

April 05, 2016

Sport Satellite Account

2010-2012

Sport accounted for 1.2% of GVA and 1.4% of employment on average in the period 2010 to 2012

In the 2010-2012 period, economic activities related to sport were developed by around 25,000 entities and represented, on average, 1.2% of GVA and 1.4% of employment (Full Time Equivalent - FTE) in the Portuguese economy. Average compensation of employees in sports exceeded by about 5% the average national salary, due to the high average compensation observed in the public limited sports companies.

The Sport Satellite Account (SSA) includes, in addition to sports activities (0.3% of GVA and employment), the activities necessary to make sport (0.6% of GVA and 0.9% of employment) and activities where sport contributes significantly to the production processes (0.3% of GVA and 0.2% of employment).

In this press release, predating the international Day of Sport for Development and Peace (April 6), Statistics Portugal presents the results for the Sport Satellite Account (SSA), for the period 2010/2012, which are entirely consistent with National Accounts (Base 2011).

The project was developed by Statistics Portugal, in partnership with the Portuguese Institute of Sport and Youth IP (IPDJ), under a protocol signed between the two institutions in 2014.

The fundamental methodological references of the SSA were the manual of the European System of National and Regional Accounts (SEC 2010), the "Vilnius Sport Definition", 2013 (Working Group on Sport and EU Economy) and the "Methodological Guide for Sport Satellite Account" (Statistics Netherlands).

For the delimitation of the sport reference population, it was used the Vilnius Definition, with some adjustments to the Portuguese reality.

This definition distinguishes three observation levels:

- 1) statistical - sports activities;
- 2) narrow - statistical definition plus necessary activities to do sport such as the manufacture of clothing and sports shoes and
- 3) broad - narrow definition plus activities that depend on sport, such as newspapers or sport channels; to facilitate the design and implementation of statistics on sport in the different European countries is available a relevant products list (e.g. Methodological Notes).

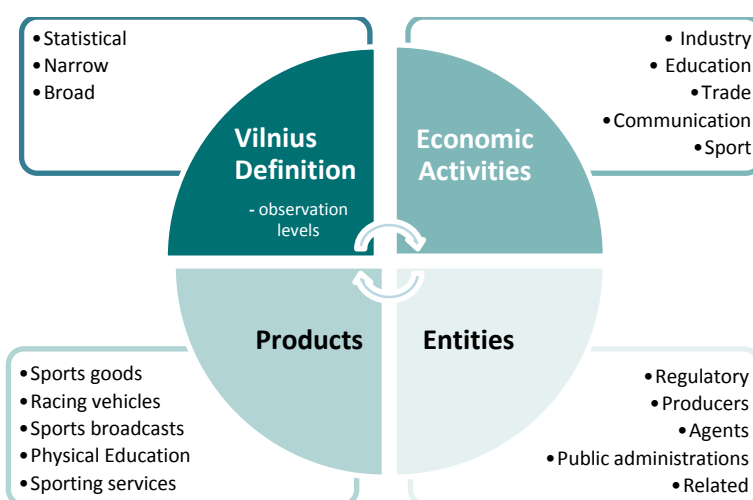
The information provided covers several dimensions of sport economy, beyond the three layers, namely economic activities considered, the goods and services produced and the involved entities (see Figure 1).

This press release is organized as follows:

- First, the key indicators are presented according to the levels of observation of Vilnius Definition, by type of entity and by economic activity;

- Second, a more detailed description of the results is made according to entity types and economic activity;
- Following is a brief international comparison with European countries that have available SSA;
- At the end there are two boxes with additional information: characterization of the SSA population in terms of sport modalities and formal voluntary work in sport organizations.

Figure 1 – Scheme of the information availability in the Portuguese CSD



1. Main results

The SSA presents a set of key economic variables, namely Gross Value Added (GVA), employment, wages, final consumption, investment, imports and exports.

Additional information can be found on the Statistics Portugal website, in the area dedicated to National Accounts (section of Satellite Accounts).

Next we present the main results by levels of observation of the Vilnius Definition, by type of entity and by economic activity. Note that it is not possible to present economic data disaggregated by sport modality because most sports entities are multi-activity and do not have information that would allow this breakdown (are, in many cases, associations and sporting groups). However, at the end of this press release is included a box that displays some additional information that

allows a better understanding of the structure for sport modalities in Portugal.

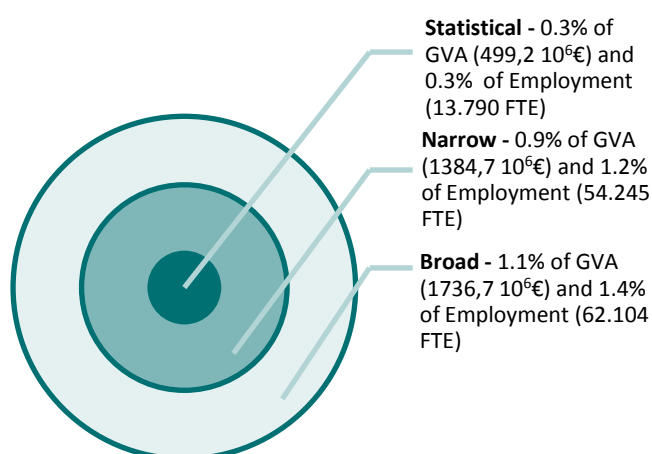
1.1. Analysis by observation levels of Vilnius Sport Definition

The Portuguese SSA has as analytical reference the broad definition of sport. According to this concept, the sport represented, on average, in the triennium 2010-2012, 1.2% of GVA (1,794 million euros) and 1.4% of employment (62,814 ETC) of the national economy, with the following composition/breakdown:

- Sport in the statistical sense represents 0.3% of GVA and total employment;
- In narrow sense, sport represents 0.9% of GVA and 1.2% of employment (therefore the activities required to produce sport contribute 0.6% of GVA and 0.9% of the employment) and

- In a broad sense sport it represents 1.2% of GVA and 1.4% of employment (i.e., activities that depend on the sport contribute 0.3% of GVA and 0.2% in employment in the SSA).

Figure 2 – Key activity indicators according to the Vilnius Definition (2010-2012)



1.2. Analysis by entity type

Statistics Portugal and IPDJ conceived a specific framework by type of entity (e.g. Table 5 Methodological Notes) in order to obtain a more detailed analysis of the results, with particular emphasis on Sports producing institutions.

In fact, these entities had greater relative importance in terms of number of units (74.5% of the approximately 25,000 economic activity units considered in SSA), standing out in this group, sports clubs and practitioners clubs (49.7% of total units).

However, this dominance in numbers has no translation into economic weight, which is dominated by Sports related institutions (upstream and downstream) with 50.3% of GVA and 60.0% of employment. The Sports producing institutions were responsible for 25.1% of GVA and 19.1% of employment.

Sport Satellite Account – 2010-2012

Table 1 – Key activity indicators (by economic activity) in the 2010-2012 period

Classification by Industry	Kind of activity units	Gross Value Added (GVA)	Employment
(A 10)	No	10 ⁶ Euros	FTE
Agriculture	367	0.5	84
Industry	331	259.7	14,075
Construction	68	40.8	1,269
Trade	3,155	206.5	13,154
Information and communication	341	199.0	1,633
Financial and insurance	10	1.0	12
Real estate	4	0.1	7
Support services	292	123.2	5,440
Education, Security and Health	631	431.4	12,665
Sports and leisure	19,973	531.9	14,474
Total of Sport Satellite Account (SSA)	25,169	1,794	62,814
National economy	-	153,310	4,485,982
SSA/ National economy	-	1.2%	1.4%

1.3. Analysis by economic activity

The main economic activities, in terms of GVA, were Sports and Leisure¹ (29.6%) and Education, Safety and Health² (24.0%). With regard to employment, the highlights were Sports and Leisure (23.0%), which concentrates sports clubs and practitioners clubs, and Manufacturing³ (22.4%).

Table 2 – Key activity indicators (by type of entity) in the 2010-2012 period

Type of Entity	Kind of activity units	Gross Value Added (GVA)	Employment
(Agregation with five categories)	No	10 ⁶ Euros	FTE
E01 - Sports regulation Institutions	714	10.0	797
E02 - Sports producing institutions	18,753	449.9	11,978
Of which:			
E021 and E022 - Sports clubs and practitioners clubs	12,519	101.7	4,256
E023 - Public limited sports companies	24	157.5	946
E025 - Gyms for keeping or improving physical condition	815	69.5	2,716
E03 - Sports Agents institutions	616	2.0	96
E04 - General Government institutions	68	430.1	12,269
E05 - Sports related institutions	5,019	902.1	37,674
Total of Satellite Account for Sport	25,169	1,794	62,814
National economy	-	153,310	4,485,982
Total of Satellite Account for Sport / National economy	-	1.2%	1.4%

¹ Abbreviated name of the branches "Arts, entertainment, sports and recreation activities; repair of personal property and other service activities". (e.g. Methodological notes)

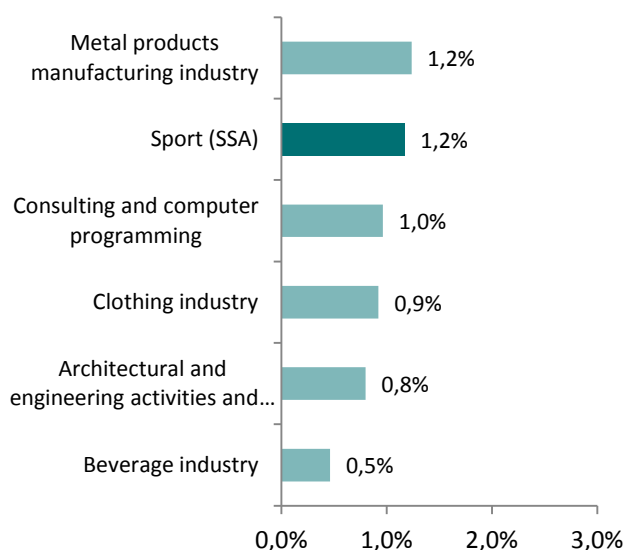
² Abbreviated name of the branches "Public administration and defense; social security; education; health activities and social support". (e.g. Methodological notes)

³ Abbreviated name of the branches "Industry, energy, water and sanitation". (e.g. Methodological notes)

The following graphs, comparing some of the National Accounts industries, enables a better understanding of the sport relative importance in the Portuguese economy.

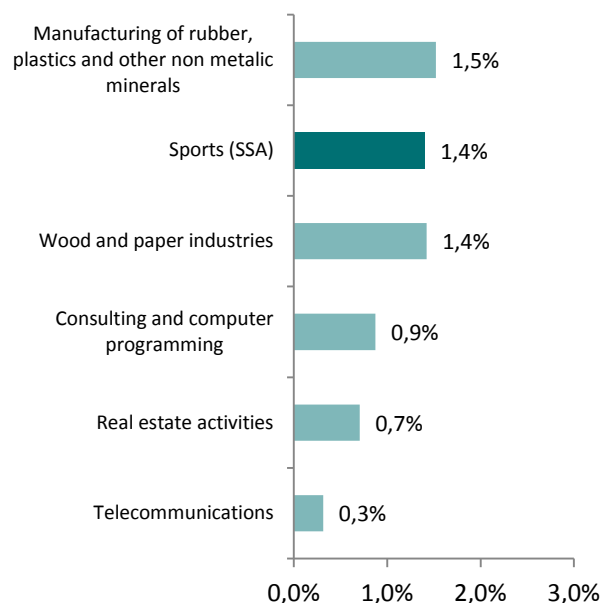
As it can be noticed, the sport relative weight is similar to that of metal products manufacturing industry (1.2%), surpassing industries such as consulting and computer programming (1.0%), the clothing industry (0.9%) or the architectural and engineering activities and related technical activities (0.8%), for example.

Graph 1 – GVA weight of sport and of some branches in the national economy in the 2010-2012 period



In terms of **employment**, sport has a similar dimension to the wood and paper industries (1.4%), and surpasses the weight of branches such as consulting and computer (0.9%), real estate activities (0.7%) and telecommunications (0.3%).

Graph 2 – Employment weight of sport and of some branches in the national economy the 2010-2012 period



The considered period corresponded to a general contraction phase of the economic activity in Portugal. Indeed, there were significant decreases in Gross Domestic Product (GDP) and employment. The economic activities related to sport were naturally affected by this economic context, particularly by the sharp contraction of domestic demand, which was reflected in the behaviour of key indicators. In effect, these activities were affected by the fact that demand tends to be particularly sensitive to changes in household income and, more generally, the evolution of the financial situation of the economy.

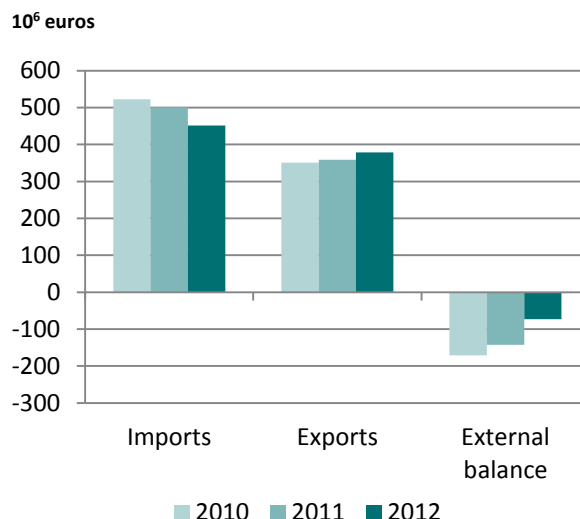
In terms of annual averages, the GVA and the employment of sport related activities decreased in this period, 6.7% and 4.9%, respectively (reductions of 3.6% and 3.9% in the same order in the national economy).

Effectively, these activities were affected by the fact that they tend to be sensitive to changes in household income and, more generally, to the evolution of the economy financial situation.

In the triennium considered, the **average compensation** of employees in the SSA was about 5% higher than in the economy. However, the public limited sports companies (PLSC) were decisive for this behaviour, without which the average pay of the SSA would be 6% lower than the remuneration of the national economy in this three year period. It should be noted that in 2011, the average compensation of employees increased (3.9%), in contrast to 1.2% reduction in the overall economy. For this divergence was decisive the increase that occurred in the PLSC (22.2%).

The **imports** of sporting goods decreased 13.7% in the 2010-2012 period, and represented 0.8% of total imports in 2010 and 2011, registering a slight decrease to 0.7% in 2012. In reverse direction, **exports** increased 7.7% in the same three year period, corresponding to 0.7% of total exports in this period.

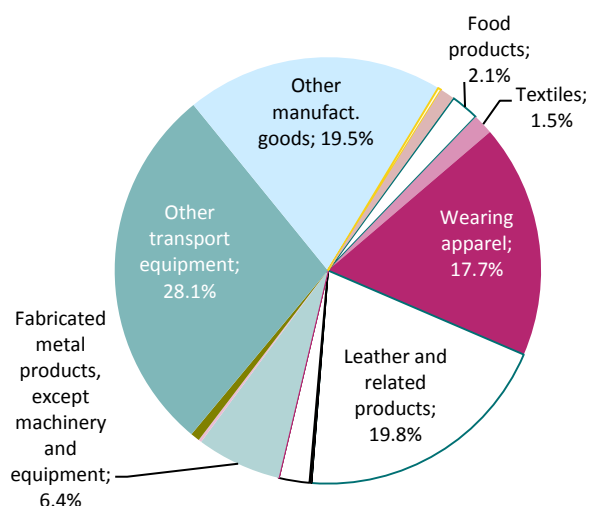
Graph 3 – Imports, Exports and External balance of sporting goods



The decrease in imports, coupled with the growth of the exports of sports products (in 2012 increased by 5.5%, while total exports increased by 4.8%), accounted for a reduction in the external deficit of sports products between 2010 and 2012.

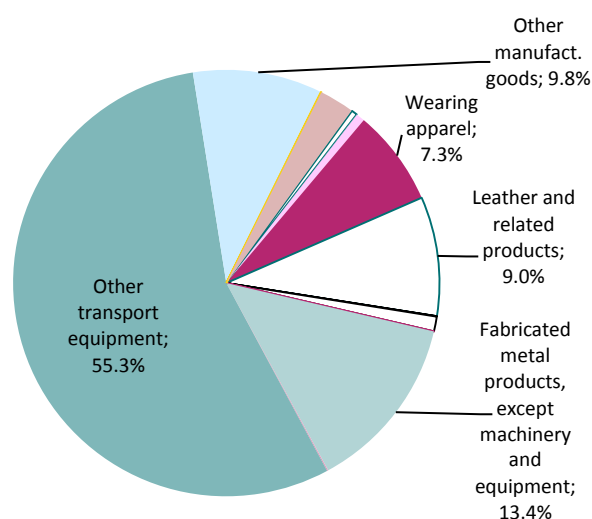
The products with higher relevance in the structure of imports of sports products were the Other transport equipment (especially recreational and sporting boats, motorcycles and bicycles), with 28.1%, the leather and related products (including sports shoes), 19.8%, and the Diverse manufacturing industries products (namely sports goods), with 19.5% of the average of imports in the 2010-2012 period.

Graph 4 - Structure of imports of sporting goods in the 2010-2012 period



The distribution observed in the exports of sports products was identical, highlighting a greater prevalence of Other transportation equipment, with 55.3%, for which contributed significantly bicycles, recreational and sporting boats and motorcycles.

Graph 5 - Structure of exports of sports products in the 2010-2012 period

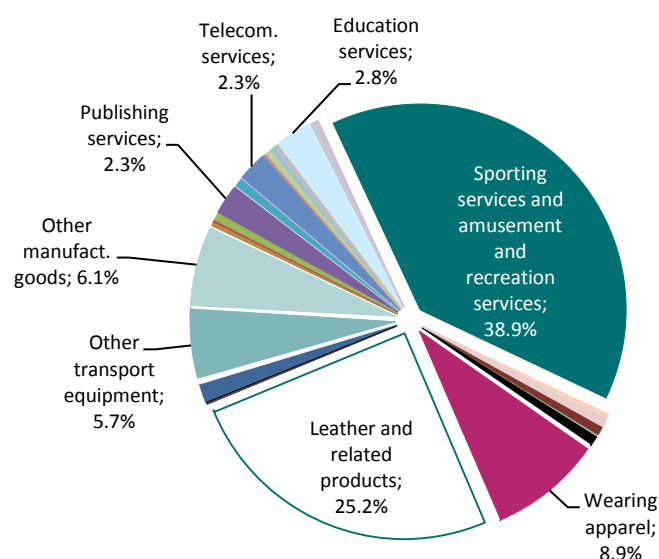


Fabricated metal products (notably the arms and ammunition) also stood out with 13.4%, and the Diverse manufactured products (which includes the sports products), with 9.8% of the average of exports in the three year period.

The final consumption of sports products by households (private consumption) also recorded decreases in the period (-3.9% in 2011 and -2.8% in 2012), maintaining, however, the relative importance of the three year period (1.7 %).

During this period, household spending on sports products focused mainly on Sporting services and amusement and recreation (38.9%), the Leather and related products (25.2%) and Clothing articles (8.9%).

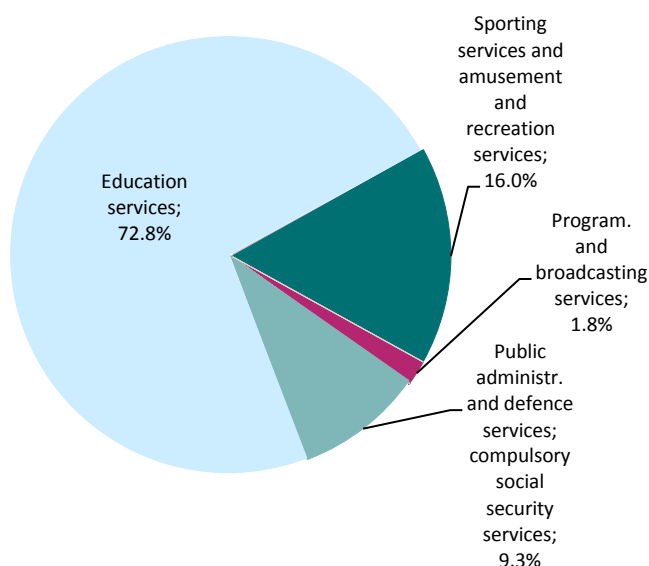
Graph 6 - Final consumption expenditure by families in sports products in the 2010-2012 period



Final consumption of general government (public consumption) in sports products also decreased in the period (-8.2% in 2011 and 15.4% in 2012) more pronounced than in the national economy (-6.1% in 2011 and 10.9% in 2012). Thus, the relative importance of consumption of sports products for general government decreased in three years, from 1.4% in 2010 to 1.3% in 2012.

In the triennium under review, the public consumption of sports products focused mainly (72.8%) on Education services (physical education and School sport).

Graph 7 - Final consumption of public administrations in sports products in the 2010-2012 period



Also the relative importance of final consumption of Non-profit institutions serving households (NPISH) in sports products recorded a decrease in the triennium, decreasing from 7.8% in 2010 to 6.8% in 2012.

In the consumption structure of sports products NPISH stood out the Sporting services and amusement and recreation services, which accounted for an average of 90.9% in the 2010-2012 period.

Like the expenditure items referenced above, the Gross fixed capital formation (GFCF) also observed consecutive decreases in the period under review (-15.1% in 2011 and -15.0% in 2012). Despite the noted decrease, GFCF on sports products maintained its relative importance of 0.6% in the triennium.

Between 2010 and 2012, products with higher relative importance in terms of GFCF on goods and services, were the Civil engineering works (40.1%), Diverse manufactured goods (notably the sports goods), with 23.1% and Other transport equipment (21.1%).

Graph 8 - GFCF for sports products in the 2010-2012 period

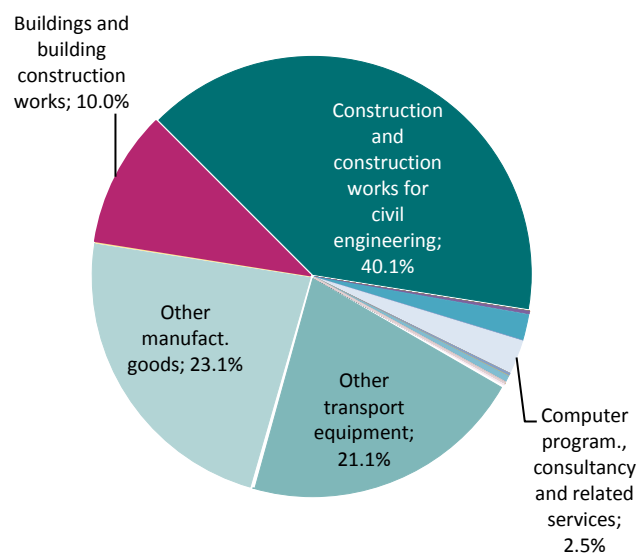


Table 3 – Main results of the Sport Satellite Account (SSA), with reference to the total economy of National Accounts (NA)

						Change rate. (%)		SSA/NA (%)			
	Unit	Levels	2010	2011	2012	2011	2012	2010	2011	2012	2010 -2012
GVA	10 ⁶ Euros	CSD	1,919.3	1,792.3	1,671.0	-6.6	-6.8	1.2%	1.2%	1.1%	1.2%
		CN	158,325.9	154,242.8	147,361.6	-2.6	-4.5				
Employment (FTE)	No	CSD	66,503	61,867	60,073	-7.0	-2.9	1.4%	1.4%	1.4%	1.4%
		CN	4,644,624	4,527,650	4,285,672	-2.5	-5.3				
GVA/FTE	10 ³ Euros	CSD	28.9	29.0	27.8	0.4	-4.0	84.6%	85.0%	80.9%	83.5%
		CN	34.1	34.1	34.4	-0.1	0.9				
Compensation of employees	10 ⁶ Euros	CSD	1,323.9	1,282.0	1,219.9	-3.2	-4.8	1.6%	1.6%	1.6%	1.6%
		CN	84,841.6	81,617.3	75,304.7	-3.8	-7.7				
Employees (FTE)	No	CSD	61,036	56,859	55,204	-6.8	-2.9	1.5%	1.5%	1.5%	1.5%
		CN	3,976,360	3,871,271	3,657,067	-2.6	-5.5				
Average compensation of employees	10 ³ Euros	CSD	21.7	22.5	22.1	3.9	-2.0	101.8%	106.9%	107.3%	105.2%
		CN	21.3	21.1	20.6	-1.2	-2.3				
Compensation of employees/GVA	%	CSD	69.0	71.5	73.0	3.7	2.1	128.7	135.2	142.9	135.6
		CN	53.6	52.9	51.1	-1.3	-3.4				
Private consumption	10 ⁶ Euros	CSD	2,037.6	1,958.8	1,904.3	-3.9	-2.8	1.7%	1.7%	1.7%	1.7%
		CN	119,862.0	117,888.0	113,880.3	-1.6	-3.4				
Public consumption	10 ⁶ Euros	CSD	535.0	491.3	415.6	-8.2	-15.4	1.4%	1.4%	1.3%	1.4%
		CN	37,270.0	34,983.4	31,176.8	-6.1	-10.9				
GFCF (products)	10 ⁶ Euros	CSD	221.3	187.9	159.6	-15.1	-15.0	0.6%	0.6%	0.6%	0.6%
		CN	36,937.7	32,451.8	26,672.0	-12.1	-17.8				
Exports	10 ⁶ Euros	CSD	351.3	358.8	378.4	2.1	5.5	0.7%	0.7%	0.7%	0.7%
		CN	47,160.7	53,361.3	55,933.8	13.1	4.8				
Imports	10 ⁶ Euros	CSD	522.8	501.2	451.3	-4.1	-10.0	0.8%	0.8%	0.7%	0.8%
		CN	65,559.1	66,180.8	62,448.0	0.9	-5.6				
External balance	10 ⁶ Euros	CSD	-171.5	-142.4	-72.9			0.9%	1.1%	1.1%	1.1%
		CN	-18,398.4	-12,819.5	-6,514.2						
Memo items:											
GDP			179,929.8	176,166.6	168,398.0	-2.1	-4.4				
Domestic demand	10 ⁶ Euros	CN	193,529.5	183,708.6	169,253.1	-5.1	-7.9				
Private consumption of durable goods			11,164.5	9,311.6	7,107.7	-16.6	-23.7				

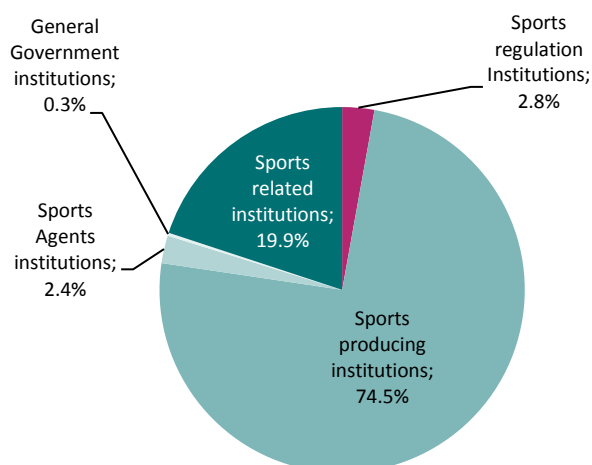
2. Brief description of the Sport in the Portuguese SSA

2.1. By type of entity

2.1.1. Units

The Sports producers gathered 74.5% of the approximately 25,000 selected units, representing sports clubs and practitioners clubs, on average, 49.7% of the total units of the SSA.

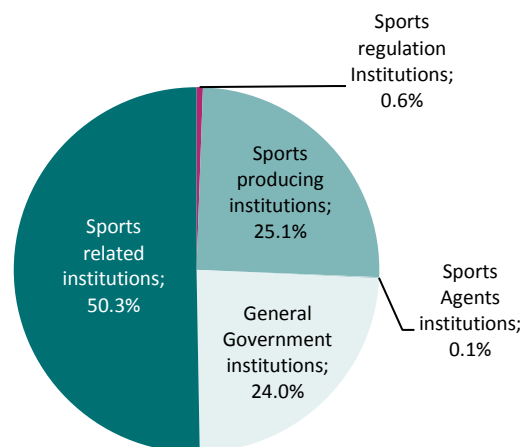
Graph 9 - Economic activity units in the SSA (by type of entity), in 2010-2011



2.1.2. GVA

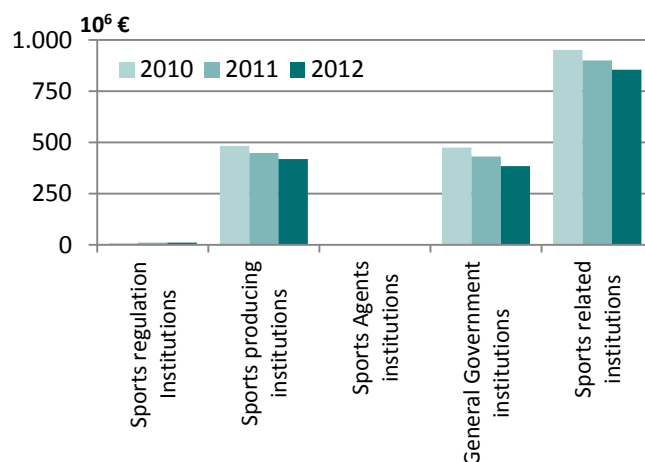
Analyzing the GVA at SSA by entities type in the 2010-2012 period, it appears that the Sports related institutions accounted for 50.3%, followed by the Sports producing institutions, which generated about 1/4 of the GVA (contributing sports clubs and practitioners clubs with almost 6%, and PLSC, with about 9%) and the General Government institutions, with 24.0%.

Graph 10 - GVA structure in SSA (by type of entity) in the 2010-2012 period



Between 2010 and 2012, with the exception of the Sports regulation institutions, the other categories recorded decreases in the GVA. However, analyzing in more detail, one can observe that the Sports producing institutions had very heterogeneous development, with the GVA of the PLSC to register a near 12% increase in this three years, in contrast to the gymnasiums, with a reduction of more than 50% in the same period.

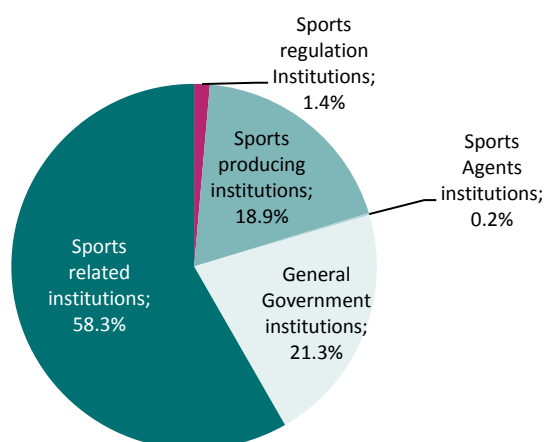
Graph 11 - Evolution of GVA in the SSA (by type of entity), between 2010 and 2012



2.1.3. Employment

In terms of paid employment (ETC) you can see a distinct hierarchy compared to that observed in the GVA. Indeed, in the 2010-2012 period 58.3% of employment in the SSA was concentrated in Sports related institutions, followed by the General Government institutions (21.3%) and the Sports producing institutions (18.9%), inverting the relative positioning of these two types of authority in relation to distribution observed in GVA.

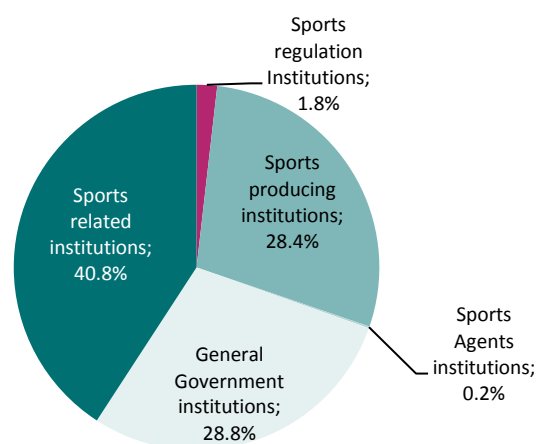
Graph 12 - Structure of Employment in the SSA (by type of entity) in the 2010-2012 period



2.1.4. Compensation of employees

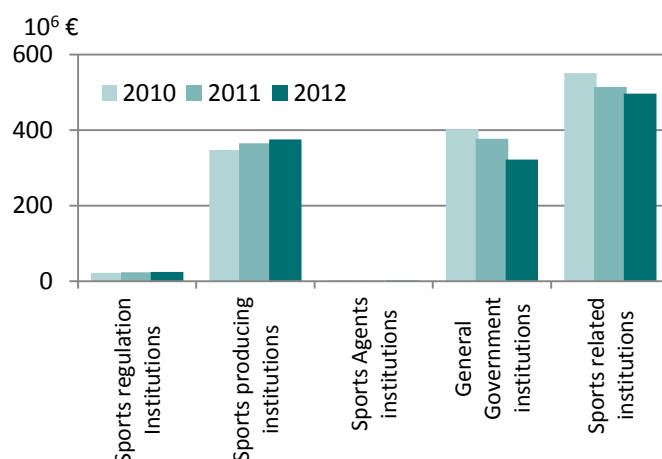
The level of compensation paid in SSA, highlighted again the weight of Sports related institutions (40.8%).

Graph 13 - Compensation of employees in the SSA (by type of entity) in the 2010-2012 period



Between 2010 and 2012, compensation of employees increased in Sports regulation and producing institutions. In other types of entities decreases were observed, highlighting the relative importance of the negative variation observed in the Public Administration (about 20%).

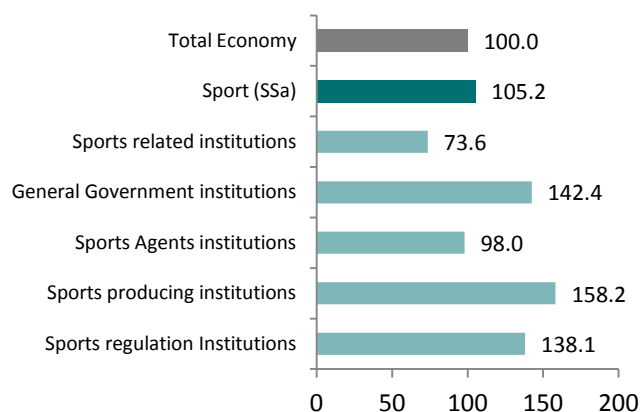
Graph 14 - Evolution of compensation of employees in the SSA (by type of entity), between 2010 and 2012



The *per capita* compensation of employees showed a significant dispersion by type of entity, with the Sports producing institutions recording the highest *per capita* compensation (+ 58.2% than the national average). At the other end were the Sports related institutions, with compensation *per capita* below the national average (about 26% in the three years under review).

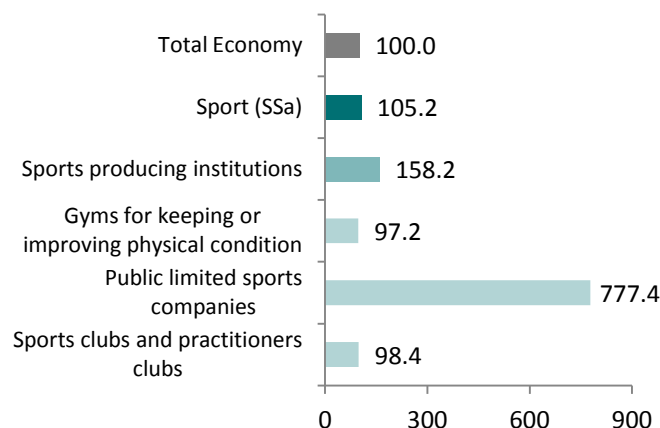
However, note that if PLSC were not considered between 2010 and 2012, *per capita* compensation in sport would be below the national average (-6.0%), with *per capita* compensation of Sports producing institutions to be almost identical to the national average (-0.5%).

Graph 15 - Per capita compensation in the SSA (by type of entity) in the 2010-2012 period
(national economy = 100)



In fact, analyzing the *per capita* compensation of employees of some of the subcategories of entities included in the Sports producing institutions, one can see that the PLSC were the most distanced from the national average (+677.4%), and gymnasiums (-2.8%) and Sports clubs and practitioners clubs (-1.6%) were slightly below the national average.

Graph 16 - Per capita compensation in SSA (Sports producing institutions) in the 2010-2012 period
(national economy = 100)



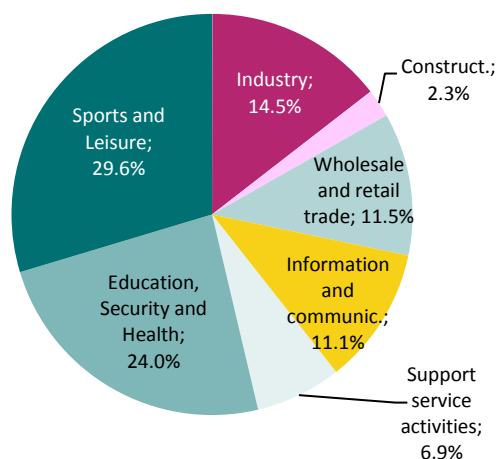
The PLSC has very significant levels of compensation paid, higher than the GVA in 2011 and 2012, whereby presented gross negative operating surpluses in recent years. The deficit of the operating activity of PLSC is often compensated by player transfer fees of significant value.

2.2. By economic activity

In 2010-2011 the Sport and Leisure gathered 79.4% of the total units of the SSA.

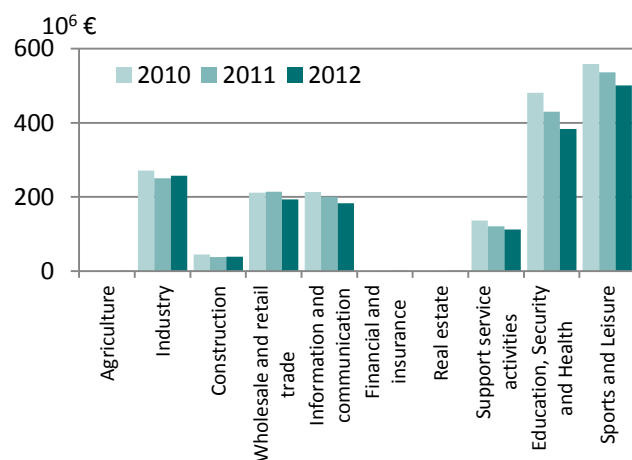
Analyzing the distribution of GVA by economic activity in the 2010-2012 period, it is possible to observe that, despite maintaining the primacy over other branches, Sports and Recreation is responsible for only 29.6% of the GVA of the SSA. Following is Education, Health and Safety (24.0%) and industry (14.5%). Together, these activities accounted for more than 2/3 of the GVA in 2010-2012.

Graph 17 - GVA structure in SSA (by economic activity) in the 2010-2012 period



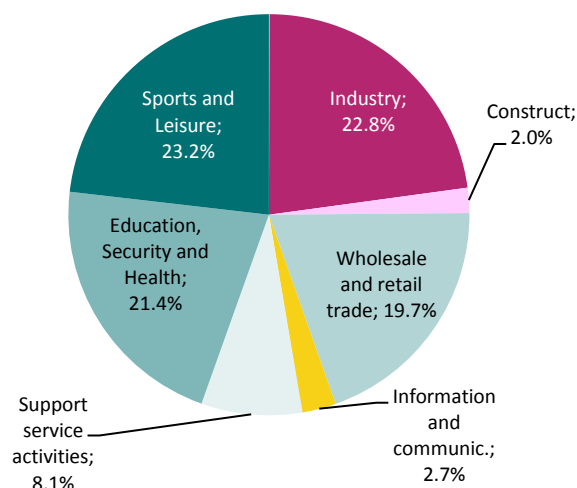
The GVA of most economic activities considered in SSA registered decreases in the period under review, highlighting the relative importance of the reductions observed in the Sports and Leisure, with negative growth of 3.9% in 2011 and 6.6% in 2012, and Education, Health and Safety, with -10.6% in 2011 and -10.7% in 2012.

Graph 18 - Evolution of GVA in the SSA (by economic activity) between 2010 and 2012



In terms of paid employment (ETC) one can see a distinct hierarchy. In the triennium 2010-2012, 23.2% of employment of SSA was concentrated in the Sports and Leisure activities. Followed by Industry (22.8%) and Education, Safety and Health (21.4%), reversing the two industries their relative positioning with regard to GVA distribution.

Graph 19 - Structure of Employment in the SSA (by economic activity) in the 2010-2012 period



3. International comparisons

Besides Portugal, other European countries⁴ (Austria, Cyprus, Germany, UK, Poland, the Netherlands, Lithuania and Switzerland) developed and publicly disseminated SSA results.

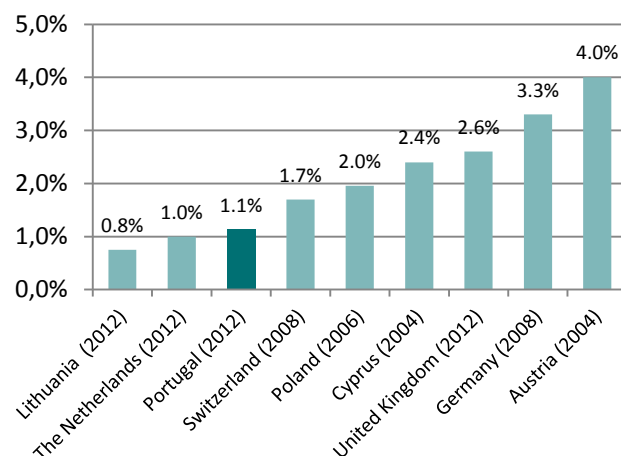
⁴ Despite the existence of an integrated SSA in the Czech Republic official statistics, are known the preliminary results of a SSA (2010) prepared by the University of Economics in Prague, according to which, Sport represent approximately 0.3% of GVA, and between 0.35% and 0.5% of employment.

However, comparisons with the results of these countries should be cautious. One should not seek to identify rigorously quantitative differential, namely for three reasons:

- (i) not all SSA present data on ESA 2010 (only Portugal, Lithuania and the Netherlands do);
- (ii) no full temporal coincidence of the several SSA (some countries only displayed results for 2004, 2006 e 2008, thus not much influenced by the international crisis context);
- (iii) there is no full harmonization in the considered activities and products, nor in the displayed variables and indicators, even though the majority of countries have adopted the Vilnius Definition as a theoretical and methodological framework.

In any case, in a qualitative perspective, the known results point to a relatively modest position in the country ranking.

Graph 20 - Sport GVA weight in the national GVA of the countries with SSA



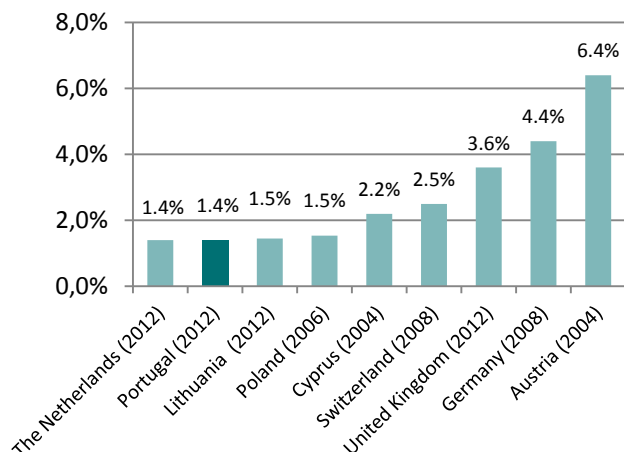
Among the nine European countries, Portugal is one of those which present a lower relative importance of sport in the national GVA.

Still, the relative importance of GVA sport in Portugal was higher than in countries like Lithuania and the Netherlands.

Austria stands out in terms of GVA and employment, a fact explained by the importance of winter sports. In fact, nearly half of this country's tourism income is related to the sport, which leads to a high contribution to GDP.

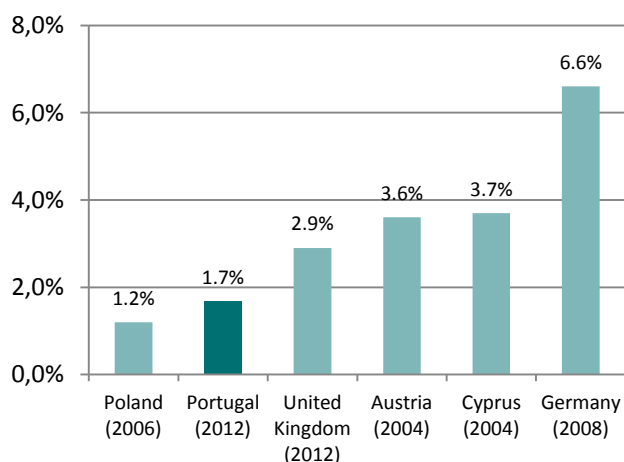
The relative importance of the national employment in 2012 was identical to that observed in the Netherlands (1.4%) and lower than that of other European countries.

Graph 21 - Employment weight ETC Sport in national employment in countries with SSA



The relative importance of private consumption (Household) sports goods in the total private consumption (1.7% in 2012) exceeds the record achieved by Poland (1.2% in 2006). However, remains below other countries with available information.

Graph 22 - Sport private consumption weight on national private consumption countries with SSA⁵

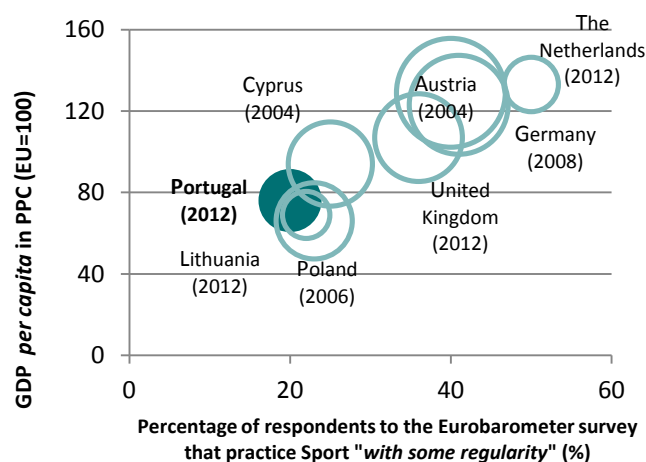


⁵ No information available in the Netherlands, Lithuania and Switzerland SSA.

The reading of such data should be complemented with other indicators, in particular with the performance and the frequency of sports practice.

Relating the relative weight of sport in GVA with GDP *per capita* (in Purchasing Power Parities - PPP) and with the percentage of frequency of sports practice ("With some regularity")⁶, it is observed that other European countries in general have higher levels of income and/or frequency of sports practice compared to Portugal.

Graph 23 - Sport GVA weight in the national GVA, GDP *per capita* and frequency of sports practice in countries with SSA



⁶ Special Eurobarometer 412, Sport and Physical Activity Report, Conducted by TNS Opinion & Social at the request of the Directorate-General for Education and Culture.

Box 1 - Sports modalities and practitioners

In order to have a more complete knowledge of the population under analysis, for all units selected within the statistical level of Vilnius Definition for 2010 and 2011, it was made the characterization in terms of sports practiced (see Methodological Notes). Notice that more than one modality could be practiced by an entity, whereby the total sports practiced in the entities does not match the total of institutions.

Information from IPDJ was collected on the number of registered practitioners for each of the sports considered in the SSA.

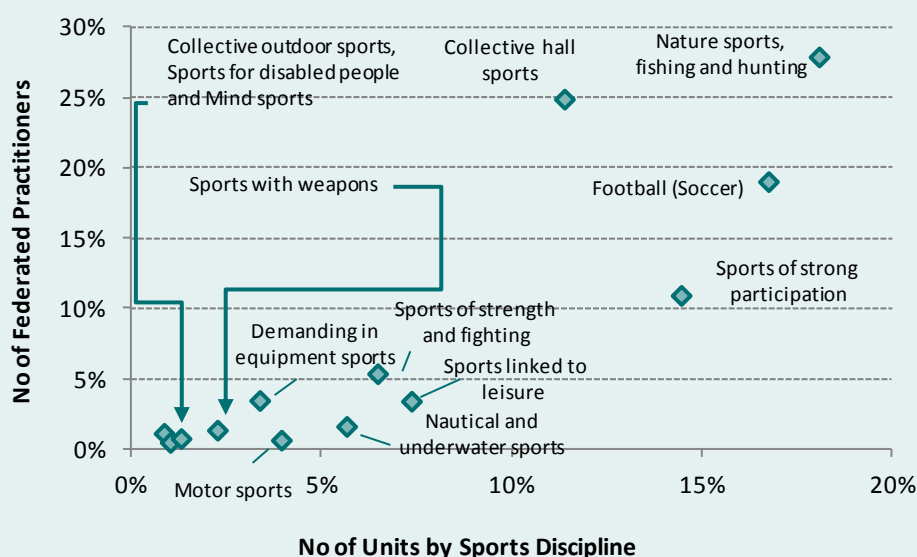
From the analysis carried out it was concluded that Nature sports, fishing and hunting are those that are available in a larger number of entities (18.1% of SSA units), also being the most relevant in terms of sports practice, with 27.4% of all practitioners in 2010-2011.

Football, despite being available in 16.8% of SSA units (surpassing both the Sports of strong participation and Collective sports hall in this indicator) covered less than 20% of total federal practitioners in 2010- 2011.

Still stood out Sports of strong participation (available in 14.5% of the units) which cover the Athletics, Cycling, Gymnastics, Swimming, Tennis and Triathlon, being practiced by almost 11% of federated athletes in 2010-2011, as well as the Collective sports hall, including Handball, Basketball, Futsal, Roller Skating, Volleyball and Korfball (available in 11.4% of SSA units), which gathered almost one quarter of total federal practitioners in that period.

Together, Nature sports, fishing and hunting, Football, Sports of strong participation and Collective sports hall represented, on average, over 80% of the federal practitioners of Sport, in 2010-2011.

Graph 24 - Number of SSA units and federated practitioners by type of sports modality in 2010-2011 (%)



Source: Statistics Portugal, Sport Satellite Account on the number of units and IPDJ on the number of practitioners.

Notes: (1) In Nature sports, fishing and hunting information has been included the Nature Conservation Institute and Forestry (ICNF) on the number of issued hunting licenses; (2) For the number of practitioners of the maintenance or improvement of the physical condition, according to the Global Report of the International Health, Racquet & Sportsclub Association (IHRSA), 2011, there were 600,000 practicing for the 1,400 gyms and health clubs (fitness) of the Portuguese market ; (3) Information not available on the number of traditional games practitioners.

Box 2 - Volunteer work in Sport

In developing the Social Economy Satellite Account, Statistics Portugal launched a Pilot Survey on Volunteer Work in order to know the fundamental characteristics of voluntary work, namely the number of volunteers, the institutional framework, the type of task and the number of hours devoted to volunteer work. This survey used as a methodological and conceptual reference the "Manual on the Measurement of Volunteer Work" of the International Labour Organization (ILO), whose main objective is to create a uniform international system to collect information on volunteer work.

On the occasion of the release of the Social Economy Satellite Account for 2010, Statistics Portugal published the results of the survey on Volunteer Work for 2012.

This press release includes a summary of the results of the survey, with a perspective focused exclusively on formal or organizational volunteer work, namely unpaid and not required work carried out by organizations, more specifically in organizations classified in sport, according to the International Classification of Non-Profit Institutions (ICNPO).

According to the survey results, in 2012, 39,124 volunteers developed volunteer work in organizations classified in the Sport category, representing about 7.3% of total formal volunteering nationwide.

The number of volunteers who served in institutions linked to Sport (39,124) exceeds those in areas such as Arts and Culture (34,505), Environment (17,490), Education and Research (14,961), Health (9,009) and Labour, Professional and Union Associations (5,326), among others.

Indeed, the relative importance of formal volunteering in the area of Sports organizations, in terms of number of volunteers, was only surpassed by organizations dedicated to social support, by religious institutions and by clubs dedicated to other recreation and leisure activities.

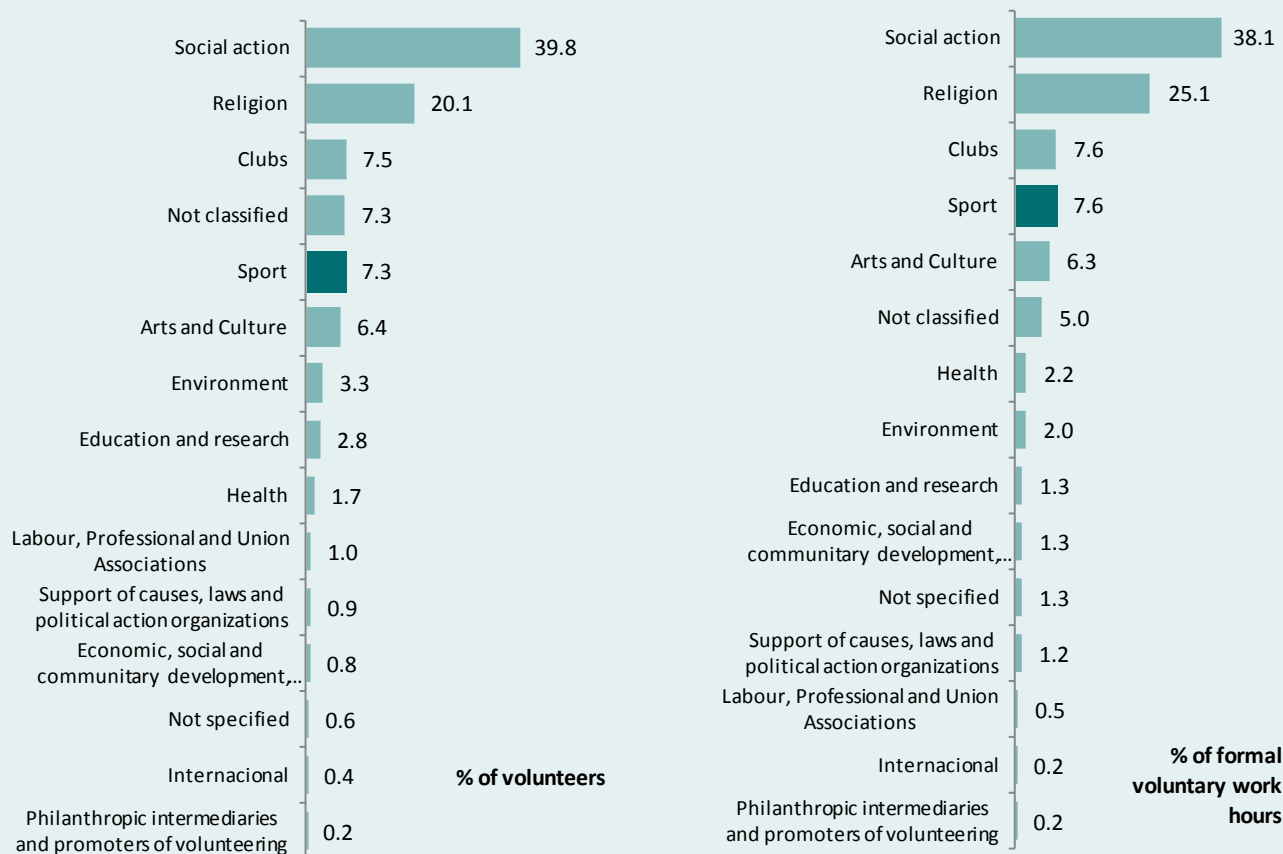
The 39,124 volunteers in sport organizations accounted for 14,617,827 hours of volunteer work in 2012, which corresponded to 7.6% of all formal volunteering hours at national level.

The relative distribution of the number of formal volunteer hours is very similar to the number of volunteers, and observed that the relative importance of sport organizations was surpassed only by the organizations dedicated to social support, religious institutions and clubs of other recreation and leisure activities.

Analyzing the distribution of the number of volunteers by sex, it is possible to observe a clear preponderance of male volunteers (86%) in sport organizations, contrary to what occurs in the distribution of the total organizations, where the male elements are the minority (46%).

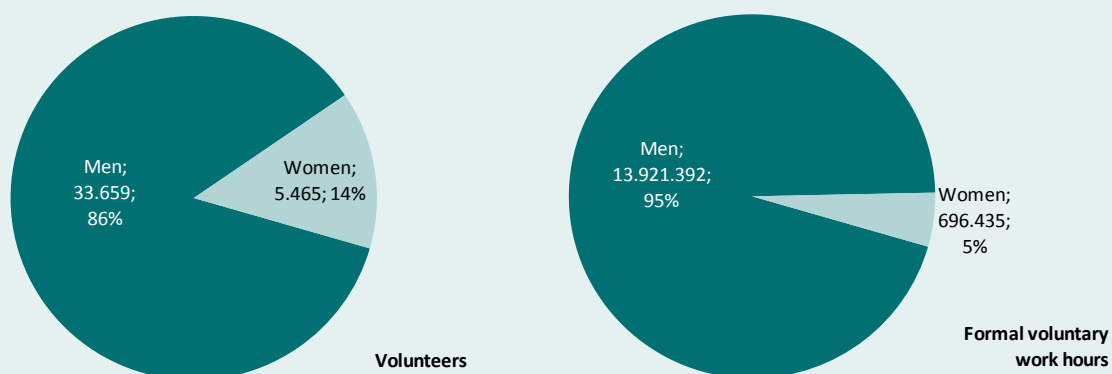
The predominance of sport volunteer work by male elements was even more evident in the analysis of the distribution of the number of volunteer hours, since 95% of them were provided by men. In this case it was observed that the male elements were already responsible for most hours of formal volunteering in the population under analysis (51%).

Graph 25 - Distribution (%) of the volunteers number and hours of formal volunteering in organizations classified according to ICNPO



The predominance of voluntary work in sport by male elements was also observed at European level, according to the Eurobarometer survey, "the majority of EU citizens volunteer in sport are men: 9% of men said to be voluntary, compared with 6% of women.".

Graph 26 - Distribution of the of volunteers number and hours of formal volunteering by gender in organizations classified in sport



Methodological notes:

Introduction

In 2006, the European Union (EU) created a Working Group on Sport and Economics (WGSE), in order to develop a common approach (methodological) to measure the economic importance of sport.

More recently, the guidelines in the context of the EU Council conclusions of 26 November 2012, recommended the Member States to: i) follow the progress in the voluntary development of SSA based on the methodological tools available, making use of existing structures for cooperation at EU level and seeking to associate the relevant state authorities, including national statistical institutes; ii) encourage and support initiatives to improve the collection and dissemination of information and data on sport, including existing national data as a means to strengthen the sports policies based on hard data.

It was in this context that, in 2014, Statistics Portugal signed a protocol with the Portuguese Institute of Sport and Youth IP (IPDJ) that provides the development of a SSA, which would help to expand the System of Portuguese National Accounts. With this collaboration, statistics skills and information available at Statistics Portugal were allied to the knowledge of the specificities and agents of sport from IPDJ.

The essential purpose of a SSA is to provide an economic information system related to sport, designed as a satellite of the National Accounts (NA). The choice of the NA as a reference reflects its importance as a mechanism that provides a complete representation, reliable, systematic and comparable internationally functioning of the economy.

The SSA was considered the most appropriate tool to estimate the size and importance of sport in the Portuguese economy and to obtain information on the structure of production activities related to sport.

At European level, official results have already been disclosed to the SSA of Austria, Cyprus, Germany, the United Kingdom, Poland, the Netherlands and Switzerland.

The SSA favored simultaneous treatment of both supply and demand. Thus, information was obtained, not only for the production account (output at basic prices, intermediate consumption, GVA), but also for economic variables such as household consumption and general government. Thus, it was possible to estimate the contribution of sport to the GVA and national employment. Additionally, an estimate for paid employment and unpaid was made, not only for its relevance, but also to allow assessing the plausibility of the results.

1. Methodological references

The satellite accounts of the NA have as first reference the concepts and methods of the NA, as defined in the European System of National and Regional Accounts (ESA 2010). Satellite accounts aim to expand the capacity of observation of particular phenomena, constituting extensions in greater detail of the NA.

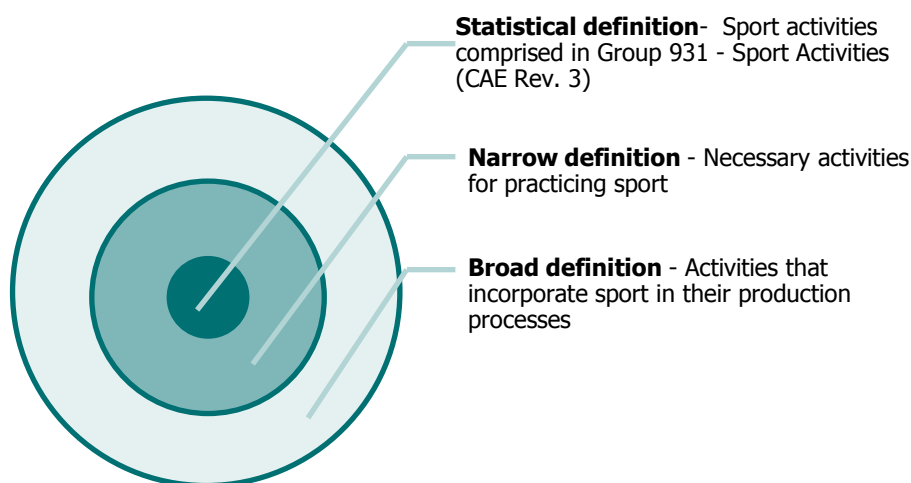
The SSA also has as main methodological reference the Vilnius Definition, which is an harmonized definition of the WGSE, also considering some situations of adaption to the Portuguese reality, as well as other exceptional situations that it was necessary to safeguard during the work.

2. Concepts and nomenclatures

The Vilnius Sport Definition identifies three levels of observation:

- Sport in the statistical sense - corresponds to Group 93.1 CAE Rev.3 - Sports activities, specifically the products offered by entities that constitute what could be called as "formal sports infrastructure." Alongside the sporting and advisory bodies and relevant cooperation federations, this infrastructure includes indoor and outdoor facilities, sports clubs, trainers, etc.;
- Sport in the narrow sense - provides that, in addition to sport in the statistical sense, all economic activities that produce products that are required to perform sport are also considered, including manufacturing, trade in goods and construction of sports infrastructure;
- Sport in the broad sense - includes sport in the narrow sense and all activities / products for which sport is an important contribution to the respective production processes (eg.: television or newspapers related to the sport).

Figure 3 – Vilnius Definition



Keeping in mind the assumptions and using CAE Rev.3 as a reference, a correspondence between each section of the CAE and the levels of observation of Vilnius Definition (statistical definition, narrow or broad), was established according to the following table.

Table 4 - Correspondence table between sections of CAE (Rev.3) and Vilnius Definition

CAE Section	Designation	Vilnius Definition
A	Agriculture, animal production, hunting, forestry and fishing	Narrow
C	Manufacturing	Narrow
D	Electricity, gas, steam and air-conditioning supply	Narrow
E	Water, sewerage, waste management and remediation activities	Narrow
F	Construction	Narrow
G	Wholesale and retail trade, repair of motor vehicles and motorcycles	Narrow
H	Transportation and storage	Broad
I	Accommodation and food service activities	Broad
J	Information and communication activities	Broad
K	Financial and insurance activities	Broad
L	Real estate activities	Broad
M	Management consultancy activities, scientific and technical activities and other sim	Broad
N	Administrative and support service activities	Broad
O	Public administration and defence; compulsory social security	Broad
P	Education	Narrow
Q	Human health services and social work activities	Narrow
R	Arts, entertainment, sports and recreation activities	Narrow
	Código CAE (Rev.3) 931 - Sports Activities	Statistical
S	Other services activities	Narrow

The Vilnius Definition is also an overview of all products that are included in the SSA. It is not so much a definition of sport in itself, but rather a list of relevant products.

While the final consumption of sports products is, by definition, considered 100% relevant to sport, the additional products of narrow definition are not necessarily. Often, only a portion (small) of products produced within a particular category of Statistical classification of products by activity in the European Community (CPA) is considered relevant for sport. For example, despite cars (CPA 34.10.220) are included in the narrow definition, only racing cars are considered relevant for sport.

In addition to a list of all products that are considered related to sport, the Vilnius Definition includes a set of rules that guides the classification of sports products and to be respected in developing a SSA.

3. Methodology

The compilation of the SSA started with the transposition of the Vilnius Definition for statistical language, specifically the identification of activities and sports products in the official classifications in use. Delimitation and characterization of the population of the SSA, inventorying the economic activity units (EAU) and proceeding to their classification, was conducted by Economic activity (CAE sections) and by type of entity, according to a specific type designed by Statistics Portugal and IPDJ, whose supports were the Basic Law of Physical Activity and Sport and the nomenclature of the institutional sectors of ESA 2010.

Table 5 - SSA Classification of entity types

E01 - Sports regulation Institutions		E03 Sports agents institutions	
E011 - Portugal Olympic Committee		E031 - Representatives associations of Sports Agents	
E012 - Portugal Paralympic Committee		E032 - Sport fans organizations	
E013 - Portugal Sport Confederation		E033 - Other Sport institutions	
E014 - Portuguese Confederation of Culture, Recreation and Sport collectivities		E04 General Government institutions	
E015 - Federations benefiting from Sports Public Utility Status		E041 - Central Government	
E016 - Federated Regional or Sectoral associations		E042 - Regional Government	
E017 - Football leagues		E043 - Local Government	
E018 - Other regulator institutions		E05 Sports related institutions	
E02 Sports producing institutions		E051 - Entities upstream of Sport (which produce goods and services for Sport)	
E021 - Sports Clubs		E052 - Entities downstream of Sport (in which sport is an important contribution to the production processes)	
E022 - Practitioners Clubs			
E023 - Public limited sports companies			
E024 - Sports Promoting associations			
E025 - Gyms for keeping or improving the physical condition			
E026 - Sports associations of labor organizations			
E027 - Other producing institutions			

At this stage of selection and validation to integrate the units in the population it was adopted the criteria of the Dutch SSA used in the test "family resemblance", which serves to decide whether an activity should be considered as sport: if an activity is characterized by the prevalence of at least 2 of the 3 criteria (physical exertion, competition and leisure) it should be considered as sport.

Whenever possible a characterization of the units of the statistical level of Vilnius Definition in terms of sports practiced was made, and then indexed in a classification type (see table below).

Table 6 - SSA Classification of types of sports modalities

M01 Football	M08 Sports linked to leisure
M02 Collective outdoor sports	M081 Aeromodelling
M021 Rugby	M082 Badminton
M022 Hockey	M083 Pool
M03 Collective hall sports	M084 Pétanque
M031 Handball	M085 Pigeon sport
M032 Basketball	M086 Table tennis
M033 Volleyball	M087 Minigolf
M034 Skating	M09 Mind sports
M035 Indoor soccer	M091 Bridge
M036 Korfball	M092 Checkers
M04 Sports of strong participation	M093 Chess
M041 Athletics	M10 Demanding in equipment sports
M042 Cycling	M101 Equestrian sports
M043 Gymnastics	M102 Winter sports
M044 Swimming	M103 Golf
M045 Tennis	M104 Skydiving
M046 Triathlon	M105 Modern Pentathlon
M05 Nautical and underwater sports	M106 Free flight
M051 Canoeing	M107 Aeronautics
M052 Motorboat racing	M11 Nature sports, fishing and hunting
M053 Rowing	M111 Camping, mountaineering and climbing
M054 Surf	M112 Orienteering
M055 Sailing	M113 Sport fishing
M056 Underwater sports	M114 Sport fishing in open water
M06 Sports of strength and fighting	M115 Hunting
M061 Boxing	M12 Sports with weapons
M062 Aikido	M121 Sword-play
M063 Chinese martial arts	M122 Arch and Crossbow
M064 Judo	M123 Archery
M065 Karate	M124 Shooting
M066 Kickboxing and <i>Muaythai</i>	M125 Shooting with hunting weapons
M067 Amateur wrestling	M13 Sports for disabled people
M068 Taekwondo	M14 Fitness sports
M07 Motor sports	M15 Traditional Games
M071 Auto racing and Karting	
M072 Motocycling	

The results of the selection and Kind of Activity Unit (KAU) classification by type of sport represent the number of occurrences. Therefore, the total occurrences and the total of KAU classified diverge because: 1) a KAU may develop more than one type of sports modality; 2) it was not possible to identify the modalities in all EAU.

For the **selection of the population** of the SSA for the years 2010 and 2011 it was used the population of Portuguese NA (Base 2011) as a reference. As with the NA, the construction of the SSA population was also performed by institutional sector (ie S.11 - Non-financial corporations, S.12 - Financial corporations, S.13 – Public administrations, S.14 - Households; S .15 - Non-profit institutions serving households). Initially the codes considered were the Portuguese Classification of Economic Activities (CAE Rev.3) related to the CPA codes set out in the Vilnius Definition. However, the construction of the SSA population only based on CAE not always proved to be sufficient. In fact, when it is concluded by the relevance of his action in sport, the KAU was included, regardless of the CAE.

In the selection of the SSA population the parishes and municipalities were not included. However, the compilation of the account include the expense associated with sport of these units, using among other sources, the Statistics Portugal Survey on Financing of Cultural Activities, Creative and Sports by Local Councils. In order to confirm the effective development of activities related with sport, it was needed further research for the validation of the integration of units in the SSA population.

After delimitation of SSA population for 2010 and 2011, we proceeded to the collection of economic variables in the exploration account (Production, Intermediate consumption, GVA, Other taxes on production, Other subsidies on production, Gross operating surplus, compensation of employees), by institutional sector. Subsequently, was elaborated a **supply and use framework (table SUT)** for products considered sport, having as reference the SUT of the Portuguese National Accounts (127 branches of economic activity X 433 products), which allowed balancing supply and demand and benchmark initial estimations. This table implied calculating, by selected products, imports, exports, government consumption, private consumption, investment and intermediate consumption. Whenever the detail of information sources has allowed, these data were obtained directly without the use of coefficients.

Estimations were also made for 2012, albeit without the analysis of the entire population, but using the most detailed study of the relevant entities (e.g. PLSC) and information relating to external trade and detailed information of the NA.

Regarding **education**, was made an estimate for services related to the physical education teaching in the 2nd and 3rd level of basic education and secondary education, levels for which can be distinguished teachers by recruiting group, differentiate physical education teachers. This estimation was based on information provided by the Directorate General of Education and Science Statistics (DGEEC), in particular as regards the number of physical education teachers and the respective compensations.

For the estimates of **foreign trade** the main sources of information were National Accounts and Foreign Trade database of Statistics Portugal, the Simplified Business Information (IES) and the Portuguese Balance of External Payments from the Central Bank of Portugal.

In a first phase the products considered totally sport from the NA were considered. For the other cases, in order to establish the "sports fractions" of the External Trade, methodological options have been taken in line with the best practices adopted by other SSA, in particular the Dutch, according to the guidelines defined in the "Methodological Guide for Sport Satellite Account" (Statistics Netherlands). For products considered partially sport were studied in depth the detailed classification of international trade statistics. Where the nomenclature allowed to determine the share (or fraction) related to sport, information on the respective flows to economic activity units that made up the SSA population was directly appropriated (e.g. the detail of the combined nomenclature to hunting weapons allowed the appropriation of information on imports and exports of arms and ammunition).

Where the detail of the nomenclature was not sufficient to determine which part (or fraction) would be sport, the detail of economic activity units of the SSA population was studied, identifying cases that would be more relevant and / or would be more specifically related to sports activity, considering only the trade flows of these units (e.g. the case of motorcycles, in which imports and exports of units specifically related to motor sports; the case of newspaper publishing services were identified in journals and periodicals related to sport, where only were considered the most relevant units and specifically related to sport).

For television rights (audiovisual) it was studied the detail of the IES, to determine the amounts in the intra and extra EU market for a number of units whose activity is specifically related with sport, in order to determine the appropriate value of imports and exports.

When it was not possible to establish which part (or fraction thereof) of foreign trade related to sport, no information was considered. No coefficients were used to determine the value of imports and exports within the SSA.

The estimate of **employment** in the SSA is the calculation of the Full Time Equivalent posts (FTC) for economic activities considered and by type of entity. It were used ratios of production and *per capita* earnings by economic activities and institutional sector of the NA, in the most detailed level. The information of the SSA for the production and compensation of the employees, available by economic activities, institutional sector, CAE Rev.3 section and type of entity, was converted in ETC by those ratios.

For the purpose of this press release, presentation of the information according to the Classification of industries of the national accounts (A10), with abbreviated names, had as a reference the most relevant activities, according to the following table.

Table 7 - Correspondence table between the Classification of branches of the national accounts (A10) with the abbreviated designations

Industry (A10)	Designation	Abbreviated designation
A	Agriculture, forestry and fishing	Agriculture
B, C, D, E	Industry, energy, water supply and sewerage	Industry
F	Construction	Construction
G, H, I	Wholesale and retail trade, repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	Wholesale and retail trade
J	Information and communication	Information and communication
K	Financial and insurance activities	Financial and insurance
L	Real estate activities	Real estate
M, N	Professional, scientific and technical activities; administrative and support service activities	Support service activities
O, P, Q	Public administration and defense; compulsory social security; education; human health and social work activities	Education, Security and Health
R, S	Arts; entertainment; repair of household goods and other services	Sports and Leisure

4. Final remarks

The SSA was an exploratory work based on concepts and compilation practices that are still under development, constituting only a partial view of sport. Indeed, sport is a broader concept than the one that was operationalized in the satellite account for statistical purposes. The analysis of the relevance of sport must pass not only by the economic component but also by the impact of sport participation, externalities analysis and multiplier effects, among others. It is important to note that the analysis of sport in the economy and society requires that additional indicators are considered, notably on habits, sports practices and economic context.