Conceptual framework for increasing society's commitment in ICT

Introduction

Topics

- Getting to know each other – partners
- Agenda of the meeting
- Project – main goals
- Overview of outcomes

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University of Tartu

- Institute of Education
  - Margus Pedaste, Külli Kori, Leo Siiman, Mario Mäeots, Äli Leijen
- Institute of Computer Science
  - Eno Tõnisson, Margus Niitsoo, Tauno Palts, Varmo Vene, Jaak Vilo
- Institute of Technology
  - Heilo Altin, Ramon Rantsus, Alvo Aabloo

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Tallinn University of Technology

- Raivo Sell
- Rein Kuusik
- Tiia Rüütmann
- Reet Neudorf
- …

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Information Technology College

- Toomas Lepikult
- Jaanus Pöial
- Inga Vau
- …

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Other partners

- Association of Information Technology and Telecommunications – Jüri Jõema, Doris Põld
- ASPETE (Higher School of Pedagogical and Technological Education) – Dimitris Alimisis
- University of Twente – Wouter van Joolingen
- University of Turku – Tomi Jaakkola
- University of Duisburg – Ulrich Hoppe

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Agenda of the meeting

- 14th November – getting to know what has been done before the project and during the first months of the project
  - Dinner: restaurant Ribe (http://www.ribe.ee/)
- 15th November – planning project activities, summary, communication and dissemination

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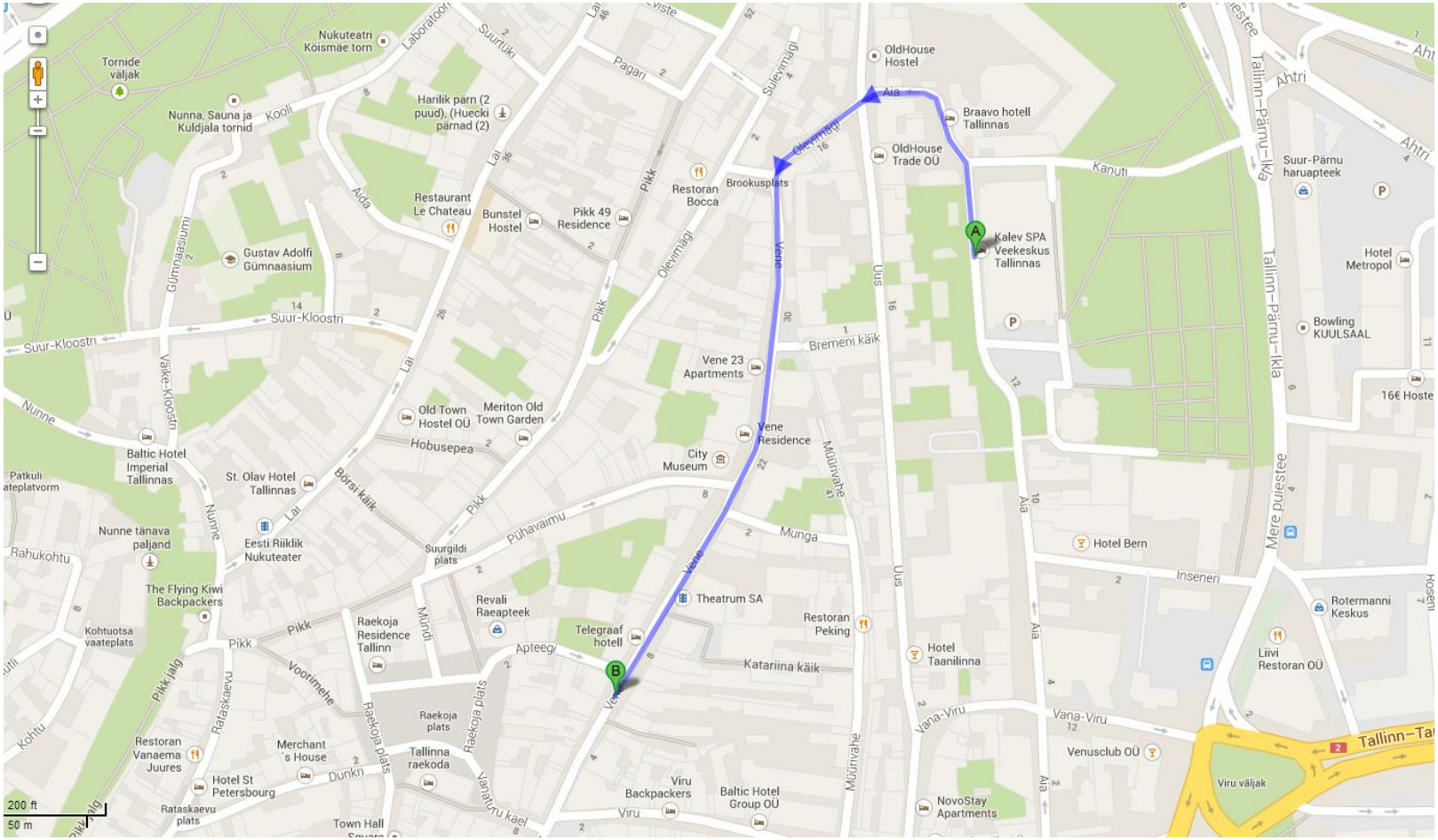

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Project – main goals

- sub-measure: supporting the development of R&D of info and communication technology
- to **find interventions that should be applied** in general schools and higher education institutions to affect positively students' ICT-related attitudes, knowledge, and skills
- to **analyse how effective have been the interventions applied** in the recent 10 years in Estonian schools and are currently applied in the higher education institutions where students study ICT

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Outcomes so far …

- specified issues, dependent and independent factors of our interest
- review of international research
- first data collection – admission of IT students
- second data collection – first year IT students in the beginning of their studies

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Issues

- about 40% of IT students drops out during their first study year – we don't know what the main reasons are (or how to predict dropout?)
- there are on average 2.6 candidates competing per available spot at the institutions – can we select them more successfully if we know what to ask (what predicts?)
- we do not know what influences students to apply to study IT (what makes change and what should we do?)

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Dependent factors

- continuing studies in ICT (from school to higher education, finishing higher education studies)
- career choices in ICT (before or after HE)
- competency in ICT (knowledge, skills, attitudes)

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Independent factors (1/2)

- students' characteristics (academic capability, motivation)
- teachers' characteristics (in supervising compulsory and elective courses, presentations, competitions)
- level of contacts with ICT (role model, equipment, improvement of technology, everyday activities)
- type of contacts with ICT (in school, home, in other places, compulsory/elective, ICT as a subject / integrated in other subjects, studies / leisure activity / competition, how ICT is learned – traditional / visual programming, inquiry learning, problem solving)

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Independent factors (2/2)

- presentations (in school / outside of school, everyday presentations / special events)
- media (radio, television, writing media, Web)
- imagination about ICT field (financial profitability, importance to the society, prestige)

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THANK YOU!

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