

EARTO

IMPACT
DELIVERED

European Association
of Research and Technology Organisations



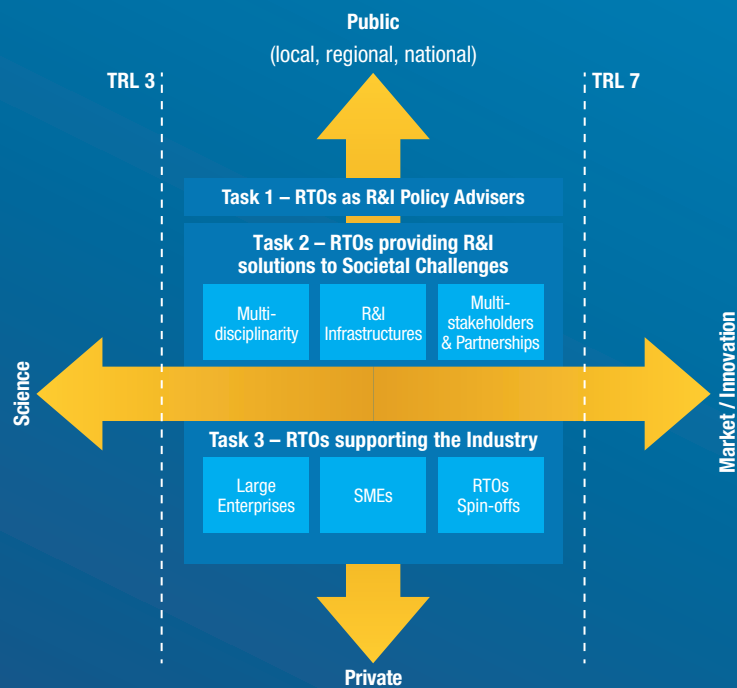
Economic Footprint Study

Impact of 9 RTOs in 2016

www.earto.eu

Research and Technology Organisations: From the lab to your everyday life. RTOs innovate to improve your health and well-being, your safety and security, your mobility and connectivity. RTOs' technologies cover all scientific fields. Their work ranges from basic research to new products and services' development. RTOs are non-profit organisations with public missions to support society. To do so, they closely cooperate with industries, large and small, as well as a wide array of public actors. With their open-innovation business model, one of the core missions of RTOs is to transfer research and technology to the market with high impact for society.

Understanding RTOs' Activities



RTOs: Key Players in the Innovation Chain for High Impact on Jobs & Growth in Europe

The focus of this study is to specifically highlight the economic footprint of Research and Technology Organisations (RTOs) based on information collected from 9 RTOs, representing 1/3 of EARTO members in terms of employees and revenue. Those 9 RTOs, active members of EARTO, are: AIT (AT), CEA (FR), DTI (DK), Fraunhofer (DE), imec (BE), Sintef (NO), Tecnalia (ES), TNO (NL) and VTT (FI).

RTOs produce, integrate and transfer science and technology to help resolve the grand challenges of society and support Europe's industrial competitiveness. RTOs are key players in the innovation chain, bridging the gap between basic research and practical application.

Demonstrating one's impact is a key issue in today's economical context. Among others, the work of EARTO, the European Association of Research and Technology Organisations, aims at demonstrating and exemplifying the impact of RTOs. In an EU R&I policy environment where data on RTOs from official EU sources is unfortunately lacking, EARTO felt the need to further support the generation of RTOs' impact data. To this end, EARTO, strongly supported by 9 of its active members, commissioned this second upgraded version of its economic footprint study to IDEA Consult. It focuses this time on data from 2015-2016. The dimensions covered in this second study are largely the same. Additional data and methodologies allow for a more detailed insight in each of these dimensions, for even more realistic results. Accordingly, this brochure is a synthesis of the complete study's report which is publicly available on EARTO website and which includes full methodology explanations.

As for the previous EARTO economic footprint study, our analysis focuses on two types of RTOs' activities that are expected to generate a strong economic and social impact:

- the economic leverage of the RTOs' core activities through spending and employment,
- the economic leverage of the knowledge transfer activities through contract research, spin-offs' creation and outflow of staff.

It is important to note that the figures presented in this report are a lower boundary to the total economic impact of RTOs, which goes far beyond the above-mentioned effects with many other types of impact not taken into account in this study (technological, social, human capital development, etc.). Besides, EARTO very consciously made the choice of conservative estimation of RTOs economic footprint to avoid double-counting and overestimations, using a conservative but data-based technology multiplier, also used by the OECD. This resulted in objective and robust observations on the economic effect of RTOs onto the European economy. As such, the results presented here can be quoted as a lower boundary.

The quantification of these largely unknown economic effects is an important value added in the demonstration of RTOs' value for Europe's economy and society.

2016 Economic Footprint of 9 European RTOs

Key Results

With their open-innovation business model, one of the core missions of RTOs is to transfer research and technology to industry that will market new products and services with high impact for society. **To do so, RTOs use the public funding they receive in the form of grants and competitive funding to leverage private investments from large and small companies via the means of contract research.**

When developing new, sometimes game-changing technologies, RTOs adopt a market-oriented approach early on. Their objective is to transfer their technology to the market through different means, some of which have their economic impact analysed in this economic footprint study:

- Collaborative contract research: RTOs carry out contract research in collaboration with their industrial partners, from large companies to SMEs, supporting them to bring technology to the market and increase their competitiveness while creating high impact for society,
- Spin-offs: RTOs nurture and create deep-tech start-ups with great life expectancy and low rate of failure. RTOs' spin-offs have great chances of scaling-up in the deep-tech area, creating new industrial champions in Europe and a high number of high-quality jobs,
- Highly-skilled staff: RTOs transfer highly-educated staff to the private sector along with the valuable knowledge and know-how acquired by working within the RTOs, strongly contributing to the availability and absorption of high-value knowledge by companies and their related industries.

In addition, RTOs also generate employment and economic added value in Europe via their day-to-day activities. The direct effect of such activities including direct employment and revenue, is only a fraction of this added value. The indirect and induced effect of these activities also need to be taken into account, including RTOs' own purchases of goods and services all along the value chain, as well as those of RTOs' suppliers and RTOs' employees. Besides, these core-activities of RTOs generate major fiscal and parafiscal returns for governments, essentially through 3 main channels: social security and income taxes, corporate taxes, and VAT. All these effects are taken into account in quite a conservative manner in this economic footprint study.

The results of this economic footprint study clearly demonstrate RTOs' crucial role in the European R&I ecosystem. And it is important to note that these results are only a lower boundary of the full impact of RTOs, which does not take into account the technological and social value of the research and technology they produce.

These results show that in one year, RTOs' core activities, contract research activities, spin-offs' creation and outflow of staff generated 284,000 jobs, 35.8 billion euro revenue, 16.8 billion euro value added and 6.7 billion euro fiscal and parafiscal return to governments. For each job in these RTOs, additional 4 jobs were created elsewhere in Europe in 2016, and about 270% of the amount spent on operational grants for RTOs returned to governments through fiscal revenues alone.

European R&I policy makers should clearly define policies aiming at further utilising and enhancing RTOs' capabilities as well as at boosting joint investments in their key technological infrastructures. RTOs' impact is clear and R&I policies should aim at leveraging such impact to boost jobs and growth creation in Europe.

The aggregated economic effect of those 9 RTOs from their core activities and generated through contract research and spin-offs resulted in 2016 in:



284,000
jobs



€ 35.8 billion
revenue



€ 16.8 billion
value added



€ 6.7 billion
fiscal and
parafiscal return
to governments



For
1 job
in an RTO, additional
4 jobs
were created elsewhere
in Europe in 2016



For
€ 1 invested
by governments in RTOs
as operational grants
€ 3 return
flew back to those
governments in 2016

Study Methodology

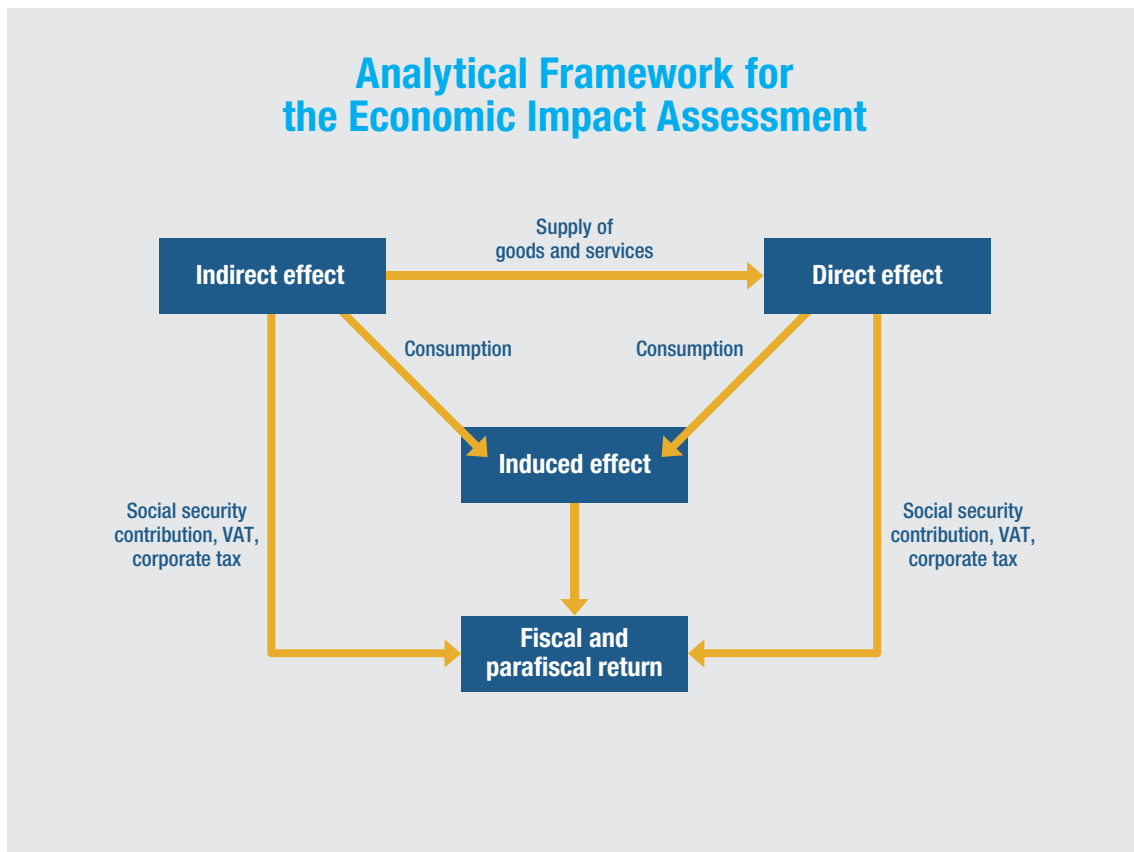
Our study methodology is based on an input-output approach, combined with micro-data collected from the 9 participating RTOs. The advantage of such approach is that direct economic effects quoted here are then exact. In addition, the quantification of the indirect effects is then based on the RTO-specific data and not on sector averages. Those two elements ensure the accuracy of the results presented, avoiding overestimations.

In addition to the direct and indirect economic effect, also the induced impact (the effect of additional direct and indirect employment leading to extra consumption in the local economy) and the fiscal return (the return for the governments via fiscal flows originating from direct, indirect and induced impacts) are calculated.

Particularly interesting are the leverage effects arising from our economic footprint study:

- What is the additional employment in the European economy that can be related to one person employed at a European RTO?
- If operational grants are received by an RTO, how many euros flow back to the governments for each euro they invest in the RTO?

This economic footprint assessment is further complemented with a number of indicators on the scientific and technological activities of the 9 RTOs studied. Here the focus is on three forms of knowledge transfer and knowledge conversion that are typical of all RTOs and have strong economic impact: contract research, spin-off creation and outflow of staff. Compared to the 2014 economic footprint study, this analysis has been updated with overall better-quality data and more details on the outflow of staff and spin-offs' survival rates for instance. Besides, the assessment of the economic impact of contract research with the application of a technology multiplier effect is now complemented by an additional input-output approach measuring the (monetary) downward effects, the latter being a lower boundary and benchmark to the first.



RTOs' Core Activities

Impact in the European Economy

2016

Direct Economic Impact

Via their day-to-day activities, the 9 RTOs generate employment and economic added value within Europe. The direct effect of such activities is only a fraction of this added value. Such direct effect of the 9 RTOs' core activities includes the employment, value added and output at the organisation itself.

 **54,200**
jobs

 **€ 7.2 billion**
revenue
(incl. operational grants)

 **€ 3.5 billion**
value added

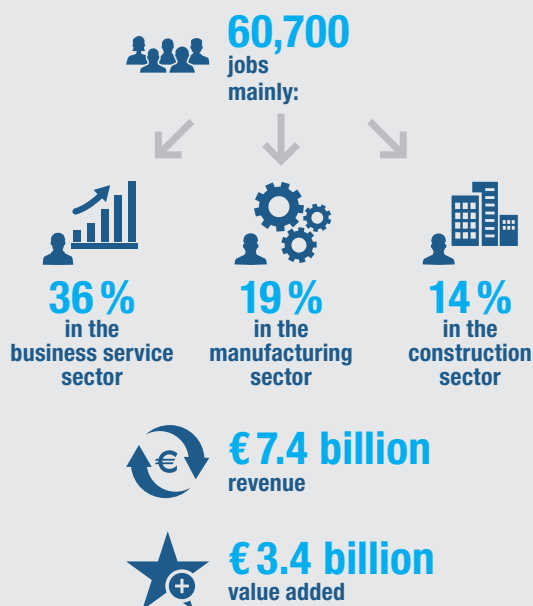
The direct economic effect of an RTO is defined by its in-house activities: the staff it employs as well as the revenue and value added it creates as an organisation. An RTO has a particular profile in this respect. The majority of the staff is highly-educated and/or works as researcher. Their mission is first to develop scientific and technological activities, not to develop an economic activity as such. Generating a direct economic effect is a derivative of the scientific and technological activities.

The 9 RTOs employed 54,200 knowledge workers in 2016, corresponding to around 48,200 full time equivalents (FTE), 56% of which working as researchers for these RTOs. Each year, the 9 RTOs generate a total revenue of around 7.2 billion euro. This includes the operational grants that the RTOs receive (around 3.8 billion euro per year). Together, the 9 RTOs are estimated to have generated a total direct value added of around 3.5 billion euro in 2016. RTOs created on average 72,700 euro value added per employees (FTE) in 2016. This compares to an average value added per FTE in the research sector of 57,000 euro (according to Eurostat).

2016

Indirect Economic Impact

The 9 RTOs purchase goods and services from suppliers, who then in their turn buy goods and services from their own suppliers, and so on. This way, in consecutive rounds of spending, the suppliers (and their suppliers) generated in turn the following indirect effects.

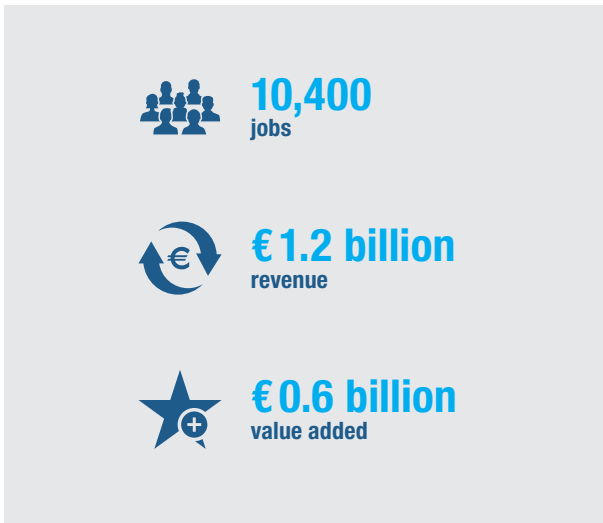


To support their activities, RTOs buy (high-tech) goods and services from European companies in various other industries. This in turn leads to additional employment and additional demand of these European companies upstream. This expanding impact of an RTO on the economy is called its indirect economic effect.

In 2016, purchases from the 9 RTOs with European companies amounted to around 3.9 billion euro. This in turn led to additional indirect employment created in the European economy through the purchases of the 9 RTOs, amounting to around 60,700 jobs. As the 9 RTOs rely on a broad range of suppliers of goods and services, their activities result in the creation of employment across many different sectors. Due to such purchase of goods and services, the 9 RTOs' suppliers (and their suppliers) generated a total indirect revenue of more than 7.4 billion euro and a value added of 3.4 billion euro in the European economy in 2016. More than half of this indirect impact (employment, revenue and value added) was created at the direct suppliers of the RTOs, while the other half was created further upstream in the value chain, with the suppliers of the RTOs' suppliers.

Induced Economic Impact

RTOs' activities generate income for their employees (direct effect) and for the additional employees of their suppliers and further upstream in the value chain (indirect effect). The spending of this additional income in turn leads to induced effects.

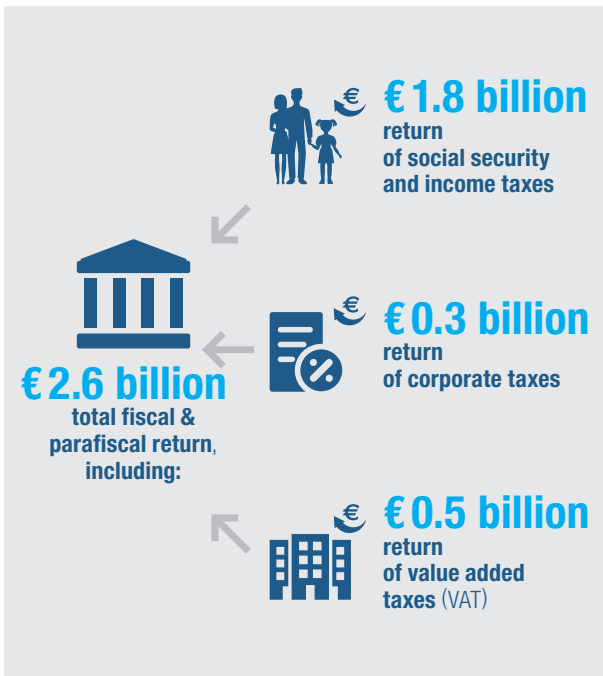


The induced economic impact is created through the directly and indirectly created employment. These employees receive a wage higher than the social benefits at unemployment. This additional income is partly spent in the European economy through consumption of goods and services. This spending generates additional revenue and value added in the European economy.

The employment generated at the 9 RTOs directly and indirectly at their suppliers results in additional household expenditures in the European economy, which in turn creates new employment and value added. In 2016, an additional 10,400 jobs were created in Europe as a result of these 9 RTOs' consumption. The additional consumption (revenue) generated at companies who benefit from this extra household expenditures amounted to 1.2 billion euro in 2016, and the corresponding value added is around 0.6 billion euro. 58% of this induced employment is generated by the household expenditures of the employees of the RTOs, while the remaining 42% is generated by the indirect employees linked to the RTOs' purchases.

Fiscal & Parafiscal Impact

The economic activities of RTOs generate major fiscal and parafiscal returns for governments, essentially through 3 main channels: social security and income taxes, corporate taxes, and VAT.





Based on the direct, indirect and induced effect, the fiscal and parafiscal return to the national governments in Europe can be estimated. This fiscal and parafiscal return is mainly generated through the following channels: the additional employment (direct, indirect and induced) leads to additional social security contributions in different EU countries; the additional production and revenue leads to additional corporate taxes; the additional value added leads to additional VAT.

The direct, indirect and induced economic activities generated by the 9 RTOs generate major fiscal and parafiscal revenues to European governments, amounting to 2.6 billion euro in 2016:

- Taxes levied on the income of employees whose job is directly or indirectly linked to the 9 RTOs (social security contributions and income taxes) amounted to 1.8 billion euro in 2016.
- Corporate income tax revenues collected from companies that supply the 9 RTOs (indirect effect) or its employees (induced effect) with goods and services, amounted to 0.3 billion euro in 2016, assuming that the 9 RTOs themselves do not directly pay any corporate income tax.
- The value added tax (VAT) that stems from the purchase of goods and services by companies and households amounted to 0.5 billion euro in 2016.

Total Impact of RTOs' Core Economic Activities

Adding the direct, indirect, induced and fiscal impact of RTOs' core economic activities result in the aggregated economic effect of RTOs from their core activities.

-  **125,200**
jobs
-  **€ 15.8 billion**
revenue
-  **€ 7.4 billion**
value added
-  **€ 2.6 billion**
fiscal and parafiscal return to governments

For **1 job** in an RTO, additional **1.3 jobs** were created elsewhere in Europe due to RTOs' core economic activities in 2016

For **€ 1 invested** by governments in RTOs as operational grants, **€ 1 return** flew back to those governments thanks to RTOs' core economic activities in 2016




Aggregating the individual economic effects created by the 9 RTOs (direct, indirect and induced), results in an estimate of the total effect of the 9 RTOs' core-activities in the economy.

Taking together the employment that is generated directly at the 9 RTOs, indirectly at the suppliers of the 9 RTOs as well as the employment induced by the consumption purchases of these first two categories, the total employment generated amounted to nearly 125,200 jobs in 2016. Similarly, direct, indirect and induced effects added up to a total revenue effect of more than 15.8 billion euro in Europe in 2016 and the total (direct, indirect and induced) effect of the 9 European RTOs translated into 7.4 billion euro of value added creation (including the operational grants).

Through indirect and induced effects, the total impact of the 9 RTOs' core-activities in terms of employment more than doubles. For each employee working in an RTO, additional 1.3 jobs were created elsewhere in the economy (on top of the one direct job in the RTO itself) due to RTOs' core economic activities in 2016.

The grants that the 9 RTOs receive from national governments trigger economic activity directly at the 9 RTOs as well as indirectly at their suppliers. As a result, a financial flow-back is generated thanks to RTOs' core activities. For every euro invested in the RTOs, there was a return of 1 euro for governments due to RTOs' core economic activities in 2016.

Overview and Add-up of the Different Economic Impact Elements

			
Direct	Direct Employment	Direct Revenue	Direct Value Added
Indirect	Indirect Employment	Indirect Revenue	Indirect Value Added
Induced	Induced Employment	Induced Revenue	Induced Value Added
Total	Total Employment	Total Revenue	Total Value Added
Fiscal Return	Wage Tax & Social Security Contributions	+	Corporate Tax
		+	VAT Revenues

3 Case Studies of RTOs' Investments in Technology Infrastructures

One of RTOs' core mission is to house, manage and provide access to their excellent technology infrastructures. They are the backbone of dynamic R&I ecosystems and play a crucial role for any innovative technology to reach the necessary maturation level, create prototypes, enable upscaling and validate new solutions that can enter the market. Industry relies on RTOs to access such technology infrastructures, as they very often cannot afford the investments and skills needed to operate them. The following case studies analyse the economic effect (direct, indirect and induced) of three RTOs' investments in specific technology infrastructure projects in 2015-2016.

Jules Horowitz research Reactor – CEA

The Jules Horowitz research Reactor (JHR) is an international infrastructure project conducted by the CEA in collaboration with industry partners, the European Commission, and research institutes from 7 different countries. This nuclear reactor is a unique experimenting tool to test material behaviour under irradiation in Europe.

In the year 2016 only, €66 million investment by CEA in the JHR infrastructure led to:



1,240
jobs



€ 140 million
revenue



€ 63 million
value added



€ 28 million
fiscal and parafiscal
return to governments

The economic effect (direct, indirect and induced) of this investment only accounts for the year 2016. Similar effects were generated by CEA's 66.8 million euro investments in 2015. Given that this project started in 2002 and should be completed in 2020, the total effects of the entire project are expected to be a multiple of these figures, also considering the other parties' investments.

New Clean Room – imec

Imec's new clean room is a state-of-the-art technology infrastructure enabling to develop ultra-small chips with the latest industrial standards. To obtain a totally vibration-free and dust-free environment of extreme precision and accuracy, crucial for nanotechnology, the structure rests on 831 concrete piles, placed 18 metres deep in the ground.

In the year 2016 only, €20 million investment by imec in this new cleanroom led to:



420
jobs



€ 46 million
revenue



€ 20 million
value added



€ 8.2 million
fiscal and parafiscal
return to governments

Imec's new clean room comprises a total investment of more than 1 billion euro: 10% for the building and 90% for the equipment. It includes investments both from the Flemish Government and from more than 90 industrial partners from the semiconductor industry. The construction was completed in 20 months and achieved in 2016.

Combined Technology Infrastructure Projects – DTI

In 2016, DTI invested in the creation of unique technology facilities, including the purchase of an ion accelerator to develop new surface coatings which will open up entirely new industrial perspectives. DTI also invested to upgrade some of its existing facilities for advanced packaging development, making them ones of the most modern in Europe.

In 2016 only, €2 million investment by DTI in these infrastructure projects led to:



37
jobs



€ 4.2 million
revenue



€ 1.8 million
value added



€ 0.8 million
fiscal and parafiscal
return to governments

The economic effect (direct, indirect and induced) of DTI's investments in the creation and upgrade of technology infrastructures only accounts for the year 2016, and similar effects were generated by DTI's 2 million euro investments in 2015.

Technological Spillover Effects

Impact in the European Economy

The technological spillover effects of the RTOs also create an economic leverage effect with its knowledge receivers through the valorisation of the technological knowledge into commercially viable activities. Knowledge transformation and transfer at an RTO includes many aspects: its industry intimacy and cooperation strategy, sharing research and technological facilities, staff outflow, scientific transfers through publications, presentations, mandates in universities, PhD or master supervision, academic cooperation, professional education and training etc.

In this study, the focus is put on only three specific forms of knowledge transfer that typically have a substantial economic effect: outflow of staff, contract research and the creation of spin-offs. All three have an important economic impact and illustrate that also the scientific and technological activities have positive economic effects on the European economy – even if it is not their prime objective. The focus of this study is thus not on trying to identify the full impact, which would be primarily scientific and/or technological. The focus is on demonstrating the economic value of RTOs in the European economy – a much less known dimension.

2016

Knowledge Transfer Through Outflow of Research Staff

The number and share of researchers is a good indication of the knowledge input and absorptive capacity in the RTO. Every year, highly-educated people employed by RTOs move to another position within different organisations, including private industry. Their number is an indicator of an important form of knowledge transfer from RTOs. Outflow of highly-qualified staff towards industry contributes strongly to the availability and absorption of high-value knowledge by enterprises and their related industries.



30,400
direct researcher jobs in RTOs that is
56%
of RTOs' total number
of employees



7,500
well-educated and
experienced RTOs' employees
move to another organisation



50%
of the outflow of staff
to private industry in Europe
on average



10%
of the outflow of staff
to another country
on average

Researchers, but also research support staff and technical profiles are highly demanded due to their specific skills to work in a state-of-the-art technological or innovation-driven environment. The number of researchers and highly skilled employees is measured directly at the RTOs. When these researchers with a unique combination of knowledge and know-how leave the RTO to work in another environment, in particular in private industry, they take their knowledge and know-how with them to their new position. Many of the outflowing researchers and highly skilled employees go to industry, often taking up positions with high levels of responsibility (for example in management, product development, strategic business development, etc.).

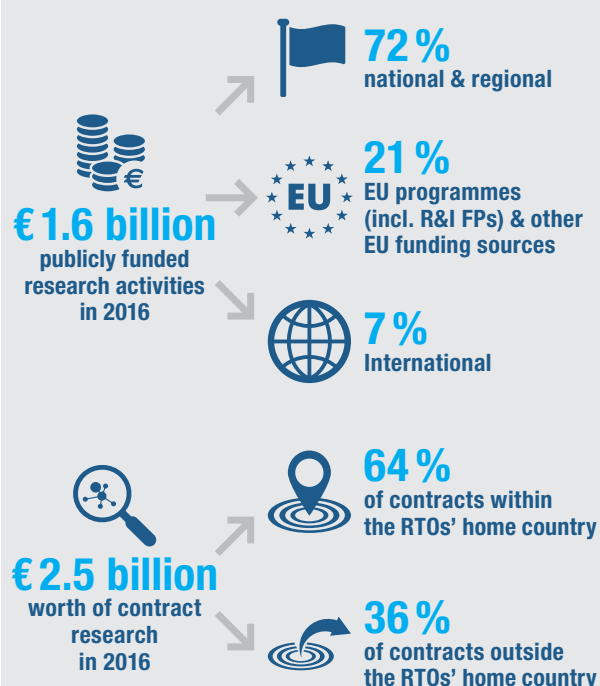
Of the 54,200 knowledge workers directly employed by the 9 RTOs in 2016, around 30,400 are researchers. The 9 RTOs estimate that up to 7,500 employees move from the RTO to another organisation within one year. That is 14% of the total staff each year. Between 2,700 and 3,500 RTOs' researchers and highly skilled employees move each year to private companies, that is about 50% of the total outflow of staff every year. Around 90% of the outflow is estimated to stay within the country of the RTO, the other 10% of staff moving to another country.

Knowledge Transformation & Transfer Through Contract Research

RTOs are increasingly working on research or development for and with firms and are able to leverage the national grant they receive by attracting private funding through contract research. The interaction between public research institutes and industry, adds substantially to the innovative performance and economic development of a region or country. The total amount of the collaborative and bilateral research contracts between the RTO and an individual organisation reflects the value (willingness to pay) that this knowledge transfer has for an individual company. This value further translates into economic effects.

Knowledge Transformation & Transfer Through Contract Research

RTOs' publicly funded research activities and contract research activities in 2016 was worth:



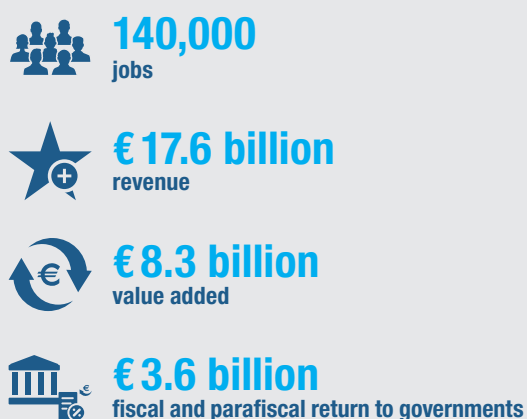
RTOs apply their knowledge and use their infrastructures in a broad range of research projects. One type of projects are competitively funded public research projects, often in cooperation with other research and industrial partners. In addition, RTOs also regularly work on specific research topics together with individual (public or private) organisations in bilateral or multilateral contract research. Both types of projects have an encouraging effect on knowledge transfer.

The 9 RTOs attract each year an impressive volume of around 1.6 billion euro of competitive public funds for research. Around 72% stems from national (or subnational) sources, 21% is funded through European projects, especially via the R&I Framework Programmes.

In 2016, the 9 RTOs participated in bilateral contracts with a total amount of 2.5 billion euro, corresponding to a direct knowledge transfer to their contract partners. Of those contracts, 64% are within the RTOs' home country, 16% from other European countries, and 20% from outside Europe.

Economic Impact of RTO's Contract Research

RTOs' €2 billion research contracts in Europe in 2016 translated into:



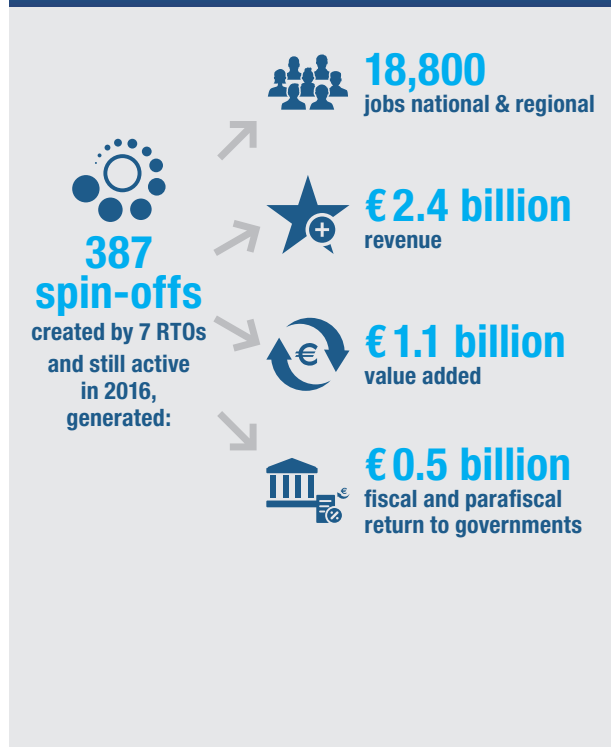
The willingness to pay of RTOs' contract partners, approximated by the amount of the research contracts, can be considered a concrete estimate of the scientific/technological value for the receiving partners. RTOs thus have a scientific/technological impact on the partners they cooperate with by sharing and applying their knowledge in a joint research project.

Besides estimating the knowledge transfer in contract research through the total contract amounts, one can also measure the economic value of this knowledge transfer for the receiving organisation. In 2016, the direct value of the RTOs' global technology transfer through contract research in Europe is then estimated at around 3.9 billion euro. This generated a total value added of around 8.3 billion euro (3.9 billion euro direct, 3.8 billion euro indirect and 0.6 billion euro induced) in 2016, a total revenue of around 17.6 billion euro and a total employment of more than 140,000 jobs (direct, indirect and induced). The economic effects of the 9 RTOs' contract research also led to fiscal and parafiscal flow-back towards governments, amounting to 3.6 billion euro in 2016.

Knowledge Conversion Through Spin-offs

With their open-innovation business model, one of the core missions of RTOs is to transfer research and technology to the market with high impact for society. RTOs have many ways of doing so, one of which being the incubation, creation and development of spin-off companies: deep-tech start-ups. RTOs' spin-offs are nurtured and created by RTOs. They are based on RTOs' unique and differentiated knowledge and technology, often protected with strong IP, and they have a strong industry focus. They are an important instrument to translate RTOs' R&I activities into commercial or industrial applications and leverage the economic added value of this knowledge. RTOs are venture builders, they accelerate the incubation of business opportunities converting innovative technological assets into investment-ready deals capable of generating value for society. Several RTOs have an implicit or explicit spin-off strategy.

Economic Impact of RTOs' Spin-offs

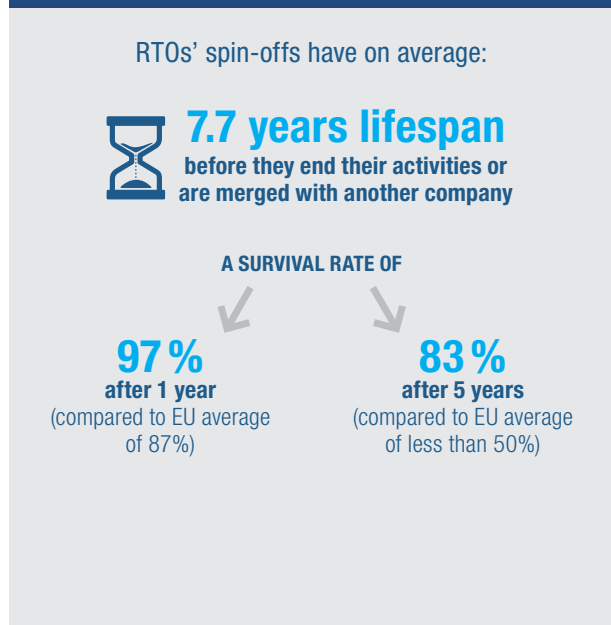


Spin-offs not only have an important potential value added in terms of translating research and technology into commercial applications, they also create new jobs and have a positive impact on economic growth, just like any other new company, and even more. This aspect is considered in the economic impact assessment of the spin-offs.

The socio-economic impact that these deep-tech start-ups generate is thus very balanced between job creation, increase in revenue and capitalisation across the value-chain. The human capital moving from the founding RTO to the spin-off contributes to the availability and dispersion of highly qualified knowledge and skills to the local economy and related industries. In addition, the economic effects of the spin-off activities of the RTOs leads to fiscal and parafiscal flow-backs.

The scientific activities of RTOs have led to the creation of many valuable spin-off activities over the years. 387 of the spin-off companies created by 7 RTOs were still active in 2016. Almost 18,800 jobs were created thanks to those spin-off activities in 2016. Under the assumption that the spin-offs have a similar revenue per capita as the RTOs, the spin-offs' activities led to an annual additional revenue of over 2.4 billion euro and an additional value added of 1.1 billion euro in Europe in 2016. The economic effects of the spin-off activities of the RTOs also led to 0.5 billion euro fiscal and parafiscal flow-back towards governments in 2016.

Survival Rate of RTOs' Spin-offs



The survival rates of RTOs' spin-offs are an indication of the strength in terms of commercialisation opportunities of RTOs' (collaborative) research.

After their creation, RTOs' spin-offs tend to either scale-up by gaining further industrial clients and accessing new markets, or by being integrated into an existing company. In addition, those deep-tech start-ups nurtured by RTOs have generally a better life expectancy than average start-ups. They also have much greater chances of scaling-up in the deep-tech area, creating new industrial champions in Europe.

RTOs' spin-offs are active during 7.7 years on average. 65% of the RTOs' spin-offs still active in 2016 were created in the last ten years. The survival rate for RTOs' spin-offs in the first year after their creation is 97%. As means of comparison, the Eurostat indicator on survival rates of companies at EU28 level for the one-year survival rate is 87% (data 2015), which is considerably lower than the value found for the spin-offs of the RTOs. After five years, 83% of RTOs' spin-offs are still active. This is much higher than the average across European countries, with less than half of the start-ups surviving more than five years in 2015.

EARTO Highlights

350 RTOs Members of EARTO



From
23 countries



Network of
150,000
researchers,
engineers &
technicians



€ 23 billion
revenue
every year



**Several
hundreds**
of excellent
high-tech
infrastructures



Supports
100,000
large & small
companies
per year

EARTO Members in H2020 in Figures

(eCorda data September 2017)



4,318
approved participations
from EARTO members



€ 2.3 billion
EC contribution
received by EARTO
members



€ 12.5 billion
EC funding to projects
with EARTO members
involved (out of € 28.9 billion)



821
project coordinations
by EARTO members



62 %
of the funding
spent so far in Pillar II
(Industrial Leadership)
given to projects with
EARTO members



51 %
of the funding
spent so far in for Pillar III
(Societal Challenges)
given to projects with
EARTO members

Founded in 1999, EARTO promotes RTOs and represents their interests in Europe. The EARTO network counts over 350 RTOs in more than 23 countries. EARTO members represent 150,000 highly-skilled researchers and engineers managing a wide range of innovation infrastructures: a significant resource in support of innovation in Europe.

EARTO

VISION

A European research and innovation system without borders in which RTOs occupy nodal positions and possess the necessary resources and independence to make a major contribution to a competitive European economy and high quality of life through beneficial cooperation with all stakeholders.

EARTO

MISSION

- promote and defend the interests of RTOs in Europe by reinforcing their profile and position as a key player in the minds of EU decision-makers and by seeking to ensure that European RD&I programmes are best attuned to their interests;
- provide added value services to EARTO members to help them improve their operational practices and business performance;
- provide them with information and advice to help them make the best use of European RD&I programmes funding opportunities.



European Association
of Research and Technology Organisations

Rue Joseph II, 36-38
B-1000 Brussels
Tel: +32 2 502 86 98
Email: secretariat@earto.eu
Website: www.earto.eu

EARTO LinkedIn Group: Horizon 2020 – News and Views

EARTO Twitter: @EARTOBrussels

The full report of this Economic Footprint Study 2015-2016 is available on EARTO website.