



# INA-CODE

## INNOVATIVE APPROACH FOR CODING IN DIGITAL ERA

Erasmus+ 2021-DE03-KA220-SCH-000024558

## PROJECT MANAGEMENT GUIDE

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## **INTRODUCTION**

The current COVID19 pandemic has highlighted the need for Europe to speed up its digital transition process in order to overcome the gap that splits Europe into two areas that are growing at different rates. In addition, given the growing necessity of regulating the amount and the storage of big data through the use of artificial intelligence, European institutions require the development of digital competencies by European citizens. Digital transformation is a requirement for all European citizens, especially for the school system which shapes European citizens. For this purpose, teachers need to upgrade their digital skills in order to keep up with the demands of a society that is continuously developing. Coding offers the opportunity to orient students towards computer science and new technologies. Besides improving logical abilities and analysis, teaching coding at school might be a powerful tool for creative projects such as music and arts, expressing sensibility and each students' personality. Like all citizens, teachers need to acquire the necessary digital skills for their personal and professional lives and for participating in the digital society.

With the aim of achieving the goals mentioned above, INA-CODE Project is created under the coordinatorship of ROBYCODE UG (DE) and the partnership of 5 organizations from different countries.

This guide has been developed for all partners and staff who are interested in the methodology of the INA-CODE project from all angles and want to obtain detailed information about the project.

The project management process generally includes five phases:

- a) initiating,
- b) planning,
- c) implementing,
- d) monitoring and controlling
- e) closing.

By following each step, a project team increases the chance of achieving its goals.

### **A) INITIATING**

In the initiation phase the Project is defined. The project goals, scope, and resources of the project, and what roles are needed on the team are sorted out in this phase. The aim of the Project and the stakeholders should be clarified in order to make the Project achievable.

The steps of Initiating phase for INA-CODE Project, which are realized during the Project application period, are listed as:

- Identifying project scope
- Determining SMART goals (specific, measurable, achievable, relevant, and time-bound)
  - To contribute to the readiness of schools and teachers for digital education processes
  - To create open source for Robotics / Coding lessons applied in schools
  - To contribute to the development of 21st century skills of students.
- Clarifying resources like budget and time constraints
  - Budget: € 205.010,00
  - Duration: 24 months (It starts on 28/02/2022 and ends on 27/02/2024).
- Confirming partnership consortium, team size and roles required

Partners:

- RobyCode UG – Germany (Coordinator)
- Korfez Mesleki ve Teknik Anadolu Lisesi- Turkey
- ISTITUTO ISTRUZIONE SUPERIORE "A. LINCOLN" - Italy
- SVEUCILISTE U ZAGREBU-Croatia
- Paula-Fürst-Schule Berlin - Germany
- Kocatürk Danismanlik Özel Egitim Hizmetleri Turizm ve Proje Hizmetleri Ticaret Sanayi Limited Sirketi- Turkey
- Determining how often and which stakeholders will be involved throughout the Project
- Communicating with stakeholders to understand the purpose and desired outcomes of the Project: A Communication plan will be created by KÖRFEZ MTAL
- Compiling a project proposal and project charter (Gantt Chart). Project proposal was submitted to German NA and was approved with the partnership of 5 partners and with the total budget of €205.010,00.

## **B) PLANNING**

In the planning phase, the steps to actually achieve the project goals—the “how” of completing a project- is determined.

The budgets, timelines, and milestones, and source materials and necessary documents are established in the planning phase. This step also involves calculating and predicting risk, putting change processes into place, and outlining communication protocols. The planning phase is deciding what to do with the resources defined in the initiating phase. Regarding the INA-CODE Project, the steps of Planning phase can be listed as:

- Deciding on milestones that lead up to goal completion:
  - Project Results

- Course Videos:24 videos in total
  - Experiment sets
  - Experiment Booklet: (Teachers' Book & Students' Book) including 25 experiments
  - Interactive Website
- 2 LTTs will be organized
  - 6 multiplier events will be hosted
  - 4 TPMs will be organised
- Developing a schedule for tasks and milestones, including time estimates and potential time buffers: Gantt Chart uploaded on Google Drive
  - Establishing change processes (change of partner, staff, budget transfer..etc.)
    - Greek partner had withdrawn from the partnership consortium due to financial issues.
  - Determining how and how often to communicate with project partners and stakeholders
    - Communication plan will be created by KÖRFEZ MTAL.
    - A Google Drive has been created to upload and share all documents.
    - A Whatsapp group was created to communicate faster and more effectively.
    - E-mailing is used to share important proceedings and documents.
  - Creating and signing documents such as partnership agreements (PAs)
    - Grants Agreement with German NA is signed on 28th October 2022.
    - Partnership Agreements are signed between the coordinator and the partner organisations.
  - Assessing and managing risk by creating a risk analysis:
 

The following risks are common and can exist at very different levels:

    1. Misconceptions about mutual expectations of the partners at the commencement stage of the project: In the TPM-1, all details about the expectations, tasks and responsibilities will be cleared and agreed on by all partners.
    2. Failure to safeguard the principle of mutual benefits for all partners in the consortium: Partnership agreements will clear these risk.
    3. Lack of partner's personnel commitment to the project implementation: All partners are responsible for carrying out the tasks/activities in a consistent, quality-focused, effective and efficient manner in accordance with specified objectives of the project. It is planned to act according to the project work schedule in order to realize all the processes on time.

4. Maintenance: project manager will manage goals, define project outcomes and provide common access to timeline record which all partners can have access to and see which stage each partner is at.
  5. Miscommunication: all partners will be made aware of obligations, interpreters will be used where necessary. Previous experience in working with partners also diminishes this risk.
  6. Network support drop off: the partners will work closely with the target group and identify network partners for dissemination who are committed and practically able to provide time. Supervision of these network contacts will take place from time to time to maintain standards and offer support
  7. Mainly the uncertainty around the pandemic and unforeseen future with disruptive events that could jeopardize the delivery of the project outcomes.
- Holding a kick-off meeting to start the project : The online Kick-off meeting was held on 29th of August 2022. The recording of the meeting and the minutes of the meeting are uploaded on Google drive file.

### C) IMPLEMENTING

Implementing a project means putting the plan into action and keeping the team on track.

The Implementation phase involves tracking and measuring progress, managing quality, mitigating risk, managing the budget, and using data to inform your decisions. All the activities related to the Project and contributing in reaching the project goals are listed and controlled in the implementation phase.

The steps of implementing phase of INA-CODE Project are;

- Using GANTT chart to track progress on tasks: all partners are regularly informed about the tasks and the responsibilities regarding the Project cycle.
- Responding to risks when they manifest.
  - An unexpected risk arose at the very beginning of the Project. The German National Agency has decided that the project budget should be paid after all activities have been completed. This information has been shared with partners. The Greek partner withdrew from the project due to this situation. Project activities started with the other 6 partners.
- Recording costs: Each partner is responsible with documenting the expenditure they use during the whole Project cycle. All the documents related to the costs of Project activities should be kept till the end of the Project and also should be uploaded on the Google Drive file of the Project.
- Keeping team members motivated and on task: All Project team members of the partner organizations are kept informed about the progress of the Project activities via e-mails or on Whatsapp group.
- Keeping stakeholders informed of progress: Each partner is responsible for informing the related stakeholders about the Project activities. This will be realized by dissemination

activities. Visits to stakeholders, social media posts, website informings, meetings..etc. can be organized to keep the stakeholders informed.

The Project activities of INA-CODE Project are;

- 2 LTTs will be organized
- 6 multiplier events will be hosted
- 4 TPMs will be organized
- 4 Project results will be created:
  - Experiment set
  - Experiment Booklet
  - Interactive WEBSITE
  - Deep Dive Arduino (MOOC)
- Project management activities;
  - creation of the project management plan - responsible partner: ROBY-CODE
  - creation of the project dissemination and exploitation strategy - responsible partner: Paula-Fürst Schule
  - financial reporting and overview - responsible partner: ROBY-CODE
  - encounters with stakeholders- responsible partner: all partners
  - printed material (project brochure)-responsible partner: all partners
  - appointment of the project manager- responsible partner: all partners
  - appointment of the project financial manager (per organization)
  - the project sustainability plan- responsible partner: IIS A.LINCOLN
  - translations in partner languages-responsible partner: all partners
  - dissemination activities- responsible partner: all partners

## D) MONITORING

Project performance and monitoring ensures that project results align with the management plan. Project managers use key performance indicators (KPIs) to determine if the project is on track.

The steps of monitoring phase are;

- Evaluation:
  - Evaluation tools related to the activities and the performance of the Project partners will be created by UNZIG (HR).
  - Impact evaluation: the impact of the Project will be evaluated at the end of the Project.
  - Achieving the Project goals
- Quality monitoring:
  - Qualitative Indicators
    - Course Videos: 1.Basic electronics (3 videos), 2.Basic mechanics (3 videos), 3.Basic design course (5 videos), 4.Coding courses (5 videos).
    - Experiment sets – 1 set + video on the website
    - Experiment booklet – 25 experiment explained
    - Interactive website – 1 website online

- Interviews with teachers and experts
- Testimonials from learners, teachers and experts
- Feedback within the courses
- Feedback from stakeholder
- Learning materials
- Learning outcome matrix
- Robustness of the educational model development and its capacity to meet the needs of the target group
- Ability of the consortium to localize all learning materials to ensure cultural appropriateness;
- Quantitative Indicators
  - target group participation in receiving final outcomes (at least 200 individuals)
  - target group participation in events (at least 100 individuals)
  - Number of videos created
  - 95% satisfaction level of participants
  - Number of stakeholders addressed
  - Number of scientific publications (at least 3)
  - Number of publications in general
  - Number of social media activities

## E) CLOSING

In the closing phase of the project management lifecycle, all project activities are concluded, the finished product or service is turned over to its new owners, and the things that went well and didn't go so well are assessed.

In the framework of INA-CODE project, the steps of closing phase are listed as:

- A final report will be written. This report will provide all necessary information gained during the Project implementation period. This report will also be the proof of the Project activities and will provide the payment of the total budget.
- Following the approval of the final report, the budget will be transferred to the coordinator. and the coordinator, ROBYCODE UG, will transfer the budget allocated to each partner.
- Dissemination and sustainability activities will be performed. The planned dissemination activities are;
  - Website of the project will be created and updated regularly. All inputs will be shared on this website.
  - Social Media accounts of the project- Facebook, LinkedIn, Twitter and Instagram will be created and every week at least 2 posts will be shared.
  - News about the project will be shared on social media accounts with the hashtag of National Agencies in partner countries.
  - Printed materials (Banners / flyers / brochures) will be created by Paula- Fürst Schule and will be shared with partners. These materials will be used on every public event.

- The results of the project will be shared on the Erasmus+ Project Results Platform, ESEP and EPALE Platforms.
  - An eTwinning project will be initiated regarding the topic of the project.
  - Visits to stakeholders: Each partner will organize a visit to at least 2 stakeholders in their own country in order to share the published materials and present the results of the Project
  - News on local and national press: Each partner is responsible with press release of the project activities and results. Every month news will be published in local press.
  - 6 Newsletters will be created and sent to existing contacts and networks within the project period.
  - Erasmus+, EU, NAs and partner institution logos will be used in every published / printed output.
  - Multiplier Events will be organized in each country
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- Sustainability activities are:
    - All the tangible and intangible results, outputs and outcomes of the project will be uploaded on the Interactive Project Website results and outcomes which will be fully free and open to access.
    - The project website will be made available for 3 years after the project period ends.
    - The outputs will be accessible for 3 years after the project ends.
    - In each partner country, at least 3 institutions will be contacted to use the material in their educational context.
    - Partners will create a link in their websites with the possibility to download the materials produced by the Project
    - It will be given the possibility to translate and adapt the training course for non-partner countries