

"The Role of European RTOs in Supporting EU Open Strategic Autonomy"

Warsaw, 16 May 2024 8.30 – 15.15



François Jacq President, EARTO



EARTO Motto: Impact Delivered! EARTO Vision: Technology for a Better World

FAR



An ambitious EU RD&I Strategy for Sustainable Competitiveness



Eunews.it · 24 j

Draghi's report holds the key to Europe's future competitiveness: "Radical change needed"

Mario Draghi and his report on the future of European competitiveness. For the first time since the assignment by the President of the EU Commission, Ursula von der Leyen, it was Draghi himself who ...

EARTO inputs to Draghi's report



Technology Infrastructures will be key to ensure Europe's leadership



Towards FP10



EARTO Inputs to ERAC on the next European Research & Innovation Framework Programme (FP10)

8 September 2023

RTOs are very pleased with the opportunity offered by the EU Framework Programmes to contribute to the European Research Area by developing pan-European excellent and impactful collaborative applied research. In turn, EARTO Members have been very active participants in EU RO&I Framework Programmes for the last decades (See our <u>analysis for Horizon Europe</u>). With this statement, EARTO brings 6 strategic issues to the attention of the European Council, in its <u>EBAC</u> composition. EARTO offers a practical perspective to refine ERAC's position on the upcoming European Research & Innovation Framework Programme (FP10):

Issue 1. Directionality: Encouraging a stronger and more integrated programming across EU Policies and within the EU RD&I Programme

FP10 priorities need to be aligned with and supportive of the new EU political agenda following the recent succession of crises in Europe. Europe's recovery is linked to its technological and industrial capabilities, its degree of autonomy and its production capacities to produce locally the essential goods and services for its green and digital transitions, health care systems, etc. This will only be possible with massive efforts and investments in RD&I. Consequently, FP10 should focus on a stronger and more integrated programming across EU policies and within the EU RD&I programme, from basic research to applied R&D and innovation.

ERAC and the EC services should define FP10 priorities to effectively structure and manage the FPs to align EU policies and RD&I programming by design. This would help avoid much of the FP's budgetary instability experienced under Horizon Europe as well as avoid the creation of multiple sectorial programmes (See Issue 2 and Issue 3).

Issue 2. Tackling the Recurrent Instability of the RD&I Budget in the Multi-Financial Framework The instability of this budget is three-fold: 1) annual re-discussion of the MFF budget, including the consistent position of the Council to reduce the RD&I budget contradicting the European Parliament's push for an increase, 2) yearly changes in allocations within the FP budget, and 3) regular reallocation of the FP budget to new top-down EU policies, which were not accounted for in the MFF and with no new additional funding by Member States. This budget instability is detrimental to RD&I investments by beneficiaries like RTOs and industry: these investments are largely or-funding EU RD&I programmes and are based on medium to long-term investment strategies. The targets set for the European Research Area will not be reached without the FPs reliability and increased investments.

The Council recognised as early as 2000 that raising RD&I investment has a positive impact on long-term economic growth and employment and set a target for RD&I investment of 3% of GDP. Continued efforts to raise RD&I spending saw Member States set national RD&I investment targets. Despite those efforts, he EU has consistently failed to reach the 3% target agreed by the Council. Although most Member States have raised RD&I spending in the past decade, as of 2021, only four Member States have attained the 3% target. In an era of increasing geopolitical tensions, it is crucial to not fail behind in central RD&I fields and to further increase Europe's research capabilities through substantial RD&I investments. Ongoing crises notwithstanding, renewed and concerted efforts from Member States & EU Institutions are needed to mobilise additional RD&I investments in Europe. Higher RD&I spending is not an end in itself, but the prerequisite to provide innovative solutions to Europe's most presing industrial and solicatal challenges securing EU's productivity, competitiveness, and sovereignty for the years to come.

The European Council is a key actor in the EU budget negotiations. ERAC should have the ambitions to set in stone key parameters supporting the EU RD&I budget to be enforced by their colleagues within the <u>European Council Budget Committee</u> during the next EU budget negotiations. Accordingly, ERAC should look at how to:

 Ringfence the RD&I budget lines within the MFF: the initial budget must be protected to ensure stability, so that participation in FPs remains attractive to participants, academia and industry, especially SMEs. In parallel, keeping a degree of budgetary flexibility to manage unforeseen crises

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Investing more in RD&I as a strategic move for Europe's future prosperity

Open letter to Iliana Ivanova, European Commissioner for Innovation, Research, Culture, Education and Youth

Dear Commissioner Ivanova,

Our organisations, the European University Association (EUA), the European Association of Research and Technology Organisations (EARTO), and Science Europe, represent key research and innovation actors in Europe. With the design of the next EU R&I Framework Programme (FP10) with environ, we stress the crucial role that EU research and innovation investments play in ad relying global challenges, boosting the EU's global competitiveness, and reinforcing its stangic univolmy. In this context, ensuring a strong and sustainable budget for FP10 is a necessary sterowards realising these ambitious goals.

Europe is confronted with multifaceted and interdependent chain mes such as climate change, health crises, and rising geopolitical tensions. At the same time the clobal research, development and innovation (RD&I) landscape is becoming increasingle competitive. While the EU's RD&I investments have intensified over the past two decades, a notice alle ap persists when compared to its main global counterparts, particularly the United Status on CD na.

In order to address these challens's furthely, ensuring strong and sustainable research and innovation investments in Europe By maramout importance. As called for by the Members of the European Parlament Chick to Eth, and María da Graça Carvalho, increasing the budget for FP10 to €200 billion is especially stitul to enable Europe to find solutions to pressing societal challenges. An increased budget in the orally botter collaborative RD&I efforts across member states and leverage private involuments, thill also enhance the use of shared resources, expertise, and infrastructures to address chickees that are increasingly transnational in nature and exceed the capabilities of individual countries.

Beyond increasing the budget for FP10, it is important to address a number of pressing issues. This notably includes the instability of the Framework Programme budget and budget shifts to non-RD&I purposes, which continue to threaten the role of the programme in strengthening societal and economic impact and put at risk the long-term planning of ambitious RD&I policies and other sectorial policies it supports.

Consequently, we highlight the need to ring-fence the programme's budget to safeguard it from yearly discussions in the context of the MFF negotiations and shifts between the different programme components and EU priorities. In addition, introducing any new priority to the programme should be accompanied by additional financial resources. These measures will ensure greater stability of the programme budget and keep the programme attractive to its participants. In parallel, a degree of budget flexibility should be maintained to address unforeseen crises. However, achieving this flexibility will require creating a larger budgetary envelope for RD&I within the MFF and collecting unused pockets of EU financing, rather than re-distributing the existing budget.



- Prioritisation of an excellent cross-border collaborative RD&I with high impact
- Allocation of a budget share of at least 60% of FP10's total budget to EU Industrial Competitiveness
- Pillar 2 key in strengthening EU RD&I ecosystems and industrial value chains





Hubert Cichocki President, Łukasiewicz Research Network





Waldemar Sługocki Secretary of State, Ministry of Economic Development and Technology



Andrzej Szeptycki Undersecretary of State, Ministry of Science and Higher Education



Part 1

The Role of European RTOs in Reindustrialisation of Europe

Moderated by Jesús Valero - CEO, TECNALIA & EARTO Vice President

Keynote Speech by

Michel Viktorovitch Advisor to the President for European Affairs, IFPEN













From research to industry

Innovation as a key driver to reindustrialization

16 May 2024



THE CHALLENGE OF CARBON NEUTRALITY – INNOVATION IS KEY





➤ 3 essential levers:

- Sobriety / Energy efficiency
- Decarbonisation of existing technologies
- New low-carbon technologies



THE CHALLENGE OF CARBON NEUTRALITY – INNOVATION IS KEY

- 35% of CO2 emissions reductions needed come from technologies currently at the prototype or demonstration phase
- A further 40% of the reductions rely on technologies not yet commercially deployed on a massmarket scale





THE INTIMATE RELATION BETWEEN R&D AND POLITICAL ACTION FOR THE GREEN TRANSITION

- With the Green Deal, Europe aims at transforming itself as a modern, resource-efficient and competitive economy, responding to the existential threat of climate change and environmental degradation
- In this complex perspective, for which a change of paradigm is required, science, innovation and technology play a paramount role



The research community is a « trusted actor » enlightening the feasible paths for the political decision-making

Reciprocally, RD&I is a fundamental lever to transform the regulatory framework into concrete solutions for the transition





IFPEN : A RTO COMMITTED TO THE DEVELOPMENT OF THE TECHNOLOGICAL SOLUTIONS OF A FULLY DECARBONIZED ECONOMY





IFPEN GROUP

INNOVATE FOR A DECARBONIZED AND SUSTAINABLE WORLD







IFPEN INTERNATIONAL POSITION



4th worldwide for patents related to to **low-carbon technologies**

atents and the nergy transition ablering in dear energy technology inneration ablering in dear energy technology inneration		Share of IPFs in selected fields												
		Coun- LCE try IPFs	LCE IPFs	Combus tion a	Carburant Iternatif	s ^{luclear}	Solar	Batteries	ccus	Hydrogen and fuel cells	Smart grid	Other enabling	Chemical and oil refining	ICT
April 2021	CEA	FR	1772	0.1%	0.2%	3.9%	0.9%	0.6%	0.0%	1.2%	0.1%	0.6%	0.2%	0.1%
	Industrial Technology Research Institute	TW	846	0.1%	0.1%	0.0%	0.5%	0.2%	0.2%	0.3%	0.1%	0.2%	0.1%	0.2%
	Fraunhofer Gesellschaft zur Förderung der angewandten	DE	725	0.1%	0.2%	0.0%	0.6%	0.1%	0.0%	0.3%	0.1%	0.2%	0.2%	0.1%
	Forschung e.v.	FR	721	0.8%	1.2%	0.0%	0.0%	0.0%	1.4%	0.1%	0.0%	0.2%	1.2%	0.0%
	University of California	US	666	0.1%	0.8%	0.4%	0.3%	0.2%	0.6%	0.4%	0.1%	0.3%	0.3%	0.0%
	Electronics and Telecommuni- cations Research Institute	KR	626	0.0%	0.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.5%	0.1%	0.0%	1.0%
	CNRS	FR	594	0.0%	0.2%	0.1%	0.3%	0.2%	0.2%	0.3%	0.0%	0.2%	0.4%	0.0%
	· · · · · · · · · · · · · · · · · · ·			8									-	

5th applicant & 1st research organization on chemical or biological recycling of plastics

Patents for tomorrow's plastics Clobal innovation trends in recycling, circular design and alternative sources

October 2021



pp 10 applicants in chemica	l and biological r	ecycling, 2010	0-2019				
BIC [SA]		1				,	309
oneywell [US]						287	7
yal Dutch Shell [UK]				19	1		
SF [DE]				185			
stitut Français du Pétrole [FR]				168			
evron [US]			136	5			
niversal Oil Products [US]			129				velles
xon Mobil [US]			126				renes
amco [SA]			106				
tal [FR]			105				
	Number of IPFs 50	100	150	200	250	300	35
						Source: Euro	pean Patent Office

2nd research organization on hydrogen technologies

	Top international applicants in established technologies and technologies motivated by climate (IPFs, 2011–2020)							
Hydrogen patents		Produ	iction	Storage di & transfo	stribution ormation	End use application		
for a clean energy future A global trend analysis of innovation along hydrogen value chains		Established technologies	Motivated by climate	Established technologies	Motivated by climate	Established technologies	Motivated by climate	
January 2023	TOP 3 - Rese	arch						
January 2023	CEA	•	•	•	•		•	
		10	109	21	11	1	7	
Print Office Office excludes division a servet	Energies	•	•		•		•	
	nouvelles	48	30	4	8	1	30	
	CNIDS		•		•		•	
	CINKS	3	30	4	12	1	7	



IFPEN : CONTINUUM FROM FUNDAMENTAL RESEARCH TO INDUSTRIALISATION FIRST EXAMPLE : BIOFUELS PRODUCTION - TECHNOLOGY BIOFUEL





IFPEN : CONTINUUM FROM FUNDAMENTAL RESEARCH TO INDUSTRIALISATION SECOND EXAMPLE : PLASTIC RECYCLING





IFPEN : CONTINUUM FROM FUNDAMENTAL RESEARCH TO INDUSTRIALISATION THIRD EXAMPLE : THE EU BATTERY VALUE CHAIN



Promoting EU technological and industrial sovereignty & Securing strategic metals supply via reycling



EDUCATION TO FACE THE CHALLENGES OF THE ECOLOGICAL TRANSITION





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Keynote Speech by

Mathias Rauch Chief Representative EU, Fraunhofer







Fraunhofer-Gesellschaft

The Role of RTOs in the Re-Industrialization of Europe

EARTO Annual Conference, Warsaw May 16, 2024 | Mathias Rauch





Re-Industrialization for the Better Transformation, Upgrading, Innovation

- Re-Industrialization of Europe needed in high-tech sectors
- Benefits: High-tech sectors overall larger growth potential
- Industry for the future: Human-centered, digital, sustainable, automated, high-tech, high-skilled workforce





Source: Picture AI generated (Microsoft Designer)

The Role of RTOs in the Re-Industrialization of Europe Agenda

- 1. The Re-Industrialization of Europe
- 2. Caught in the »Mid-tech Trap«: Quo vadis Europe?
- 3. Transforming the European Industry: What Needs to Be Done?
- 4. RTOs' Contributions to the Re-Industrialization of Europe



Is Europe caught in the »mid-tech trap«? Quo vadis Europe?

Private sector R&D expenditure 2022 by tech level

(top 2500 companies) 500 400 300 200 100 Ω EU USA Rest of the Germany China Japan world Other high-tech Other mid-tech Pharmaceuticals & biotechnology Automobile & parts Software & computer services Other

EU companies focus heavily on »mid-tech« industries

- Investment and innovation activities differ regarding high-tech (USA) vs mid-tech (Europe)
- Europe: Automotive manufacturers with highest share of expenditure on R&I activities
- Increasing R&I expenditure on high-tech industries by
 USA and China → Europe at the risk of lagging behind

What can be done through the European R&I system?

Source: Own illustration based on EU industrial R&D Scoreboard 2022, ifo Institut 2024.



R&D Intensity Is By Far the Highest Among Top Companies in North America Quo vadis Europe?





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Re-Industrialization Costs, But Not Doing It Costs More

- Significant increase in R&I expenditure in both public expenditure and private spendings required
- Not only quantity, but also quality of spending matters
 → public spending to trigger private buy-in
- Transformation to high-tech sectors vs. mid-tech trap



Source: Picture AI generated (Microsoft Designer)



Increasing Funds Isn't Enough: the European Model Transforming the European Industry

Build on Europe's comparative strengths

- Availability of skilled talent and good education
- Globally competitive R&I ecosystem with well established institutions (universities, RTOs, innovative companies)

Reduce Europe's weaknesses

- Coherence in Europe's R&I policy: Strong political/societal support for cutting-edge technology implementation
- Availability of financing mechanism to support (deep-tech) start-ups and spin-outs
- A common EU capital market and true EU single market

Because Europe can never outspend the US and China. We're not good at being American. Even worse at being Chinese. And we have no reason to. We have a European model that has already brought us this far.«

Margarethe Vestager, 17.04.2024



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Empirical Evidence RTOs' Contributions

Impact high in "knowledge intensive" industries



spent on Fraunhofer budget corresponds to an approximate increase in German GDP of



Cooperation with R&D-prone SMEs



Increase in labor productivity, EBIT, sales, profit per employee Increasing the efficiency of the innovation system

Bridging the valley of death

through continuous research



Shifting the **global technology** frontier

SMEs benefit relatively strongly and significantly in comparison.



Rapid **technology diffusion**, **adaptation** and **acceptance**

Source: Fraser Allander Institute (2020), The macroeconomic impact of Fraunhofer-Gesellschaft. A CGE approach, using micro-evidence



RTOs Enable Industrial Transformation RTOs' Contributions

RTOs transfer high-tech solutions to new applications

RTOs educate the specialists of the future

Investments in RTOs are a targeted contribution to the diffusion of high-tech in innovative use cases

RTOs connect cross-border industries and science

RTOs increase the high-tech absorption capacity of SMEs





Keynote Speech by

Tomasz Fafiński Director - External Funding & Technology Development, GE Aerospace

EAR



Role of European RTOs in Reindustrialization of Europe

Tomasz Fafiński Director External Funding & Technology Development GE Aerospace
Powering the world's airline fleets with nearly 44,000 engines

0:02

Every 2 seconds an aircraft with GE engine technology* is taking off somewhere in the world

³/₄ takeoffs

Three out of every four takeoffs are powered by GE*

~650,000 people

~650,000 people flying at any given time on GE* powered aircraft

11111

WE ARE GO. GE Aerospace celebrates becoming an independent publicly traded company on the New York Stock Exchange. A new era begins. 2 April 2024

*Includes joint venture engines built by CFM and Engine Alliance CFM is a 50/50 joint company between GE and Safran Aircraft Engines Engine Alliance is a 50/50 Joint Venture between GE and Safran Aircraft Engines

GE Aerospace in Europe



- 8 European Countries (+ Turkey)
 - 13,000+ Employees
 - 2000+ Engineers
 - 20+ Manufacturing sites
 - 6 Test Centers and 5 Repair (Hungary, Italy) & Overhaul Centers (UK, Poland, Italy)
 - 39 R&I network with Universities and SMEs

Early-stage research, design and testing, late-stage maintenance and services Aeronautics growth demands continuous innovation

Breakthrough technologies: invent future & improve installed fleet (including Clean Aviation JU)

Electrification



- NASA & Boeing flight program

 testbed for future commercial, military
 applications
- Clean Aviation AMBER program



Advanced architecture

- CFM International* maturing advanced engine architectures for the CFM RISE program
- Step-change in efficiency vs. ducted fans
- Airbus flight test partnership for mid-decade demo
- Clean Aviation OFELIA program

Alternative Fuels (SAF, H2)



........

- CFM International* developing H2 combustion and fuel systems for Airbus ZEROe aircraft project
- Clean Aviation HYDEA program
- Ongoing 100% SAF testing to ensure successful engine operation and impact on contrails assessment



Product Upgrades

- Super computing capability & new technologies to enable fleet upgrades
- Next-generation materials, increased thermal efficiency
- Extends asset life, increases asset value into the next decade

Most comprehensive family of technology demonstrators in company history - R&D spend 6-8% of revenue Ground and flight tests show technology readiness this decade for multigenerational upgrade by mid-2030s

Cooperation with Research and Technology Organizations - European eco-system

- Network of Universities & Research Centers belonging to the European Technology Development Clusters (E-TDCs)
 - 37 parties 22 Research Institutions, 4 SMEs and 11 GE Affiliates based in Italy, Poland, Czech Republic, Germany and Turkey
 - Committed to the research and development of enabling technologies for sustainable aeronautical propulsion, and to share the next European challenge on Clean Aviation
 - 。 One single Agreement for Financial provisions, IP rules, dissemination, publications
- Dedicated & long-term framework agreements with individual Universities & Research Centers
- Programs, internships and scholarships dedicated to students; technical projects realized together with other institutions
- Industrial PhD, cooperation with students' associations
 - $_{\circ}~$ PhD thesis aligned with industrial needs and aerospace research agenda



Strengthening European competitiveness & creating high-skill new jobs Long term collaborations (5-10 years) and Joint Labs in Italy and Poland Aeronautics growth demands continuous innovation

The strategic partnership between Institute of Aviation and GE Aerospace (GE Aerospace) GE Aerospace

- Successful cooperation since **April 2000**, backed by over **100 years of tradition** both of GE Aerospace and Łukasiewicz Research Network Institute of Aviation
- Employees co-located, working in joint teams on the most advanced engineering projects One team
- 9 state-of-the-art laboratories on the campus, aircraft engine tear-down school
- Operating under FLIGHT DECK GE Aerospace's proprietary lean operating model, Safety
 Management System
- Key partnership in Clean Aviation consortia and in national R&D grants
- Strategic cooperation within **aviation associations** in Poland (APAI, AV), shaping strategic initiatives of the aviation industry in the country



Component, Module & Engine Systems Design



 New Production Technologies, Aviation
 Systems (incl. Dowty Propeller & Avionics)



Customer Support, Engine Overhaul & Repair Support



Design for Manufacturing, Production Support

The biggest engineering center in Central and Eastern Europe located in Warsaw Early-stage research, design and testing, late-stage maintenance and services. Fostering top engineering diverse talents in Poland



We invent the future of flight, lift people up, and bring them home safely.







Panel – The Role of European RTOs in Reindustrialisation of Europe

Brigitte Bach CEO, AIT



TRANSFORMATION PATHWAY: DECARBONISATION OF INDUSTRY





Panel – The Role of European RTOs in Reindustrialisation of Europe

Alexandre Pauchard CEO, CSEM



CSEM AT A GLANCE

We are a private, non-profit Swiss **technology innovation center**, a transmission belt between academia and industry.

We enable competitiveness by developing and transferring world-class technologies to the industrial sector.





Panel – The Role of European RTOs in Reindustrialisation of Europe

Chris Dungey CTO, HVM Catapult





UK Catapults are where the application of research is accelerated, where new technologies are further developed, scaled up and realised





The HVM Catapult is a proud member of the Catapult Network where we help to coordinate the broader innovation landscape in the **UK**. We are committed to[•] working with our Catapult partners and Innovate UK, fully leveraging their collective and unique strengths to deliver economic, social, and environmental change for the UK.

Catapults are independent, not-for-profit organisations designed to support innovation through the provision of R&D infrastructure, specialist knowledge and expertise

UK High Value Manufacturing Catapult







Panel – The Role of European RTOs in Reindustrialisation of Europe

Inge Neven CEO, VITO









Panel Discussion – The Role of European RTOs in Reindustrialisation of Europe

Brigitte Bach, CEO, AIT

Alexandre Pauchard, CEO, CSEM

Chris Dungey, CTO, HVM Catapult

Inge Neven, CEO, VITO

Moderated by Jesús Valero - CEO, TECNALIA & EARTO Vice President



Coffee Break 11.15 – 11.45





Part 2

Shaping EU RD&I Policy – Piloting Technology Infrastructures

Moderated by Muriel Attané - Secretary General, EARTO



Towards FP10: Technology Infrastructures

Dominik Sobczak

Deputy Head of Unit, Industrial Research, Innovation & Investment Agendas, DG Research & Innovation, European Commission



Towards a European strategy for Technology Infrastructures

Dominik Sobczak

Deputy Head of Unit

European Commission DG Research and Innovation RTD.E1 – Industrial Research, Innovation and Investment Agendas







Background and policy context

State of play

Future plans



The broad picture



The big goals: strategic autonomy and climate neutrality Industrial transformation and competitiveness **Boosting R&D investments + technology scale-up and deployment Research and Technology Infrastructure capacities and services**



Starting point

Commission Staff Working Document 'Technology Infrastructures' (2019)

- ✓ Characterisation of the TI concept, purpose and role
- Examples of regional, national and EU initiatives

✓ Identification of key challenges:

- Visibility limited awareness of existing services, difficulties to understand the needs and how TIs can support them, lack of skills, knowledge and resources (in particular in SMEs)
- Prioritisation lack of strategic oversight and coordination at EU level, lack of proper gap analysis and prioritisation mechanism supported by investments
- Accessibility limited understanding by companies of access conditions, insufficient understanding of main barriers and challenges, lack of standardised definitions and a common access framework, difficulties to access TIs across regional and national borders
- Networks limited collaboration of TIs, underexploited synergies in service provision, fragmentation of the landscape with high risk of duplication and inefficiencies

New European Research Area

Commission Communication 'New European Research Area' (2020)

- bring together and completing currently existing mappings of available facilities
- perform a gap analysis and prioritisation at EU level
- > elaborate recommendations for common access conditions and engagement models
- > establish a governance structure for TIs

Action 12. Taking up together the challenges posed by the twin green and digital transition, and increasing society's participation in the ERA

 Four activities
 Action 12 – Accelerate the green/digital transition of

 Europe's key industrial ecosystems

- Development of industrial technology roadmaps on low carbon technologies for energy-intensive industries and on circular industrial technologies.
- Creation of a coordination mechanism to provide industry with the Technology Infrastructures needed to test, validate and upscale innovations.
- Build **policy framework** to better support transfer of fundamental/low TRL research results to industrial R&I.
- Address the **social adaptation** of the green (and digital) transitions.

21 MS, 3 AC and 8 SH committed to the action.



Technology Infrastructures in the Council discussions

December 2020: Council Conclusions on ERA

WELCOMES the initiative of the Commission to [...] in accordance with the New Industrial Strategy for Europe and to <u>develop</u> an EU Strategy for Technology Infrastructures to facilitate collaboration and exchange of knowledge between European companies and to ensure their access to the right skills and expertise.

• December 2022: Council Conclusions on Research Infrastructures

ACKNOWLEDGES that both <u>RIs and TIs are a part of the same infrastructure ecosystem</u>; and UNDERLINES that <u>mapping of users' needs for TIs</u>, taking into account relevant work of ESFRI is one of the prerequisites for the identification of a way forward for the implementation of the TI concept within the ERA Policy Agenda and is a starting point for any future strategies and activities.

• December 2022: Council Conclusions on New European Innovation Agenda

ACKNOWLEDGES the <u>vital role of research infrastructures</u>, technology infrastructures and testing and experimentation facilities as regional competence hubs, which attract and integrate a broad range of R&I stakeholders, facilitate acquisition of new knowledge, accelerate the uptake of new technologies by companies, and function as a catalyst for place-based innovation.

- May 2024: Council Conclusions on Knowledge Valorisation (forthcoming)
- May 2024: Council Conclusions on European industrial policy (forthcoming)
- Informal lunch debates: June 2022 (FR Pres.), December 2022 (CZ Pres.), February 2024 (BE Pres.)
- Letta Report on the Single Market (2024): Establishing a strong European technological infrastructure



European Commission - Ongoing work

Evidence gathering / Landscape analysis

- Mapping of regional, national and European policies and programmes (TI study)
 - ✓ Mapping and assessment of the policy landscape for TIs at the EU, national and regional levels
 - ✓ 12 Case studies: funding programmes & instruments, synergies of funds, TI business models, TI mappings, etc.

Mapping of TIs in selected areas

- ✓ Clean and renewable energy technologies (EC study)
- ✓ Report on Open Innovation Test Beds (EC report)
- ✓ Pilot initiative on European aviation Research and Technology Infrastructures
- ✓ RITIFI project biomedical, clean hydrogen, circular materials, superconducting magnets, microelectronics
- ✓ Advanced materials and medical biotechnology (WP 2024)
- Analysis of users needs for TIs (Expert Group)
- Impact of EU state aid rules on investments in TIs and their operation (Expert Group)
- Identifying obstacles for TI investments at national level (Expert Group)



European Commission - Ongoing work

Access to Technology Infrastructures (Expert Group)

- Identifying barriers and challenges to access to TIs
 - ✓ Workshop 'Access conditions to Technology Infrastructures', 27 February, Brussels (report)

Conditions and practices for access to TIs

- ✓ Recommendations leading to increasing the availability, accessibility and visibility of TIs and their services in Europe
- Recommendations on a potential European charter of access to TIs

Concept for an EU-level coordination mechanism (Expert Group)

- Reviewing the concept of TIs, proposing a European definition and typology
- Recommendations for strategic TI pilot areas
- Recommendations for TI investment prioritisation mechanisms and coordination among MS
- Options for (a) coordination mechanism(s) for TIs at European level, incl. governance



Future plans

ERAC (October 2024)

• <u>Discussion on TIs</u> in an ERAC meeting – draft EG report

Expert Group on Technology Infrastructures (December 2024)

• Final report: definition and typology, landscape analysis, priority areas, access, coordination mechanism

Communication on Technology Infrastructures (first half of 2025)

- European approach to Technology Infrastructures: strategy, main elements, implementation
- <u>Political endorsement</u>: ERA Forum, ERAC, Council

Implementation of a European approach to Technology Infrastructures (ERA Policy Agenda 2025-27)

- <u>Setting up a potential governance structure for Technology Infrastructures at EU level</u>: implementation of the outcomes of the Expert Group on TIs, consultations with Member States and Stakeholders.
- Implementation of the TI pilots based on the results of the Expert Group: mapping of TIs and their services in strategic pilot areas, mapping of specific industrial needs and gaps, developing investment plans, facilitating access to TIs in pilot areas.

Thank you!





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Panel – Shaping EU RD&I Policy – Piloting Technology Infrastructures

Sylwester Wyka Deputy Director for Research, Łukasiewicz – ILOT







Shaping EU RD&I Policy – Piloting Technology Infrastructures

Dr Eng. Sylwester Wyka, R&D Director, Łukasiewicz – Institute of Aviation

Warsaw, 16th of May, 2024






How we work in TRIG?

- Goal: to start, coordinate, carry out, and keep track of joint projects dedicated to Research Infrastructures and act as support to EREA Board and other EREA groups to formulate programs and projects related to REs
- **Develop**: detailed position papers on future Research Infrastructure needs within EREA, emphasizing a collaborative European approach, addressing both technical and financial aspects.
- **Connect**: EREA with other parties (EC, ACARE, etc), addressing funding opportunities to build/update/maintain/operate REs
- **Manage:** ongoing Research Infrastructure activities and collaborate with other EREA committees (such as the FS Board), participating in their meetings as needed, and engage with external bodies like ESFRI
- **Promote**: the exchange of best practices about RIs operation, funding schemes and business models.
- **Update**: EREA catalogue of relevant RIs.





How we worked on mapping technology infrastructure needs....

RINGO project (2020) – clear analysis, what is needed in terms of infrastructure, gap analysis for the development of technologies for the future TRIG's position paper and matrix (2023) on EREA's development topics and EREA Member's interest in the development of relevant infrastructures

Input to EC work on European Aviation Research Infrastructures GAP Analysis and efficient dialogue with EC

> European Commissior

Relevant calls to follow. EFTB launched

RINCO Research Infrastructure needs.gaps.overlaps





European Aviation Research Infrastructures – outcome based on EREA input

Physical Infrastructures:

- Flight Test Bed for Hybrid and Distributed Electric Propulsion
- RTIs for New Aviation Fuels and Combustion Technologies
- Adapting Test Capabilities in Strategic Wind-Tunnels
- Manufacturing Technologies for New Composite
 Aerostructures (incl. Circularity)
- Next-Generation Technologies to Reduce Engine Noise
- Next Generation LIDAR Systems
- RTIs for Crashworthiness of Next-Generation Technologies
- Testing Capabilities for New Composite Aerostructures
- Large Unmanned Platform for new entrants in aviation
- Research Airfields for new entrants in aviation

Digital Infrastructures:

- Adapting **digital test capabilities** in strategic wind-tunnels
- Digital Twins for Aviation
- Next Generation digital & automated ATM and UTM
- Next Generation Flight Data Computation
- **Multiscale-Simulation** of the Impact of New Aviation Fuels on Materials
- Digital Methods for Next-Generation Aerostructures



EXAELIA PROJECT – an example of excellent research collaboration

Project proposal is a response to EC Call for the European Flying Testbed

Main objective is to investigate and address the need for novel flying test beds to de-risk the development of future long-range aircraft and accelerate the reduction of aviation emissions and environmental impacts by 2050.

Project proposal gathered:

- EREA: AIT, CEIIA, CIRA, DLR, ILOT, INCAS, INTA, NLR, ONERA
- Universities: 9 partners including Cranfield University, TU Delft, ISAE Supaero, Uni Stuttgart
- SME: 4 partners, including EASN-TIS, Orange Aerospace





DeMoCrite - another example of coordinated research collaboration

- Synergies and momentum amongst EREA members to support advanced research on ٠ Hydrogen Powered Aircraft in a multinational collaboration
- Close synchronization with major research programmes currently running both at • National and EU (HE, Clean Aviation, ...) level to bring European composite hydrogen tank technologies forward
- The project members (CIRA, ILOT, INCAS, ONERA) hold a wide portfolio of National and European research projects relevant to the execution of the proposed research
- Main objectives:
 - Development of a system of modular, replacable hydrogen tanks for aviation purposes – a system that can be used in a similar way to batteries in everyday applications
 - Intrinsic anti-sloshing capabilities
 - Flexible design: possible to use in multiple types of aircrafts and vehicles
 - Improve safety, integration and maintenance





https://hydrogen.aero/







Lessons learnt from the pilot

- Leading role of RTO's in shaping the needs in technology and infrastructure development
- A crucial role of networks, which can empower to impact and influence policymakers decisions
- Being a part of an active network, which is representing a certain group of stakeholders, creates demand from the governing institutions for the results of analysis being part of a collaborative work
- Collaboration can go deeper one EREA proposal to the EFTB call increases the chances to win
- A need to keep industry as a startegic partner in all endevours
- Outstanding issue: how to share technology infrastructures in a fair and safe way in practice (security and legal aspects)











Panel – Shaping EU RD&I Policy – Piloting Technology Infrastructures

Janica Ylikarjula Vice President International Affairs and Policy, VTT







EARTO Annual Conference May 2024 Technology infrastructures







VTT's investments in technology infrastructures to enable a leap in sustainable growth & renewing industry (2023–2025)



2

Pure and stable heat in cities: Domestic district heating reactor operational in 2030

New piloting platform

bringing solutions for

the recycling challenge

of plastics and textiles



A pilot environment for fibre products to significantly reduce energy and water consumption in the forest industry and enable new product innovations



Digital development platform for biosynthetic materials: New materials by natural means 10 times faster Initiative to build piloting environment: Finland as leading RDI cluster in microelectronics and quantum technology

Piloting environment for medical devices

5

13/01/2023 VTT – beyond the obvious

Pilot-scale open access infrastructures – Feedback from industry



Metsä Group

- An international forest industry company active in the field of sustainable bioeconomy
- Develops new wood-based innovations in-house, through corporate venturing and in various types of partnerships
- Invests in innovations that explore new uses for sustainably-grown Nordic wood



Use of infrastructures is a strategic choice

 Metsä Group does not invest in pilot-scale equipment themselves but has a solid track record of investing into precommercial demonstration plants (e.g. Kuura- and Muoto demo plants by Metsä Spring) after the process technology has been validated in the piloting phase in external research and technology infrastructures



The needed infrastructures for

- processing of pulp
- spinning textile fibres
- developing moulded fibre-based packaging products
- processing lignin, coating of paperboard and producing composite materials

have been made available by RTOs, such as VTT, universities, and private R&D service providers.

 Availability of especially pilot-scale technology infrastructure is critical for Metsä Group to commercialise new biobased materials, chemicals and products.



The critical elements of collaboration

- Understanding of industrial production and critical scale-up matters
- Availability of equipment when needed
- Ability to do also small short tests, not just big projects with heavy commitment
- Clear pricing, IP policy and contract templates
- Supporting analytical services and ability of the service provider to cooperate with other service providers (e.g. engineering, concept design)
 - Ability to provide both direct subcontracting and to participate in EU-funded projects

Building a European strategy for technology infrastructures

Networks

•

•

•

Networks of operators

Enabling interregional

Structural collaborations

of infrastructures

value chains

Involvement

based on viable

business models

of stakeholders



- Ensure that different levels of funding match and the right funding is available at the right time
- Create sustainable cost models (full costs)
- Administratively easy, agile and adaptable
- Understand TI operators business model serving local innovation ecosystems and/or pan-European networks
- Caution on creating new legal entities/layers increasing bureaucracy without added value
- Acknowledge specific needs of different TIs
- Justify duplications if needed to serve the local innovation ecosystem

European National

Coordinated funding

- Partnerships
- Industry
- RTOs and universities
 - Support access for co-creation collaborations

Impact

Prioritization

- Piloting and scale up & incentivise private RDI
- Small and large projects for sustainable industry solutions
- Programmes suitable for the sector's needs
- TRL 4-7

Investments



beyond the obvious

First Name Surname firstname.surname@vtt.fi +358 1234 5678 @VTTFinland @your_account

www.vtt.fi

Panel – Shaping EU RD&I Policy – Piloting Technology Infrastructures

Bertrand Bouchet Director EU Office, CEA







Technology infrastructures and State aid regulation

EARTO annual conference



State Aid regulation – How does it work for RDI

- The nature of the activity not the legal status or the financing modalities is key parameter for applicability of the State aid regulation
 - The framework distinguishes between non-economic and economic activities of research and organisations and research infrastructures. Only economic activities qualify as State Aid
 - > Public funding for non economic activities is not limited by the State Aid regulation
 - Public funding for RDI economic activities can be authorised after formal notification but under conditions : it adresses a market failure and it is limited in intensity

In the field of RDI

- if your activity is of economic nature, you are considered an undertaking, and any State public support is a potential State aid.
- If your activity is non-economic, you are considered a « research and knowledgedissemination organisation », which can be supported by national/regional funding.
- What if you do **both** ?
 - If the share of economic activity is below 20%, it is considered ancillary and falls outside State aid rules
 - The economic activity **cannot lead to an indirect state aid** to a specific undertaking

Two types of infrastructures in the RDI framework

- **"Research infrastructures" :** facilities, resources and related services
 - used by the scientific community
 - to conduct research in their respective fields and covers scientific equipment or set of instruments, knowledgebased resources (...)

In most cases their activity is considered non economic – no limitation on state aid

If the share economic activities represents more thant 20% of the total, the State Aid shall not exceed <u>50%</u> of eligible costs

- "Testing and experimentation infrastructure" new : facilities, equipment, capabilities and resources,
 - used predominantly by undertakings, especially SMEs
 - seek support for testing and experimentation, in order to develop new or improved products, processes and services, and to test and upscale technologies, to advance through industrial research and experimental development (...).

If the share of economic activities represents more than 20% of the total, the State Aid shall not exceed <u>25%</u> of elilgible costs

- For practical implementation of the state aid framework to Tis (see JRC decision tree) :
 - Identify the share of economic activities an "effective collaboration" between RTO and industry is not an economic activity
 - Ensure that <u>economic activities are provided at market price</u> and on a non-discriminatory basis



The case of technology infrastructures



Where do technology infrastructure fall in this classification ?

- No agreed and legally recognised definition of the concept of TI as of today
- A reference definition given in the Commission's SWD of 2019 puts the emphasis on industrial players as "main users" of Technology infrastructure

Not entirely accurate

 RTO and research organisations in general are usually main users of TIs, even if they work for and with industry

Potential impact of an EU support instrument for Technology infrastructures

- Funding for access to industry (large firms, SMEs, start-ups...)
- Requirement for access at market conditions (to avoid indirect state aids)
- ⇒ Could force economic activities above the 20% ancillarity cap
- ⇒ This would mean that State aid regulation should apply and restrain potential public support to investment and operation of TIs





Main messages

- Technology infrastructure' are facilities and resources, used either for technology development at intermediate TRLs or for testing and demonstration at higher TRL or for both
- Their mission is to support industry needs by enabling the technology transfer "from lab to fab" but they have a variety of users, research organisations and industry
- Any attempt to give a definition should take both these aspects into consideration
- In most cases, there can be no viable economic model for technology infrastructures without significant public funding : the State aid implementation or interpretation should not lead to restriction to national or regional support for the very large share of their noneconomic activities
- A potential EU instrument to support access to technology infrastructures should ensure that it does not force the share of economic activities to exceeds the 20% ceiling

Panel – Shaping EU RD&I Policy – Piloting Technology Infrastructures

Sophie Viscido Principal Consultant, Technopolis









Stocktaking on Policy Initiatives and Funding Programmes to Address and Support Technology Infrastructures (TIs) on National, Regional and EU level

EARTO Annual Conference

May 2024



Landscape analysis of strategies, policies, programmes, instruments, public and private investment plans and funding streams, and specific legal acts supporting Technology Infrastructures at regional, national and EU levels – covering all the steps of the TI lifecycle.

Specific objectives:

- Qualitatively and quantitatively map and assess the policy landscape for TIs in the EU-27 countries, with 5 third countries as benchmark: Canada, Japan, UK, US, Switzerland
- Assess the use of the TI concept and relevant definition and scope across the EU-27 countries
- Analysis of the EU policy landscape for TIs, identifying the scope, objectives and impact of the different instruments supporting TIs at EU level
- Looking back over the past 10 years, capturing the current trends and upcoming developments in the next 5 years
- Cross analysis and gap analysis with the aim to provide relevant and evidence-based input and recommendations for policy developments





technopolis Turning the currently fragmented landscape into an offective and officient European strategy for Tls effective and efficient European strategy for TIs

Objectives	Desired state	Current trends	Gaps	Recommendations
Availability of state-of-the-art TIs in Europe to fulfil policy objectives	Coherent policy landscape with sound needs assessment and prioritisation to avoid gaps	Evolving policy landscape and role of TIs in public policies with some good practice examples	Fragmented policy landscape supporting Tls: limited means to avoid unecessary duplications and gaps in Tls	A. Foster multi-level coordination and alignment between policies, strategies and roadmaping exercises
> >	Effective and efficient funding mix enabling speed and agility	TI CapEx funding mix requiring multi-level combination of funds, mainly from ad-hoc sources	Fragmented funding landscape to support capital investment in TIs: lack of speed, agility and long-term planing possibility	B. Improve the availability of funding streams for the creation and upgrade of TIs and navigability of the funding landscape, also fostering combination of funds
Pan-EU visibility and accessibility of TIs in Europe	Effective support mechanisms to enhance the operational use of TIs across Europe	Various channels to enhance the accessibility to TIs: good examples that could be further leveraged	Fragmented funding landscape to support the use of TIs: lack of visibility, accessibility and long- term sustainability of TIs	C. Foster complementarity and inter-connections between funding instruments and support schemes supporting the use of TIs to ensure accessibility of TIs across Europe



A. Towards a coherent policy landscape with sound needs assessment and prioritisation to avoid gaps



Current trends

Evolving policy landscape and role of TIs in public policies

- Variety of terms and definitions characterising TIs across Europe
- Role of TIs recognised in public policies, in between policy areas
- Few mappings/ inventories of existing TIs
- Few roadmaping processes for TIs

Gaps

Fragmented policy landscape supporting TIs: limited means to avoid duplications and gaps

- Lack of maturity of the TI concept across EU countries
- Lack of policy alignment
- Lack of awareness and visibility of the current TI portfolio
- Lack of needs' assessment mechanisms and roadmapings

Recommendations

- A. Foster multi-level coordination and alignment between policies, strategies and roadmaping exercises
- 1. Establish a governance framework with clear identification of roles for multi-level coordination
- 2. Promote alignment on a common definition of TIs across Europe
- 3. Identify priority areas for EU support to TIs in line with EU policy objectives
- 4. Coordinate roadmaping exercises and TIs needs and gaps assessments with a technology-oriented approach
- 5. Foster the use of European Partnerships, ETPs and Industrial Alliances to create and maintain mappings of TIs and provide input on needs' assessments and roadmapping



B. Towards an effective and efficient funding mix enabling speed and agility



Current trends

TI CapEx funding mix: multilevel combination of funds, mainly from ad-hoc sources

- CapEx through ad hoc investments and base funding
- Few public investment
 programmes for CapEx
- Thematic focus of many initiatives funding TIs
- Rare private investments
 in CapEx
- Limited use of loans
- Co-funding often required, which creates significant challenges
- **Considerable time-laps** between planning and first operational use

Gaps

Fragmented funding landscape for CapEx: lack of speed, agility and longterm planing

- Lack of means for largescale investments for TIs
- Lack of predictability of funding, preventing longterm planing
- Lack of speed and agility
- Challenging co-funding mechanisms
- Under-investment in TIs from private sector (CapEx)
- Regulatory, legal and financial barriers to diversification of TI funding mix

Recommendations

B. Improve the availability of funding streams for the creation and upgrade of TIs and navigability of the funding landscape, also fostering combination of funds

- 1. Create an interactive tool to increase awareness and ease navigability across funding streams and for multilevel combination of funds
- 2. Assess lessons learned from the (new) public instruments (e.g., OITBs, TEFs)
- 3. Create a dedicated EU funding scheme to support large scale investments in TIs (speed & adaptability)
- 4. Enhance cross-country collaboration for the establishment of TIs at the right level and scale
- 5. Align multi-level funding conditions and provide an enabling framework for the combination of funds
- 6. Investigate possibilities for the diversification of the funding mix to fund TIs' (loan, private, foundations)





C. Towards effective support mechanisms to enhance the operational use of TIs across Europe

Current trends

Various channels to enhance the accessibility to TIs

- Private support for the use of TIs, partly covering OpEx
- Public R&I programmes for technology transfer partly supporting access
- Role of "intermediaries", e.g., EDIH, Clusters, EEN
- Limited use of interregional collaboration investments (e.g. EIE, I3)
- Examples of networks at EU level to support access to TIs and exchange good practices

Gaps

Fragmented funding landscape to support the use of TIs

- Lack of support to (pan-EU) access to TIs
- Limited coordination between initiatives supporting access
- **Barriers to access** due to the implementation of State Aid rules
- Limited use of
 "intermediaries" to support SMEs' access
- Lack of speed and simple access conditions for SMEs'
- Limited **platforms and networks** for competence building

Recommendations

C. Foster complementarity and interconnections between instruments **supporting the use of TIs** to ensure pan-EU access

- 1. Incentivise the use and access to TIs through the EU FP and interregional collaboration schemes
- 2. Foster the creation of structural networks of TIs to enhance complementarity (incl. existing platforms)
- 3. Assess the effectiveness of the instruments currently used to support SMEs' access to TIs to identify good practices
- 4. Further investigate the barriers linked to the implementation of the EU State Aid rules and other regulatory framework conditions
- 5. Promote the sustainability of TIs' business models through good practices examples
- 6. Ensure support to "non-technological" services and skills required for technology uptake







Thank you!

Sophie Viscido, Principal consultant in EU R&I policy, sophie.viscido@technopolis-group.com

Abidjan Amsterdam Berlin Bogotá Brighton Brussels Frankfurt/Main London Paris Stockholm Vienna Panel Discussion – Shaping EU RD&I Policy – Piloting Technology Infrastructures

Sylwester Wyka, *Deputy Director for Research, Łukasiewicz – ILOT*

Janica Ylikarjula, VP International Affairs and Policy, VTT

Bertrand Bouchet, Director EU Office, CEA

Sophie Viscido, Principal Consultant, Technopolis

Dominik Sobczak, *Deputy Head of Unit, Industrial Research, Innovation & Investment Agendas, DG Research & Innovation, European Commission*

Moderated by Muriel Attané - Secretary General, EARTO

#EARTOAC2024

Networking Lunch 12.30 - 14.00





Part 3

Spreading Excellence & Developing RTOs Capabilities Across Europe

Moderated by Muriel Attané - Secretary General, EARTO

#EARTOAC2024



Panel – Spreading Excellence & Developing RTOs Capabilities Across Europe

João Claro CEO, INESC TEC





Spreading Excellence & Developing RTOs Capabilities Across Europe

João Claro EARTO Annual Conference 2024 Warsaw, Poland, 16 May 2024

1. Base conditions

- Capacity building for all stakeholders: infrastructures, education and training, knowledge sharing
- Ecosystem development: diversified networks of stakeholders, fostered by cluster policies
- Stable and base funding: critical for RTOs to better identify and support industry needs
- 2. Feeding regional systems, boosting development, accelerating convergence for excellence
 - Access European project results and promote cross-fertilisation and further exploitation
 - Enter EU-funded projects and initiatives, using structural funds namely in co-funded programmes

USEFUL INTERVENTIONS

3. Public framework conditions

• Public administration capacitation on understanding innovation cycles, ecosystems and flows, avoiding

silos, utilising peer-sharing and peer-review

• Adequate policies, programmes and instruments at European and national/regional levels: more than

specific tools, ensuring principles in traditional instruments; better articulation and harmonisation,

including between smart specialisation and framework program

PARTICIPATION IN H2020 AND HEU



- Widening
 - Successful proposals: 2 twinning, 1 ERA Hub Pilot ٠
 - HEU: 7 submissions, 1 approved, 3 awaiting evaluation results •
Panel – Spreading Excellence & Developing RTOs Capabilities Across Europe

Boštjan Zalar Director, JSI





JSI opinion on Widening activities in FP10

EARTO Annual Conference 2024 Warsaw, Poland

Part 3: Spreading Excellence & Developing RTOs Capabilities Across Europe

Prof. Dr. Boštjan Zalar Jožef Stefan Institute 16 May, 2024



The Role of the Widening Activities and Recommendations for Their Improvements

EU should continue supporting MSs with low participation rates in FPs at an accelerated pace.

Widening measures should be aimed at creating competitive research environments, namely development of support services of research organisations and investments in the research infrastructures.

The aim is to upgrade the working environment of excellent research organisations/teams in widening countries to a level comparable at the EU and global level.

Participation of partner from non-widening country must not be required, but rather replaced with the standards defined in the calls, which should be achieved by the RO (for example: well-developed knowledge transfer, support for communication with public, targeted information on calls, support with application writing, ...). Good practice: experiences with obligatory Gender Equality Plans according to clearly defined standards with the aim of designing and building a better working environment.

JSI in HEU



Widening: 29 applications, 6 accepted projects, all Twinning, 3 as coordinator, 3 as beneficiaries.

HORIZON EUROPE 2021 - 2027 April 2024	PROPOSALS - TOTAL	ACCEPTED PROJECTS	GRANT VALUE
IMPLEMENTING HORIZON EUROPE			
Pillar1: EXCELLENT SCIENCE	151	33	7.890.571,67
Pillar2: GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS	274	48	24.420.369,25
Pillar3: INNOVATIVE EUROPE	101	14	2.972.277,09
WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA	29	6	1.997.207,49
IMPLEMENTING DEFENCE FUND	8	4	1.657.125,00
<u>TOTAL</u>	563	105	38.937.550,50

Panel – Spreading Excellence & Developing RTOs Capabilities Across Europe

Gregor Anderluh Director, NIC





EARTO Annual Conference 2024 Warsaw, Poland, 16. 5. 2024

Part-3: Spreading Excellence & Developing RTOs Capabilities Across Europe

Prof. Dr. Gregor Anderluh



(ALCO)

2023

Applicative research

9

eadiness level

Ř

Technology

Net EU contribution (EUR) by thematic priority / type of action /...



KEMIJSKI INŠTITUT

Horizon- WIDERA- Teaming for Excellence

CENTRE FOR THE TECHNOLOGIES OF GENE AND CELL THERAPY





- Widening mechanisms should remain to encourage mobility and infrastructure building in countries which are lacking these categories.
- Seal of Excellence should spread to Widening mechanisms. It is the responsibility of each country to make use of the Seal of Excellence or not, but the European Commission should make it available.
- HOP ON- more promotion for this opportunity needed between coordinators of projects.
- ERA Talents should be treated as Marie Sklodowska Curie Activity, to enable the equal quality mark in researcher's career.
- More coherent rules between different sources of funding required: less different rules for different grants.

Panel – Spreading Excellence & Developing RTOs Capabilities Across Europe

Rolandas Urbonas Deputy Director, LEI







LEI opinion on Widening activities in FP10

EARTO conference Role of European RTOs in Supporting EU Open Strategic Autonomy Warsaw, Poland

Session 3 Spreading Excellence & Developing RTOs Capabilities Across Europe

Rolandas Urbonas

Lithuanian Energy Institute

16 May, 2024

The role of the Widening Activities and recommendations for their improvements



- It is essential to continue the 'Widening participation and spreading excellence' component in FP10 because this component:
 - Addresses existing disparities in EU countries in funding Research, Development, and Innovation activities;
 - Increases <u>collective strength</u>, integrates EU's research and innovation landscape, strengthens EU Open Strategic Autonomy, and thus contributes to building a more competitive and resilient EU as a whole;
 - Fosters collaboration and knowledge exchange across the Union's borders, which improves unity in many fields.
- Recommendations for improvements of Widening Activities:
 - FP10 should <u>retain key elements</u> from the Widening component, which aims to help the capacity-building of the research institutions in widening countries.
 - The <u>Hop On instrument needs further attention</u> and improvement. Including a new "Widening" participant after the proposal's approval is difficult.
 - Widening component should help integrate other actions across the programme to genuinely enhance the R&I collaboration across Europe and the overall participation of all EU Member States in all areas of the FP10.
 - Coordinate EU funding programmes that have RD&I components in terms of harmonistation.



The success rate of the consortium submitting grant applications is **33 percent** (4 financed out of 12 submitted)

Panel Discussion – Spreading Excellence & Developing RTOs Capabilities Across Europe

João Claro, CEO, INESC TEC

Boštjan Zalar, Director, JSI

FAR

- Gregor Anderluh, Director, NIC
- Rolandas Urbonas, Deputy Director, LEI

Moderated by Muriel Attané - Secretary General, EARTO

#EARTOAC2024

EARTO Annual Conference 2025 at REDIT – Valencia, Spain



1 – 3 April 2025





Save the Date!

Thank you for attending EARTO Annual Conference at Łukasiewicz – Institute of Aviation!

One bus from ILOT to the Airport at 15.45/16.00

#EARTOAC2024





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