# ICT Education in Digital Society

**Baltic Computer Systems**

**Digital competencies are the cornerstone of a Digital Society**

A foundational element in the development of a digital society is the systematic development of competencies.

Digital competencies mean not only building a team of IT specialists, but also engendering widespread digital skills across the nation's citizens. This in turn requires digital education at many levels: university, primary and secondary schools, as well as specialize training for ICT professionals.



**Result:** A Comprehensive digital skills development system across all sectors of the nation: government, education, business and private sector.

## Digital Skills Development with Examples and Best Practices from Estonia

Digital skills strongly support employment and well-being in the society. Examples:

- Large-scale digital literacy training programs (basic computer and Internet skills - how to run nationwide training programs engaging 1/10th of adult population provided by Look@World initiative.

- Training initiatives targeting passive/not interested groups of society - E-Citizen program for systematic and continuous development of general public digital skills via hybrid, needs based workshops

In order to continue our IT education success story, there are national programs and initiatives to support the development of students' and teachers' digital competencies and the integration of digital culture into the learning process by providing teachers with the necessary means for conducting teaching activities and increasing the e-assessment capacity in general education. Fluency in programming, robotics, and modern technologies are considered critical future competencies to be introduced to children from early childhood.

# Examples:

- e-Kool and Stuudium - school and class management platforms to unite students, parents, school administration and supervisory bodies.
- ELIIS - e-kindergarten solution for parents, teachers and government officials to manage teaching and bilateral communication
- IT in the general curriculum - digital competence listed in the curriculum as one of the general competencies that teachers must develop in the learner integrated into the lessons
- Programming as part of the national curriculum via the ProgeTiger program
- Curriculum-related teaching-learning materials repositories to support everyday learning - e-Koolikott
- Public awareness campaigns, competitions, interactive lessons at schools for youth smarter and safer web consumption and online collaboration
- Media campaign and open round-tables to stand up against cyber bullying
- Hands-on training events on cyber security and online behavior to all age groups, 4/5 of all pupils pass the 2-6h courses, active since 2012.
- Awareness raising events, learning materials and a central information portal for youth and educators "Smartly on the Web" ("Targalt internetis")

There is a big number of young people with IT interests and variety of skills, not enough to start working as an IT professional. Entry level ICT training and apprenticeship programs provide professional qualification to start as IT support technician or web-developer.

The objective is to grow the number of ICT professionals to meet the development needs of the Estonian economy. These programs focus on young people who have discontinued their studies or are unemployed. Programs enable to bring new people to junior level IT

# We offer:

- Upskilling training to reach first-level professional vocational qualification as IT support technician. 2-3 months in-class training program with apprenticeship in an IT company.
- Bootcamp course on web application development to novice learners

# Main steps:

**1** Together we create a thorough Digital Competence Maturity Map. Mapping of existing competencies, competence needs and the capabilities of providing competencies.

**2** Together we build the Roadmap for Comprehensive Competence Development: This sets the major ICT competence improvement priorities for next 3-5 years, based on analysis of existing data, future needs and trends, and assessment from important stakeholders involved

**3** Together we develop, implement and coordinate an Action Plan involving all user groups and all levels and forms of providing ICT competencies and focusing in more detail on strategic priorities.

**4** Follow-up and lessons learned analysis. Described needs and priorities for your country for the period after the project;

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