Funding approved

Two more technology transfer centers for Switzerland

The Federal Department of Economic Affairs, Education and Research (EAER) and the AM-TTC Alliance, the umbrella organization of technology transfer centers in the field of Advanced Manufacturing (AM) technologies, decided in November to fund two more centers in the fields of collaborative robotics and photonics with 6.5 million Swiss francs until the end of 2024.

Swiss universities and research institutions are world leaders in many fields. Switzerland is also among the leading nations in terms of research results and the resulting patents. However, new manufacturing technologies often do not find their way from the research laboratories into industrial applications. Their path ends in the "valley of death" for innovations.

This is where the initiative to establish a network of Swiss technology transfer centers, the Advanced Manufacturing Technology Transfer Centers (AM-TTC), comes in. The initiative is part of the federal government's action plan for digitization and aims to maintain Switzerland as a modern and high-quality production location in the long term. The AM-TTC initiative aims to establish and make accessible infrastructures that will enable Swiss industry – especially local SMEs – to learn about, try out and transfer new manufacturing technologies into their production.

The individual centers are founded and financed in a public-private partnership between the public sector and industry. The partners and consortia of the centers are made up of Swiss research institutions and industrial companies. Thus, these centers are also places where partners from science and industry can jointly develop new manufacturing technologies and make them suitable for industrial use.

First centers established in 2019

Two centers have already been established in 2019: the ANAXAM center, which makes it easier for industrial companies to use the beamlines of the Paul Scherrer Institute (PSI) to study their materials and products; and the Swiss m4m Center, which gives MedTech companies access to an ISO 13485-certified pilot production line for 3D-printed medical implants. In the start-up phase until the end of 2020, these two centers were supported with funding from the ETH Board; since the beginning of 2021, they have been supported with funding from the federal government as research institutions of national importance (in accordance with Art. 15 of the Law on the Promotion of Research and Innovation (FIFG)).

Funding for two more technology transfer centers

At the end of November this year, following a comprehensive selection process, the Federal Department of Economic Affairs, Education and Research (EAER) and the AM-TTC Alliance, the umbrella organization of the AM-TTC initiative, have decided to fund two additional centers in the fields of collaborative robotics and photonics until the end of 2024 with funds totaling 6.5 million Swiss francs. On the one hand, the funding comes from the ETH Board, which has defined the development of AM-TTC in Switzerland as a measure of its

strategic planning 2021-2024. On the other hand, the centers also receive funding from the federal government according to Art. 15 FIFG.

The Swiss Cobotics Competence Center (S3C) in Biel aims to demonstrate the opportunities of collaboration between humans and robots. Its goal is to close the gap between the theoretical capabilities of robots and industrial reality and thus to bring more collaborative robots into industrial applications. With the S3C, Swiss companies gain access to know-how and a demonstration and test platform for innovative cobotic solutions. In addition to the Swiss Innovation Park Biel/Bienne and the Swiss Smart Factory, the Bern University of Applied Sciences is also one of the founding members of the S3C. And since the S3C was founded in November 2022, many more partners from industry and science have joined as members.

The second newly founded AM-TTC, the Swiss Photonics Integration Center (Swiss PIC), is located in the Swiss Innovation Park InnovAare. The focus of this center is on optical components and systems that transport and process light particles, so-called photons. The Swiss PIC will build facilities that will make it possible to integrate even the smallest optical components into larger systems or devices and test them. In Switzerland, there are many companies and research groups that develop and manufacture new innovative photonic components. Often they do not have access to such facilities. The Swiss PIC aims to close this gap by making such facilities accessible and helping companies to build their own integration and packaging solutions in their production.

Info box: AM-TTC Alliance

On 4 February 2019, 22 Swiss research institutions and industrial companies founded the AM-TTC Alliance, the umbrella organization of these technology transfer centers, at Empa in Dübendorf. Members include institutions of the ETH Domain, universities of applied sciences and other research institutions, industrial companies such as ABB, BASF, Bühler, Hilti, Oerlikon, Rolex and Siemens, as well as the industrial association Swissmem. The current managing director is Empa researcher Lars Sommerhäuser.

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