# Quality Assurance of the project

### Basic Program Principles & CDPE's Proposal

CDPE COORDINATION

SUPERVISED BY MENTOREC
ALL PARTICIPANTS ARE INVOLVED

# Aim of the Project

Promoting the acquisition of skills and competences

• Open and innovative practices in a digital era

• Strengthening the profile of teaching professions

### Program's Qualitative Indicators

- More efficient exploitation of existing knowledge in regards to STEM learning methodologies for Primary Education and valorization of the impact of these methodologies in different targets or end-users (teachers, students, schools and community);
- Improved understanding of how Innovative STEM teaching methodologies and techniques can contribute to development of 21st Century skills;
- Improved capacity of teachers, schools and parents to use the appropriate techniques, activities for STEM learning of younger children.

### Task Distribution

- MentorTec (P1/Coordinator) has had major experience in Coordination of EU projects, and therefore will be responsible for the overall management and coordination of the project and will also lead the promotion and dissemination activities at national and international level. MentorTec will also be co-leader with Science View for IO 3 Toolkit "Tools to Socially Learn STEM" & Pilot-testing.
- University of Murcia (P2) benefits from an academic standpoint on researching matters, and holds great experience in <u>leading field work and researches</u> and therefore will be responsible IO 1 Literature review and field research.
- ScienceView (P3) has deep knowledge in science related fields of science and is constantly working on making scientific knowledge useful and clearly understood by the general public but also has experienced the development and implementation of educational and engagement activities in science and technology for teachers and students. Co-leader with MentorTec, ScienceView will be for the development of IO 3, design of the Toolkit, Teacher's Guide, conception and carrying out the Train-the-trainer package (TTP) in Greece.
- Metis Baltic (P4) is well-grounded with science managers engaged in the research and development of innovative and experimental projects who carry out tasks related to technological development, and by this meaning they will be the lead partner of IO 2, developing a Web-Platform that will target not only teachers, but also students and parents.
- School Partners will have key roles in the implementation of the pilot-testing of the Toolkit. Therefore P5, P6, P7 and P8, will be direct channels to our main target groups (STEM subject primary teachers, primary school students and parents) and will lead the pilot-testing activities in their respective schools. They will also be crucial for the development of IO 1, as they will also support the implementation and collection of the questionnaires for needs analysis. Teachers involved in the pilot-testing will also participate in the TTP (C1) in order to better implement the pilot-testing.

<u>CDPE (P7)</u>

will have a key role in the Quality Assurance of the project, due to their experience and expertise in this field.

### Partnership - Teamwork

Overall Project Management [MENTOREC]

• Disseminarion Activities [MENTOREC & other partners]

 Monitoring and Evaluation [CDPE with the Supervision of MENTOREC & contribution of all partners]

### Partnership - Teamwork

- carry out evaluation and valorisation activities
- development of results to support the elaboration of the IO (for instance, elaboration of methodological guidelines, templates and reports with main results)
- transversal activities (linked to management but also dissemination, exploitation and evaluation activities).

### CDPE's Involvement

- Establishment of the Quality Plan
  - quality-check procedures to ensure high quality of the project achievements
  - o consistency of the work performed within the project

# CDPE's Crucial Meeting!

• CDPE will prepare an initial description of the actions and tools that will be taken to guarantee the efficiency and quality of the project outcomes and procedures. This content will be discussed during the first meeting, during which **partners will already complete an evaluation form.** 

# CDPE & Kick of Meeting

- the consortium will identify risks and produce a project risk list and formalize the structures and procedures for minimizing these identified risks.
- The consortium has identified a number of potential risks and developed associated contingency measures

### CDPE's Expected Outcome

**Support** to the adaptation of the project's outcomes according to the needs of target group & **discussion** for future implementations

### Reminding the aims:

Promoting the acquisition of skills and competences

• Open and innovative practices in a digital era

• Strengthening the profile of teaching professions

### Our Tasks...

- to describe
  - the **quality procedures** that will be implemented to assure the quality of the project achievements (IOs)
  - o **consistency** of the work performed within the project
  - description of the actions and tools that will be used to guarantee the efficiency and quality of the project outcomes and procedures

## Methodology Approaches

1: Management & coordination

according to **MENTOREC** 

2: Literature review & field work (O1)

3: Design & development (O2)

4: Pilot testing & fine-tuning (O3)

5: Promotion, dissemination & exploitation activities (E1)

6: Quality control, monitoring & evaluation

### Management & Coordination



according to MENTOREC

- face-to-face meetings,
- official reporting
- budget control

#### **TOOLS**

- timetable defining all activities,
- project outcomes/products
- time limits, project milestones
- risk management
- reporting requirements
- communication rules and tools
- A Project Steering Committee will be constituted involving a representative from each partner in the project. For this phase, organ and reporting actions will be essential methods.

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### Literature review & field work (O1)



• guarantees that the project carries out project outputs and that suitable levels of target group engagements are achieved throughout the project (including during end-user validation).

This phase includes a **research methodology** with application of

#### **TOOLS**

- questionnaires and interviews,
- literature review/desk research and
- field work (research analysis on the needs and consensus building).
- The result of this phase corresponds to the IO 1 "Socially Learning STEM in Primary Education guidelines towards a common framework" and will be led by University of Murcia (P2).

## Design & development (O2)



# according to MENTOREC

- Design & development: based on the findings and conclusions of the research activity carried out previously, the following outputs will be designed and developed: IO 2
- Web-Platform "STEM on the WEB", led by Metis Baltic (P4) and
- IO 3 Toolkit "Tools to Socially Learn STEM", led by Science View (P3)
- Both IOs will be designed and developed with the participation of all project partners who will give inputs for their development.

# Pilot testing & fine-tuning (O3)



according to MENTOREC

• Testing & fine—tuning: IO 3 will be tested internally and evaluated. The project products elaborated in the 3rd phase of the project implementation will be tested in every country participating in the project. The trainers participating in TTP (C1) will be engaged in this phase, in order to pilot, validate and identify possible improvements.

• The coordination of the pilot testing and fine-tuning of each output will be of the responsibility of the leading partner of the output (P3), but in close cooperation with School partners (P5,P6,P7,P8) and the partner responsible for the quality control, monitoring and evaluation (P7).

# Promotion, dissemination & exploitation activities (E1)

according to **MENTOREC** 

• coordinated by MentorTec (P1) will be carried out during the lifetime of the project for the benefit of the educational community and engagement of the target groups. They will be based on the Promotion and Dissemination Plan and the Exploitation Plan which will be approved and executed by all project partners.

#### **TOOLS**

• Feedback and Evaluation of the activities (including events, E1-8) focused on integrating the project results into national practice and provision in their respective countries as part of the overall strategy.

# Quality control, Monitoring & Evaluation



according to MENTOREC

1: Management & coordination

2: Literature review & field work (O1)

3: Design & development (O2)

4: Pilot testing & fine-tuning (O3)

5: Promotion, dissemination & exploitation activities (E1)

## Quality control, Monitoring & Evaluation



according to MENTOREC

- internal quality board
  - o planned outputs
  - planned time limits
  - budget
  - o communication between the project partners

#### Within Evaluation

- evaluation indicators,
- x tools and criteria used
- \* feedback from end-users who will be asked to assess the project products.

### **Planning Quality**

CDPE Add-ons



- 1. Project quality management and
- 2. **Product** quality management

Basic Program
Principles

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#### Input

### Tools & Techniques

#### Output

- Scope Baseline,
   Schedule Baseline and
   Cost Baseline
- Risk Register
- Stakeholder Register
- Enterprise
   Environmental Factors
- Organizational Process Assets

- Benchmarking
- Cost Benefit Analysis
- Cost of Quality
- Designing Experiments
- Control Charts & Flowcharting
- Statistical Sampling
- Proprietary Quality Management Methodologies

- Quality Management Plan
- Quality Metrics
- Quality Checklists
- Process Improvement Plan
- Updates to Project Documents

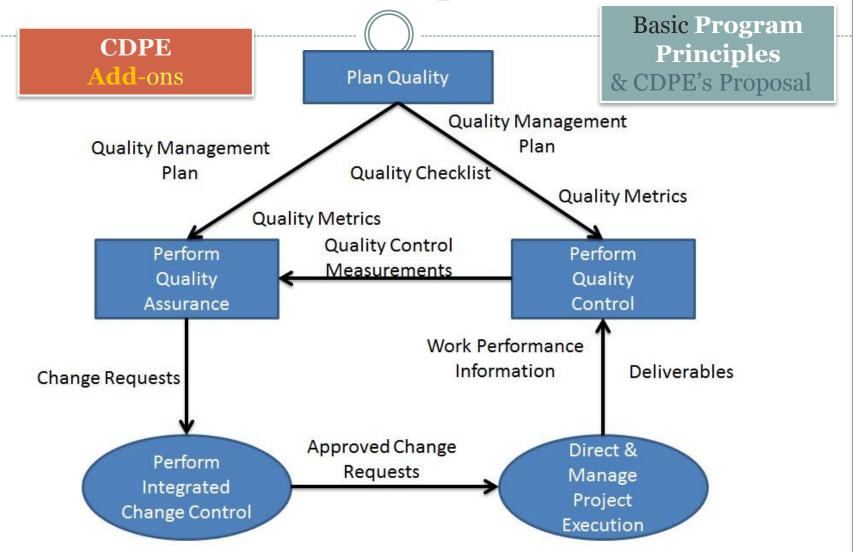
### Project Management



**CDPE** Add-ons

Tools & Techniques Output Input Project Scope Meetings Risk Management Plan Statement Analysis Schedule Management Plan Cost Management Plan Communication Management Plan Enterprise **Environmental Factors**  Organizational Process Assets **Basic Program Principles** & CDPE's Proposal

### For each Component...



### Project's Team Management

**CDPE** Add-ons

#### Input

### Tools & Techniques

#### Output

- Project Management Plan for Human Resource Management
- Project Staff Assignments
- Team Performance Assessments
- Performance Reports
- Organizational Process Assets

- Interpersonal Skills
- Observation & conversation
- Conflict Management
- Project Performance Appraisals
- Issue Log

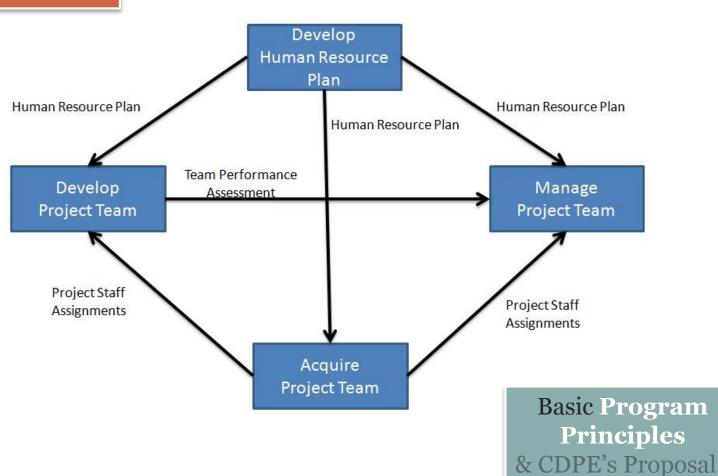
- Change Requests
- Updates to Enterprise **Environmental Factors**
- Updates to **Organizational Process** Assets
- Updates to Project Management Plan

**Basic Program Principles** 

& CDPE's Proposal

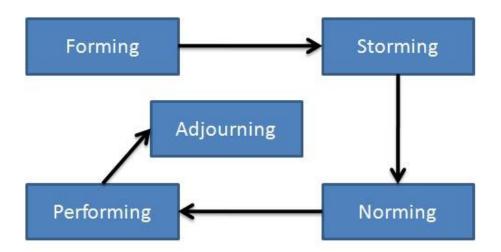
### For each Partner...





### Team Functionality

CDPE Add-ons

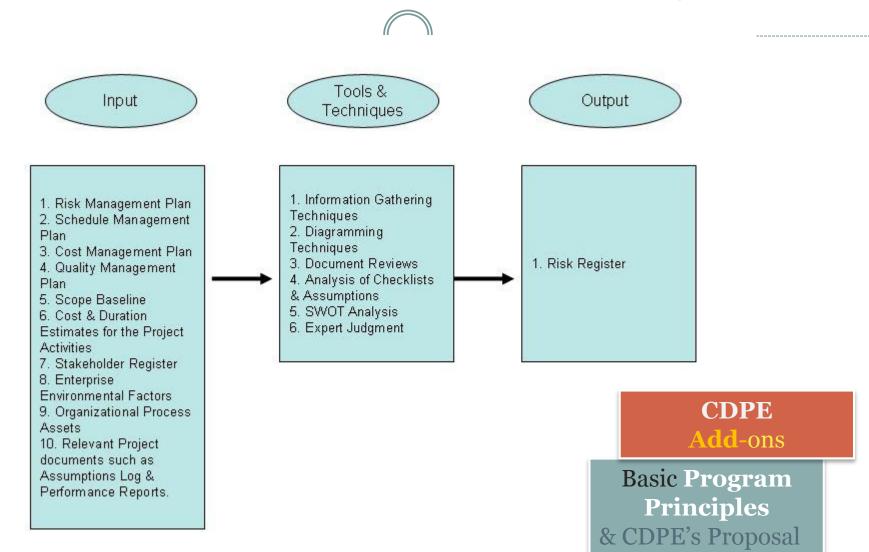


### Risk Management Plan



Update the Risk Register Step by Step

## Qualitative & Quantitative Analysis



### Conclusion

- Only project management and its quality control settings are available in the submition form.
- We propose
  - Team Management Planning and quality control
  - Product management for Quality Control
  - All the qualitative instruments to be standardized
  - The quantitative statistic analysis shall be preconditioned with specific Limitations | Standard Error Report | standardized scales | normal distribution within and bwtween school groups, etc.
  - The methodological approaches have already a self reflection report system. Thus, concerning the 5 first inputs listed in page 13 are already well organized for applying quality control.