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Partner Guidance Collection

Innovation and young students

HOW?

Some words about how to engage young students
in innovation activities – and why it is possible…

Involving young students in innovation and creating interest among them for innovation might look almost impossible!!

BUT no, it is not impossible, but difficult and challenging; and we definitely need to work in different ways than we normally do in our schools ☺

The EU Commission says that we must try to get young people interested in innovation as early as possible.
The Commission also says that young people can only learn about innovation and become interested in innovation if they are engaged in practical and real-life innovation activities.

So, that's it and that's why we have the project!

Obviously it will take a lot of entrepreneurial mentality among partners, teachers and young people.
Well, then let us work on this entrepreneurial mentality ☺

It is quite evident that no manual can be provided - that would contradict the very idea of entrepreneurship and experimentation.

BUT: it is indeed possible to illustrate what kind of activities are involved in engaging young students in innovation activities.

Let's do that, then.

We can do it through briefly describing some very **typical steps** involved in such innovation engagement – adding up to what we could call *engagement in the innovation circle*: from challenge to solution, and from idea to action.

In some innovation engagements you might go through all the steps, in others you might only go through some of the steps...
In some cases the steps will come in a different order – and in some cases additional steps are needed...

This is how it is – this is the innovation game!

But, remember: is not about innovating and changing the world, but about how to create interest in innovation and in learning among secondary school students ☺

STEP 1
THE CHALLENGE

Any innovation engagement starts with a <u>challenge</u>: something does not work, something should be changed, something is missing…
Or: something looks extremely exciting!
The challenge can come from different sources: the community, politicians, researchers, technology – or from yourself!
We talk about what is <u>driving</u> the innovation.
What is important is that innovation always aims to create something that somebody will use, appreciate or benefit from.
Innovation is relevant to all societal fields: technology, health, entertainment, sport, social services, youth provisions, education, etc.
Let us say that we have explored the community (which is quite a challenge in itself) – as *innovation detectives* – and we have found out that X really needs to be done in a different way.

STEP 2
KNOWLEDGE

We need some knowledge now.
Knowledge about X, what happened and why X does not work well and needs to be changed – innovated.
Some learning is needed here. We have to create that learning, as we cannot innovate things we know nothing about.
Where to get this knowledge?
From many sources, but in particular from two very good sources:
→   the internet
→   resources in the community
Let's create some basic knowledge about X.

STEP 3
DIALOGUES

We need to engage in some dialogues with people who have the knowledge and who might even have an interest in innovating X.
We might dialogue with resources online – and we might create interesting dialogues with people from the community.
"People" might be people who know about X, but also politicians working with X, researchers, professionals, scientists, journalists, citizens or users linked to X.
Along these dialogues we might discover that some of the people or institutions would like to engage in innovating X, as they have a strong interest in that.
If so, we must come back to these people later in the process!

STEP 4
ANALYSIS

Now it is time to summarise what we have learned.
We need to look at X again, but this time based on what we found out as "knowledge detectives".
We need to "analyse" the challenge, the situation and the knowledge we have created. We also need to present in clear form what we have found out.

STEP 5
MISSION, MISSION, MISSION

We are now at a milestone in our innovation engagement!
We must use our knowledge, analysis and ideas to create a mission.
If we do not have a mission, we do not really know what we are doing, why and where it will take us.
A mission is about what we intend to do and how we will get there – step by step and in collaboration with interested resources.
In fact, we might call a mission a "project" with ideas, actions, experiments and possible solutions.
It is extremely important that we are able to create a number of relevant steps in such a mission: what do we need to do first to be able to get to the second step, etc.

STEP 6
THE INNOVATION

The mission includes a very good and creative description of the innovation we wish to undertake.
Such a description can include text, photos, drawings, animations, video clips, etc.
It is important to create a strong description, as we need to present this description to people we need to work with us and support us.
Of course, the description should include our innovative ideas, what we wish to do and how we wish to do it.
This might include explaining who will benefit from the innovation, how the innovation might be financed and how potential obstacles to the innovation could be overcome.
In this process it is most likely that our team will need help from some of the people we interacted with in Step 3!

STEP 7
ALLIANCES

Most innovation missions cannot be accomplished without support from various types of resources in the community – or in some cases resources created through the internet, such as crowd funding.

Therefore we need to use our mission presentation to approach resources in the community we believe would support the innovation in different ways: we need alliances to support our innovation mission.
Who might such alliances be?
That totally depends on what kind of innovation X is.
However, in many cases such alliances might be:
→   citizens in need of the innovation
→   public authorities in the field of X
→   educations, knowledge centers, researchers or innovators in the community
→   resources with financial capacity and having a strong interest in the innovation
In the best cases, we are able to create a kind of "joint venture": a group of resources supporting the mission and with a clear interest in the innovation.

STEP 8
PROMOTING

It is time to promote our innovation: we need to explain to the community, to citizens and to stakeholders in the field of X what we want to do and what kind of resources are supporting us.
We need to listen to the reactions and we might even need to change elements in the innovation based on what the stakeholders say.
Some stakeholders might say: yes, we understand and we will support, but on the conditions that…

STEP 9
ACTION

Action time…
Depending on the nature of X, we should start creating the innovation – either in the form of a simulation or in real-life.
To the extent possible we should try to "make the innovation a reality", but of course there are many obstacles to this, in particular for a small European project and for a team of secondary students.
But: in some cases it is actually possible, and then we should go for it.
If not, simulations can be incredibly interesting…

STEP 10
SHARING

Even if we put sharing at the end of the process, it is extremely important for the students teams – and for the teachers – *to share along the entire process*.
Why is that?
There are very many and very good reasons:
→   to share with the other teams we need to describe what we have done and this is an excellent opportunity to reflect on and evaluate our own actions
→   when we share with the other teams we might receive useful input from the other teams and this input might support our innovation mission
→   when sharing we might also inspire the other teams

→ in some cases sharing can lead to collaboration with other teams that find our mission interesting
→ as we are working in a European project it is important always to tell the stories: the project is expected to deliver useful guidance on how to make young students interested in innovation and to share this with schools from across Europe

Sharing does not mean writing long papers!

Sharing can take on very many forms – but it is really interesting to try to share through as visual and attractive media as possible, and in particular by mixing different media to describe our actions.

But sharing is not limited to the project: we should also share with our school, with our families and in particular with our community.

Who knows, perhaps somebody will find our innovation really interesting and valuable!

⇓

NOT TOO SMALL
NOT TOO BIG

We might ask: what kind of innovation and missions should the young teams engage in?

Any kind of innovation!

BUT: it is strongly recommended not to engage in too small or too big missions.

If the mission is too small, nobody will take an interest and the student team will not learn anything.

If it is too big, it will be impossible to work through the mission steps described above.

Of course there are no manual for these things, but good common sense and good team dialogues might solve the problem ☺

An overall guideline might be:
→ the mission should be "important" and create interest among people and in the community; if not, it is too small
→ the mission should be "manageable": it must be possible to work through the steps described above; if not, the innovation mission is too big