Press Release

Promoting Digital Competences in Schools Today

Zurich, 25 October 2018. Computational thinking, i.e. creative problem solving and programming, is a fundamental competence in digitisation. The Computational Thinking Initiative CTI, launched on the second Swiss Digital Day, aims to strengthen digital education and develop basic know-how in primary schools in all parts of the country. The basis for this is a learning robot developed in Switzerland with which children can learn Computational Thinking in a playful way. As a public-private partnership, the initiative is jointly supported by various public educational institutions and industry. It is also under the patronage of Federal Councillor Johann Schneider-Ammann and aims to strengthen Switzerland as a business location.

Digitisation offers great opportunities. At the same time, the demands on education are changing: Computational thinking includes skills such as creative problem solving and programming and is therefore a crucial core competence for future generations. Primary schools are a suitable place to teach these basic skills. The Computational Thinking Initiative CTI is working towards this goal. With the learning robot "Thymio", the initiative is using a proven, simple and easily accessible tool that was developed in Switzerland under the leadership of the École polytechnique fédérale de Lausanne (EPFL) by Prof. Francesco Mondada. The initiative was initiated by digitalswitzerland and the EPFL. For Marc Walder, founder of digitalswitzerland, the initiative is a first step: "Two out of three primary school students will one day be doing a job that doesn't even exist today. With the CTI, we want to give a decisive impulse so that the next generations can learn the fundamental skills of digitisation as early as possible."

The CTI consists of two levels: The infrastructure level creates the conditions for the initiative to be rolled out as broadly as possible. In parallel at the project level, important experiences is gathered at primary schools. In the medium term, at least one teacher in every Swiss primary school should be able to develop Computational Thinking among students.

Development of Infrastructure

In order to achieve this goal, investments in infrastructure are necessary. Various infrastructure measures are being implemented within the framework of the CTI: Training modules at teacher training colleges, online courses throughout Switzerland, a practical textbook and a large number of Thymios are intended to prepare the field for large-scale implementation of the concept. This infrastructure work will be managed by the EPFL. Prof. Martin Vetterli, President of the EPFL and intellectual father of the concept of Computational Thinking, is convinced of the CTI: "We want to pave the way for teachers to be able to teach Computational Thinking in class. The learning robot is

perfectly suited for this. The infrastructure project is being financed by the ETH Board to the tune of CHF 1 million.

«Alps Project»
Various projects are being launched to gather concrete experience. One of these is the Alps Project, in which a total of five primary schools in the cantons Lucerne, Schwyz, Uri, Ticino and Valais are closely supported. "The Alps Project will be a valuable source of experience, especially for motivated teachers," says project manager Dr. Alberto Piatti from the Scuola universitaria professionale della Svizzera italiana (SUPSI), summing up the aim of the Alps Project. The project is supported by four teacher training colleges in the respective language regions and takes into account the federal character of Switzerland's education system as well as Switzerland's multilingualism. This provides the prerequisites for the application of the gathered experience throughout Switzerland.

Support from the Private Sector
Future-oriented training is particularly important for the economy. Digitisation places new demands on many job profiles, and innovations are unthinkable without them. With Swisscom, the CTI has found a committed supporter. It bears a large part of the costs of the Alps Project and makes a contribution to the necessary infrastructure for the schools. For Urs Schaeppi, CEO of Swisscom, the support for the CTI is a strategic decision: "Ideally, children learn those skills that are essential for the future in a playful way as early as primary school. We support this initiative and thus continue our many years of support for schools. In that way, we secure and promote the training of skilled workers, preserve jobs and increase the attractiveness of Switzerland as a business location".

Teachers Support the Initiative
Teachers play a decisive role in teaching digital skills. This is why the support of the CTI by the Swiss Teachers' Association (LCH) and the Syndicat d'enseignants romands SER is so important. "We support the initiative because we are convinced of its importance," says Dr. Beat A. Schwendimann, Head of the LCH Pedagogical Department, explaining the commitment. All pupils should have the opportunity to develop their computational thinking using innovative teaching materials and methods in order to be able to use digital technologies to solve complex problems. The LCH and SER provide advice and help to anchor the CTI among the teachers.

The CTI is under the patronage of the Federal Department of Economics, Education and Research of Federal Councillor Johann Schneider-Ammann.

About digitalswitzerland
digitalswitzerland is a joint initiative of industry, the public sector, education and science that aims to make Switzerland the world's leading hub for digital innovation. digitalswitzerland is active in various fields, such as knowledge transfer, education, start-up ecosystems and political framework conditions. More than 125 of the most renowned companies and organisations as well as innovative locations throughout Switzerland belong to the association. The initiative was launched in 2015.

Media Contact Computational Thinking Initiative CTI:
Christian Lundsgaard-Hansen, Project Manager Computational Thinking, digitalswitzerland:
+41 78 757 11 31, christian@digitalswitzerland.com

Media Contact EPFL
Corinne Feuz, Speaker
+ 41 21 693 21 49, corinne.feuz@epfl.ch

Media Contact LCH
Dr. Beat A. Schwendimann, Head of the LCH Pedagogical Department
+41 44 315 54 54, b.schwendimann@lch.ch

Media Contact SUPSI
Dr. Alberto Piatti, Director Dipartimento Formazione e Apprendimento DFA and Head Alps Project
+41 79 714 50 09, alberto.piatti@supsi.ch

Media Contact Swisscom
Media Department, media@swisscom.com, +41 58 221 98 04

digitalswitzerland | digital tag

«Thymio» (Photo provided by EPFL, © Alain Herzog)