

# European mark in the coronavirus fight

The coronavirus pandemic has clearly shown the enormous importance of research organizations, their infrastructures and, of course, scientists for the society, state and industry. European funds in the Czech Republic have been supporting the field of research and education for a long time. At the Ministry of Education, Youth and Sports the following operational programmes are managed: Research and Development for Innovation (2007–2013), Education for Competitiveness (2007–2013) and Research, Development and Education (2014–2020). Thanks to the funds from these programmes research organizations built or modernized their buildings, acquired state-of-the-art equipment or supported the development of research teams and staff capacity. Based on this financial support from the European Union, it was possible to provide sufficient capacities to coronavirus fight quickly - whether for the development and production of personal protective equipment, for ensuring the testing and its effective management, immunological research or for other forms of assistance.

## How precisely did the European funds help?

## Research and Development

The **BIOCEV** research centre got involved in testing very quickly, as also the **Institute of Molecular and Translational Medicine in Olomouc** or the **CEITEC** research centre in Brno did. The staff of CEITEC also started to produce protective face shields. The centres have been lending out their equipment (for example thermal cameras) to hospitals free of charge.



Photo: BIOCEV



Photo: CEITEC



Photo: CIIRC – CTU

**The ELI Beamlines laser centre** soon started to distribute the personal protective equipment, which was originally secured for its employees, as well as to produce its own disinfection. It also provided its specialized equipment to scientific teams for the virus research and the development of a possible vaccine.

**The International Clinical Research Centre of St. Anne's University Hospital in Brno** also offered help to researchers.

At the **RICAIP Centre of Excellence** the research team of the Czech Institute of Informatics, Robotics and Cybernetics of the Czech Technical University managed to develop and certify a completely new prototype of a protective half mask with a replaceable filter.



The team of the **Technical Faculty of the Czech University of Life Sciences in Prague** designed a face mask with a replaceable filter printed on a 3D printer and made the production plans publicly available.

The staff of the **Regional Centre of Advanced Technologies and Materials (RCPTM) in Olomouc** developed nanoparticles, which are an important part of a new testing method for COVID-19 formed at the Institute of Organic Chemistry and Biochemistry (IOCB) of the Czech Academy of Sciences.

The supercomputer centre of VSB - Technical University of Ostrava **IT4Innovations** offered other research organizations preferential access to computational resources for solving COVID-19 issues. In cooperation with a mobile phone operator this supercomputer evaluates, among other things, information regarding the location tracking for the so-called smart quarantine.



Photo: IT4Innovations

Other organizations also offered research teams or healthcare professionals to use their devices or laboratory acquired with support from European funds free of charge.

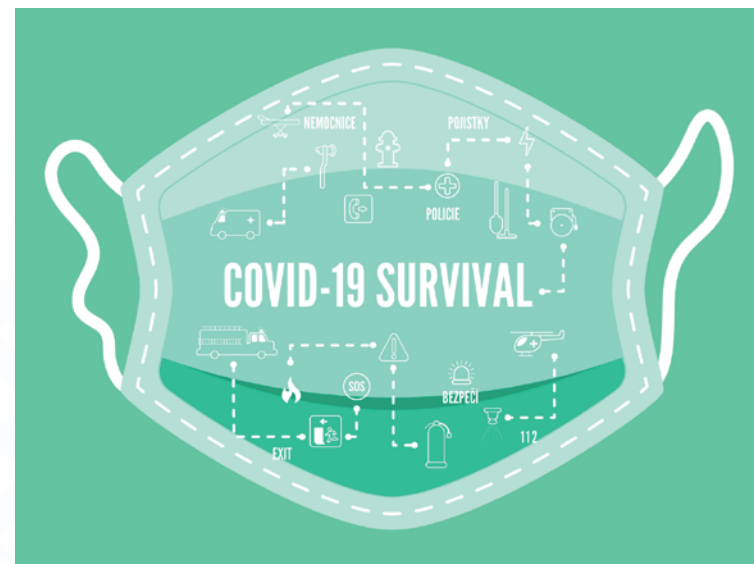
## Education

75% of all kindergartens, primary, secondary and post-secondary vocational schools in the Czech Republic have used the European funds through so-called templates. Mainly the staff support, but also other activities such as leisure time clubs or tutoring have helped with the obstacles resulting from home education during the coronavirus outbreak.

Despite the restrictions regarding the presence in schools, beneficiaries from regional schools and school facilities have been very interested in the templates. The answers to almost 4,000 phone calls and e-mail questions on how to use templates during the state of emergency are the proof of this interest.



Within the project „**System of support for professional development of teachers and headmasters**” (SYPO), which is implemented by National Pedagogical Institute of the Czech Republic, the methodological support (especially in ICT and in distance learning) was offered. A series of almost 50 webinars devoted to distance learning was created and it was viewed by 130,000 users.



Source: Multicultural Centre in Prague

The project **Pupils' participation in the decision-making process** of the Multicultural Centre in Prague incorporated the issue of coronavirus into one of its programmes. The project activity consists of creating a map of the city in which the pupils and students live and of highlighting important points of orientation during the state of emergency.

The employees of South Moravian **Vida! Science centre** programmed an interactive map with sampling sites of testing COVID-19 disease.

**Many thanks to all projects, teams and individuals who have been involved in solving this unique situation. The Ministry of Education, Youth and Sports, as the managing authority of the three operational programmes, greatly appreciates this attention. The coronavirus pandemic has clearly shown that investments in research and education, whether from national or European sources, make sense.**