



GWS RESEARCH REPORT 2024/06

The German Sport Satellite Account – methodological basis and results for the period 2010 to 2019.

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Imprint

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TITLE

The German Sport Satellite Account – methodological basis and results for the period 2010 to 2019.

PUBLICATION DATE

© GWS mbH Osnabrück, Dezember 2024

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PICTURE CREDIT

Coverpage: istockphoto ID 1171888559

PUBLISHER OF THE GWS RESEARCH REPORT SERIES

Gesellschaft für Wirtschaftliche Strukturforschung (GWS) mbH

Heinrichstr. 30

49080 Osnabrück (Germany)

ISSN 2196-4262

RESEARCH CO-OPERATION

The national 'SSK Monitoring' research project is being carried out jointly by 2HMforum GmbH in Mainz and GWS mbH in Osnabrück.



SPECIALISTS IN
EMPIRICAL ECONOMIC
RESEARCH

FUNDING

The results at hand have been prepared in the course of the research project "SSK Monitoring" for the Federal Institute of Sports Science (BISp).



Bundesinstitut
für Sportwissenschaft

PROJECT WEBSITE

Further information on the research project is available on the project website.
<https://sportsatellitenkonto.de>



TABLE OF CONTENTS

Table of Contents	IV
List of Figures	VI
List of Tables	VIII
List of Abbreviations	IX
Executive Summary	X
1 Introduction	1
1.1 Research background: SSA monitoring in Germany	1
1.2 Measuring Sport as an economic factor: A first overview of the results for Germany	2
2 Methodological and conceptional basis of the German Sport Satellite Account (SSA)	5
2.1 Historical preparatory work in Germany	5
2.2 The 'Vilnius Definition of Sport 2.0'	5
2.3 Considerations of satellite accounts at the international level	7
3 On the concept of the German Sport Satellite Account	8
3.1 The general compilation structure of the national SSA	8
3.2 Identification of all sport-related goods	10
3.3 The primary statistical foundation of the SSA in basic studies	11
3.3.1 The survey on sport consumption by private households	12
3.3.2 The survey on expenses for sport facilities	13
3.3.3 The survey on expenses for sport-related advertising, sponsoring and media (broadcasting) rights	14
3.4 The basic procedure for creating the SSA	14
3.5 The national SSA monitoring	15
4 SSA results on the economic importance of sport in Germany	16
4.1 A first Overview	16
4.2 Detailed National SSA results	18
4.3 Sport-related final consumption expenditure	19
4.3.1 Overview of private household expenditure on sport	20

4.3.1.1	Changes in sport participation by types of sport	22
4.3.1.2	Expenditure due to active sport activities	23
4.3.1.3	Expenditure due to passive interest in sport	23
4.3.2	Sport-related consumption expenditure by private households	24
4.3.3	Sport-related consumption by voluntary sports clubs and associations	25
4.3.4	Sport-related consumption by government	25
4.3.5	The product structure of sport-related final consumption expenditure	25
4.4	Sport-related gross fixed capital formation	27
4.5	Foreign trade contribution of the sport industry	29
4.6	Production of the sport industry	29
4.7	Sport-related tax revenue	31
4.8	Gross value added of the sport industry	31
4.9	Employment of the sport industry	33
4.10	Employment in NACE group 'sports activities'	36
4.10.1	Paid employment	36
4.10.2	Unpaid voluntary employment due to sport	38
4.11	Sport-related advertising, media rights and sponsorship	38
5	Industry comparisons at national and international level	43
5.1	Comparison of Satellite Accounts results at national level	43
5.2	Non-additivity of satellite accounts results	44
5.3	Comparison of SSA results at European level	44
5.4	The EU-wide multiregional input-output table for sport	45
6	Conclusions	47
7	Bibliography	48
Appendix 1: List of the 71 types of sport resp. sporting activities of the German Sport Satellite Account (SSA)		51
Appendix 2: Definition of the 59 types of sport facilities based on the 71 types of sport resp. sporting activities		53

LIST OF FIGURES

Figure 1.	The economic relevance of sport in Germany in the year 2019 and input from selected sport areas	3
Figure 2.	The general compilation structure of the German SSA	9
Figure 3.	Goods and services for sport (excerpt)	11
Figure 4.	The basic procedure for creating the SSA	15
Figure 5.	The development of sport-related GDP between 2010 and 2019 in Germany	17
Figure 6.	The demand-side composition of the sport-related gross domestic product in the years 2010, 2015 and 2019 (figures in billion euros in current prices)	18
Figure 7.	The development of sport-related final consumption expenditure between 2010 and 2019 in Germany	20
Figure 8.	Sport-related expenses by private households for aggregate expenditure categories in the years 2010, 2015 and 2019	21
Figure 9.	Sport-related expenditure structure (shares) by private households for the aggregate expenditure categories	21
Figure 10.	Expenditure pattern of private households for doing sports actively (figures in percent of total active sports expenditure, reporting year 2019)	23
Figure 11.	Expenditure pattern of private households for passive interest in sports (figures in percent of total passive sports expenditure, reporting year 2019)	24
Figure 12.	Total sport-related final consumption (nominal values in current prices) by aggregate product groups for the years 2010, 2015 and 2019 in Germany	26
Figure 13.	Sport-related consumption structure (shares) by aggregate product groups for the years 2010, 2015 and 2019 in Germany	26
Figure 14.	Total expenditure on sport facilities by cost category for the years 2010, 2015 and 2019 in Germany	28
Figure 15.	Sport facilities related expenditure structure (shares) by cost category for the years 2010, 2015 and 2019 in Germany	28
Figure 16.	Direct sport-related production (nominal values in current prices) by economic activities (industry) for the years 2010, 2015 and 2019 in Germany	30
Figure 17.	Sport-related production contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany	30

Figure 18.	Direct sport-related gross value added (nominal values in current prices) by economic activities (industry) for the years 2010, 2015 and 2019 in Germany	32
Figure 19.	Sport-related value added contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany	32
Figure 20.	The development of sport-related employment between 2010 and 2019 in Germany	33
Figure 21.	The sport-related productivity development between 2010 and 2019 in Germany	34
Figure 22.	Direct sport-related employment by economic activities (industries) for the years 2010, 2015 and 2019 in Germany	35
Figure 23.	Sport-related employment contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany	35
Figure 24.	Employees fully subject to social security contributions in NACE group 93.1 'Sports activities' between 2010 and 2019 in Germany	37
Figure 25.	Expenditure on sponsorship (incl. capitalisation), media rights and advertising in the area of sport for the years 2010, 2015 and 2019 in Germany	39
Figure 26.	Expenditure structure on sponsorship (incl. capitalisation), media rights and advertising in the area of sport for the years 2010, 2015 and 2019 in Germany	39
Figure 27.	Sponsorship expenditure (without capitalisation) by companies to sport organisations in popular "grassroots" and top-class "elite" sports for the years 2010, 2015 and 2019 in Germany	41
Figure 28.	Sport-related expenditure structure on sponsorship (without capitalisation) by companies to sport organisations in popular "grassroots" and top-class "elite" sports for the years 2010, 2015 and 2019 in Germany	41
Figure 29.	Comparison of gross value added shares for various economic activities (industry) with results for the cross-sectional activities of health, tourism and sport in Germany in 2019	43

LIST OF TABLES

Table 1.	Demand-side GDP indicators for the German SSA for the reporting period 2010 to 2019	19
Table 2.	Top 10 sports of the adult population (16-84 years) for the years 2010, 2017 and 2020 in comparison	22
Table 3.	Production-side GDP indicators for the German SSA for the reporting period 2010 to 2019	29
Table 4.	Development of sport-related employment for the SSA reporting period 2010 to 2019	33
Table 5.	Employees subject to social security contributions and marginally employed people in Germany for NACE group 93.1 'Sports activities' for the SSA reporting period 2010 to 2019	36
Table 6.	National SSA key figures for selected EU Member States	45

LIST OF ABBREVIATIONS

bill.	billion
BISp	Federal Institute of Sports Science
COICOP	Classification of Individual Consumption According to Purpose
COM	European Commission
CPA	Statistical classification of Products by Activity
ESA	European System of National and Regional Accounts (ESA 2010)
GDP	Gross Domestic Product
GVA	Gross Value Added
HSA	Health Satellite Account
IOA	Input-Output Accounts
IOT	Input-Output Table
IOT-S	Input-Output Table for sport
NA	National Accounts
n.a.	not available
NACE	Statistical classification of economic activities in the European Community
nsp	non-sport-related
SNA	System of National Accounts (SNA 2008)
SDR	Sports Development Report
SSA	Sport Satellite Account
sp	sport-related
SUT	Supply-Use Table
SUT-S	Supply-Use Table for sport
thou.	thousand
TSA	Tourism Satellite Account (TSA RMF 2008)
Σ	total
€	Euro
%	percent
/	not available resp. compilable
=!	equal resp. identical

EXECUTIVE SUMMARY

The German Sport Satellite Account (SSA) is a robust statistical framework for measuring the economic importance of sport. The national SSA refers to the Vilnius Definition of Sport and makes sport-related transaction visible within the National Accounts. It measures the direct economic impact of sport on national income and employment. This GWS Research Report presents some of the key findings of the national 'SSA Monitoring Research Project' for the reporting period 2010 to 2019. This monitoring for Germany makes an important contribution to the provision of reliable and comprehensible data for evidence-based advice on sport policy and practice. The national SSA dataset gives an up-to-date picture of the diversity of the sport industry with its main activities, products and financing structures. It provides valuable insights concerning the demand-side of sport and the expenditure pattern due to active sport activities and passive interest in sport and presents supplemental sport-sociological information (i.a. sport participation by types of sport resp. sporting activities, age groups, income groups). The national SSA contributes to the economic underpinning of sport-policy decisions and decisions in enterprises, sport clubs and associations (e.g. public sport funding, hosting of sport events, advertising and sponsorship budgets, investment decisions).

Keywords: Sport Satellite Account (SSA), Vilnius Definition of Sport, satellite accounts, direct economic impact of sport, sport-related GDP, sport-related employment, sport-related consumption

1 INTRODUCTION

Scientific support is of central importance for fact-based advice to sports policy-makers and sports practitioners. With this in mind, the Federal Institute for Sport Science (BISp) is pursuing the goal of providing decision-makers in sports policy and practice with valid data material, also with regard to the economic significance of sport.

During the last decade the BISp – together with the Federal Ministry for Economic Affairs and Climate Action (BMWK) – commissioned several research orders to investigate and monitor the economic impact of sport with its diverse details and facets within the National Accounts (NA) based Sport Satellite Account (SSA) compilation framework. Since 2009, the market research company 2HMforum GmbH (Mainz), the macroeconomic research company GWS mbH (Osnabrück) and the Chair of Sports Economics and Sports Sociology at the Johannes Gutenberg University Mainz (Prof. Preuß) have been working together as research partners to provide an empirically well-founded macroeconomic analysis of sport economic relationships in Germany.

1.1 RESEARCH BACKGROUND: SSA MONITORING IN GERMANY

Since the reporting year 2008, all expenditures made in Germany for sports purposes have therefore been summarized in a satellite account of the National Accounts (NA). Satellite accounts are created when the economic performance is not provided by one sector res. industry but by many sectors on the basis of an overarching theme. Examples besides sports are health and tourism.¹

The German SSA, which now is available for the reporting years 2008 and 2010 until 2019, show the high relevance of sport as an economic factor for German gross value added, which goes far beyond government investment in the field of sport.

As part of the compilation and updating of the SSA, data on the sport-related consumption of the German population, the expenditure of companies on sport-related advertising and sports sponsorship, and the money flowing into Germany for sport-related media rights are continuously determined. In addition, public and private sector investments in sport facilities as well as the construction and personnel operating costs of sport facilities and sports opportunities are surveyed. This provides a comprehensive database on the scope of sport-related activities and the associated expenditures and investments. The most recent publication on the SSA is "The Economic Importance of Sport in Germany - Sports Satellite Account (SSA) 2020" with preliminary results for the first Covid-19 pandemic year 2020 (Ahlert & Repenning 2023). A publication on the SSA 2022 is expected at the beginning of 2025.

Special publications on the SSA are also published annually in the series "Current Data on the Sports Economy." These special publications do not depict the entire sports

¹ The website <https://sportsatellitenkonto.de/> summarises all basic information on the research project 'SSK-Monitoring' of the Federal Institute for Sports Science (BISp), a glossary (with explanations of the project-specific terms, definitions and delimitations) and all results published in the direct context of the project (including a 'graphic of the month') on the economic importance of sport in Germany.

satellite account, its economic relevance and interrelationships, but are special evaluations on various topics from regular primary surveys carried out in the course of the research assignments. To date the following special publications have been published:

- 2013: Winter sports as an economic factor (English version available)
- 2014: Sports betting as an economic factor
- 2015: Soccer as an economic factor
- 2016: Older people as the engine of the sports economy?
- 2017: Outdoor sports as an economic factor
- 2019: Sport inside or outside the sports club: sports activity and sports consumption by type of organization
- 2020: The Contribution of Sport to Meeting the WHO Recommendations for Physical Activity (English version available)
- 2021: Children`s and Youth Sports – The Economic Factor (English version available)
- 2022: Sports participation and sports consumption spotlighted by the Covid 19 pandemic (English version available)
- 2023: Sport facilities in Germany - results of a local authority survey
- 2024: Sport advertising, sponsoring and media rights by companies (working title)

1.2 MEASURING SPORT AS AN ECONOMIC FACTOR: A FIRST OVERVIEW OF THE RESULTS FOR GERMANY

Like health or tourism, sport is not a traditional industry, but a cross-sectoral industry. Sport is therefore part of various economic sectors resp. industries (NACE²) and its economic significance cannot be read directly from official statistics from the statistical offices. Economic activities related to sport include NACE code 93.1 ‘Sports activities’, NACE code 32.3 ‘Manufacture of sports goods’ or NACE code 47.64 ‘Retail sale of sporting equipment in specialized stores’. In addition, there are other areas related to the sport industry, such as sport-related journeys, which are not covered by specific economic sectors. The ‘**Vilnius Definition of Sport**’ was used to determine which economic production activities account for the sport industry as a whole. This encompasses far more than 400 production activities (cf. European Commission 2017).

In order to be able to aggregate the economic effects of these activities, a so-called satellite account of the NA is required. The sports satellite account (SSA) is based on the broad definition of sport and the recommendations drawn up at EU level for its compilation. It takes into account the general methodological explanations for the creation of supply- and demand-side harmonized satellite accounts for other subject areas (European Communities et al. 2009).

² Statistical Classification of Economic Activities in the European Community (Eurostat 2008)

In addition to data from the Federal Statistical Office in Wiesbaden, sport-specific primary survey data for the three sub-areas of 'private sports consumption', 'sponsorship, advertising and media rights' and 'sport facilities' are collected as part of the SSA micro foundation to determine the economic significance of sport. They are important input for the macroeconomic assessment of sport, see Figure 1.

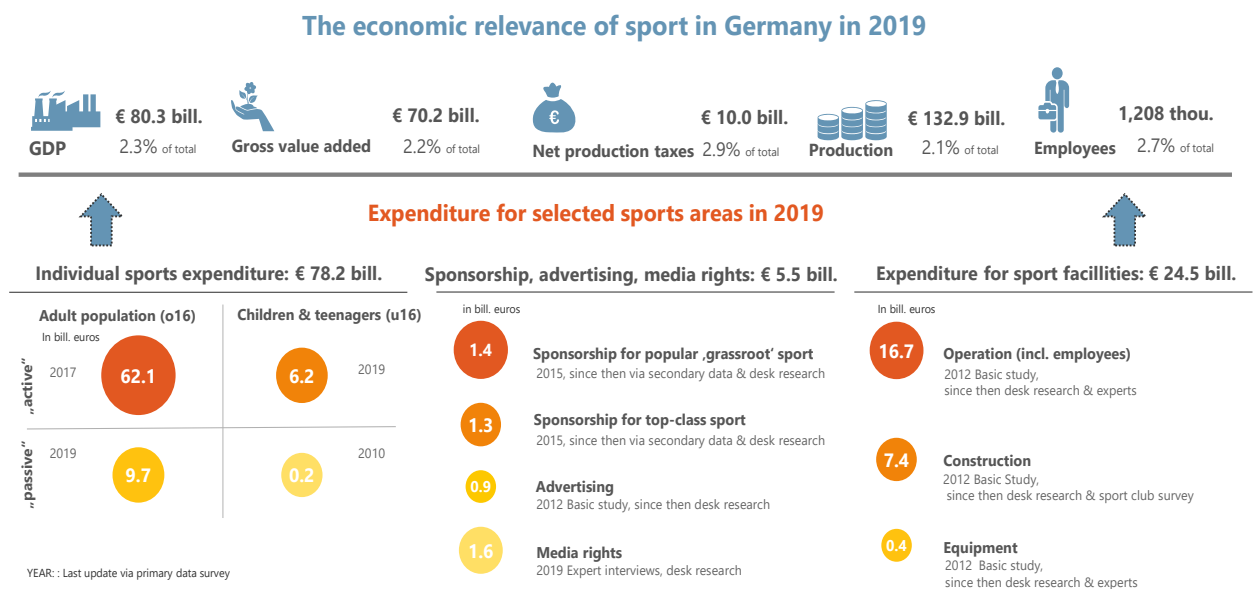
In our society, sport with its many facets is omnipresent and a central element of leisure and entertainment culture. However, sport is not only fun and part of our lifestyle, it also has social and socio-political aspects and promotes health. As a further 'by-product', it generates **turnover** and **value added** and creates **jobs**. Sport is a service due to its offers for active sports practice or participation as spectators and consumers of sporting events. By purchasing sports equipment and fan merchandise, travelling to training and sporting events or on a sports holiday, sport is **consumption**.

Expenditure by public and private sport facility operators to maintain resp. modernize and renovate **sport facilities** represents current expense resp. investment.

Sport is also an important **advertising factor** that has become indispensable in the course of modern product marketing and, in the case of sponsorship, has even developed into an important source of funding for sport.

The **individual sporting behaviour** of the population forms the framework for all three areas of research.

Figure 1. The economic relevance of sport in Germany in the year 2019 and input from selected sport areas



Source: Calculations and presentation by 2HMforum and GWS

Sport, with its diverse sport-specific characteristics, directly generates income and employment through the provision of training services by sports clubs and private and public sports providers, the production of sports goods and the operation and construction of sport facilities. In addition, through the **voluntary commitment** of their members, sports clubs make an important contribution to social cohesion and teach valuable virtues. 'Last but not least, sport also contributes to government revenue through taxes and social

security contributions.

The population's sporting activity and interest in sport are therefore reflected in the figures for the German economy.

The direct economic impact of sport, measured as a share of gross domestic product, was 2.3% in 2019, totalling over €80 billion. 2.7% of total employment were directly attributable to sport.

2 METHODOLOGICAL AND CONCEPTIONEL BASIS OF THE GERMAN SPORT SATELLTE ACCOUNT (SSA)

2.1 HISTORICAL PREPARATORY WORK IN GERMANY

In order to illustrate the connections between sport and the economy in detail and to document the economic relevance of sport, Meyer and Ahlert developed a sport-related extension of the input-output account of the Federal Statistical Office for the first time at the end of the 1990s on the basis of the study by Weber et al. (1995) (cf. Meyer & Ahlert 2000). Without the terms being “known” at the time, this was already a satellite account for sport, which made the economic interrelationships of sport as an economic factor in the System of National Accounts (SNA) visible in a comprehensible way.

Weber et al. (1995) generated sport-related data for Germany for the first time in 1993 by means of a large-scale representative population survey. Meyer and Ahlert (2000) used this demand-side data and expanded their knowledge of the supply-side characteristics of the sports market through special research and by including other official statistics. In a final analytical step, both the production of goods characteristically for sport and the related demand (consumption, capital formation, exports) due to sporting activities were then made explicitly visible within the input-output table for the 1993 reporting year. The so-called symmetrical **'Input-Output-Table of Sport' (IOT-S)** differentiated the production of goods (bicycles, sports equipment, sports shoes, sportswear) and services (commercial sports providers, public sport facilities, sports clubs and sports associations) which have been identified as characteristic for sport in an economic context. In addition to creating a national satellite account for the first time, macro-econometrically founded sports policy simulations were calculated on this basis (cf. Ahlert 2000 & 2001). The IOT-S was updated until the reporting year 2002.

However, neither the empirically collected structural data on demand due to sport by Weber et al. (1995) nor the calculations based on the Weber study of the importance of the seven identified sectors of the SSK allowed for further continuous updating. In particular, the massive professionalization of sport, the increasing globalization of economic interdependencies, demographic change and the general shift towards a leisure and consumer-oriented society meant that many of the sport-economic system correlations determined for the mid-1990s had lost their validity as a reference.

It was not until the discussion on the development of an **EU White Paper on Sport** in the middle of the first decade - which was then presented in 2007 - that activities to revitalize research efforts were spurred on in Germany (cf. COM 2007).

2.2 THE ‘VILNIUS DEFINITION OF SPORT 2.0’

In the “White Paper on Sport” published in 2007, the EU Commission announced that a “satellite account for sport” should be drawn up at European level, based on the methodological approach practiced within the NA (cf. COM 2007).

In order to arrive at a uniform understanding of the economic factor “sport”, a statistical definition of sport was also developed. This was published as the ‘Vilnius Definition of

Sport (Version 1.1)' ³ in accordance with the Classification of Economic Activities in the European Community (NACE, Rev. 1.0) and the related Statistical Classification of Products by Activity (CPA) (cf. SpEA 2007).

The 'Vilnius Definition of Sport' clearly defines the production activities that can be related to sport within the CPA. In a comprehensive approach, well over 400 activities relevant to sport and their associated products were identified. These products can be subdivided according to the following three differentiations of the concept of sport:

- **Statistical definition:** Corresponds with the current NACE, Rev. 2 category 93.1 'Sports activities' (i. a. operation of sport facilities, sport clubs, sport associations, operation of fitness facilities, operation of sport leagues).
- **Narrow definition:** All commodities and services which are necessary as inputs for (doing) sport ("to produce sport as an output", including manufacture of sportswear and equipment, trade in sport commodities, sports advertising) as well as all activities included in the "statistical definition".
- **Broad definition:** All commodities and services which have a (direct or indirect) relation to any sport activity but without being necessary to do sport ("which draw upon sport as an input"). This includes goods and services in downstream markets (including sports tourism, sports media, sports nutrition) as well as all activities included in the "narrow definition".

In addition to establishing a common list of sport-related products, the Vilnius Definition sets out a number of other rules intended to simplify and standardize its operationalization in the course of creating a national SSA:

- The broader definition of sport is the focus of the Working Group Sport & Economics on establishing a SSA.
- Infrastructure and durable consumer goods that can be used for other purposes in addition to sport – and are not part of the statistical definition of sport – are not to be included. Infrastructures used exclusively for sports purposes are to be included.
- For the production of sport-related commodities and the associated trade, correct [net]accounting of trade services must be carried out in order to avoid double accounting of the trade margins on the commodities.
- Country-specific additions can be made to CPA-positions in order to take account of the country-specific sport landscape.
- In general, only final expenditure (incl. capital expenditure) will be taken into account, and not intermediate expenditure. Reference will be made to intermediate demand only if it constitutes sizeable input for professional sport. In a similar way, industrial services, where they are not sport-specific, will not be considered.

³ Against the background of the fundamental revision of the Classification of Economic Activities in the European Community (NACE, Rev. 2), an adjustment was also made to the Vilnius Definition of Sport (version 2.0) in 2015/16. However, its basic definition was left unchanged (COM 2017).

Despite the supposedly comprehensive procedure for identifying the goods related to sport, two fundamental design flaws can be identified: Firstly, a clear distinction between the narrow and the broad definition is often not possible in the course of empirical implementation in practice. Secondly, the supply-side identification of sport-related goods shows that some important product categories were only incompletely mapped. This is all the more serious because sport as an economic factor is driven in particular by all sport-related demand-side consumption activities of private households. But also regarding maintenance and investments activities of sport facilities operators some relevant CPA-categories are missing. The last points mentioned are a serious weakness of the current Vilnius Definition of Sport (version 1.1 & 2.0).⁴

2.3 CONSIDERATIONS OF SATELLITE ACCOUNTS AT THE INTERNATIONAL LEVEL

Within the international reference manual on NA, the so-called “System of National Accounts 2008” (European Communities et al.: 2009), the basic idea of satellite accounts as well as their structure is explained by way of example within chapter 29. Within a satellite account for the NA, a clear overview of all economically relevant interrelationships relating to the subject area is provided for economic and/or social cross-sectional activities.

For this purpose, all economic transactions related to the subject area are differentiated as characteristic or connected activities. They are made explicitly visible in a manner consistent with the accounting and delimitation rules of the NA, i.e. they are shown in much greater detail within the satellite account. In order to achieve this, the transactions usually only estimated there in simplified form – often only for individual aggregates – must be substantiated by additional statistical information (including in-depth evaluations and surveys related to the subject area). For the sake of clarity, all non-thematic transactions are only shown in summary form. This approach ensures that there is always a macroeconomic link to the key figures of the NA. By compiling satellite accounts in addition to the NA, economic statistics offer an established procedure for the comprehensible determination of the direct economic significance of cross-sectional activities. The methodological procedure for the explicit reporting of topic-related product transactions is carried out in a consistent manner in the context of Input-Output Accounts (IOA).

At the same time, in the second half of the first decade, there was a multi-year Eurostat research project on the implementation status of the well-established Supply and Use Table (SUT) based Tourism Satellite Account (TSA) at EU member state level (e.g. Franz & Ahlert 2009, Ahlert et al. 2009, United Nations et al. 2010). In 2010 the EU Working Group "Sport & Economics" published a first leaflet on SSA results for individual EU member states, which also addressed the political benefits (i.a. European Commission 2010). The very different experiences in satellite accounting provided an valuable impetus for the further conceptual development of the national SSA compilation table.

⁴ This weakness of the Vilnius Definition 1.1 has been already noted by Ahlert (2013b).

3 ON THE CONCEPT OF THE GERMAN SPORT SATELLITE ACCOUNT

The empirical reference framework of the current German SSA is the IOA of the Federal Statistical Office. It is a further development of the representation presented by Meyer and Ahlert (2000) within an symmetrical input-output table of sport (IOT-S). The statistical operationalisation of sport economic relevance based on the broad definition of sport and the recommendations developed at European level for its compilation (cf. SpEA 2007). However, in order to enable comparability with the historical results, the imperfections of the Vilnius Definition identified in the course of the project launch in the years 2009 to 2013 were 'cured' (cf. Ahlert 2013b)⁵.

3.1 THE GENERAL COMPIATION STRUCTURE OF THE NATIONAL SSA

The SSA developed for Germany takes into account the general methodological explanations for the creation of supply and demand-side balanced satellite accounts for other thematic fields areas (cf. European Communities et al. 2009) but also first sport-specific reflections by Panagouleas & Kokolakis (2012). The sport-specific economic interrelations are determined in an national accounting based calculation procedure using the supply and use framework (SUT-S, cf. Figure 2). Along with being much closer to the numerous initial statistics within the system of economic and social statistics this procedure also permits an easier linkage to the sport-related primary data collections which have been carried out for the national SSA implementation. Within the German SSA, the direct value added contribution of sport resp. the sport-related gross domestic product is determined by the sport-related demand activities. The latter is based on sport-specific representative sample survey, among other things. Figure 2 shows in a schematic way its basic set-up.

For all the transactions shown in the SSA both sport-related (Sp) and other non-sport-related (nSp) supply and use activities are shown. The proof of the sport-related final demand is done in accordance with the requirements of the Vilnius Definition of Sport. For reasons of clarity, the other non-sport-related transactions are shown in the SSA in a consolidated form. This method guarantees that the connections to the SNA specific macroeconomic totals are always given.

On the left-hand part of the SSA the sport-related production or output in Germany is proven in detail by product i ($i = 1 - n$) and industry j ($j = 1 - n$). Details are displayed in production related basic prices, including subsidies on products, but without taxes on products. The interrelation shows the production program of sport-specific products within the various industries of the national economy. Beyond the diagonal elements, which illustrates the characteristic production of goods (so-called main resp. primary production activity), the production of goods due to the so-called secondary production is shown.

⁵ During the project launch experts from the Federal Statistical Institute have been actively involved to guaranty a maximum consistency to the National Accounts data sets (cf. Heinze et al. 2011)

Figure 2. The general compilation structure of the German SSA

[illegible]

Source: Revised representation of Ahlert (2013b)

In the lower part the primary inputs required by the industries in the production process are also shown (e.g. compensation of employees, other net-taxes on production, consumption of fixed capital (depreciation), net operating surplus). Finally the production and primary inputs section is also linked to a simple SSA employment module showing the sport-related employment in the industries of economy.

In the central part of the SSA, the domestic production is supplemented by imports, in order to keep the total supply at basic prices. The additional information concerning the mark-up on individual goods due to trade margins (services do not receive mark-ups per se) which represents de facto rebooking of the commodity-specific trade margin to the allocated product groups, allows for the transition to total supply at purchaser's price. This is the price which the purchaser actually pays for goods at the moment of sale. In addition, the product-specific revenue of net product taxes on products (balance of taxes on products and subsidies on products) has to be taken into account. Only the consistent presentation of the transition from producers' basic to purchasers' [market] prices enables a comparison with the use-side results of the SSA. This is also the only way to consistently and fully estimate the value added contribution of sport-related final use resulting from trade services.

In the right-hand section of the SSA, on the demand side, the final use of goods for the individual final demand components (private consumption, government consumption, gross fixed capital formation [investments], and exports) is documented. In the final right-hand section, the intermediate consumption resp. inputs of goods for sport-related and the other non-sport-related production activities is also documented at purchasers' prices.⁶ In this part of the SSA the sales structure of the sport-related products in demand in Germany is completely documented in the individual rows of the account. Together with the already mentioned primary inputs section of the SSA this part shows the cost structure of the goods produced by the German industries is fully documented.

Within an SSA compiled in this way, the macroeconomic supply from sport-related and the other non-sport related products (at purchasers' prices) always corresponds to the macroeconomic use.

3.2 IDENTIFICATION OF ALL SPORT-RELATED GOODS

In the run-up to the primary statistical foundation of the SSA to be implemented for Germany, the completeness of the sport-related goods listed in the Vilnius Definition was checked several times between 2009 and 2012 in the course of preparing the various questionnaires. It was found that some of the goods demanded due to sports activities were not listed, although they are explicitly and directly demanded or required. For example, some product categories that are directly related to operation and maintenance expenses for sports infrastructures are not included. At this point, the Vilnius Definition (version 1.1 & 2) of Sport is 'blind', as it does not recognise technical installation-related 'Specialized construction activities' apart from very sport-specific constructions activities.

⁶ Due to inadequate data availability and sectoral delimitation problems, no sport-related disclosure has been made for this area until now.

Similarly, cleaning and care products used by private households (e.g. for the care of sport textiles and equipment) as well as directly necessary transport expenditure for doing sports (e.g. public transport costs for going to the gym or sporting events) are not included in the Vilnius list of direct sport-related products.

However, if a complete picture of the direct contribution of sport to national gross value added is to be obtained, all expenditure for goods and services directly associated with sporting activities, must be recorded in full. The following figure provides an overview of the sport-related goods covered by the German SSA.

Figure 3. Goods and services for sport (excerpt)

Commodities for sport		Services for sport	
	Sports equipment and accessories (i. a. balls, rackets, wearables)		Operation of sports facilities
	Sports-specific vehicles (u. a. bicycles, motorbikes, sport boats)		Services provided by sports clubs and professional sports teams
	Textiles for sports purposes, including fan articles		Fitness center services
	Sportswear		Sports-related services of the construction industry
	Sport shoes and bags		Sports-related wholesale and retail trade services (trade margins)
	Animals and their keeping for sporting purposes		Services provided by the transportation industry due to sport
	Dietetic foods & isotonic drinks		Services provided by the public sector for sport
	Paper and printing products		Advertising and market research for sport
	Petroleum products		Sports-related services provided by broadcasters
	Chemical products		Sports-related services of the travel industry

Source: Own representation

3.3 THE PRIMARY STATISTICAL FOUNDATION OF THE SSA IN BASIC STUDIES

The implementation of the national SSA is characterised by the development of a very comprehensive and detailed primary statistical basis. Only through this approach it was possible to systematically determine the sport-related shares of the various sport-related activities in a comprehensive manner. The empirically based operationalisation of the 'cured' Vilnius Definition reduces the need to resort to a large number of so-called expert estimates and literature-based analyses to a minimum. Ultimately, sport is an economic activity that is determined by the expenditure directly incurred as a result of sporting activities. In addition to private households, the main actors here are voluntary and professional sports clubs and associations as well as the sport-specific infrastructures required for this.

As part of the compilation and updating of the SSA, data on the sport-related consumption of the German population are continuously determined. In addition, public and private sector expenditure in sport facilities for operating and maintaining as well as for new

constructions are surveyed. Besides that expenditures of companies on sport-related advertising and sports sponsorship, and the money flowing into Germany for sport-related media rights are part of a comprehensive database on the scope of sport-related activities and the associated expenditures. For a better understanding, the three research projects on the primary statistical foundation of the German SSA are presented below.

3.3.1 THE SURVEY ON SPORT CONSUMPTION BY PRIVATE HOUSEHOLDS

The main objective of the first sub-project on the economic significance of sport consumption was to determine the sport consumption patterns of the German population, which then was consistently incorporated into the national SSA compilation framework in order to determine the direct added and employment impact of sport and its contribution to GDP (cf. Preuß, Alfs & Ahlert, 2012). The study was commissioned by the Institute for Sports Sociology and Sports Economics at Johannes Gutenberg University Mainz. To operationalise the recall problems that usually occur in the course of population-representative consumer surveys, a complete list of all socially relevant types of sport and sporting activities was developed.⁷ Besides the introduction of the sport-characteristic dimension ‘type of sport’⁸ as an important non-monetary description variable in the questionnaire the understanding of sporting resp. sport-related activities was also defined more precisely. The individual sport-related expenditure pattern of people living in Germany was surveyed, both in terms of expenditure on active participation and passive interest in sport (e.g. as spectators, fan or passive member of a voluntary non-profit sport club). And, of course, the general design of the survey takes reality into account by assuming that people who are passively interested in sport can also be active in sport. Concerning active practice of certain types of sport further supplementary individual specifications were requested in the context of the survey on active sports (e.g. frequency, intensity, duration, form of organization⁹, differentiation between professional sport, competitive top class sport, non-professional popular leisure ‘grassroots’ sport and school sport). The product-related expenditure categories are based on an extended version of the broad Vilnius Definition. To avoid double accounting within the surveys the expenditure categories of passive sport have been limited to 10 single expenditure categories.

This differentiated recording of sport-related expenditure by private households also offers the possibility of analysing expenditure patterns and participation by individual type of sport and thus the monetary sporting behaviour separately in great detail. ‘Last but not least’, this approach enables a consistent, complementary, also non-monetary description of developments in sport. This is usually seen as a major strength of functional thematic satellite accounts. The latter is an additional benefit of the chosen

⁷ The complete list of 71 types of sport resp. sporting activities is shown in appendix 1.

⁸ ‘Type of sport’ also includes more physical activity-oriented sporting activities with a focus on relaxation and health.

⁹ Sport can be organised (i.e. in clubs), self-organised (in individual or commercial settings) or practised in the context of public sport facilities.

implementation approach, particularly from a sport sociological and sport economic perspective. It is reflected in many thematic publications of the project's accompanying publication series "Current data on Sports Economy". These special publications do not depict the entire SSA, its economic relevance and interrelationships, but are special evaluations on various topics from regular primary surveys (e.g. Repenning et al. 2020, 2021, 2022b).

3.3.2 THE SURVEY ON EXPENSES FOR SPORT FACILITIES

The majority of sporting activities are tied to a specific sport facilities (such as a gymnasium, gymnastics room, swimming pool, ski lift or marked hiking paths). As only incomplete national data on expenses for the operation, maintenance and new construction of sport facilities was available a sample survey on expenses for sport facilities has been introduced (see An der Heiden et al. 2012b).

In the context of this sport facilities operator survey, sport facilities are understood as a representation of the venues corresponding to the 71 types of sport resp. sporting activities (see appendix 1). For this purpose, they were assigned to sporting venues resp. facilities. Their allocation was not a one-to-one allocation. Many sports are practised in multifunctional halls, but there are also so-called special sports facilities that can only be used by one type of sport (e.g. shooting sports facilities). Again, it should be borne in mind that some sports have several variants that use (at least partly) the same sports facility(s) (e.g. snowboarding and skiing generally use the same uphill facilities, sometimes the same slopes, but snowboarders also or increasingly use half-pipes). Excluded were multipurpose infrastructure (e.g. roads, event halls) and so-called 'anyway there areas'.¹⁰

All sport facilities were categorised into four basic types of sport facility:

- Core sport facilities for swimming, athletics and games. They have to fulfil the competition requirements of the sport associations or the framework plan for school sports and be usable for practice and training purposes.
- Special sport facilities with a special purpose that cannot be used by the general public or can only be used to a limited extent (e.g. state performance centres, federal armed forces and police sport facilities).
- Specific sport facilities that are only used for a specific sport (e.g. bowling alleys, bobsleigh runs, ski jumps, indoor tennis courts or golf courses)
- Sport opportunities resp. areas that were not originally created for sporting purposes, but nevertheless offer opportunities for secondary sporting use in terms of space and time. They are available to all citizens free of charge, especially for informal sports activities.

The total list of sport facilities derived from the 71 types of sport comprises a total of 60 different types of sport facilities (see appendix 2).

¹⁰ Public and private space that is not originally created for sport and does not incur any economically significant costs, but is used for sporting activities (e.g. forest paths for hiking, meadows for playing football).

3.3.3 THE SURVEY ON EXPENSES FOR SPORT-RELATED ADVERTISING, SPONSORING AND MEDIA (BROADCASTING) RIGHTS

Sponsoring and advertising – but also the trade in media rights – have developed to an important source of income for sport during the last two decades. Due to missing reliable data on this topic in the launch of the national SSA implementation a third sub-project was introduced. The central objective was to determine the expenses for sport-related advertising, sponsorship and media rights in top-level and popular sport in a primary statistical foundation approach (cf. An der Heiden et al. 2012a).

Advertising is considered to be sport-related if it is commissioned directly by the producers of goods which are typical for sport (e.g. sports wear, sports equipment).

Sport-related sponsorship explicitly promotes a sport, an individual athlete, a team, a sporting event or a sport club/association in the form of money, goods or services in exchange for the expectation that this supports the company's communication and marketing objectives. This requires the acquisition of sport license rights. In the context of the survey, the associated capitalization costs were also recorded. These include all follow-up costs for the utilization of the acquired license rights along the specific value chain of sport-related advertising.

Media rights are considered to be sport-related if they are clearly related to the media coverage or the broadcasting of sport events and competitions.

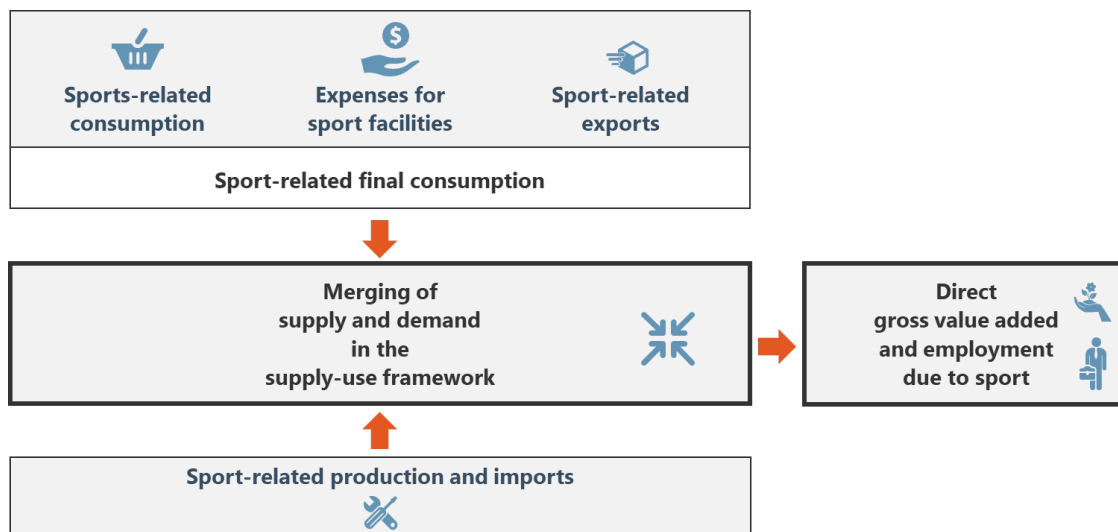
The outcome of this representative company survey, which was carried out on the two-digit level of NACE, was used to receive a more precise picture concerning the origin of the associated income in the sport-characteristic NACE-3-digit class 93.1 and the parallel costs (intermediary and primary inputs) for the utilisation of the respective measures (capitalisation).

From a macroeconomic SSA accounting perspective, such expenses have only a direct positive impact on the national gross value added, if the net impact on value added of NACE class 93.1 is positive. Concerning voluntary sport clubs this also implies that they can provide more goods and services free of charge as final demand to their club members.

3.4 THE BASIC PROCEDURE FOR CREATING THE SSA

In 2013, following the completion of the three basic studies, the national SSA was compiled (with additional consideration of further sport economic studies and data from official statistics) for the first time as a pilot study for the reporting year 2008 (Ahlert 2013a).

The German SSA is consistently derived from the basic tables of the national Input-Output Accounts (IOA), the so-called supply and use table (SUT). In addition to greater proximity to the numerous source statistics of the national statistical system these also enable better connectivity to the sport-related basic studies which have been mentioned before.

Figure 4. The basic procedure for creating the SSA

Source: Revised representation of Repenning et al. 2022a

Figure 4 illustrates the general methodology for the compilation of the SSA. The diagram depicts the centrality of the fully-fledged integration of the supply and demand-side of sport within the SUT framework. The direct contribution of gross value added and employment resulting from the sport-related final demand for goods is determined through an overall compilation procedure, which also considers the sport-related production and imports activities. A more detailed description of this compilation procedure, which have been evaluated by experts of the Federal Statistical Office, is given in Ahlert 2013a & b).

For all transactions reported within the SSA, both sport-related and other non-sport-related supply and use activities are reported in an SUT-S approach. Sport-related final demand is recognised in accordance with the "cured" Vilnius Definition of Sport. The other non-sport-related transactions are summarised within the SSA for reasons of clarity. However, this approach ensures that there is always a link to the macroeconomic key figures of the NA.

3.5 THE NATIONAL SSA MONITORING

Since 2014, the pilot study and its basic studies have initially been evaluated and revised as part of the monitoring programme (cf. Ahlert et al. 2018) and then regularly updated, partially updated and further developed. Partially updated means that, for research economic reasons, the total amount of data collected in the basic studies was not continuously updated 1:1 to the same level of detail. The depth of data on the sport economy originally obtained through comprehensive primary surveys was updated and validated through targeted, economically sensible and efficient additional primary surveys as well as secondary data analyses, secondary literature and the use of suitable indicators.

4 SSA RESULTS ON THE ECONOMIC IMPORTANCE OF SPORT IN GERMANY

Since spring 2023, detailed SSA results on the economic importance of sport have been available for the reporting years 2010 to 2019. They are based on the annual results of special sport-related evaluations of the national IOA by the Federal Statistical Institute, the updated primary statistical studies and further sport economic studies and other data from official statistics.¹¹

4.1 A FIRST OVERVIEW

The development of the economic importance of sport in the 2010 to 2019 reporting period was influenced in particular by the following factors: from a sporting perspective, the two mega-events in 2012 were particularly noteworthy: The Summer Olympics in London and the UEFA European Football Championships in Poland and Ukraine. The latter was then held in neighbouring France in 2016. If they take place in neighbouring European countries, major sporting events can also have a positive economic impact in Germany. The early elimination from the 2019 FIFA Men's World Cup in neighbouring France reduced the potential positive economic impact of the event in Germany to a minimum.

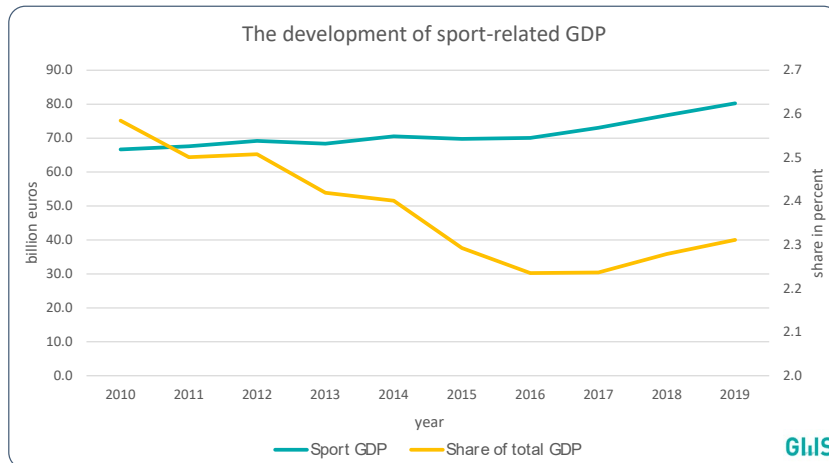
From an economic perspective, the reporting period is heavily characterised by the negative effects of the EU debt crisis, which temporarily slowed the overall growth momentum of the German economy and brought deflationary trends with it, which only came to a halt with the start of the Covid-19 pandemic in 2020. This development has also left its mark on the German sport industry, as competition has intensified even further in recent years (e.g. low-budget gyms, Black Friday promotions in retail) and consumer behaviour has changed (e.g. internet shopping, digital media). Overall, however, it is clear that people's spending on sport-related services increased by more than 40% between 2010 and 2019. The service providers in NACE class 93.1 (including sports clubs, sport facility operators, fitness centres, sports leagues), which are characteristic of the sporting industry, have benefited in particular from this positive development. The export-strong manufacturing industry in particular benefited from the challenging global economic context by significantly increasing both their exports and imports. For instance, in the product group "textiles, clothing, leather and leather goods," which includes sportswear, both exports (+63%) and imports (+52%) exhibited substantial growth between 2010 and 2019.

In economic terms, both positive and negative effects impacted sport as a cross-sector industry during the reporting period. However, it is clear that the service-oriented sport industry is currently 'weakening' compared to the export-oriented industrial economy (and the closely related business services). Between 2010 and 2019, the contribution of sport to gross domestic product (GDP) fell by 0.3 percentage points from 2.6% in 2010 to 2.3% in 2019. In absolute terms, however, the sport-related contribution to GDP

¹¹ The German SSA results are mainly focusing on reports by Ahlert et al. 2019, 2021 and 2023 as well as BMWI (2021).

increased by €9.4 billion from €66.7 billion in 2010 to €80.3 billion in 2019. Especially at the end of the reporting period in 2019 – before the outbreak of the Covid-19 pandemic in March 2020 – sport-related GDP realised slightly stronger growth of 4.6%, while the economy as a whole only recorded an increase of 3.1%. This also explains the increase in the share of sport in GDP at the end of the reporting period in the following chart.

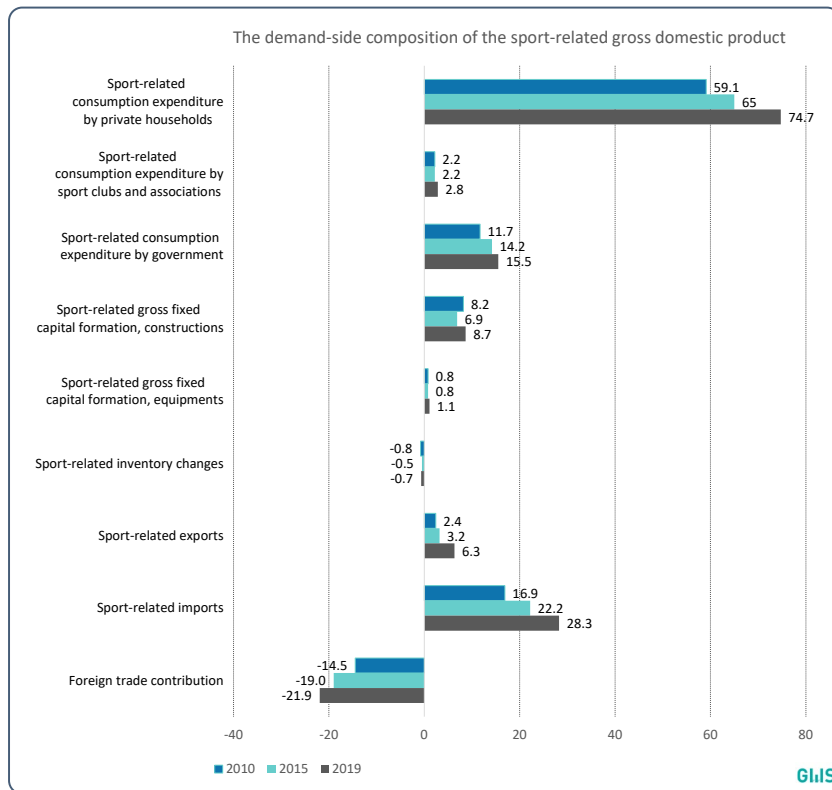
Figure 5. The development of sport-related GDP between 2010 and 2019 in Germany



Source: own calculations

Figure 6 illustrates the demand-side composition of the sport-related GDP for the reporting years 2010, 2015 and 2019. Obviously the economic impact of sport is predominantly driven by the sporting activities of citizens and the related consumption activities of private households. In addition, the state also makes a contribution to sport-related GDP with its sport-related public consumption activities. Furthermore, investment in domestic sport infrastructure has a positive effect on sport-related GDP. Conversely, the negative foreign trade contribution resulting from high imports of goods due to sport and has a negative effect on sport-related GDP. Imports are caused by the fact that the import share of sport-related goods is comparatively high at both the intermediate and final product level due to the international division of labour and globalised flows of goods.

Figure 6. The demand-side composition of the sport-related gross domestic product in the years 2010, 2015 and 2019 (figures in billion euros in current prices)



4.2 DETAILED NATIONAL SSA RESULTS

The following Table 1 shows the development of the macroeconomic indicators used in the demand-side calculation of sport-related GDP in the German SSA. In order to provide a more precise categorisation, the individual sport-related indicators are supplemented by information on the economy as a whole and on the development of the sport-related share of the economy. The second last column of the table shows the percentage change in each variable between the first reference year 2010 and the last reference year 2019. Finally, the last column indicates the related average annual growth rates. The last two columns allows a quick analysis of the different dynamics of each variable.

Table 1. Demand-side GDP indicators for the German SSA for the reporting period 2010 to 2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change in percent 2019 compared to 2010	average annual growth rate
Gross domestic product, in billion euros												
Entire economy	2,580.1	2,703.1	2,758.3	2,826.2	2,938.6	3,043.7	3,134.1	3,267.2	3,367.2	3,472.4	34.6%	3.4
sport-related	66.7	67.6	69.2	68.4	70.6	69.8	70.1	73.1	76.7	80.3	20.4%	2.1
% of total	2.6	2.5	2.5	2.4	2.4	2.3	2.2	2.2	2.3	2.3	/	/
Final consumption expenditure by private households, in billion euros												
Entire economy	1,407.0	1,454.0	1,494.7	1,472.4	1,541.3	1,577.2	1,573.9	1,654.6	1,667.4	1,717.8	22.1%	2.2
sport-related	59.1	60.8	62.1	62.3	65.3	65.0	66.1	70.0	72.1	74.7	26.5%	2.7
% of total	4.2	4.2	4.2	4.2	4.2	4.1	4.2	4.2	4.3	4.4	/	/
Final consumption expenditure by private non-profit organizations, in billion euros												
Entire economy	39.3	41.5	43.3	50.9	52.8	53.3	45.4	47.9	49.2	51.4	30.9%	3.0
sport-related	2.2	2.3	2.6	2.6	2.6	2.2	2.7	2.8	2.8	2.8	27.7%	2.8
% of total	5.7	5.6	5.9	5.1	5.0	4.2	6.0	5.8	5.8	5.5	/	/
Final consumption expenditure by government, in billion euros												
Entire economy	493.3	505.7	519.7	542.9	563.9	587.1	620.0	648.2	670.4	703.1	42.5%	4.0
sport-related	11.7	12.4	13.3	13.6	13.7	14.2	14.2	14.7	15.0	15.5	32.7%	3.2
% of total	2.4	2.5	2.6	2.5	2.4	2.4	2.3	2.3	2.2	2.2	/	/
Gross fixed capital formation, in billion euros												
Entire economy	506.3	569.8	532.5	551.5	577.0	582.8	633.5	684.9	737.7	768.3	51.7%	4.7
sport-related	8.2	8.5	7.5	7.3	7.1	7.2	7.1	7.2	7.6	9.1	10.8%	1.1
% of total	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.2	/	/
Exports, in billion euros												
Entire economy	1,090.1	1,211.5	1,268.3	1,257.7	1,341.3	1,426.7	1,420.9	1,540.9	1,570.1	1,596.8	46.5%	4.3
sport-related	2.4	2.7	2.7	3.9	3.4	3.2	4.2	5.2	6.3	6.3	162.0%	11.3
% of total	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.4	/	/
Imports, in billion euros												
Entire economy	956.0	1,079.3	1,100.3	1,049.1	1,137.8	1,183.4	1,159.7	1,309.3	1,325.4	1,363.0	42.6%	4.0
sport-related	16.9	19.1	18.9	21.3	21.6	22.2	24.2	26.8	27.1	28.3	67.0%	5.9
% of total	1.8	1.8	1.7	2.0	1.9	1.9	2.1	2.1	2.0	2.1	/	/
Foreign trade contribution, in billion euros												
Entire economy	134.1	132.1	168.0	208.6	203.5	243.3	261.3	231.6	244.8	233.9	74.4%	6.4
sport-related	-14.5	-16.4	-16.2	-17.4	-18.2	-19.0	-20.0	-21.6	-20.8	-21.9	51.2%	4.7
% of total	-10.8	-12.4	-9.6	-8.3	-8.9	-7.8	-7.7	-9.3	-8.5	-9.4	/	/

Source: own calculations

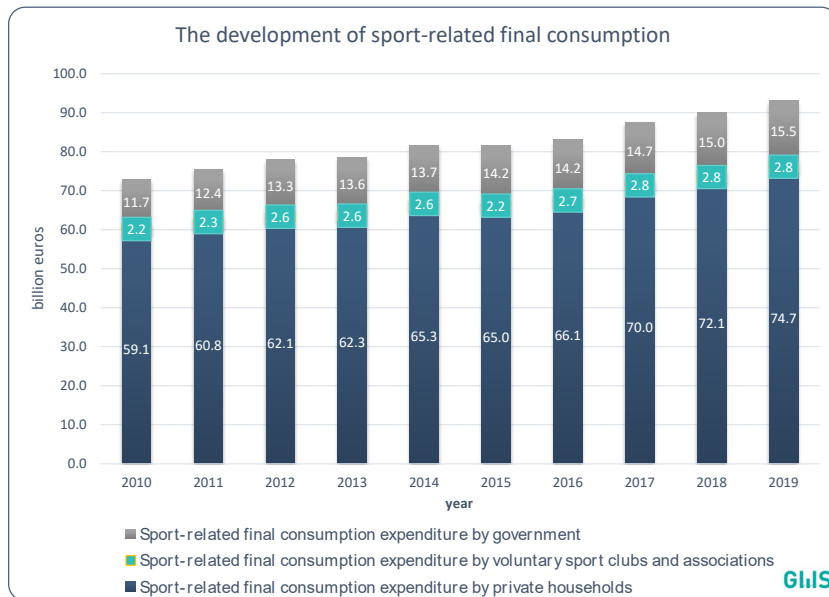
4.3 SPORT-RELATED FINAL CONSUMPTION EXPENDITURE

Figure 7 shows the development of sport-related final consumption expenditure for the three components ‘private households’, ‘sports clubs and associations’ and ‘government’ over the entire reporting period.

The following sub-chapters takes a step-by-step look at the development of the individual components. We begin with private household expenditure on sport. It is a central component of the GDP category ‘private consumption expenditure’. In general, the demarcations of private household expenditure differs from that of private household consumption expenditure. This is due to the fact that, for analytical reasons, the accounting treatment of some COICOP¹² based expenditure purposes within household budget surveys (and also in the national SSA project-accompanying sport-related private household expenditure survey) is different in the NA (e.g. expenditure on membership fees for non-profit voluntary sports clubs, donations to voluntary sports clubs and associations).

¹² The Classification of individual consumption by purpose, abbreviated as COICOP, is a classification to classify and analyze individual consumption expenditures incurred by households, non-profit institutions serving households and general government according to their purpose.

Figure 7. The development of sport-related final consumption expenditure between 2010 and 2019 in Germany



Source: own calculations

4.3.1 OVERVIEW OF PRIVATE HOUSEHOLD EXPENDITURE ON SPORT

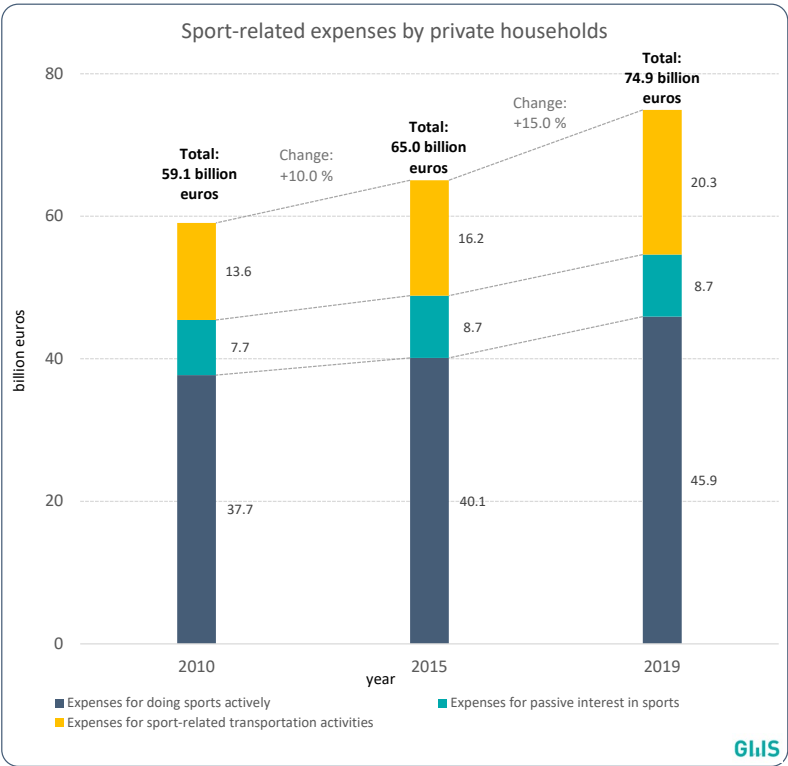
The private household expenditure on sport was substantiated several times during the reporting period by the sport-related expenditure survey of private households by types of sport resp. sporting activities, as explained in the previous section. The individual sport-related expenditure pattern of people resident in Germany was divided into expenses due to active practice and due to passive interest in certain types of sport resp. sporting activities. Within both expenditure surveys the (necessary) transportation costs due to sport activities have been recorded. For analytical reasons, they are summarised here as a separate third component alongside private household expenditure on active and passive sport. The following two figures provide an initial overview of the basic structure of sport-related spending patterns of private households.

Final consumption by private households due to sport in Germany rose from €59.1 billion in 2010 to €74.7 billion in 2019. In 2019, private households spent around €45.0 billion (or 61%) of total sport-related expenditure on active sport, not including the necessary sport-related transport expenditure. Approximately €9.7 billion (or 12%) was spent on passive interest due to sport – again excluding the necessary sport-related transport expenditure.

A markable increase compared to 2010 was only generated due to higher expenses for sport-related transportation purposes (+4%) due to individual and public passenger transport. This can be attributed in particular to changes in transportation costs (especially fuel prices) and related demand. A total of €20.3 billion (or 27% of all sport-related expenditure) was spent on active and passive sports activities in 2019.

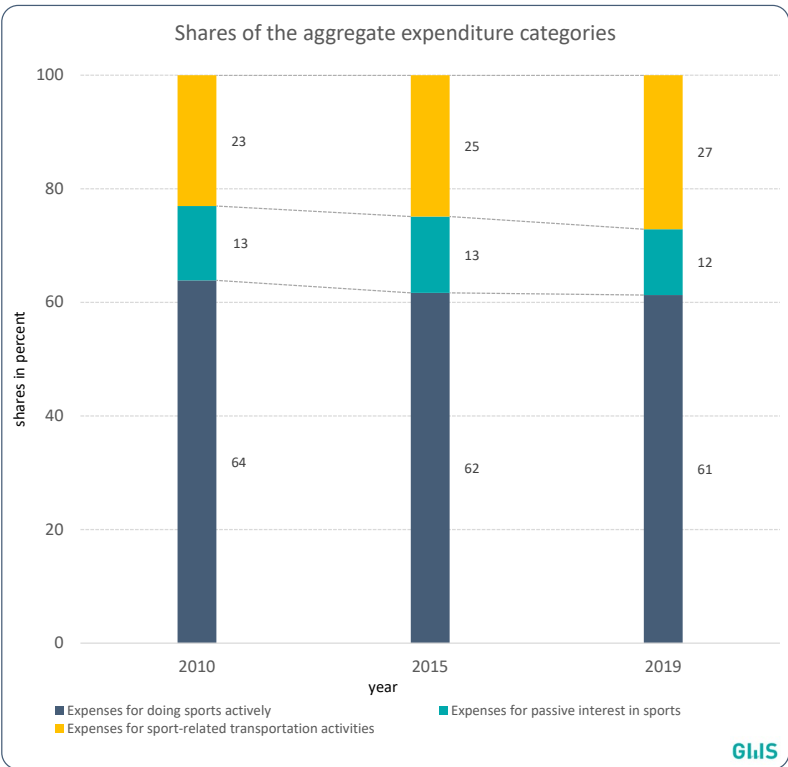
In the following two sub-chapters, active and passive sport-related spending activities of private households are analysed separately. By doing so we receive a more precise understanding concerning their specific sport-related expenditure pattern.

Figure 8. Sport-related expenses by private households for aggregate expenditure categories in the years 2010, 2015 and 2019



Source: own calculations. Totals may vary due to rounding.

Figure 9. Sport-related expenditure structure (shares) by private households for the aggregate expenditure categories



Source: own calculations. Totals may vary due to rounding.

4.3.1.1 Changes in sport participation by types of sport

The basic input concerning the expenditure due to sports activities within the German SSA is a representative household survey of sports activity due to active and passive sports and the related expenditure by people. For operational and analytical reasons the Vilnius-Definition related expenditure pattern due to sport activities therefore was linked to 71 types of sport resp. sporting activities (for more details see also chapter 3.3.1). The introduction of this very sport-specific dimension within the German SSA gives a very strong substantiation in the measurement of the individual sport-related expenditure pattern and also allows a sport sociological analysis that goes beyond the “pure” economic analysis (cf. Repenning et al. 2022a & b). The following table shows an example of this.

Table 2 shows the top 10 sports played by adults in 2020 – the first year of the COVID-19 pandemic – in both, simple ranking and according to the proportion of the population who played the sport at least once a year. Cycling was therefore still the sport practised by most people in 2020, i.e. as in the previous survey years. 42% of the adult population had been active on a bicycle at least once. Compared to 2017, there was even an increase of 6 percentage points in the cycling population. Running or jogging, hiking and fitness follow in second to fourth place, which were also generally practised by a larger proportion of the population in 2020. Running shows the highest increase in basically active persons with plus 10 percentage points, closely followed by hiking with 9 percentage points. In 2020, running and hiking also moved up 2 places in the absolute ranking from 4th and 5th place respectively.

Table 2. Top 10 sports of the adult population (16-84 years) for the years 2010, 2017 and 2020 in comparison

Sport				Actives			
Ranking 2020 (2017) (2010)				in % of adult population			
by actives in the adult population (16+ years)				(16+ years) 2020 (2017) (2010)			
1	➡ 1	1	Cycling	42%	➡ +6% -pt.	36%	34%
2	➡ 4	4	Running/Jogging	34%	➡ +10% -pt.	24%	25%
3	➡ 5	3	Hiking	33%	➡ +9% -pt.	24%	27%
4	➡ 3	5	Fitness	31%	➡ +7% -pt.	24%	17%
5	➡ 2	2	Swimming	29%	➡ -7% -pt.	36%	31%
6	➡ 9	9	Health Sports	14%	➡ +2% -pt.	12%	14%
7	➡ 8	11	Football	14%	➡ +1% -pt.	13%	11%
8	➡ 7	8	Gymnastics	13%	➡ -2% -pt.	15%	14%
9	➡ 12	23	Pilates, yoga etc.	13%	➡ +4% -pt.	9%	5%
10	➡ 6	6	Bowling	10%	➡ -9% -pt.	19%	16%

Source: Calculations and presentation by 2HMforum (Repenning et al. 2022b)

Overall, it can also be seen from the table above that (rather) non-organised, i.e. less frequently practised in a club, outdoor sports¹³ were practised by higher shares of the population in 2020. Fitness sports were also practised by more people in 2020 than in 2017 (plus seven percentage points), despite dropping one place in the ranking. Within the top 10, swimming and bowling are the sports with the most significant declines.

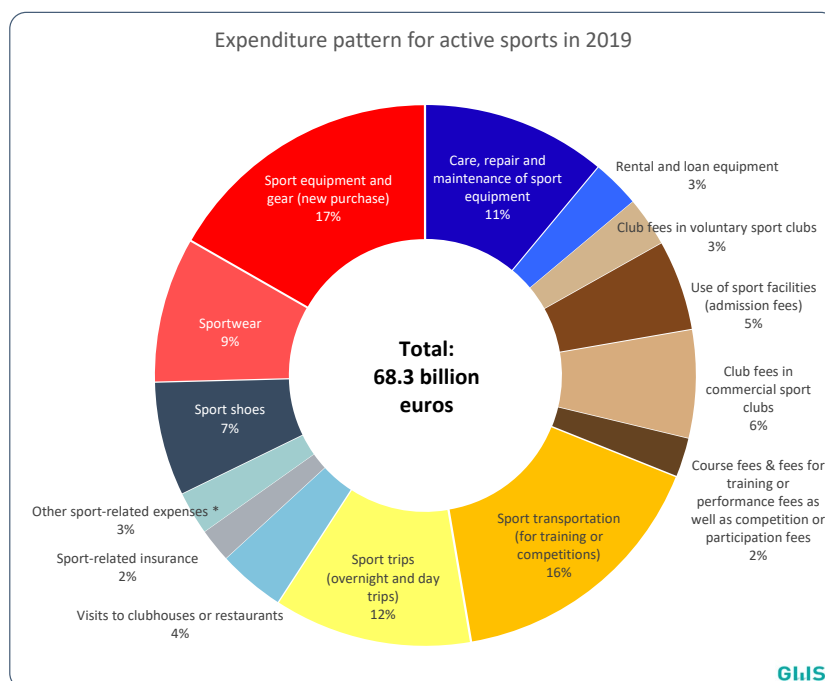
¹³ The heterogenous sports cluster "outdoor sports" was analysed in the report 'Current Data on Sports Economy' (cf. Repenning et al. 2017).

Swimming loses seven percentage points in exercise and drops from second to fifth place in the ranking. Bowling is down by almost half with nine percentage points and slips from 6th to 10th place. Overall, there are clear "winner sports" and "loser sports", whereby in the high-volume outdoor sports, in some cases considerably higher shares of the population were "activated" than in the previous survey years.

4.3.1.2 Expenditure due to active sport activities

Figure 10 is focusing on the sport economic analysis again. It illustrates the expenditure pattern of private households for doing sports. In Germany, a total of around €68 billion was spent on active sport in 2019.¹⁴ The highest expenditure shares are attributable to purchases of sport equipment and gear (17%), expenses for sport-related transportation (16%), expenses for sport trips (12%) and expenses for care, repair and maintenance of sport equipment (11%). The two very typical sport product categories 'sportswear' and 'sport shoes' make up a share of 9% and 7% of total sport-related expenditure for doing actively sports. The two characteristic sport service-related expenditure categories 'Club fees in commercial sport clubs' and 'Club fees in voluntary sport clubs' make up a share of 6% and 3%.

Figure 10. Expenditure pattern of private households for doing sports actively (figures in percent of total active sports expenditure, reporting year 2019)



Source: own calculations

4.3.1.3 Expenditure due to passive interest in sport

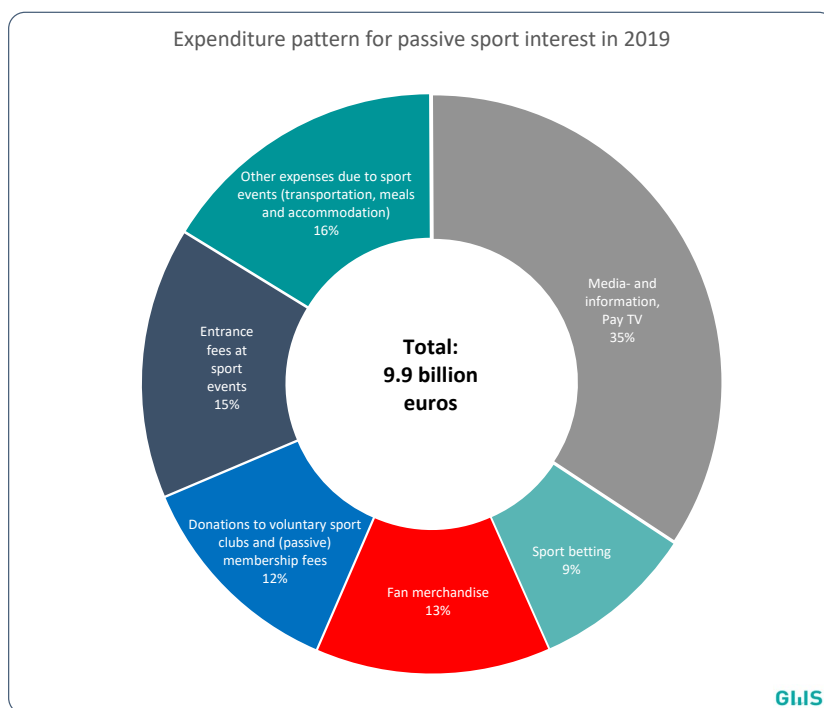
Figure 11 shows the expenditure pattern of private households due to passive interest in sport for the year 2019. In the underlying survey, all expenditure by private households

¹⁴ Thereof parents spent €6.2 billion on sport for children and young people (aged between 5 and 15) in 2019 (cf. Repenning et al. 2021).

that was spent on sport without the person themselves being actively doing sports was recorded.

In 2019 people spent a total of around €9.9 billion due to passive interest in sport. The highest expenditure share is attributable to expenses for media- and information and pay TV fees (35%). The two very typical passive sport-related expenses for visiting sport events 'entrance fees' and 'other expenses due to sport events' sum -up to 31% resp. 15% and 16%. Strongly related to passive interest for sport are the expenses for 'fan merchandise' (13%) and 'sport betting'. The latter makes up a share of 9% of total sport-related expenditure due to passive interest in sports. Finally 12% are attributable to donations to voluntary sport clubs and (passive) membership fees.

Figure 11. Expenditure pattern of private households for passive interest in sports (figures in percent of total passive sports expenditure, reporting year 2019)



Source: own calculations

4.3.2 SPORT-RELATED CONSUMPTION EXPENDITURE BY PRIVATE HOUSEHOLDS

Sport-related consumption in Germany is most strongly determined by household expenditure, both for active sporting activities and for general passive interest in sport. At around €77.7 billion, this is the largest expenditure component of final demand for sport-related goods and services, accounting for a good 4.4% of total household consumption (€1,717.8 billion). During the period under review, there was an absolute increase in demand for sport-related goods and services (+€15.7 billion). The period from 2014 to 2016 was characterised by a general reluctance to spend on the part of consumers. As a result, the prices of many sport-related goods rose very slowly, and some even declined. As a result, consumers were able to afford some of their sport-related activities and interests for less money and increased their overall sport-related consumption only slightly. Its weak price development has somewhat slowed the longer-term growth

momentum of sport-related consumption by private households. This was particularly true at the beginning of the period in the years 2010 to 2012. It was only from 2016 to the end of the reference period in 2019 that sport-related final consumption by households (+13.0%) grew slightly faster than total final consumption expenditure by households (+9.1%).

In total, sport-related consumption expenditure by households has therefore only developed slightly more dynamically over the entire reporting period from 2010 to 2019 compared to total private household consumption expenditure (+26.5% vs. +22.1%).

4.3.3 SPORT-RELATED CONSUMPTION BY VOLUNTARY SPORTS CLUBS AND ASSOCIATIONS

In 2019, voluntary sports clubs and sports associations provided their members with consumable services worth a good €2.8 billion free of charge. This includes the use of the clubs' own sport facilities and sports courses as well as the performance competitions and training courses organised jointly by sports clubs and sports associations. Over the entire reporting period, the share of consumption by sport organisations in total German consumption by private non-profit organisations has recently declined slightly and accounted for 5.5% in 2019.

4.3.4 SPORT-RELATED CONSUMPTION BY GOVERNMENT

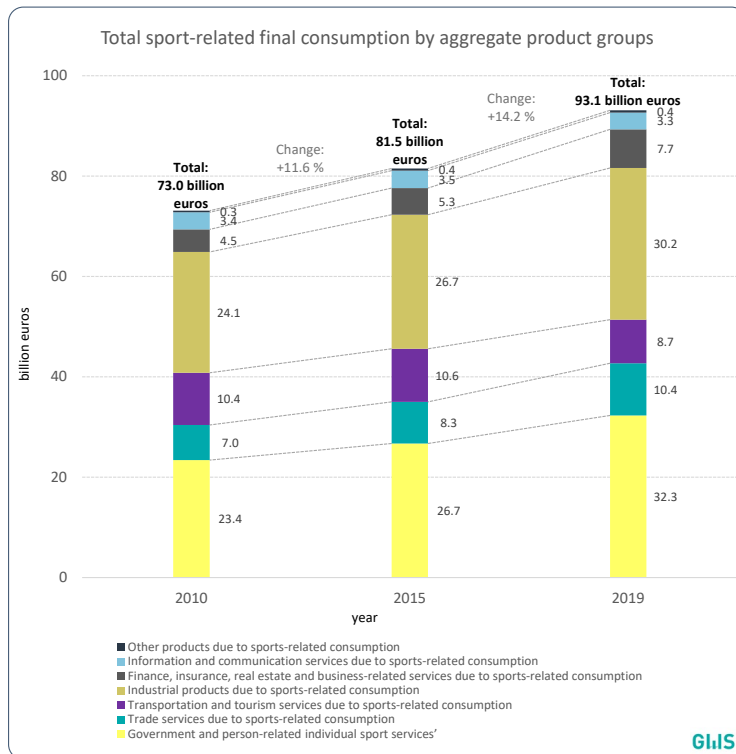
In 2019, government consumption for sports purposes reached a total of €15.5 billion. This represents approximately 2.2% of total government consumption expenditure. This share declined slightly over the entire reporting period. However, due to the steady growth in government consumption expenditure between 2010 and 2019, there was still an absolute increase in sport-related government consumption expenditure (+€3.8 billion). This includes sport-related services provided by regional authorities (federal, state and local governments as well as social insurance funds) that are made available to citizens as social benefits in kind (e.g. as part of statutory health insurance) or as non-individualisable consumer spending (collective consumption, e.g. spending on school, popular and elite sport) without special remuneration. The monitoring carried out for the reporting period 2010 to 2019 thus shows that sport-related public consumption has developed somewhat more slowly than general public consumption (+32.7% vs. +42.5%). Especially in the years 2016 to 2018, government measures in response to the high influx of refugees provided a very strong stimulus to government consumption (+8.1%).

4.3.5 THE PRODUCT STRUCTURE OF SPORT-RELATED FINAL CONSUMPTION EXPENDITURE

Finally, with a view to analysing final sport-related consumption expenditure, its product structure is considered. For analytical purposes, the three subcomponents¹⁵ are summarised again in the following two figures for the years 2010, 2015 and 2019.

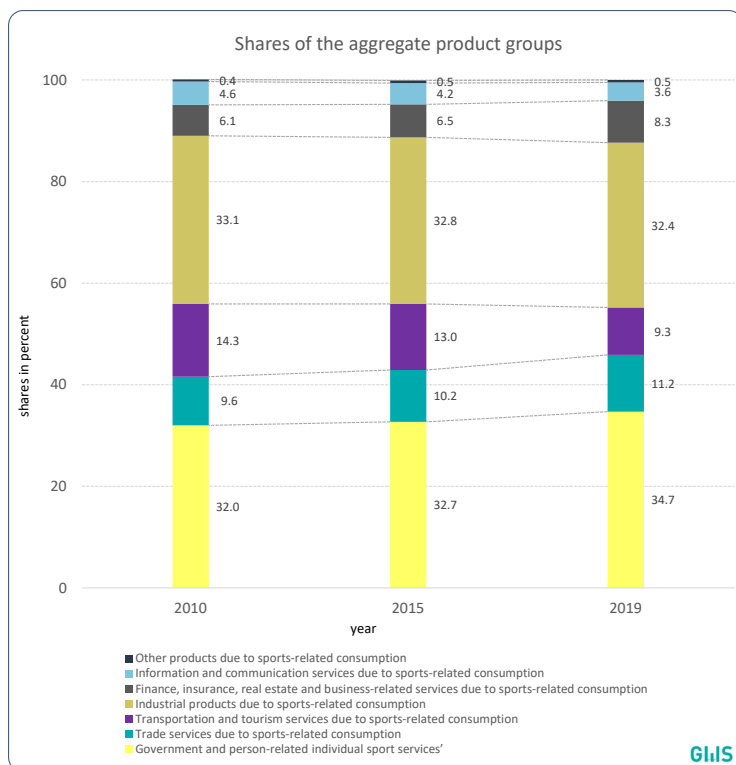
¹⁵ private households, voluntary sport clubs and associations, government

Figure 12. Total sport-related final consumption (nominal values in current prices) by aggregate product groups for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 13. Sport-related consumption structure (shares) by aggregate product groups for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 12 shows that the sport-related final consumption expenditure in Germany rose to €93.1 billion in 2019. The strong increase compared to 2010 was mainly driven by sports services and sporting goods, as well as closely related retail services. Figure 13 below, depicts the percentage development of the product structure for the three years under review. The strongest percentage increase in sport-related final consumption was recorded by the aggregate product group 'government and person-related individual sport services' (+2.7%). Conversely, the largest percentage decrease was recorded for the product group 'transportation and tourism services' (-5%).

4.4 SPORT-RELATED GROSS FIXED CAPITAL FORMATION

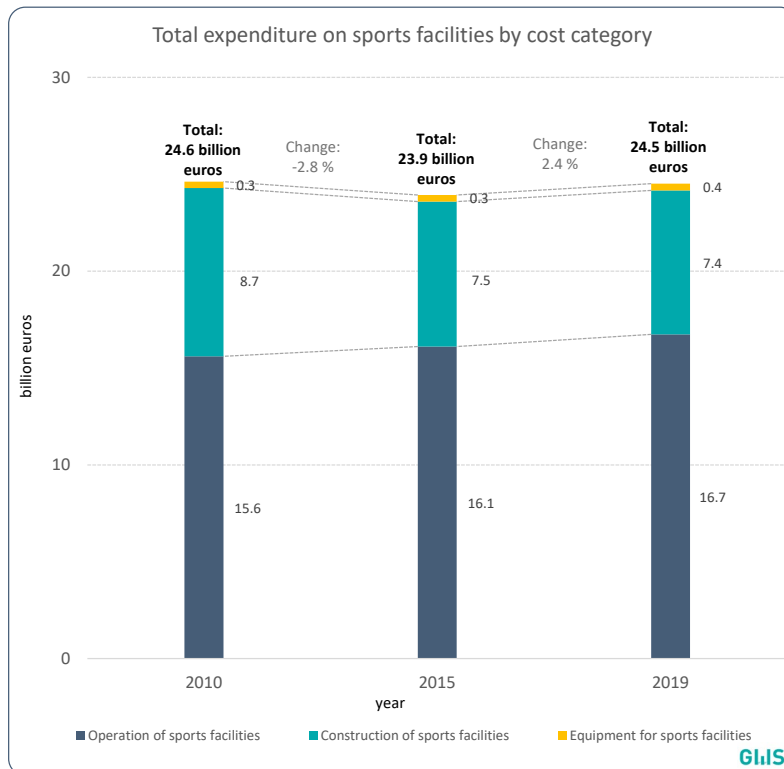
In 2019, the sport-characteristic industries (mainly NACE class 93.1) invested a total of €9.1 billion in the construction and modernisation of sport facilities. This represents around 1.2% of overall capital formation activity (see Table 1).

Overall economic investment demand developed very positively from 2010 to 2019 (+51.7%) due to the recovery of the global economy in the wake of the 2008 financial crisis with a gradual upturn in investment in equipment and very lively domestic construction activity as a result of low interest rates. This was also evident at the end of the reporting period in 2019 with strong growth of +4.1%. In contrast, sport-related investment demand declined by a total of -6.5% between 2010 and 2018. This is primarily due to the fact that sport also benefited from government measures to stabilise the economy in the years 2009 to 2011. During the three-year period, funds from the second economic stimulus package worth €2.4 billion were used to modernise sport facilities.

From the 2012 reporting year onwards, however, it can be observed that the lower annual investment budgets regularly set for sports infrastructure investments are once again being realised and the level has returned to that prior to the crisis in 2008. In addition, sport-related investment activity initially declined in the first few years after 2011 as a result of increased government budget consolidation efforts in the course of implementing the national stability programme (€7.1 billion in 2014). It was not until the end of the reporting period in 2018 and 2019 that there was an increasing revival. In 2019, sport-related investment demand grew by +19.8% to €9.1 billion in 2019. This strong increase is due to both the sharp rise in construction prices and demand-driven additional municipal investment in sport facility infrastructure. However, at +10.8 % over the entire period from 2010 to 2019, sport-related investment momentum cannot match the overall economic investment momentum (+51.7 %).

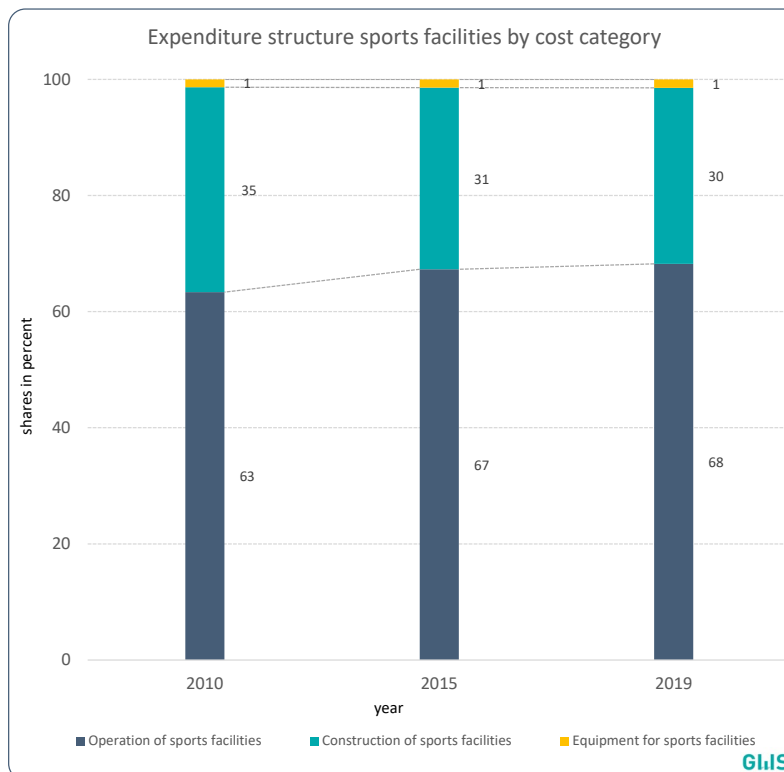
Finally the following two figures provide an overview concerning the total expenditure on sport facilities by the three cost categories 'operation of sports facilities', 'construction of sport facilities' and 'equipment for sport facilities' for the years 2010, 2015 and 2019 in Germany. In terms of expenditure, the economic relevance of sports facilities in Germany was stable at around €24.5 billion. Between 2010 and 2015, construction costs decrease while operating costs increase. For sport facilities providers the latter contain intermediate and primary inputs which determine their cost structure. Figure 15 shows that in 2019 these current expenses accounted for more than 68%, while capital formation related expenses in constructions and equipment accounted only for about 31% in total.

Figure 14. Total expenditure on sport facilities by cost category for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 15. Sport facilities related expenditure structure (shares) by cost category for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

4.5 FOREIGN TRADE CONTRIBUTION OF THE SPORT INDUSTRY

Exports of sporting goods were characterised by extraordinary momentum throughout the reporting period and amounted to €6.3 billion in 2019. This represents a strong increase of +162.0% or €3.9 billion compared to 2010 and shows that German suppliers of sporting goods have been able to massively expand their competitive position in international trade in recent years. As expected, however, significantly more goods and services were imported into Germany due to the direct demand for sport-related activities. In 2019, imports of sport-related goods accounted for around 2.1% (or €28.3 billion) of all imported goods. This is an increase of +67.0% or €11.3 billion compared to 2010.

As a result, the foreign trade contribution of the sport industry as the balance of sport-related exports and imports developed negatively due to the continuously increasing import surpluses in the reporting period as a result of the ongoing globalisation of the goods markets. It fell by €7.4 billion to €21.9 billion in the period from 2010 to 2019, making a significant contribution to the comparatively weak development of sport-related GDP. Despite rising sport-related consumption expenditure, this only recorded growth of 20.4% over the entire reporting period from 2010 to 2019.

4.6 PRODUCTION OF THE SPORT INDUSTRY

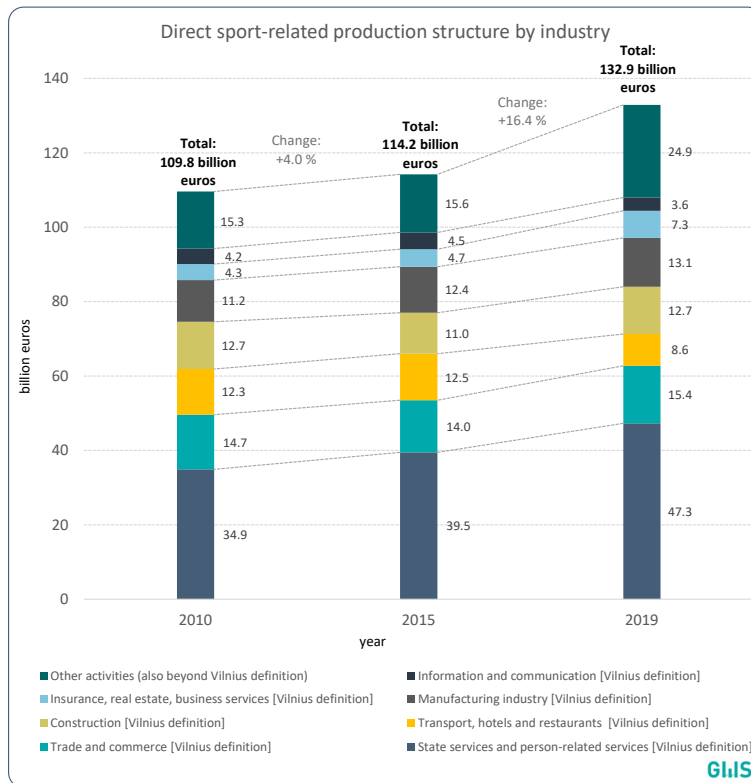
Table 3 shows the results of the SSA calculations for the production side of GDP. The calculations for the reporting period indicate that the production of sports goods and services in Germany reached a value of €132.9 billion in 2019. This represents a 21.1% growth in the sport industry, as defined by the SSA, in comparison to 2010. Concurrently, the broader economy demonstrated a 34.1% expansion in production activity. At the end of the reporting period in 2019, the growth momentum of sport-related production had increased significantly by 4.8%. This is of course attributable to the comparatively strong development of the individual components of sport-related final demand described above. Despite the absolute increase in sports-specific production of €23.1 billion over the entire reporting period, this nevertheless represented a decline in relation to overall economic production of 0.2 percentage points to 2.1%. Its momentum was clearly 'slowed down' by the continuous increase in sport-related imports.

Table 3. Production-side GDP indicators for the German SSA for the reporting period 2010 to 2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change in percent 2019 compared to 2010	average annual growth rate
Gross production, in billion euros												
Entire economy	4,776.1	5,112.0	5,144.8	5,205.1	5,379.2	5,497.8	5,733.2	6,239.8	6,227.9	6,405.2	34.1%	3.3
sport-related	109.8	114.5	113.7	112.6	115.1	114.2	113.5	124.8	126.7	132.9	21.1%	2.1
% of total	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	/	/
Revenue from net taxes on goods, in billion euros												
Entire economy	258.4	275.0	279.7	283.6	292.1	303.4	312.3	323.1	332.0	342.7	32.6%	3.2
sport-related	8.4	7.6	8.8	8.8	8.9	9.2	8.9	8.9	9.5	10.0	19.7%	2.0
% of total	3.2	2.8	3.2	3.1	3.0	3.0	2.8	2.8	2.9	2.9	/	/
Gross value added, in billion euros												
Entire economy	2,321.7	2,428.1	2,478.6	2,542.7	2,646.4	2,740.2	2,821.8	2,944.1	3,035.2	3,129.7	34.8%	3.4
sport-related	58.3	60.0	60.3	59.6	61.7	60.6	61.2	64.2	67.2	70.2	20.4%	2.1
% of total	2.5	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	/	/

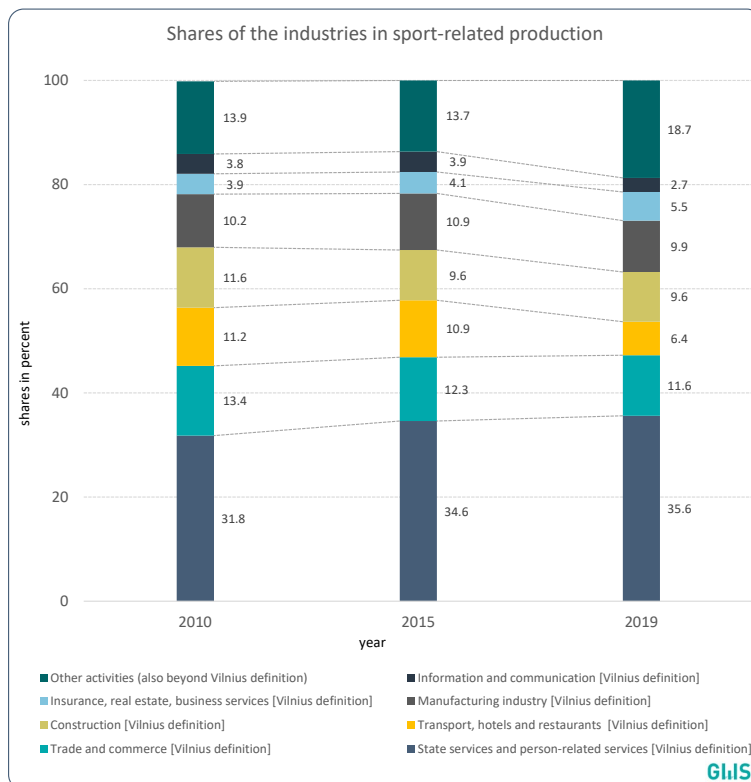
Source: own calculations

Figure 16. Direct sport-related production (nominal values in current prices) by economic activities (industry) for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 17. Sport-related production contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 16 provides an overview of the production contributions of the individual economic sectors to total direct sport-related production for the years 2010, 2015 and 2019. The dynamics of sport has increased significantly in recent years (+16,4% between 2015 and 2019). In 2019 the total production of the sport industry amounted to almost €133 billion. In 2019 goods from the 'manufacturing industry' account for approx. 9.9% of total sport-related production. This share does not include the sport-related output of the 'construction industry'. They account for 9.6% of all sport-related turnover. Around 11.6% of sport-related production activities can be attributed to the trade and commerce sector. As expected, services account for 50% of total sport-related production. These include the economic sectors 'transport and hospitality services' (6.4%), 'banking and insurance, real estate and business-related services' (5.5%), 'information and communication' (2.7%) and 'state services and person-related services' (35.6%).

The residual 'Other activities (also beyond the Vilnius Definition)' includes activities that were demanded because of sport, but are not sport-related according to the Vilnius Definition (1.0 & 2.0). This includes products from the chemical industry (e.g. detergents and cleaning agents), construction and finishing trade services, motor vehicle trade services and petrol stations.

In 2019, the turnover share of these production activities, which has been growing slowly over time, accounted for around 18% resp. €24.2 billion of total sport-related production.

4.7 SPORT-RELATED TAX REVENUE

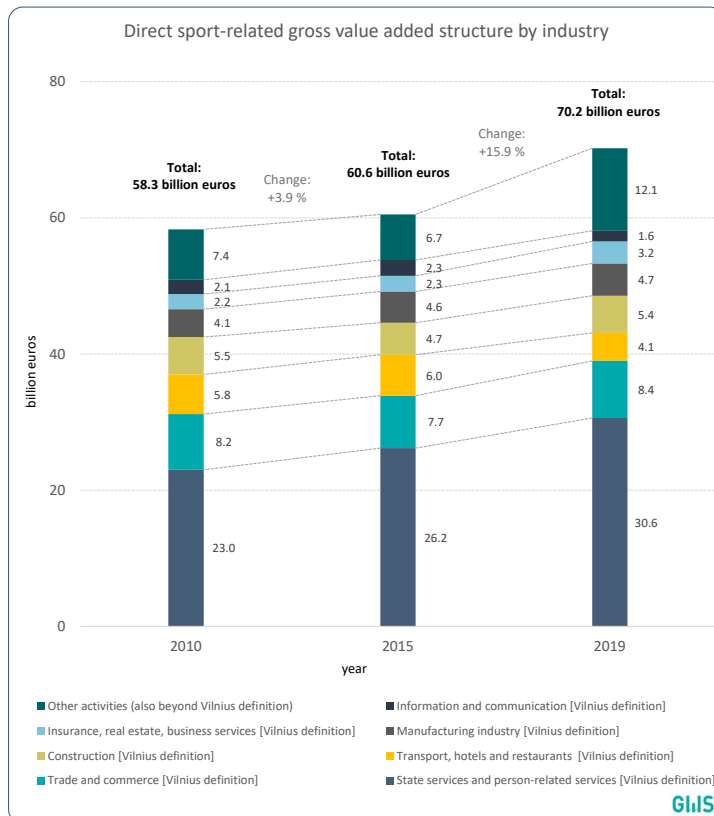
In 2019, companies paid net taxes on goods totalling around €10.0 billion to the state as a result of sport-related production activities. Less subsidies paid, this includes non-deductible VAT, import duties and other taxes on goods. The sport-related revenue from net taxes on goods accounts for 2.9% of total revenue and declined slightly by 0.3 percentage points in the reporting period from 2010 to 2019, in line with the sport-related share of overall economic production.

4.8 GROSS VALUE ADDED OF THE SPORT INDUSTRY

The weaker growth of sport-related production (+2.3% per year on average from 2010 to 2019) compared to overall economic production growth (+3.8% per year on average from 2010 to 2019) is also reflected in the development of GVA (see Table 3). In 2019, €70.2 billion of the €3,129.7 billion of gross value added in the economy as a whole was generated by sport. Although the gross value added of the sport industry has increased by €11.9 billion since 2010, the share of sport-related value added in total economic value added still fell by 0.3 percentage points over the period. In 2019, sport-related value added accounted for 2.2% of total gross value added.

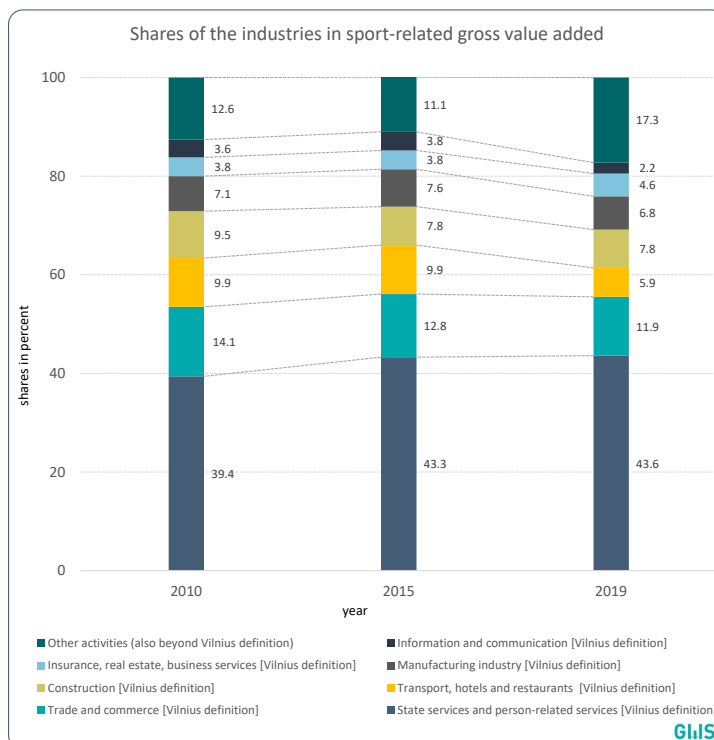
More specifically, the following two figures show the contribution of sport-related production activities to the gross value added of the respective industries in economy for the years 2010, 2015 and 2019 in euro and as a percentage of the total value added of the sport industry.

Figure 18. Direct sport-related gross value added (nominal values in current prices) by economic activities (industry) for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 19. Sport-related value added contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Due to sectoral differences in the share of value added in production, there are shifts in the percentage shares (compared with Figure 17). In particular, the services sector showed significant growth compared to 2010. They very often have a higher primary inputs and thus value added because they use fewer intermediate inputs in the production process. The sector 'State services and person-related services', which is particularly relevant to sport, benefits from this. This aggregated sector also includes the economic activities characteristic of sport (i.a. NACE class 93.1).

4.9 EMPLOYMENT OF THE SPORT INDUSTRY

In Germany, more than 1.2 million people were employed in 2019 as a result of the sport-related activities recorded within the SSA (see Table 4). This was 2.7% of all 45.27 million people in employment. Due to the extremely positive overall economic development at the end of the reporting period, an increase in employment of 10.4% or more than 4.2 million people was realised between 2010 and 2019.

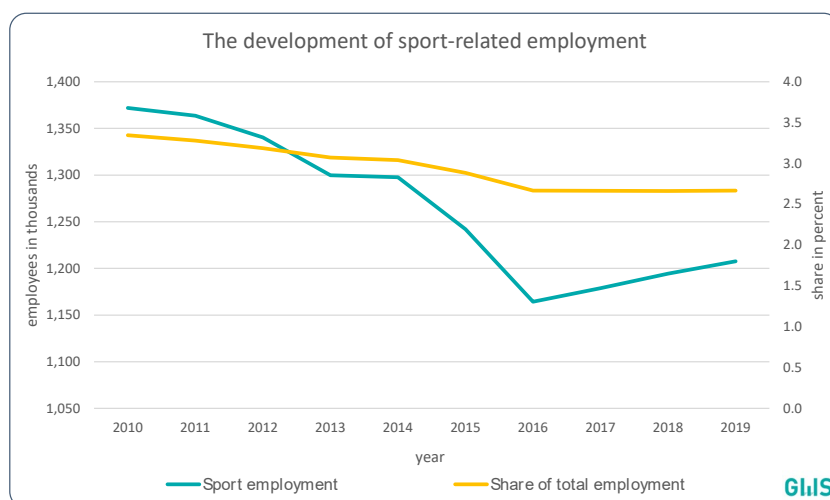
Table 4. Development of sport-related employment for the SSA reporting period 2010 to 2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change in percent 2019 compared to 2010	average annual growth rate
Employed persons, in thousands												
Entire economy	41,020	41,577	42,061	42,319	42,671	43,069	43,661	44,251	44,866	45,277	10.4%	1.1
sport-related	1,372	1,364	1,340	1,300	1,298	1,242	1,164	1,179	1,194	1,208	-12.0%	-1.4
% of total	3.3	3.3	3.2	3.1	3.0	2.9	2.7	2.7	2.7	2.67	/	/

Source: own calculations

However, the sport industry with its sport-related goods and services was unable to keep pace with this momentum.

Figure 20. The development of sport-related employment between 2010 and 2019 in Germany



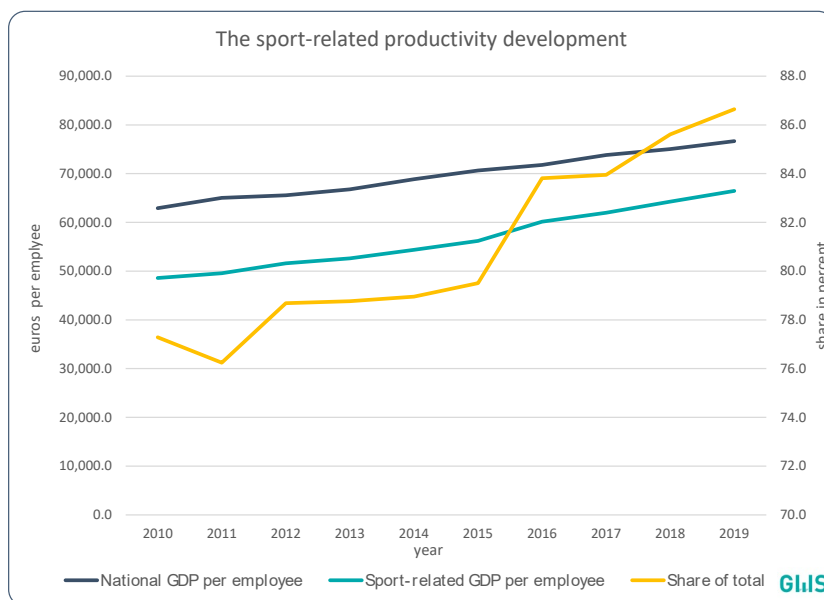
Source: own calculations

Between 2010 and 2019, in a difficult market environment that only generated slight growth in value added, it even recorded a decline in employment of 12% or around 164 thousand employees due to cost pressure and productivity gains. Nevertheless, 2017

started a reversal of this unfavourable trend, with a slight increase of around 15 thousand people in employment for the first time (see Figure 20). This positive trend continued in 2019 and is due to the massive expansion of employment relationships subject to social insurance contributions in the NACE 93.1 'Sports activities' sector throughout the entire reporting period from 2010 to 2019 (see Table 5).

The increased employment share of 2.7% compared to the sport-related value added share of 2.2% is due to the significantly higher proportion of part-time and marginally paid employees within the sport industry. This applies in particular to the wide range of sport-related services provided by private providers of sports, recreational and cultural education services (NACE class 85.5) and providers of sports activities (NACE class 93.1). This also had a positive effect on the productivity development of the sport industry, which is measured as GDP per employee in the last years of the reporting period.¹⁶

Figure 21. The sport-related productivity development between 2010 and 2019 in Germany

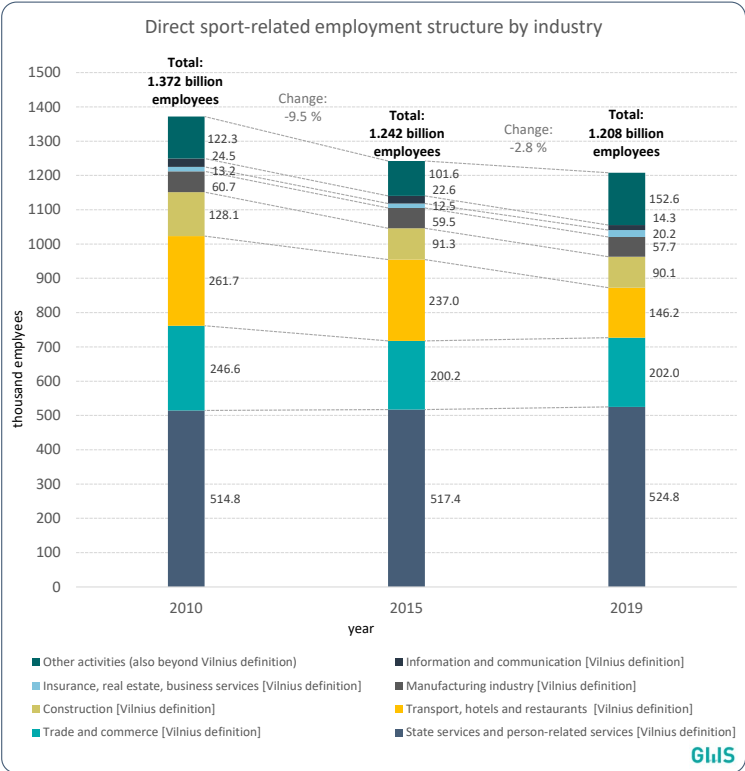


Source: own calculations

Figure 21 shows that the productivity level of the entire economy is generally significantly higher than that of the sport industry. At the same time, however, sport-related productivity in the sport industry has developed somewhat more strongly in comparison to the economy as a whole. Its productivity level rose continuously by ten percentage points over the reporting period to 87% of total economy.

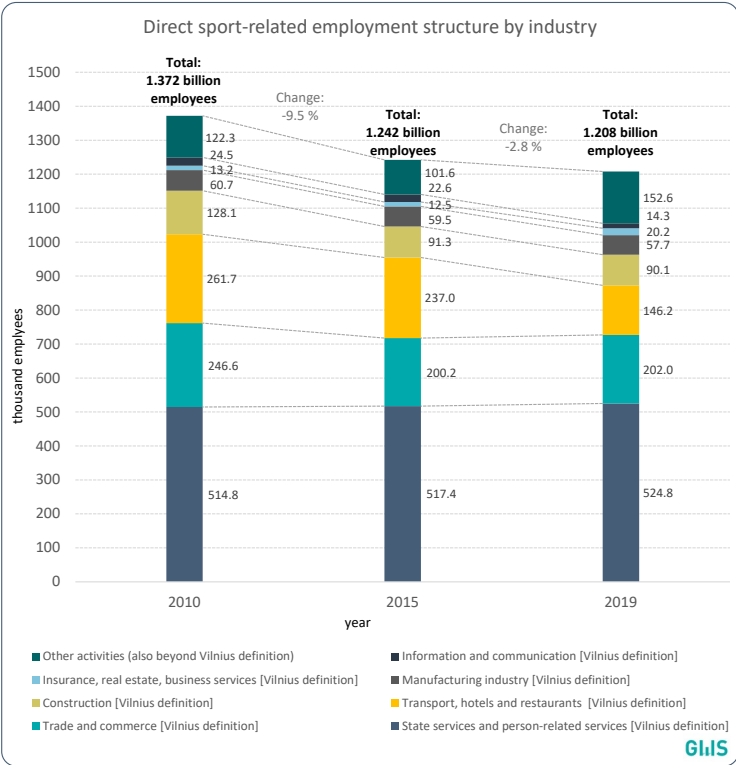
¹⁶ Unfortunately, due to partial lack of data, it is not possible to measure productivity based on working hours.

Figure 22. Direct sport-related employment by economic activities (industries) for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 23. Sport-related employment contribution (shares) by industry for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

The two figures on direct sport-related employment by economic activities show the contributions of the sport-related economic sectors to employment of the sport industry for the years 2010, 2015 and 2019 in thousand employees and as a percentage of the total employment the sport industry. While the share of employment in services sectors remains high, there are declining trends in the sectors ‘construction’, ‘transport, hotels and restaurants’, and ‘trade and commerce’.

4.10 EMPLOYMENT IN NACE GROUP ‘SPORTS ACTIVITIES’

The market-based production concept of the NA usually only deals with the employment contained in the labor market statistics. This also applies to the national SSA.¹⁷ Nevertheless, large parts of the sports economy in Germany cannot function without the voluntary commitment. In addition to membership fees, they often also contribute to their sports club through donations, unpaid contributions in kind and work. In this way, they ensure the provision of a diverse and affordable range of club activities, which also teach valuable social virtues for the benefit of social cohesion.

4.10.1 PAID EMPLOYMENT

An in-depth analysis of the development of employment in paid work in the period from 2010 to 2019 for NACE-3-digit group ‘Sports activities’ (see Table 5) shows that the sport-characteristic component of the NACE-2-digit division ‘Sports activities and amusement and recreation activities’ was able to escape the rather unfavorable overall employment trend in the sport industry over the entire reporting period (cf. Table 4).

Table 5. Employees subject to social security contributions and marginally employed people in Germany for NACE group 93.1 ‘Sports activities’ for the SSA reporting period 2010 to 2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	change in % 2019 compared to 2010	average annual growth rate
Employees fully subject to social security contributions in NACE 93.1: Sports activities												
Total	69,969	72,834	74,616	75,669	79,137	92,150	97,747	103,078	107,093	109,754	36.2%	5.1
by NACE-4-digit level (classes):												
Sports facility operation services, 93.11	27,595	28,454	24,891	25,037	26,399	25,799	25,406	26,032	26,554	27,357	-0.9%	-0.1
Services of sport clubs, associations, 93.12	26,188	27,950	24,540	26,313	26,027	29,949	31,217	32,950	34,554	35,080	25.3%	3.3
Services of fitness facilities, 93.13	12,086	11,872	19,015	17,924	20,167	26,780	30,005	31,920	33,214	33,849	64.3%	12.1
Other sporting services, 93.19	4,100	4,558	6,170	6,395	6,544	9,622	11,119	12,176	12,771	13,468	69.6%	14.1
Marginal employment (mini-jobs) in NACE 93.1: Sports activities												
Total	134,975	141,446	144,846	143,161	144,990	145,013	149,528	155,153	160,863	169,771	20.5%	2.6
by employment status:												
Exclusively marginally employed	74,258	75,123	74,414	76,729	81,280	79,530	80,798	82,215	83,216	86,524	14.2%	1.7
Marginally employed as a sideline	60,717	66,323	70,431	66,432	63,710	65,483	68,730	72,938	77,647	83,247	27.1%	3.6

Sources: Bundesagentur für Arbeit (2011 ff.), Statistisches Bundesamt (2011 ff., own calculations)

The number of employees subject to social security contributions has risen continuously by 56.9% from just under 70 thousand in 2010 to nearly 110 thousand in 2019. This increase in employment by about 40 thousand people was primarily generated by ‘services of commercial fitness facilities’ (NACE-4-digit class 93.13), as more than 22

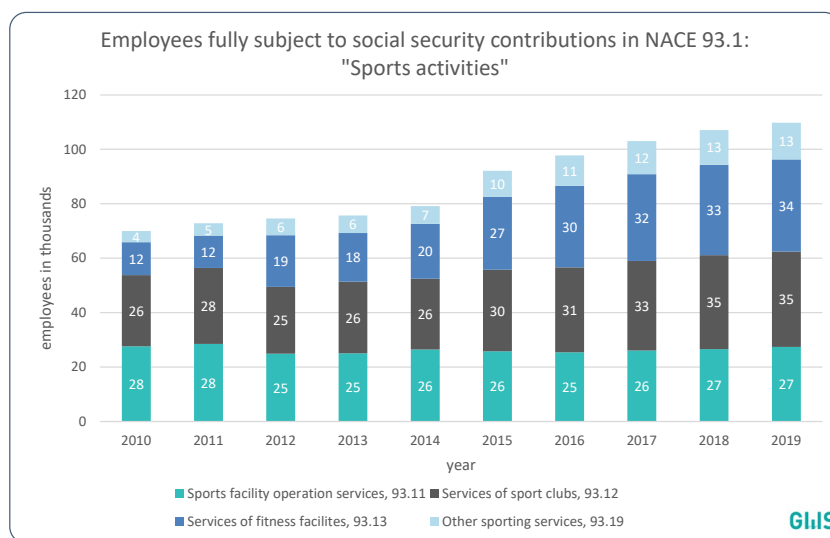
¹⁷ In the EVIS (Economic dimension of volunteers in sport) study, a first attempt was made to analyse and quantify the “hidden” value added contribution by voluntary sports clubs in a more systematic way in an economic context using IOA (see Grohall et al. 2022). However, the quantification realised shows considerable weakness due to research budget constraints.

thousand additional employees subject to social insurance contributions were hired in this sector. This was particularly in the period from 2014 to 2016 in the context of the introduction of the statutory minimum wage in 2015. During this period, they significantly increased the number of employees subject to social insurance contributions (by around 10 thousand or +48.8%). In 2019, the number of employees subject to social security contributions was nearly 34 thousand.

The class 'Other sports activities' (NACE 93.19¹⁸) recorded – at a very low employment level in 2010 with about 4 thousand employees – even greater growth (+228.5%). The class 'Sports clubs and associations' (NACE 93.12) also hired more than 9 thousand additional employees between 2010 and 2019. Besides the activities of voluntary sports clubs and associations this NACE-4-digit class contains also their commercial professional activities. In 2019, the number of employees subject to social insurance contributions was about 35 thousand. Only the class 'Operation of sports facilities' (NACE 93.11) recorded a slight decline (-0.9%) in employment between the years 2010 and 2019. In 2019, this class comprised more than 27 thousand employees subject to social security contributions.

In addition, almost 170 thousand people were in marginal employment (so-called “mini jobs”) in 'sports activities' (NACE group 93.1). The development of marginal employed as a sideline (83 thousand people in 2019) shows a greater dynamic (+37.1%) between 2010 and 2019 compared to exclusively marginal employment due to sport-characteristic activities (+16.5%) and a workforce of more than 86,5 thousand people in 2019.

Figure 24. Employees fully subject to social security contributions in NACE group 93.1 'Sports activities' between 2010 and 2019 in Germany



Source: own calculations

Figure 24 summarises graphically the development of the sectoral employment structure

¹⁸ This comparatively heterogeneous class includes i.a. activities of producers or promoters of sport events, activities of individual own-account sportsmen and athletes, referees, judges, timekeepers etc., activities of sports leagues and regulating bodies, activities of racing stables, kennels and garages, operation of sport fishing and hunting preserves.

(fully subject to social security contributions) for the reporting period for the sports-characteristic group 93.1.

4.10.2 UNPAID VOLUNTARY EMPLOYMENT DUE TO SPORT

The diverse programmes offered by non-profit voluntary sports clubs (a component of NACE-4-digit class 93.12) convey important values and virtues such as fairness, tolerance, openness and motivation in a special way. These are mainly supported and provided by the voluntary commitment of many club members in permanent positions at board, section and executive level (including coaches and trainers, referees and judges).

The Sports Development Report¹⁹ published in 2022 shows the high relevance of volunteering (see Breuer & Feiler 2022). In 2019, members of the almost 90 thousand sports clubs were involved in a total of around 2 million permanent volunteer positions. Around 1.3 million of these positions were held by men and 0.7 million by women.

The SDR published in 2017 also found that, on average, 13.4 hours of work per month were provided free of charge in sports clubs by members in permanent voluntary positions (Breuer 2017). Extrapolated to one year, this means that more than 203 thousand people (measured in full-time equivalents) performed unpaid work in the context of voluntary work.

This estimate does not yet include the services provided by volunteers who also participated in separate ad hoc work assignments free of charge (e.g. at sport events and club festivals, driving services, renovations). In 2019, around 6.7 million members also volunteered to help sports clubs with relevant work assignments.

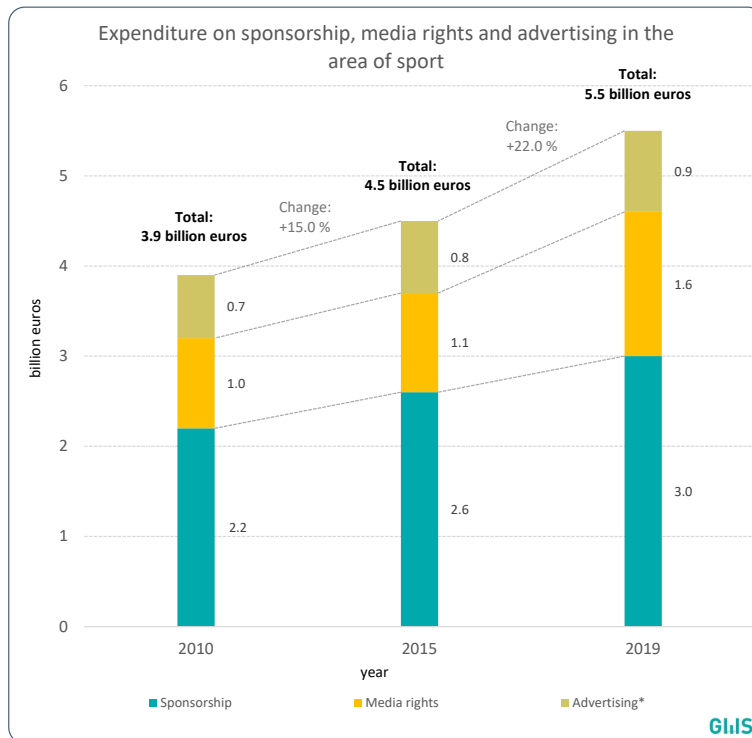
The figures presented on the voluntary commitment of sports club members show that they make an important contribution to society with their unpaid work – beyond the market-oriented recording of economic transactions in the employment statistics and the SNA (including the SSA presented here).

4.11 SPORT-RELATED ADVERTISING, MEDIA RIGHTS AND SPONSORSHIP

Sponsorship and product advertising, along with the trade in media rights, have emerged as a significant source of revenue for professional top class sport as well as for popular “grassroots” sports between 2010 and 2019.

¹⁹ The 'Sport Development Report' (SDR) was first commissioned by the Federal Institute of Sports Science (BISp) in 2002 under the heading 'Social Reporting in German Sport'. It has proved to be a successful further development of the so-called Financial and Structural Analyses of German Sport (FISAS) studies. The SDR is published under the title “Analyses of the Situation of Sports Clubs in Germany” with the aim of providing decision-makers in organised sport as well as in public sport policy and administration with timely information relevant to policy fields and management (argumentation and know-how). The SDR is based on an online sports clubs survey. For more information see https://www.bisp.de/DE/Home/Shiny_Projects/SEB.html

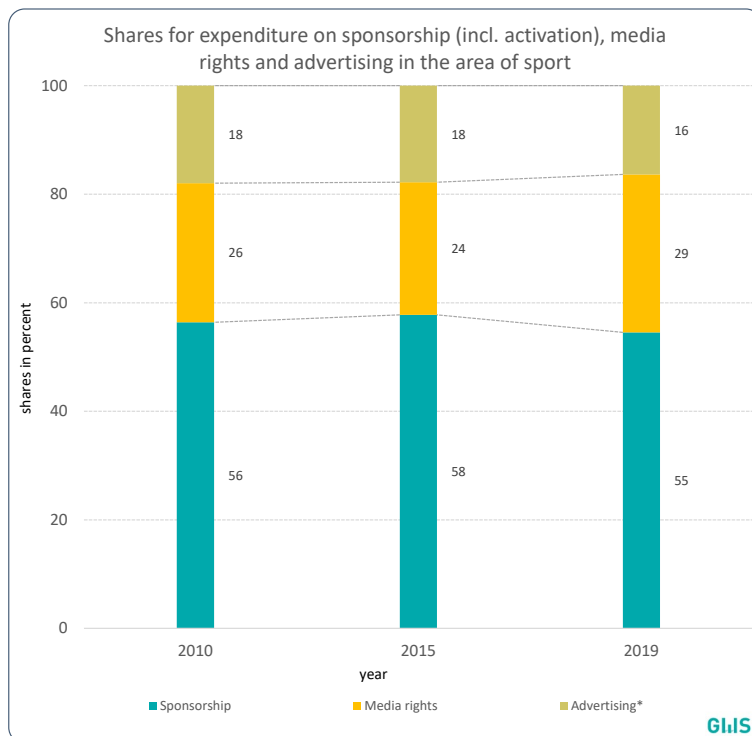
Figure 25. Expenditure on sponsorship (incl. capitalisation), media rights and advertising in the area of sport for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

*Flat-rate extrapolation based on the development of advertising expenditure in general.

Figure 26. Expenditure structure on sponsorship (incl. activation), media rights and advertising in the area of sport for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

*Flat-rate extrapolation based on the development of advertising expenditure in general.

To assess the economic impact of financing sport through advertising, broadcasting rights (especially on TV) and sponsorship, a representative company survey was carried out and updated within the national SSA implementation project (cf. Chapter 3.3.3). Some of the results for the years 2010, 2015 and 2019 are presented in the two figures above. Figure 25 shows the development of expenditure by companies on sponsorship (incl. capitalisation), media rights and advertising in the area of sport. Figure 26 below also shows the proportional development of the three components of total sport-related advertising expenditure.

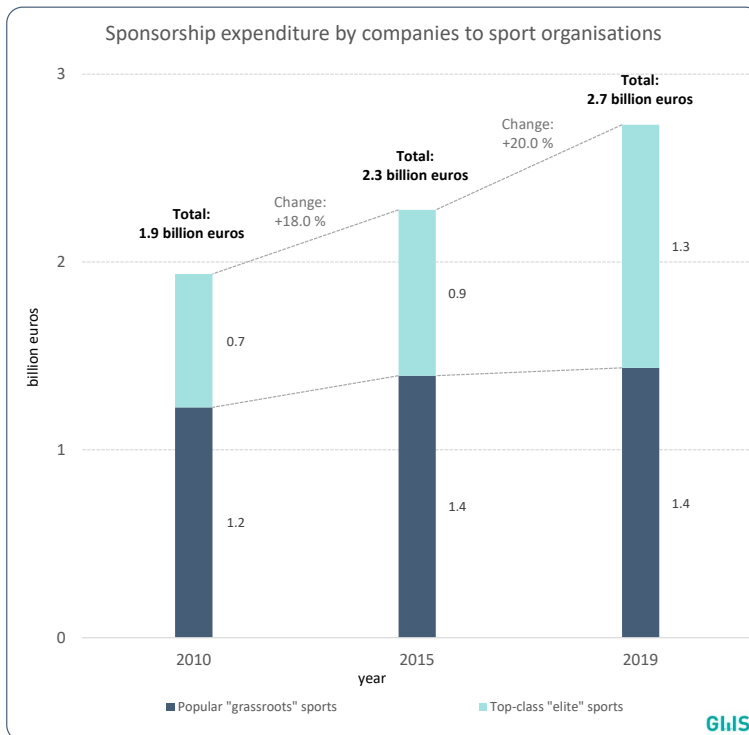
The economic relevance of sport due to sport-related advertising activities in the fields of sponsorships, media rights and classical product advertising amounted to around €5.5 billion in 2019. Compared to 2010, this represents an increase of more than +40%.

Sport-related sponsorship as the most important component refers to all product, image and media sponsorship activities in favour of sport (e.g. individual sportsmen, athletes, sport teams, sport events) in the form of money, materials and services. This usually takes place through the purchase of licence rights. The sport-related sponsorship expenditure presented in this figure includes also the capitalisation costs for the utilisation of the acquired licence rights along the advertising value chain on both sides of the contract. Sponsorship expenditure on sport rose by €0.8 billion between 2010 and 2019, reaching around €3.0 billion in 2019. In 2019, companies spent about 55% of their money on sponsoring sport.

Companies spent around €1.6 billion on sport-related media rights in 2019. This is an increase of +60% compared to 2010 and shows their growing importance. In 2019, they accounted for almost 30% of total expenditure due to sport-related advertising activities. Sport-related media rights are those that are clearly linked to the media coverage or broadcasting of a sport event or competition. This also includes costs for secondary and third-party rights if a separate exploitation right had to be acquired for them.

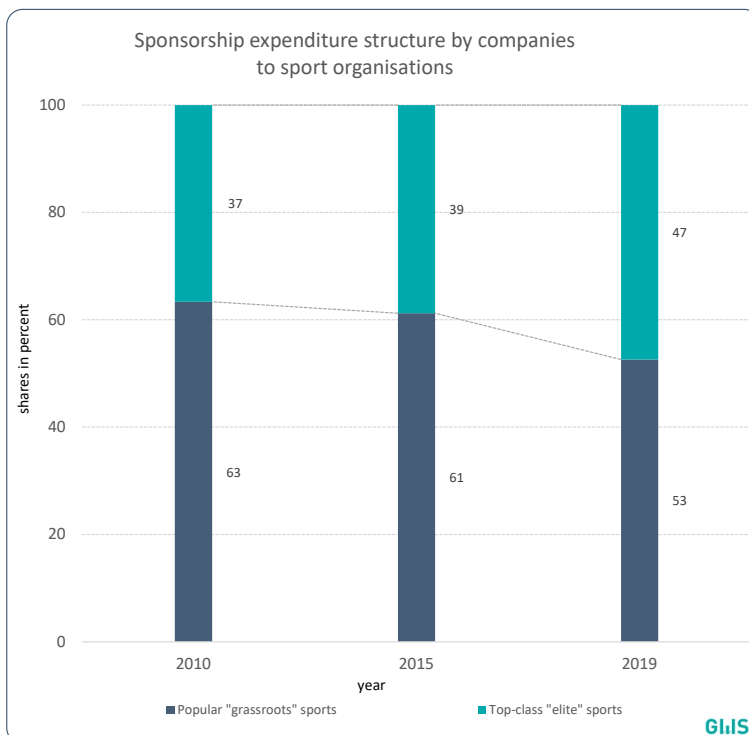
For the purposes of this research project, traditional sport-related advertising was considered to be independent of sponsorship-related advertising activities. Advertising is considered sport-related only if it is commissioned directly by manufacturers of sport goods (i.e. goods primarily produced for sport use) for the purpose of better product marketing. Sport-related advertising grew slightly from €0.7 billion to €0.9 billion between 2010 and 2019. This was due to a weak overall advertising market and the reallocation of budgets to cheaper internet and social media advertising. However, with a share of 16% of total sport-related advertising expenditure, their importance is the lowest. As a result of the slight decrease in share, there was also a slight decrease in the overall relevance of sport-related advertising expenditure in favour of sport during the reporting period.

Figure 27. Sponsorship expenditure (without capitalisation) by companies to sport organisations in popular “grassroots” and top-class “elite” sports for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Figure 28. Sport-related expenditure structure on sponsorship (without capitalisation) by companies to sport organisations in popular “grassroots” and top-class “elite” sports for the years 2010, 2015 and 2019 in Germany



Source: own calculations. Totals may vary due to rounding.

Finally, Figure 27 shows the development of sponsorship expenditure (without activation) by companies to sport organisations in popular “grassroots” and top-class “elite” sports for the years 2010, 2015 and 2019 in Germany.²⁰ Figure 28 directly below also shows their proportional development. Overall, sponsorship in favour of sport organisations increased by +42% to €2.7 billion between 2010 and 2019. However, between 2010 and 2019, sponsorship of sport organisations increased less for popular sports (+17%) than for top-level sports (+85%). The latter benefited from corporate sponsorship expenditure and recorded additional revenues totalling €0.6 billion in the reporting period which corresponds. In 2019, they recorded a total of €1.3 billion in sponsorship revenues. In contrast, popular “grassroots” sports were only able to realise a slight increase (+€0.2 billion).

However, in Germany the focus of sport-related sponsorship is shifting to top-class “elite” sports. Over the past decade, popular “grassroots” sports have increasingly lost out to top-class “elite” sports in the competition for sponsorship money. Their share of total corporate sponsorship expenditure in favour of sport organisations fell by ten percentage points to 53% in 2019.

²⁰ Top-class “elite” sports is defined by participation in nationally and/or internationally significant competitions. Popular “grassroots” sport is defined by exclusion from top-class “elite” sports. Any sport that is not practised as a top-class sport is a popular sport.

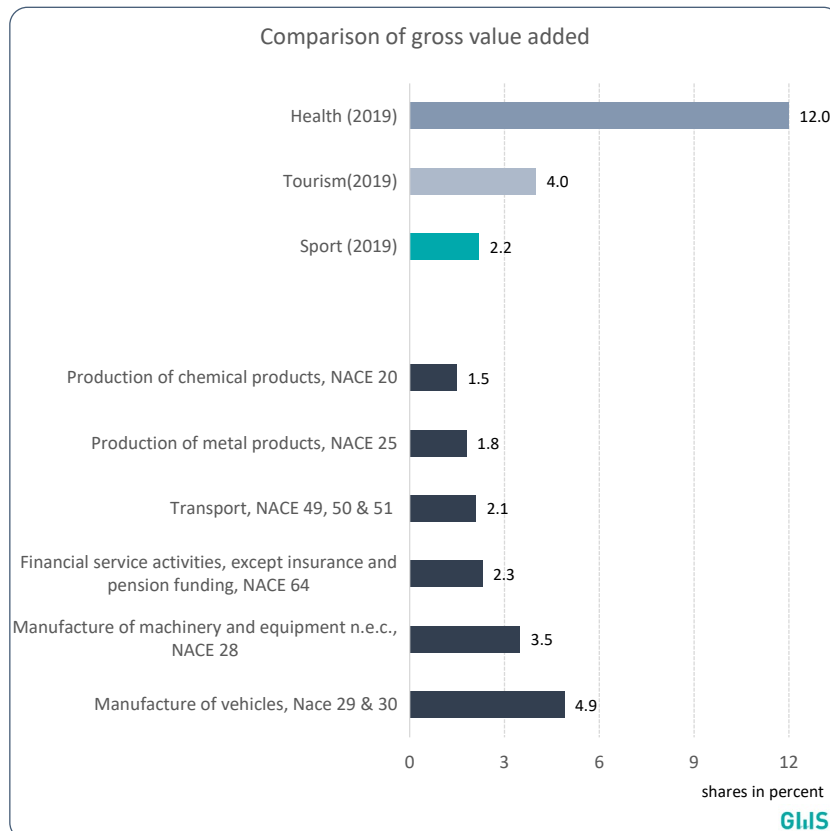
5 INDUSTRY COMPARISONS AT NATIONAL AND INTERNATIONAL LEVEL

5.1 COMPARISON OF SATELLITE ACCOUNTS RESULTS AT NATIONAL LEVEL

The healthcare and tourism industries are also cross-sectoral industries par excellence. For both, basic concepts for supplementary functional thematic satellite accounts (Health Satellite Account (HSA), Tourism Satellite Account (TSA)) were already developed at the international level at the end of the 1990s. These were already included in the 'System of National Accounts' manual at the end of the last decade on the basis of practical experience gained worldwide during implementation (cf. European Communities et al.: 2009).

Figure 29 compares the value added contributed by different economic activities for Germany in the year 2019 before the outbreak of the Covid-19 pandemic. The upper part of the figure compares the GVA related to the cross-sectoral industry of sport (2.2%), calculated comprehensively for 2019, with that of the cross-sectoral industries of health (12.0 %) and tourism (4.0 %). All results were calculated in separate satellite accounts in accordance with harmonised international standards.

Figure 29. Comparison of gross value added shares for various economic activities (industry) with results for the cross-sectional activities of health, tourism and sport in Germany in 2019



Sources: Statistisches Bundesamt 2022a, Statistisches Bundesamt 2021, BMWK 2022, own calculations

The results of the national SSA research project fit into the 'results landscape' of other thematic satellite accounts. One might also intuitively expect that the value-added contribution of both tourism and, in particular, the health industry, would be higher than of the sport industry to the economy as a whole.

Alternatively, a comparison can also be made with the directly generated GVA of a traditional²¹ economic industry according to the classification of economic activities (NACE) for better categorisation. In 2019, the cross-cutting sport industry was slightly above the value added contribution of the German metal industry (NACE division 25) and roughly on a par with the transport sector (NACE divisions 49, 50 & 51).

5.2 NON-ADDITIVITY OF SATELLITE ACCOUNTS RESULTS

Official economic statistics are usually organised in a supply-oriented way. The categorisation of different economic activities (industries) is based on the goods and services that enterprises in these sectors mainly produce. The allocation of enterprises to sectors is also based on this information. Changes are regularly adjusted in the course of audits by the national statistical offices. Against this background, it is comparatively easy to determine production, value added and employment in a bottom-up process across all economic sectors.

The key challenge in the economic statistical coverage of cross-cutting economic activities such as sport and tourism is that they are made up of activities along the respective value chain in several of the sectors defined on the supply side, such as the clothing industry, the transport industry, the accommodation industry or sport service providers. Furthermore, not all of the economic activities included in these sectors are related resp. connected to the cross-cutting activity per se, but only to the extent that they are actually in demand due to the thematic field-specific activity (e.g. tourism or sport). There may also be overlaps (e.g. sport-related travel expenditure, tourism-related health expenditure, sport-related health expenditure, health-related sport expenditure).

Because of this demand-specific peculiarity, the results of the thematic analysis in the satellite accounts cannot simply be summed up to an extended total (e.g. for the theme of 'sport and tourism'). The thematically holistic view of the different satellite accounts leads to parallel entries or overlaps of economically identical activities in different satellite accounts.

5.3 COMPARISON OF SSA RESULTS AT EUROPEAN LEVEL

In 2007, it was decided to develop the 'Satellite Account for Sport' at European level (see 'White Paper on Sport', COM 2007). Results are now available for countries such as Austria, Belgium, Croatia, Cyprus, the Netherlands, Poland, Portugal, the United Kingdom and Germany. At the European level, at least the two key figures on sport-related employment, gross value added and consumption can be compared.

Table 6 places the SSA results for Germany in the European context. Detailed national

²¹ principal resp. main activity concept

SSA studies are currently available for nine EU Member States. Apart from the results for Cyprus and Poland, which were obtained in pilot studies and are now out of date, the SSA results for the other seven EU countries have been updated for the period before the start of the Covid-19 pandemic in 2020. The lack of sport-specific data resp. country-specific studies on the sport-related shares within economic transactions generally leads to an underestimation of the economic importance of sport at national level. This is an obstacle to the introduction and consolidation of national SSA reporting at European level. Only Germany uses survey data on sport-related consumer behaviour to systematically include sport-specific shares in SSA calculations. Information on sport-related consumption by private households is also included in the SSA reports of the Netherlands and Portugal. Similar to Germany the SSA for Portugal also has a fully-fledged SUT-S implementation approach and measures the direct contribution of sport.

Table 6. National SSA key figures for selected EU Member States

	Belgium	Croatia	Netherlands	Portugal	Austria	United Kingdom	Germany
Reporting year	2015	2015	2019	2012	2019	2016	2019
Employees, in thousand							
sport-related	92.3	44.8	150	60	273.7	1185	1208
share of total in percent	2.0	2.9	1.5	1.4	6.3	3.7	2.7
Gross value added, in billion euros							
sport-related	6.6	0.9	7.6	1.7	17.2	37.3	70.2
share of total in percent	1.8	2.4	1.1	1.1	4.8	2.1	2.2
Final consumption of private households, in billion euros							
sport-related	n.a.	n.a.	11.7	1.9	n.a.	n.a.	74.7
share of total in percent	n.a.	n.a.	3.3	1.7	n.a.	n.a.	4.4

Sources: Kleissner et al. 2022, Statistics Netherlands 2021, Department for Culture, Media and Sports 2018, Statistics Portugal 2016, SIRC & SPEA 2019, SpEA 2021, own calculations
 Note: The different implementation status in terms of time and methodology in the individual member states allows only a limited comparison.

The SSA figures for some EU Member States, which are only comparable to a limited extent, show significantly higher employment and value added shares for Austria. This is also the case according to the latest update for the reporting year 2019. The higher sport-related shares for Austria are mainly due to the wide range of alpine summer and winter sport activities in Austria and related tourism. The different organisational structures in sport compared to Germany may explain the higher employment share in the United Kingdom (2.7% vs. 3.7%).

Although the sport-related expenditure of private households and those investing in sport facilities is mainly based on statistics within the calculations for the German SSA according to the Vilnius Definition of Sport, it is evident that neither the value added nor the employment share of sport assumes a surprisingly high value and can be plausibly justified from a methodological, economic and sport-institutional point of view.

5.4 THE EU-WIDE MULTIREGIONAL INPUT-OUTPUT TABLE FOR SPORT

Over the past decade, the European Commission has published in the context of the 'EU-wide multiregional input-output table for sport' several studies that provide results

for all EU Member States on the national employment and value-added shares of sport for the reference years 2012 and 2020 (i.a. European Commission 2018, 2020 & 2021). For many countries, the corresponding calculations are based on a simplified supply-side methodology that relies almost exclusively on freely available data for its empirical basis. It remains completely unclear how the country-specific sport shares were determined and which specific national data sets and studies were used to empirically substantiate the description of the specifics of the national sport economies. At the same time, the results of the multiregional input-output table for sport contradict the efforts to implement a national SSA in the Member States. Why should they do this when macro-economic data on sport already exists? Unfortunately, the authors of the studies published in 2020 and 2021 outdated, unrevised values for Germany. It should go without saying that the results of national SSA research projects, which in the case of Germany were evaluated by the Federal Statistical Office, should be included in the European Commission's publications on sport. In this way only the comparison shown in Table 6 reflects the situation before the start of the Covid-19 pandemic in 2020.

6 CONCLUSIONS

The regular SSA monitoring established in Germany is in line with the definitions and methodological recommendations agreed at European level (i.a. SNA, ESA, TSA). The distinction between sport and other economic activities was made in accordance with the 'Vilnius Definition of Sport 2.0'. However, in order to avoid 'blind spots' in the course of national sport economic reporting, this was already partially expanded at the beginning of the national SSA monitoring in the years 2009 to 2012. This discussion has now also reached the European level. An 'EU Task Force on Sport Statistics' has undertaken a fundamental general revision of the Vilnius Definition in the years 2022 to 2024. In the course of the revision process, many of the conceptual weaknesses, mentioned in the previous sections of this report, were addressed. In future, the 'Vilnius Definition of Sport 3.0' will be the reference for identifying sport-economic relationships in the process of SSA compilation.

The SSA monitoring for Germany makes an important contribution to the provision of reliable and comprehensible data for evidence-based advice on sport policy and practice. The German SSA monitoring fulfils many analytical requirements in the context of sport and economy:

- it fulfills a statistical information function for politics, enterprises and society by presenting more than a dozen sport-related macroeconomic key indicators for the reporting period from 2010 to 2019,
- it raises awareness of the economic importance of sport,
- it provides an up-to-date picture of the diversity of the sport industry,
- it provides supplemental information on sport-related expenditure due to active sports as well as passive interest in sport
- it provides valuable insights by supplemental sociological (i.a. sport participation by types of sport resp. sporting activities, age groups, income groups) and economic detail information (i.a. sport-related expenditure pattern, infrastructure costs, sponsorship).
- it facilitates an assessment of the central interrelationships between the sport industry and other economic sectors, as well as within the areas of the sport industry,
- if regularly updated and enlarged, it can be used to identify growth segments in the sport economy and facilitate productivity analysis,
- and it can contribute to the economic underpinning of sport-policy decisions and decisions in enterprises, sport clubs and associations (e.g. hosting of international sport events, advertising and sponsorship budgets, investment decisions, etc.).

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APPENDIX 1: LIST OF THE 71 TYPES OF SPORT RESP. SPORTING ACTIVITIES OF THE GERMAN SPORT SATELLITE ACCOUNT (SSA)

Types of sport (alphabetical)	
American football	Football
Archery	Gliding/ Motor flying (Aviation sports)
Athletics	Golf
Badminton	Gymnastics/ aerobic (<i>German: Gymnastik</i>)
Ballet dance	Gymnastics (<i>German: Turnen</i>)
Baseball/ softball/ cricket	Handball
Basketball	Health sports (i.a. back training, fall prevention, heart sports, lung sports)
Beach volleyball	Hiking
Biathlon	Hockey
Billiards	Ice Hockey
Bobsleighing/ sledding (i.a. luge, skeleton)	Ice skating (i.a. figure skating, speed skating)
Bodybuilding	Inline skating (speed skating)
Bowling/ skittles	Lawn power sport
Boxing	Martial arts (i.a. Aikido, karate, judo, Jujutsu, Taekwondo, kickboxing)
Canoeing/ kayaking	Minigolf
Chess	Modern pentathlon
Climbing/ bouldering	Motor sports (i.a. car, motorcycle, kart)
Curling	Mountaineering
Cycling (i.a. BMX, road bike, mountain bike, artistic cycling, bicycle ball, bicycle polo, unicycle hockey)	Nordic walking
Dancing	Paragliding/ Hang gliding
Diving	Pilates/ Qi Gong/ Tai Chi/ Yoga
Fencing	Riding (i.a. vaulting, dressage, military, show jumping)

Fitness (i.a. gym-courses, equipment)

Rowing

Rugby

Running (jogging)

Sailing

Shooting

Skateboarding

Skiing (i.a. Alpine, Nordic, cross-country)

Skydiving

Snowboarding

Sport acrobatics

Sport boating

Sport fishing

Wrestling

Roller skating (roller hockey)

Squash

Windsurfing/ surfing

Swimming (including DLRG – German Lifeguard Association, synchronized swimming)

Table tennis

Tennis

Triathlon

Ultimate Frisbee

Volleyball/ fistball

Water jumping

Water polo

Water ski/ wakeboarding

Weightlifting

Source: This list has been developed by the Institute of Sports Science at the University of Mainz (cf. Preuß, Alfs & Ahlert 2012). Own illustration.

APPENDIX 2: DEFINITION OF THE 59 TYPES OF SPORT FACILITIES BASED ON THE 71 TYPES OF SPORT RESP. SPORTING ACTIVITIES

Category	Type	Sport facility
Core	covered	Large sport halls (>3000 seats)
Core	covered	Sport halls
Core	covered	Indoor pools with/without diving platforms
Core	uncovered	Outdoor pools/natural pools with/without diving boards
Core	uncovered	Large playing fields (>5000m ²) with light athletics (circular track, individual facilities)
Core	uncovered	Large playing fields (>5000m ²) without light athletics
Core	uncovered	Small playing fields
Special	covered	Multi-functional halls
Special	uncovered	Stadiums
Special	covered	Performance centres, Olympic training centres, sport schools, universities, etc.
Special	uncovered	Ski jumping hills
Special		Temporary sport facilities
Opportunity	uncovered	Jogging trails, paths in the forest
Opportunity	uncovered	Cycle routes in the forest
Opportunity	uncovered	Grass pitch/natural sport fields
Opportunity	uncovered	Beaches
Opportunity	uncovered	Various waters (possibly superstructures, 3-mile zone)
Specific	covered	Ballet halls
Specific	covered	Billard rooms
Specific	covered	Bowling/skittle alleys
Specific	covered	Curling halls
Specific	covered	Ice halls
Specific	covered	Fencing halls
Specific	covered	Fitness centres (defined by: DSSV)
Specific	covered	Climbing halls
Specific	covered	Cycle racing halls
Specific	covered	Riding halls
Specific	covered	Chess rooms
Specific	covered	Skate-/BMX halls
Specific	covered	Soccer halls
Specific	covered	Squash-courts
Specific	covered	Dance schools, studios
Specific	uncovered	American football fields (ca. 110 x 49 m)
Specific	uncovered	Baseball fields
Specific	uncovered	Beach handball courts
Specific	uncovered	Beach volleyball courts
Specific	uncovered	Ice rink
Specific	uncovered	Airfields
Specific	uncovered	Terrain for air sport equipment
Specific	uncovered	Golf courses

Specific	uncovered	Hockey fields
Specific	uncovered	Inline skating tracks/roller skating rinks
Specific	uncovered	Climbing walls (no high ropes courses)
Specific	uncovered	Cross-country ski run
Specific	uncovered	Mini golf courses
Specific	uncovered	Riding areas
Specific	uncovered	Rugby fields
Specific	uncovered	Gliding airfields with/without cable winches
Specific	uncovered	Ski resorts (slopes)
Specific	uncovered	Ski halfpipes
Specific	uncovered	Snow parks
Specific	uncovered	Sport harbours
Specific	uncovered	Wakeboard/water ski facilities
Specific	uncovered	Bobsleigh tracks
Specific		Race tracks, go-kart tracks
Specific		Rowing club/canoe clubhouses
Specific		Shooting sport facilities
Specific		Skate/BMX parks
Specific		Specific biathlon tracks/shooting ranges
Specific		Tennis facilities (uncovered/covered)
Specific		Hiking huts/mountain huts
Specific		Hiking/mountaineering trails (in rock or ice)

Source: An der Heiden, Meyrahn, Huber, Ahlert & Preuß 2012

Explanatory notes to the table:

Categories of sport facilities

Core - sport facilities for swimming, athletics and games. They should fulfil the competition requirements of the sport associations or the framework plan for school sports and be usable for practice and training purposes.

Special - sport facilities with a special purpose that cannot be used by the general public or can only be used to a limited extent.

Opportunity - areas that were not originally created for sporting purposes, but nevertheless offer opportunities for secondary sporting use in terms of space and time. They are available to all citizens free of charge, especially for informal sports activities.

Specific - sport facilities that are only used for a specific sport.

Type of facility

covered - sport facilities that are covered (e.g. sport halls)

uncovered - open-air sport facilities (e.g. outdoor swimming pools)

RESEARCH PROJECT SSA MONITORING: ALL PUBLICATIONS

The following have been so far published in the course of the national research projects on SSA monitoring:

Sportstätten in Deutschland – Ergebnisse einer Kommunenbefragung. Repenning, Späing, Meyrahn, Ahlert, an der Heiden & Preuß (2023): Sportstätten in Deutschland – Ergebnisse einer Kommunenbefragung. Aktuelle Daten zur Sportwirtschaft, November 2023. 2HMforum GmbH, GWS mbH, Universität Mainz; Bundesinstitut für Sportwissenschaft (BISp) [Hrsg.], Bonn.

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