



Erasmus+



DIRECTORATE
OF PRIMARY EDUCATION
OF WESTERN THESSALONIKI

STEAMing International Conference

Thessaloniki, Greece

19th-20th September 2022



Project Partners:

P1: Clare Education Centre, Ireland

P2: Osnovka skola Matije Gupca, Croatia

P3: Luster Commune, Norway

P4: Directorate of Primary Education of Western Thessaloniki,
Greece

P5: Agrupamento de Escolas Carlos Gargate, Portugal

P6: Department of STEM Education, Mary Immaculate College,
Ireland



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STEAMing

The art of teaching 21st century skills

International Conference

19-20 September 2022

Hotel Holliday Inn – Thessaloniki

MONDAY SEPTEMBER 19th

8:30 – 9:00	Attendance - Registrations
9:00 – 9:20	Welcome and Greetings
9:20 – 9:40	Introduction about Erasmus+ STEAMing Project <i>Dr Stephen Molloy</i>
9:40 – 10:00	Inspiration quotes: The Greek National Robotics team members share their experience – Let's get STEAMed UP. <i>Antonis Nikolaou, Vasilis Karafeidis, Marios Katzigkas, Dimitris Kouroukafopoulos,</i>
10:00 – 10:30	STEAM as a Teaching and Learning Methodology <i>Michael Browne</i>
10:30 – 11:00	Promoting STEAM Teaching and Learning in a Primary School <i>Siobhan Barry</i>
11:00 – 11:45	Coffee break – Discussion corners
11:45 – 12:30	Icebreaking activity
12:30 – 13:00	The importance of STEAM and green education in elementary school. The Erasmus+ Green Edu program <i>Dr. Iro Koliakou</i>
13:00 – 13:30	Dream BIG and Think STEAM <i>Kostas Vasileiou</i>
13:30 – 14:30	Lunch at the hotel restaurant
14:30 – 14:45	Introduction to the STEAMING Project with a focus on the STEAMING Project Handbooks <i>Ray McInerney</i>



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14:45 – 16:15	Partner’s presentations: Ireland and Croatia <i>(Introduction to the State of Art Report, Case Study and Video)</i>
16:15 – 16:45	Discussion – Evaluation of the day

TUESDAY SEPTEMBER 20th	
9:30 – 10:00	Using Makerspace to teach 21 st century skills <i>Liv Oddrun Voll</i>
10:00 – 10:20	Using TechLabs to teach 21 st century skills Christos Symeonidis - ThessalonikiTechLab
10:20 – 10:40	Code in the Classroom - How to inspire your students to engage in one of the most important skills of the future. <i>Marios Katsaros</i>
10:40 – 10:50	My Definition of STEAM <i>Christos Vasileiou -Student</i>
10:50 – 11:10	Cubes Coding Dr. Theodosios Sapounidis– Inventor
11:10 – 11:30	Finding my path in the European STEAM Universe Despoina Stoikou
11:30 – 12:30	Coffee break – Discussion corners
12:30 – 13:30	Partner’s presentations: Norway and Portugal <i>(Introduction to the State of Art Report, Case Study and Video)</i>
13:30 – 14:30	Lunch at the hotel restaurant
14:30 – 15:30	Partner’s presentations: Greece <i>(Introduction to the State of Art Report, Case Study and Video)</i>
15:30 – 16:00	Discussion – Evaluation of the day







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SPEAKERS



Dr Stephen Molloy	Dr Stephen Molloy is a former Associate Dean and Director of European projects at Leeds Metropolitan (now Beckett) University, lecturer in sociology and visiting research fellow at the University of Leeds. Research and publications have encompassed UK and European educational policy and the work of German sociologist, Max Weber. Consultant and external adviser to EU research and development projects on educational and social inclusion in the UK, Ireland, Italy, Portugal, Spain, Norway, Sweden, Denmark, Iceland, Lithuania, Hungary, Romania, Bulgaria, Greece and Croatia.
	Antonis Nikolaou I am Antonis Nikolaou and I am 16 years old. I am a member of the Greek national robotics team. I really like STEAM, music and sports.
	Vasileios Karafeizis Hello, I am Vasileios Karafeizis, a 15-year-old high school student. I have a great interest in science and tech. I love to create new and innovative things and learn about different interesting subjects. My dream is to one day help a considerable amount of people through my ideas and better their lives.
	Marios Katzigkas I'm Marios Katzigkas, a 15 year old member of the Greek National Robotics Team. All you need to know about me is that I love engineering and have a passion for aviation and space. My dream is to one day build something that reaches space and to inspire as many people as I possibly can.
 Michael Browne	Michael Browne is a former primary school teacher and principal. He is the author of a recently published series of Mathematics textbooks, designed for use in the primary classroom. Michael is also the author of a number of science textbooks, which are used in the primary classroom. He is a part time lecturer in the STEM Department in Mary Immaculate College, where he lectures in Science and Mathematics. Michael dedicates a lot of his time to the promotion of STEAM and 'the STEAM way of working'. He does this by delivering in-service programmes in Clare Education Centre to practicing teachers and through school visits, when he supports teachers in their



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	<p>classrooms. In this conference Michael will explore how to use STEAM as a teaching and learning methodology.</p>
 <p>Dr. Iro Koliakou</p>	<p>Dr. Iro Koliakou is the STEM Coordinator of Anatolia College Thessaloniki, Greece. She coordinates Erasmus + projects in Anatolia College related to STEAM education and teaches Physics in Anatolia College Highschool. She is a member of the instructional staff of the John Hopkins Center for Talented Youth Greece and has developed the online course Biomedical Engineering and the future of Medicine. She is an ambassador for Scientix, the community for science education in Europe, a member of the executive board of European STEAM educators association and a member of Science on Stage Deutschland, developing STEM activities related to the 17 Sustainable Development Goals. She is a member of the Greek Women in STEM Association, a mentor for Real Science and a member of the Global talent mentoring program. She holds a Physics degree from Aristotle University of Thessaloniki, a Master of Science from the Biomedical Engineering Department of Imperial College London and a PhD from the Biology Department of Aristotle University Thessaloniki. From 2009 she has worked in the private biotechnology sector in laboratory quality management and research and development responsible for implementation and internal audits of European R&D projects. She has published 15 scientific papers in international journals and has 190 references in international literature. She has received teacher training from ESA Robotics and Automation Lab (2018), European Molecular Biology Learning Lab (2017 & 2020), CERN (2019) and European Schoolnet Future Learning Classroom (2019)</p>
 <p>Kostas Vasileiou</p>	<p>Kostas Vasileiou is Greek educator, activist and scholar. He is the Coordinator of European Projects and Manager of International Cooperation of the Directorate of Primary Education of Western Thessaloniki and one of the Promoters of E.U. Projects of the Greek Ministry of Education. He has worked as a school teacher, head teacher, teacher educator and policy advisor in I.I.B.E.A.A., the Behrakis Foundation, the Anticancer Society and the American College of Greece. Through the years he has studied and experienced education systems and reforms around the world. His PhD thesis is on the role of European Exchange Projects to the Transformation of the Modern Educational Systems. His fields of interest include students' motivation, teachers in service training in modern teaching methods, school improvement, cooperative learning, school leadership, school management and international education policy. He is the founder, mentor and CEO of EduACT, an innovation platform for students and activists focused on the promotion of the robotics and coding in education. He has worked with kids facing the risks of social marginalization and promoted robotics to more than 40.000 students</p>



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	<p>across Greece during the years of recession. He is the operational partner for the FIRSTLEGOLEAGUE® competition in Greece, Bulgaria, Albania, FYROM and Cyprus and one of the 200 teachers around the Globe participating at the IDEA CONFERENCE 2015 organized by LEGO FOUNDATION. He is a member of the International Visitor Leadership Program (IVLP) of the U.S. Department of State, a premier professional exchange program focused on education in the new digital era. Since 2022 he is the Coordinator of the Thessaloniki TechLab the new American Space in Greece.</p> <p>More on his website: kostasvasileiou.com and eduact.org</p>
 <p>Liv Oddrun Voll</p>	<p>Liv Oddrun Voll is a Senior Lecturer at the Norwegian Center for Science Education in The Faculty of Mathematics and Natural Sciences at the University of Oslo. Her areas of responsibility are education in Science and Technology. Voll is the Project Manager of the project Skaperskolen, which integrates Makerspace and a Maker Mindset in school.</p>
<p>Marios Katsaros</p>	<p>Marios Katsaros is the IT Manager and Head Coding Instructor at the educational organization Eduact. He has a bachelor's degree in Applied Informatics from University of Macedonia and holds a master's degree in Computer Science and Technology. As an IT manager, he is responsible for the provision of IT support services and the implementation of new software in order to improve the way that the organization operates. He has the role of Technical Advisor in the FIRST® LEGO® League educational robotics competitions in Greece. He has 5 years of experience teaching students ages 9-16 to code by combining robotics with Python programming and coordinates the "Robotics and Steam FLL" program implemented in schools as part of skills workshops training and supporting teachers across Greece to include robotics and STEM in their classroom.</p>
 <p>Despina Stoikou</p>	<p>Despina Stoikou is an Assistant Development Manager at Eduact with a background in English, Communication and New Media. At Eduact she studies the flow of ideas and plans their transformation into projects through collaborations with local and international institutions. Admiring the dynamics of communities, she designs projects with the Thessaloniki Tech Lab team and volunteers for the Michael and Kitty Dukakis Center for Public and Humanitarian Service.</p>



<https://www.hithessaloniki.gr/>

The Directorate of Primary Education of Western Thessaloniki is a Regional Educational Authority of the Prefecture of Primary and Secondary Education of Central Macedonia, Greece.



The **Directorate** has overall responsibility for 256 general education Kindergartens (4 -5 years of age), two Kindergartens for children with special needs, one Kindergarten in a public hospital for children who need in-hospital treatment and 27 private Kindergartens. It also has overall responsibility for 174 general education public primary schools and 3 private primary schools (6 -12 years), four primary schools for students with special needs, four intercultural primary schools, one pilot school and two schools in public hospitals and 3 private primary schools. The Directorate employs approximately 4700 teachers and 45000 students are currently enrolled in its schools. One of the Directorate's primary goals is to reinforce the educational process in its region.

Its development plan has included the establishment of a European projects Department. This section monitors, supports and co-ordinates the work of already existing European project teams and provides assistance to schools wishing to participate in future European projects. The department's role is to coordinate and guide the work of schools in applying the policies of the national Ministry of Education, but also to lead initiatives to address regional and local issues and priorities. It operates in close daily contact with teachers and parents to address particular concerns related to enhancing the educational experience



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and attainment of children from disadvantaged and minority socio-economic and ethnic backgrounds as well as any student enrolled in its schools.

In this context, STEAMING is one of the most interesting and challenging programs undertaken by the Directorate of Western Thessaloniki.



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Thessaloniki



which lies in the Macedonia region, is the second-largest city in the country, after Athens.



Nestled in the heart of the Thermaic Gulf, Thessaloniki Greece serves as a commercial, business, and transportation hub for the northern side of Greece.



Immediately upon arriving at Thessaloniki, you'll realize that this city has an enduring history and rich culture. Wandering Thessaloniki town, you'll come across many monuments mostly dating back to the Roman and Byzantine eras.



The most important landmark and trademark of Thessaloniki are hands down the White Tower. Located at the port of Thessaloniki, the White Tower is the most photographed tourist sites in the city. Another popular site is Kamara, an arch constructed by the Roman general Galerius in the 3rd century AD. Other

interesting places to visit in the city center of Thessaloniki are the Roman Agora, a beautiful ancient theater, the palace of Galerius, a vestige of the Roman era, as well as the World Heritage-listed Byzantine churches.

Sightseeing is not the only thing to do in Thessaloniki! This town is perfect for endless strolls and city exploration.

The most popular spot in the city is the Beach Promenade. There, both visitors and locals enjoy long walks, marvel at the sea view, and watch the sunset.



Apart from the beach promenade, Aristotle Square, which is located right in the city center, is another famous spot. Around this square is the commercial center of Thessaloniki, where you'll find all kinds of shops, restaurants, coffee places and, of course, the renowned pastry shops of Thessaloniki. What's more, in the city center, you'll find a great selection of hotels.

More information about Thessaloniki: <https://thessaloniki.travel/>