

STEM

S – Science

T – Technology

E – Engineering

M – Mathematics

Co-funded by the
Erasmus+ Programme
of the European Union





Co-funded by the
Erasmus+ Programme
of the European Union



- **Project title**

Clean, green future through STEM-sport clubs

- **Partners**

7 partners (6 countries)

- **Duration**

36 months, (01/2021 – 12/2023)

- **Overall budget**

364 690 EUR

www.stemclubs.eu



STEM PARTNERSHIP



Odda upper secondary school – lead partner



Solaris Foerderzentrum fuer Jugend und Umwelt gGmbH



The South Bohemian Company for Development of Human Resources



Srednja skola Dugo Selo



Střední průmyslová škola chemická Pardubice



T2I - TRASFERIMENTO TECNOLOGICO E INNOVAZIONE SCARL



Piarista Gimnázium, Kollégium, Általános Iskola és Óvoda



Co-funded by the
Erasmus+ Programme
of the European Union



ABOUT PROJECT

Clean, green future through STEM sports clubs” is a European partnership of seven VET schools and educational organizations who will develop “STEM clubs” as a new learning and teaching method for STEM based motivation, orientation, preparation and dropout prevention in VET. It is intended as an ongoing leisure activity, as entertaining as sport for young students aged from 10 up to 18 years. All valuable results will be available for other European regions who face comparable challenges.





PROJECT ACTIVITIES

Co-funded by the
Erasmus+ Programme
of the European Union



Project partners meetings

6 physical project meeting and several online meetings where all the ideas were discussed

Intellectual outputs

Stem platform and E-learning materials were created in online environment

International mobilities

One mobility for adults (stem club leaders and teachers) and two mobilities for student

Multiplier events

7 multiplier events focused on popularisation of STEM

**AND MUCH
MORE...**



STEM OUR WEBSITE

STEM CLUB PLATFORM

STEM club platform” where all best practice will be presented regarding STEM clubs and will be given possibility for volunteers to reach out authors of such clubs and exchange experience, generate collaborative initiatives (even transnational).



Construction of paper bridges

It is a challenge for everybody (including adults) to construct / create an own bridge only made of paper and glue. The participating children will easily reach a simple result.



Business Start Up

The I2i certified business incubator offers a physical space and a series of integrated services to start your own business by reducing risk and costs, to maximize profit and success.



Makers Club

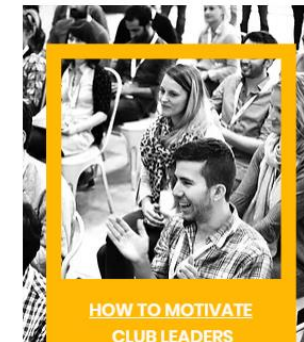
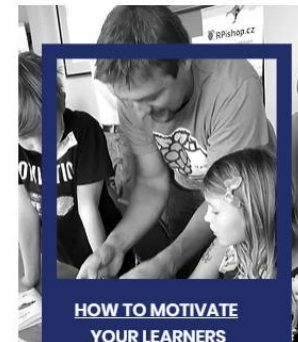
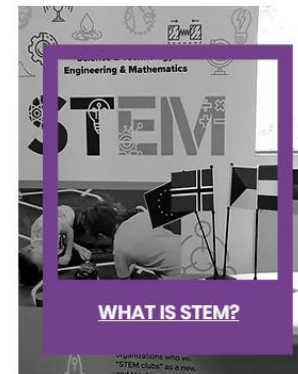
Key is to identify what product or contraptions students want to create and/or use. Than multiple design are created. They have to choose the one they like best and know reasons why it is better than other.... and so on. Example is arcade game.



Renewable Energy Sources

Research on the application of renewable energy sources in everyday life. Recognizing the need to use alternative sources. Inspiring new generations to create new products that use renewable resources.

E-LEARNING



E-LEARNING SECTION

e-Learning tutorial material for educators in STEM” which will ensure quality training of volunteers who want to establish STEM clubs. This e-learning is combination of motivation videos and useful tips and tricks!

PARTNERS MEETINGS

Co-funded by the
Erasmus+ Programme
of the European Union



1ST MEETING IN ODDA



In the time between 23 and 24 September 2021 the lead partner hosted in Odda the kick-off meeting.



As a number of meetings have regularly already taken place online, the project is in full progress and the partners have been able to discuss further content issues like: the next partner meetings and learning activities, intellectual outputs milestones, national and international promotion and dissemination on the project and its results.



2ND MEETING IN BUDWEIS



Co-funded by the
Erasmus+ Programme
of the European Union



In the time between 20 and 21 January 2022 JSRLZ partner hosted in České Budějovice the second meeting. Mobility for adults in Berlin was planned and the main task was to come up with the content and structure of the stem club platform.





3RD MEETING IN VERONA

In the time between 24 and 25 November 2022 T2i hosted in Verona the third meeting.

We have work on the next partner meetings and learning activities, intellectual outputs milestones, national and international promotion and dissemination on the project and its results.

Co-funded by the
Erasmus+ Programme
of the European Union



4TH MEETING IN KECSKEMÉT



Co-funded by the
Erasmus+ Programme
of the European Union



Organized between 26-27 September 2022, the Piarist School of Kecskemet hosted the third international partner meeting of the STEM project Clean, green future through STEM-sport clubs.

During the two days, in addition to reviewing the activities carried out so far in the project - presenting the different clubs of the partners, sharing difficulties and good experiences, discussing questions and answers - the next tasks and workflows were discussed.





5TH MEETING IN CHEMNITZ

Organized between 23 -24 March 2023, the German partner organised two-days meeting. Main task in Germany was to create videos for our e-learning platform.

We have also discuss agenda for the up-coming mobility for students in Croatia.



6TH MEETING IN PARDUBICE

Organized between 7 -8 November 2023 in Pardubice.
We have discuss what we need to finish in the last months of project, how to promote all the things we have done and most important, how we attain the efficient sustainability.



Co-funded by the
Erasmus+ Programme
of the European Union



ONLINE MEETINGS

We support our project meeting with regular online meetings, so we can keep each other updated about our national achievements and also how we continue in our work in project activities.



MOBILITY IN BERLIN FOR STAFF

Co-funded by the
Erasmus+ Programme
of the European Union



In the time between 4 - 8 April 2022 German partner invited us in Berlin. We had great opportunity to explore the german STEM labs and our teachers and stem club leaders learn a lot of new skills. They were so excited for that because they can easily apply it in their home-town STEM clubs!



1ST MOBILITY FOR STUDENTS IN VERONA

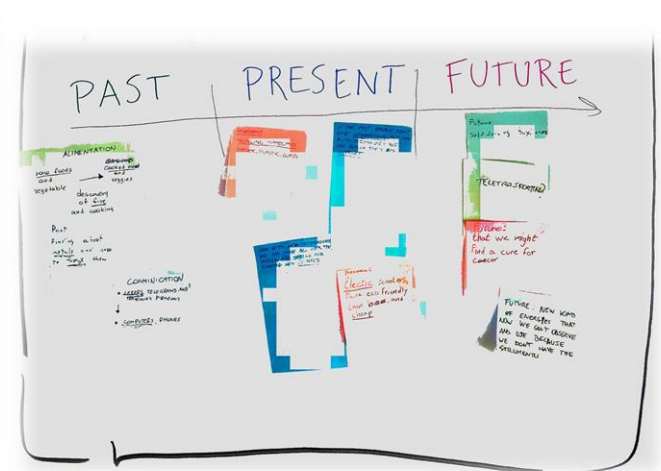
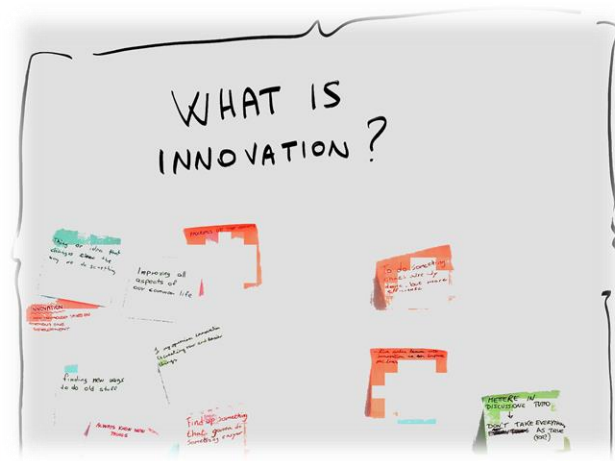
Co-funded by the
Erasmus+ Programme
of the European Union



From 21st November to 25th November, 48 students and 8 teachers were hosted in Verona (Veneto, Italy) for the realisation of the second mobility, according to the schedule provided in the STEM Clubs Erasmus + project. The mobility week was organised by the partner t2i technology and innovation and was aimed at presenting some stem clubs and involving students to participate in concrete activities.

The background of the week was the vast topic of innovation, in its diverse facets and interpretations.





2ND MOBILITY FOR STUDENTS IN ZAGREB AND DUGO SELO

Co-funded by the
Erasmus+ Programme
of the European Union



Blended Learners mobility -Croatia
"Sustainable Future & Renewable Energy"
17.4.-21.4.2023

The whole week will be led by the motto:

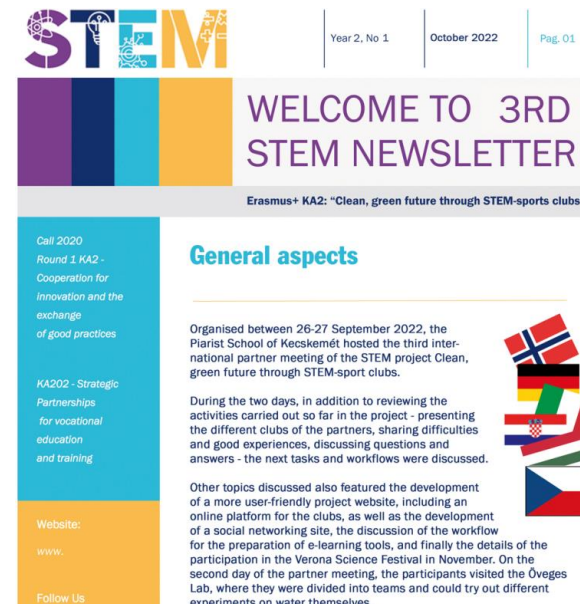
★ Accelerate the roll-out of Renewables & energy efficiency across the EU ★



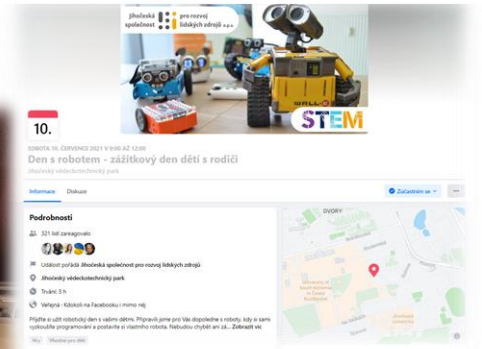


STEM DISSEMINATION

- NEWSLETTERS
- SOCIAL MEDIA POSTS
- LOCAL EVENTS AND WORKSHOPS
- 7 MULTIPLIER EVENTS
- INTERNATIONAL CONFERENCES
- LEAFLETS AND BROCHURE
- BUSINESS MEETINGS WITH LOCAL AUTHORITIES
- ARTICLES IN THE PRINT MEDIA



STEM DISSEMINATION





MULTIPLIER EVENT IN GERMANY

The German **multiplier event** took part on 28/09/2023. Beside presentation of project and results. It included workshops and discussions as

„How to find good STEM educators? and

„What makes a STEM activity attractive for learners“

In addition, a visit in the saxonian exhibition education for sustainable development „**Education landscapes in future**“ was included.

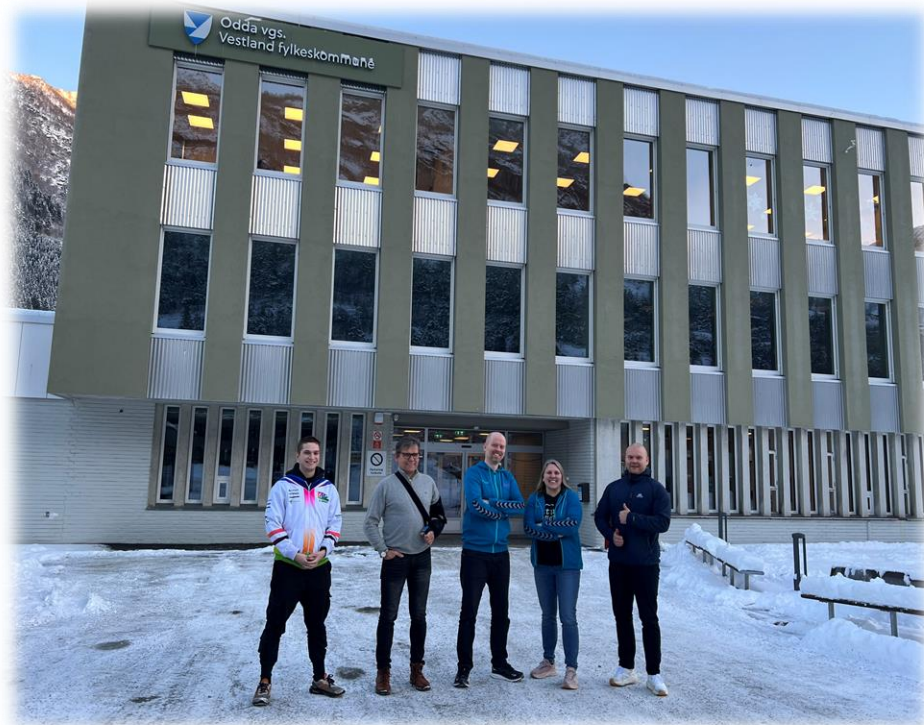
A few local stakeholders from education and research sector took part as well as some international guests.





MULTIPLIER EVENT IN NORWAY

THE EVENT TOOK PLACE ON OCTOBER 5, 2023



CONTENT:

WE HAD AN MULTIPLIER EVENT WITH FOCUS ON GAMING AND E-SPORT.

SINCE WE ARE IN A PROCESS OF APPLYING FOR FUNDS FOR A GAMING ROOM HERE AT ODDA UPPER SECONDARY SCHOOL IN CONNECTION WITH THE COUNTY'S INITIATIVE «OPEN SCHOOL».

WE MADE CONTACT WITH AN ORGANISATION IN BERGEN CALLED ACTIVE GAMERS WHO HELPED US CREATING A MULTIPLIER EVENT.

MULTIPLIER EVENT IN NORWAY

WE HAD DIFFERENT LECTURERS WHO ADDRESSED TOPICS SUCH AS:



- INTRODUCTION ABOUT STEM SPORTS CLUB
- INTRODUCTION REGARDING OPEN SCHOOL
- USE OF GAMING IN TEACHING AT THE SCHOOL
- POSITIVE EFFECTS OF GAMING AND E-SPORTS
- NEGATIVE EFFECTS
- TOXIC BEHAVIOR IN GAMING
- MONEY GAMES CREEP INTO COMPUTER GAMES
- STIGMA AROUND GAMING
- ESTABLISHMENT OF GAMING ROOMS AND THE PROCESS AROUND THIS THEME
- LECTURE BY PROFESSIONAL E-SPORTER
- LECTURE BY A SCHOOL THAT HAS CREATED E-SPORTS AS AN EDUCATIONAL COURSE



MULTIPLIER EVENTS IN CROATIA

On 13th December 2022. and 5th December 2023. Srednja škola Dugo Selo organized Multiplier events.

The goal of the event was to showcase the results of IO to stakeholders, from VET, youth organisations, associations, local government, businesses and policy makers throughout the country, working in the field of STEM education.

The working session was focus on promoting the usability and benefits of the project outputs and on achieving maximum uptake amongst the delegates.





MULTIPLIER EVENT IN HUNGARY

Organized on 11th December 2023, the multiplier event offered the opportunity for the city leaders, the county chamber of commerce and industry (CCI), businesses, public education and VET institutions to personally experience the different clubs organized in STEM fields in our Öveges Student's Lab as well as our workshop (Unimat tools, Infento kit, robotics, chemistry lab exercise, Lego and Arduino robots).

City leaders emphasized that the primary goal of the city is to make Kecskemét innovative and forward-looking that's why it is important to create partnerships and alliances that serve this goal and establish the legitimacy of the clubs created by the student labs.

They can make a major contribution to the decision making process for students about to choose a career, and can also serve the needs of higher education and businesses.





MULTIPLIER EVENT IN ITALY

“The role of female entrepreneurship and the development of STEM initiatives”



During the event, the participants were involved in the presentation of the exhibition: a journey inspired by women.



Innovation and Stem development in the female entrepreneurship in the Veronese history.

On the 26th September 2023, in Chamber of Commerce of Verona – ITALY, t2i organized a multiplier event involving the key stakeholders of the local territory



**Group work!
the participants have been involved in a journey of STEM and female entrepreneurial experiences and in a round table to develop local STEM opportunities for young people.**





MULTIPLIER EVENT IN CZECH REPUBLIC: PARDUBICE

On 23 November 2023, the SPSCH Pardubice invited colleagues from managing authorities and other schools' teachers to learn about project results, interact with STEM clubs students, visit them in "teaser" club activities.

We had very interactive sessions.



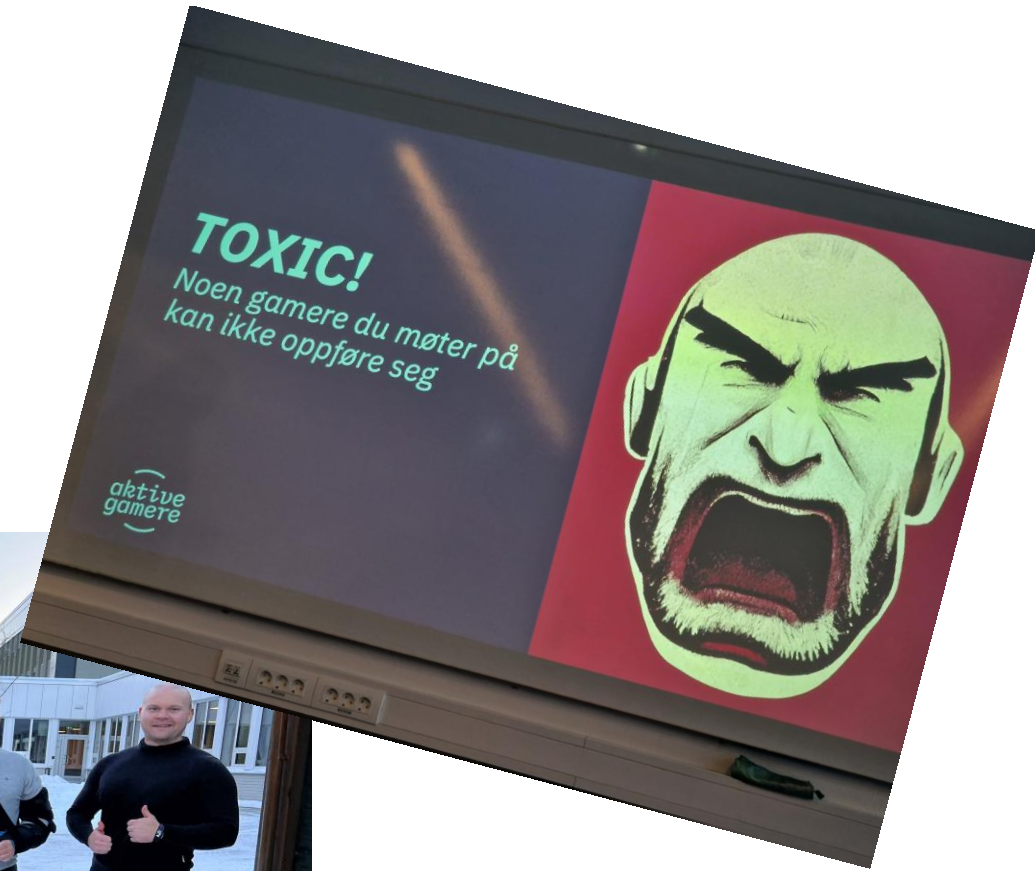


MULTIPLIER EVENT IN CZECH REPUBLIC: SOUTH BOHEMIA

On 28 March 2023, the South Bohemian partner organized an event that introduced the STEM-clubs project and its activities to participants such as primary and secondary school teachers, club leaders, company representatives and others where all of them could try out STEM workshops.



WHAT HAVE WE ACHIEVED IN NORWAY





WHAT HAVE WE ACHIEVED IN GERMANY

- ✓ We've established **STEM clubs** and regular **STEM workshops** as Robotics, Chemistry, Electronics, Informatics
- ✓ We run **STEM youth competitions** as young researchers in sciences, solar car, paper bridge competition
- ✓ We took part in national **STEM conferences** and **events**
- ✓ We've included our **local partners** and informed about the STEMsport clubs ideas
- ✓ We've launched a **project subpage** in web presentation
- ✓ We've created **newsletters**, published and shared them in the partnership and in our networks
- ✓ We contributed to the project meetings and **project outputs** as the research, methodology and publications
- ✓ We've organized a **learning and training activity** for educators in Berlin
- ✓ We took part in **mobilities for learners** in Italy and Croatia



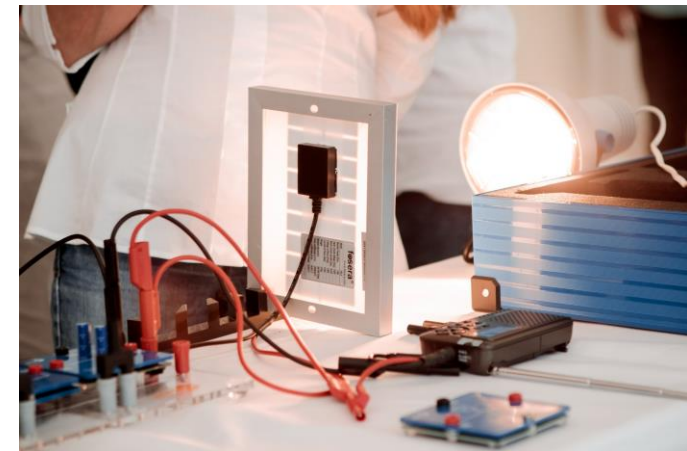
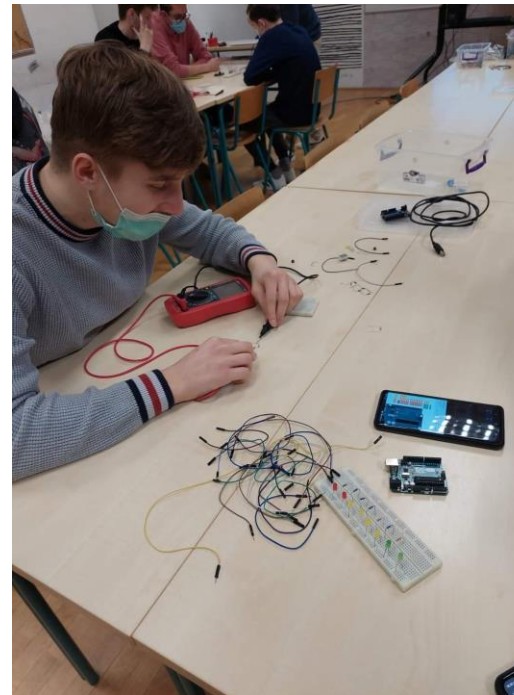


WHAT HAVE WE ACHIEVED IN CROATIA

Through the STEM SPORT CLUBS project, we have established good foundations for the organization of extracurricular activities as part of the work of the school's newly formed clubs.

Teachers were given tools for their creation and sustainability.

Through the activities of the project, we created materials for teachers on the topic of renewable energy sources and held various workshops on the topic of Arduino, renewable sources, 3D technology, robotics and new technologies.





WHAT HAVE WE ACHIEVED IN KECSKEMÉT (HU)

Having experienced so much during the period of the project, students and teachers could realize the importance of STEM in everyday life. Students were offered a lot of opportunities to establish international relationships as well as possibilities for further improvement. Materials were developed in different fields so teachers could use them and further enrich in the future. The knowledge and contacts which were built up during this project can be used in the context of the Selye János Student Lab Network, and may be extended in other multidisciplinary fields.



WHAT HAVE WE ACHIEVED IN ITALY

T2i run diverse workshops and activities in Vittorio Veneto (TV) and Legnago (VR) with primary and high school students. Among these activities, we love to remember some fine LEGO ACTIVITIES! The main topics treated were digital transformation, sustainability and open data.





WHAT HAVE WE ACHIEVED IN CZECH REPUBLIC: PARDUBICE



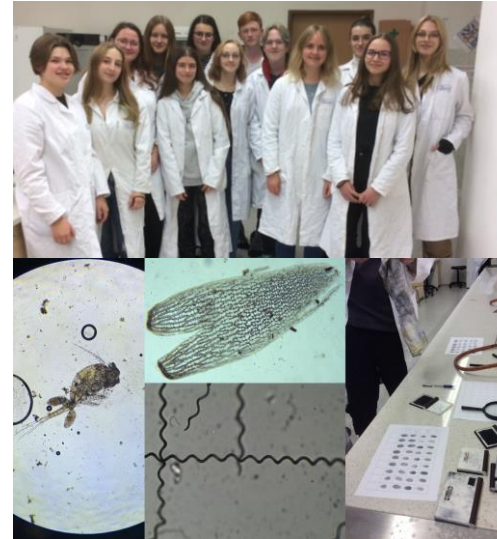
Logical thinking club



Critical thinking club



Biology club *2



Chemistry everywhere
club



Created several STEM related clubs. Tried out sport elements to motivate students to choose these club activities long-term. Trained our club leaders, shared experience among colleagues within SPSCH Pardubice and project consortium. Created strong connections for sustainable cooperation.

Created STEM Explorers concept to bring clubs under one umbrella and ensure sustainability no matter the club leaders leaving.



WHAT HAVE WE ACHIEVED IN CZECH REPUBLIC: ČESKÉ BUDĚJOVICE

We have established a regular STEM CLUB called Day with the Robot – it took place on Saturday and was intended for parents with children to involve parents and provide a time where adults and pupils can spend common time and learn more about robotics, science and technology.



We connected organizations and companies with schools and strengthened cooperation between the educational and corporate spheres in the field of extracurricular activities - workshops in companies, experts in schools - all with the aim of strengthening pupils' awareness of innovation and STEM in general.

