

EuroBasket 2015

Economic and Social Impact Study

*Strictly private and
confidential*
Draft

7 December 2015



pwc

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EuroBasket 2015 – Economic and Social Impact Study

Dear Mr. Novak,

In accordance with instructions received from FIBA Europe e.V. (the “Company”) and based on the terms of our engagement letter dated 1 June 2015 (“the Contract”), PricewaterhouseCoopers AG (hereinafter “PwC”) have been engaged to carry out an economic and social impact assessment as well as the event visitors’ attitude survey of the EuroBasket 2015 event. PwC’s assessment analyses and quantifies the economic impact of EuroBasket 2015 in the overall economy of Croatia, France, Germany and Latvia. Additionally, the catalytic impact of the event on the wider economies is also considered from a qualitative standpoint.

This is a draft report (“the Report”), hence the comments included herein are subject to amendment or withdrawal. Our final findings and conclusions will be those set out in the final report.

Our approach in carrying out the impact assessment is based on a specific methodology, which we have successfully implemented in the past on a number of similar assignments.

The sources of information used in the course of our work were the following:

- Budget of the Local Organising Committees (Zagreb, Lille, Montpellier, Riga, Berlin) provided by FIBA Europe e.V.
- Initial expenditure estimates for spectators, teams, sponsors and media provided by FIBA Europe e.V.
- Visitors’ survey results that were used for validation of the initial estimates provided by FIBA Europe e.V.
- EUROSTAT Input Output tables (France, Germany, Latvia)
- Official statistical office of Croatia Input Output table (Croatia)

Our work was carried out on the assumption that information provided to us by the Company and validated through the visitors’ survey is reliable, complete and, in all material aspects, reflecting the reality of the event impact.



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The services provided are of an advisory nature; as such, any potential action and decision that might result from the Report will be the Company's sole and ultimate responsibility.

Nothing in our Report is or should be construed as advice to proceed or not to proceed with any investment or any other action or activity that may be considered as management responsibility. Regard must be had by you to the restrictions on the scope of our works, as set out in the Contract and/or our Report.

We trust that you will be satisfied with the results of our work and we are at your disposal for any questions and feedback in the next days.

Yours faithfully,

David Dellea
Director, PwC Switzerland

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Economic Impact Study

Our approach

Introduction

Introduction

EuroBasket is the premier national basketball competition contested biennially by the top men's national teams in Europe. It is governed by FIBA Europe, the European zone within the International Basketball Federation (FIBA). The EuroBasket 2015 edition took place for the first time in four different countries (Croatia, France, Germany, Latvia) and five different cities (Berlin, Lille, Montpellier, Riga, Zagreb).

Purpose of report

FIBA Europe e.V. engaged PricewaterhouseCoopers AG to conduct an economic impact assessment to measure the economic and social impacts of EuroBasket 2015. Additionally, PwC carried out a survey analysing the visitors' attitude towards the host cities/countries. This work was carried out from August 2015 till November 2015.

This report considers the direct and indirect economic impacts and benefits of the event on:

- The economy of Berlin and Germany
- The economy of Lille, Montpellier and France
- The economy of Riga and Latvia
- The economy of Zagreb and Croatia.

In order to analyse the economic impact and benefits of the event, FIBA Europe e.V. provided data for the local organising committees, teams, media representatives and sponsors. In addition, PwC collected data through a survey of attendees*.

* Please see Appendix for details of provided data by FIBA Europe e.V. and the visitors' survey.



**Berlin, Lille, Montpellier,
Riga, Zagreb**
host cities



**Croatia, France,
Germany, Latvia**
host countries



79
matches

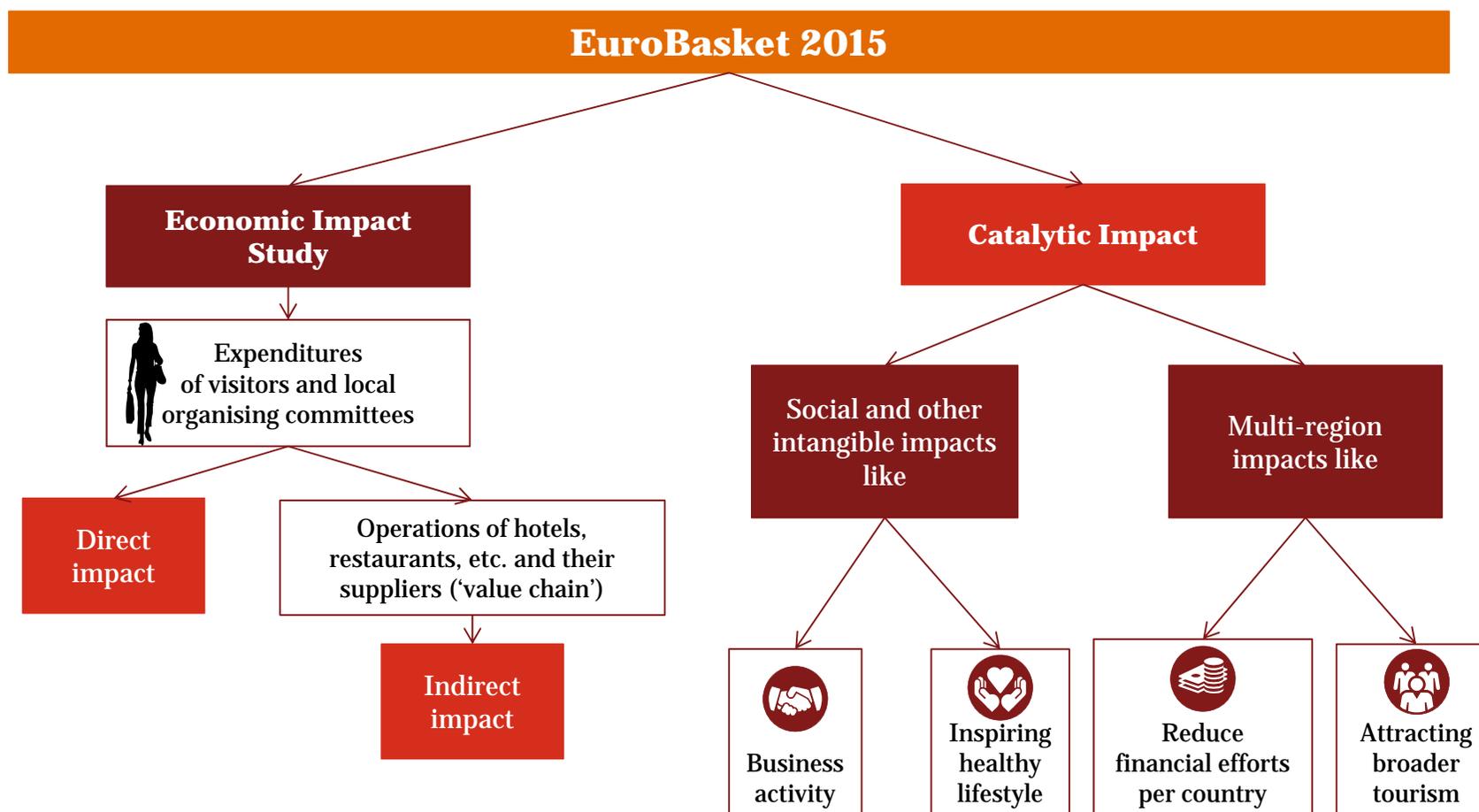


714,280
total attendance of the event



24
teams

The EuroBasket 2015 event affected the economies of host cities and countries in a number of ways.



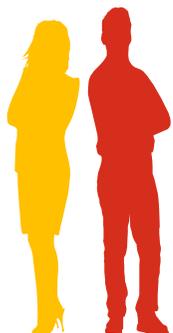
The aim of the study is to demonstrate the wide-ranging positive impacts of EuroBasket 2015.



** As direct impacts, we considered all economic impacts wholly related to expenditures. As companies require inter-mediate goods and services, there is also a demand on direct and indirect suppliers down the supply chain. This demand is considered as the indirect impact. In general it is possible to calculate induced effects as well. Induced effects are generated by the consumption decision of direct and indirect employees and the supply chain. As EuroBasket 2015 is a short-term event, it is unlikely that restaurants, hotels or shops hire additional employees or pay them additional money for work related with the tournament. Therefore, we did not include this type of impact.*

The expenditures associated with EuroBasket 2015 were grouped per stakeholder and expenditure category.

For calculating the economic impacts of **EuroBasket 2015** we took into account expenditures of **six stakeholder groups**:



- **Local spectators** – Spectators of the game living in the host city
- **External spectators** – Spectators of the game living outside of the host city
- **Teams** – Members of teams taking part in the tournament
- **Sponsors** – Sponsors of the event or specific teams
- **Media** – Officially accredited media representatives of the event
- **Local Organising Committee (LOC)** – local organisation responsible for planning and organising the event in the host city

Number of visitors used for calculations

Total	584,424
Local spectators	189,781
External spectators	391,494
Teams	1,000
Sponsors	443
Media	1,706

* For a detailed list of LOC expenditures per country see appendix.

The study considers expenditures with respect to the following **five categories**:

- **Hotels** – Visitors' expenditures for accommodation while staying in the host city
- **Restaurants** – Visitors' expenditures for food and drink in restaurants, cafes or bars while staying in the host city
- **Retail trade** – Visitors' expenditures for shopping (clothing, footwear, sporting goods, books, gifts, souvenirs) while staying in the host city
- **Inland transportation** – Visitors' expenditures for internal transport like buses, trains, trams or taxis while staying in the host city
- **Social & cultural services** – Visitors' expenditures for cultural or sporting activities like museums, art galleries, historical sites or sporting activities while staying in the host city



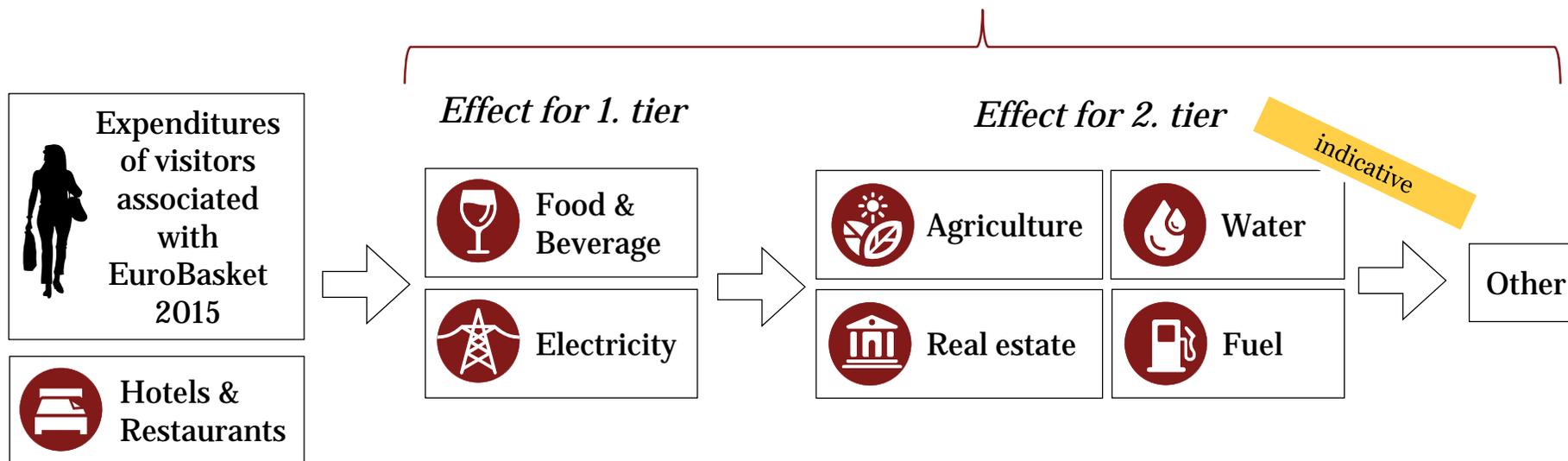
Expenditures of the LOC also accrued in different industries or outside of the host city and are reported separately*.

Different types of impacts associated with EuroBasket 2015 were identified.

During the EuroBasket 2015, many people (spectators, teams, sponsors, media representatives) visited the host countries and cities and spent money for e.g. hotels and restaurants, retail or inland transportation. As hotels and restaurants require different goods (food and beverages, electricity, gas and water, etc.) to satisfy the needs of their guests they increased their expenditures as well.

Direct effects

Indirect effects



It was essential to identify these cross-sectoral linkages to estimate all impacts and impacts per category.

The scope of work included the quantification of direct and indirect impacts...

Direct impacts

Visitors' expenditures while visiting the host cities of EuroBasket 2015 are classified as **direct impacts**. These include – among other things – expenditures for accommodation and restaurants, gifts or expenses on museum visits.

Further direct impacts are the planning and organisation expenditures of the LOC.

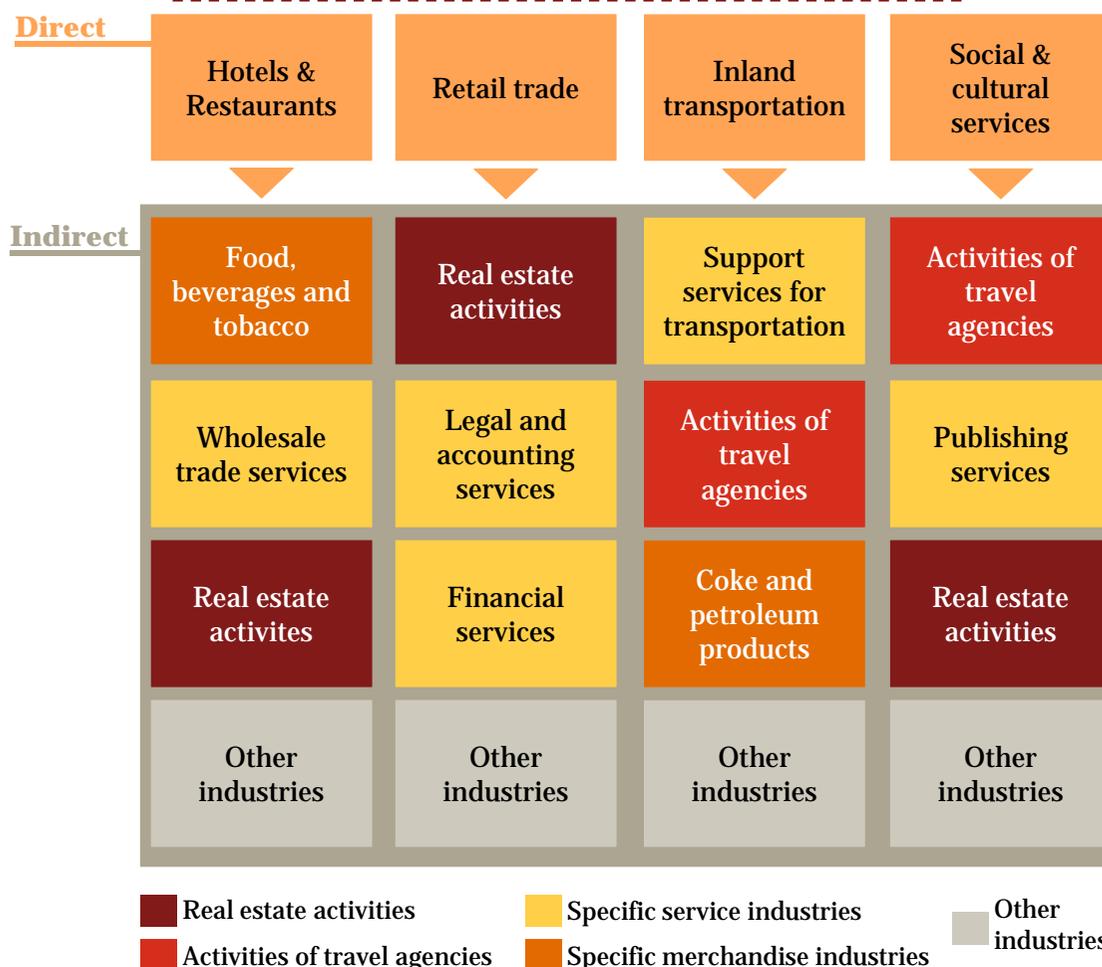
Indirect impacts

Indirect impacts are effects on the direct and indirect suppliers of goods and services along the whole supply chain due to increasing demand for their products.

Total impacts

Total impacts are the sum of direct and indirect impacts. They describe the whole impact on the host city and host country associated with EuroBasket 2015.

Map of economic impacts per expenditure category



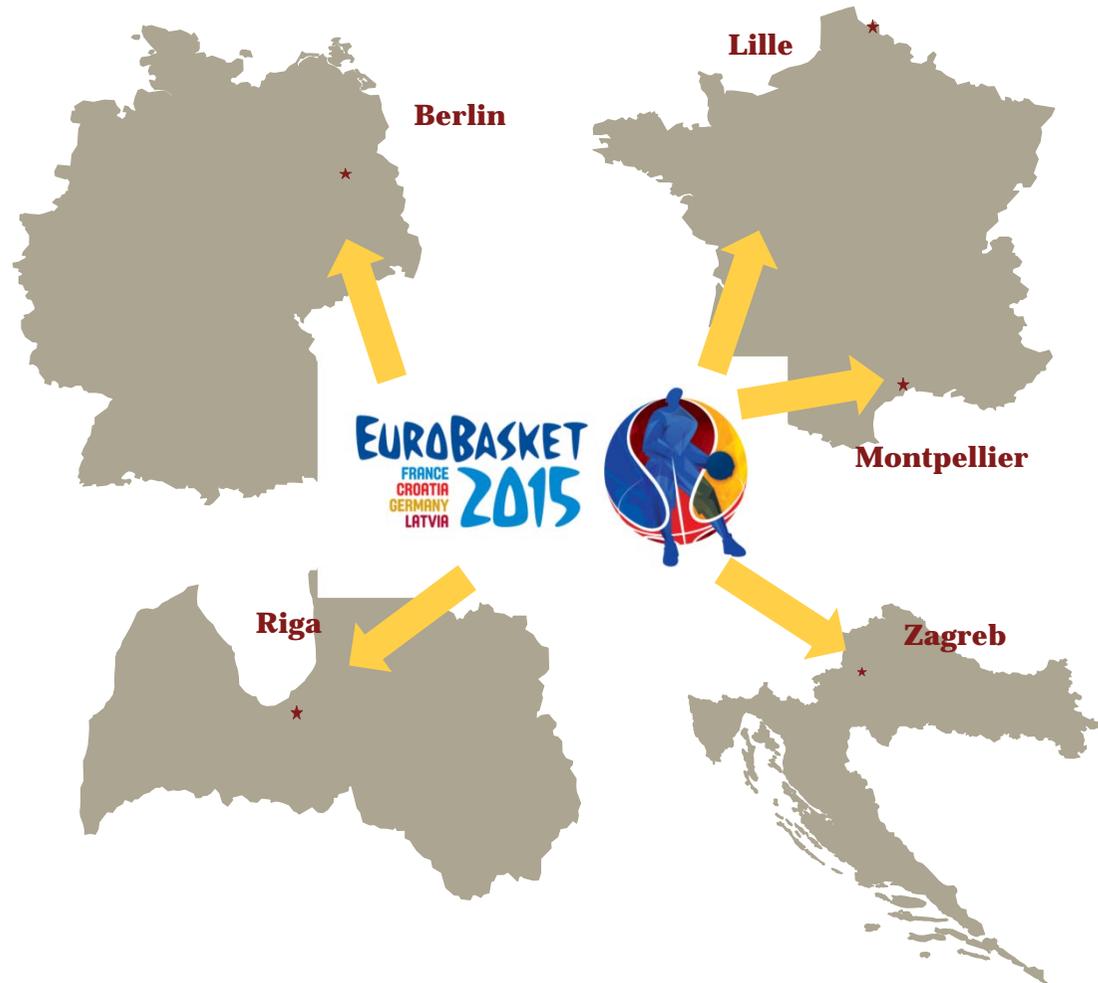
... as well as the quantification of specific impacts per host city and host country...

Impacts for host cities

Impacts for host cities include all direct and indirect impacts that contribute to the **economy of the host cities** – Berlin, Lille, Montpellier, Riga and Zagreb. These include visitors' expenditures in the host city as well as effects on suppliers located in the host city.

Impacts for host countries

In contrast to the impacts for host cities **impacts for host countries** include all impacts that contribute to the **economy of the host country** – Croatia, France, Germany and Latvia. Therefore benefits for the economy of the host city and the economy outside the host city are summed up.



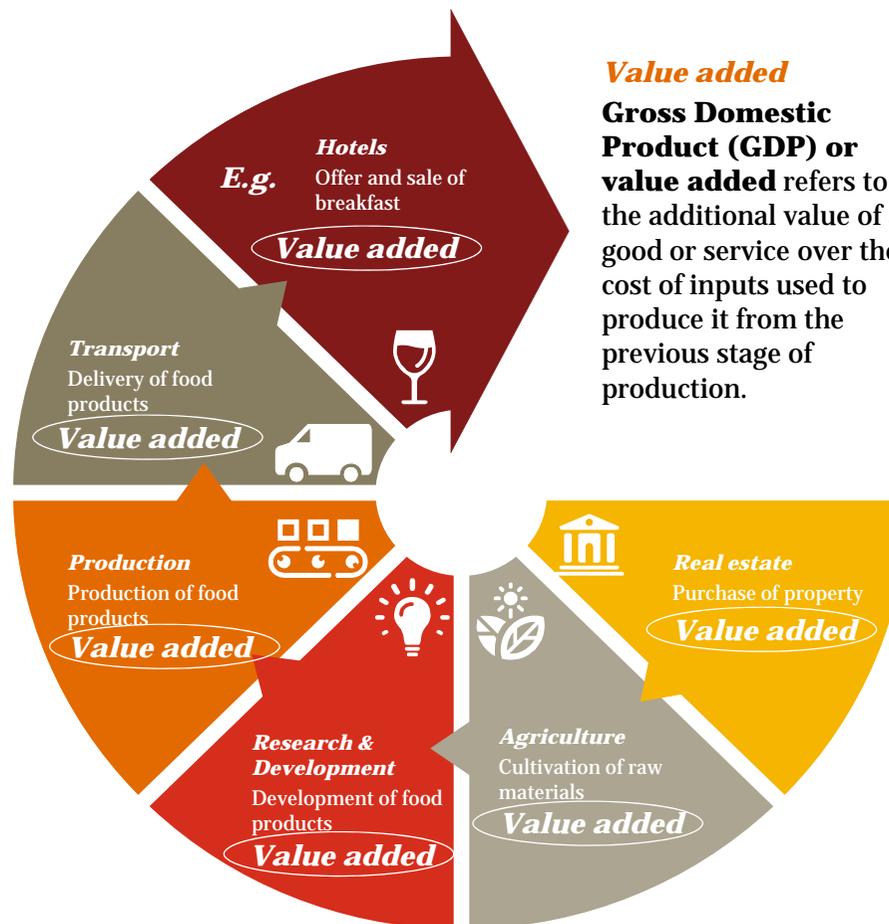
... on value added triggered by EuroBasket 2015.

Impacts on value added

We quantify economic impacts - additional **value added** - triggered by **EuroBasket 2015**.

Value added is one of the most important variables of the national accounts and is widely used to measure economic impacts. The measure indicates the sum of generated values at every stage of the production process adjusted for the values of required inputs.

An alternative measure to calculate impacts is a country's **production value**. The production value indicates the total value of manufactured goods and services in the whole production process. However, in this case pre-production services are counted multiple times (*double-counting*). By using value added this weakness is avoided.



The use of an Input-Output Model enabled the identification of cross-sectoral linkages and the quantification of indirect impacts.

Input-Output Models...

- are powerful tools to assess economic impacts and are well established in modern research as well as commonly used in professional practice.
- allow for the estimation of direct and indirect economic impacts along the entire supply chain.

Input-Output Models...

use Input-Output-Tables, which explain the economy and have the ability to see how the change in demand for one industry impacts other industries and the economy as a whole.

Impact Assessments, based on Input-Output Models, ...

- estimate the economic impacts of EuroBasket 2015.
- measure the overall contribution to different countries and cities.

By using Input-Output-Tables we were able to estimate indirect impacts of EuroBasket

- ✓ By using an Input-Output-Table for each city and each country we took account of country-specific cross-sectoral relations.
- ✓ Identification of city- and country-specific direct and indirect impacts.

Economic Impact in Riga & Latvia

Riga



Riga

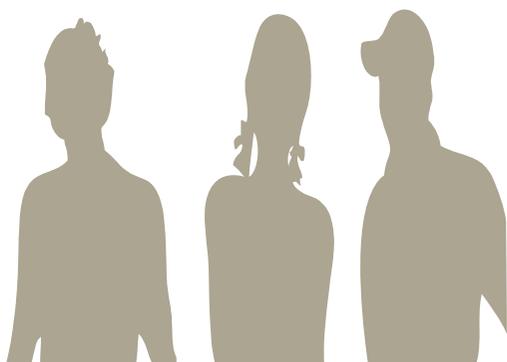
Visitor's background and overview of results

In **Riga**, **EuroBasket 2015** attracted **86,599 visitors** from Latvia and abroad. Most of them were non-resident spectators living outside of Riga.

Number of visitors

Total	86,599
Local spectators	33,700
External spectators	52,500
Teams	139
Sponsors	24
Media	236

Data provided by FIBA Europe e.V.



In **Riga**, the event generated a total impact of **€29.6m** from which more than **80%** were direct impacts. The initial spending triggered indirect impacts of **€5.1m**. Outside of Riga, **EuroBasket 2015** induced another **€3.2m** which results in a total impact of **€32.8m** for the Latvian economy.

Overview of results

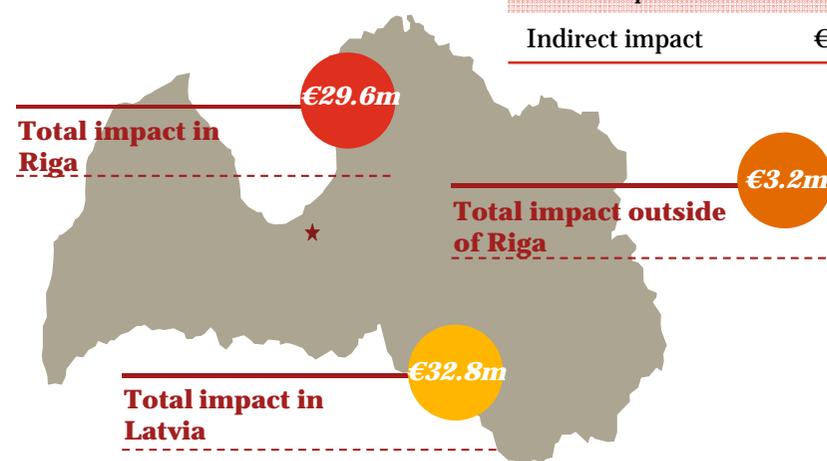
Riga

Total impact*	€29.6m
---------------	--------

In detail

Direct impact	€24.6m
---------------	--------

Indirect impact	€5.1m
-----------------	-------



Source: PwC analysis based on data provided by FIBA Europe e.V and PwC survey data. * As round figures are used, it is possible that the totals do not correspond to the sum.



Host city: Riga

Scope: Direct Impact in Riga

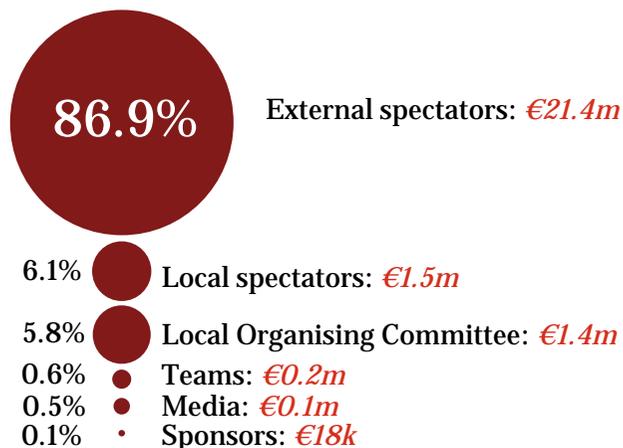
Impact per stakeholder and per expenditure category (1/2)

Direct impact

Visitors of **EuroBasket 2015** spent a total amount of **€24.6m** in Riga. **External spectators** spent the main part of these expenditures (**€21.4m, 87%**) while **local spectators** contributed **€1.5m** to GDP.

The **hotel** industry benefited most from sales due to EuroBasket 2015 in Riga as visitors' spent **€10.5m** for accommodation. The second and third most expenditures have been made in the **restaurants** industry (**€6.2m**) and the **retail trade** industry (**€2.7m**).

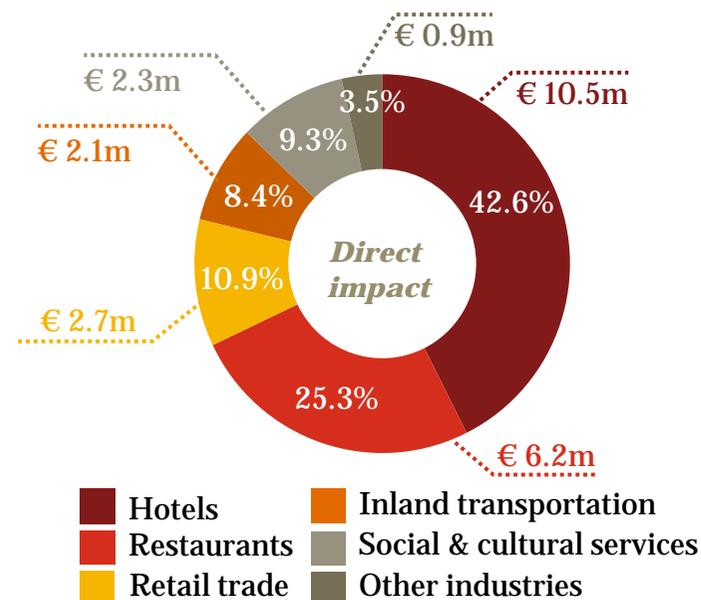
Direct economic impact per stakeholder category



€24.6m
Total

Note: Expenditures of sponsors only include expenditures for hotels, restaurants, retail trade, inland transportation and social & cultural services. It does not include expenses for other sponsoring activities.

Direct economic impact per expenditure category



Note: *Other industries* comprises expenditures in different industries like real estate services or security services.



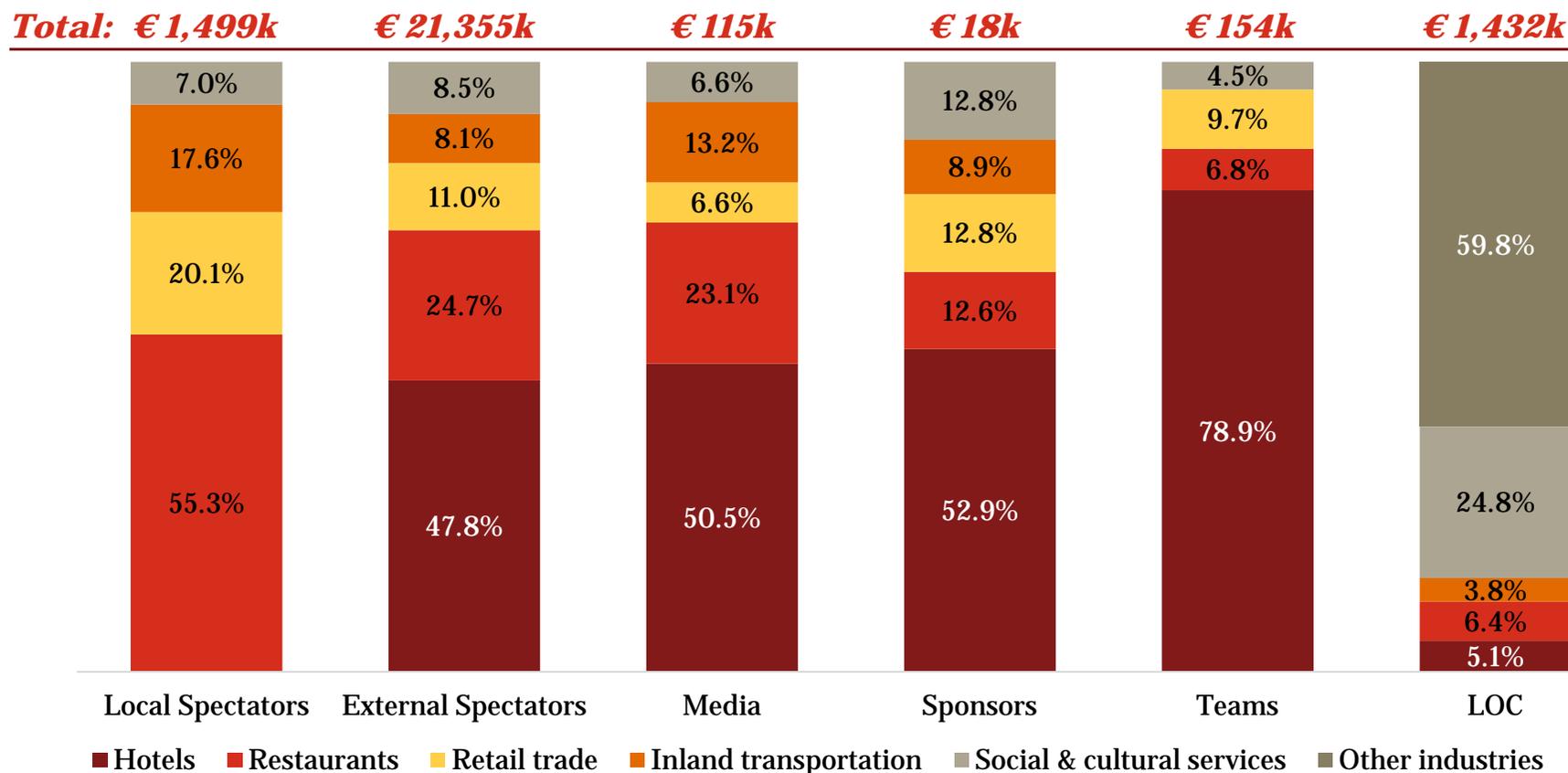
Host city: Riga

Scope: Direct Impact in Riga

Impact per stakeholder and per expenditure category (2/2)



Direct Impact: Expenditures of stakeholders per expenditure category



Note: *Other industries* comprises different industries like real estate services or security services.



Host city: Riga

Scope: Direct Impact in Riga

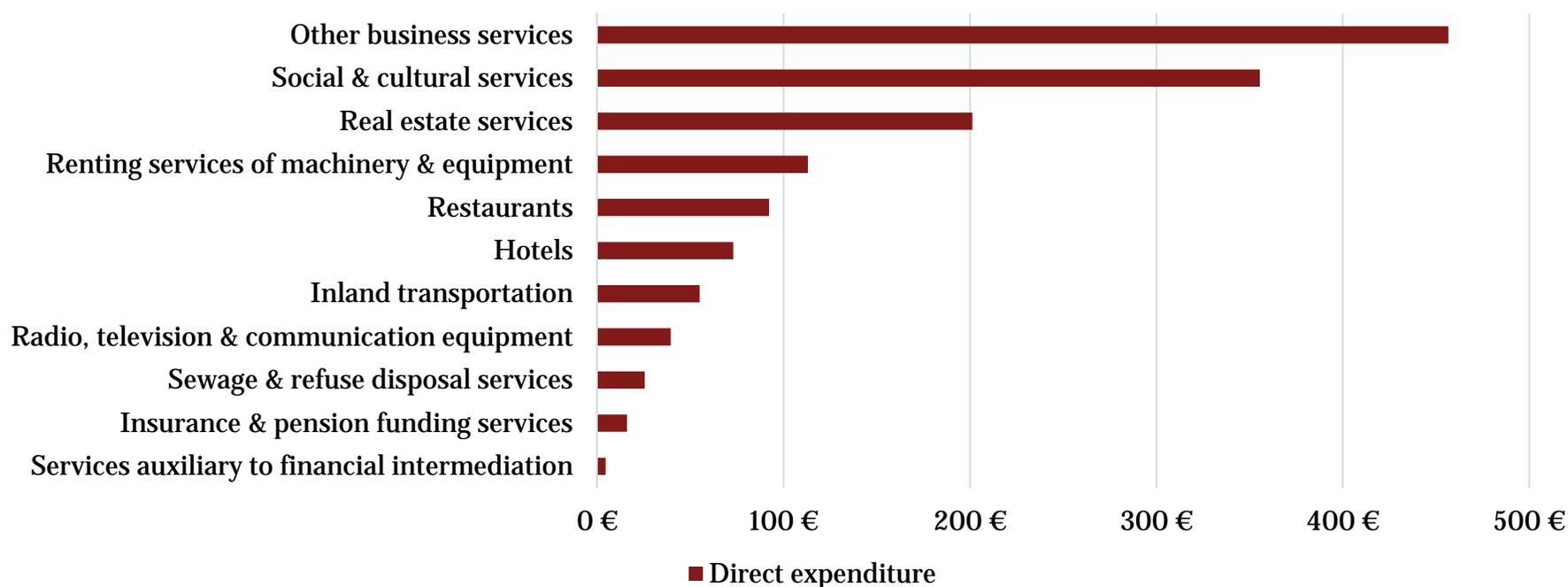
LOC spending per industry

Impact of LOC spending

The LOC spent a total amount of **€1.4m** in Riga. The main part of these expenditures accrued in the **other business services** industry (**€457k**), including, among others, expenditures for private security services and advertising activities, and the **social and cultural services** industry (**€356k**), which jointly comprise more than 55% of LOC's overall budget.

Direct Impact: main industries affected by the LOC's expenditure

(in thousand €)





Host city: Riga

Scope: Indirect Impact in Riga

Impacts triggered by respective stakeholders or expenditure category (1/2)

Indirect impacts

In Riga, due to various rounds of re-spending along the value chain, expenditures during the event generated additional value added of **€5.1m**. **External spectator's** expenditures induced additional value added of **€4.4m (88% of total indirect value added)**.

Initial spending in the **hotel** industry triggered an additional value added of **€2.4m** for their suppliers along the whole supply chain and hence the economy of Riga. Suppliers of the **restaurants** industry benefited by additional value added of **€1.4m** caused by participant's sales.

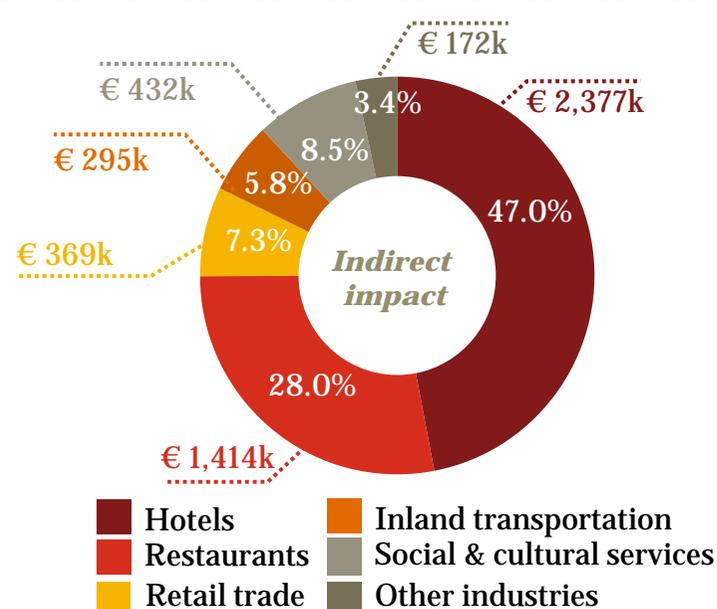
Indirect economic impact induced by stakeholder



€5.1m
Total

Note: Expenditures of sponsors only include expenditures for hotels, restaurants, retail trade, inland transportation and social & cultural services. It does not include expenses for other sponsoring activities.

Indirect impact induced by expenditure category



Note: *Other industries* comprises expenditures in different industries like real estate services or security services.



Host city: Riga

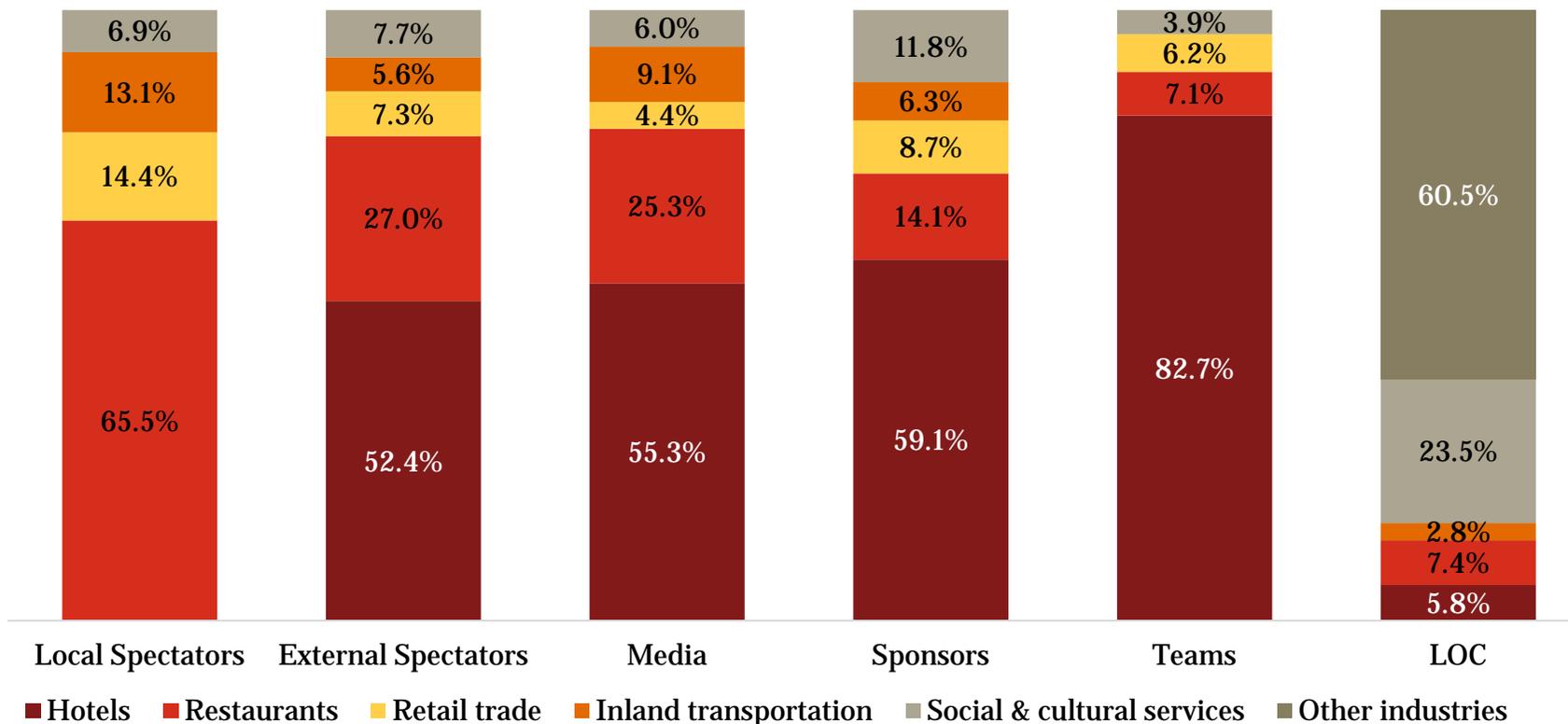
Scope: Indirect Impact in Riga

Impacts triggered by respective stakeholders or expenditure category (2/2)



Indirect impacts induced by stakeholders and expenditure category

Total: € 287k € 4,426k € 24k € 4k € 33k € 284k



Note: *Other industries* comprises different industries like real estate services or security services.



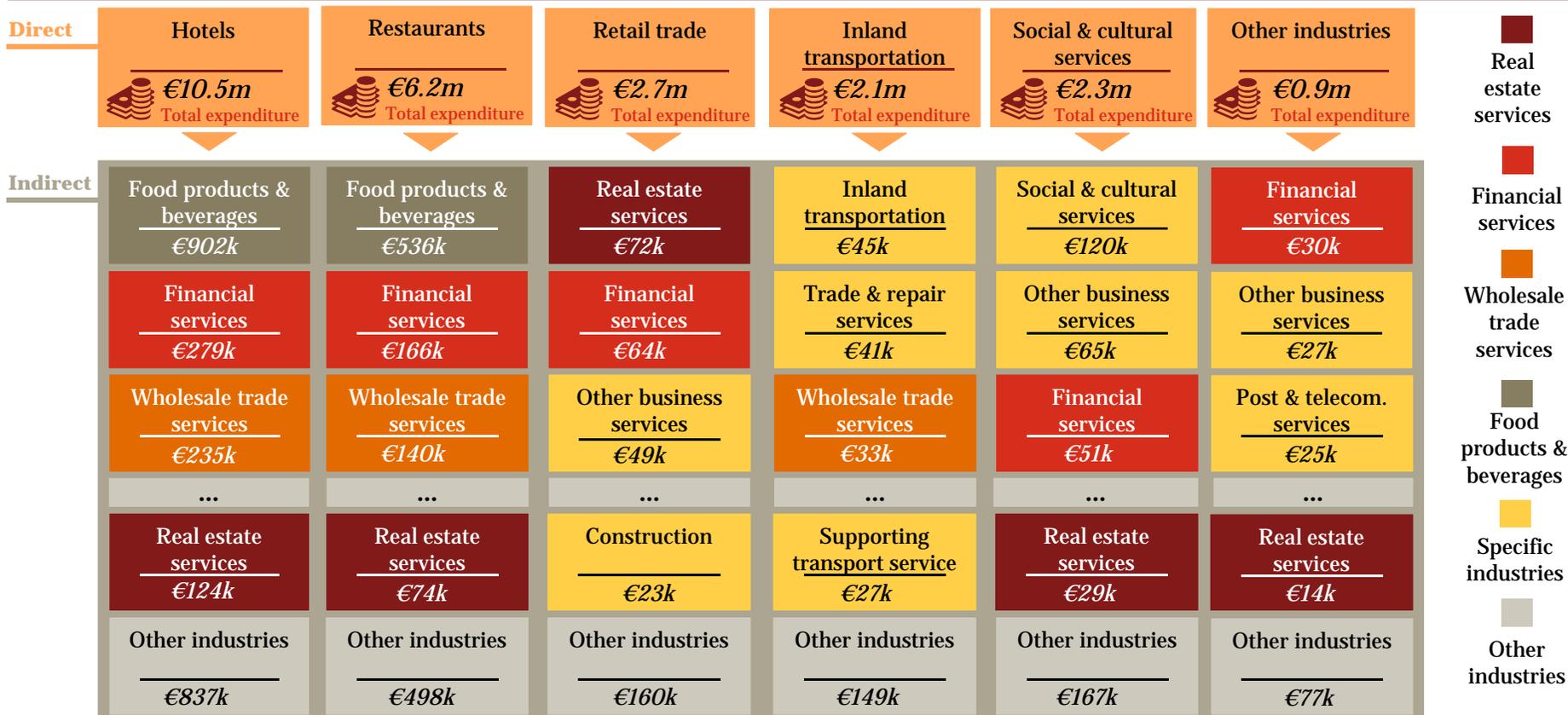
Host city: Riga

Scope: Indirect Impact in Riga

Main industries affected by expenditures: Impacts along the supply chain

Indirect impacts

Along the whole supply chain, many companies benefited from **EuroBasket 2015**. Expenditures for **hotels and restaurants** increased the demand in the **food products & beverages** industry (€902k and €536k), for instance, while spending for **retail trade** had the largest impact on **real estate services** (€72k) and **financial services** (€64k).





Host city: Riga

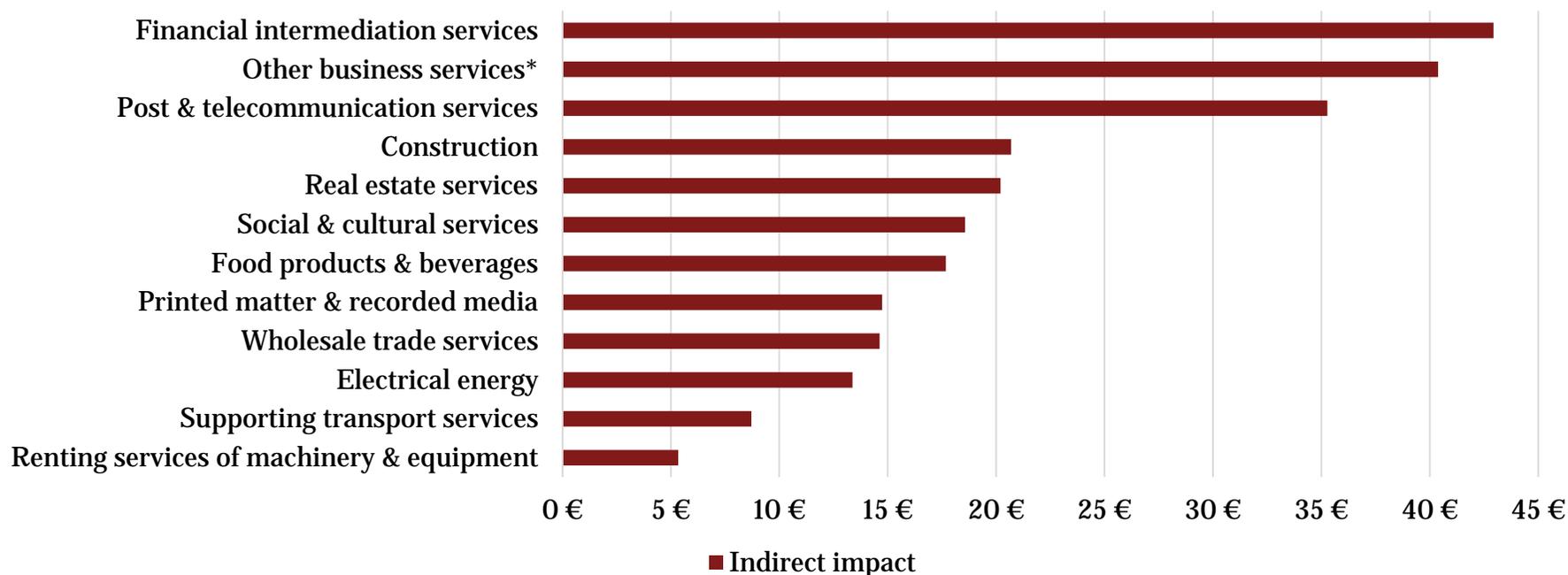
Scope: Indirect Impact in Riga

Main industries affected by LOC budget: Impacts along the supply chain

Indirect impacts

The **LOC budget** indirectly affected the economy by causing additional value added of **€284k**. The **financial intermediation services** industry benefited most by receiving value added of **€43k** (15% of total value added induced by the LOC budget) followed by **other business services** (€40k) and **post and telecommunication services** (€35k).

Main industries affected by LOC expenditures (in thousand €)



* Other business services include among others private security services, advertising activities, legal, accounting and auditing activities or architectural and engineering activities.



Host city: Riga

Scope: Total Impact in Riga

Impacts per stakeholder and per expenditure category

Total impact

EuroBasket 2015 generated total value added of **€29.6m** in **Riga**. **External spectators' expenditures** induced **€25.8m** of value added (**87%** of total value added). **Local spectators' expenditures** contributed directly and indirectly **€1.8m (6%)** to GDP.

Over **55%** of total impacts accrued in the **hotel and restaurant** industries due to the huge direct expenditures. Companies in this industry benefited from additional **€16.7m** followed by companies in the **retail trade** industry (**€2.7m, 9%**).

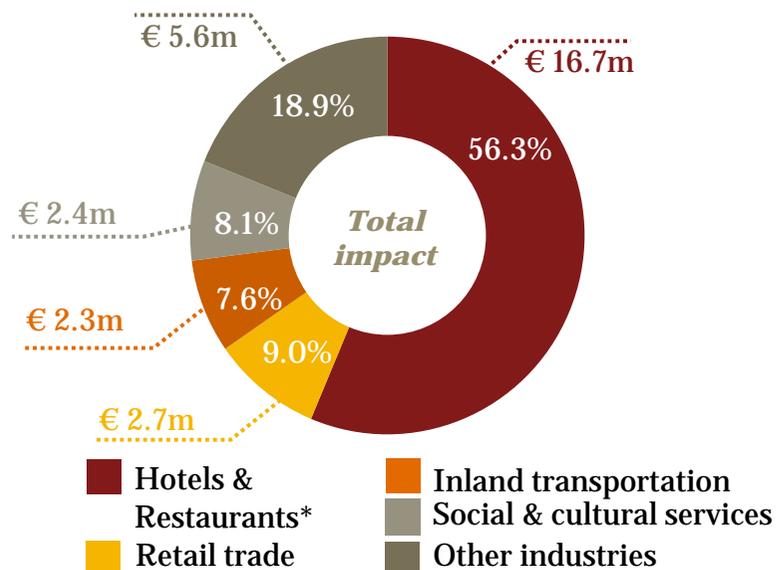
Total economic impact per stakeholder category



€29.6m
Total

*As a result of the input-output modelling approach it is no longer possible to determine the impacts for hotels and restaurants separately. We hence summed up the total impacts of both categories.

Total economic impact per expenditure category



Note: *Other industries* comprises expenditures in different industries like real estate services or security services.



Host city: Riga

Scope: Total Impact in Riga

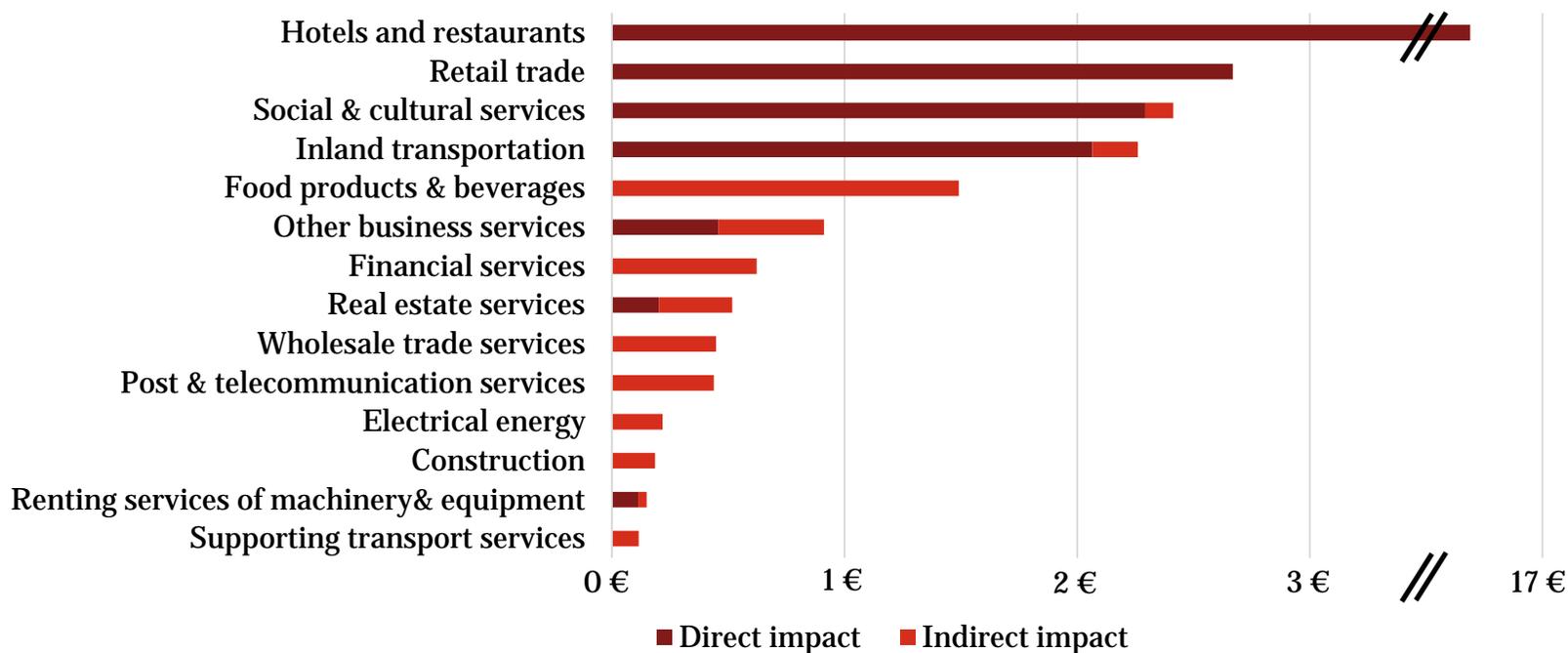
Main industries affected by EuroBasket 2015

Total impact

The event created additional value added of **€29.6m**. The **hotel and restaurant** industries benefited most due to high visitors' expenditures. Companies in the **food products and beverages** industry or **financial services** industry profited from indirect impacts created by EuroBasket 2015.

Main industries affected by EuroBasket 2015

(in million €)





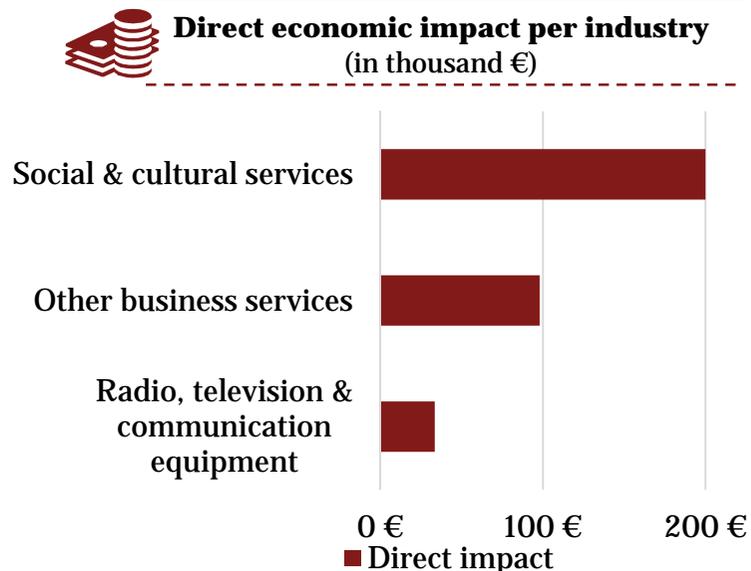
Host city: Riga

Scope: Direct Impact outside Riga

LOC spending per industry

Direct impact

Outside of Riga, the LOC invested additional **€331k**. Most of these expenditures have been made in the **social and cultural services** industry (**€200k**) followed by **other business services** (**€98k**). Other business services include among others expenditures for private security services or marketing and PR costs.





Host city: Riga

Scope: Indirect Impact outside Riga

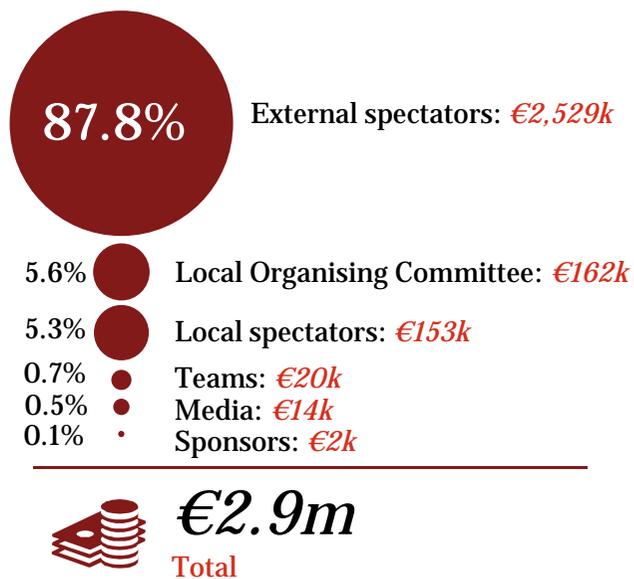
Impacts triggered by respective stakeholders or expenditure category

Indirect impacts

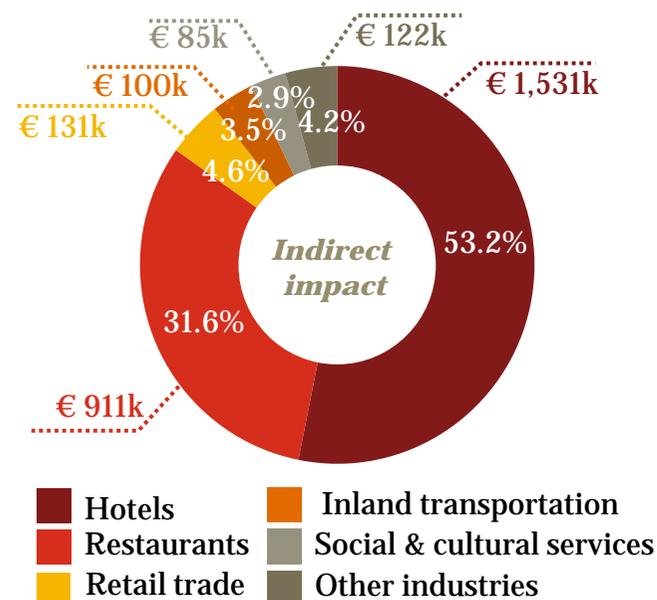
Companies **outside of Riga** benefited indirectly from **EuroBasket 2015**. They provided inputs for the economy of Riga and for the demand triggered by LOC's expenditure in Latvia. Companies profited most by spending of **external spectators (€2.5m)** and the **local organising committee (€0.2m)**.

Especially, companies providing goods and services (suppliers) for the **hotel** industry benefited most by additional value added of **€1.5m** followed by suppliers of the **restaurant** industry (**€0.9m**).

Indirect economic impact induced by stakeholder



Indirect impact induced by expenditure category



Note: *Other industries* comprises expenditures in different industries like real estate services or security services.



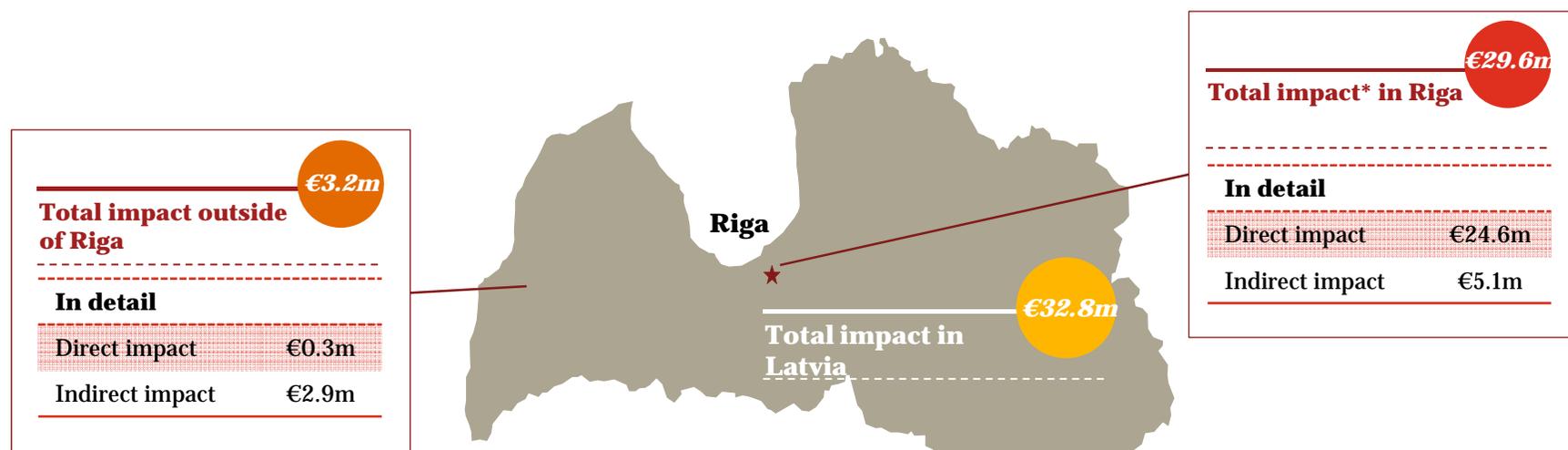
Host city: Riga

Scope: Total Impact in Latvia

Total impacts of EuroBasket 2015

Total impact

The **Latvian economy** benefited by additional value added of **€32.8m** created by **EuroBasket 2015**. While **€3.2m** accrued outside of Riga, the economy of Riga benefited by **€29.6m**. Initial spending of external and local spectators, teams, media, sponsors and the LOC triggered considerable indirect effects, both in Riga and outside of Riga.



* As round figures are used, it is possible that the totals do not correspond to the sum.



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Appendices

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Data Input

Data Input for the calculation of economic impacts

Data input:

For calculating the economic impacts of EuroBasket 2015, officially available data, data provided by FIBA Europe e.V. and data collected through a survey carried out by PwC were used.

Overview of officially available data

- Croatia, Input-Output-Table published by official statistical office of Croatia, 2010
- France, Input-Output-Table published by *Eurostat* (Directorate-General of the European Commission), 2010
- Germany, Input-Output-Table published by *Eurostat* (Directorate-General of the European Commission), 2010
- Latvia, Input-Output-Table published by *Eurostat* (Directorate-General of the European Commission), 1998

Overview of survey data

- FIBA representatives interviewed those who were attending the EuroBasket 2015 games in Berlin, Montpellier, Lille, Riga and Zagreb.
- A total of 2,252 surveys were achieved.
- The survey was live during a 2 week period from 05/09/15 to 20/09/15.

Host City	Number of completes	Margin of error*
Berlin	506	5%
Montpellier	340	5%
Zagreb	430	6%
Riga	408	5%
Lille	568	5%
Total	2,252	3%

* Based on 95% confidence interval

Overview of data provided by FIBA Europe e.V.

- Number of stakeholders for Berlin, Montpellier, Lille, Riga and Zagreb.
- Expenditures for teams, sponsors and media representatives for Berlin, Montpellier, Lille, Riga and Zagreb.
- LOC budget per host city and host country.

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- LOC budget per host city and host country.

Data Assumptions

Data assumptions:

Our calculation of impacts is based on the following assumptions:

1. Spectator expenditures (for local and external spectators) were derived entirely from the visitors' survey carried out by PwC. For each host city, average spectator expenditures per person and expenditure category (hotels, restaurants, retail trade, inland transportation and social & cultural services) were determined and then multiplied by the actual number of participants provided by FIBA Europe e.V.
2. All expenditures for teams, sponsors and media representatives are based on expenditures estimates provided by FIBA Europe e.V.
3. LOC expenditures are based on the LOC budget figures provided by FIBA Europe e.V.

Methodology

Input-Output-Models

From	To	Intermediate demand			Final Demand				Total Demand
		Primary Sector	Secondary Sector	Tertiary Sector	Public Consumption	Private Consumption	Investments	Exports	
Intermediate Inputs	Primary Sector								
	Secondary Sector		Q1				Q2		
	Tertiary Sector								
Intermediate Inputs	Wages & Salaries								
	Gross operating Surplus		Q3						
	Taxes - subsidies								
	Imports								
Total Supply									

Q1 Intermediate usage

Q2 Final demand

Q3 Primary inputs to production

In order to estimate the indirect economic contribution of **EuroBasket 2015** to the host cities **Berlin, Lille, Montpellier, Riga and Zagreb** as well as the host economies **Croatia, France, Germany and Latvia**, we develop and apply an extended Input-Output Model.

- An Input-Output Model describes general intra-economy value flows in a way that it segments an economy into sectors and displays the dynamics of a sector's output serving as another sector's input.
- Intersectoral relations in an economy are the key to input-output analysis as it demonstrates the economic interdependencies among producers of goods and services which enables to quantify and differentiate between various socio-economic production effects throughout a company's entire supply chain.
- An Input-Output Model uses a static Input-Output Table, which means it is formulated with respect to a specific year and has to be updated periodically.
- Input-Output Tables have a square format because all sectors of the economy are buyers and sellers of goods and services (number of columns and rows in the intermediate goods quadrant (Q1) are equal).
- To quantify value-added, our study uses Q1, the input matrix, to calculate effects along the value chain, Q2 to compute induced effects via final demand and Q3, primary inputs to production, to compute regional effects.

Input-Output Methodology in Detail

The great advantage of input-output-modelling is that it yields a macro-perspective of the **EuroBasket 2015 event**. It links the related demand to economy wide statistical data.

By examining the input-output-table, one can gain a clearer idea of what resources are being used and for what purpose. In addition, the difference between the cost of the inputs and the price of the outputs indicates the "value added" associated with this production.

From an algebraic perspective, the main approach of the model can be described by the following equation. This basic equation includes the methodology to incorporate all domestic impacts along the entire supply chain.

Indirect impact equation $(I - A)^{-1} y = x$

Whereas I is the unity matrix, A is the matrix of the domestic technology coefficients, which for example reflects the input share of sector one in the output of sector two. y is the vector of related expenditures per sector. The inverse of $(I - A)$ is known as the Leontief Inverse.

Finally, x is the scalar of the direct and indirect production values per sector. Based on x it is possible to derive the economic impact as a linear transformation of the production value per sector.

The input-output methodology yields a macro-perspective of a single company's activities

There are differences in local and national economies. City specific input-output-tables would be necessary to calculate city specific effects. Such tables, however, do not exist. Thus, we adjusted the national input-output-tables using **location quotients**.

In general, the data used for input-output-modelling provides a snapshot of the economic activities, for a specific year, since the tables are only updated from time to time.

Since most industrial sectors are subject to technological change over time, relying on this data potentially involves missing some developments that affect the impacts such as potential capital-labour substitution, the increase of import shares and technological change.

For this reason, we rely on official input-output-tables and the latest available input-output-tables.