**Project Name:** "I-STEAM"

**Project Venue:** Project Consortium Countries

## STEP 1

**Needs analysis – Why this project is needed?**

Needs:

- Increasing Engagement in STEAM
- Tailor methods to different learners needs (inclusive learning)
- Reducing drop-out risk & non-continuation of education

## ADVICE

- A problem analysis should be carried out prior to the project about the problem that the project wants to solve, in general in the world, in Europe and in the countries where the project will be implemented. (i.e. current figures, articles, analysis from references)

- BEFORE THE PROJECT APPLICATION a ''customized needs analysis'' study should be carried out in all countries where the project will be implemented specifically for the target audience that the project focuses on. The results of this study should be included in the general needs analysis of the project. By selecting a target group of 20-30 people from the countries where the project will be implemented - a total of 120 figures will make sense- the actual needs of the main theme of the project can be identified and the project activities can be shaped in this way. Furthermore, the fact that the project consortium makes such a needs analysis before the project will bring a significant plus point for the project evaluation. (This research can be published in pdf or

infographic format on the web page of the project coordinator.) Linking directly to this page in the project form will be very important for understanding the motivation of the project consortium to realize the project.

- In this section, reference should be made to the areas in which the project intersects with the priorities of the program.

## Who will be the target group(s) of your project? (age group, characteristics of the target group)

Target: Youth 15-20 aged / students and NEETs

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## ADVICE

- Project target groups should be classified as focus groups as much as possible according to their differences. (For example, Target Group 1: Unoccupied and unemployed young women between the ages of 20 and 25, living in relatively less developed areas of Madrid)

- When defining the target group, the past experiences of each target group, the needs to be focused on the project objectives, the problems to be solved during and after the project, and the competencies they need should be defined.

- The methods to reach each target group should be discussed in detail. What methods, tools, activities will be used to reach the target group and the responsibilities of the project partners should be answered.

- In addition to the target group to be directly involved in the project, different groups/institutions/stakeholders to be reached through dissemination activities should be included in this section.

- - Objective / measurable criteria to be used for the selection of the target audience to be included in the project should be established with the project consortium. A scoring/evaluation system should be established for the weight of these criteria in the selection to be made. (Example: 25 points for being

unemployed, living in the targeted area, the urgency of the need for the project, etc.)

- If there is a disadvantaged group among the project target groups, the special measures to be taken to reach this audience should be included in this target audience statement.

# STEP 2

**Defining the aim and objectives – What is the project for?**

Aim: Inclusion of all types of learners through the STEAM learning approach, non-formal education methodologies and to increase the learning of all students. To attract the people that have dropped out or discontinue their learning life. Filling in the skills gap between the formal education curricula and the real labor market requirements.

Objectives:
- improve feeling of engagement (+NFE into formal curricula)
- incentives to NEETs to reconceive return to education
- fill in skill-gap between education and labour market & social life (PBL, AP, ID-T)

| ADVICE |
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General considerations for the project objectives and purposes;

- The project objective statement should be simple, understandable and, if necessary, divided into sentences. The objective statement should give a general answer to the question, ''Why does this project exist? '.

- The target sentences that will enable us to reach the general purpose of the project should be written based on the results you will reach in the project. While writing these, the needs of the target audience should be set out and concrete contributions should be made to meet these needs.

- Project objectives should include the short and medium-term. It should be numerical, measurable, clear and concrete.

For this project, for example;

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**Aim of the Project:** The project aims to produce an innovative STEM Curriculum and tools in middle and high schools (7 - 8 - 9th grades) in the public and private school status, which can be widely used in European Union countries and Turkey. The project will attract the people that have dropped out or discontinue their learning life by filling in the skills gap between the formal education curricula and the real labor market requirements.

The intended population of our project will be science and technology teachers and students in this area who are in need. Selection of this age group is decided qualitative analysis and referred to national and international documents by project team (STEM trainers, teachers, academicians, and experts). Content to be produced and their level is suitable to these grades students from middle school or early high school.

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In this context;

**Project Objectives :**

- To create STEAM lesson plans with 25 hours of practical education in total and to plan all lesson plans step by step so that teachers can easily follow them.

- To ensure that the curriculum produced by the project with the support of the project associate İzmir and Çiğli Provincial National Education Directorate, is approved by the ministry and implemented as a pilot.

-To provide promotion of educational tools and curricula throughout the EU by similar work done by different partners in the EU through project partners.

-To provide access to an innovative educational curriculum and tools that will create an example for STEM education and can be used in all target schools. For this reason, to establish a completely open source and free internet portal. To ensure that a qualified education program is implemented equally on this portal for students and teachers working in disadvantaged areas.

-To pilot test the training set and its tools with 30 students and 10 teachers internationally.

- To revise the test in accordance with the feedback received and finalize it for use. Then, organize local trainings 1 times in EDUGEP in Portugal, 1 time EKO Greece local education center – or a local partner/stakeholder school - for middle school students and 1 time in local school in İzmir for high school students.

-To ensure that disadvantaged students benefit from an international education program and to encourage them to dream for the future by encouraging them about STEM education branches.

- To make them love the lessons such as physics, mathematics, mechanics in which project countries at the low ranks in PISA averages.

- To ensure that they experience the use of these lessons in real life and to produce answers to the question "Why am I learning this?"

-Encourage teachers to use innovative curriculum, non formal education methods and technological tools and develop themselves in this regard.

- To ensure that they get inspired by international good examples and that they have a qualified experience in the STEM Education.

In the process following the completion of the project, I-STEAM project has been designed to create a big effect. These objectives include:

-After the education set to be produced is approved by MoNE, to ensure that pilot applications will continue in 4 different schools within the following 2 years,to ensure that the program to be produced within the next 5 years is applied to 35 different middle and high schools in 7 different regions.

- To ensure that the program we produce in the field of training of trainers about STEM education is recognized by ministries and other authorities in Europe. In addition to this, to give a standardization to the trainers' training on STEM education.

-As in partnership structure of the project, to establish a concrete bridge between the academic community, labour market and  the public institutions in the field of education that are in the position of practitioners and decision-makers and to benefit from the knowledge of the private sector in order to consolidate the bases of this bridge.

- To improve the quality of STEM education across the EU by increasing international cooperation and good practice examples.

-To combine non-formal education with formal educationa nd to develop different perspectives to contribute to the education system across the EU by integrating this into the STEM curriculum with a 360 degree approach.

# STEP 3

**Defining the Methodology (Activities & Outputs)**

Activities And Outputs:
- Toolkit (Combination of methods and evaluation)
- YE with new pax

**Output 1:** I- STEAM Education School Education Curriculum

**Output 2:**I- STEAM Education School Education Curriculum Tools

**Output 3:** I-STEAM Teachers Toolkit

- Kickoff meeting
- STEAM workshop
- Group Projects / TR-school, GR-Neets, PT-Vocational
- National Summit - National Competition (2 best projects will be selected in each countries' summit, inviting stakeholders)
- International Summit - 1 winning project
- TPM - Best Practices
- Final conference

# ADVICE

1 - Good practice visits (successful inclusion centers in project countries.(The visits will be completed in the first 5 months of the project and a total of 3 countries will be visited)

2 – Generating project outputs (experienced members from the project consortium will produce project outputs in an 8-month work program)

3 – Project execution meetings (kick off, mid-term and final meeting will be held. 2-day meetings in project consortium countries)

4. - I-STEAM Teachers Toolkit Program to be implemented within the EDUGEP Training centre by bringing together experts and teachers from Portugal, Turkey and Greece; consisting of 30 hours of innovative curriculum, non formal education methods and technological tools, targeting young people's improving feeling of engagement, incentives to NEETs to reconceive returning to education  fill in skill-gap between education and labour market & social life.

5 – Implementation of pilot applications in 4 different schools within the following 2 years,to ensure that the program to be produced within the next 5 years is applied to 35 different middle and high schools in 7 different regions.

6 – Organizing the I-STEAM Summit to disseminate the results of the project. In 3 days, all experts from different regions of Europe will be invited to create a network, the results of the project will be shared and the project will be transferred to different countries.

## STEP 4

**Dissemination and Sustainability:**

Dissemination:
- dissemination through partners network
- website
- summit (press conferences)

Impact and sustainability:
- Website- enriching materials

## ADVICE

For example; in order to disseminate the "I-STEAM" project, similar tools and activities to the following tools and activity contents were produced.

1 – I-steamproject.org

- The content of all the training programs created by the project will be recorded and installed professionally and uploaded to this site via an online training module. In addition, an online test system will be developed. Target groups will be able to receive the STEAM field training. All systems will be free of charge and they will be able to get a certificate if they are successful in examinations made through the system.In addition, many dissemination tools

that will be created by the project will be accessible on this site. The site will be available in all languages of the project partners.

2 – I-STEAM Project Magazine (Online and Hard Copy)

- The project magazine will be produced both online and hard copy. It will be included for all outputs and dissemination tools of the project like, photographs, special writings and many other topics that the project has produced over the 2 years of operation.

3 - I-STEAM Trainings Toolkit

- All contents and outputs of the training programs produced by I-STEAM project will be available in the training box. In this way, all materials of the training and printed educational contents booklets and DVDs will be accessible directly.

4- I-STEAM project Presentation Presentations

- Presentations will use in all activities of the project. (seminars, congress, events, and online dissemination)

5 - I-STEAM project Documentary

Within the context of the project, all phases of the project will be recorded. We will produce a documentary about the project at the end of 2 years. This study will be an interesting tool to be used in expansion activities.

6 - I-STEAM Project Final Report

This report, which will set the initial targets and results of the project, will be an objective outcome, especially in reaching policymakers and producing new similar projects.

## 7 - Digital and Printed Images

Posters, brochures and social media images will be produced in printed and digital media for all promotion and dissemination activities of the project.

## 8 - Social Media Apps

Facebook, Instagram, and LinkedIn will be used to reach our target groups. We will produce innovative social media campaigns to spread the results of the project.

## 9 - I-STEAM Project Seminar Series

Our project stakeholders will organize 10 different spreading seminar sequences with the education centres, youth centres, public and private schools.

## 10 - I-STEAM Project Summit

Organizing the I-STEAM Summit to disseminate the results of the project. In 3 days, all experts from different regions of Europe will be invited to create a network, the results of the project will be shared and the project will be transferred to different countries.

## 11 - Regular Meetings of the  National & International Education Authorities

Effective dissemination of the Authorities Project will be held at these meetings.  Regular Meetings of National & International Education Authorities

12 - EU Common Centres and Networks Meetings

- Our project partners will disseminate the results of our project at regular networking meetings held by 25 institutions which are in the EDI networks.

13 - Meetings with Policy Makers

Face to face meetings with policymakers will be held with the European Commission by the organization of EDI. EDI has a strong lobby network in Brussels, which is directly related to youth policymakers in Europe. At these meetings, we will present the reports of our project, and we will disseminate the I-STEAM Project model for piloting by policymakers.