

## **SECURE – Science Education Curriculum Research Project under the 7th Framework Program**

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In its latest policy initiatives and outputs in education and training the European Union restated the importance of science literacy and numeracy as fundamental elements of key competences [1]. It was recognized that more investment should be undertaken to increase the number of graduates in science, technology, engineering and maths (STEM) so as to create the right conditions to deploy key enabling technologies, essential in the R&D and innovation strategies of industry and services [2]. The new benchmark adopted by the EU Council under the ET 2020 framework [3] aims at an adequate level of basic skills in reading, mathematics and science, by calling for the share of low achievers in reading, maths and science to be reduced to below 15 % by 2020.

SECURE is founded as a collaborative project under FP7 to provide research results of current mathematics, science and technology (MST) curricula across Europe. The overall aim of the SECURE project is to make a significant contribution to the European knowledge-based society by providing relevant research data that prompt public debates on this issues. Based on good practices and other research results SECURE will formulate a set of recommendations for policy makers and other stakeholders on how MST curricula and their delivery can be enhanced. These improvements would need to focus on encouraging and preparing children from an early age on for future careers in MST. At the same time curricula should make MST more accessible and enjoyable for all children so that they will always keep a vivid interest in science and technology, understanding the importance of their societal role.

A rigorous research programme conducted by the SECURE consortium will scrutinise and compare current MST curricula for pupils aged 5,8,11 and 13 in 10 member states as they are intended by the authorities, implemented by the teachers and perceived by the learners. The instruments used to this end will consist of a transnational comparative screening instrument for MST curricula, of teacher and learner questionnaires and interview protocols.

The cornerstone of the valorisation strategy of the research outcomes will be the direct and active involvement of a transnational expert group of research and curriculum development institutions outside the consortium that will provide feedback as well as a direct access to policy makers. We encourage potential candidates for the expert group to consider their participation in the project.

[1] Official Journal of European Union C 323/11 and references therein (30.11.2010) [2] An Agenda for new skills and jobs: A European contribution towards full employment: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0682:FIN:EN:PDF> [3] Strategic framework for education and training, ET 2020

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