Urban Science

Partner Meeting 2

Bulgaria 28th May to 1st June 2018

Minutes

Attendance: Stoyan & Stefka (Bulgaria); Richard & Margaret (UK); Ela & Joanne (Poland); Daniella (Italy); Inese & Krisjanis (Latvia).

Objectives of the meeting where to:

- Review and agree Framework for Science in the Urban Environment.
- Start development of Urban Science learning modules.
- Review and agree Monitoring & Evaluation Plan.
- Reconfirm project roles, tasks and leads for each output.
- Review project risks and Dynamic Learning Agenda.
- Plan for EU Interim Report, including financing.
- Plan next phase of project in detail.
- Develop project ownership amongst partners.

1. Reporting In

We started the meeting by reporting in about our own feelings towards the project at this time and hopes from the meeting. A few common points emerged:

- Daniella – concern about finding pilot schools; this will only be confirmed in September when the movement of teachers between schools is finalised. Daniella has identified and talked with some young and keen teachers, but they do not know where they will be teaching yet.
- Ela – finding pilot schools is a challenge.
- Inese – we need to remember the project focuses on sustainable cities and not lose this focus.
- Stoyan – building relationships with schools takes time.

We reviewed the agenda for our meeting and agreed our planned tasks for the coming days. Richard also explained the wider process of building our Urban Science team; a process of being clear about our purpose, building trust between the partners, clarifying our goals, developing commitment and knowing how to implement. Getting this wider process 'right' will help ensure the success of our project and enable us to work together effectively.

Richard provided an update on the Hungarian partners – HRTA. Monika was unable to join the meeting and recruited a colleague to come in her place (and join the HRTA team). Sadly this person was unable to gain permission from her school to join the meeting; this happened at the last minute and another person could not be found.

Action:

- Review process of building our Urban Science team on a regular basis (Richard).
- Brief Monika on meeting results (Richard).

2. Project Vision

We were asked to write a 10 word statement about the project responded to the question 'what is Urban Science?' The goal of this activity was to ensure we have a common purpose and identity for our work. The aim was not to have a common statement (yet), more to explore our own orientation towards the project. We repeated the activity during the meeting.

Vision statements where:

- A pedagogy that combines the attributes needs to make sustainable cities happen.
- Study urban environment and be engaged in its future
- Urban Science in a personal engagement to understand the scientific process of what is important for a sustainable city.
- Teaching future young citizens to apply their skills and knowledge to create the cities they want to live in.
- Outdoor science in the city environment for innovative solutions to urban sustainability challenges.
- Urban Science is a personal engagement to live in a city as part of an interconnected social, economic and natural ecosystem.
- Engaging science, creating sustainable cities.
- Urban Science is a revolution in how we envision cities, delivered through engaging science and active citizenship.

A quick (and non-scientific) word cloud of the vision statements result in:

3. Output 1 – Criteria for Urban Science

We reviewed the criteria for developing Urban Science learning which were generated through our research. The long list of criteria was reduced to a shorter list of essential criteria which represent the essence of Urban Science. These criteria were also reviewed against the proposal to ensure key project aims were not missed.

A final list of criteria was developed which will be reviewed and finalised. The final list will be used to guide our development of Urban Science and monitor and evaluate the results.

Actions:

- Complete research report (Inese).
- Write-up criteria and circulate for final agreement (Richard).

4. Interim Report

We reviewed the needs for the Interim Report to the UK National Agency. In particular we reviewed the narrative questions that must be completed (see Annex 1). These are similar to the questions we currently use for our 6-monthly monitoring report.

Actions:

- Adjust 6-monthly monitoring report to ensure fit with Interim Report (Richard).
- Deadline for next 6-monthly monitoring report 15th August – Daniela a few days later (all).
- Submit Interim Report before 31st August (Richard).
- Check financial evidence requirements with UK National Agency; create financial evidence checklist (Richard).
- Confirm exchange rate regulations (Richard).

5. Monitoring and Evaluation

We reviewed the draft Monitoring & Evaluation Plan in detail. Small changes were agreed and the criteria (see above) are to be added into section 5.

We discussed how to assess if conditions for long-term change has been met. It was suggested we take a short list of questions based on our vision statements to present as pre and post-questions for pupils and teachers.

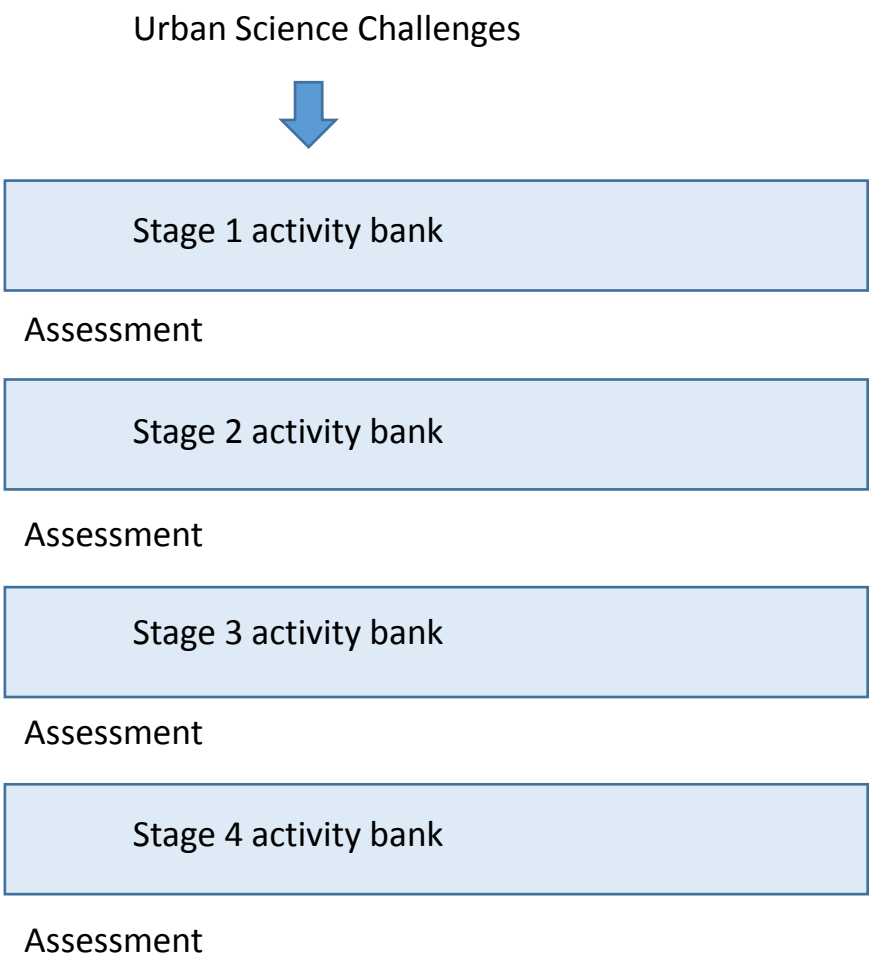
Actions:

- Edit and circulate final M&E plan (Richard).
- Create summary framework with criteria, key questions and target groups (Richard).

6. Output 2 – Framework for Science in the Urban Environment

We reviewed the draft framework using a carousel technique, exploring elements of the framework, competency tracker and the exemplar module whilst adding our own comments. These were summarised as a group. There followed a long and active group discussion about how to best

represent our framework so it works across all partner education systems and provides a flexible model to teachers at a range of competences. An emerging model looks like:



Activities are developed for each stage, forming a bank or suitcase of activities which can be used flexibly. Assessment tools guide teachers, helping them assess when pupils are ready to move onto the next stage. The 4 stages represent the 4-stage process in the Enquiring Minds model for IBSE.

Pathways through the model are developed to meet the needs of teachers. Each pathway starts with an Urban Science Challenge providing focus and direction. Learning modules can be directive in which case the learning journey through the 4-stages is provided. Or they can be free, in which case teachers select the activities fitting their curriculum/pupils needs. This represents a potential for teachers to move from a directed to a free model depending on their competency with IBSE and Urban Science. In this case, whereas the project will develop 10 directive learning modules, the potential is for hundreds of free learning modules to be created.

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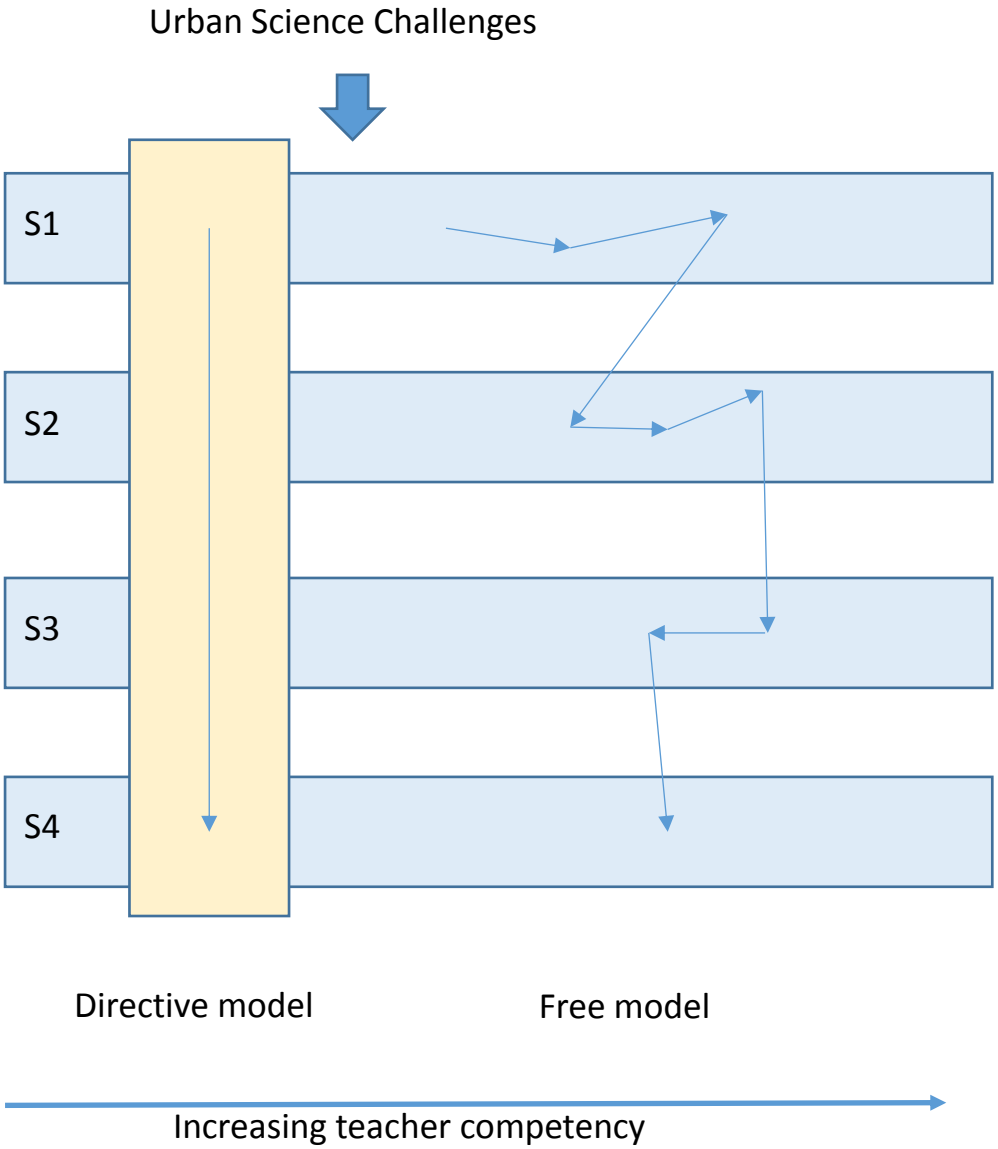
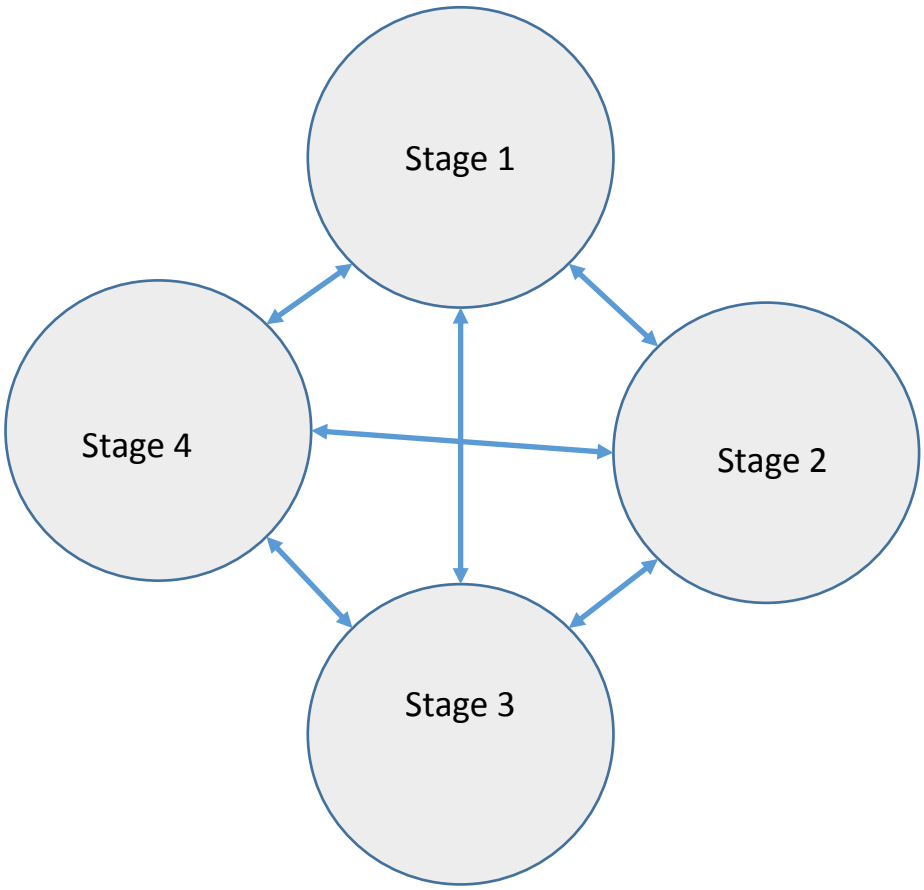


There is no imperative to start the model at stage 1; teachers might start with an outdoor science activity at stage 3 to introduce a topic before going back to stage 1. In this case the model become less linear and more circular; teachers circle around and through the model.



Throughout the use of the model, the competency tracker ensures key IBSE and sustainability competences are being delivered; in a sense that learning remains true to the goals of Urban Science.

The presented model focuses on the process of science rather than the content; for IBSE this is vital. Content is derived from the Urban Science Challenges.

Actions:

- Update framework document to present model above (Richard & Margaret).

7. Intellectual Output 3 – Urban Science Learning Modules

<u>Urban Science Challenges</u>

We explored a range of potential Urban Science Challenges. These were reviewed and discussed in terms of the data behind each challenge, themes/SDGs they address and relevant to the project.

Actions:

- Create table in Google Docs to record challenge ideas (Ela & Daniela).
- Complete table with ideas (all).

Learning Modules

We discussed how the learning modules 'come together' based on the framework, challenges and activities. Our initial focus is to create Urban Science Challenges and start adding activities for each stage; from these learning modules will start to emerge. Draft learning modules will be shared before TPM3 and finalised during the meeting. Learning modules will be reviewed against our competency tracker and agreed criteria (see above).

Actions:

- Create activity template (Ela & Daniela).
- Create area of Google Docs to share activity ideas with a common system for naming documents (Ela & Daniela).
- Add activity ideas (all).
- Share at least 2 completed draft learning modules (all).
- Comment on draft learning modules (all).

8. Output 4 – Competency Based Assessment

Stoyan presented a comprehensive approach to developing assessment tools which support each stage of our IBSE model.

We discussed the need for pre and post-testing to establish impact on pupils. This could be based on questions 4-5 questions drawn from our vision (see above) and assessed using a Likert scale; other ideas to be considered during our research. We agreed that any pre/post testing needs to be short and simple if teachers are to use it.

Actions:

- Circulate research guidelines (Stoyan & Monika).
- Create pre/post testing questions and approach (Stoyan & Monika).

9. Challenges and Opportunities

We reviewed the challenges and opportunities identified at TPM1. The results are in Annex 2. There are some shifts positive and negative. No additional action is required at the present moment.

10. Website

The draft website was shared and the following comments noted:

- Include strapline on the landing page.
- Include partner logos next to Erasmus+ logo.
- Ensure data on click-throughs is available.
- Ensure Facebook posts links with partners Facebook pages.
- Add an image to the landing page to inspire.

We briefly discussed the website hosting.

Actions:

- Share organisation Facebook links (all).
- Check hosting requirements and circulate so partners can provide quotes if relevant (Richard).
- Follow-up on site changes (Richard).
- Consider adding an image on the landing page (Inese).

11. Partner Meeting 3

Dates for the next meeting agreed as 26th to 28th November. Travel days 25th and 29th November; we will try to finish on the 28th November in time to catch evening flights home.

Location of meeting to be confirmed.

12. Agreed Actions Summary and Dates

	Activities	Who	Deadline
General Project Management and Implementation			
Monitoring and Evaluation Plan	Update plan and share with partners	Wild Awake	End June
	Create summary framework	Wild Awake	End July
	Project team building and functioning	Wild Awake	Review before each 6-montlyh report
Interim Report	Adjust 6-monthly monitoring report to ensure fit with Interim Report	Wild Awake	End June
	Complete internal monitoring report	All partners	15th August

	Develop short tool to review project processes	Wild Awake	End July
	Submit Interim Report	Wild Awake	25th August
Online meetings	To take place as necessary	All partners	Ela & Daniela to set progress points for Output 3 and set meetings accordingly.
Other	Check financial evidence requirements with UK National Agency; create financial evidence checklist	Wild Awake	End June
	Confirm exchange rate regulations	Wild Awake	End June
Intellectual Output 1: State-of-the-art review on Urban Science			
Task 1 – Urban Science research	Complete final report	BVS	End June
Task 2 – characteristics of successful Urban Science	Complete criteria list and share with partners	Wild Awake	End June
Intellectual Output 2: Framework for Science in the urban environment			
Task – create framework	Edit framework and share with partners	Wild Awake	End June
Intellectual Output 3 – Urban Science Learning Modules			
Task – Urban Science Learning Modules	Create activity template; upload to Google Docs	GRID & CREDA	End June
	Create Google Docs system to share activities including a common system for file names.	GRID & CREDA	End June
	Add activities	All	Ongoing
	Complete two draft learning modules (2/partner)	All	15th October
	Comment on modules	All	15th November
	Prepare final drafts to share at TPM3	All	By TPM3
Task – Urban Science Challenges	Create table in Google Docs to record Urban Science Challenge ideas	GRID & CREDA	Done
	Add Challenge ideas	All	Ongoing
Progress check-points		GIRD & CREDA	To be set
Intellectual Output 4: Competency Based Assessment			

Task – Urban Science Assessment approaches	Complete and circulate research guidelines.	EEA & HRTA	End June
	Review existing approaches.	All	See schedule in guidelines
	Produce draft report on assessment tools.	EEA & HRTA	See schedule in guidelines
	Share with partners, comment and review	EEA & HRTA	See schedule in guidelines
Task – Testing and Trialling with Pilot Schools	Trial with schools; feedback to EEA & HRTA	All	See schedule in guidelines
Task – Guidelines for Competency Based Assessment	Final guidelines produced.	EEA & HRTA	See schedule in guidelines
Intellectual Output 6: Sharing the lessons learnt			
Task – create online presence	Edit website	Wild Awake	End June
	Circulate hosting specifications	Wild Awake	End June
	Share Facebook addresses	All	

Annex 1 – Interim Report Questions

Project Management and Implementation
(this section asks for information about the state of play of the project)

1. Please provide an overall state of play of your project: what are the achievements of the project at this stage? Are the initial project activities and objectives being carried out and reached so far?

2. Please describe further in details the project activities supported by the grant for Project Management and Implementation that have been carried out until now.

3. How is the monitoring of the project being carried out so far and by whom?

4. How did the project partners contribute to the project so far? Has the distribution of tasks been adjusted since the application stage?

5. If your project involves other organisations, not formally participating in the project, please briefly describe their involvement.

6. If relevant, please describe any difficulties you have encountered until now in managing the implementation of the project and how you and your partners handle them.

Impact

1. What has been the project's impact so far on the participants, participating organisations, target groups and other relevant stakeholders?

Dissemination and Use of Project Results

2. In case already applicable, to whom did you disseminate the project results inside and outside your partnership so far? Please define in particular your targeted audience(s) at local/regional/national/EU level/international and explain your choices.

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Annex 2 – Challenges and Opportunities

Based on our initial research, changes to the challenges have emerged. Changes shown in red.

Outside our control:	We can influence but not control:	Within our control:
• Austerity means other stakeholders unable to join/support us (UK, It). • Over-crowded curriculum (UK). • Education system reform (Pl – level of challenge reduced but still outside our control) • Lack of state institutional support (Bg, It). • Low level of innovative spirit amongst teachers (Bg, It). • Limited contact time with teachers (UK, It, Pl). • Teacher retention and shortage (UK). • National curriculum reform makes teachers busy and creates confusion; resistance to additional work (Lv). • Teachers move schools to improve career (It). • Changes to Ministry of Education regulations in January 2018 make is far harder for teachers to receive permission to attend out of school events during school hours.	• Incorrect and lack of sustainable development understanding amongst teachers (UK, Pl). • Creating a shared vision (Hu). • Outdoor learning has 'low' status (UK, It). • Mainstreaming and raising awareness of Urban Science (Hu). • Narrow understanding of outdoor learning – more than just sensory-based learning (Lv, Pl, It). • Interdisciplinary learning still a new challenge (Pl). • Politicians restrict NGO access to schools – maybe outside our control? (Bg). • Active teachers more interested in personal Erasmus+ projects (Bg). • Limited number of active teachers and limited time (Bg). • Limited number of 'active' students (Bg). • Limited curricula time (Bg, It). • Limited diffusion and understanding of IBSE approaches (It).	• Keeping teachers motivate and recognising their efforts (Hu). • Not just monitoring state of urban environment, but working towards solutions too (It). • To make complex issues simple to understand without simplifying (It, Hu). • Clearly communicate what is Urban Science (It, Pl). • Provide support to enable teachers to deliver outdoor learning (It). • How to benefit from intercultural learning (Hu). • Providing clear scaffolding for teachers without over-burdening them (Hu). • Creating relevant, user-friendly and idiot proof assessment (Hu).