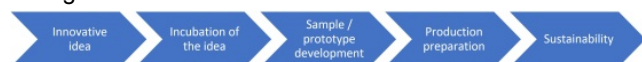

About Knowledge and Technology Transfer

What is innovation?

As a result of globalisation, both the economies and academic institutions of individual countries are strongly connected on an international level. In this global environment, foreign entities are becoming direct competitors to Czech companies (and research teams). Thus, it is necessary to invest more than ever in maintaining competitiveness, most often through innovation. In other words, for a company's long-term success in a globalized market, it is necessary for it to be able to quickly apply scientific knowledge in its field and implement it in such a way as to increase the value of its services or products.

According to the most widespread definition, innovation is the introduction of a new or significantly improved product, service or processes (e.g. the way a company operates). For most projects, the innovation process can be divided into 5 stages.



The way in which products or services are innovated varies based on the type of institution which develops the product. Each of these entities has different strengths and weaknesses.

In the case of large corporations, the obvious advantage are sufficient financial resources, which also makes them attractive employers. In addition, the entire innovation process takes place "under one roof", which simplifies its management. However, they are also characterized by a certain rigidity present in the management culture of large corporations. This environment favors smaller-scale innovations, therefore some opportunities may be ignored entirely. This, however, does not apply to small and medium-sized enterprises (SMEs), which often seek disruptive innovations. On the other hand, these entities often face a chronic lack of resources to fund their R&D activities.

The most severe weakness of large corporations and SMEs is most often their limited theoretical knowledge in the given field. In reaction to this problem, a third pathway of innovation can be used - Knowledge and Technology Transfer. Both commercial entities and public academic institutions participate in this pathway. The commercial partner brings their financial resources and knowledge of the market, which are combined with the extensive, multidisciplinary theoretical knowledge of an academic institution.

What is Technology Transfer?

Technology Transfer (also Knowledge and Technology Transfer) involves activities aimed at the introduction of an innovative idea, knowledge or technology, generated at an academic institution, into practice.

There are several ways of cooperation between academic and commercial entities, but we consider as Technology Transfer only those in which the academic institution remains a long-term partner in the research project, owns intellectual property and is a beneficiary of potential revenues. The basic forms include the licensing or sale of intellectual property (most often a patent), joint research projects and the establishment of a spin-off company.

Conversely, activities such as a one-time provision of laboratory analysis or expert review, patenting knowledge without a potential for commercial use, equipment rental or sale of monographs are not considered technology transfer because they do not increase the utility value of the product or service on the market and are of non-innovative nature. A borderline form of Knowledge and Technology Transfer is the provision of research to order. Although the research team participates in a research project with a commercial partner, after completing the task it loses the opportunity to influence the project, participate in its further innovation and such research activity does not bring potential benefits to the academic institution in the future.

Innovation Ecosystem of the CU

Charles University recognizes the key importance of cooperation between the academic and commercial sector on R&D projects. For this reason, the R&D infrastructure of the Charles University is organized in the so-called Innovation Ecosystem, which is adapted to enable efficient process of Knowledge and Technology Transfer.

The Innovation Ecosystem consists of four members:

- Research teams,
- Centre for Knowledge and Technology Transfer (CPPT),
- Technology Scouts, and
- the private company Charles University Innovations Prague (CUIP).

Research teams produce scientific results, some of which have the potential for transfer to the practice. The Center for Knowledge and Technology Transfer (CPPT) provides expert insights to scientific teams and commercial entities and supports the entire commercialization process. The first contact between the scientific teams at the faculties and the CPPT is often mediated by Technology Scouts. Their task is to identify research projects at their faculty with the potential for commercialization, provide training to Research teams in Knowledge and Technology Transfer and support during the preparation of documentation for Technology Transfer. Last but not least, Charles University Innovations Prague (CUIP), which is owned by the CU, is also involved in the Innovation Ecosystem. Its role is to mediate contact with commercial entities and facilitate the process of Knowledge and Technology Transfer. It is also involved in establishing spin-off companies.