**Project's Reference:** 2022-1-ES01-KA210-SCH-000083697

**Project's Name:** International Collaboration Aiming Next Digital Opportunity

**Project's Acronym:** ICANDO



***Figure 1.*** *Temporary Logo of the Project.*

**Project Dates:** 1st September 2022-1st July 2024 (6 months extension is assumed)

**Project's Aim:** We will integrate new education materials and approaches to our traditional education systems. So, it is going to promote interest of STEAM (Science, Technology, Engineering, Art, Math) and PBL (Project Based Learning) among teachers in the participating schools, it will help us build a digital transformation through the development of the digital literacy and it will support teachers to create a contemporary learning environment, including most of the digital tools.

**Participants:**
Malmö stad, Digitaliseringsenheten (Municipality of leading tech-integrated school district)
Hermanos de las Escuelas Cristianas Colegio La Salle Benicarló (Legal Coordinator)
Nebi Guney Imam Hatip Ortaokulu (Executive Coordinator-PBL integrated school)
Convitto Nazionale Rinaldo Corso (STEAM integrated school)
2nd school of Mikra (School with fewer digital opportunities)

*All the participants have been selected according to the level of technology integration into their educational systems and curriculum. The core value is having a positive attitude towards innovations in education and having an institutional will to integrate them to curriculum.

*Figure 2. The First Meeting of the Project Teams before Introductions.*
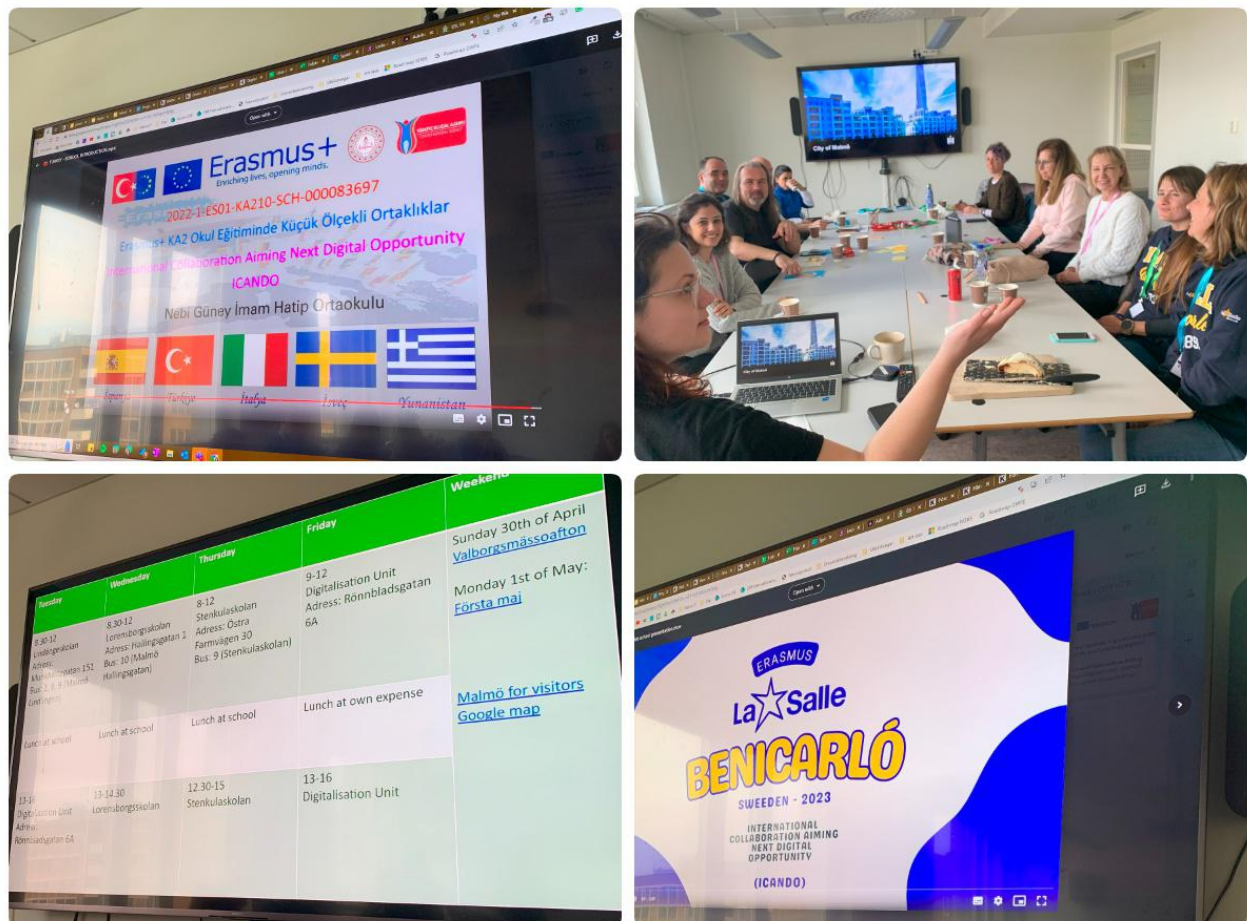


*Figure 3. The Introductions of the Institutions.*

**Day 1:** The face-to-face first meeting was held in the Malmö Stad, Digitalization Unit. All of the crews introduced themselves at first. Then, the guest institutions introduced their schools in general. Later, the host organization presented the city introduction, the school system in the consortium, the role of the Malmö Stad, Digitalization Unit in school curriculums.



*Figure 4. The Motto of Malmö City Educational System*

*The figure above shows the perspective of Malmö City about the education system they have been implementing for years. They provide the best services for the most disadvantageous.
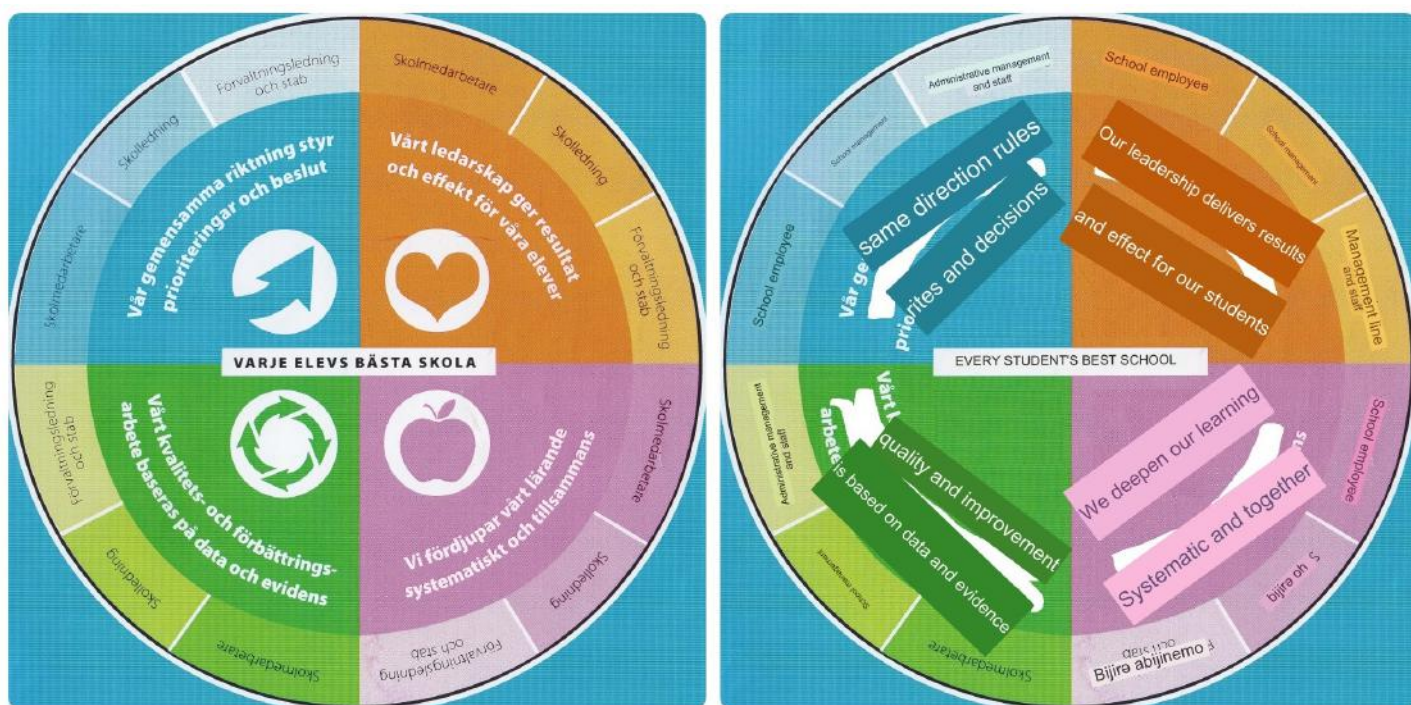


*Figure 5. The Cycle of Malmö City Educational System*

*The figure 5 shows the core values which constitute the general understanding of Malmö Stads Grundskolor. They have a consortium including 80 primary and secondary schools in Malmö. They provide organizational, technical, financial and educational support to all of the schools. Even the lunch at schools are provided by the Malmö City Municipality for free.

**Day 2:** The Job Shadowing started at 8:30 at Lindängeskolan.



*Figure 6. The Introduction Meeting at Lindängeskolan before the Job Shadowing.*

*There are three principals at school who are resposible for different grades. They work like vice principals and there is one supervisor principal who is responsible for everyone at school. The staff has a variety of supportive teams for pupils at school such as the health team, the counselling team, the educative team. Teachers lecture an average of 18 classes a week and they are supposed to work at school a total of 35 hours. They are also paid for 10 additional hours a week to work at home for the educational purposes.

*Pupil privacy and digital privacy are important. Trust is valued at school. There is no dress code for pupils, it is optional. Motivation is sometimes a big struggle. Pupils are encouraged to use their Chromebooks and mobile phones for the educational purposes. Classrooms are all equipped with laser projectors and sound bars besides traditional white boards.

*One of the struggles is the fruquent change of the curriculum. Educational support and technical support are provided by a large numbered squad at Malmö City Digitalization Unit. More than 50 teachers and almost 10 technicians work on digital material development and curriculum improvement.

*Pupils are assigned to the classes by considering their needs but in the end everyone is included in the same curriculum. Inclusive education is literally implemented by including pupils with special needs in regular classes.

**Figure 7.** *A sample of Robotics and Coding workshops implemented in regular classes.*



**Figure 8.** *A class about Sustainable Development in Grade 3, pre-assigned on code.org*

**Figure 9.** *A class of Swedish for pupils with different mother tongues.*

**\***Teachers use Google Classroom and HP Chromebooks provided by Malmö City. They have an annual plan and they have 3 weeks of rolls of themes in different classes. After completing each roll, they procedd to the next class and the next theme; e.g. Science to Social Studies. A pupil with learning disability and physical assult issues is supervized on a seperated desk at the front part of the classroom. Pupils use names only, no titles are urged to address adults for full equality. Pupils go on Swedish class in addition to their regular ones to fulfill language literacy. Pupils are not allowed to interact in another language except for Swedish in language classes.



**Figure 10.** *A view from the self-service cafeteria and the lunch provided by Malmö Stad.*

**Figure 11.** *Time to say goodbye to Lindängeskolan with the pupils' hand gestures at the back.*



**Figure 12.** *Teacher Training Course "A Sneak Peek into the Future of Educational Technologies"*

*Malmö stad, Digitaliseringsenheten has some private financial agreements with the major technology companies such as Microsoft, Google, HP, LG, BenQ and Apple. These financial agreements give the opportunity to form the software of the products according to their needs in education. Most of the schools use HP Chromebooks. A few of the schools use Apple products like iPad. Municipality units and schools have LG Smart TVs and BenQ Laser Projector devices which are fully integrated to the software to be able to use the touch screen both on white boards and on TVs. Technicians and teacher crews are always in contact with the tech companies to fix software issues. Common strategy is "No to competition, Yes to cooperation"

**Day 3:** The Job Shadowing started at 9:00 at Lorensborgsskolan.



*Figure 13. The Introduction Meeting at Lorensborgsskolan before the Job Shadowing.*
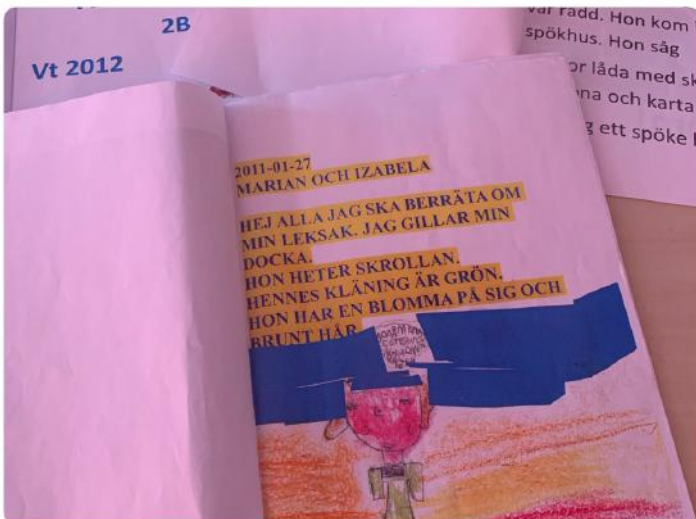


*Figure 14. The Swedish class with a differentiated teaching technique.*

\*This language class has a different order of teaching language skills when compared to the traditional methods. The teaching technique of Arne Trageton, called Creative Digital Writing for Writing to Read, is used in this class. The teacher determines the curriculum and the technique to use in the class and she uses this method even before the first class; at ages 6 to 10. Pupils are encouraged to use digital tools for writing, not pencils. After being educated for 2 years, pupils start to learn traditional writing in the second grade by using real pencils.
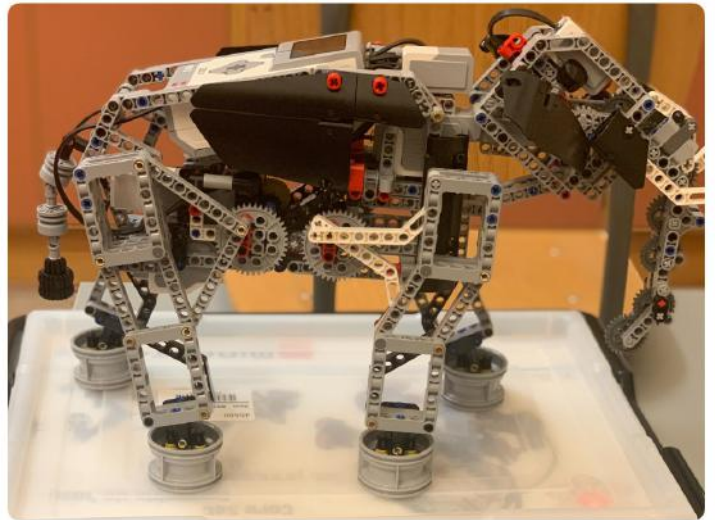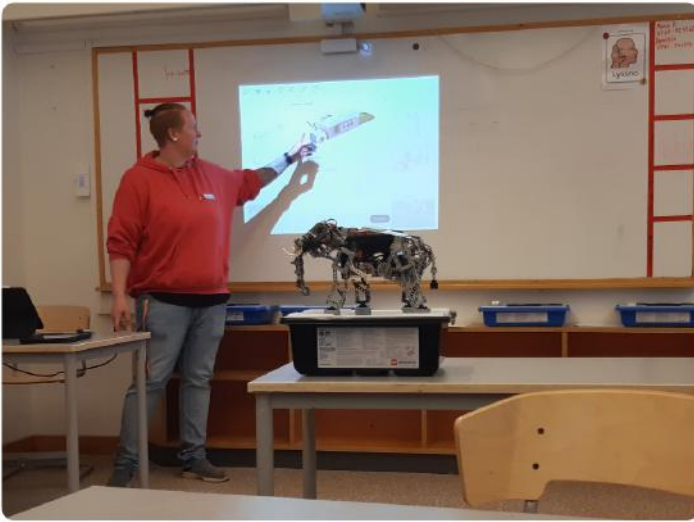
**Figure 15.** *The Lego programming workshop, after-school activity for ages 6 to 12.*

*The Lego programming workshop is an optional after-school activity for the pupils whose parents work till 6 pm. Pupils can join the workshop and are free to do the tasks at home. The activities are related to the curriculum and they support pupils to develop organizational skills.



**Figure 16.** *The technology-integrated Music class of the 4th grade pupils.*

*The music classes are formed around creating a form structure to make the music by using ready chord and rhythm sets on Apple iPad. The music teacher is good at Music terms both in English and in Swedish. She can also instruct pupils in some minority languages. There are so many instruments in the classroom however most of them, even the console piano, are out of tune. The teacher tells that pupils are not usually encouraged to play the instruments, instead they are urged to use iPads. The music class is 40 minutes a week and budget is insufficient for Art class. Malmö City prefers spending more budget on digitalization, even in the field of Art.

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**Figure 17.** *A view from the self-service cafeteria and the lunch provided by Malmö Stad.*



**Figure 18.** *The Evaluation Meeting at Lorensborgsskolan after the Job Shadowing.*

*The Lorensborgsskolan has so many pupils from different cultural and financial backgrounds. The school offers a wide range of minority language usage options however the main purpose is to help pupils learn Swedish as soon as possible so as to go on training in their own grades.

***Figure 19.*** *Time to say goodbye to Lorensborgsskolan by keeping nice memories.*
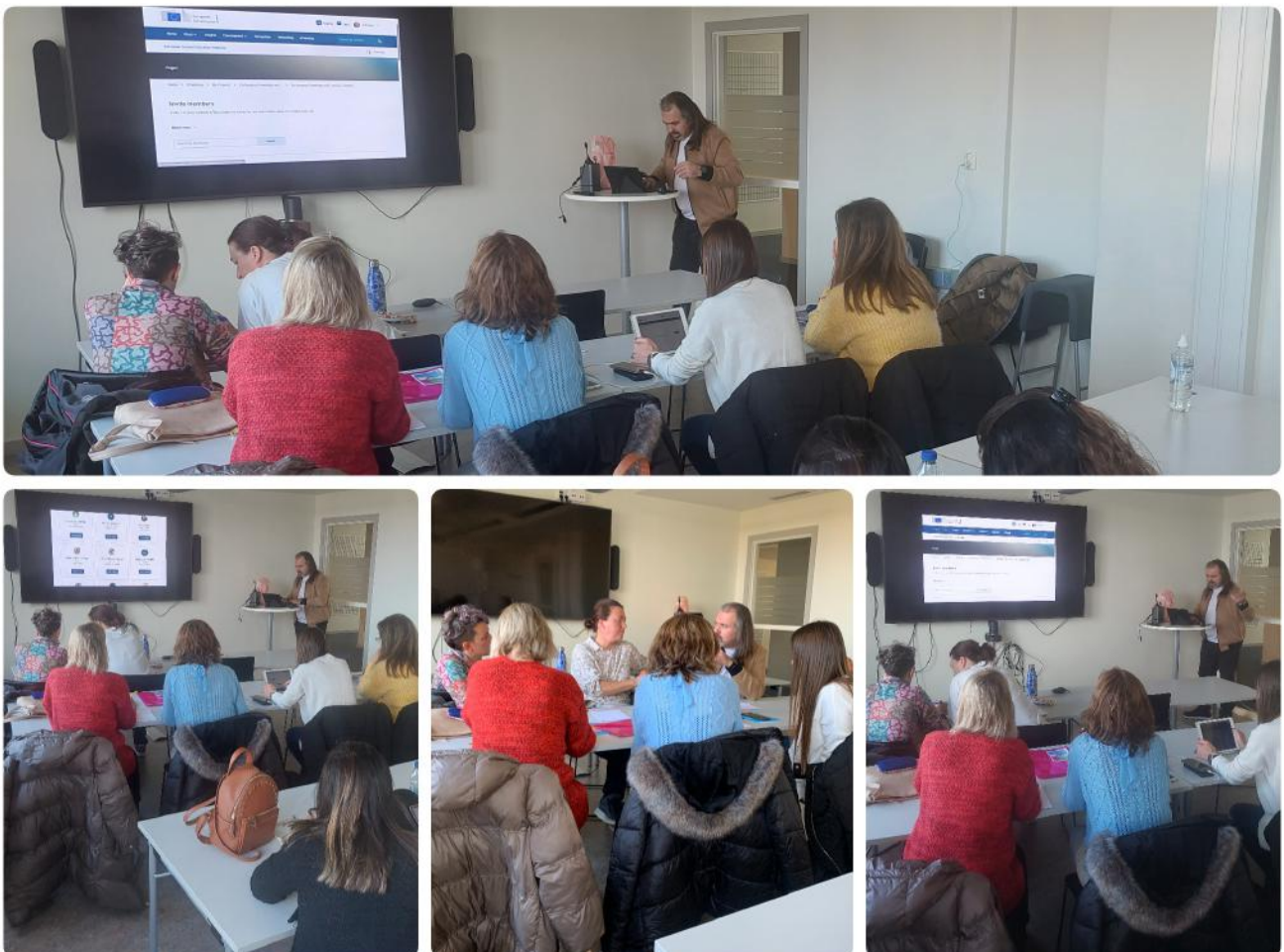


***Figure 20.*** *Teacher Training Course about the New Platform of eTwinning.*

**Day 4:** The Job Shadowing started at 8:00 at Stenkulaskolan.



*Figure 21. The Introduction Meeting at Stenkulaskolan before the Job Shadowing.*

*The Stenkulaskolan has so many pupils from different physical, cultural, and financial backgrounds. The 98 per cent of pupils are foreigners and 30% of them are newcomer to the country. School serves pupils aged from 6 to 16. The school's motto is "We make the world a better place." so the school has special applications and gadgets for a variety of disability types, including both physical and mental.



*Figure 22. The Presentation about the Education System of Stenkulaskolan.*

*The Stenkulaskolan has a large number of Professional Learning Communities (PLC). The school focuses on 3 core values: Digitalization, Language and Accessibility. Two teachers are assigned to train others in 40% of their working times. One is specialized on ICT and material development. The other one is specialized on the Corrective and Preventive Actions (CAPA).

***Figure 23.*** *The Art class, divided into 4 different groups; art, handcraft, music and ebru.*

\*The teacher is working on face expressions in the class above just with a small part of the whole group. The class is run both on iPad and on paper and physical materials like puppet faces. Pupils are also encouraged to virtualize their own face expressions by creating avatars.
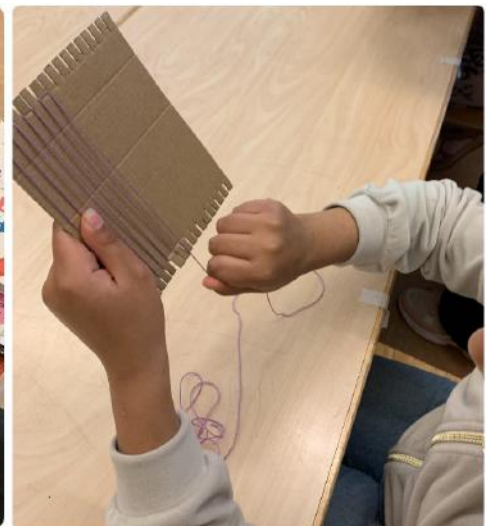


***Figure 24.*** *The Art class, divided into 4 different groups; art, handcraft, music and ebru.*

\*The Stenkulaskolan has a very self autonomous curriculum system for teachers. In another Art class for the 3rd graders, the entrepreneurship is driven by the teacher about the creativity. It all comes from the creative leadership and background of the teacher, so she is the one preparing the materials and activities on her own by the financial support of the school.

***Figure 25.*** *The Physical Education class in the indoor gym for the 9th graders.*

*The teacher shows the subject through the laser projector by using her iPad. Pupils learn the new moves by watching first. Teacher shows and explains the details on the screen. Pupils are supposed to do the new moves after the theoretical lecture so they are encouraged to practise and perform what they have just learned. 2 sets of classes in a week, 80 + 60 minutes.



***Figure 26.*** *A Math class of 2nd grade pupils, divided into two major and some minor groups.*

*The teachers wear a supportive audio device for pupils with hearing impairment in classes even if they don't have disabled pupils. There are sound bars in classrooms to help teachers at lecturing. Study islands, peer work and making own inferences are supported in classrooms.

***Figure 27.*** *A view from the self-service cafeteria and the lunch provided by Malmö Stad.*

*The lunch is provided by the Malmö Municipality for all of the schools in the region and it is free for the pupils. The pupils need to pay for the breakfast in the Stenkulaskolan if they are capable to pay but if they can't afford, the city also provides it for pupils, financially incapable.
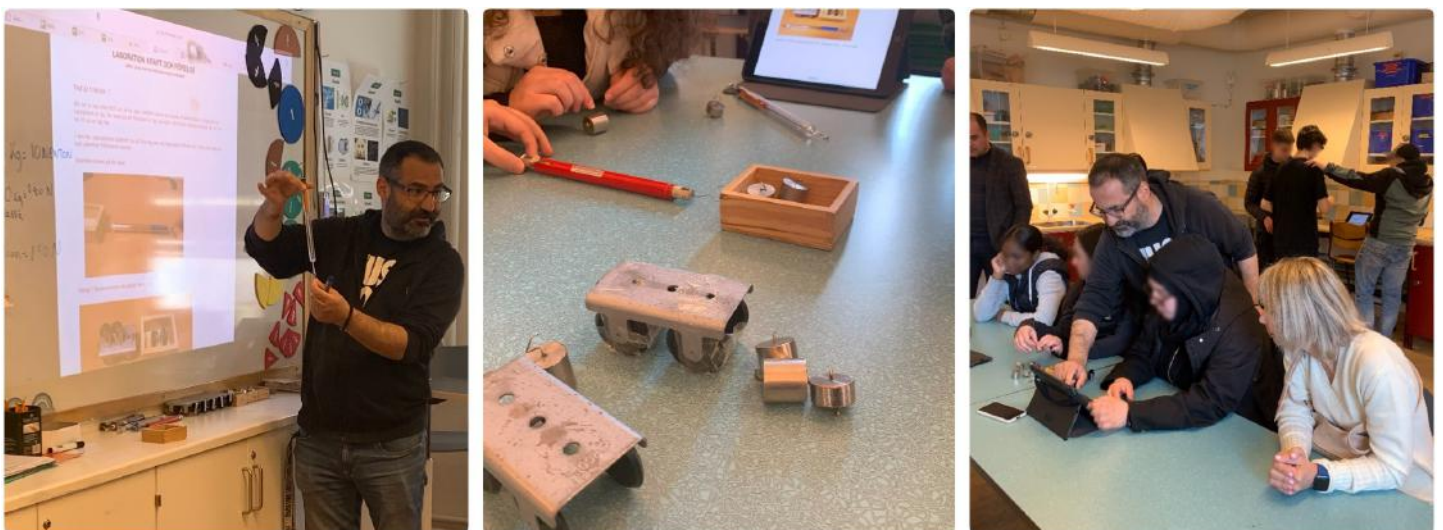


***Figure 28.*** *A sample from the Physics class for a mixed group of junior high pupils.*

*The Physics class is formed for the junior high school pupils who have difficulties to get the subject and they are assigned to the practical training of the correlation between the mass and frictional force. Brainstorming is mandatory and there is not only one correct answer for all. Less digitalization but more technical tools are used. Homework must be done at school.

*Figure 29. The vocational cooking class for 6$^{th}$, 8$^{th}$ and 9$^{th}$ graders.*

*Pupils also take vocational classes like cooking at the junior high level and they are encouraged to do the practical learning in the kitchen classroom. 3 week rolls are implemented like the other classes. Pupils use iPads to pick their next cooking task, they plan it step by step by the help of the software provided according to the curriculum. Pupils determines the ingredients too. When they finish planning, they talk to the teacher about their next cooking task and they discuss the details in the second week of the class. The teacher leads them to perfect their planning and preparation and the ingredients are provided in the classroom by the teacher in the third week. Pupils are encouraged and supported to do every single step of the cooking on their own; cutting, slicing, cooking, baking, kneading, etc.
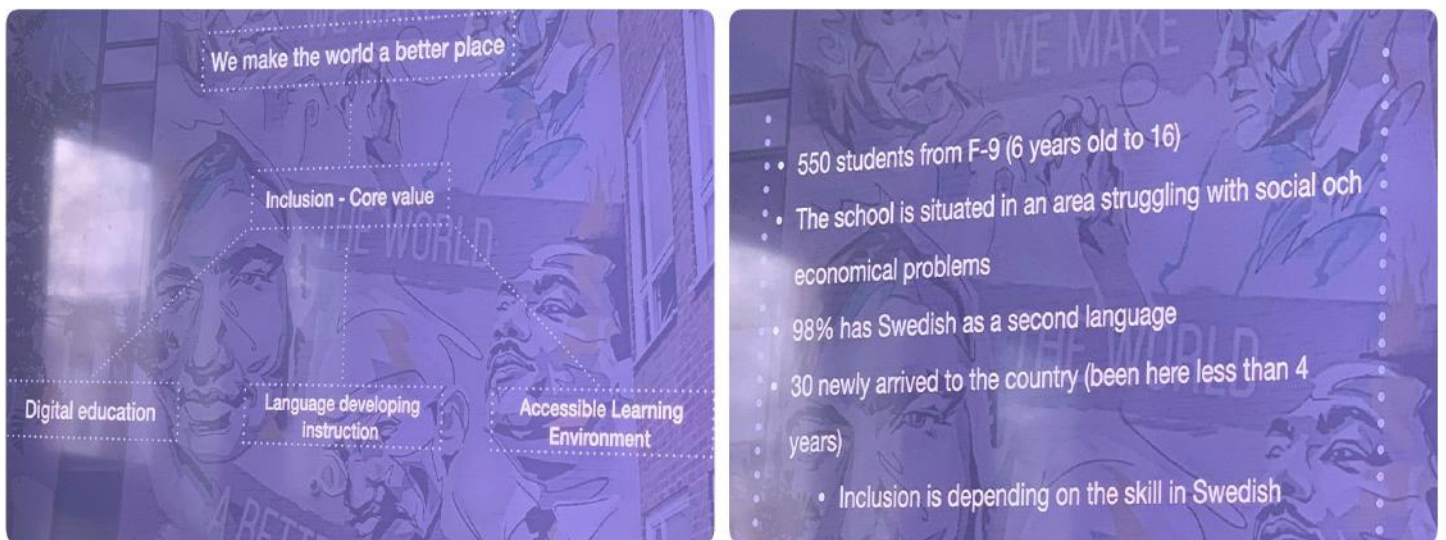


*Figure 30. The core values and the details of the Stenkulaskolan.*

*Here is the key sentence of the school's counselling system and on which the curriculum is based on: "Know me before you teach me." The school staff does everything by starting this sentence and taking the school's motto into considering "We make the world a better place." The school is supervised by the Social Services once every 6 months. Self-learning is urged in the curriculum. Pupils are encouraged to build relations with their peers and teachers. Teachers are in charge of their classes, principal can't question but must support them legally.

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**Figure 31.** *The Evaluation Meeting at Stenkulaskolan after the Job Shadowing.*

**\***Stenkulaskolan has a virtual chamber of methods of making education more inclusive. The education is supposed to be inclusive literally for every single individual. It includes Focusing Direction, Cultivating Collaborative Cultures, Securing Accountability and Deepening Learning.



**Figure 32.** *Time to say goodbye to Stenkulaskolan by building nice friendships.*

**Day 5:** The fifth day of the mobility started in the Malmö City, Digitalization Unit. All of the crews attended to the course about the integration of innovations to the educational technologies and curriculums. Then, the host institution made a presentation about the First Lego League to which schools in Malmö are supported to attend with different levels of pupils.



*Figure 33. The Lego Education set Spike, used to compete in the First Lego League.*
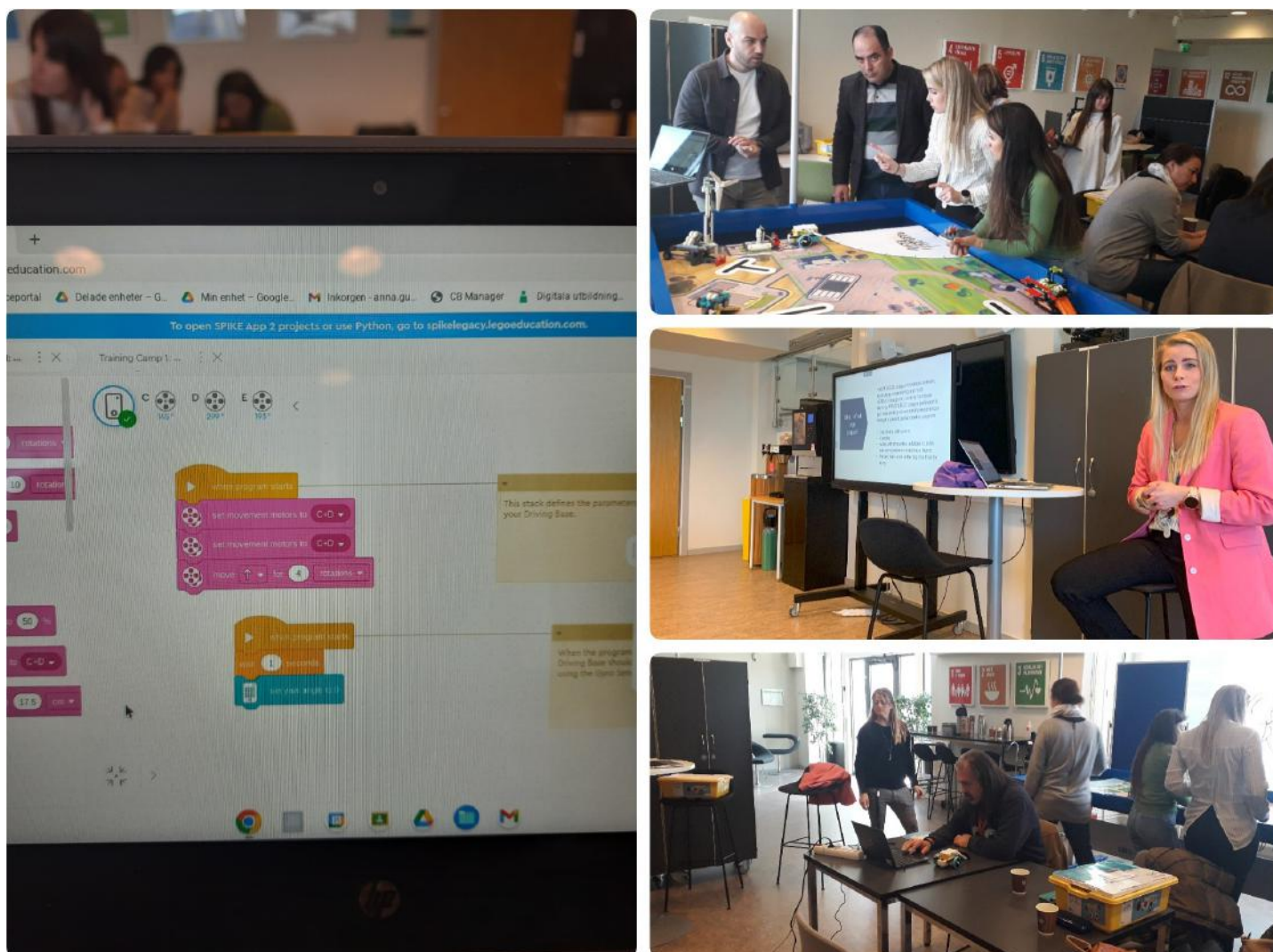


*Figure 34. Teacher Training Course "Integration of Innovations into Educational Technologies"*

*The participants were seperated into 4 different groups by random selection method and they were asked to build a lego set with codes on it to complete the challenges on the Lego League board which has been used for educational purposes to train teachers and staff.
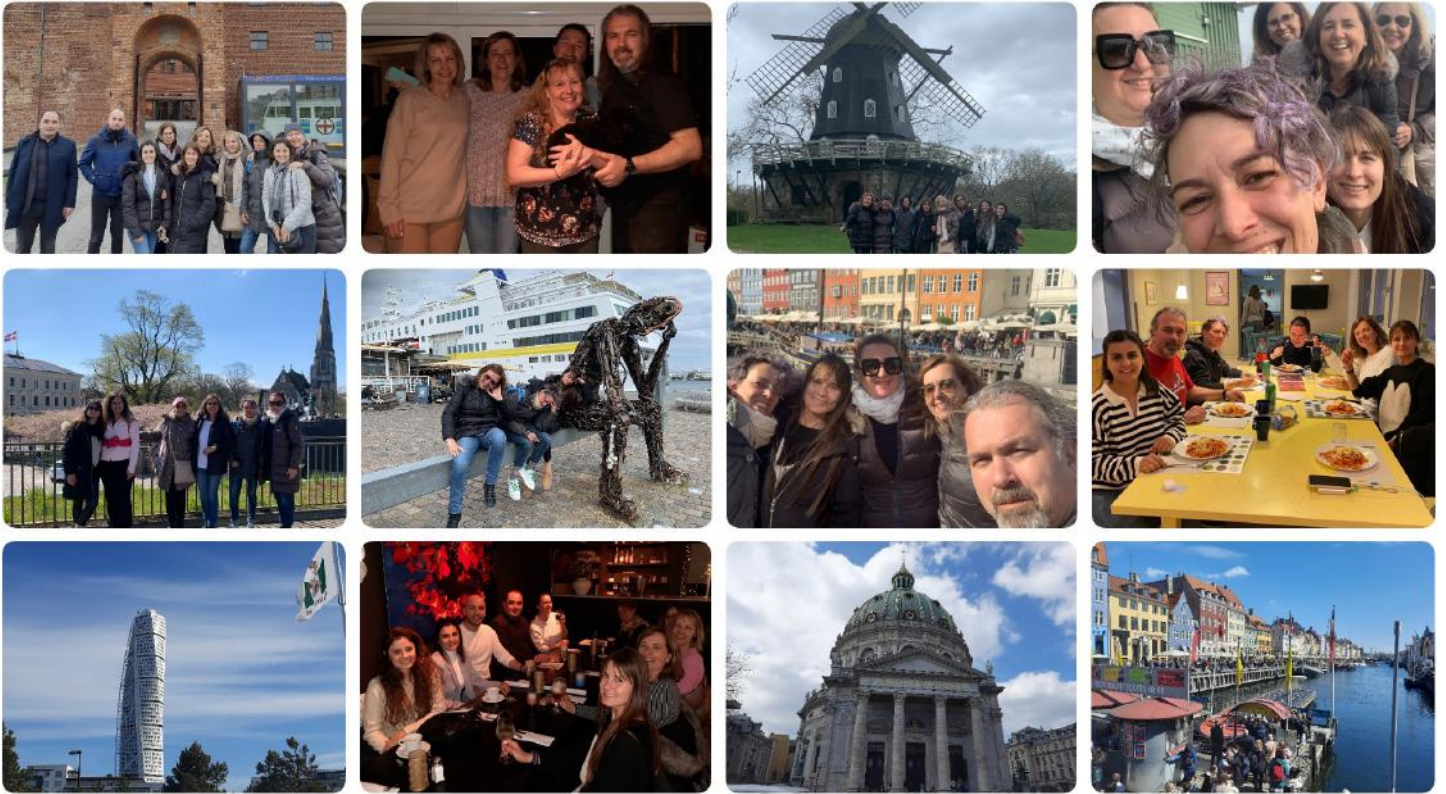
***Figure 35.*** *All of the partners are getting ready for the First Lego League challenges.*
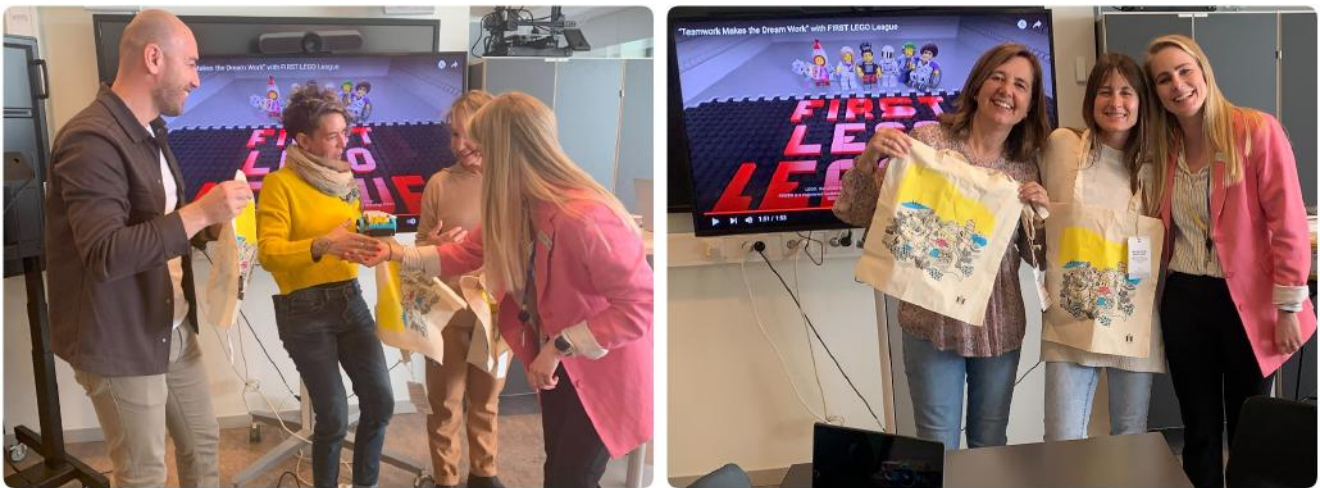


***Figure 36.*** *Rewarding winning and losing teams, The International Diversity Dinner.*

**Day 6:** The sixth day of the mobility was planned for cultural trips in Malmö and Copenhagen.



*Figure 37. The maximized interaction among the crews are encouraged in the project.*

**Day 7:** The first day and the last day of the mobility have been planned as the travel days.



*Figure 38. Participants left Sweden by taking the best memories with them.*