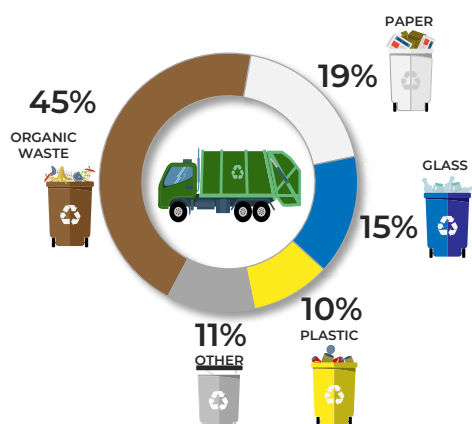
Recycling in North Sardinia is on the up. In 2016 it reached 58%, with an increase of 1.6%, 256,000 to 258,000 tons, namely 300 KG per inhabitant, an annual increase of 35 KG. Waste sorting (paper, glass, plastic and organic waste) has tripled since its 14% growth in 2006, a growing trend for the last 10 years.

NORTH SARDINIA – recycling and percentage of overall waste– 2007-2016

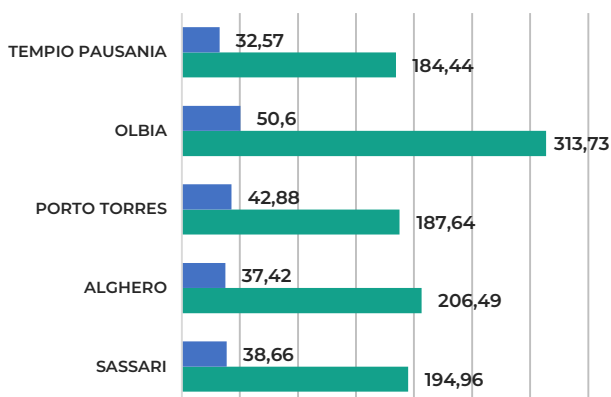


NORTH SARDINIA – Recycling - 2016

Percentage of recycled categories



■ COST PER KG (euro)
■ ANNUAL COST PER CAPITA (euro)



VEHICLES

The regional vehicle stock amounted to 1,328,919 cars in 2016, an increase of nearly 17,000 units since 2015. The number of vehicles in North Sardinia has increased by 1,5%, led by cars, which constitute 75% of the total. Despite the growth in new vehicle registrations recorded in 2016, regional and national vehicles are increasingly made up of old vehicles. This means that the number of vehicles being replaced with new ones is low. Only 5% of regional vehicles have been registered in the last 2 years. This figure is lower than the 6% recorded in the north, and the 8% national figure.

NORTH SARDINIA – vehicle summary – 2016



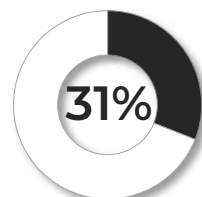
406.362
VEHICLES

NORTH WEST
64%

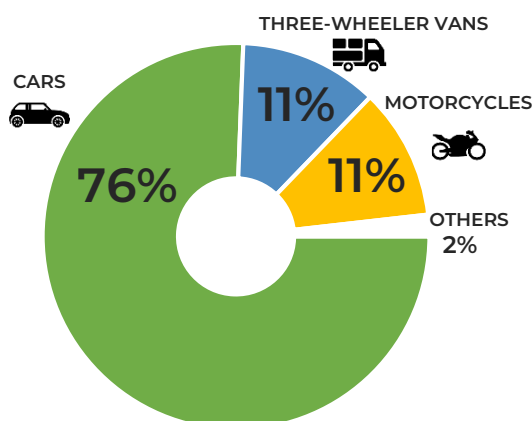


OF ALL SARDINIA
VEHICLES

NORTH EAST
36%



DISTRIBUTION BY VEHICLE TYPE



CARS BY FUEL TYPE



PETROL
171.837
56%

PERCENTAGE
CHANGE '16/'15
-1,1%



DIESEL
126.745
41%

PERCENTAGE
CHANGE '16/'15
+4,9%

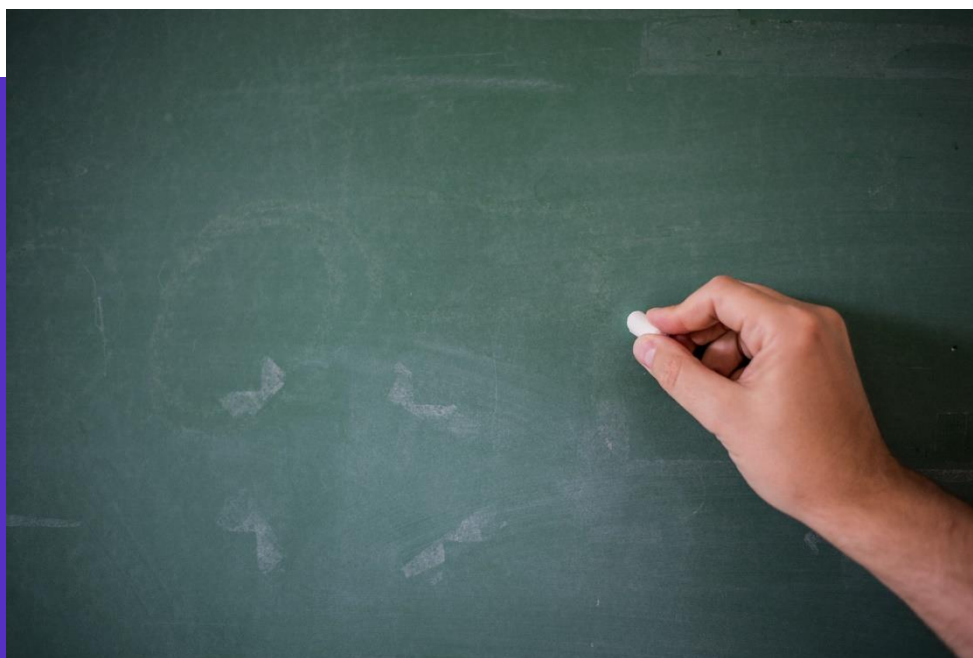


OTHERS
8.706
3%

PERCENTAGE
CHANGE '16/'15
+2,4%

Chapter 8

EDUCATION



EDUCATION: MAIN STATISTICAL INDICATORS

Sources:
MIUR, Istat BES 2017

Training: an undiscovered resource...

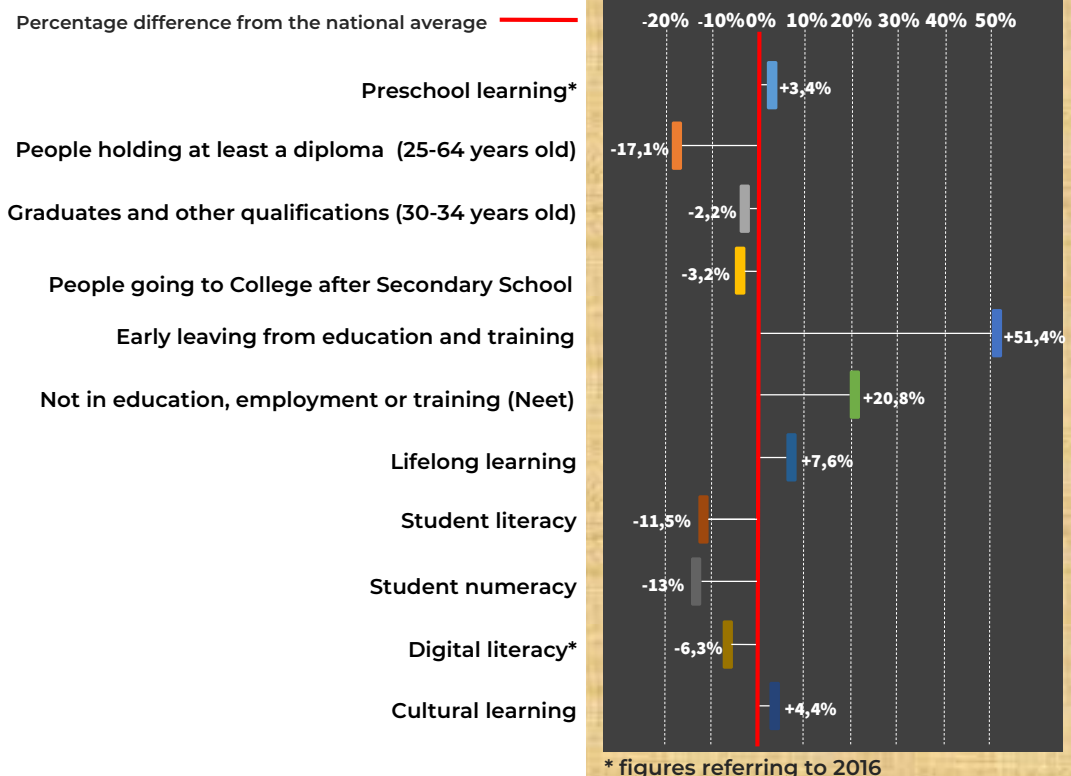
This chapter analyses North Sardinia's school attendance and academic results in 2017, for its schools and universities. The number of young people achieving a qualification (diploma/ degree) has increased in comparison to the previous year despite a decrease in the number of students in higher education. Figures regarding school itself haven't changed much: an average class is made up of 18/19 pupils, whereas the college enrolments are increasing amongst teenagers. There are less than 100 permanent teaching staff under 34, while most teachers are over 55.

College course enrolment has increased since 2016, but the overall figure is still lower than in the academic year 2012/2013.

EDUCATION AND TRAINING

From 2010 to 2017 Sardinia witnessed a significant improvement in its population's learning uptake. Nevertheless, compared to the national figures, the island falls behind in most educational areas, except for "cultural learning" (those aged 6+ having taken part in at least three cultural activities during the last year), "lifelong learning" and "preschool learning". Early leaving figures from education and training in Sardinia are extremely high: over 50% more than the national average.

INDICATORS OF EDUCATIONAL ATTAINMENT - SARDINIA compared to ITALY – 2017

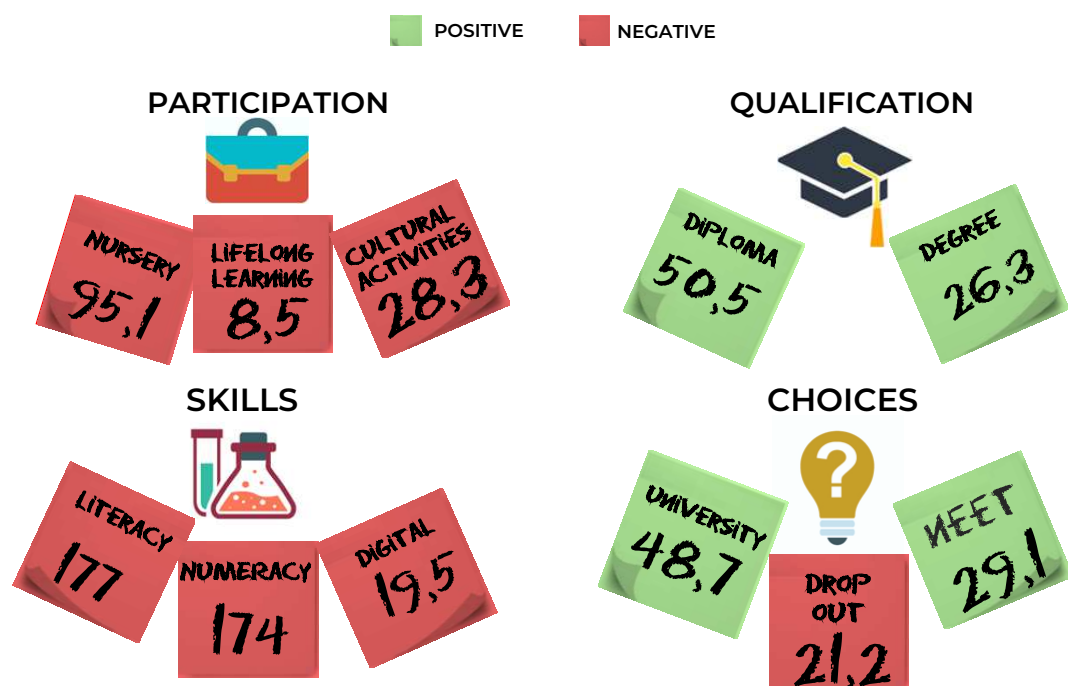


THE STATE OF EDUCATION

The chart below illustrates educational statistics for Sardinia in 2017, and highlights growth in the number of people with a diploma or degree who also attend college, compared to the previous year. NEETs (people Not in Education, Employment or Training) have decreased, but the number of early school leavers is rising. The drop in numbers of students succeeding in INVALSI testing in secondary education, especially in literacy (186 to 177 is alarming). Only 19.5% of those aged 16 to 74 have good technological skills. Preschool attendance seems to be at nearly 100%, but the number of people in education and training aged 25-64 is very low.

SARDINIA - Education 2017

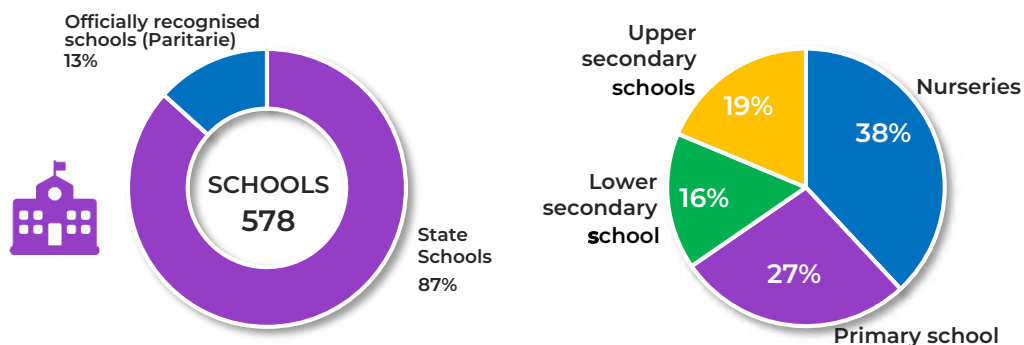
COMPARED TO THE PREVIOUS YEAR



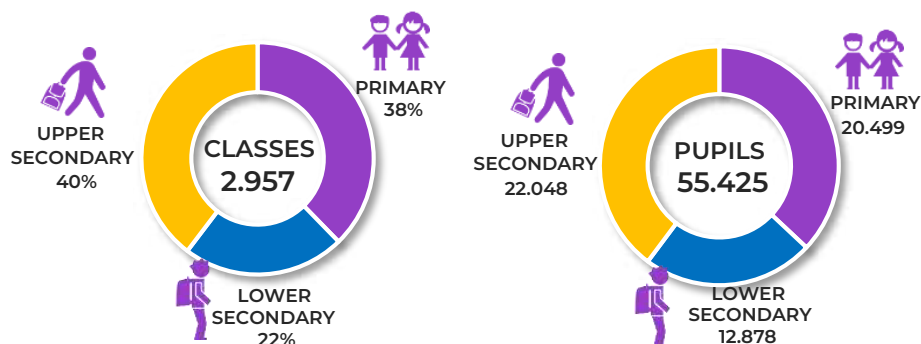
SCHOOL FIGURES

During the school year 2016/2017 there were 578 schools in North Sardinia, equivalent to 29% of all Sardinian schools. Of these 501 were state schools and 77 officially recognised schools ("Paritarie"). Nurseries represented 38%, primary schools 27% while secondary schools, both lower and upper (for a total 108), represent the 34.6%. There are 55,425 students (two less than in 2016), of which 26,846 (48,4%) are girls and 1,916 immigrants (3.4%). Compared to the previous school year, the number of upper secondary school pupils has increased to 22,048 (+36 students). This is due mainly to non-nationals' enrolment whose number has risen by 77, from 596 in 2016 to 673 in 2017. Classes in North Sardinia made up 2,957 of a regional total of 10,000. Each class had 18.74 pupils, just above the regional average of 18 pupils per class.

NORTH SARDINIA - Schools- SY 2016/2017



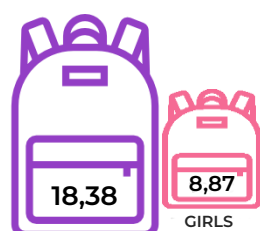
NORTH SARDINIA Classes and pupils by educational attainment SY 16-17



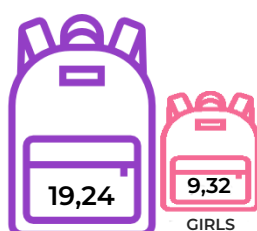
NORTH SARDINIA Pupils by grade and gender SY 2016/2017

There are an average number of less than 20 pupils per class. The largest classes are in lower secondary schools, with over 19 pupils (at least 9 girls). With regard to foreign pupils, a total of over 1,916 pupils in North Sardinia, 840 are located in the north east, while 1,076 are in Olbia-Tempio.

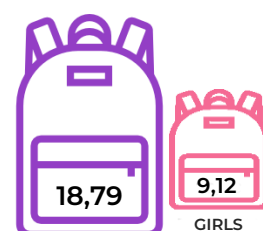
NORTH SARDINIA - number of pupils per class by gender



PRIMARY SCHOOL

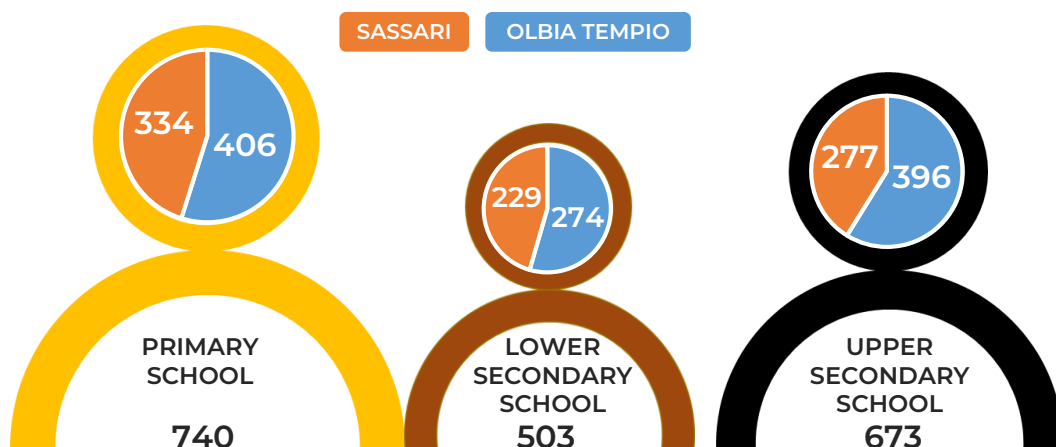


LOWER SECONDARY SCHOOL



UPPER SECONDARY SCHOOL

NORTH SARDINIA – number of foreign students by educational stage



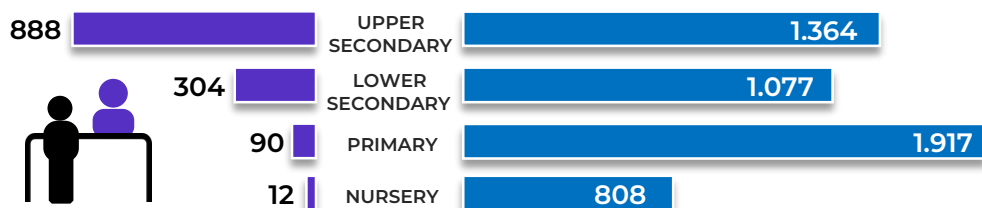
PERMANENT TEACHING STAFF IN NORTH SARDINIA

There were 6,460 qualified permanent teaching staff in 2017, of which nearly 80% (5,166) were women, working mostly in preschool, primary and middle schools. Of the 1,296 teachers under 44, only 96 were younger than 34.

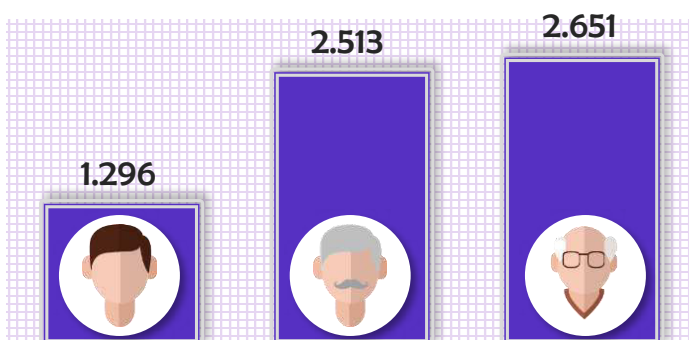
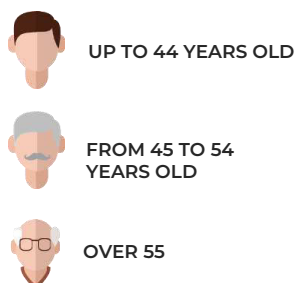
NORTH SARDINIA - number of teachers by gender SY 2016/2017



NORTH SARDINIA - teachers by school grade SY 16-17



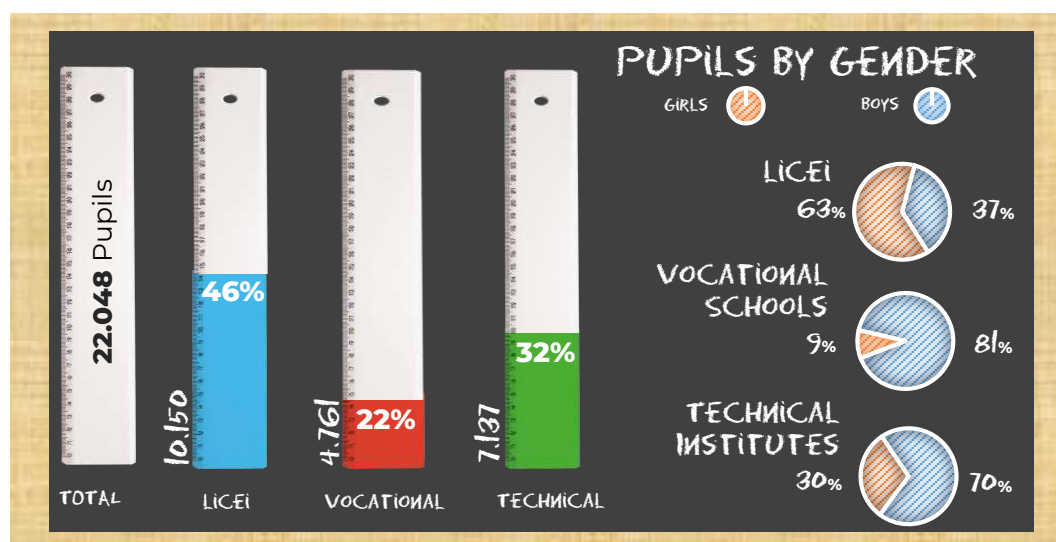
Teachers by age group



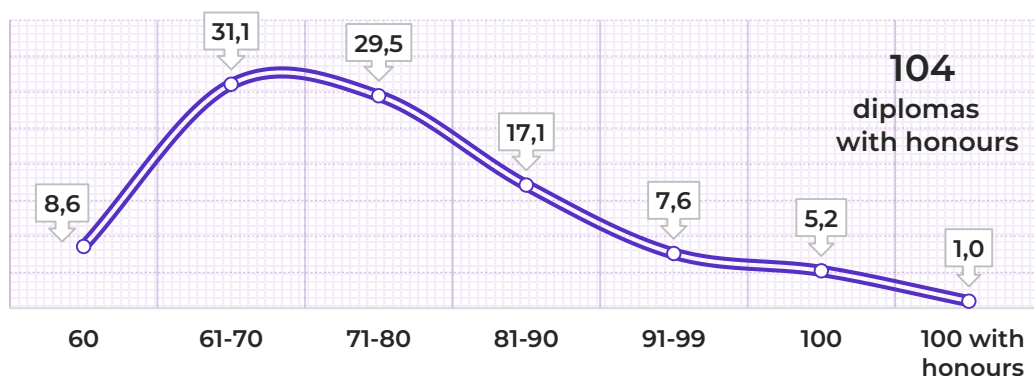
UPPER SECONDARY SCHOOL

There has been an increase in the recorded number of pupils attending vocational institutes in North Sardinia (+108), as well as a slight reduction in *liceo* and technical school enrolments (-29 and -43 respectively). Girls chose primarily *liceo*, while boys are more oriented towards technical and vocational schools.

NORTH SARDINIA - Pupils by educational institute type and gender



SARDINIA - percentage of people holding an upper secondary school diploma by mark



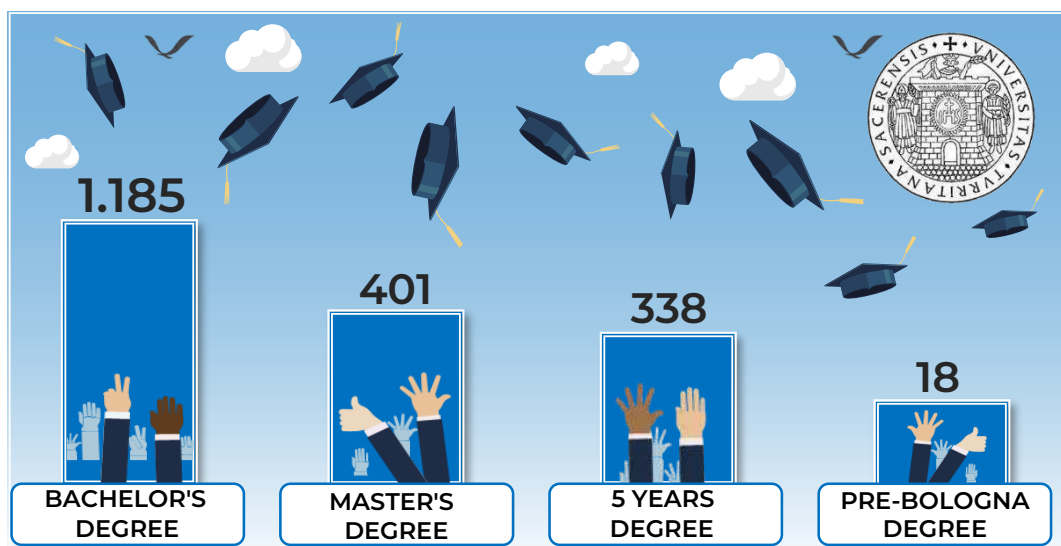
UNIVERSITY OF SASSARI

The number of new enrolments at the University of Sassari during academic year 2016/2017 was 2,079, a rise of 25% compared to the previous year. The overall number of enrolments, although a smaller increase, is on the rise, going from 12,411 up to 12,893. However, the graduation rate has fallen: 7% less than the previous year with 1,942 graduates. Women dominate the overall number of new enrolments and graduates. The academic staff at Sassari University consist of 570 administrative employees and 766 professors and researchers, of whom 15% are contract staff.

UNIVERSITY OF SASSARI – students enrolled in degree courses AY 2016/2017

STUDENTS	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017
MEN	4.872	4.726	4.570	4.553	4.716
WOMEN	9.026	8.561	8.212	7.858	8.177
TOTAL	13.898	13.287	12.782	12.411	12.893

UNIVERSITY OF SASSARI – Graduates by degree course 2016/2017



Chapter 9

SCHOOL-WORK EXPERIENCE



✓ The path between educational and training institutions and the world of work

Sources:
National Registry of School-Work Experience

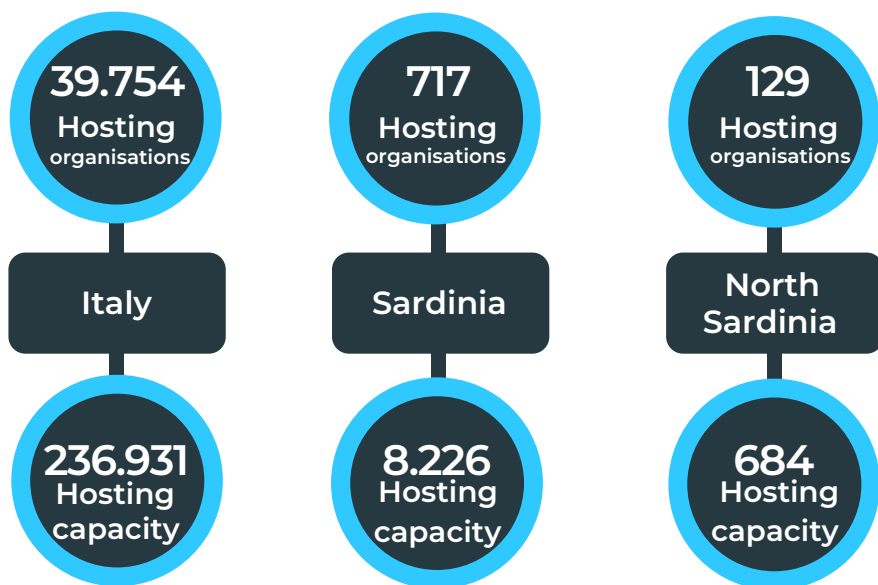
From theory to practice!

Three years into the School-Work Experience program initiated by the ministry of education (Alternanza Scuola Lavoro), chambers of commerce promoted the connection between educational and training institutions, and the world of work through the National Registry of School-Work Experience.

National Registry of School-Work Experience shows that number of economic and non-economic organizations willing to host, and train pupils is growing steadily. Of the 717 hosting organisations, 500 registered in 2018. In order to promote these programs, the Sardinian chambers of commerce award hosting bonuses for businesses listed on the National Registry of School-Work Experience. This is seen to provide more inclusive educational pathways whilst improving students' job opportunities.

SCHOOL-WORK EXPERIENCE

717 organisations, both public and private, have participated in work experience programs between 2015-2018, as listed on the National Registry, hosting 8,226 Sardinian students. These organisations have a hosting capacity of 11 students each, nearly twice as much as the national average.



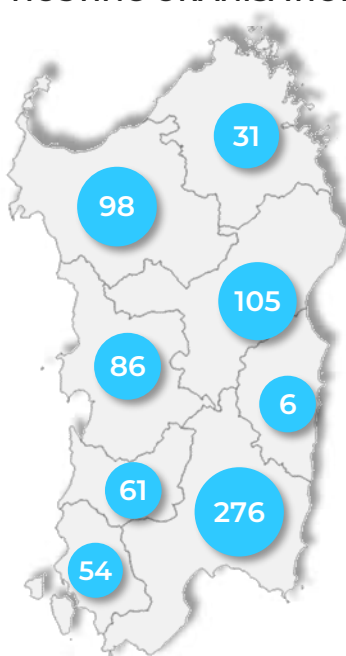
SARDINIA – quarterly enrolment on the Registry by hosting organisations



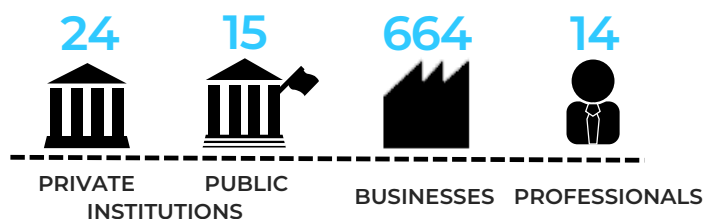
LOCATION OF HOSTING ORGANISATIONS BY REGION - 2018

Only 1.8% of regional organisations listed in the National Registry of Work Experience are Sardinian. Among the hosting organisations in Sardinia, 92% are businesses, while around 6% are public and private institutions. Of the 47,676 active businesses in North Sardinia, only 129 have participated in the initiative. The difficulty initiating the Work Experience program has been the nature of the local entrepreneurialism, made up primarily by micro-enterprises incapable of sustaining complex organisational and financial schemes.

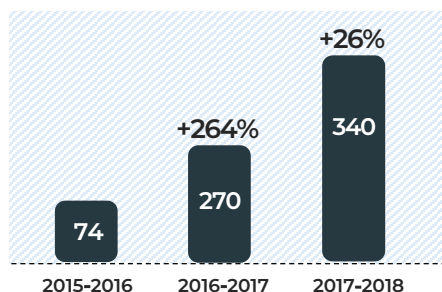
HOSTING ORGANISATIONS



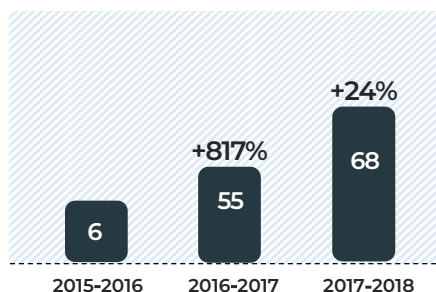
SARDINIA – types hosting organisations



NORTH SARDINIA – situation by registration year



STUDENTS INVOLVED

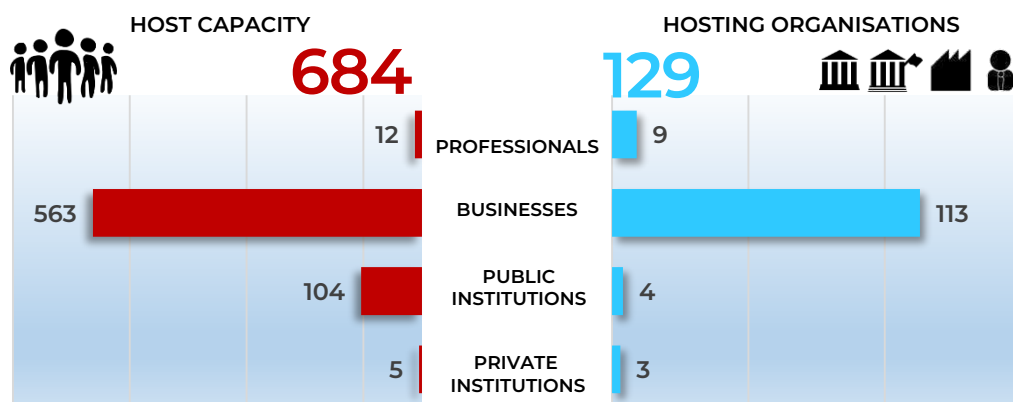


HOSTING ORGANISATIONS

SUPPLY & DEMAND OF SCHOOL-WORK EXPERIENCE

113 of North Sardinia's hosting organisations are businesses: 88% of the province's organisations. The entrepreneurial system supplies 82% of work experience places with a capacity of nearly 5 places per business.

NORTH SARDINIA – distribution by student and organisation type



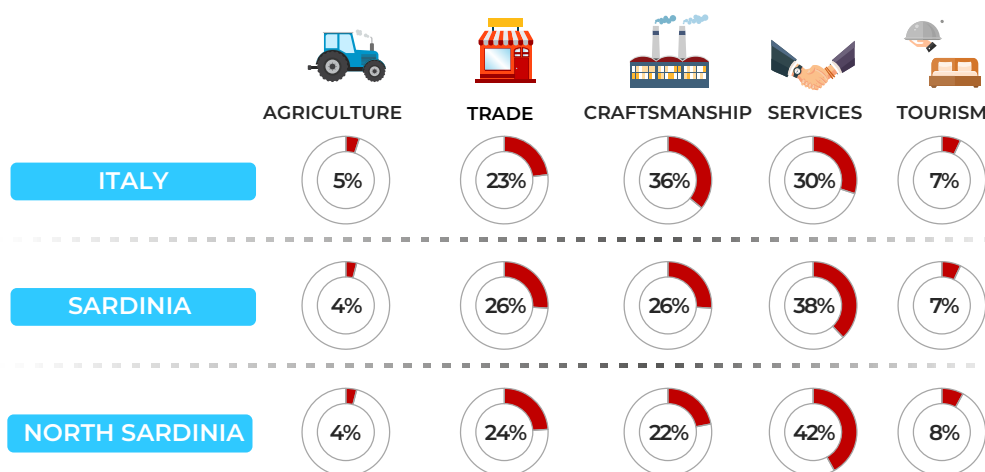
NORTH SARDINIA – average host capacity per hosting organisation



BUSINESS ACTIVITIES

In North Sardinia service companies are the most willing to host: 10% more than the national figure. In the rest of Italy the majority of participating organisations is made up of manufacturing and artisanal businesses.

INDUSTRIES - percentage of industry by territory

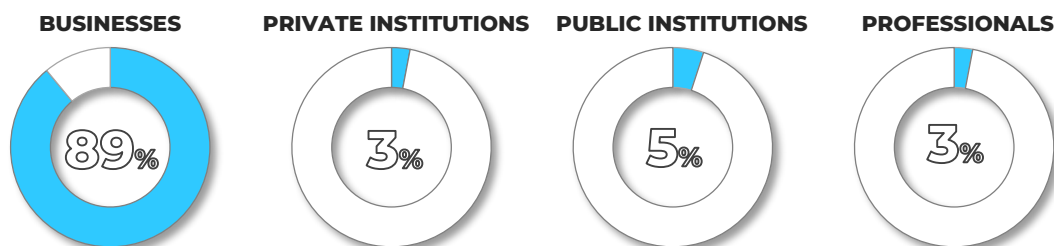


NORTH SARDINIA – type of business

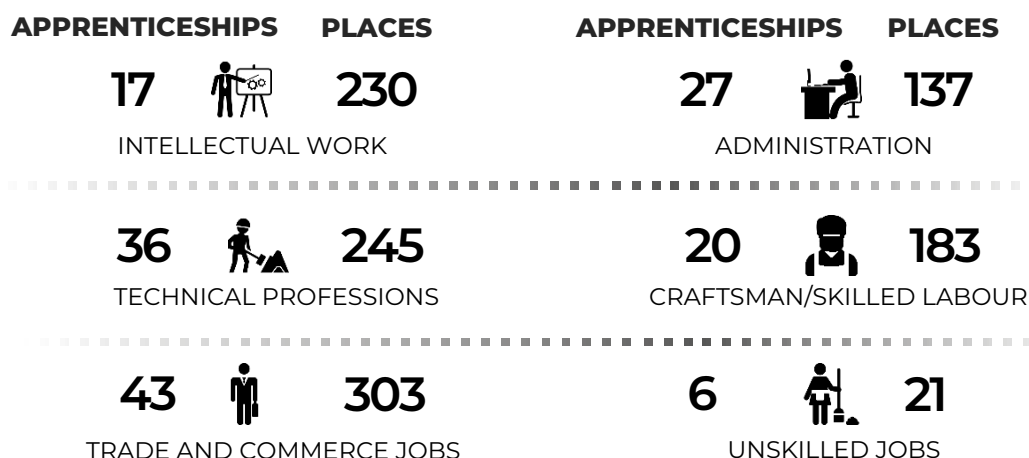


APPRENTICESHIPS AND PROFESSIONALS

Since 2015, 150 apprenticeships have been organised in North Sardinia, creating a total of 1,123 places. The main contribution comes from the north-west, with 69% of the overall apprenticeships supplied and 79% of all available places. The entrepreneurial sector is the principal promoter of the School-Work Experience program in North Sardinia, and especially in Olbia-Tempio, with 134 apprenticeships. Almost all proposed vocational paths provide qualifications, operating in trade and service industries, and technical and executive administration. Freelance, specialised professionals, craftsmen and specialised workers are fewer in number.



NORTH SARDINIA– professional profiles



Chapter 10

CULTURAL HERITAGE



A journey through the culture and creative businesses of Sardinia and North Sardinia

Sources:

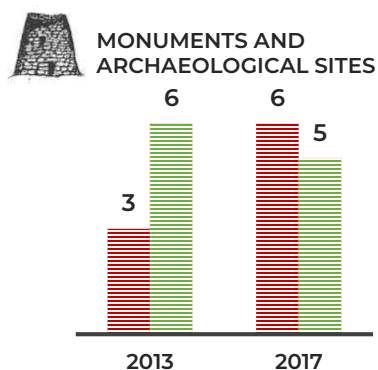
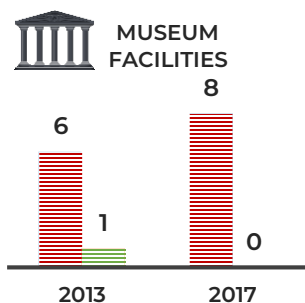
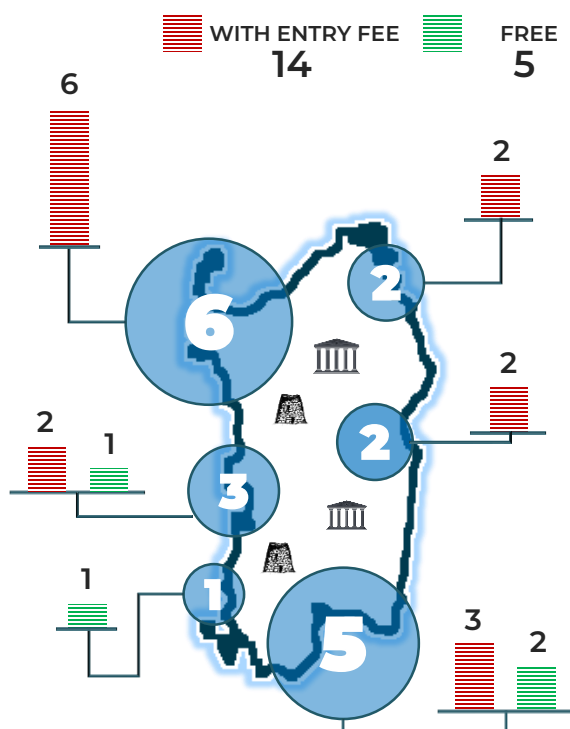
Regione Sardegna, Fondazione Symbola, Unioncamere, Infocamere

This edition of the Survey of the chamber of commerce focusses specifically on the monitoring of cultural heritage. Thanks to the database of MIBACT (Italian Ministry of Cultural Heritage, Activities and Tourism) it has been possible to analyse attendance figures regarding museum facilities and archaeological sites on the Island, and estimate its financial effects. The growth recorded in this field during recent years is linked to the tourism boom (as seen in chapter 6) and has brought about a change of the organisational structure of cultural sites. In order to estimate the number of businesses operating in the culture and creativity sector, we need to take into account businesses aiming to conserve and enhance cultural heritage, and those working on the creation and production of intellectual and professional material. The Infocamere database defines the cultural and creative sector by selecting 67 subcategories from the 2007 Ateco ranking. These can be grouped into 4 main sectors: cultural industry, creative industry, performing arts and historic and artistic heritage.

MIBACT FACILITIES

Statistics from the Ministry for Cultural Heritage and Tourism (MIBACT), show that visitor numbers at Sardinian museums and archaeological sites in 2017 have increased by 7% in comparison to the previous year. This growth has been much less significant in North Sardinia: 1.3%, approximately 2,000 more visitors than in 2016. In 2017 Sardinia had a gross income in this sector of more than €1,6 million (an annual increase of almost €200,00) and North Sardinia itself recorded a turnover of €500,000 (an annual increase of 13%).

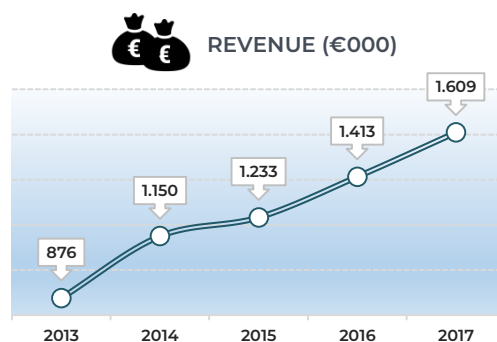
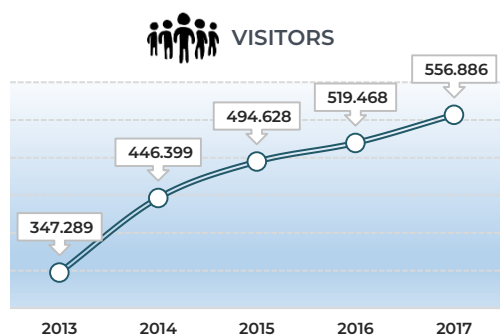
SARDINIA – number of state museums and archaeological sites - 2017



VISITORS AND REVENUE – CULTURAL SITES

MIBACT's 2017 figures are crystal clear: over 500,000 visitors and a revenue of €1,6 million recorded by state cultural sites in Sardinia. Between 2013 and 2017 the number of visitors and revenue have grown by 60% and 83% respectively.

SARDINIA – number of visitors and revenue – 2013-2017

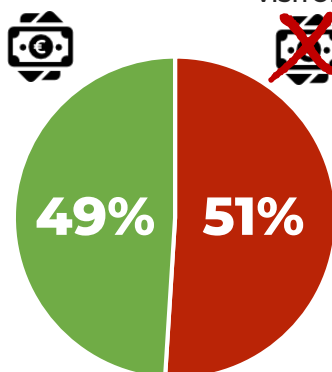


VISITORS
556.886

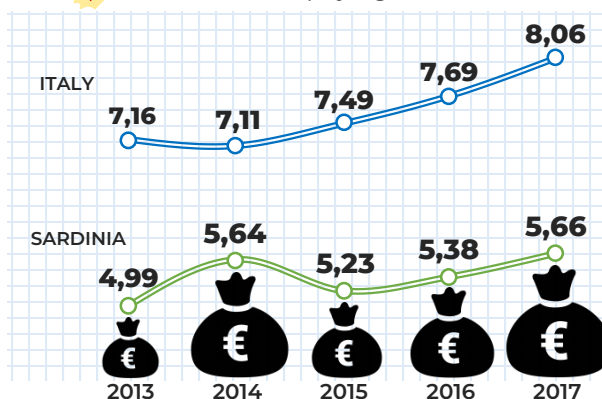
REVENUE
1.609.026 €

PAYING VISITORS

NON-PAYING VISITORS



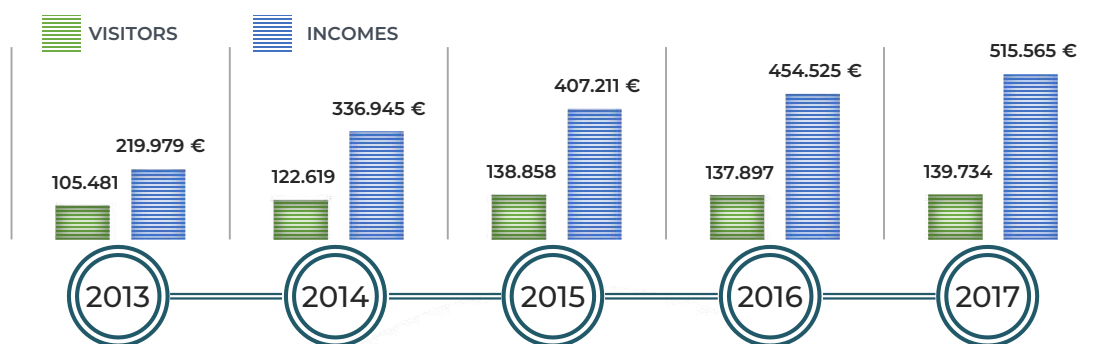
AVERAGE TICKET PRICE (€)
revenues/paying visitors



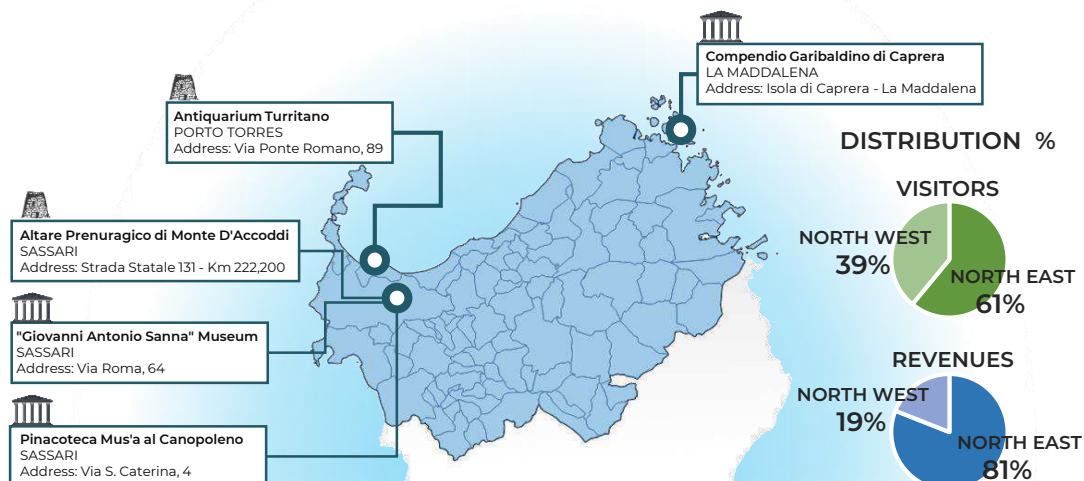
MIBACT FACILITIES IN NORTH SARDINIA

The number of visitors and gross revenue at North Sardinia's cultural facilities grew in 2017. Despite a minor reduction in overall visitors in 2016 the overall revenue for the last 5 years grew consistently. This growth is partly due to an increase in tourism: the number of facilities increased from 3 in 2013 to 8 in 2017.

NORTH SARDINIA – number of visitors and incomes– 2013/2017



NORTH SARDINIA – main state museum and archaeological sites - 2017



PAYING/NON-PAYING VISITORS

Figures regarding visitor flow and revenue for cultural sites in North Sardinia can be analysed using three variables available in the MIBACT database: “paying visitors”, “non-paying visitors” and “gross revenue”. The diagram below illustrates the dynamics affecting each type of cultural site: “museums”, “monuments and archaeological sites”, and “other sites of interest”.

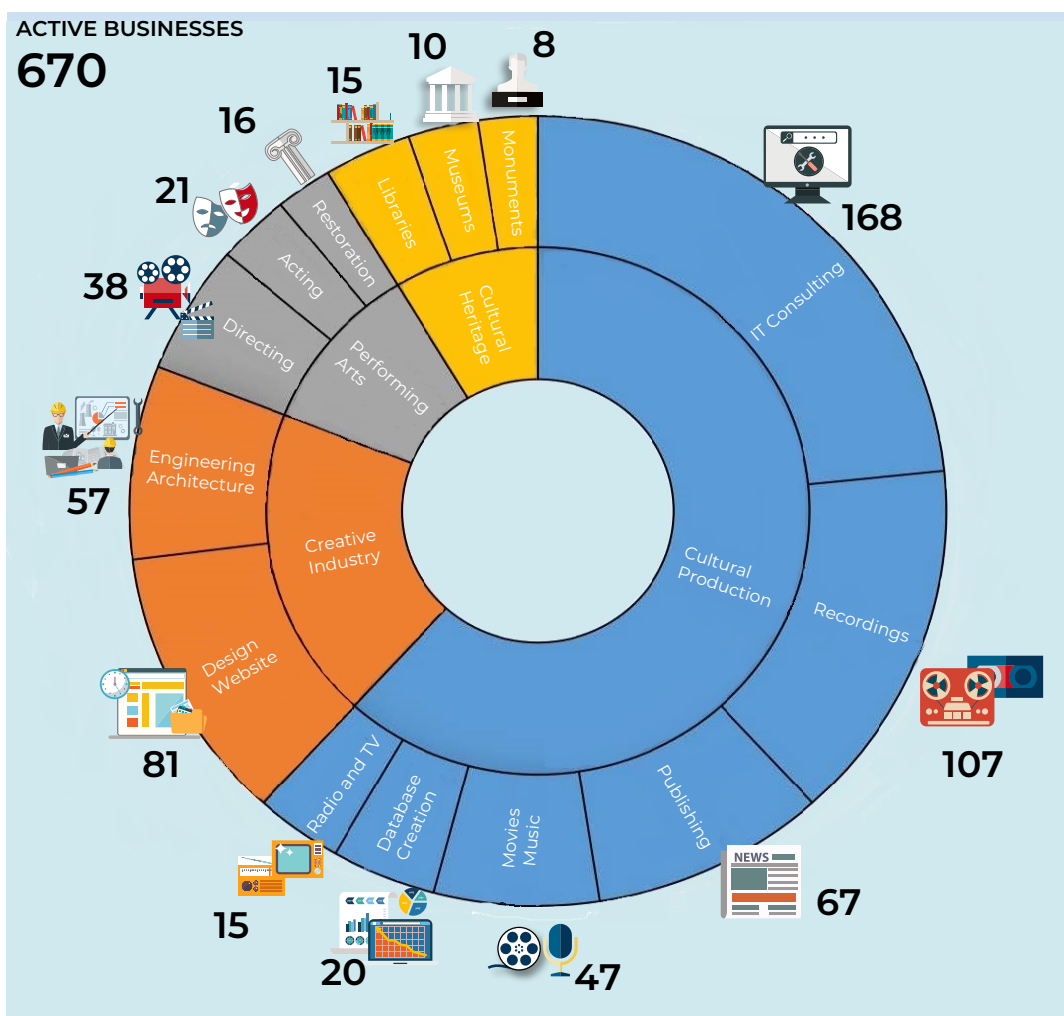
NORTH SARDINIA – number of visitors and revenue by facility category – 2017

	NUMBER OF VISITORS			REVENUE
	PAYING VISITORS	NON-PAYING VISITORS	TOTAL	ANNUAL GROSS REVENUE (Euro)
MUSEUMS				
	64.159 (+3%)	45.204 (+2%)	109.363 (+3%)	394.929 (+20%)
MONUMENTS AND ARCHAEOLOGICAL SITES	20.440 (+33%)	4.623 (-51%)	24.747 (+8%)	61.406 (+33%)
OTHER SITES OF INTEREST	5.624 (-32%)	0 (0%)	5.624 (-32%)	59.230 (-25%)

CREATIVE BUSINESSES

Infocamere's database has been referenced to define the following 4 categories: "cultural industries", "creative industries", "performing arts" and "historic and artistic heritage". In 2017 there were 670 active companies operating in these 4 sectors in North Sardinia, just under 30% of the total number of regional creative businesses.

NORTH SARDINIA – companies operating in the cultural and creative industries – 2017



Chapter 11

WORK AND EMPLOYMENT



Primary statistical trends in the jobs market

Sources:
Istat, Eurostat, Sardegna Statistiche

ISTAT figures relating to the job market in 2017 take into account new legislation in Sardinian regional institutions. The provinces of Olbia-Tempio, Ogliastra, Medio Campidano, Carbonia Iglesias and Cagliari have been abolished. The provinces of Sassari, Nuoro and Oristano have been modified and the new province of South Sardinia and the metropolitan city of Cagliari have been established (see page 4).

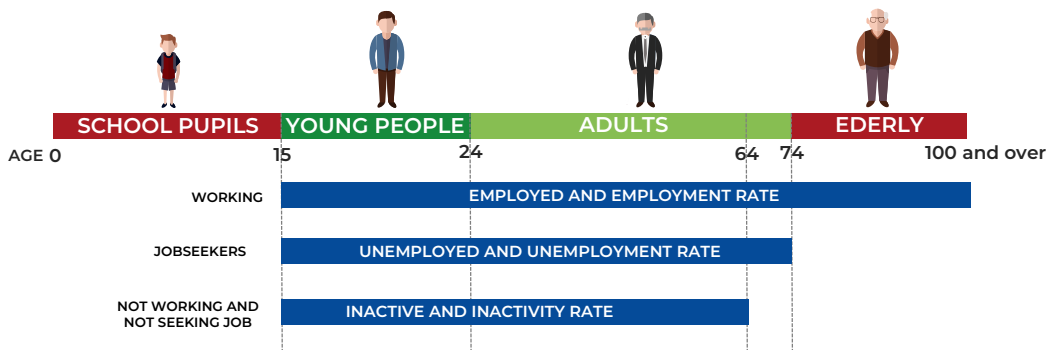
Considering merger of former provinces Olbia-Tempio and Sassari, figures relating to the job market can be used to analyse employment development in the newly formed province of Sassari, but It is impossible to distinguish different occupational dynamics characterising the two territories in 2017.

Employment is on the rise and the unemployment rate is dropping. North Sardinia is witnessing two positive trends, which will hopefully be confirmed in the ensuing years.

JOB MARKET

There are various factors affecting the job market: changes in demographics, structural changes, cyclical economic patterns, and changes in demand. Whilst statistical demographics show a decrease in birth rate, with a resulting ageing population, cultural data demonstrates that the education is rising, generating greater demand for specialised jobs. Despite analytical difficulties posed by the recent border changes, it is still possible to gain an overall perspective on employment dynamics, by analysing ISTAT's statistical trends.

ISTAT: POPULATION USED TO CALCULATE OCCUPATIONAL TRENDS



ISTAT: ACTIVITY SECTORS

ISTAT separates different industrial sectors, highlighting the progress of the construction industry. Within the service industry sector, figures regarding trade, and food service stand out. Primary industry is analysed as a whole.

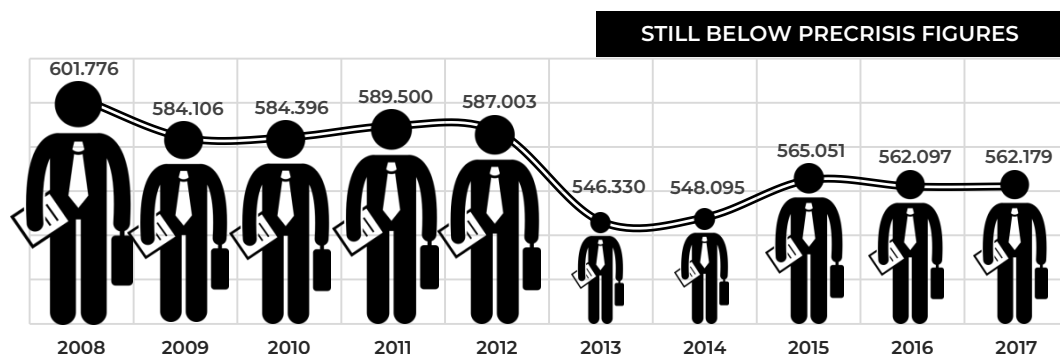


JOB MARKET STATISTICS

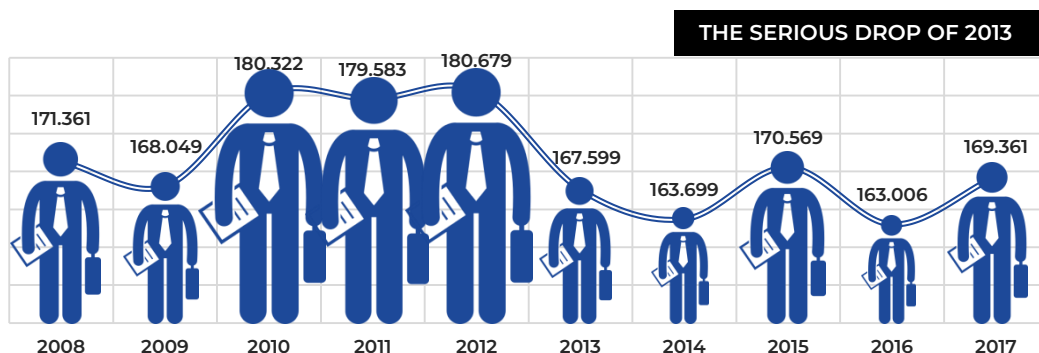
Employment figures in Sardinia for 2017 showed little annual variation. 562,179 people worked in the island in 2017, just 82 more than in 2016. Employment growth in North Sardinia is much higher. With 6,335 more people in employment, the number of employed went up to 169,361: over 30% of the national figure.

Employment trends 2008-2017

SARDINIA



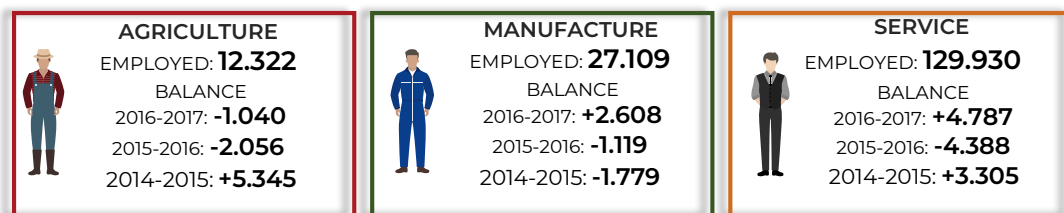
NORTH SARDINIA



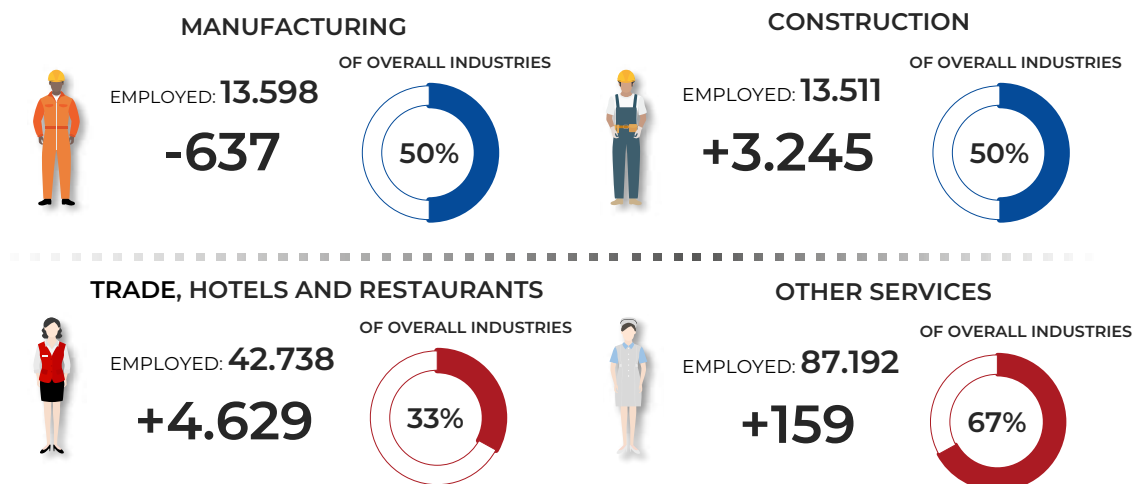
EMPLOYMENT BY SECTOR

Despite almost no rise in the number of employed recorded at the regional level (+82), 2017 has been a very positive year for North Sardinia (+6,335). This growth is concentrated in services and manufacture, whereas the number of employed in primary industries is dropping. Between 2015 and 2016, the construction sector lost almost 5,000 employees (over 30%), but in 2017 3,200 more staff have unexpectedly been recorded.

NORTH SARDINIA – employment development by sector – 2017



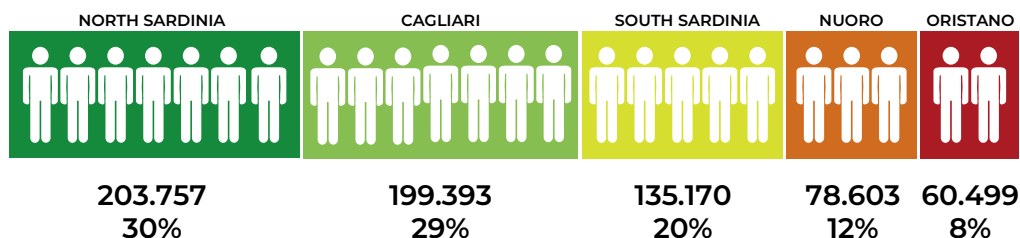
NORTH SARDINIA – industries and services in detail – 2017



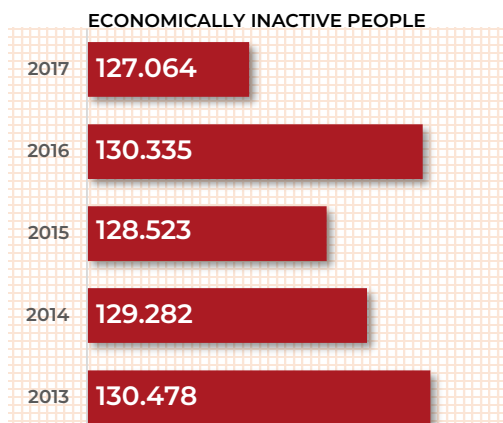
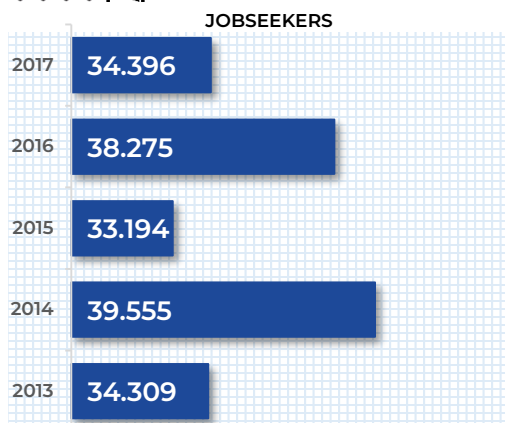
LABOUR FORCE

A key factor in assessing the health of the job market is the labour force. It comprises employees (those over 15 and in employment) and jobseekers (individuals aged between 15 and 74 who are actively seeking employment). Sardinia has seen a diminishing labour force, due to the decrease in unemployment (-1,950 less unemployed than 2016) which has not been offset by the rise in employment (only +82 employed).

SARDINIA – labour force by area – 2017



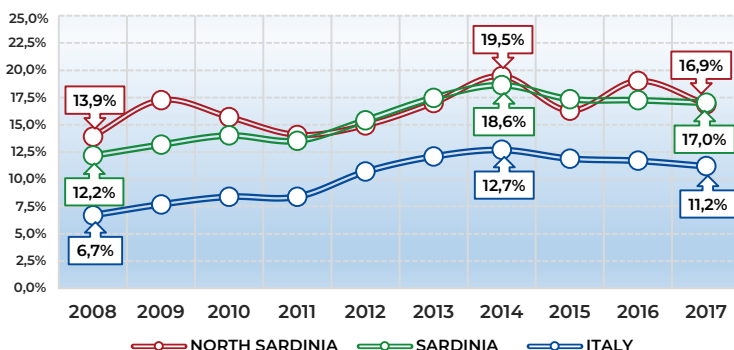
NORTH SARDINIA – jobseekers and economically inactive people – 2013-2017



UNEMPLOYMENT AND EMPLOYMENT RATES

In 2017 the unemployment rate in Sardinia was at its best in 5 years at 17.0% which was good news for those aged 15 – 24. Youth unemployment in the island reached 46.8%, marking a 10% decrease in comparison to 2016. Consistently to the regional figures, unemployment in North Sardinia in 2017 was at a rate of 16.9%, with a 2% reduction since 2016.

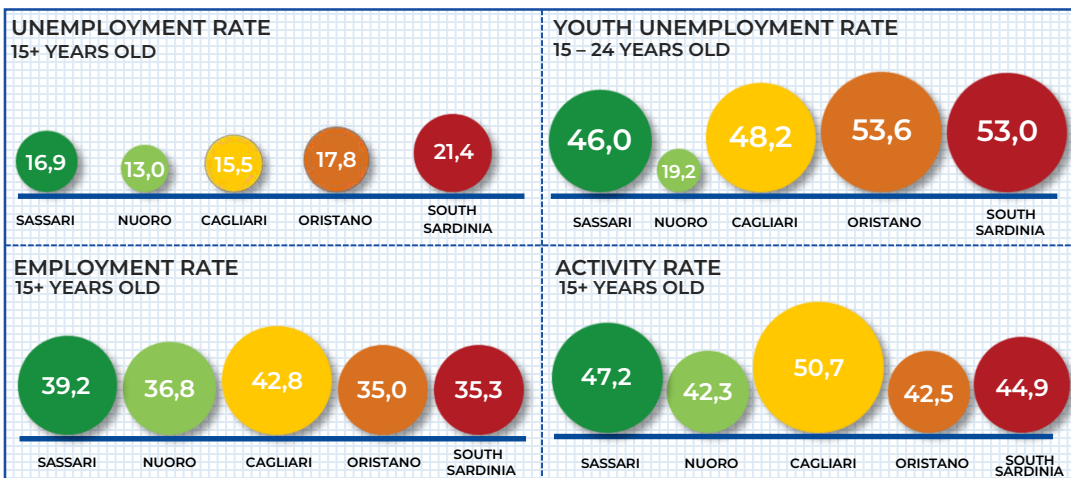
NORTH SARDINIA, SARDINIA, ITALY – unemployment rate in over 15's 2018 -2017



The unemployment rate in Sardinia is still much higher than the national average.

All regions have recorded the highest unemployment rates since 2014.

SARDINIA – new provinces compared – 2017



Chapter 12

THE PROPERTY MARKET



✓ Residential and non-residential real estate markets

Sources:
Agenzia delle Entrate (OMI), Celsis, Istat, Crif

A house for everyone

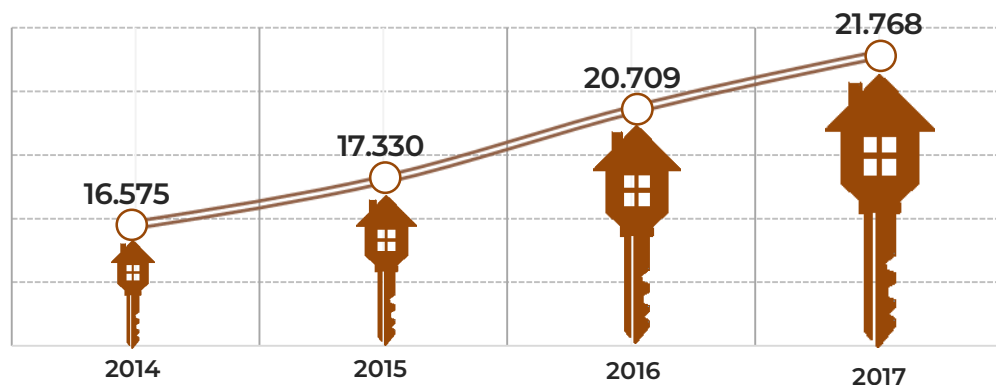
This chapter analyses statistics relating to the property market. The Sardinian property market has been experiencing an upward trend since 2014, with housing sales reaching 18,191 in 2017 (an annual increase of 5.22%).

The non-residential property market has recorded a rise in sales, from 3,420 to 3,577. Sassari has seen the greatest rise in regional sales, with an increase of 1,346. In 2018 during the first quarter the number of mortgage applications fell by 17,3% in comparison to the same period in the previous year, especially in Olbia-Tempio (-53.4%). The average has gone down to 107,987 (a decrease of 1,000). The number of credit assessment and reassessment applications made by businesses are going up by 2.3% above the national average. The provinces of Oristano and Sassari achieved the best real estate financial performance of the island with +9.5% and +9.3% respectively.

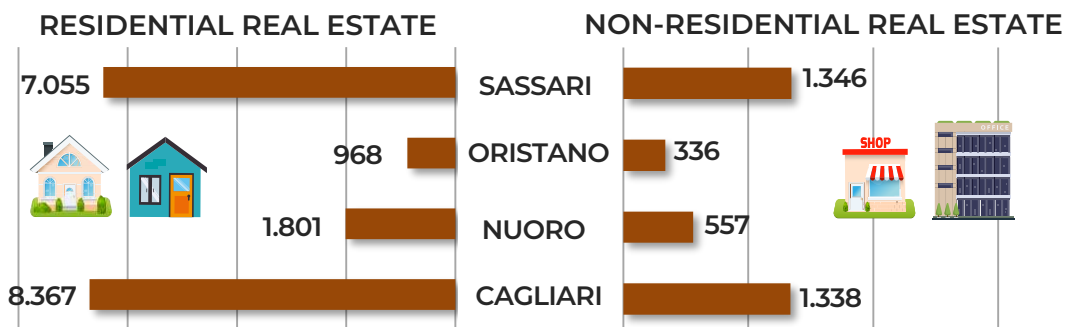
PROPERTY MARKET

Sardinia recorded 21,768 property sales in 2017. The annual property sales figures have risen since 2014. In 2017 by 5.1%, compared to the previous year. This figure is still much lower than in 2016. Of the overall number of transactions, 18,191 related to residential real estate, and 3,577 to non-residential sales. In Sassari the overall growth is weak at an increase of 2.3%, about a tenth of that recorded in 2016. North Sardinia ranked first in the island's non-residential property sales, with 1,346 transactions.

SARDINIA – property sales 2014-2017



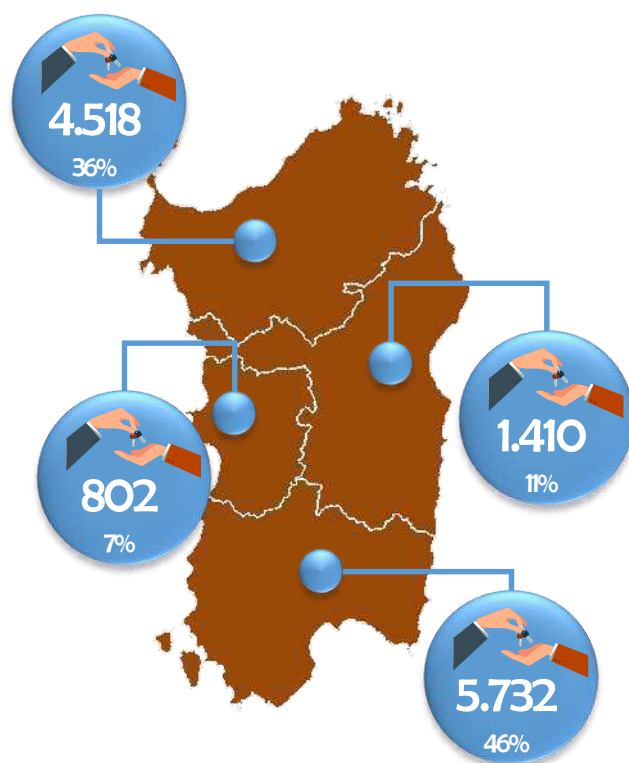
SARDINIA – regional property sales by type - 2017



RESIDENTIAL HOUSING MARKET

Between 2014 and 2017 12,642 houses have been bought in Sardinia, denoting an upward sales trend. All the provinces contribute to this 6% growth in varying proportion. The town of Nuoro however, witnessed a rise of 11% compared to 2016. Sales increase is due mainly to provincial performance. North Sardinia is the most expensive area, with an average price of €1,703 per m² (25% more than the regional average of €1,359). Among the main province cities, Oristano is the only one more expensive than Sassari (€1,333/m²).

SARDINIA – house sales and percentage over the province total - 2017



SALES PER MAIN PROVINCE CITY

	SALES	% OVER THE PROVINCE TOTAL
SASSARI	1.026	19%
CAGLIARI	1.617	22%
NUORO	191	12%
ORISTANO	258	24%

PRICE PER M2 PROVINCE MAIN CITY

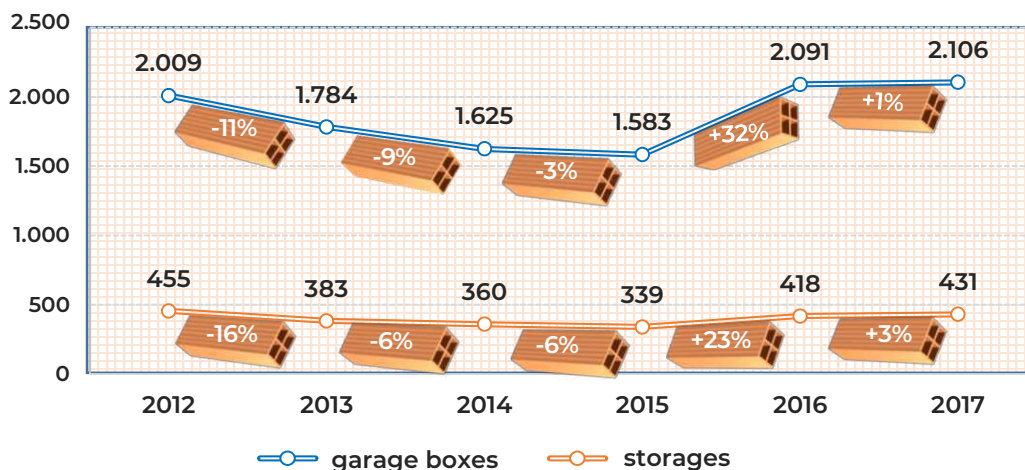
	PRICE PER M2	PERCENTAGE CHANGE 17/16
SASSARI	1.333 €	-0,4%
CAGLIARI	1.937 €	-1,9%
NUORO	1.560 €	+1,5%
ORISTANO	1.219 €	-1,3%

SARDINIA – residential real estate sales by floorspace – 2017 and percentage change 17/16

		SASSARI	CAGLIARI	NUORO	ORISTANO
	<50 m ²	632 (+3,2%)	373 (+1,1%)	117 (-10,1%)	58 (-14,1%)
	50-85 m ²	1.701 (+5,1%)	1.783 (+12,8%)	510 (-4,6%)	165 (-6,7%)
	85-115m ²	996 (+4,2%)	1.418 (+6,8%)	318 (+22,3%)	138 (-2,9%)
	115-145m ²	622 (+0,6%)	1.046 (11,7%)	197 (+14,5%)	154 (-1,2%)
	>145m ²	568 (+1,8%)	1.111 (+6,7%)	268 (-0,8%)	287 (+34,6%)

The residential garage storage market has increased since 2015 and a consistent performance is shown compared to the previous year in the province of Sassari.

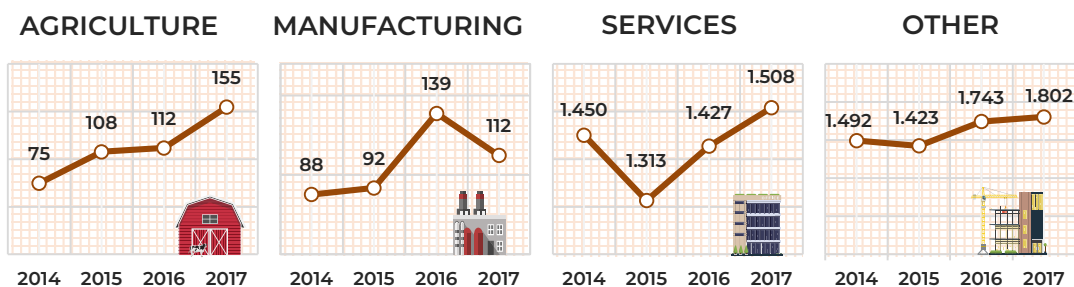
NORTH SARDINIA – performance of garage / storages sales – 2012/2017



NON-RESIDENTIAL REAL ESTATE MARKET - 2017

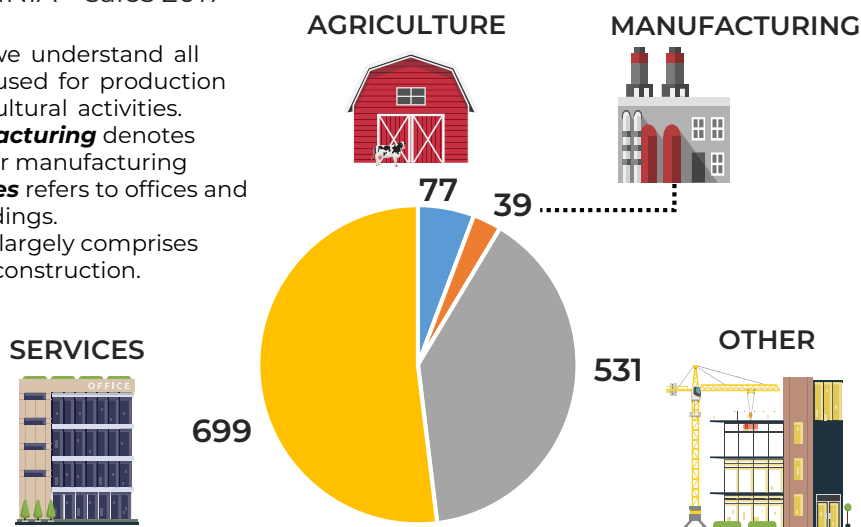
According to recent figures from OMI (Osservatorio Mobiliare Italiano), Non-residential real estate transactions in Sardinia in 2017 demonstrate the following figures in each sector: +38% in agriculture, +19% in manufacturing, 3% in the tertiary sector and 6% in all the other sectors.

SARDINIA – performance by sector 2014-2017



NORTH SARDINIA – sales 2017

By **agriculture** we understand all buildings to be used for production relating to agricultural activities. The term **manufacturing** denotes buildings used for manufacturing purposes. **Services** refers to offices and commercial buildings. The group **other** largely comprises buildings under construction.

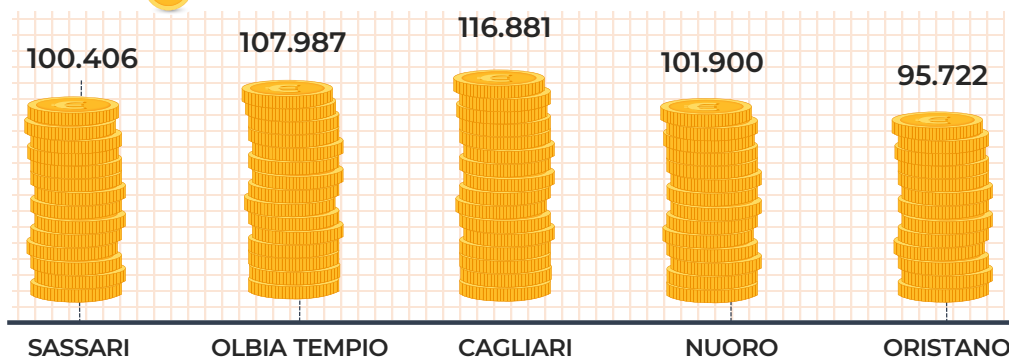


MORTGAGES IN SARDINIA - 2017

During the first quarter in 2018 Sardinia witnessed a decrease of 17.3% in mortgage applications, compared to 2017. Nuoro was the only province to record a 2.9% increase of in applications (+2.9%), others witnessing a big decrease. North Sardinia also shows a 2.9% decrease in the north east and -53.4% in the north west. The average mortgage granted on the island is €107.148€, an annual decrease of 14.7% compared to 2017. The highest average mortgage granted in North Sardinia was in the east (€107,987), whilst in Sassari it is just over €100,000.

SARDINIA – average mortgage amount in main regions - first quarter 2018

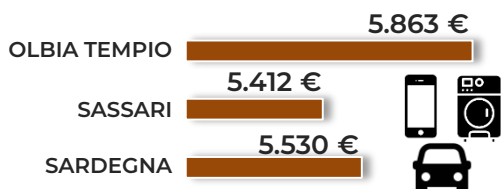
values in euro



NORTH SARDINIA—TARGETED AND PRIVATE LOAN AMOUNTS – first quarter 2018

Applications for personal and targeted (special purpose) loans in Sassari have risen by 8.4, an increase of 2.7%. Whereas in Gallura the trend is negative (-46.1% and -39.6% respectively).

TARGETED LOANS (average credit amount)



PERSONAL LOANS (average credit amount)



Chapter 13

SAFETY AND SECURITY



Safety and security as indicators of economic and social well- being

Sources:

Istat BES 2017, Ministero Della Giustizia, INAIL

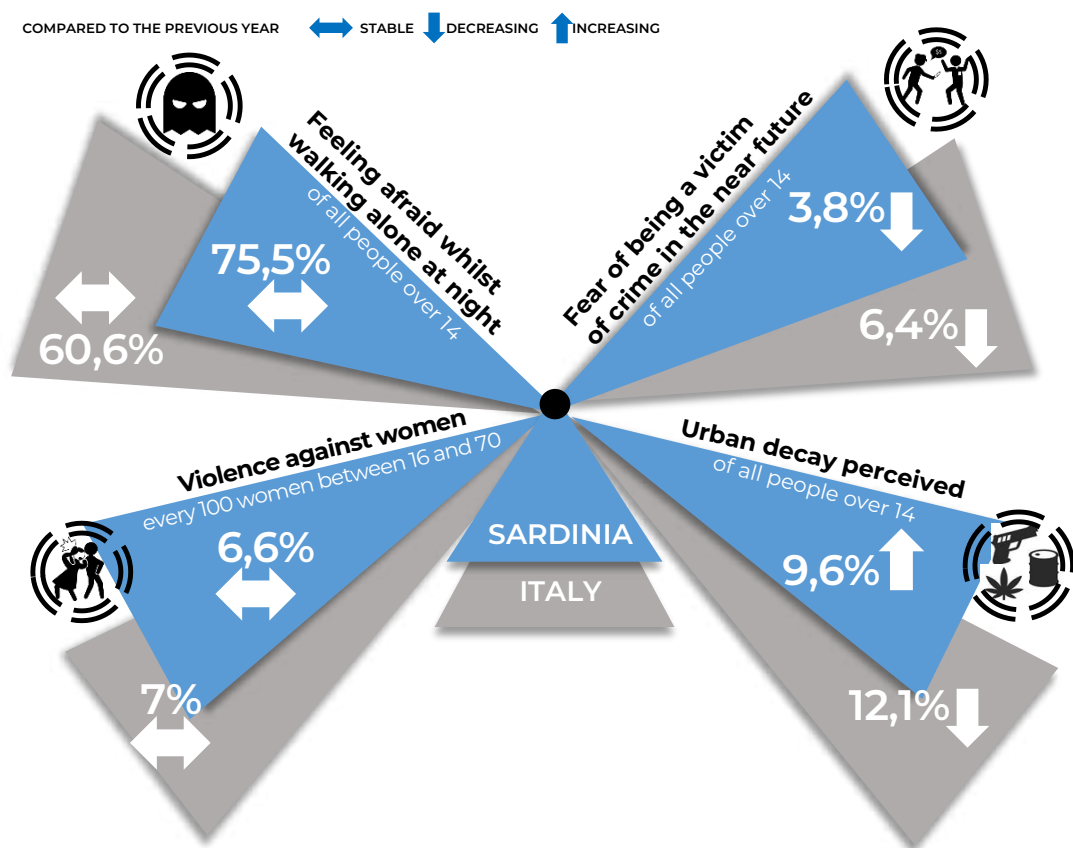
A safe island.. but not yet for everyone

According to figures relating to law and security published by ISTAT in its 2017 report about equitable and sustainable well-being, Sardinia is showing decrease in criminal activity. Fear of being a victim of crime has decreased by 3.8%, whereas the number of people feeling afraid whilst walking alone at night remain unchanged compared to the previous year (75.5%). This figure is however 15% better than the national one. Murders, burglaries and robberies have declined whilst pickpocketing went up. Sex crimes and domestic violence stayed the same. Sassari's courts noted a 20% annual increase in criminal proceedings in 2017, and a 15% reduction in prosecutions. The number of work accidents increased by 2% in 2017 (from 12,899 to 13,161) compared to that of 2016 with 23 deaths.

THE PERCEPTION OF SECURITY

The sense of security experienced by Sardinians seems stronger than that of the rest of the country. A general improvement on the previous year, although modest, is nonetheless reassuring compared to national figures. In Sardinia people are experiencing less fear of crime, with data regarding the fear of walking alone in the dark remaining stable. Fear of living in run-down urban areas has increased, along with women's fear of domestic violence and sexual assault.

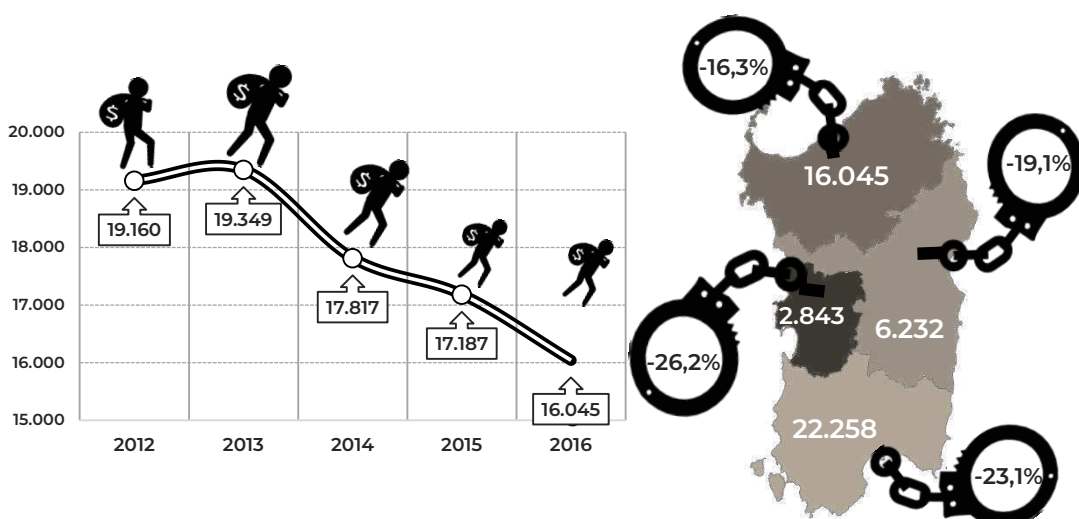
SARDINIA ITALY – data relating to social security – 2016



CRIME

In 2016, 16,045 crimes were reported by police to North Sardinian judicial services, about 1,000 less than in 2015. This data is the result of a trend starting in 2012, when the overall number of crimes reported were 19,432. Compared to 2015, the number of first degree murders (4) and robberies (89) remained the same, whereas thefts decreased from 7,261 in 2015, to 6,849 in 2016.

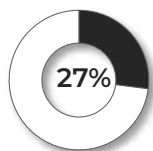
NORTH SARDINIA – Crimes reported in 2016 and percentage change 16/15



NORTH SARDINIA - Crimes by type - 2016

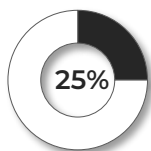
MURDERS

4



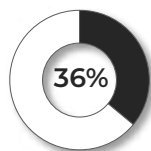
ROBBERIES

8



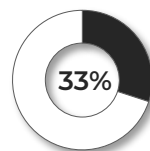
BURGLARIES

6.849



PETTY CRIMES

1.450



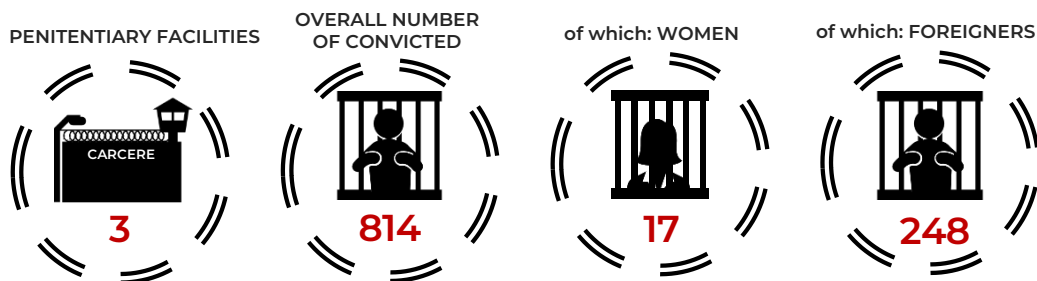
PERCENTAGE OF ISLAND TOTAL

Petty crimes: bag-snatching, pick pocketing, car break in, car theft.

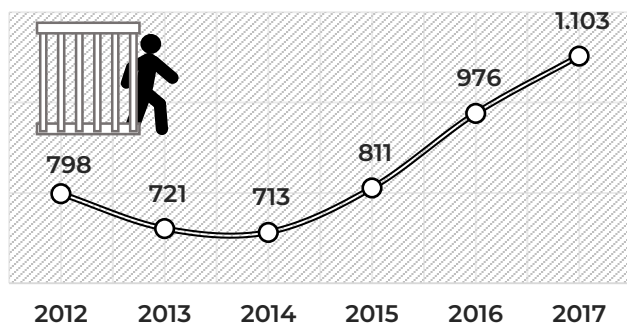
PRISON SYSTEM

There are 10 correctional facilities in Sardinia, with a total capacity of 2,706, housing 2,380 convicted in 2017 (4.1% of Italy's prison population), 45 were women and 813 foreigners. According to the data regarding social rehabilitation initiatives made by the judicial system, 1,103 prisoners have been involved in work programs. Of these 1,037 worked for the prison administration and 66 for other organisations outside the prison. There were 778 places available in the three correctional facilities in North Sardinia in 2017, against the 814 convicted (88 more than in 2016), representing 34% of the regional total. Within a year the number of foreign convicts has increased from 184 to 248. The 17 women (38% of the regional total) are all housed Sassari prison.

NORTH SARDINIA – Prison system figures - 2017



SARDINIA - number of working prisoners (2012-2017) and by employer- 2017



WORK FOR PRISON ADMINISTRATIONS



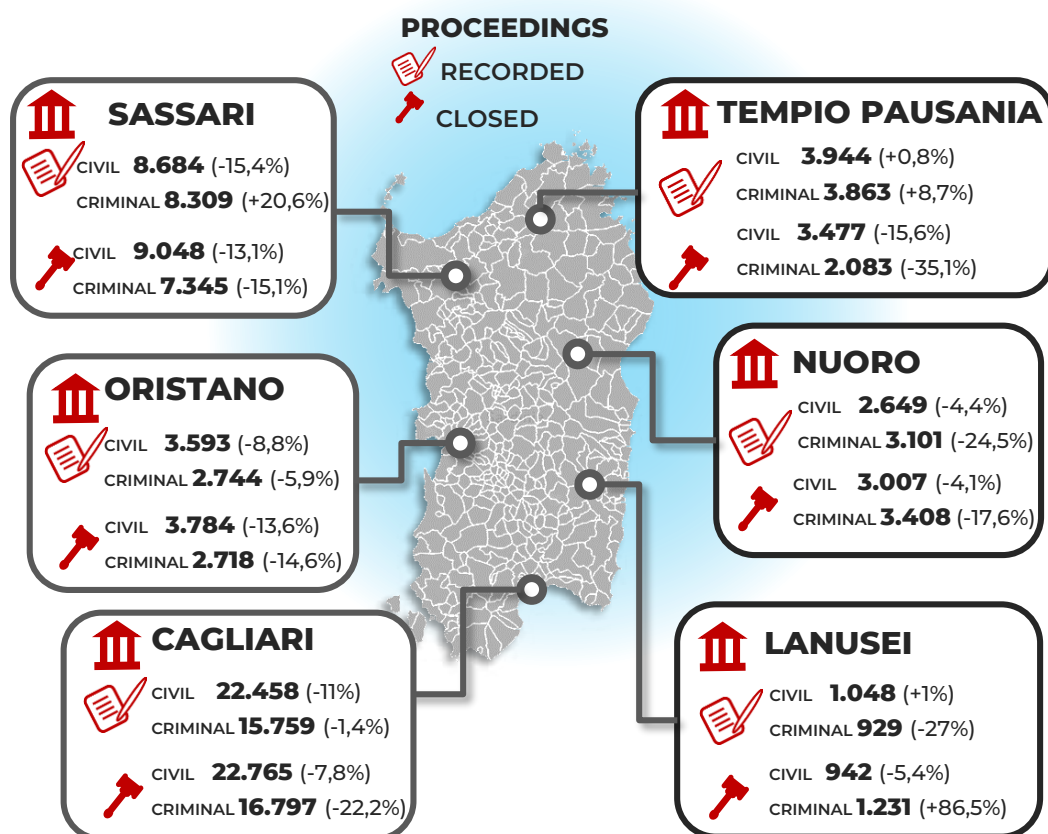
WORK FOR OTHER COMPANIES



JUDICIAL SYSTEM

In 2017 figures from the Italian Ministry of Justice show that 42,376 civil proceedings have been recorded in Sardinia, whilst 43,023 have been closed. The clearance rate (balance between crimes recorded and crimes cleared) showed an increase of 1.01. On the contrary, in regard to criminal proceedings, 33,582 proceedings closed against 34,705 proceedings recorded, which translates in a negative clearance rate of 0.96%. Of the 12,628 civil proceedings recorded in North Sardinia, 37% were litigations, 17% work-related lawsuits, 28% were summary proceedings, 16% voluntary jurisdiction and 4% related to social security and welfare.

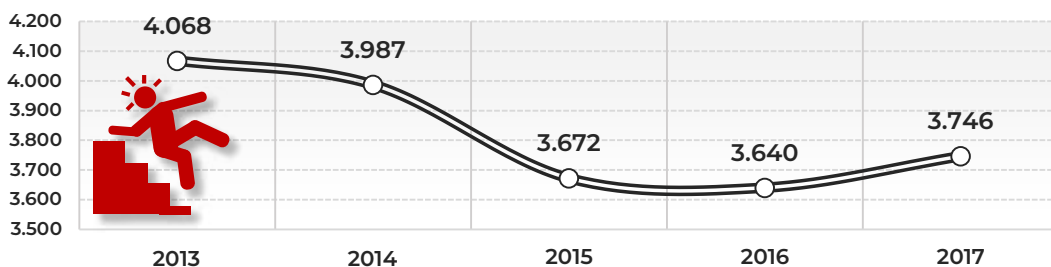
SARDINIA – Judicial proceedings clearance rate 2017 and percentage change 16/17



OCCUPATIONAL HEALTH AND SAFETY

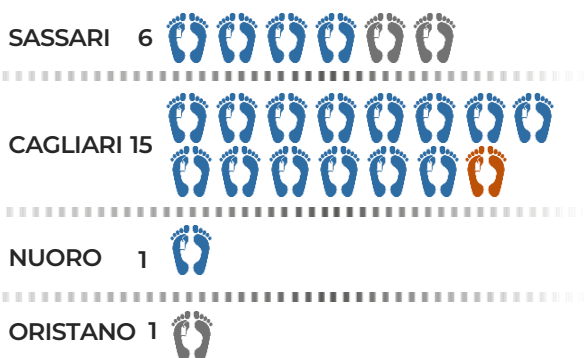
In 2017 641,084 workplace injuries were reported in Italy (figures quoted from INAIL) showing a slight annual drop, while fatalities amounted to 1,112, the lowest since the post-war period (with a 2.3% annual reduction from 2016). Conversely, injuries went up by 2% in Sardinia, reaching 13,161. Fatalities in 2017 decreased by 3 (23) compared to 2016. In North Sardinia 3,746 injuries (106 more than the previous year) were reported, 38% of the regional number. In particular 2,807 of these happened in the manufacture and service sectors.

NORTH SARDINIA: reported workplace injuries – 2013/2017



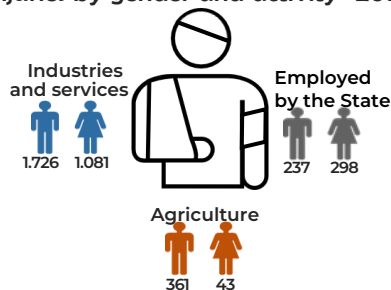
SARDINIA Fatalities-2017

Industries and services
 Agriculture
 Employed by the State



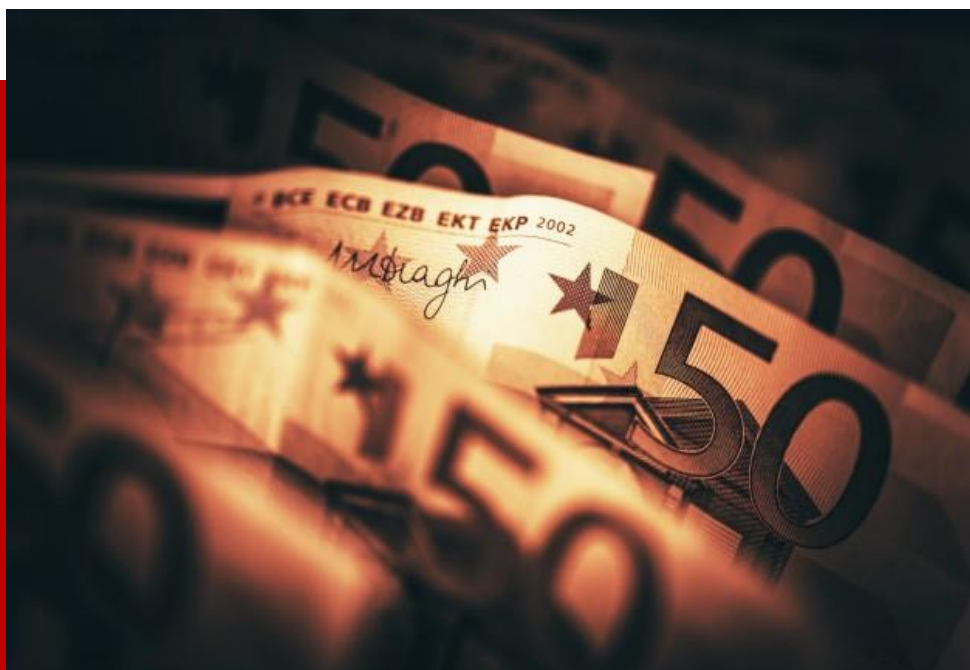
NORTH SARDINIA

Injuries by gender and activity -2017



Chapter 14

ECONOMY AND REVENUE



The production of wealth and profitability in Sardinia

Sources:
Istat, Italian Finance Department

According to the most recent data, Sardinia's productivity in 2016, taking into account current costs, shrank by €114 million compared to the previous year, falling from €33,342 to €33,228 million. The decrease of regional GDP becomes even more significant when prices are based on a specific year. This methodology allows for the influence of price volatility on the final GDP value, determining the variation in terms of productivity. Taking into account the price increase tendency, the difference between 2016 and 2015 was €300 million.

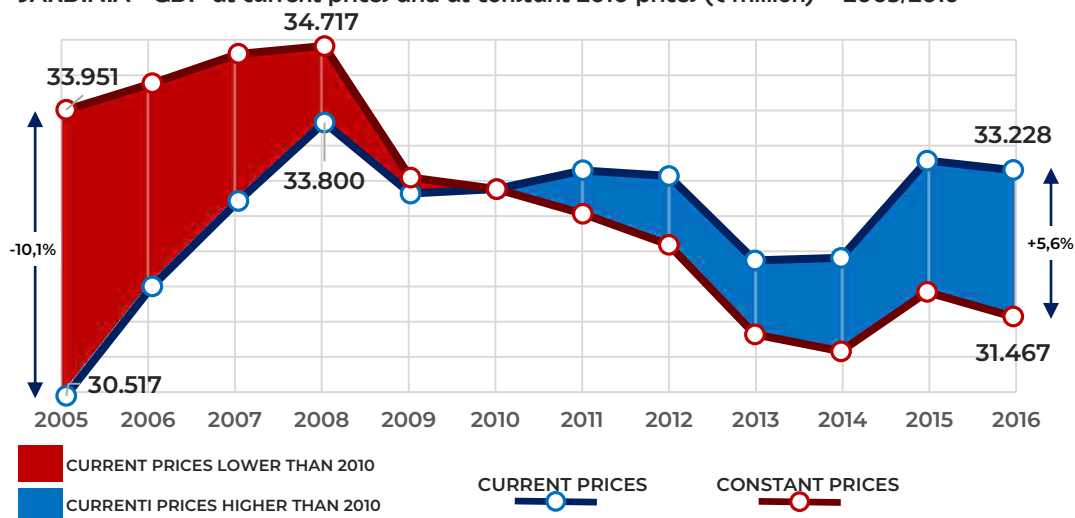
In 2016 the regional value added to consistent prices shows a loss of nearly €360 million compared to 2015. This loss was due to the industrial sector crisis (€222 million) and the decreasing value of services by €146 million.

The second part of this chapter examines the profitability of citizens, by analysing the data of tax returns announced by the Italian Department of Finance (IRPEF).

REAL AND NOMINAL GDP

GDP (Gross Domestic Product), i.e. the overall value of all goods and services produced in Sardinia, can be measured using current market prices for the relevant year (nominal GDP or current price) or by assuming those prices are a constant and therefore linked to a specific year (real GDP or constant price). These calculation methods have two completely different results. By merging these figures, it is possible to determine the dynamics characterising regional productivity in recent years.

SARDINIA –GDP at current prices and at constant 2010 prices (€ million) – 2005/2016

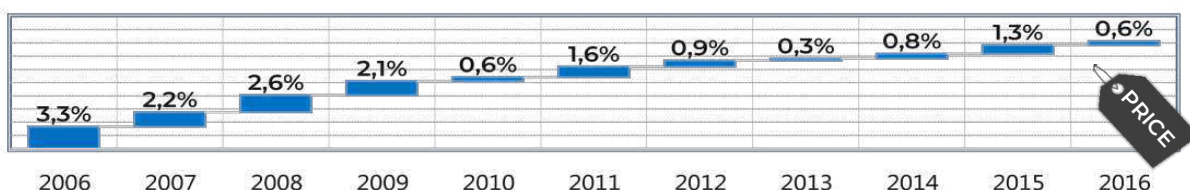


Considering that neither value takes market price fluctuations into account, the reduction in volume of goods produced, and services provided can be seen in the above diagram since the early years of financial crisis. From 2008 to 2016, 2015 excluded, real GDP has decreased steadily. In 2016 regional productivity stood at €31.5 billion, in comparison with the 34.7 generated in 2008, a loss of over €3 billion. The charts below summarise price and quantity fluctuation.

GDP VARIABLES: price and quantity

The drop in GDP given the consistent price increase, is even more serious because it means that the amount of goods produced and services provided in a year have also decreased.

Market price variation compared to the previous year – 2006/2016



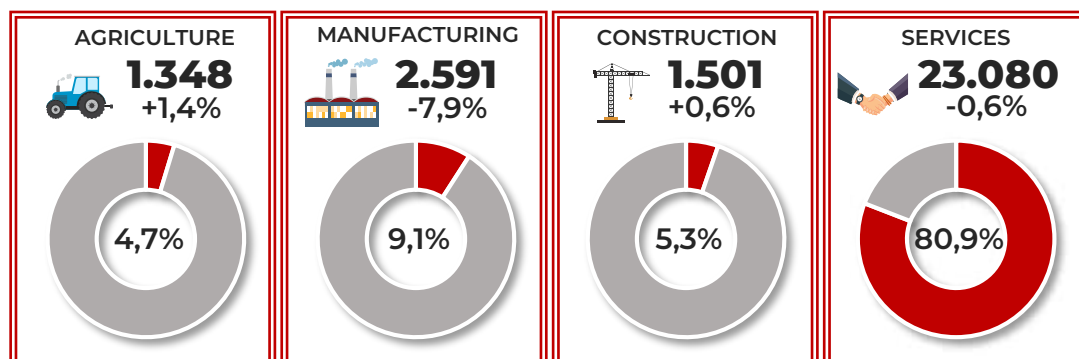
Variation of the quantities of goods and services compared to the previous year - 2006/2016



GDP VALUE INCREASE BY SECTOR

Regional economic growth was €28.5 billion in 2016, a drop of nearly €360 million compared to 2015.

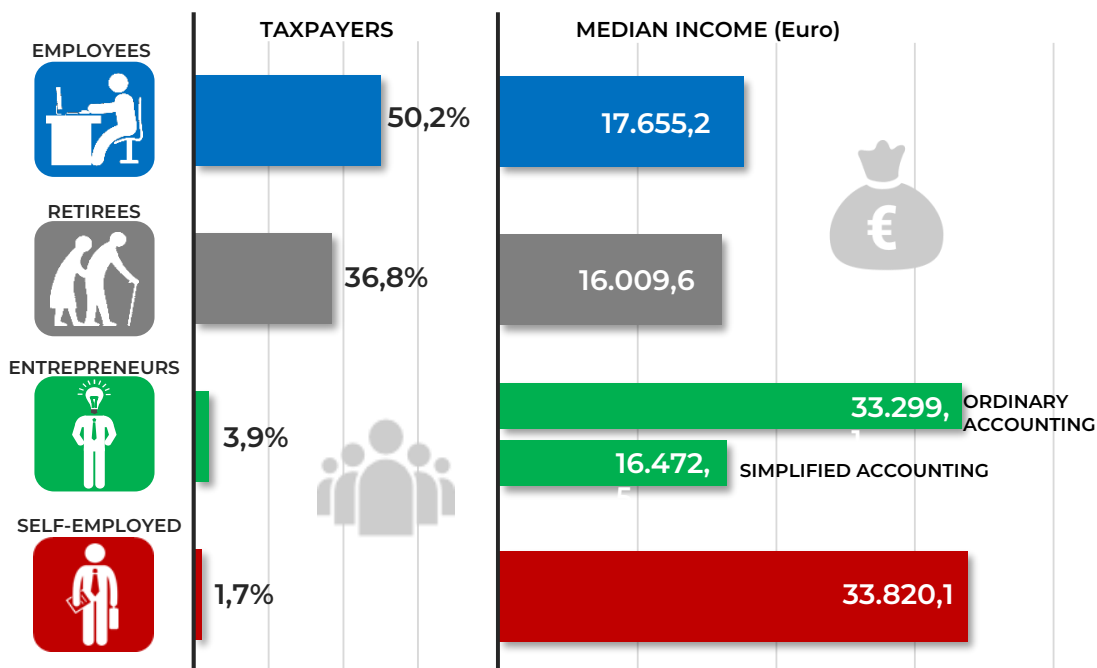
SARDINIA – Value added at average prices in 2010 (€ million) – 2016



PERSONAL INCOME

The following statistics relating to personal income for the tax year 2016 were published by the Italian Department of Finance. 1,051,100 Sardinian taxpayers completed their mandatory tax returns, a very small increase compared to the previous year (+0.02%). The total claims by taxpayers - employees, retirees, self-employed or entrepreneurs - was €18.4 billion. Employees constitute over half of all taxpayers, which in 2017 earned a total of €9.3 billion.

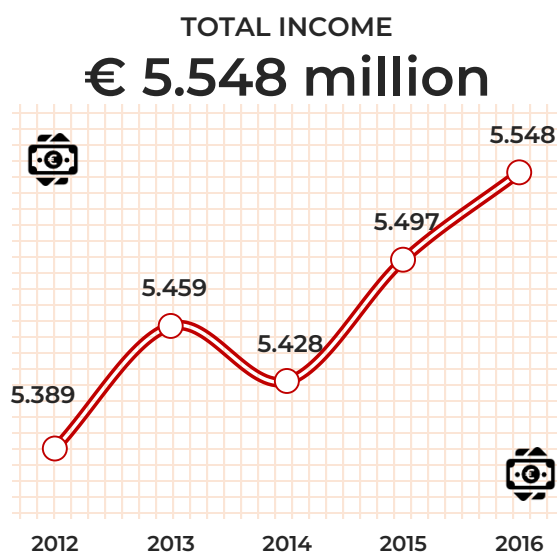
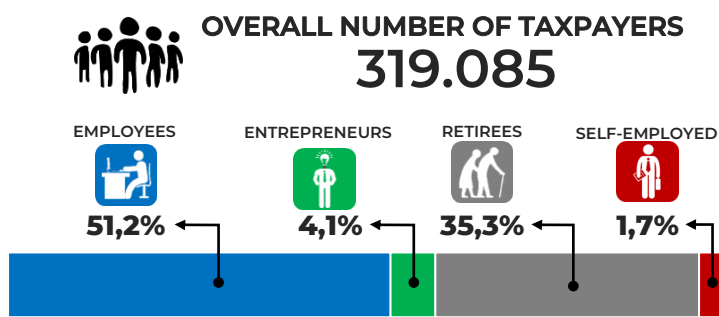
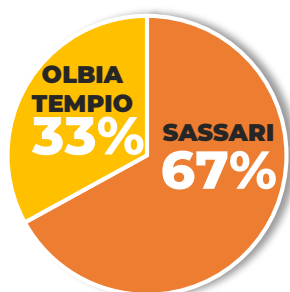
SARDINIA – tax returns 2017 (tax year 2016)



PERSONAL INCOME IN NORTH SARDINIA

North Sardinia houses 30% of taxpayers, with two thirds in the north of the region and the rest in the former province of Olbia-Tempio. The overall income for the tax year 2016 was €5.5 billion, about 50 million more than the previous year.

NORTH SARDINIA – distribution by area and taxpayer category - 2017



TAXPAYERS BY TAX BRACKET		
Tax bracket	number	%
fino a 10.000 euro	111.651	35,0%
10.000-15.000	48.619	15,2%
15.000-26.000	92.040	28,8%
26.000-55.000	52.921	16,6%
55.000-75.000	4.811	1,5%
75.000 a 120.000	3.395	1,1%
over 120.000	950	0,3%

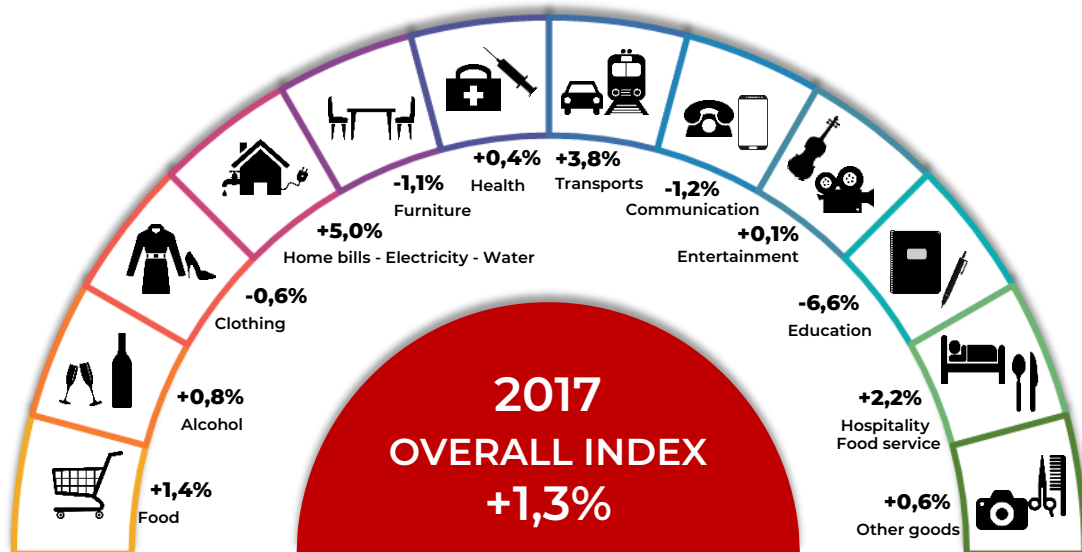
CONSUMER PRICES IN SARDINIA

Consumer price analysis must allow for the national consumer price index (NIC). The reference year used for the national index is 2015, this has been the case since 2016. 2017 has been regionally characterised by a 1.2% increase in consumer prices, and in inflation. Conversely, prices of goods and services on the market in 2016 fell by 0.2%.

Consumer price index (based on the year 2015) - 2017



NORTH SARDINIA – percentage change in prices by product type - 2017/2016





CAMERA DI COMMERCIO
SASSARI



web: www.ss.camcom.it
info: studi@ss.camcom.it

