## Innovative Hungarian businesses at ICT Proposers' Day

Organised by the European Commission, this year Budapest hosted the ICT Proposers' Day, the information and networking event of Horizon 2020, the EU's framework programme for research, development and innovation. The event, which was broken down to thematic sessions, featured representatives of domestic universities, research institutes and innovative Hungarian businesses, as well as the National Contact Points (NPCs) of the National Research, Development and Innovation Office.

The event held on 9 and 10 November was primarily aimed at presenting the Work Programme 2018-2020 of the Horizon 2020 framework programme, including in particular the portfolio of calls which will have a total budget of EUR 6 billion for ICT research & innovation. Besides ICT, the event also addressed future and emerging technologies. The thematic sessions and discussions offered a unique opportunity even at European level for researchers, industrial professionals and SMEs to share project ideas and find partners.

The networking and information sessions started with the speeches of European Commission project officers on the professional requirements of the calls, followed by participants' presentation of their project ideas (the sessions were full house, attended by 3-400 participants each). The sessions were grouped around the following six themes according to the programme:

- Technologies for digitising European industry;
- High performance computing (HPC) and data infrastructure in Europe
- Future and Emerging Technologies (FET);
- Innovation, Next Generation Internet (NGI)
- 5G network technologies
- Societal challenges. (healthcare, food and agriculture, environment, energy, transport, society and security)

Three speeches were dedicated to providing details about the calls, but visitors could also visit information stands to get written and oral information in an informal environment. Hungarian applicants could also ask the NPCs of the NRDI Office for information. The sessions were completed by workshops addressing issues such as standardisation, cascade financing and contractual public-private partnerships (cPPP). The visitors were also informed about expected trends after 2020.

In the <u>Hungarian Innovation Pavilion</u> Hungarian researchers, developers, SMEs and startups showcased their products and services.

The exhibitors included <u>Gravity Research & Development Zrt.</u>, a Hungarian company selected to the finals of the <u>Innovation Radar Prize</u> competition in the Best Young SME category.

"We started to develop our next generation recommender system together with Telefonica Research, a Spanish company, in the EU-funded CrowdRec project," Domonkos Tikk, CEO and founder of Gravity R&D said. "Recommender systems are algorithms which try to predict users' preference on the basis of their past activity. If a user visits a website for a second or subsequent time the recommender system offers relevant content from the given website. However, users often visit the same website looking for different products: at times car parts, at other times old stamps or television. When a new customer appears at a website a similar phenomenon occurs, referred to as the 'cold start problem'. Our proposition is that in the majority of cases we face a cold start problem, so it is very important to map user preference from the 'first click' and not just relying on past user behaviour. For this we use an innovative technology called 'deep learning' built on deep neural networks.

The product computes relevance in real time, so whenever a new user appears it responds in a few milliseconds: it sends a recommendation to the user displayed on the given channel (website, mobile app or even email account).

Larger web companies usually select their supplier of recommender software in live comparison tests. If our recommendations are successful in predicting what the user wants, we gain advantage in attracting customers – and we have nothing to complain about. Our customers prefer monthly subscription based – on demand – software but we also have an installed solution. Our contracts with companies may also incorporate a success fee element: this keeps us motivated in maintaining and improving the quality of recommendations," Domonkos Tikk said about the company's activity.

Detailed programme: (https://ec.europa.eu/digital-single-market/events/cf/ict-proposers-day-2017/programme.cfm)