



BRINGING RESPONSIBLE AI
TO EUROPE AND THE WORLD

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AI and Robotics Testing and Experimentation Facilities (TEFs) Launch in Copenhagen June 27, 2023

Digital technologies play an increasingly large role in all aspects of our lives, from production lines and supply chains to the hands and lives of every citizen. Artificial intelligence (AI), robots, drones, adaptive software and data have already entered nearly all parts of society.

To ensure that these technologies is put to good use in alignment with societal goals – be it safety, welfare, sustainability, inclusion or the economy – there is a growing need to test and ensure that they behave in a responsible and trustworthy manner, while the providers can thrive in serving this growing market.

The European AI and robotics Testing and Experimental Facilities (TEFs) are an initiative to build a permanent capacity to test and approve these new technologies before they hit the streets.

What is a TEF?

The TEFs are permanent facilities in the European Union where complex digital technologies like AI and robotics can be tested in real world settings, both physically and through simulation: from robots and artificial intelligence to networking protocols and data processing and management.

The easiest way to understand what the TEFs do is to look at them as a sort of safety filter between emerging digital technology, AI, robotics etc., and the citizens in EU, as well as in the rest of the world.

This filter – the four TEFs – acts as a way to test these technologies before they reach infrastructure, society, companies and consumers. The filter turns complex technology with pointy ends into something softer and more society- and human-ready. Into good products basically. That's what we would expect from any other sector, but these technologies are new, so we have to set up new, and permanent, ways to bring them both safely and swiftly to market.

Today, companies, institutions, governments and others who want to use technology like AI cannot reliably test these devices or software in real-world settings. They might want to test something before trying to sell it, or they might want to know if and how something works before buying it. But they can't because there is currently no framework to test such technologies consistently at scale.

The TEFs change all of this. They provide a service where technology providers can have their technology tested and experimented in real world scenarios – both physical and virtual. With customers, investors and regulators as drivers of this demand, they can get their products and services approved for use in the EU and the rest of the world.

You could also look at the TEFs as a digital version of the Euro NCAP (the European New Car Assessment Programme) crash test system which tests the safety of vehicles today.

Right now the TEFs are divided into four domains, each covering distinct areas: **Agriculture and food, manufacturing, healthcare** and finally **cities and communities**.

- The **agrifoodTEF** deals with the agricultural sector and food production. This could be everything from testing a robotic tractor to artificial intelligence in crop rotation software.
- The **TEF-Health** deals with the healthcare sector, from next generation artificial hearts to the use of machine learning in medical imaging and diagnostics for example.
- The **AI-Matters** TEF will test technology within manufacturing, from robots in plastic moulding to drones in industrial warehouses.
- The **CitCom.ai** TEF is a bit different. With an initial focus on power, mobility and connectivity, it's job is to test AI and robotics before they get into places where humans live and move around. This could be self driving cars but it could also be telecommunications data retrieval software. Or the robotic tractor being used in a municipal park. CitCom.ai works as a sort of cross-domain filter between technologies, infrastructures and citizens where they live.

Now it might seem like a very cautious approach to technology development. But the idea is to be able to hit speeder and the brake pedal optimally at the same time. The TEFs ensure that the EU adopts the best technology solutions going forward so that we end up with good competitive products without sacrificing our societal goals.

And this is where it gets clever. Because other than being a filter to provide testing and approval as a service, the TEFs also inform policy and provides feedback from the real world. Regulators will make great use of the testing and experimentation being done at the facilities, and policy makers can look over the shoulder of the TEFs and make more informed decisions about what is safe and proper use of a technology. So that they create safe, inclusive, sustainable and prosperous conditions for EU citizens, and optimal opportunities for European technology providers competing responsibly in a global market.

Launch registration: <https://www.danskindustri.dk/brancher/di-digital/events-og-netværk/arrangementer/2023/tef-kick-off-juni/>

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