

# EARTO INNOVATION AWARDS 2024

attributed to

**VITO**

**A robust and reliable membrane technology for water reuse**

&

**INESC TEC**

**Digital profiling technology to improve One Health: iLoF**

Brussels, 23 October 2024

The EARTO Innovation Awards 2024 were given today to EARTO members **VITO** and **INESC TEC** during a ceremony held in Brussels. VITO received the award in the Impact Delivered category for the development of **Blue Foot Membranes, a robust and reliable membrane technology for water reuse**. INESC TEC received the award in the Impact Expected category for the development of **iLoF, an AI-powered photonic technology to select the right patients for the right clinical management**.



**VITO – Blue Foot Membranes**



**A new membrane technology for water reuse**

**Blue Foot** is transforming water reuse with its Integrated Permeate Channel (IPC®) membranes, designed for industrial and municipal users to shift from wastewater discharge to reuse, closing the water loop on-site.

These **3D textile membranes**, anchored on both sides, provide advantages like **minimal energy use, a smaller footprint, and lower costs** compared to traditional solutions. Blue Foot helps **conserve 14 million m<sup>3</sup> of water** annually, potentially **saving 1.4 million kWh of energy** and **reducing CO<sub>2</sub> emissions by 500 tons** per year.



**INESC TEC - iLoF**



**Digital profiling technology to improve One Health**

**iLoF** is an **AI-powered photonic technology** to select **the right patients for the right clinical management** by extracting unique digital fingerprints based on key biological micro and nano targets. Non-invasive and using only light, iLoF promises to revolutionise personalised medicine and drug development by finding an affordable way to lead the patient to the right treatment.

This light-based solution **reduces screening time by 70%** and **cuts costs by up to 40%**, improving both patient care and trial outcomes. This way, iLoF aims to **make treatments more affordable**, benefiting patients and pharmaceutical companies while driving innovation and economic growth.

Created in 2009, the EARTO Innovation Awards highlight the various areas of RTOs' activities and illustrate RTOs' concrete contributions to innovation with high societal impact through the two categories: "Impact Delivered" and "Impact Expected". The Awards' independent jury chose the best innovations of the year. Our Jury Members this year were:



**Salla Saastamoinen**  
Deputy Director General,  
DG Joint Research Centre,  
European Commission



**Dave Wilkes**  
Director,  
Innovate UK



**Christian Ehler**  
Member of the  
European Parliament

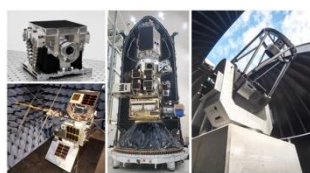


**Jana Kolar**  
Executive Director,  
CERIC-ERIC & Chair,  
ESFRI



**Juan Antonio Tébar**  
Director,  
CDTI

On the same day, EARTO published the 2024 edition of its **Innovation Awards online brochure**, a collection of thirty-nine innovations featuring EARTO members, which gives a flavour of the wide range of RTOs' work. Such innovations demonstrate RTOs' capacity to support Europe's innovation performance and their focus on solving today's challenges and delivering impact. The brochure includes articles on all RTOs that took part in this year's competition, as well as articles on RTOs International Network (RIN), with a special focus on the 6 finalists which are, in addition to the two above-mentioned winners:



**TNO** innovation  
for life

**G&H**

**AAC  
HYPERION**

**IMPACT DELIVERED – 2<sup>ND</sup> PRIZE**

**TNO – CubeCAT** laser communication terminal overcomes the limited availability of RF bandwidth to download satellite data by using the power of light and the virtually unlimited bandwidth in the near-infrared spectrum for data transmission. CubeCAT signals a future where fast, secure, and energy-efficient laser communication will revolutionise data relay from space to Earth.



**cea**

**SYMBIO**  
A FRONT-RUNNER HYDROGEN COMPANY

**IMPACT DELIVERED – 3<sup>RD</sup> PRIZE**

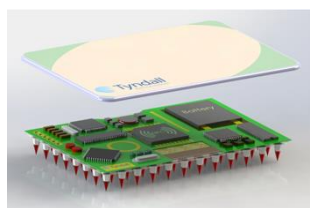
**CEA – StackPack 75**, a new Hydrogen fuel cell Proton exchange membrane (PEM), is 30% more compact than previous generations and the specific design of its cells optimises the electrochemical reaction on the active surface by more than 20%. With these new features, StackPack 75 intends to accelerate the deployment of clean mobility.



**VTT**

**IMPACT EXPECTED – 2<sup>ND</sup> PRIZE**

**VTT - Hypermine** is a cutting-edge analyser that uses a laser-based hyperspectral sensor to scan the surface of mine materials and reveal their mineral contents. It allows real-time mineralogy sensing that optimizes mine management, ensuring a more profitable production, but also significantly reducing the environmental footprint of mining activities.



**Tyndall**  
National Institute  
Institútu Naisiunta

**IMPACT EXPECTED – 3<sup>RD</sup> PRIZE**

**TYNDALL - MicroTIPs** are painless microneedles with smart sensors, actuators, electronics and wireless connectivity to create an entirely new class of medical devices. Using microneedles to interface with the skin, MicroTIPs will continuously monitor patient wellbeing, autonomously deliver medicants tailored in real-time to the needs of the user, and provide a two-way link between the patient and healthcare provider.

Full EARTO Innovation Awards 2024 brochure available [here](#).

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**EARTO Innovation Awards** are given since 2009 to illustrate RTOs' key contribution to innovation. Two categories have been created: Impact Delivered and Impact Expected. The Impact Delivered Award is given to an innovation already in the market and which has proven its impact on Europe's economy and/or society, while the Impact Expected category rewards an innovation which is not yet on the market but has great potential.

**RTOs - 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 whose core mission is to produce, combine and bridge various types of knowledge, skills and infrastructures to deliver a range of research and development activities in collaboration with public and industrial partners of all sizes. These activities aim to result in technological and social innovations and system solutions that contribute to and mutually reinforce their economic, societal and policy impacts.

**EARTO - European Association of Research and Technology Organisations:** Founded in 1999, EARTO promotes RTOs and represents their interests in Europe. The EARTO network counts over 350 RTOs in more than 31 countries. EARTO members represent 228,000 highly-skilled researchers and engineers managing a wide range of technology infrastructures.

**VITO** is an independent Flemish research organisation in the area of cleantech and sustainable development. Their goal is to accelerate the transition to a sustainable world.

**INESC TEC** the Institute for Systems and Computer Engineering, Technology and Science is a major Portuguese RTO dedicated to R&D and tech transfer of digital innovations.