



SCIENTIX

The community for science
education in Europe

4TH SCIENTIX INTERNATIONAL CONFERENCE

18-19 NOVEMBER 2022

About

The 4th Scientix Conference, organised by European Schoolnet, is one of the major science education events in Europe. Expecting more than 2,000 attendees, the goal of the conference is to provide an overview of the challenges and opportunities in science education in Europe and highlight the potential and possibilities that the Scientix community can bring about.

The Scientix conference is also a unique opportunity to learn more about different STEM education projects in Europe, deepening connections, generating new ideas and inspiring science educators to foster creativity and enthusiasm for STEM education and share their expertise, knowledge, and best practices.

Participation in the conference is free of charge and by registration only. Registration to the conference is available on the [Scientix portal](#).

Friday 18 November 2022 (09:30 - 18:00 CET)

Opening Session: 09:30-10:20 CET

Time	Speakers
09:30-09:55	Marc Durando , Executive Director, European Schoolnet "Welcome to the conference"
09:55-10:00	Niki Kerameus , Minister of Education and Religious Affairs, Greece "Opening speech"
10:00-10:20	Anna Horvath , Education Policy Analyst, European Education and Culture Executive Agency (EACEA), European Commission "Increasing achievement and motivation in mathematics and science learning in schools in Europe"
10:20-10:40	Virtual networking and Digital Posters Gallery
10:40-11:00	Break

Plenary Session I: 11:00-13:00 CET

11:00-11:15	Àgueda Gras-Velázquez , Scientix Project Manager and Head of the Science Education Department, European Schoolnet "Twelve years of Scientix"			
11:15-11:45	<i>Keynote speech:</i> Ariadna Farres Basiana , Astrodynamics Specialists, NASA "How to become an astronaut? Using space exploration to motivate STEM education"			
11:45-11:50	Break			
11:50-13:00	STEM projects for teachers - Part 1			
	1	Improving STEM Education Across European Schools	6	CHOICE
	2	MEDNIGHT	7	3rs Pilot - Can we do research without animals?
	3	Future Labs	8	PULCHRA
	4	INTERACT	9	ClimaTePD
	5	Life Terra	10	MOST
13:00-14:00	Lunch Break			

Parallel Sessions I: 14:00-15:30 CET

14:00	1. STEM and Sustainability	2. Competence learning and motivation	3. Contextualization of STEM teaching	4. Research and schools	14:00-14:40 (40')	
14:05	1.1 THE BIG GAME - Immersive and Multidisciplinary STEM Learning through A Cooperative Story-Driven Digital Game	2.1 The investigation for improvement of STEM education for students majoring in Natural Science Pedagogy at the VNU University	3.1 Story of Hackathon: How it can become new age tool for learning in STE(A)M education	4.1 "ELEMENTAL SECRETS" An escape room to relate elements to everyday life, arts and sustainability issues	Workshop I.A Fun of DNA extracting	Workshop I.B Molecules of our planet
14:26	1.2 Water is everywhere, but there is not a drop for us to drink	2.2 Citizen science and youth clubs: the Domus experience	3.2 Being Biomaker	4.2 A study on the effect of teaching the subject of energy using STEM approach on students' reasoning and problem solving skills		14:50 – 15:30 (40')
14:47	1.3 The SEE Eco STEAM Project	2.3 EFDN STEM Football and Education Programme	3.3 The pedagogy of happiness at school when teaching STEAM subjects	4.3 4 Years and Counting of the Trees Around the GLOBE Student Research Campaign	Workshop II.A Hands-on Colour	Workshop II.B Program-ming and robot sim-ulators in mathemat-ics teaching
15:08	1.4 The multiple ways to use the European Atlas of the Seas in education	2.4 Science in School	3.4 Role models and good exam-ples in kinder-garten school	4.4 FOSSBOT: An open design and software approach to de-velop a low-cost robotic solution for supporting STEAM education		

Plenary Session II: 15:30-17:30 CET

15:30-16:00		STEM projects for teachers – Part 2			
		11	SEEDS	14	ARETE
		12	Science is Wonderful!	15	iSTEM
		13	Make it Open		
16:00-16:30		Break			
16:30-17:00		Keynote speech: Andreas Schleicher , Director for Education and Skills, OECD "How a better STEM education can be one of the best investments we can make into our future"			
17:00-17:30		Keynote speech: Laura Quintana , Vice President & General Manager, Cisco Networking Academy			

Closing Session: 17:30-18:00 CET

17:30-18:00		Scientix Ambassadors and Posters Awards			
		Closing remarks			

Saturday 19 November 2022 (09:30 – 16:30 CET)

Parallel sessions II: 09:30 -11:00 CET

09:30	5. Specific STEM topics	6. STE(A)M and STEAM	7. STEM and inclusion	8. Teacher training, continuous learning and assessment	09:30 -10:10 CET (40')	
					Workshop I.C	Workshop I.D
09:35	5.1 ROAR: how to improve Grade 10-12 interest and motivation in mathematics through a learning path based on operations research	6.1 STEAM in preschool institutions	7.1 STEM outreach or STEM out-cast? The role of spatial ability level in the enjoyment of STEM outreach activities and promotion of diversity and inclusion in STEM	8.1 Analysis of students' and teachers' opinions on integration of Educational Robotics into the scientific learning teaching	Science investigations, triggers and tools to use for exploring the Ocean and Climate with children 8-12 years of age	Hands-on Geosciences workshops to promote understanding our planet
09:56	5.2 Changing Cell Explorers practices to widen participation in educational STEM outreach activities	6.2 Upskilling STEAM educators using a competence framework and an online self-assessment tool	7.2 Promoting gender balance in the area of earth science and engineering - the ENGIE project	8.2 One of the Integrated STEM Teacher Competencies: STEM Teacher Zone of Proximal Development		
10:17	5.3 Open Technologies in Education Competition	6.3 POLAR STAR: STEAM-education and innovative learning approaches	7.3 Girls Go Circular	8.3 Open schooling and vocational schools	10:20-11:00 CET (40')	
					Workshop II.C	Workshop II.D
					Experiments World Tour! Highlights from Mexico	SDGs in (STEM) Education using pedagogies which foster 21st century skills
10:38	5.4 Do we need to think computationally to understand the world around us?	6.4 Learning Scenarios on STEAM using Maker-spaces	7.4 Lecturers Without Borders: removing barriers to STEM outreach	8.4 Intel® SFI - Empowering the Next Generation of Innovators		
11:00	Break					

Parallel Round Tables: 11:30-12:30 CET

11:30-12:30	Round Table 1: EdTech transforming educational processes in Europe	<p>Moderator: Romane Leaute, Project Coordinator, European Schoolnet</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Jakob Aagaard Harder, Dean at the Faculty of Teacher Education, University College Copenhagen, and chairman of the Danish National Centre for Science Education (ASTRA) • Ioannis Gaviotis, Policy Officer, European Commission, DG CNECT, Unit G2 – Interactive Technologies, Digital for Culture and Education • Jannie Jeppesen, CEO, Swedish EdTech Industry • Erramun Martiarena Sarasola, Scientix Ambassador Ikastolen Elkartea • Donatella Solda, Director, Future Education Modena (FEM)
11:30-12:30	Round Table 2: STE(A)M and the Future of Education	<p>Moderator: Evita Tasiopoulou, Project and Pedagogical Manager, European Schoolnet</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Achilles Kameas, Professor of Pervasive Computing Systems, Hellenic Open University (HOU) • Francesco Mureddu, Senior Director, The Lisbon Council • Jessica Niewint-Gori, Researcher, National Institute for Documentation, Innovation and Learning Research (INDIRE) • Sofoklis Sotiriou, Head of R&D, Ellinogermaniki Agogi (EA) • Oliver Straser, Head of Research and Design, International Centre for STEM Education (ICSE) • Alexandre Titin Snaider, Director, Texas Instruments Education Technology EMEA
12:30-13:30	Lunch Break	
13:30-14:00	Virtual networking and Digital Posters Gallery	

Plenary session III: 14:00-16:00 CET

14:00-14:15	Ivana Kovac , STEM Alliance Coordinator, European Schoolnet "Industry, policy makers and schools: a partnership to improve education"
14:15-14:40	<i>Keynote speech:</i> Jeremy Rollison , Senior Director, European Government Affairs, Microsoft "Digital Transformation in Education"
14:40-15:00	Meeting the awarded winners
15:00-15:30	Break
15:30-16:00	<i>Keynote speech:</i> Joseph Roche , Director of Research School of Education, Trinity College Dublin "Empowering teachers to be active researchers"

Closing session: 16:00-16:30 CET

16:00-16:30	<p>Michal Uhl, Director of the Czech National Agency for International Education and Research</p> <p>Jan De Craemer, Chairman of the European Schoolnet Steering Committee, Flemish Ministry of Education & Training "What's coming next"</p>
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Projects

ID	Title	First Name	Last Name
1	Improving STEM Education Across European Schools	Zita	Bertha
2	MEDNIGHT	Mari Carmen	Perea
3	Future Labs	Karol	Górniewicz
4	INTERACT	Agata	Gozdzik
5	Life Terra	Aroa	Gregori Montaner
6	CHOICE	Cecilie	La Monica
7	3rs Pilot - Can we do research without animals?	Marcelle	Holloway
8	PULCHRA	Maya	Fields
9	ClimaTePD	Panagiota	Argyri
10	MOST	Sabine	Mickler
11	SEEDS	Simona	Cerrato
12	Science is Wonderful!	Sybille	Luhmann
13	Make it Open	Greta	Alliaj
14	ARETE	Na	Li
15	iSTEM	Seppe	Hermans

Parallel Talks

ID	Title	First Name	Last Name
1.1	THE BIG GAME - Immersive and Multidisciplinary STEM Learning through A Cooperative Story-Driven Digital Game	Michela	Tramonti
1.2	Water is everywhere, but there is not a drop for us to drink	Efi	Dariou
1.3	The SEE Eco STEAM Project	Anita	Anita
1.4	The multiple ways to use the European Atlas of the Seas in education	Nathalie	Van Isacker
2.1	The investigation for improvement of STEM education for students majoring in Natural Science Pedagogy at the VNU University of Education	Minh-Tuan	Dang
2.2	Citizen science and youth clubs: the Domus experience	Patricia	Barciela
2.3	EFDN STEM Football and Education Programme	Hubert	Rovers
2.4	Science in School	Tamaryin	Godinho
3.1	Story of Hackathon: How it can become new age tool for learning in STE(A)M education	Iva	Cuzic
3.2	Being Biomaker	Jose Manuel	Viñas Diéguez
3.3	The pedagogy of happiness at school when teaching STEAM subjects	Andreea	Puiu
3.4	Role models and good examples in kindergarten school	Paraskevi	Foti
4.1	"ELEMENTAL SECRETS" An escape room to relate elements to everyday life, arts and sustainability issues	Fina	Guitart
4.2	A study on the effect of teaching the subject of energy using STEM approach on students' reasoning and problem solving skills	Amir Mohammad	Kadkhoda

ID	Title	First Name	Last Name
4.3	4 Years and Counting of the Trees Around the GLOBE Student Research Campaign	Brian	Campbell
4.4	FOSSBOT: An open design and software approach to develop a low-cost robotic solution for supporting STEAM education	Iraklis	Varlamis
5.1	ROAR: how to improve Grade 10-12 interest and motivation in mathematics through a learning path based on operations research	Alice	Raffaele
5.2	Changing Cell Explorers practices to widen participation in educational STEM outreach activities	Muriel	Grenon
5.3	Open Technologies in Education Competition	Panagiotis (Takis)	Angelopoulos
5.4	Do we need to think computationally to understand the world around us?	Stefania	Bocconi
6.1	STEAM in preschool institutions	Natasa	Vrapcevic
6.2	Upskilling STEAM educators using a competence framework and an online self-assessment tool	Natalia	Spyropoulou
6.3	POLAR STAR: STEAM-education and innovative learning approaches	Pasi	Nurmi
6.4	Learning Scenarios on STEAM using Makerspaces	Hermann	Morgenbesser
7.1	STEM outreach or STEM outcast? The role of spatial ability level in the enjoyment of STEM outreach activities and promotion of diversity and inclusion in STEM.	Mariana	Velho
7.2	Promoting gender balance in the area of earth science and engineering - the ENGIE project	Éva	Hartai
7.3	Girls Go Circular	Solene	Moutier
7.4	Lecturers Without Borders: removing barriers to STEM outreach	Eugenia	Covernton
8.1	Analysis of students' and teachers' opinions on integration of Educational Robotics into the scientific learning teaching	Hikmet	Surmeli
8.2	One of the Integrated STEM Teacher Competencies: STEM Teacher Zone of Proximal Development	Fatma	Caner
8.3	Open schooling and vocational schools	Cristina	Olivotto
8.4	Intel® SFI - Empowering the Next Generation of Innovators	Luigi	Pessina

Workshops

ID	Title	First Name	Last Name
I.A	Fun of DNA extracting	Aliya	Ahmadova
I.B	Molecules of our planet	Sladana	Jovic
II.A	Hands-on Colour	José Benito	Vázquez Dorrió
II.B	Programming and robot simulators in mathematics teaching	Paulo	Torcatto
I.C	Science investigations, triggers and tools to use for exploring the Ocean and Climate with children 8-12 years of age	Noirin	Burke
I.D	Hands-on Geosciences workshops to promote understanding our planet	Giulia	Realdon
II.C	Experiments - World Tour! - Highlights from Mexico	Michael	Gregory
II.D	SDGs in (STEM) Education using pedagogies which foster 21st century skills	Alexia	Micallef Gatt

Posters

ID	Title	First Name	Last Name
P01	Ecosistem class	Adriana silvica	Lefter
P02	Creative STEAM graphics	Aleksandra	Filipović
P03	"Water is everywhere, but there is not a drop for us to drink"	Alexia	Alexandrou
P04	Liquid crystal	Alice	Severi
P05	The 21st century magic circle: circular economy	Angela	Colli
P06	The vitruvian man -anthropometric data analysis STE(A)M \ activity	Anita	Belančić
P07	Braiiins project and the teachers international summer school 2023	Annamaria	Lisotti
P08	Robot mission: protecting marine wildlife from op2 (ocean plastic pollution)	Antonio joao	Lopes
P09	Mathematics for sustainable development	Ariana-stanca	Vacaretu
P10	Teaching the concept of biodiversity with web 2.0 Tools	Aslihan	Dikmen
P11	"Up, microbes on the fly: a high-flying stem experience"	Bárbara	De aymerich vadillo
P12	Climate change - carbon of our planet	Bojana	Mitricieski andelkovic
P13	Underwater archaeology and steam	Carmen	Bucovala
P14	The deeper awareness to the local biodiversity by the new generations is a better way to protect it.	Christofer	Guers-le gien
P15	The creative researcher steam	Cornelia	Bataus
P16	Music and STEAM is not magic... it's part of real life	Costantina	Cossu
P17	Atelier for STE(A)M	Daniel	Aguirre molina
P18	Electric circuits on different supports	Dario	Gelo
P19	Literacy is stem-tastic!	Dorina	Marin
P20	E-stream for environmental crisis	Eirini	Siotou
P21	STE(A)M in the 9th kindergarten of tripoli, greece	Eleni	Katsiavou
P22	Dinamics and cinergies generated trough "ciência viva@school" - stem clubs	Elisa	Saraiva
P23	The ecvam virtual lab and pollinator park: two immersive eu environments for implementing the 3 rs framework and sustainability in the classroom	Emma	Abbate
P24	Say yes to stem and save the environment!	Erviola	Konomi
P25	Emerging technologies in the 21st century classrooms	Eva maría	Gomis gil
P26	Telepresence robots as a student and as a teacher in classrooms	Fatma	Guneri
P27	Let's make an atom	Francesca	Colzi
P28	Stem@school	Francesco, Daniela	Damiani, troia
P29	Contextualized experiments and cases related to real-life to investigate stem topics	Gabriel	Pinto
P30	The mysterious force in the universe	Gabriel	Alexandru
P31	The road of a plastic bottle	Gjorgjina	Dimova
P32	STEAME Students	Gregory	Makrides
P33	STEM in primary school	Guler	Bayramova

ID	Title	First Name	Last Name
P34	Digital practices and uses in secondary schools: achieving digital literacy?	Hafida	Hammadi
P35	ARSTEAMapp	Hatice	Kirmaci
P36	Integration of Educational Robotics to Scientific Learning Teaching Process	Hüseyin	Gürel
P37	„The Robot Race of the Ring” as part of extracurricular activity	Igor	Dobrača
P38	M@THGAN- Effective Ways of Teaching Mathematics through Technology ,Game, Art and Nature	Iohana Cristina	Udrescu
P39	Game based learning, lifetime learning? Yes, please!	Irma	Hoxha
P40	MiniOpenLab – Open community and Hands-on approach to Sustainable Development and STEM Education	Iro	Koliakou
P41	Green Education for a Sustainable future	Iro	Koliakou
P42	Development of projects, in sustainability, in 12th grade Chemistry and Biology classes.	Isabel	Allen
P43	Biodiversity Lessons for Kids	Ivana	Zubakčičmek
P44	Space Art	Ivo	Jokin
P45	Rotation Station Model for STEM education in Secondary Education	Izaskun	Jorajuria Elizondo
P46	Candasat: a space mission in a secondary school	Javier	Redondas
P47	CurtAlgas - A BioEconomy Project	José	Fradique
P48	STE(A)M activities with “the inventors” in the classroom	Jose Luis	Olmo Risquez
P49	A digital guide to carrying out a citizen science project at school	Jose Manuel	Viñas Diéguez
P50	TEACHING GREEN - From Climate Change Education and Awareness to Citizen Science Action	Juan Diego	López Giraldo
P51	Gamification in STEM	Kavita	Sanghvi
P52	Creating STEM equipment: Science Tech Weekend School “Welcome to Photovoltaic Universe!”	Kseniia	Minakova
P53	Augmented reality in the classroom	Lidia	Ristea
P54	Biotinkering experiments	Lina	Cannone
P55	Estudio estadístico del CO2 en el aula	Mª Antonia	Mateos Camacho
P56	Think in Coding: Fun with STEM	Margherita Maria	Sacco
P57	STEM entrepreneurship workshops: School and Industry	Maria	Zambrotta
P58	Exploitation of STEM Education and Robotics in the Sustainable Kindergarten	Maria	Topoliati
P59	Space Science through STEAM: A training guide for primary school teachers, inspired by the American education system	Maria	Barouta
P60	Connect Open project: students choose what they want to study	Maria	Eleftheriou
P61	Food Defenders: Make the Waste to Worth the Taste	Maria, Angeliki, Anthi	Tsapara, Liapi, Arkouli
P62	Interdisciplinary Botany Education in engaging innovative distance teaching and learning	Marina	Minoli

ID	Title	First Name	Last Name
P63	Teachers training and collegial planning to reduce the implementation time lag	Mario	De Mauro
P64	AstroSchool	Mario	Di Fonza
P65	Prickly Water Purification Project	Marta	Azevedo
P66	Promotion of STEM education through STEM clubs in Georgia	Medea	Abramishvili
P67	A Smart School Systems: A School Community Project	Mehmet	Yıldız
P68	I watch, research and learn	Melita	Sambolek
P69	Little STEMists	Merve	Özcan
P70	Sustainability in virtual worlds during Covid 19 pandemic	Michelina	Occhioni
P71	Characteristics of the information society	Milijana	Petrović
P72	Central tendency statistics in a fairy tale for primary schools	Monica	Bailot
P73	GBL: some good reasons to use MinecraftEE at school	Monica	Boccoli
P74	Biodiversity in the city: protection of pollinators	Nadia	Gambon
P75	Light Up Your STEM Star	Nataliia	Grushko
P76	STEM for ALL	Ozgu	Ozturk
P77	Cryptomath: ready to solve cypher!	Özgür	Özdemir
P78	Life Away	Özlem	Senan
P79	Playing with #sixbricks to engage students	Paola	Mattioli
P80	National Space Observatory	Peter	Kane
P81	Chemistry with LEGO® bricks	Riccardo	Bonomi
P82	AI and Latin - Bring Tacitus to life!	Robbe	Wulgaert
P83	Climate change and rainfall	Rosanna	Busiello
P84	The numbers speak for themselves	Sabrina	Nappi
P85	Solving problems caused by the pandemic with robotics	Samuel	Branco
P86	Widening Participation in Science: Development of a Science Club format for Youth Groups	Sarah	Carroll
P87	Say Stop the Light Pollution	Selin	Sarıça
P88	Contextualization of math teaching through Eurostat resources	Silvana	Jakimovska Binova
P89	Statistics and probability in fairy tales	Silvia	Da Valle
P90	Mini biological conference-project for junior and senior biologists (example from practice)	Slađana	Cvitičanin
P91	The application of STEAM for teaching optics topic in innovative methods	Soleiman	Rasouli
P92	MISS-EOL	Stefania	Bertone
P93	Science on Stage: Act Now for the Sustainable Development Goals	Stefanie	Schlunk
P94	Hour of Code for everyone at Inclusive secondary school	Stella	Magid-Podolsky
P95	Digitalize your STEM lesson!	Teresita	Gravina
P96	Renewable energy sources and energy efficiency in education through European projects and Scientix project	Tsetsa	Hristova
P97	From STEM to STEAM	Valbona	Shkëmbi Qafa
P98	Galaxy Protectors	Zeynep Erciyas	Toz



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