

The background features a dark blue gradient with a series of concentric circles in a lighter blue shade. Scattered around these circles are various white icons representing IoT and technology concepts, such as Wi-Fi signals, cloud storage, server racks, and binary code (1010 1010).

IoT, Big Data And AI: Innovating STEM Teaching Through Strengthening Teacher Professionalisation

Welcome & Introduction

Thursday, 23 Sep 2021 | 13:30 – 15:00 CET

Agenda

1. Introduction: School Coordinators & Partners, ASEF & ScienceScope
2. Who is Who: Participants & Schools
3. Icebreaker: Get to know each other
4. Programme
 - Timeline, Programme Elements, Framework & Pedagogy
 - Thematic Sessions & Technical Sessions
 - Peer-to-Peer Group Discussions
5. Teaching Modules Development
6. Roles & Responsibilities
7. Questions & Answers

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1. Introduction

Coordinator & Partners

Coordinator



Mr Adam STEPINSKI
Teacher
Copernicus Upper-Secondary
School in Tarnobrzeg
Poland

Partners



Mr Milan CHALUPNÍK
Teacher & Headmaster
Základní Škola, Seč, okres
Chrudim
Czech Republic



Dr Andrea Molnarne LASZLO
Teacher
Márton Bálint Primary and
Secondary School
Hungary



Ms Jana VIDOVÁ
Teacher
Obchodná akadémia Rožnava
Slovakia



Mr Pavol TRUBAC
Teacher
Spojena Skola
Slovakia

ASEF Team



Ms Leonie NAGARAJAN
Director, Education Department
Asia-Europe Foundation (ASEF)
Singapore



Ms Angie TOH
Project Manager, Education
Department
Asia-Europe Foundation (ASEF)
Singapore



Ms Jyoti RAHAMAN
Project Executive, Education
Department
Asia-Europe Foundation (ASEF)
Singapore

ASEF – Project Management Partner



- Intergovernmental not-for-profit organisation established in 1997 and funded by the 53 ASEM Partners
- Only permanent institution of the Asia-Europe Meeting (ASEM) Process
- Project portfolio across Asia & Europe to connect civil society with government officials & policy makers
- Portfolio covering 7 themes: culture, education, economy, governance, media, public health and sustainable development
- Visit ASEF's website to learn more: <https://asef.org/>

ScienceScope Team



Dr David CRELLIN
CEO
ScienceScope Ltd
United Kingdom



Mr Josh WRIGHT
Software Engineer
ScienceScope Ltd
United Kingdom

ScienceScope – EdTech Partner

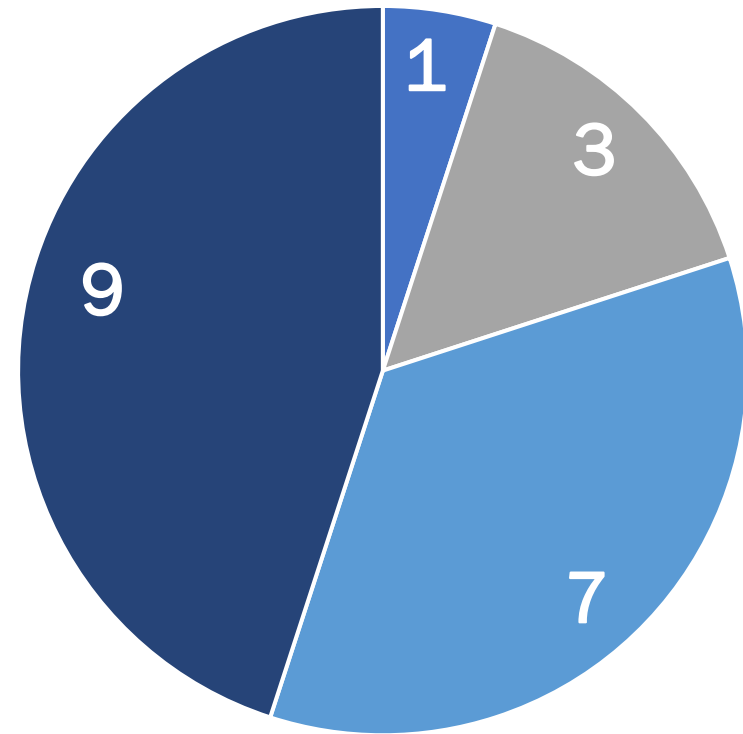


- Founded in 1983, ScienceScope is an education technology company based in UK that focuses on linking digital technology with science
- The key aim is to give students and adults alike, the tools and resources to aid their growth with technology and to see change in digital education around the world
- ScienceScope developed the IoT for schools' programme with research funding from Innovate UK, EXPO Live and IMDA in Singapore
- In collaboration with the BBC in the UK we developed the micro:bit (a small codeable computer for schools) and together with IMDA it created the digital maker programme to inspire students to be creative with electronic to solve real world problems.
- Visit ScienceScope's website to learn more:
<https://sciencescope.uk/>

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2. Who is Who: Participants

Participants Per Country (Including Coordinators and Partners)

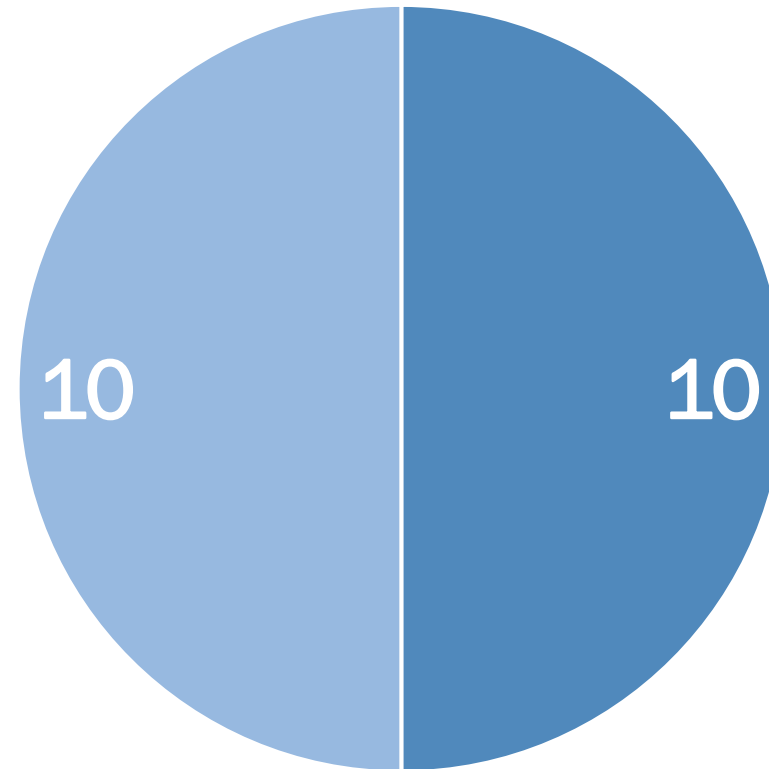


■ Czech Republic ■ Hungary ■ Poland ■ Slovakia

List of Participating Schools

No.	Country	Name of School
1	Hungary	Szent Piroska Görögkatolikus Általános Iskola
2	Hungary	Lánczos Kornél Gimnázium
3	Poland	Liceum Akademickie Da Vinci
4	Poland	I Liceum Ogólnokształcące im. Kazimierza Jagiellończyka w Sieradzu
5	Poland	I Liceum Ogólnokształcące Collegium Gostomianum
6	Poland	Zespół Szkół Informatycznych im. Gen. Józefa Hauke Boska w Kielcach
7	Slovakia	SOS Bernolákovo
8	Slovakia	Súkromné Gymnázium DSA v Sabinove
9	Slovakia	Grammar school Mikulaš Kováč in Banská Bystrica
10	Slovakia	Škola umeleckého priemyslu Košice
11	Slovakia	Gymnázium Jána Hollého
12	Slovakia	Secondary School of Electrical Engineering (SPŠE)
13	Slovakia	Besst Gymnazium

Gender Balance of Participants (Including Coordinators & Partners)



■ Female ■ Male

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3. Icebreaker: Get to Know Each Other

Self Introduction

Tell us in 30 seconds

- Who you are
- Your area of expertise
- What brought you to the project

... and then hand over to a person who you are do not know (yet).



Mentimeter

Please visit <https://www.mentimeter.com/>

And key in this code – 7853 0235
Alternatively, use



4. Programme

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Programme Timeline

Date	Activity
End September 2021	Welcome & Introduction
End-September – End-October 2021	Thematic Sessions Technical Sessions Peer-to-Peer Meetings
End-October – Mid- December 2021	Project Implementation & Development of 6 Teaching Modules
Before Christmas Break in December 2021	Learning Outcome Sharing, Closing & Evaluation

Programme Pedagogy



Thematic Training

To build Knowledge on thematic areas for developing innovative teaching modules



Technical Training

To build required digital competencies for using the IoT Device



Peer-to-Peer Discussion

Opportunity for exchange and idea sharing



Resource Creation

Developing a Handbook on Innovative STEM Teaching

Thematic Training Sessions

- **Thematic Training #1** - Understanding “Education for Sustainable Development (ESD)”
- **Thematic Training #2** – Implications of Climate Change, Global Warming, and the Future of STEM
- **Thematic Training #3** – “Building the Connection: STEM, ESD and 21st Century Skills”



Technical Training Sessions

- **Technical Training Session #1** - What is Internet of Things (IoT)? How does it work?
- **Technical Training Session #2** - What is Big Data, what is Artificial Intelligence (AI)?
- **Technical Training Session #3** - Introduction to ScienceScope's IoT Device, the Weather Station, and its relevance to STEM Learning
- **Technical Training Session #4** - IoT, Big Data and AI in the environmental contexts
- **Technical Training Session #5** - Hands on Training – Using ScienceScope's IoT device and the weather station



Peer-Peer Group Discussions

- **Peer-to-Peer Discussion #1**

This session will take place after the 3rd thematic training session to provide participants with the opportunity for team reflection and learning by exchanging ideas and knowledge on thematic areas with each other.

- **Peer-to-Peer Discussion #2**

This session will take place happen after the 5th technical training sessions to provide participants with the opportunity to discuss the various creative modes of usage of the IoT Device and brainstorm ideas for the implementation phase.

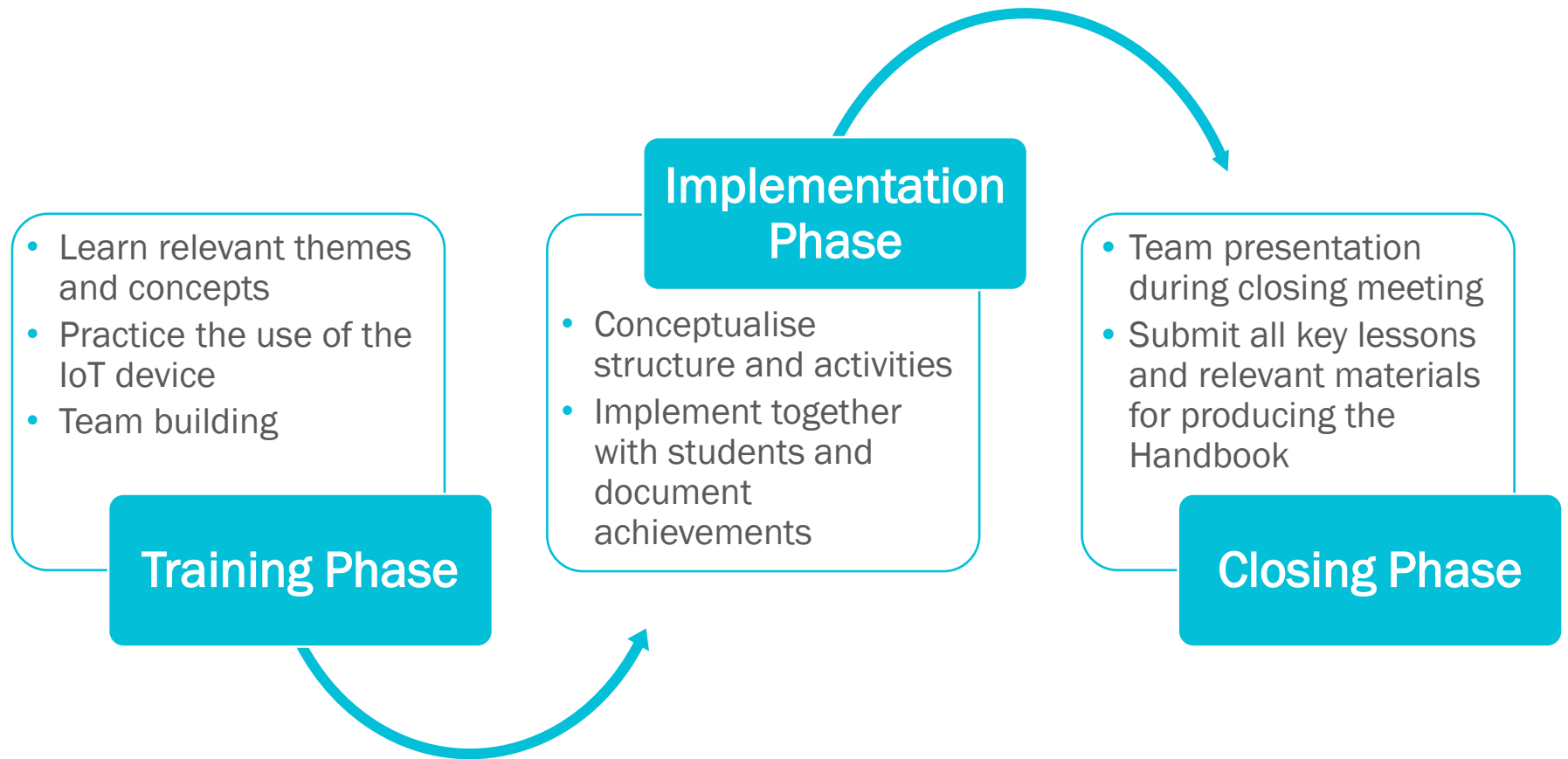
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5. Teaching Modules Development

Teaching Modules

No.	Teaching Module Theme	Module Coordinator
1	Module on Total Rainfall and Rain Rate	Dr Andrea Molnarne LASZLO Teacher Márton Bálint Primary and Secondary School (Hungary)
2	Module on Temperature	Ms Jana VIDOVÁ Teacher Obchodná akadémia Rožnava (Slovakia)
3	Module on Barometric Pressure	Mr Pavol TRUBAC Teacher Spojena Skola (Slovakia)
4	Module on Windspeed and Wind Direction	Mr Adam STEPINSKI Teacher Copernicus Upper-Secondary School in Tarnobrzeg (Poland)
5	Module on Solar Radiation & UV Index	Mr Milan CHALUPNÍK Teacher & Headmaster Základní Škola, Seč, okres Chrudim (Czech Republic)

Teaching Module Development Process



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6. Roles & Responsibilities



Responsibilities of ASEF

- 1. Project Management:** Manages all project activities and produces necessary project documents, manages overall communication and coordination with all partners.
- 2. Conceptualisation, Programme Development:** Takes lead in developing programme and project activities; conducts 3 thematic sessions and 2 technical sessions
- 3. Partner Liaison:** Leads communication and coordination activities among all partners involved
- 4. Edit & Documentation:** Edits all relevant documents to finalise content and keep a record of all implemented activities for reporting and resource creation
- 5. Communication:** Designs, plans and implements communication activities throughout project period for Social Media Engagement & Visibility
- 6. Project Evaluation & Report:** Designs evaluation framework and feedback survey, prepares final report for Visegrad Secretariat



Responsibilities of ScienceScope

- 1. IoT Device Delivery:** Provides all participating schools, coordinators and partners with the IoT Device and Weather Station and liaises with all participants on possible concerns
- 2. Support Conceptualisation & Programme Development:** Supports ASEF in developing programme and project activities when required
- 3. Conduct 3 Technical Sessions:** Conducts 3 technical sessions that enable all participants to build required digital competencies needed for creatively and innovatively using the IoT Device and the Weather Station, and analyses environmental data collected through the Device



Responsibilities of the Coordinator

- 1. Overall Project Managing:** Stay up to date and keep track of all the project activities & documents
- 2. Financial Management:** Liaise with the Visegrad Secretaries and all the relevant partners and participants regarding budget and cost
- 3. Leadership:** Lead peer-to-peer sessions together with the V4 Partner Schools and small teams during project implementation phase to co-develop the Teaching Modules with participants and their students
- 4. Documentation & Translation:** Keep a record of all implemented activities & coordinate the translation process with selected translators to translate relevant final project documents in respective v4 country's language
- 5. Communication:**
 - Collect photos and videos of relevant project activities and share with ASEF Team for Social Media Engagement & Visibility
 - Communicate with the ASEF Team to keep them up to date on relevant issues
 - Share & disseminate public project documents among your own network to increase visibility and showcase the impact of the project



Responsibilities of V4 Partners

- 1. Overall Project Managing:** Stay up to date and keep track of all the project activities & documents
- 2. Leadership:** Lead peer-to-peer sessions and small teams during project implementation phase to co-develop the Teaching Modules with participants and their students.
- 3. Documentation & Translation:** Keep a record of all implemented activities & coordinate the translation process with selected translators to translate relevant final project documents in respective v4 country's language
- 4. Communication:**
 - Collect photos and videos of relevant project activities and share with ASEF Team for Social Media Engagement & Visibility
 - Communicate with the ASEF Team to keep them up to date on relevant issues
 - Share & disseminate public project documents among your own network to increase visibility and showcase the impact of the project



Responsibilities of Participants

1. **Active Participation:** Stay up to date about all activities and actively participating in all activities
2. **Engage & Share:** Share ideas and knowledge during all sessions and small teams during project implementation
3. **Intellectual Contributions:** Keep a record of all implemented activities and necessary intellectual materials for Teaching Module Development
4. **Communication:**
 - Collect photos and videos of relevant project activities and share with the ASEF Team for Social Media Engagement & Visibility
 - Communicate with the relevant Coordinators & Partners of the Project to keep them up to date on important issues
 - Share & disseminate public project documents among your own network to increase visibility and showcase the impact of the project

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7. Questions & Answer



Thank You!