

Open Discovery Space Platform for Open Learning Materials

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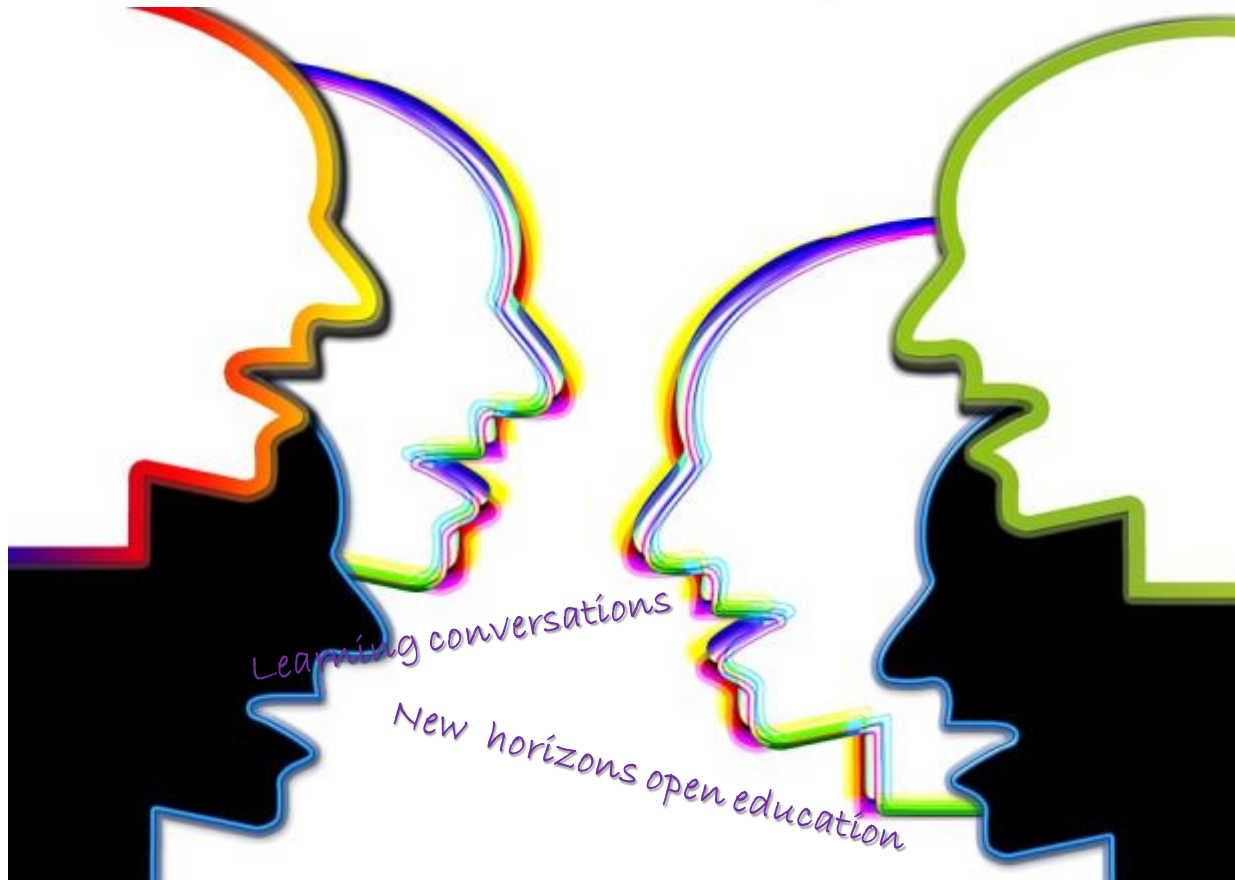
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Learning teaching are changing



Still learning is a matter of conversation knowledge exchange



https://pixabay.com/static/uploads/photo/2013/12/03/07/57/exchange-of-ideas-222786_960_720.jpg

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Opening Education Initiative



Open
Education
Europa
Opening up education through innovation

- Initiative to stimulate new ways of learning and teaching through ICT and digital content.
- Boosting digital skills acquisition via development and availability of OER, stimulation of novel educational practices.

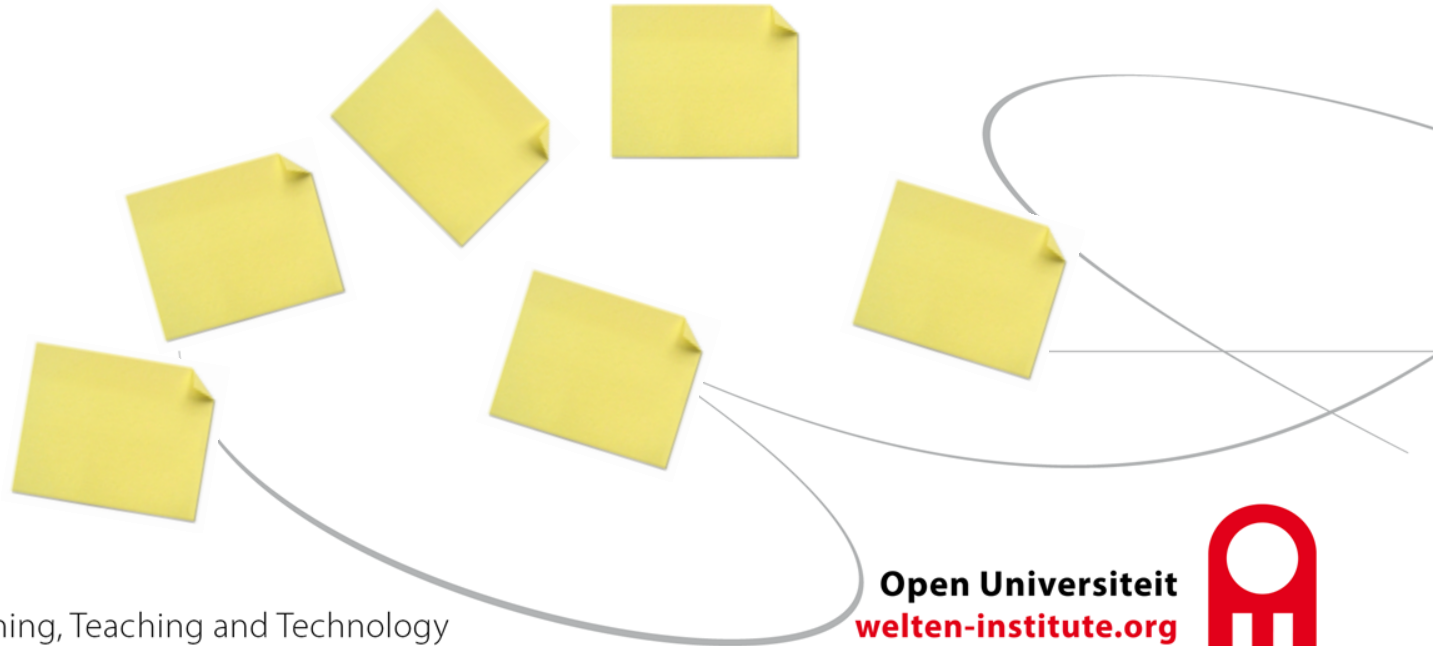


Opening doors to new learning opportunities

I hope that Open learning platforms enable me to....

What I am looking for is....

If it could meet.....





A socially-powered multilingual open learning infrastructure



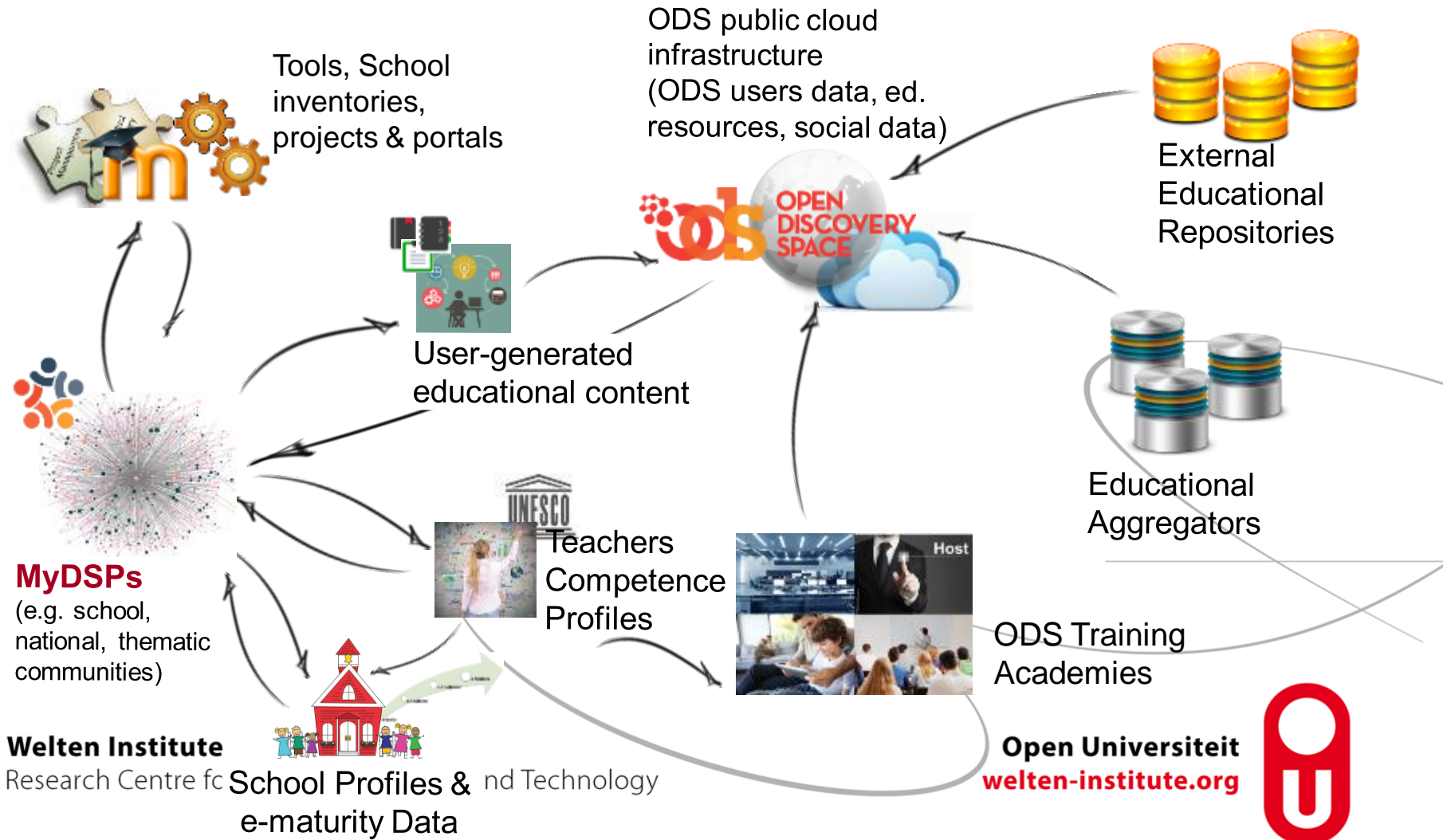
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- **ODS aims at supporting the paradigm shift towards OER-based, community-driven, collaborative practices of teachers, learners, parent.**
- **Boost adoption of e-learning and innovative practices across Europe in teaching.**

ODS overview



'Irma' a math teacher from NL



- Is looking for innovative math teaching approaches and content
- signs up at ODS repository
- comments, tags, rates and bookmarks educational content
- becomes a member of the math special interest group
- stays in contact over ODS communication services and social media
- The ODS repository recommends peers and contents to her interests

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'Irma' a math teacher from NL



- Irma follows some of recommendations and get in contact with new people
- E.g., she gets in contact with André, a teacher from France
- Together they improve an existing math lecture from the ODS repository, the students really appreciate their new teaching concept and other teacher become part of their group
- After a while, Irma is known for her fresh teaching style she has many contacts within the ODS repository

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ODS scope

Existing Digital Learning Resources

Serve as an **accelerator** to **sharing, adopting, usage, and re-purposing** of already existing educational content.

Social Platform

Realize a **community-oriented social platform enabling** teachers, learners, parents, content providers and policy makers to **discover, acquire, discuss and adapt eLearning resources.**

Community Building

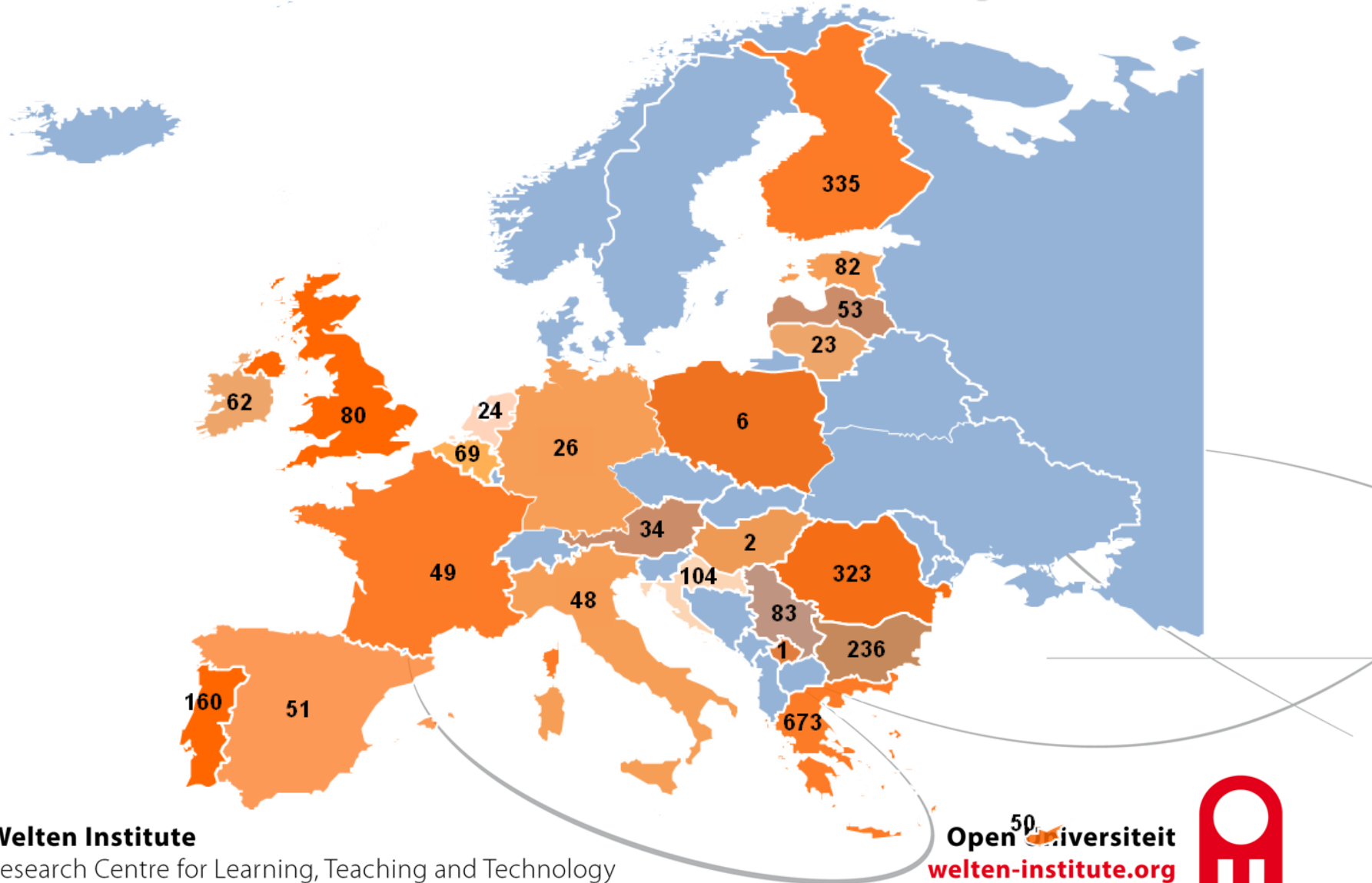
Promotion of **community formation between teachers, learners, schools** in Europe **empowering** them to use, share and **exploit unique resources in learning practices.**

Innovation & Roadmap support

Provide **innovation model and guidelines** to design and implement effective resource-based educational activities triggering **stakeholders to adopt OER based practices** in school education.



ODS schools across Europe

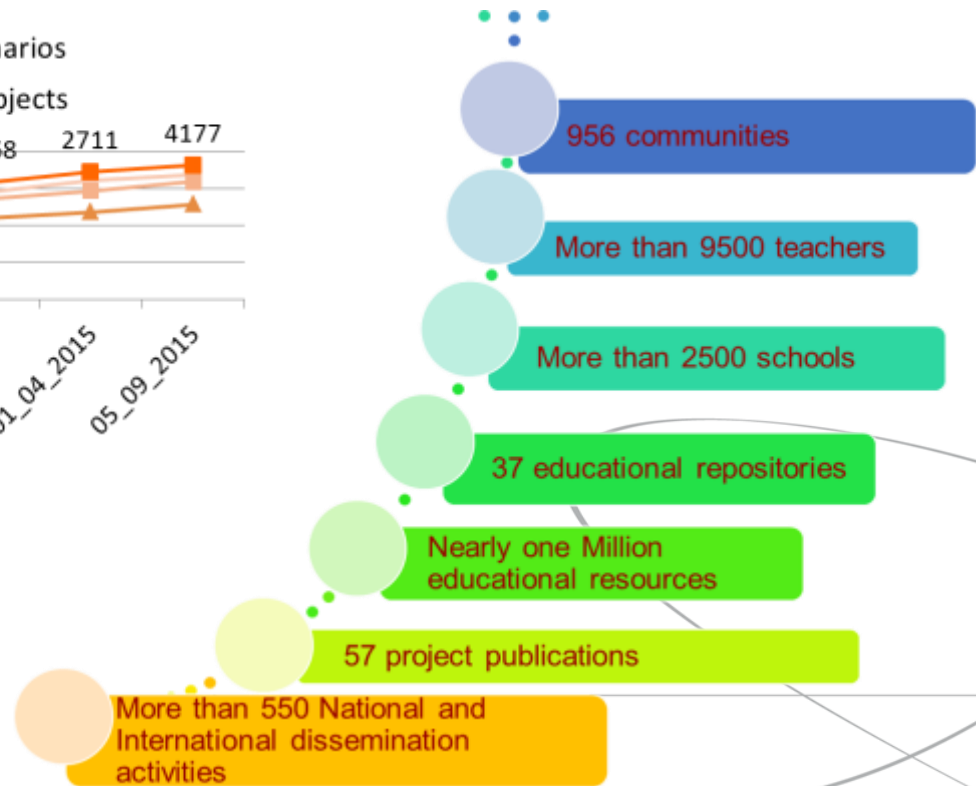
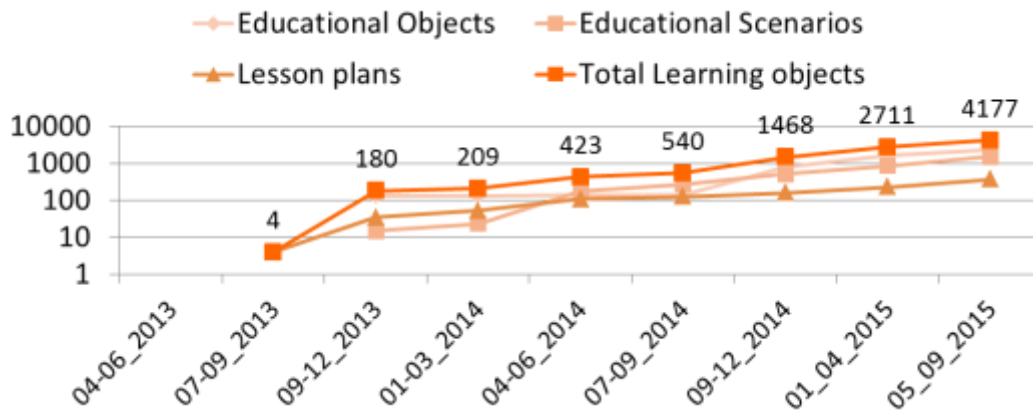


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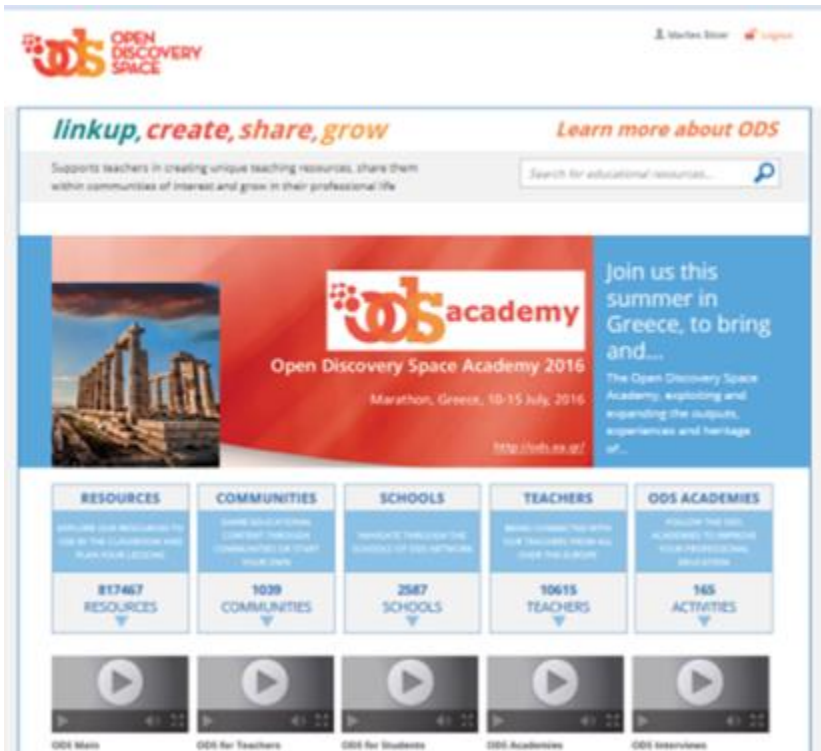
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ODS evolution over time 2013-2015



ODS: participating in a community of peers across Europe



The screenshot shows the homepage of the Open Discovery Space (ODS) website. At the top left is the ODS logo with the text "ODS OPEN DISCOVERY SPACE". Below it is the tagline "linkup, create, share, grow" and the text "Supports teachers in creating unique teaching resources, share them within communities of interest and grow in their professional life". A search bar is present. A large banner for "ods academy" is featured, advertising the "Open Discovery Space Academy 2016" in Marathon, Greece, from July 10-15. Below the banner are five columns: RESOURCES (817467), COMMUNITIES (1039), SCHOOLS (2587), TEACHERS (10615), and ODS ACADEMIES (145). At the bottom, there are five video thumbnails labeled "ODS Main", "ODS for Teachers", "ODS for Students", "ODS Academies", and "ODS Interviews".



This screenshot shows the "NEWS" and "COMMUNITY EVENTS" sections of the ODS website. The "NEWS" section includes three items: "A Game that Teachers play...", "Successful...", and "Over 90 Primary teachers...". The "COMMUNITY EVENTS" section lists "Inspiring Science", "Entrepreneur 2016", and "Entrepreneur 2016". Below these are "ODS THEMATIC PORTALS" for Science & Technology, World of Entrepreneurship, and Geospatial Thinking. A "VISIT OUR CREATIVE SCIENCE CLASSROOM" section features an illustration of children in a classroom. The footer includes the European Union flag, the ODS logo, and text stating the project is partially funded by the European Commission under Grant Agreement no. 287229. It also includes links for Cookies, Privacy Policy, and Contact, and a copyright notice for Open Discovery Space 2016.

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Exploring ODS

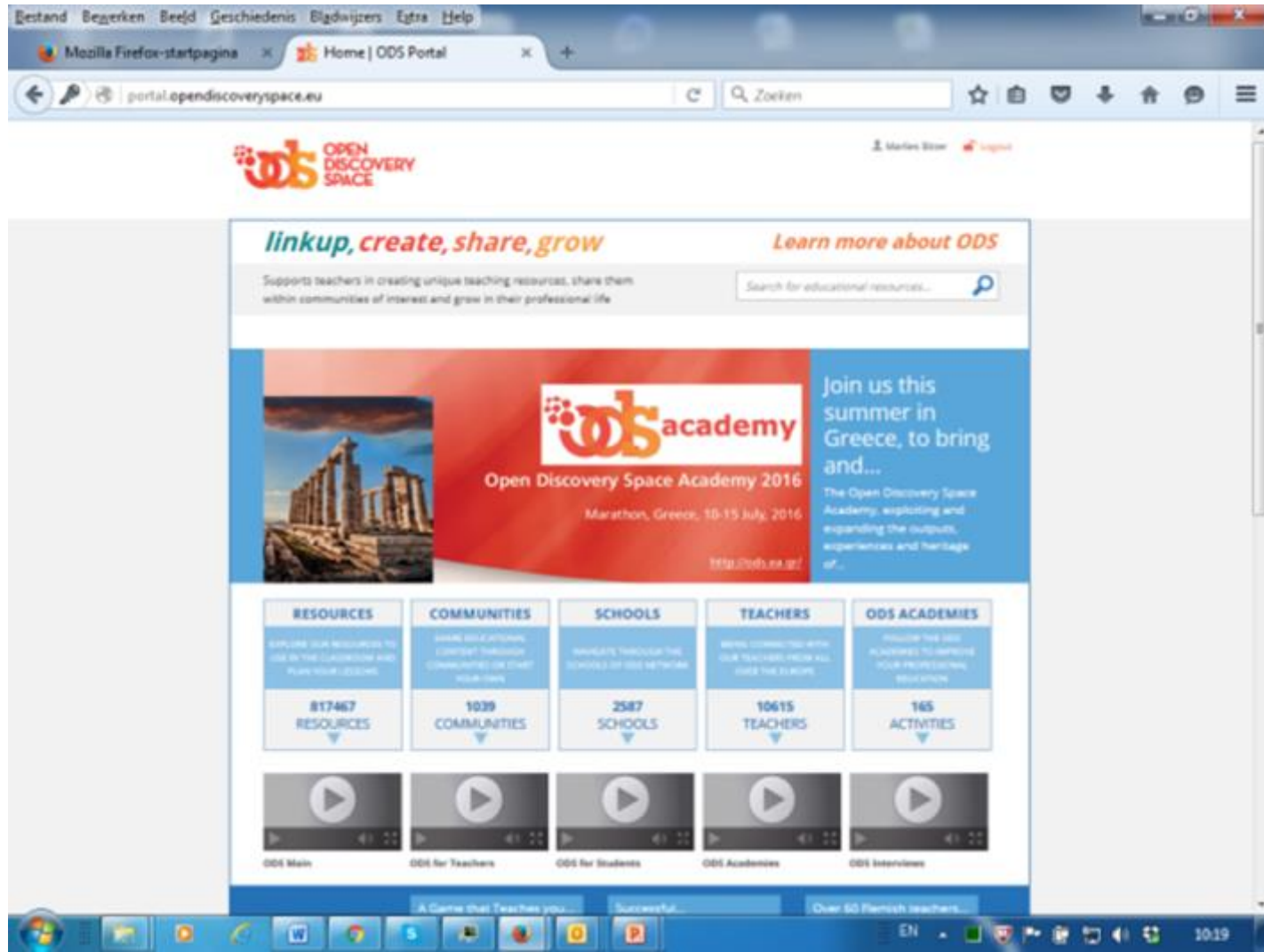
communities



activities



ODS community portal



Let's go and explore!

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Help needed ...



How to find “best” peers and learning materials?

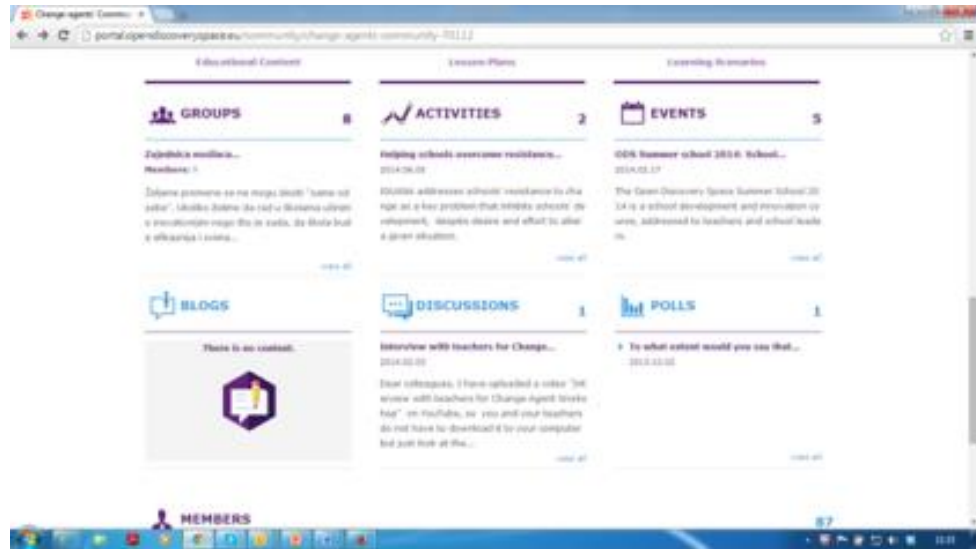


ODS, you are offering me too much?



Be supported: recommendations!

- Finding the best resources for your needs
- Finding knowledgeable peers to help



Personal recommendations

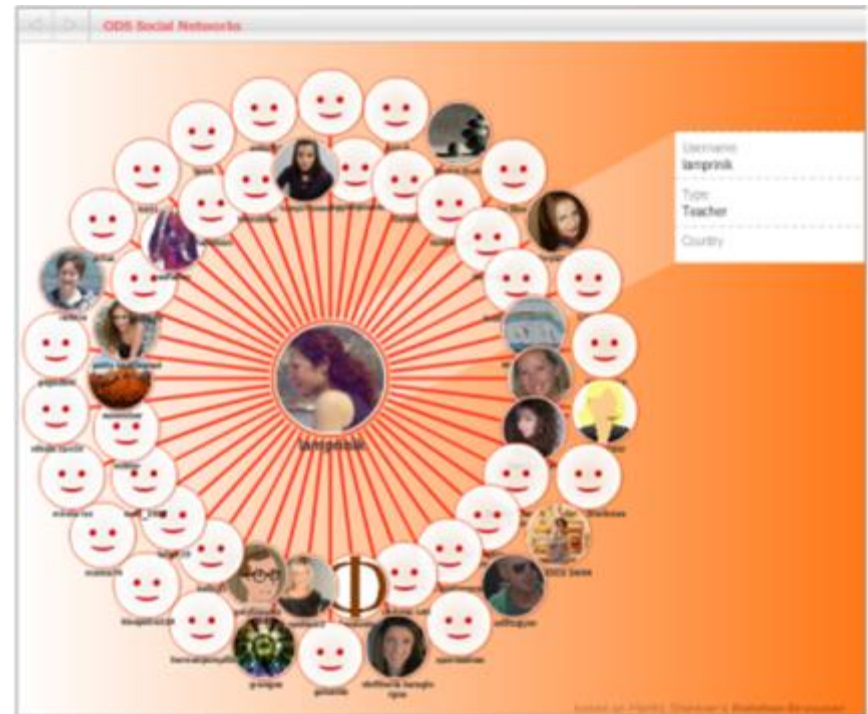
Lamprini Kolovou
Microsoft International Delivery Manager
234888 points
Badges received

Account Settings

Member Since: 2012-04-23
Last Login: 2025-10-26

Technical Manager of ODS Project

| | | | |
|-------------------|----------------------|-----------------|-----------------|
| Website shared: 1 | Badges received: 224 | Connections: 24 | Communities: 43 |
| Groups: 0 | Workspaces: 0 | Blog: 0 | Bookmarks: 0 |
| Activities: 0 | Events: 0 | Posts: 0 | Documents: 0 |
| Tools: 0 | Learning Tools | Interactions | Recommendations |
| Social Badges | | | |



Questions & Discussion



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inSpiring **SCIENCE**
education

Open School Education



The Inspiring Science project has received funding from the European Union's ICT Policy Support Programme as part of the Competitiveness and Innovation Framework Programme. This publication reflects only the author's views and the European Union is not liable for any use that might be made of information contained therein.

ISE: Main project aims and results

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- Introduction of Resource Based Inquiry Science Scenarios in real classroom settings
- Community Building and Professional Development
- Real time assessment of students' problem solving competences
- Integrated environment to support ISE implementation activities

ISE: Aims and current results

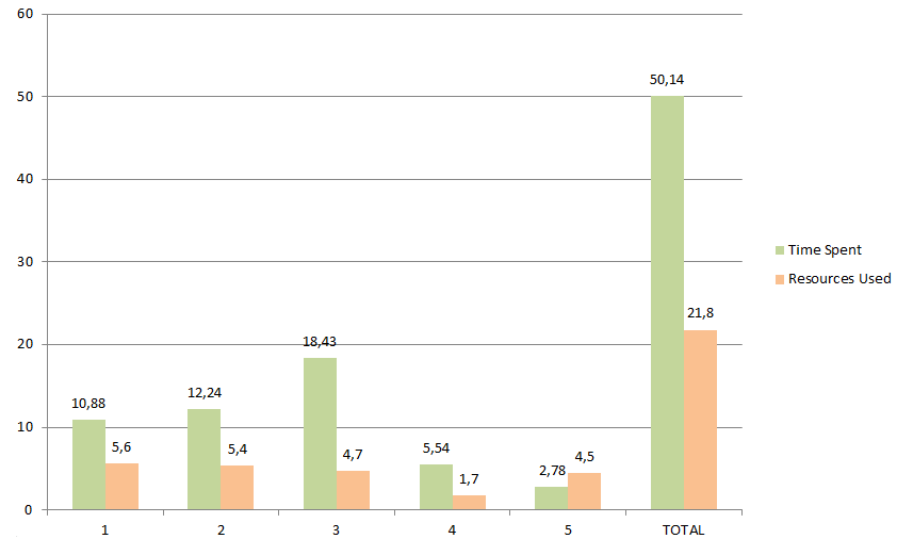
Introduction of Resource Based Inquiry Science Scenarios in real classroom settings

Community Building and Professional Development

Real time assessment of students' problem solving competences

Integrated environment to support ISE implementation activities

Advanced inquiry lessons, enriched with **resources** (more than 22 resources and **tools** are used in each scenario) can be delivered to students in realistic time intervals (**50 minutes** average time) independently of the **classroom size!!!**



ISE: Aims and current results

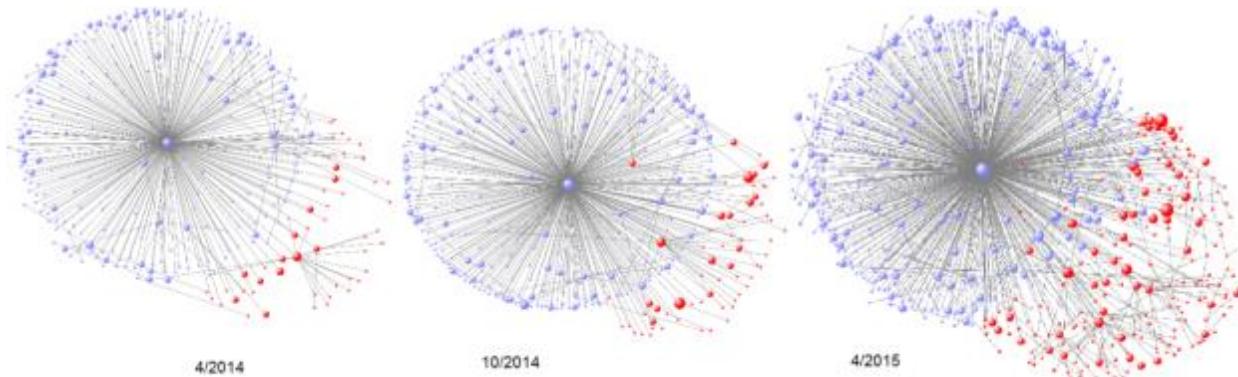
Introduction of Resource Based Inquiry Science Scenarios in real classroom settings

Community Building and Professional Development

Real time assessment of students' problem solving competences

Integrated environment to support ISE implementation activities

- Adopt and expand the ODS community building framework
- > 3,000 schools network
- > 10,000 registered teachers
- > 1,000 teacher communities



ISE: Aims and current results

Introduction of Resource Based Inquiry Science Scenarios in real classroom settings

Community Building and Professional Development

Real time assessment of students' problem solving competences

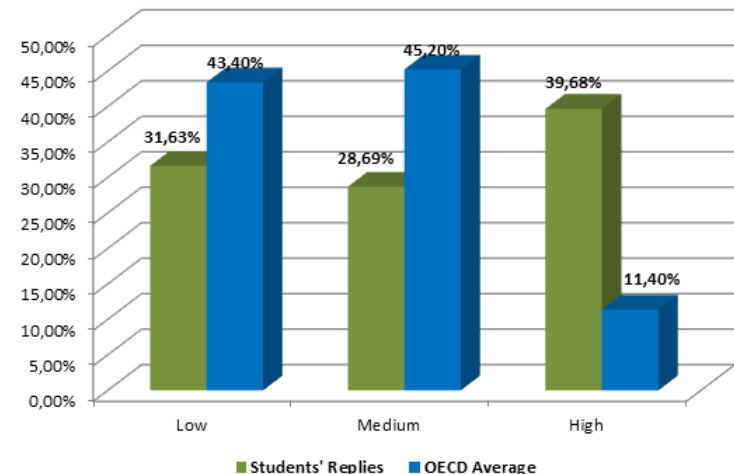
Integrated environment to support ISE implementation activities

☞ Demonstrate the benefits of the inquiry learning in science classrooms for cultivating students problem solving competences / PISA 2012 PS Framework

☞ Online:

- Design models and create hypothesis
- Analyze data
- Graphically represent the results

Problem Solving Questions' Replies per Proficiency Level



ISE: Aims and current results

Introduction of Resource Based Inquiry Science Scenarios in real classroom settings

Community Building and Professional Development

Real time assessment of students' problem solving competences

Integrated environment to support ISE implementation activities

Community building & networking

Search tools

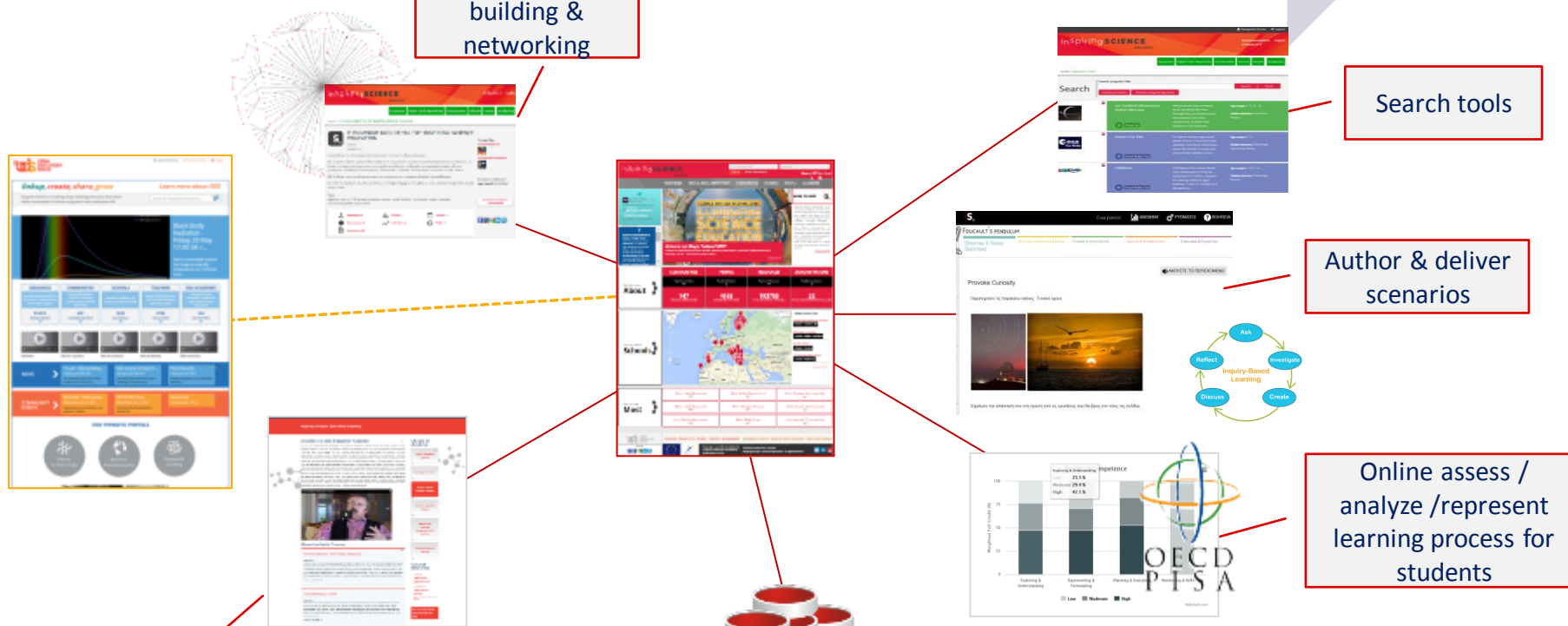
Author & deliver scenarios

Online assess / analyze / represent learning process for students

ISE Academy

ISE Repository

inspiring SCIENCE education



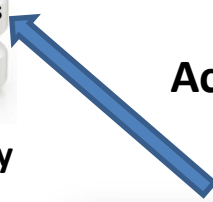
ISE Overview



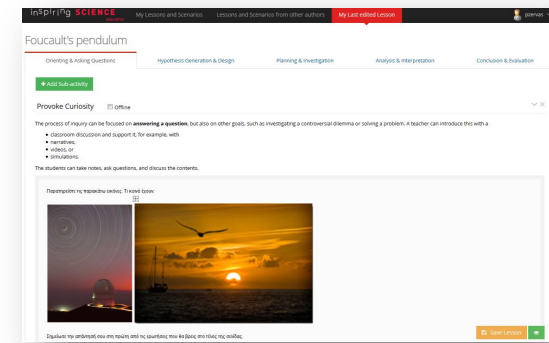
RESTful APIs



Access



ISE Authoring Environment



Author Inquiry Lesson(s)



Deliver Inquiry Lesson(s)



ISE Delivery Environment



Assessment Data



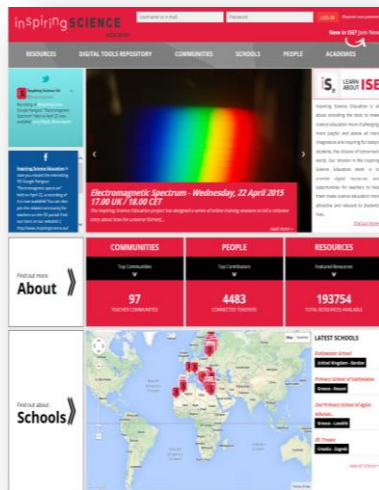
ISE Communities



Execute the Lesson

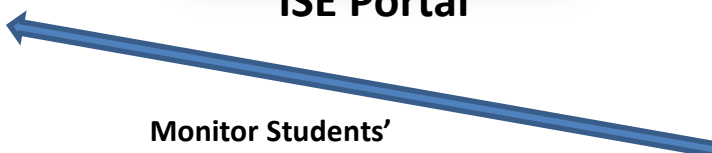


Students



ISE Portal

Monitor Students' Problem Solving Competences



Science Teacher



ISE: Community Portal (1/2)

The screenshot displays the Inspiring Science Education (ISE) Community Portal. At the top, there is a search bar and navigation links for RESOURCES, DIGITAL TOOLS REPOSITORY, COMMUNITIES, SCHOOLS, PEOPLE, and ACADEMIES. A central banner features a graph of Black Body Radiation with the text: "Black Body Radiation - Friday 29 May 17.00 UK / 18.00 CET". Below the banner, there are three main sections: "About" (134 Teacher Communities), "Schools" (4659 Connected Teachers), and "Resources" (193755 Total Resources Available). A map of Europe shows school locations. The bottom section lists "Most Used Resources", "Most Active Discussions", and "Most Popular Communities". The footer includes logos for the European Commission, Inspiring Science Education, and social media links.

Supports:

- Community building at thematic, school, national, international level
- Sharing educational resources
- Searching educational resources aggregated in ISE Repository and/or created with the ISE Authoring Environment
- Teachers' Professional Development (Training Academies)

ISE: Community Portal (2/2)

The screenshot shows the Inspiring Science Education website interface. At the top, the logo 'inspiring SCIENCE education' is displayed. Below it, a navigation bar contains buttons for 'Resources', 'ISE e-learning tool', 'Communities', 'Schools', 'People', and 'Academies'. The main content area features a community profile for 'Poluição luminosa - eficiência energética e preservação do ambiente' (Dark Skies Rangers). The profile includes a description, a 'Join' button, and a 'Customize Community' link. It also lists the managing organization 'NUCLID' and the 'Site Guerra'. A summary box at the bottom of the profile shows: Members: 85, Groups: 4, Events: 1, Activities: 34, and Resources: 25. A 'Network of related communities' link is also present.

Science Teachers are able to:

- Create sub-groups of special interest in the community
- Being informed on special issues and events introduced / published and shared by other members
- Discuss and assess their opinion on special topics
- Create and share educational resources, lessons / educational scenarios
- Access the educational resources, lessons / educational scenarios created by other members
- Create / join network of communities

ISE: Authoring Environment

The screenshot shows the 'Foucault's pendulum' lesson page in the Inspiring Science Authoring Environment. The top navigation bar includes 'My Lessons and Scenarios', 'Lessons and Scenarios from other authors', and 'My Last edited Lesson'. The lesson is currently in the 'Hypothesis Generation & Design' phase. A sidebar on the left contains a '+ Add Sub-activity' button and a 'Provoke Curiosity' section with an 'Offline' toggle. The main content area explains that the process of inquiry can focus on answering a question or on other goals like investigating a dilemma or solving a problem. It lists three types of resources: classroom discussion and support, narratives, videos, or simulations.

Search ODS

You can search for educational resources in ODS repository.

Search for e-Learning Tools

You can search for e-Learning tools in the ISE tools repository.

Language: Inquiry Cycle Phase Supported: Tool Type: Mobile Devices:

Big Ideas of Science: Subject Domain: Age Group(s):

HY.P.A.T.I.A.

Description: HYPATIA aims to show students how real high energy physic research is done. It provides the students with real data and an environment that closely resembles what actual researchers use, to give them the opportunity to conduct their own analysis and "discover" new particles. HYPATIA is an event analysis tool for data collected by the ATLAS experiment of the LHC at CERN. Its goal is to allow high school and university students to visualize the complexity of the hadron - hadron interactions through the graphical representation of ATLAS event data and interact with them in order to study different aspects of the fundamental building blocks of nature.

Analysis Tool

First Previous 1 Next Last

Science Teachers are able to :

- author inquiry lessons and educational scenarios following the inquiry cycle
- author inquiry activities including:
 - Digital educational resources
 - Digital educational tools
 - Guidelines and notes to implement the inquiry activity
 - Assessment tasks for students and to provide feedback
- add assessment tasks to all inquiry phases for assessing students' knowledge and to provide feedback
- store with educational metadata their inquiry lessons and educational scenarios to the ISE Portal, so as to be searchable from other teachers
- clone and adapt lessons developed by other teachers.

ISE: Delivery Environment

The image displays two screenshots of the ISE Delivery Environment. The top screenshot shows the main interface for a lesson titled "HYPATIA DEMONSTRATOR ENGLISH v.2". It features a navigation bar with "User", "Progress", "Settings", and "Help" icons. Below the navigation bar, there are sections for "Orientation & Posing Questions", "Phases & Instructions", "Practice & Assessment", and "Discussion & Reflection". A "LISTEN CONTENT" button is visible. The main content area includes a "Welcome" message and a section titled "Orienting: Provide contact with the content and/or provoke curiosity" with a sub-section "a. CERN". The bottom screenshot shows a "Congratulations!" message: "You have successfully finished the lesson!". Below this is a "YOUR PERFORMANCE OVERVIEW" section with a table of metrics:

| YOUR PERFORMANCE OVERVIEW | | Overall Phases | |
|---------------------------|------------|------------------|-----------------------|
| 3/5 | 0:0:58 | 8 | 1.60 |
| CORRECT ANSWERS | TIME SPENT | OVERALL ATTEMPTS | ATTEMPTS PER QUESTION |

A "Back to Lesson" button is located at the bottom of the performance overview.

- Science Teachers and Students are able to access the ISE Delivery Environment through unique web links produced by the ISE Authoring Tool for each lesson/scenario delivered
- Students are able to enroll (considering data privacy issues) in lessons/scenarios and execute the different phases in a fixed order, or “lockstep” fashion
- Students are able to see at the end of the lesson/scenario, data about their performance

Thank you! Contacts:



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