



SiWay

STEM it your way!

The project **STEM it your way! (SiWay)** aims at supporting STEM teaching and learning in European schools by providing an innovative learning environment (**the SiWay Portal**) combining curriculum-based and self-regulated learning approaches, thus, making the learning process centered around the needs of each individual student. With SiWay, studying STEM subjects becomes more motivating and exciting!

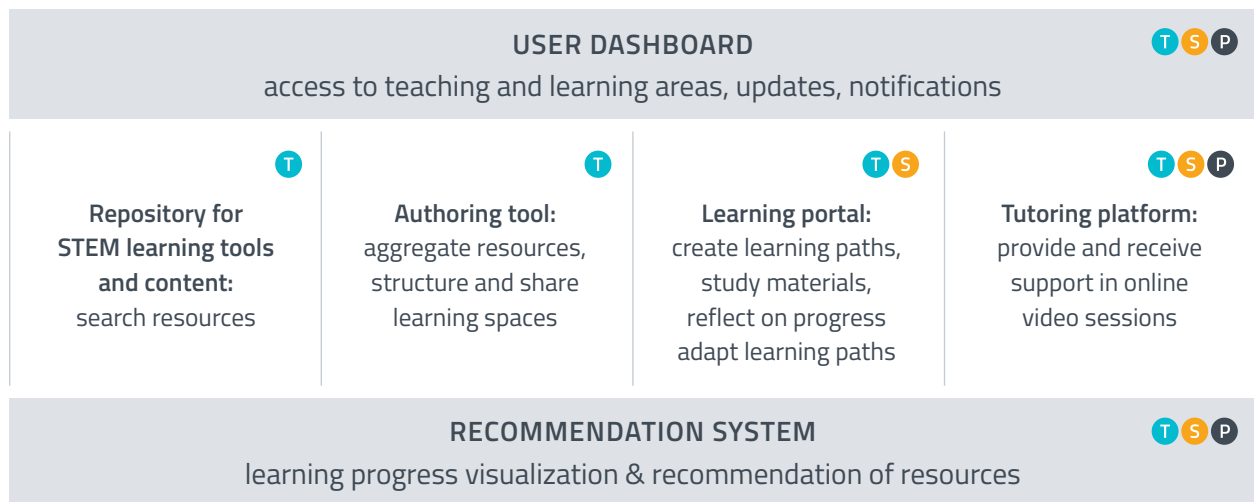
Project goals

The SiWay project sets the following goals:

- Increase **students' motivation** for studying STEM-subjects and their engagement in gaining both theoretical knowledge and hands-on experience of doing science;
- Increase **students' understanding** of how scientific topics relate to the real-world problems and which impact they have on the society;
- Motivate students to choose a **scientific career** in the future and reduce school and course drop-out rates;
- Enable teachers to concentrate on the **learning needs of individual students** and spend more time communicating with students and parents;
- Support students' learning **activities beyond school education**, including self-regulated learning in their private time, triggered by their own interests.

SiWay Portal

To achieve these goals, the SiWay project will develop a **personal and collaborative learning environment** (SiWay Portal) supporting **teachers** **T** in preparing customized learning scenarios and mentoring and assisting students during the learning process, **students** **S** in defining their learning goals and interests and designing own, personalized learning paths, and **parents** **P** in supporting their children and monitoring their progress.



Benefits for teachers

The teachers will be able to:

- Create learning paths adapted for the groups of students or even **personalized for individual students** using interactive learning tools, like remote and virtual laboratories, serious games and animations, available in various repositories around the web.
- Monitor the **progress and behavior** of individual students and whole school classes in order to better plan for future lessons and **provide better assistance**.
- **Save time in the preparation** due to easy-to-use templates and concentrate on the communication with the children.

Benefits for students

The students will be supported in:

- Setting and **reaching their learning goals**, being **guided** through the available learning courses, inquiry learning spaces, problem-based activities, research projects, interactive tools and multimedia content.
- **Reflecting** on the own **learning process** and activities, their results and overall progress towards set learning goals, as well as in defining **strategies for better learning**.
- Providing **mutual assistance** and exchanging knowledge, as well as in establishing an easy way to ask questions and **receive advice** from the teacher with help of various communication and collaboration tools.

Benefits for parents

Finally, the students' parents will be:

- **Aware of their children's learning**, receiving information on the topics and activities where the children might need help, but also on their achievements and successes.
- Informed **how to assist their children** at home to support their learning, by getting recommendations of suitable activities suggested by the teachers and the SiWay Portal.
- Able to support children with **special educational needs**, making use of centralized access to a big variety of **additional learning resources** and the possibility to shape the learning process according to the needs, preferences, and wishes of their children.

Consortium:



UNIVERSITY OF TWENTE.



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