



PRESENTATION OF THE EUROPEAN RESEARCH PROJECT **SECURE**

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SECURE

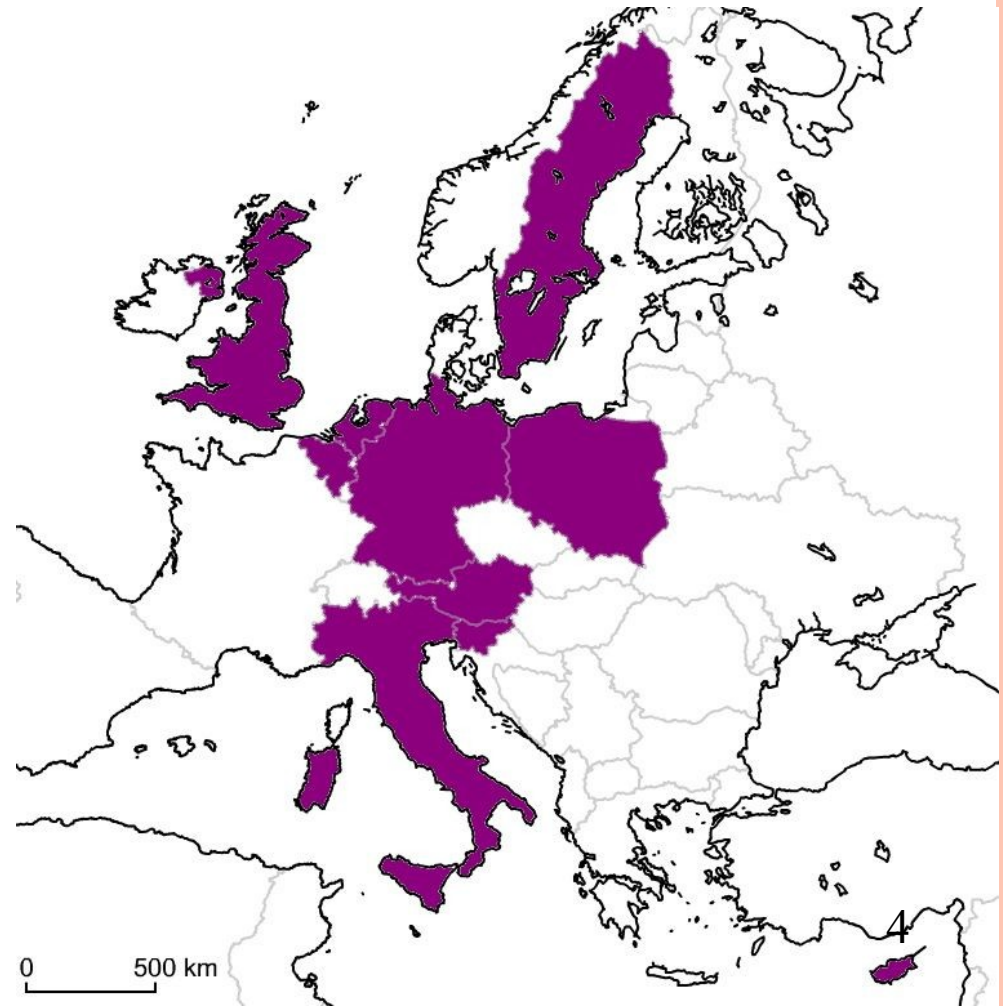
- **SECURE - Science Education CUrriculum Research**
(1st November 2010 - 31st October 2013)
- European project (**FP7** project)
- Coordinator: **Katholieke Hogeschool Kempen University College**
- How to increase the interest in **MST** (math, science & technology) **subjects** among youngsters?
- What factors influence an interest in science among youth? - MST curricula, teacher, teaching methods, learning materials, society, etc.

AIMS OF THE PROJECT

- **Analyse, compare & contrast** objectives and content of the **current science curricula**.
- **Identify common ground** among existing **MST curricula in different European countries**.
- **Identify good practice** in the various member states.
- Establish how **curricula are put into practice** by MST teachers.
- Establish how current curricula affect **learners' competences, motivation and perception** of the relevance of science.
- **Disseminate the research findings** among stakeholders and decision makers in the field of MST.
- **Make recommendations to policy makers** in the field

PARTNERS – 9 UNIVERSITIES AND 2 PEDAGOGICAL INSTITUTES

- **Belgium** (*Katholieke Hogeschool Kempen University College, Dienst Katholiek Onderwijs vzw*)
- **Austria** (Universitat Graz)
- **Cyprus** (University of Cyprus)
- **Germany** (Technische Universitat Dresden)
- **Italy** (Universita degli Studi di Udine)
- **The Netherlands** (*Nationaal expertisecentrum SLO*)
- **Poland** (Uniwersytet Jagiellonski)
- **Slovenia** (Univerza v Ljubljani)
- **Sweden** (University of Gavle)
- **United Kingdom** (Nottingham Trent University)



SLOVENIA – faculty of education, university of Ljubljana

Co-workers:

- Barbara Rovšek, national coordinator
- Jurij Bajc
- Jerneja Pavlin
- Maja Pečar
- Nada Razpet
- Katarina Susman
- Saša Zihnerl

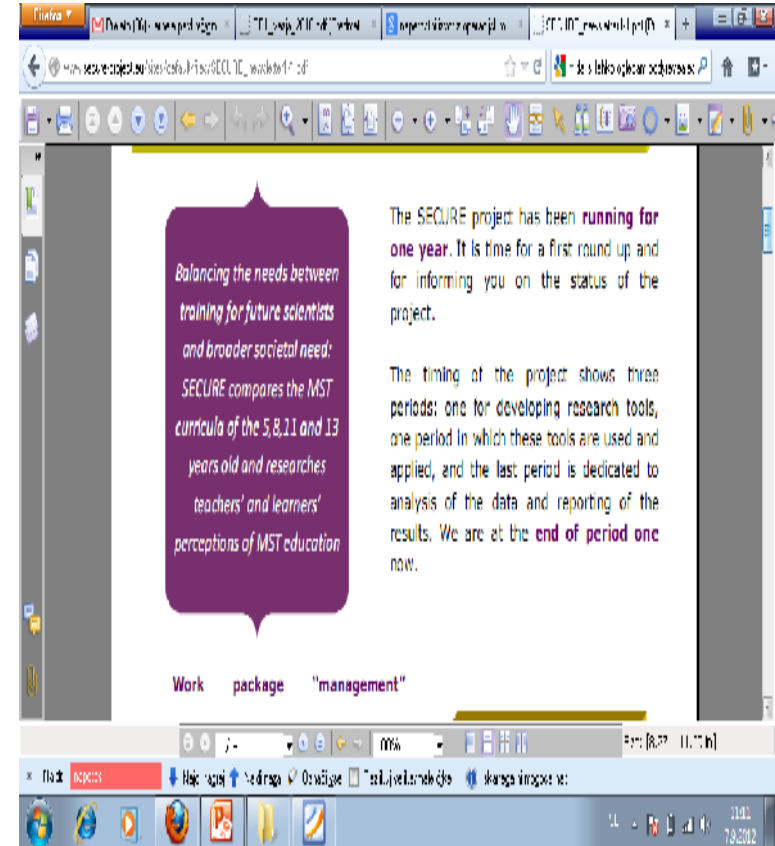


RESEARCH

- Target age groups: 5, 8, 11 and 13
- 150 school units in 10 countries (a school unit = primary school + kindergarten)
- 12 000 learners and 1000 teachers

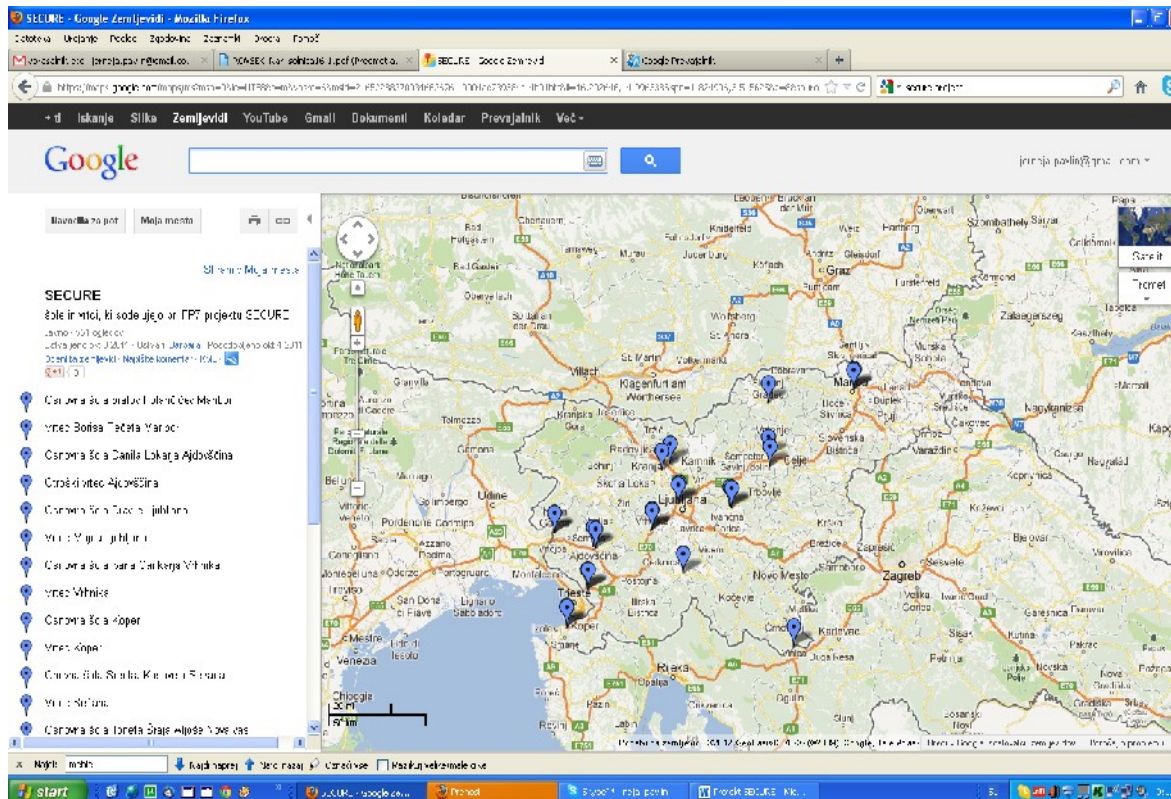
RESEARCH TOOLS

- A curriculum screening instrument
- Questionnaires for the 8, 11 and 13 years old learners
- Questionnaires for the teachers of MST subjects
- Interview guidelines for teachers
- Interview guidelines for 8, 11 and 13 years old learners
- Special interview guidelines for 5 year old learners



SLOVENIAN PARTNERS – 15 SCHOOL UNITS

- Criteria for the selection of schools: engaged, non-engaged, urban, rural, small, large
- School units in Slovenia



WHAT WAS ALREADY DONE IN SLOVENIA?

- Questionnaires for learners and teachers (15 s. u.)
- Interviews with learners and teachers (6 s. u.)
- Interviews with 5 years old learners (15 kindergartens)
- Remarks...
- **Role of the teacher vs. learners' interests**

FIRST IMPRESSIONS - INTERVIEWS

○ 8 years old learner

“The teacher likes us. She is very friendly and explains things very well.”

○ 11 years old learners

A: “Technology teacher is the best. He explains things simply, then we talk and work. He teaches very well.”

B: “The old math teacher talks about her family. I do not know what this has to do with mathematics. She is too fast and tired of everything.”

C: “The assessment in math is not fair, you are assessed based on the handwriting, if you write unreadable she gives you less.”

A, B, C in D: “We do not like teachers, except the teacher of technology, he is super.”

A: “I do not like math because of the teacher.”

B: “Math is good, but only if we could have a better teacher.”

C: “I would like to be a technology teacher.”

FIRST IMPRESSIONS - INTERVIEWS

- **13 years old learner**

“Teachers are not fair.”

- **13 years old learners**

A: “We like chemistry since we do the experiments and teacher explains things well. Therefore I would decide for studying chemistry. There is more interest in a subject if the teacher impresses us.”

B: “Teachers should be more happy and smiling people, they should not only write on a chalkboard. We would like to discuss with them about the everyday life. We like it if the lessons are released, that we are not afraid to say something wrong. Physics teacher exposes the learner who says something wrong. It is good that the teacher is fair.”

FIRST IMPRESSIONS - QUESTIONNAIRES

○ 11 years old learner 1

3.3b	Kaj ti je najbolj všeč pri naravoslovju ? Česa pri naravoslovju ne maraš?	Ko učiteljica eksperimentira. Ko je učiteljica jezna.
3.3c	Kaj ti je najbolj všeč pri tehniki in tehnologiji ? Česa pri tehniki in tehnologiji ne maraš?	Ko delamo praktične vaje. Če smo hitrejši.
3.3g	Kaj ti je najbolj všeč pri geografiji ? Česa pri geografiji ne maraš?	Ko nam učitelj bere pravljice, ko nam pove zanimive stvari o svetu. Ke maraš ko smo vredni (smo) pregledni

FIRST IMPRESSIONS - QUESTIONNAIRES

○ 11 years old learner 2

3.3a	Kaj ti je najbolj všeč pri matematiki ? Kako učiteljica dobro razlaga snov. Česa pri matematiki ne maraš? Konkretno ne maram deljenja.
3.3b	Kaj ti je najbolj všeč pri naravoslovju ? Učiteljica, ko nam pokaže, kako naredimo poskus. Česa pri naravoslovju ne maraš? Delo v skupinah
3.3c	Kaj ti je najbolj všeč pri tehniki in tehnologiji ? Praktične vaje (izdelovanje izdelka). Česa pri tehniki in tehnologiji ne maraš? Učiteljice.
3.3g	Kaj ti je najbolj všeč pri geografiji ? Kako učitelj super razlaga in se zraven še malo poheca Česa pri geografiji ne maraš? Samostojno delo.

FIRST IMPRESSIONS - QUESTIONNAIRES

○ 13 years old learner 1

3.1e	Kaj si misliš o dejavnostih pri pouku <i>biologije</i> ?	sploh ne	ne	da	seveda
a.	<i>Biologija</i> mi je všeč zaradi snovi , ki se jo učimo.	1	2	3	4
b.	<i>Biologija</i> mi je všeč zaradi dejavnosti , ki jih imamo pri pouku.	1	2	3	4
c.	<i>Biologija</i> mi je všeč zaradi učitelja (učiteljice).	1	2	3	4

5 6

○ 13 years old learner 2

3.1c	Kaj si misliš o dejavnostih pri pouku <i>tehnike in tehnologije</i> ?	sploh ne	ne	da	seveda
a.	<i>Tehnika in tehnologija</i> mi je všeč zaradi snovi , ki se jo učimo.	1	2	3	4
b.	<i>Tehnika in tehnologija</i> mi je všeč zaradi dejavnosti , ki jih imamo pri pouku.	1	2	3	4
c.	<i>Tehnika in tehnologija</i> mi je všeč zaradi učitelja (učiteljice).	4	2	3	4

INSTEAD OF A CONCLUSION

- Based on the first impressions: Role of the teacher vs. interest in MST subjects
- In progress: Analysis and evaluation (aims)
- What is going on? <http://www.secure-project.eu/home>
- Results of the project: summer 2013

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Thank you for your attention.

