Social Sciences and Humanities for a changing Europe

SSH projects and networks at the University of Bologna

16-17 November 2017,
University of Bologna

Project facts and figures

- Olivia Levrini - coordinator
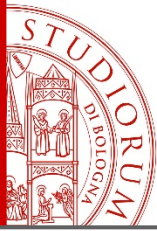- *I SEE* – Inclusive Stem Education to Enhance the capacity to aspire and imagine future careers

It's your time to imagine the futures

- Erasmus +
- TOTAL FUNDING: 393.941€ UNIBO: 76.910€
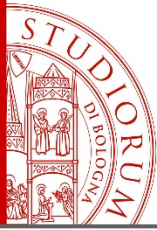- 36 months – from 01/09/2016 to 31/08/2019

PROJECT STRATEGIC PARTNERSHIP

- **Department of Physics and Astronomy – UNIBO**
- Lyceum "Einstein" – Rimini
- Fondazione Golinelli – Bologna
- University of Helsinki and Normal Lyceum
- Association for Science Education – UK
- Landvernd – Reykjavìk
- Hamralid College – Reykjavìk

Framework and main questions

- The project focuses on the problematic relationship between young generation and **time**

- In this age of social acceleration (Rosa, 2013) and uncertainty (Morin, 2001), the future is perceived no more as a promise but as a **threat** (Benasayag & Schmit, 2003)

- How can STEM teaching support secondary students to develop **skills** for managing (*rationally and emotionally*) uncertainty towards the future and projecting **imagination** forwards? How can STEM education be a **vehicle of social innovation**?
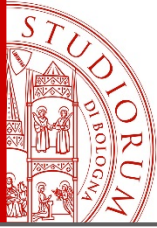
Framework and main questions

- The project focuses on the problematic relationship between young generation and **time**

- In this age of social acceleration (Rosa, 2013) and uncertainty (Morin, 2001), the future is perceived no more as a promise but as a **threat** (Benasayag & Schmit, 2003)

Future-scaffolding Skills: competencies for imagining and projecting oneself into the future as individual, citizen and professional

Project General Objectives

- Contribute to innovating the contents and the methods of science teaching at the level of upper secondary school students in order to foster the development of **future-scaffolding skills**

- Contribute to innovating teaching methods to make science teaching **inclusive** and supportive of **cultural diversity**

- Contribute to creating networks of **stakeholders** (from different academic disciplinary areas, schools, companies, policy, …) to renew the sense of **disciplinary learning** and turn it into vehicle of **social innovation**

Project Intellectual Outputs

- Teaching/learning **modules** on advanced STEM topics (e.g. climate change, artificial intelligence, nanotechnologies, quantum computing, ...)
- **Guidelines** for the development of further I SEE modules (design principles, commented examples, recommendations)
- Research **case studies** on focal students or on focal collective dynamics aimed to investigate the impact of I SEE modules on learning
- **Policy recommendations** for crossing the barriers between schools and society and innovating STEM education
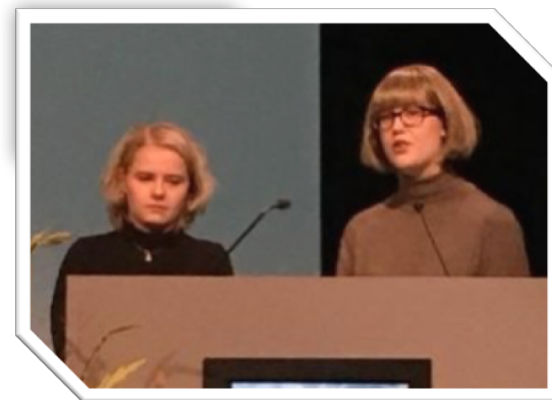
The I SEE Summer School

- Fondazione Golinelli (Bologna), 5-9 June 2017
- 24 students and 8 teachers (from Italy, Finland and Iceland) + 8 researchers

- The I SEE start-up module on climate change. Three slots:
  - conceptual and epistemological activities (8 hours)
  - future-scaffolding skills activities (8 hours)
  - action competencies activities (8 hours)

Project Results

"Our perspective as young people about climate change was **pessimistic**: we saw little hope to be able to do something about it. I'm not saying solutions to the problems are so easy and just take a few hours to plan some actions, but for me, for us, it's exactly this **optimistic thinking** that **will serve us well in the future**"

• Students learnt to share views about their desirable future and felt they could become agent of their future

• STEM education, if properly renewed to address societal challenges, can be a vehicle of social innovation

Website and contacts

I)ᗕ SEE

It's your time to imagine the futures

www.**iseeproject.eu**
iseeproject.eu@gmail.com

- We want to share the interest of the Research Group in Stem Education of the University of Bologna to participate in calls and projects in which the perspective of STEM and scientific citizenship education can be beneficial to the achievement of the objectives

Olivia Levrini - coordinator

olivia.levrini2@unibo.it

Giulia Tasquier and Eleonora Barelli

giulia.tasquier2@unibo.it

eleonora.barelli2@unibo.it