Next-Lab

Next Generation Stakeholders and Next Level Ecosystem for Collaborative Science Education with Online Labs

Innovation Project in European Union's 2020 research and innovation programme

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Work package 1 – Outreach and Impact

D1.1 Roadmap for outreach and impact

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The Next-Lab Consortium

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1	University Twente	UT	The Netherlands
2	École Polytechnique Fédérale de Lausanne	EPFL	Switzerland
3	IMC Information Multimedia Communication AG	IMC	Germany
4	EUN Partnership AISBL	EUN	Belgium
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Legal Notices

Executive summary

The main aim of this deliverable is to provide a clear understanding of the roadmap that WP1 will follow towards effective outreach and sustainable impact of the Go-Lab ecosystem within the teachers', Teacher Training Institutes' and policy makers communities.

In Section 2, we are looking into the Teacher Training Institutes, their role and contribution to the project along with the outcomes of their 1st face-to-face meeting in Brussels and how they shape the project's actions in relation to their involvement and needs.

Section 3 focuses on teachers. After defining the various roles that teachers will take in the project, information is provided on the actions that will ensure their engagement (through calls of interest, workshops, trainings etc.), their various tasks and their overall contribution to the project.

Section 4 analyses the connection of WP1 with policy makers mainly through European Schoolnet's Ministries of Education (MoEs) STEM working group. Information on specific actions, including meeting with MoEs and policymakers targeted conferences, is also provided.

In Section 5 we are looking into the progressively quantitatively and qualitatively assessment of the impact of the project. To reach that goal, three main inputs are taken into consideration: data automatically gathered about the Go-Lab ecosystem, users' feedback, and in-depth qualitative studies.

Section 6, looks into the Next-Lab communication strategy and branding and provides information on the new website. Social media and the development of Next-Lab related dissemination material are also presented.

Section 7, provides information on the methodology to be followed in relation to the Curriculum analysis task. The main aims, countries and curricula information along with the planning and respective tasks for the upcoming months, are presented.

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1. Introduction: Outreach and Impact of Next-Lab

WP1 is meant to build strong relations between Next-Lab and teachers, organisations of teachers, and policy makers. It has a two-sided character, first it has a communication function and intends to inform on and enthuse the user groups for Next-Lab's affordances and facilities and, second, it collects requirements and ideas from these groups to enable a smooth introduction of the Go-Lab ecosystem for students, teachers, and organisations. The specific target groups are teacher training institutes (Task 1.1), teachers and their organisations (Task 1.2), and policymakers (Task 1.3). The overall impact of Next-Lab is also assessed in this WP by data analytics on different forms of usage of the Go-Lab ecosystem and by user's views as measured by in-depth case studies and online feedback and response facilities that will be created in Task 4.1 and analysed in Task 1.4. In Task 1.5 the necessary dissemination material is produced and dissemination activities are carried out. WP1 has finally a specific task for identifying core common elements in curricula, also based on the Big Ideas of science, throughout Europe to lay the basis for the creation of learning resources that can be widely used (Task 1.6).

2. Teacher Training Institutes - TTIs (T1.1)

2.1 TTIs role

Teachers need to be acquainted to the online labs and need to be able to use such labs in the classroom. This not only requires knowledge of technology per se, but also requires knowledge of matching inquiry learning pedagogies, and the science content to be taught. To adequately prepare teachers for the use of online labs, their current experience should be taken into account.

In this regard, Teacher Training Institutes are at the forefront of education since they have the possibility to train future educators into innovations and methodologies that they can put in use in the classroom. Next-Lab understands the importance of TTI's role so it aims to facilitate their work by providing them support and custom-made materials (i.e. specific labs and ILSs) that will facilitate the integration of Go-Lab to their individual curricula.

The project aims to reach out and engage as many TTIs as possible. In the first meeting, ten (10) TTIs have been invited to participate with one (1) TTI being related to one of the partners (Finland) and all the rest coming from other interested parties.

Thanks to the input to be provided by these TTIs, the project will gain an understanding of their precise needs in terms of support and specific material with practical examples on the use of IBL for subjects. ILSs, laboratories, specific presentations are some of the materials that the project will then develop and provide to the TTIs in order to ease the introduction of IBL and Go-Lab to their curricula.

With this acquired knowledge and the produced materials, the project will expand its efforts to more TTIs during the 2nd and 3rd year of the project while it will follow up closely TTIs actions in adopting the use of the Go-Lab ecosystem.

2.2 TTIs benefits

The TTIs interested in working with the project in the definition of their needs and the development of the required materials that will facilitate the introduction of the Go-Lab ecosystem to their curricula will have the following advantages:

- Be part of a dynamic and recognizable project, which engages teachers in more than 25 countries.
- Strengthen their Teachers Training Institute competitiveness by incorporating the use of Inquiry Based Learning (IBL) and the use of online laboratories in their training programme.
- Receive customized Inquiry Learning Spaces (ILSs), online laboratories and support material that fits their Institution's training needs.
- Attend two 1-day meetings with other Teacher Training Institutes representatives (one in 2017 and one in 2018) with the first one taking place in Brussels, Belgium on 20th June 2017 (all expenses covered by Next-Lab). The meeting's agenda and the list Teacher Trainings Institutes may be found in the Annex I – Teachers Training Institutes.
- Pre-service teachers coming from the selected TTIs will be invited to join the dedicated Winter Next-Lab Schools. A scholarship will be granted for pre-service teachers to enable their participation to these face-to-face networking and training events.

2.2.1 TTIs needs and next steps

As a result of the first meeting with the TTIs which took place in Brussels, Belgium on 20th June 2017, the following needs will be addressed in relation to the next steps for TTIs involvement and further expansion of the programme:

Follow up email/Questionnaires

Creation of online evaluation forms enabling TTIs to provide further details in relation to their specific needs for Go-Lab implementation and project outreach.

IBL infographics

Development of short and simple eye-catching infographics featuring the overall benefits of IBL and the impact of Go-Lab to teachers/students (using possibly info from the Go-Lab project).

TTIs/Universities Graasp access & School Customization

Possibility of tools' customization for schools. If we want the authoring platform (Graasp) to be used within universities' courses, registration could be limited to the trainers and provide them with "guest" access for students. To be studied what are the technical possibilities regarding school customization of the tools & SSO[1].

TTIs trainings and teaching materials according to demand

Organization of different level trainings (possibly online) targeting TTIs (in this case) specific needs. Creation of specific teaching support materials for the use of the Go-Lab ecosystem.

NECs, Ambassadors & Expert Teachers support

Promotion of further collaboration between Expertise Centres, ambassadors and expert teachers to support TTI trainings. Already happening in countries such as Spain, Finland and Portugal.

Subtitling of video tutorials

Possibility of subtitling of the Go-Lab video tutorials by the project partners.

Official project recognition

TTIs to be officially recognized as Next-Lab TTIs and featured in the Go-Lab website. Follow up aiming to also publish and disseminate their Go-Lab related activities.

3. Teachers (T1.2)

3.1 Teacher roles & definitions

Teachers have the possibility to be part of the project by taking on different roles. These roles along with their related activities are presented below. Two main categories are

[1] SSO = Single Sign On

considered in relation to teachers' active/passive involvement and their roles: Go-Lab multipliers and Next-Lab teachers and Go-Lab former teachers.

Go-Lab multipliers

Go-Lab Ambassadors

In the 18 countries coordinated by European Schoolnet, Go-Lab ambassadors are selected in order to support Go-Lab implementation and outreach on their country level. These Ambassadors will receive a small stipend and have a role very similar to the role of Next-Lab Expert Centres (NECs) in their respective countries.

More detailed info is provided in section 3.4.

Go-Lab Expert Teachers

These teachers will also act as multipliers in representation of the Next-Lab project, enlarging both the NECs and the Go-Lab Ambassadors' networks and acting as main contact points within their schools. Go-Lab Expert Teachers may be directly designated by NECs and Go-Lab ambassadors and will have to comply with the following criteria:

- Have implemented at least one ILS in their classroom.
- Have trained other teachers in at least one occasion.
- Have presented Go-Lab in at least one local event.

*Ideally, the role of Go-Lab Expert Teachers will also be promoted within "non-project countries" (already covered by NECs and Go-Lab Ambassadors).

Go-Lab expert teachers will not have to sign any agreement and will not receive any compensation for their work. This role will be available in all countries.

More info in section 3.8.

Next-Lab teachers & former Go-Lab teachers

These are teachers who once registered to the programme so our aim is to keep them engaged and offer them the possibility to continue their Go-Lab journey, improve their skills and claim other roles, within the project. .

Focus Teachers

Registration for teachers will be open throughout the life of the project via an open call that has been published in the Go-Lab website for this purpose. Focus teachers are those that once registered will serve as the sample for the evaluation purposes of the programme, enabling us to have a more precise understanding of its outreach. This follow up will include 1000 secondary school teachers, who will publish an ILS (new/adapted) and 40 primary school teachers who will provide their individual feedback from a classroom implementation.

More info on focus teachers is provided in section 3.6.

Participatory Design Teachers

A link to register to the participatory design will be provided to all teachers attending the national trainings (also accessible from the project's website). Teachers will be informed

that those completing the process will have an advantage during the future summer/winter school selection process.

General Teachers (registered teachers)

Any other teacher participating in the programme. It is expected that 14,000 will have registered at the authoring platform by the end of year 3 (including all the previous categories).

3.2 Roles & Tasks Overview

A schematic representation of the roles and tasks covered in sections 3.1, 3.4.3 and 3.5.2 can be found in Figure 1.

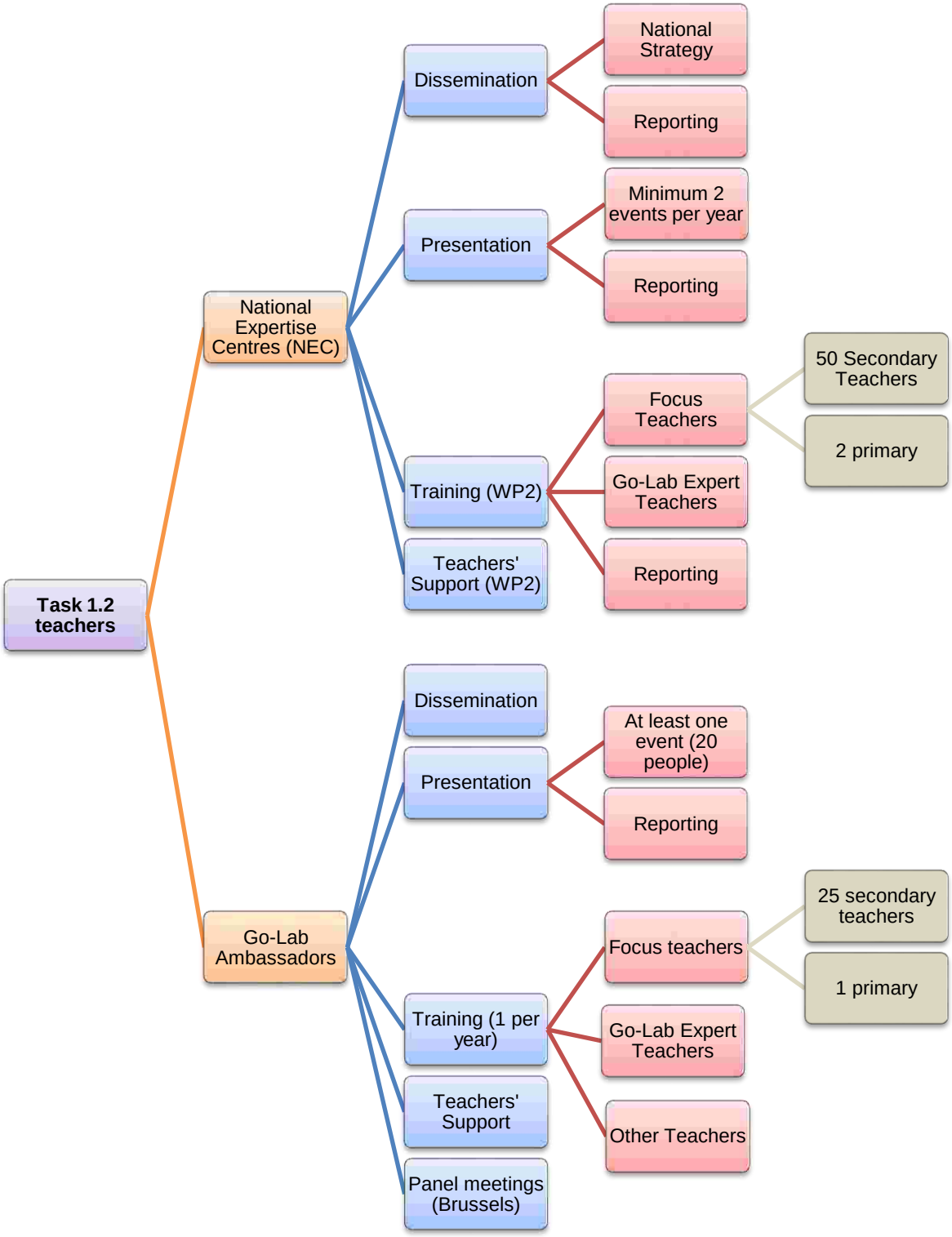


Figure 1. Graphical representation of Next-Lab roles & tasks.

3.3 Large scale Next-Lab implementation

Next-Lab is expected to achieve the large-scale implementation of the Go-Lab ecosystem by reaching out to a high number of teachers plus addressing different audiences. A minimum of 14,000 teachers is expected to register to the authoring platform. For this purpose, a strong dissemination plan will be required, focused on the 3 main types of actions to be developed by the project's core dissemination nodes. The Next-Lab expertise centres (NECs) and the Go-Lab ambassadors will:

- Present in national events and conferences targeting both primary and secondary teachers and head teachers.
- Organize Go-Lab trainings targeting the different levels (determined by WP2)
- Disseminate through NEC channels (including social media, newsletters, publications…)

3.3.1 National events & conferences

As part of Next-Lab's outreach actions, each NEC will be responsible for designing their own national impact strategy with the support of EUN. These actions should include the organization and/or participation in national events such as conferences and other teaching related events. According to projects promises, all the major groups should be targeted (primary teachers, secondary teachers and head teachers). Expertise centres should present the project in at least **two major relevant events per year** and report on activities, audience and topics targeted by the event. Events can be regional events or national and international conferences.

3.3.2 International events & conferences

In the course of the Go-Lab project and thanks to partners' connections and dissemination activities, a number of international teachers' networks (i.e. Brazil, Japan, China, India, Zambia etc.) have adapted the use of the Go-Lab ecosystem. Building on this success and with the aim to foster and expand these networks, Next-Lab will also address and support these countries by providing workshops and teachers' trainings when possible. Further information on the respective events and their overall outreach will be provided in D1.3 (M12).

3.3.3 Next-Lab trainings

As described in D2.1 section 4.2 the training activities in Next-Lab will consist of a mix of face-to-face and online training activities addressing the needs of pre- and in-service teachers in primary and secondary school education, both on national and international level.

At a national level, these activities will be organized by the NECs and the Go-Lab Ambassadors. To facilitate the training, all workshop materials, training courses and instructions created throughout the duration of Next-Lab will follow a modular principle and be centrally coordinated. They will be accessible by all Next-Lab partners who wish to organise and deliver a training on any of the related subjects. This will allow greatest possible flexibility for the NECs and Go-Lab Ambassador to design and run their workshop according to the local needs of the teachers and trainees and taking into account local or national peculiarities.

The organisation of the overall training approach is described in D2.1 and all expertise levels will be targeted (beginner, intermediate and advance).

To ensure a proper follow up of the project activities in the national arenas, reporting of the training sessions becomes crucial to achieve overall results. The reporting details for training activities will be defined and applied in D2.2 but will be coordinated with the reporting done for activities under WP1 to avoid double reporting.

3.3.4 Dissemination

Effective dissemination is key for a successful outreach. Each NECs and Ambassador will be responsible for developing its own national dissemination strategy with the support of EUN. The strategy will be defined per year of the project and might be revised at the beginning of each period (according to yearly deliverable conclusions and WP1 review meetings).

Specific guidelines for dissemination have been provided by EUN in relation to social media channels (please see Annex II) while a set of templates including basic presentations, certificates etc. available in the authoring platform (Graasp) are available to NECs and Ambassadors to use[2].

3.3.5 Reporting

Together with dissemination, coordinated reporting of the national activities is crucial for an effective quality assurance of the outreach and impact strategy. In this regard, dissemination reporting, for WP1, will be divided into 2 phases: pre & during for use on website/social media and after, in order to collect the required information for the yearly dissemination and implementation deliverables. Before the event, information about the different activities are submitted through the authoring platform (Graasp). During the event, dissemination will be done according to the different dissemination national strategies[3]. After the event, information will be compiled for the **dissemination reports (D1.3, D1.4, D1.5), to be delivered upon the months 12, 24 and 36** (a template form has been provided for this purpose). Please see Annex II - Teachers.

3.4 Go-Lab ambassadors

3.4.1 Selection process

Go-Lab ambassadors have been selected by EUN through an open call (see Annex II - Teachers) and a clearly defined selection procedure. All selected ambassadors were required to have a minimum set of competencies agreed upon with the rest of the Next-Lab consortium. Some of these competencies are:

- Proven knowledge and understanding of Inquiry Based Learning (IBL)
- Previous experience with Go-Lab authoring platform (Graasp) either as ILS creator or implementer of existing ILSs
- Good knowledge of English
- Proven record of participation/contribution to national teachers' events, conferences etc.

[2] http://graasp.eu/spaces/587f351a97159c57e1161b2f

[3] A one-pager dissemination guideline will be provided by EUN to the Next-Lab Expertise Centres.

According to EUN's internal governance[4] processes and as a final step of the selection process, a memo was prepared for the Ministries of Education to inform them and obtain approval for their teachers' involvement in this role. This process also promotes the active involvement of the Ministries of Education to the project from its launch while it provides additional visibility in these countries were the project has no partner representation. As part of their application, Go-Lab ambassadors were also required to obtain School Board support in order to guarantee their school's involvement. The memo provided to the Ministries of Education may be found in Annex II - Teachers.

Go-Lab ambassadors have been selected to support Go-Lab implementation and outreach on their respective countries. The 20 ambassadors were selected out of a total of 63 applications and are all listed in Table 1.

Table 1. List of Go-Lab ambassadors and their countries

Country	Name	Surname
Belgium (Wallonia)	Patricia	Corieri
Belgium (Flanders)	Fatiha	Baki
Bulgaria	Svetla	Mavrodieva
Croatia	Ivana	Gugić
Czech Republic	Helena	Lazarová
Former Yugoslav Republic of Macedonia	Silvana	Ristevska
Germany*	Jörg	Haas
Hungary	Doina Otilia	Filep
Israel	Stella	Magid-Podolsky
Italy	Stefano	Macchia
Latvia	Ilze	Šmate
Lithuania	Norbertas	Airošius
Malta	Geraldine	Fsadni
Poland	Malgorzata	Maslowska
Romania	Lidia	Ristea
Serbia	Stojičević	Nada
Slovakia	Gabriela	Krížovská
Sweden	Preeti	Gahlawat
Switzerland*	Philippe	Kobel
Turkey	Erkan	Akar

[4] http://www.eun.org/about/governance;jsessionid=7603B8E4FC53BC8DE2B0D6D5C246D304

Note: * In Germany and Switzerland, we will have exceptionally present both an expertise centre and a Go-Lab ambassador. The reason for that is that the available expertise centres have mostly technical competences but they have less access and contacts to the teacher community. The Go-Lab ambassadors for both Germany and Switzerland will cover the later need.

In addition to the above Go-Lab ambassadors, and due to the expected popularity of the project, the role of **Go-Lab expert teacher** has been introduced as a new role in the programme. Go-Lab expert teachers will not have to sign any agreement and will not receive any compensation for their work. They will support the dissemination and training of Go-Lab on a voluntary basis and will be supported by both EUN and the remaining project partners throughout their involvement (more details in section 4.7). This new role will be also extended to countries beyond Europe i.e. Armenia, Brazil, Japan etc.

**In parallel to project ambassadors, there will be also a task force of voluntary Go-Lab ambassadors. These are teachers who already became ambassadors during the Go-Lab project (mainly in Greece and Portugal) who will keep their distinction during Next-Lab while pursuing additional skills and roles.*

3.4.2 Go-Lab ambassadors' management

EUN is responsible for coordinating, supporting and managing the work of the Go-Lab ambassadors, understood as a dynamic group of experienced teachers acting as dissemination nodes all over Europe. Ambassadors will receive high quality training on Inquiry Based Learning (IBL) and the use of Go-Lab tools (including international meetings in Brussels and/or the possibility to attend the project's summer and winter schools), project communication and presentation skills, all organized by EUN and supported by the Next-Lab consortium. The project may request support from the Go-Lab ambassadors (such as ad-hoc translation for applications, testing of new technical implementations etc.). These requests will be submitted to EUN and will be filtered and agreed accordingly.

Go-Lab ambassadors have been provided with an agreement clarifying:

- Their specific tasks
- Reporting obligations
- Meetings to attend
- Days to be spent on performing the pre-defined tasks

An agreement has been signed by both EUN and the respective Go-Lab ambassadors and will be valid for one year. At the end of each year and depending on the performance of the ambassadors, there will be the possibility for the agreement to be renewed. If this is not the case, EUN reserves the right to replace Go-Lab ambassadors that do not honour their commitment.

3.4.3 Go-Lab ambassador tasks & targets

The core purpose of the Go-Lab ambassadors is to promote and inform about Next-Lab to their peers - science and mathematics teachers in their respective countries extending project's coverage throughout Europe. Ambassadors will present Next-Lab in schools and national teachers associations, on conferences and workshops, and will advise teachers how to get involved and use Go-Lab in their teaching.

The main ambassadors' tasks will be the following:

- **Dissemination of Next-Lab at the national level.**
- **Presentation of Next-Lab at, at least, one teachers' event / conference at national level.**
- **Development of at least 1 teacher training with the support of EUN.**
- **Targets**:
  - Engage **10 secondary school teachers per year** including at least 1 primary school teacher (min. 30 by the end of the project).
    **Register in the community and publish an ILS.*
  - Follow up with at least **1 primary school teacher** to use Go-Lab in his/her classroom and fill in the template form provided.
- **Attend the Teacher's Panel meetings, in Brussels.** All ambassadors will be invited to attend the annual, 2 days, face-to-face meeting that will take place in Brussels
- **Report on the activities carried out for the** project.
- **Support other Next-Lab teachers nationally.**

Tasks and targets may also be adapted according to the ambassadors' performance and needs.

3.5 Next-lab Expertise Centres (NECs)

Next-Lab Expertise Centres are the different project partner organizations spread on strategic locations all over Europe. These centres have all the necessary knowledge (pedagogical, technical, practical) for implementing Go-Lab learning spaces in the classroom.

As already discussed, the organisation of the trainings and other dissemination activities will be based on a combination and collaboration of expertise centres and Next-Lab Ambassadors. Since the Next-Lab project cannot have a project member in every member state of the EU, the network of Next-Lab expertise centres (in combination with Go-Lab ambassadors) is a comprehensive and efficient alternative approach (as shown in Figure 2).

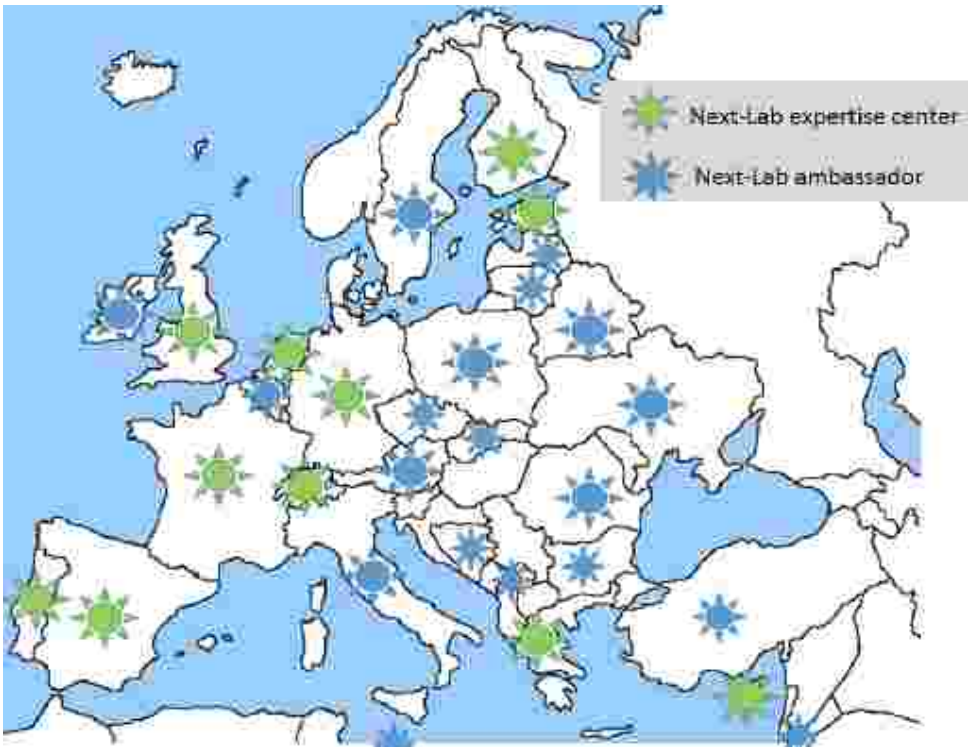


Figure 2. Distribution of Next-Lab expertise centres and ambassadors over Europe.

Next-Lab's expertise centres are the following*:

- EPFL (Switzerland)*
- University of Twente (Netherlands)
- IMC (Germany)*
- Ellinogermaniki Agogi (Greece)
- University of Cyprus (Cyprus)
- University of Deusto (Spain)
- University of Tartu (Estonia)
- Nuclio (Portugal)
- ENS (France)
- University of Turku (Finland)
- University of Leicester (UK)

** All NECs are project partner organizations.*

** In Germany and Switzerland, we will have exceptionally present both a Next-Lab expertise centres and a Go-Lab Ambassador.*

3.5.1 Next-lab Expertise Centres Management

Management of the Next-Lab expertise centres is coordinated by both EPFL and EUN. EPFL is responsible for activities and tasks related to the national trainings and its reporting in collaboration with EA and while EUN is responsible for the engagement of teachers and outreach activities in each country. EUN is also responsible for the overall follow up with project's teacher targets and the outreach & impact approach to be followed. .

Aiming to have a fluid communication between WP1 and WP2, meetings are held biweekly and activities are discussed directly with the Next-Lab expertise centres involved. This close coordination guarantees effective dissemination and organization of events and trainings multiplying the effects of each partner's activities.

3.5.2 Next-lab Expertise Centres tasks & targets

Overall, the main project tasks for the NECs are the following:

- Be the central point of Next-Lab information for the teachers, schools, and teacher trainers in their country;
- Organize national trainings for the Next-Lab teachers. In these workshops and based on their audience the Next-Lab expertise centres will create ILS that can be used in conjunction to the national curricula. Trainings will include 3 different levels: beginners, intermediate and advanced;
- Support the program coordinators and designers in adapting the teacher training curriculum and providing appropriate training tools and materials;
- Be the outreach point to national teacher organizations in their country;
- Prepare national dissemination strategy;
- Disseminate Next-Lab information in their country.

Tasks related to the teacher trainings:

- As defined in D2.1 from WP2.

General NECs tasks:

- Disseminate the open call for teachers (reminders to be sent monthly).
- Organize trainings according to the criteria set in WP2 and involve participants coming from the Open call.
- Targets:
- **Engage 20-25 teachers per year** (min. 60 by the end of the project).
- **Register in the community and publish an ILS.*
- **Engage a minimum of 5 primary teachers.**
- **Follow up with at least 3 primary school teachers** to use Go-Lab in their classroom and fill in the template form provided.
- Reporting (as defined in section 4.3.4).

Tasks related to dissemination and outreach:

As defined in section 1.

3.5.3 Step-by-step

The evolution of the NECs' tasks on an annual basis can be seen in Table 2.

Table 2. Summary of NECs targets (trainings are excluded)

NECs	Year 1	Year 2	Year 3
Tasks related to engagement	- **Disseminate call for teachers** - **Design national outreach & impact strategy** - **Engage 20-25 secondary (per year) + 5 primary** - **Event reporting + final year report**	- **Disseminate call for teachers** - **Engage 20-25 secondary (per year) + 5 primary** - **Event reporting + final year report**	- **Disseminate call for teachers** - **Engage 20-25 secondary (per year) + 5 primary** - **Event reporting + final year report** - **Collect follow up for focus teachers**
Activities	**As defined in WP2**	**As defined in WP2**	**As defined in WP2**

3.6 Focus teachers

As a result of the outreach and impact dimension of the programme, 14,000 thousand teachers are expected to be involved in the Next-Lab project (and register to the Go-Lab community).

Focus teachers correspond to the follow up of **40 primary school teachers (who will use a learning space in the classroom)** and **1,000 secondary school teachers (who will create and publish their own learning spaces)**. This role is not assigned directly to teachers but it is used within the project as part of project's evaluation .With this in mind, the following steps are taken in order to track them:

- An open "call for teachers" is published on the website, inviting teachers to engage with the project and their Next-Lab Expertise Centres (NECs) and/or Go-Lab Ambassadors. See IMAGE (add screenshot)
- All teachers attending training(s) are invited to sign up to the authoring platform (Graasp) for those who have not yet registered to the platform.
- NECs and Go-Lab ambassadors will follow up with the corresponding primary teachers for their classroom implementations. A template has been provided by EUN for this purpose. Please see Annex II - Teachers.

3.6.1 Highlights and targets

When it comes to focus teachers, the main highlights and expectations in the form of targets, can be found below.

- 7,000 (secondary school teachers) to create a learning space themselves.
- Focus groups: 40 primary (who used a learning space in the classroom) and 1,000 secondary school teachers (who will (re-)create their own learning spaces).
- Open call for teachers to remain open throughout the project lifespan (focus teacher to be selected upon those registered).

Table 3 shows the focus teachers expected figures:

Table 3. Final expected figures (minimums targets)

	Total number
Number of focus teachers who created an ILS and published it	1,000
Number of primary school teacher who implemented an ILS in their classroom	40

Focus teacher suggested targets (according to minimums):

- National Expertise Centres:
  - **60 secondary teachers** x 9 countries = 540 teachers
  - **3 primary teachers** x 9 countries = 27 teachers
- Go-Lab Ambassadors:
  - **30 secondary teachers** x 19 countries = 570 teachers
  - **1 primary teacher** x 19 countries = 19 teachers

1110 ≥ 1,000 secondary teachers

46 ≥ 40 primary teachers

The **aim is to be able to fully identify these teachers** throughout the whole Go-Lab experience, from registration, to trainings, to their final creation and use of ILSs.

In relation to the primary teachers, considering the reduced number of teachers to be followed, we could follow a very basic case study approach, in which we ask them to briefly document their experience while using Go-Lab in their classroom. A template will be provided, to be shared and then collected by the expertise centres.

3.7 General targets

Besides the focus teachers, it is expected that at least 7,000 secondary school teachers will create an ILS themselves. This means that approximately 83 teachers (per country/per year) will have to create an ILS during the next 3 years of the project (calculated on an equal basis of teachers per country). Table 4 shows the overall expected figures for **general teachers**:

Table 4. Final expected figures

	Total number		
	After Year 1	**After Year 2**	**After Year 3**
Number of teachers registered at the authoring platform	8,000	10,000	14,000

Number of secondary teachers who created at least one ILS	4,000	5,000	7,000
Number of primary teacher who used an ILS	40	60	80

3.8 Go-Lab Expert Teachers

In order to be able to fulfil our goals, a well-defined outreach strategy beyond the NECs and the ambassadors' activities has been designed. Go-Lab Expert Teachers will act as key dissemination nodes in representation of the Next-Lab project, enlarging both the NECs and the Go-Lab Ambassadors' networks and acting as main contact point in schools. Go-Lab Expert Teachers may be directly appointed by NECs and Go-Lab ambassadors once they have completed the following tasks:

- Having implemented ILS in their classrooms.
- Having trained other teachers in at least one occasion.
- Having presented Go-Lab in at least one event.

**Ideally, Go-Lab Expert Teachers should also be promoted within "non-project countries" (already covered by NECs and Go-Lab Ambassadors).*

The idea is for each Go-Lab expert teachers to act as additional dissemination nodes. **This possibility will be offered to all teachers willing to collaborate with the project.**

Go-Lab expert teachers will not have to sign any agreement and will not receive any compensation for their work. This role will be available in all countries.

3.8.1 Award scheme

Aiming to further encourage the teacher's involvement within the project, an awarding scheme is put into place in relation to the project's activities. The scheme is mainly composed by the Go-Lab Expert Teacher distinction and the participation to the summer school and winter schools.

Summer schools will also be targeting more experienced teachers, aiming to become future Go-Lab expert teachers. Winter schools will target pre-service teachers, including the possibility for Teacher Training Institutes (T1.1) to invite pre-service teachers interested in the programme.

Participatory Design Teachers will also have priority in attending summer/winter schools which will also be subject to a set of criteria to be defined by WP2. A link to register to the participatory design will be provided to all teachers attending the trainings (also accessible from the project's website). Teachers will be informed that those completing the process will have priority within the summer/winter school selection process.

4. Policy makers (T1.3)

In order to ensure Next-Lab collaboration and exposure to influential policy makers, EUN has established an open communication between Next-Lab and its Ministries of Education STEM representatives Working Group (MoE STEM WG), which was launched in March 2016. Next-Lab outcomes will be regularly communicated to the specific group in order to

make sure that information is being delivered on national level. A Next-Lab workshop to representatives of MoEs and policy makers will also be organised during the Eminent 2018 or 2019 conferences (depending on the overall topic of each year).

4.1 The Ministries of Education (STEM) representatives Working Group

The MoE STEM WG is a platform of discussion and exchange for Ministries of Education regarding STEM education policies. The overall objective of this initiative is to help lay the foundations for medium and long-term strategies and activities between Ministries of Education and European Schoolnet in the field of STEM education, following an agenda that addresses the ministries' priorities and main interests.

The members of the MoE STEM WG are directly appointed by the Ministries of Education. The kick-off took place in March 2016 and set the first topics and actions of the working group. Since then, the MoE STEM WG has met a second time (in Nov 2016) and will gather again in autumn 2017.

As of today, 18 Ministries of Education from 17 countries have already confirmed their participation and appointed a STEM representative.

4.2 Communication and main actions

Next-Lab will use its links with the Ministries of Education and policy maker's connections in order to convey its messages and have a positive, for the use of online laboratories and Inquiry Based Learning (IBL), impact on national level. Visibility and dissemination of the Next-Lab project outcomes with policy makers will be materialised through:

- Regular communication such as newsletters, update emails for the STEM working group and the basecamp group.
- Organization of presentations and intervention of teachers and ambassadors during the MoE STEM WG during future meetings.
- Presentation of project's major and interesting outcomes on regular basis. A first example is the presentation of the initial Curriculum Analysis (D1.2) results to the next MoEs meeting which will take place in October 2017 (exact date to be confirmed shortly)
- Project's presence and participation to Eminent[5] annual event (2018/2019). Eminent is the Experts Meeting in Education Networking annual event organised by EUN. It brings together experts in education, Ministries representatives and other stakeholders to discuss the latest trends in education and technology.

4.3 Identified topics of interest

Throughout the project effort will be made to align the information communicated to the MoEs to a pre-set list of topics of interest in which the MoEs have already expressed their preference. These topics target:

- The importance of supporting primary schools with the teaching of STEM.
- Results from projects presented directly by teachers and teacher collaboration as a way of sharing results with policy makers and among themselves.

[55] http://www.eun.org/about/eminent

- Pre-service teacher trainings programmes. The Working Group will promote the creation platform for Ministries of Education to share their expertise and support each other in any weaker areas.
- Ways to make results (of projects) more accessible to teachers.
- Benefits of getting teachers (schools) from different countries to work together and share of good practices.
- The mainstreaming of innovative practices, validation and piloting from different initiatives.

5. Assessing the impact (T1.4)

5.1 Aims

The purpose of this task is to progressively quantitatively and qualitatively assess the impact of the project. To reach that goal, 3 main inputs will be taken into consideration: data automatically gathered about the technical ecosystem, users' feedback, and in-depth qualitative studies.

As mentioned in the description of work, quantitative metrics will be inferred from social data and activity logs collected from the sharing and the authoring platform (in collaboration with WP2 and WP4). Among the envisioned metrics, we are considering indicators related to the evolution and adoption of the materials available in the sharing platform (i.e., apps, labs, and published ILS), the growth of the users' community, the evolution of their skills, and the volume and quality of the learning spaces. It should be noticed that impact indicators will be distributed monthly to the consortium for self-regulation, trend detection and identification of specific groups. Moreover, in collaboration with Task 4.1, an online feedback mechanism will be provided to enable users give feedback continuously in a structured way.

On the basis of the feedback information and the quantitative usage data obtained, potential pilot teachers will be selected (taking all ethics rules into account) for in-depth qualitative studies. These studies will entail (face-to-face or online) interviews with the aim of identifying factors that may increase Next-Lab's impact. A template will be created for the interviews to be conducted by the Next-Lab expertise centres (and possibly ambassadors).

5.2 Data gathering

Data will be automatically retrieved from the Next-Lab platforms. Besides, to enrich these -mainly quantitative- data, feedback will be obtained directly from the different stakeholders and the training support.

The quantitative aspects, in the first place, concern usage data of the ecosystem. The traffic on the platforms, the registration of teachers for Next-Lab, their badges, the learning spaces created, and the usage of these learning spaces by students will be automatically monitored, and the traffic on the sharing platform will be logged in detail. These data will allow us to better understand the activity per country, the user profiles, the impact of our training events, as well as the adoption of the pedagogical design by both teachers and students.

On the basis of these quantitative data, **selections of users** with different usage patterns, particularly teachers, will be made to approach them **for a more qualitative assessment** of the usage and also to collect data to improve the Next-Lab services. This combination of unobtrusive data collection of system usage and the collection of targeted qualitative data

will give a more precise and more informative picture of the usage of Next-Lab than the use of traditional online questionnaires.

5.3 Assessment proposal

In the Description of Work, a number of impact indicators were presented (see Table 7.1). However, in order to reach the expected figures, it is necessary to understand what is happening on a more fine-grained level. Thus, as it shown in Figure 3, apart from the overall metrics, we have identified a set of parameters to be monitored that will help us regulate the project.

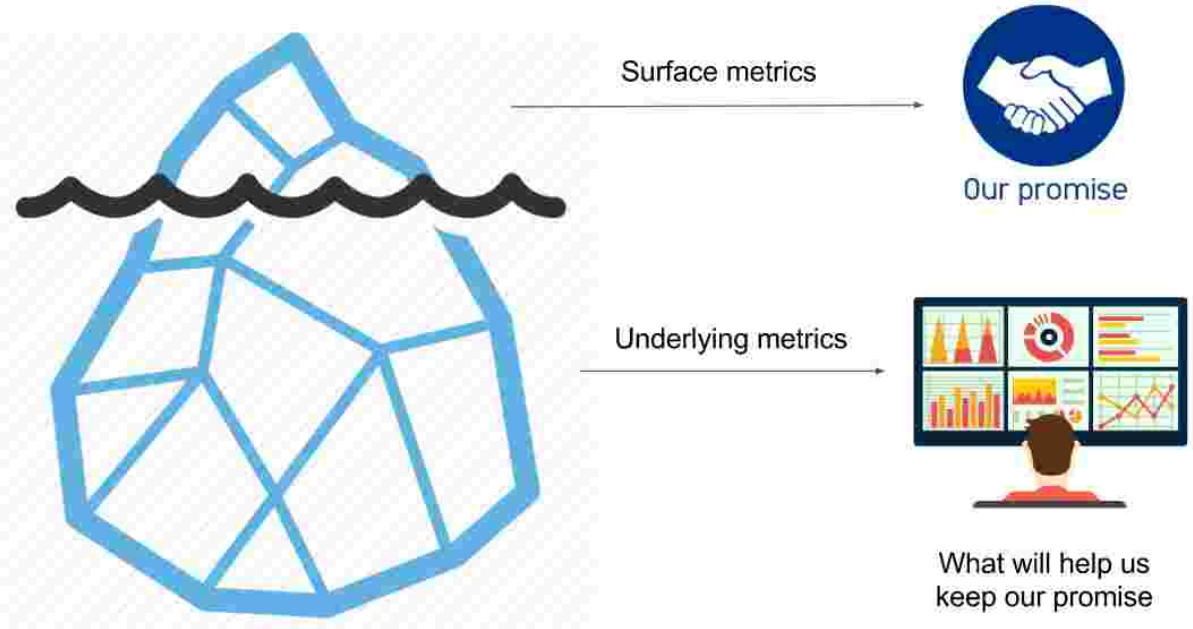


Figure 3 Impact indicators: high and low-level metrics.

Figure 4 provides an overview of the different aspects to be monitored, namely: the teacher and student journey through Next-lab; the impact that tutors, NECs and ambassadors have on the community; the usage of the different platforms that made up the Next-lab ecosystem; the level of adoption of the apps, labs and published ILSs; the impact of the training events on the participants; and overall how the community grows.

Figure 4. Aspects to be monitored in more detail.

The first aspect deals with the teacher and student journey, i.e., with the progressive adoption of the Next-Lab solutions. In a monthly basis, NECs and ambassadors will be updated about the progress of their national communities. Based on the evidence gathered, NECs and ambassadors will be able to assess the impact of the training events, and adapt the activities offered (e.g., which apps and labs require more dissemination, which skills require more/less training, etc.), all these in the framework of Task 2.4. Figure 5 shows a model of the teacher journey, giving an idea about how his/her Next-Lab skills may evolve and which platform could help us monitor such skills. Also, in this figure we have included the relation with the different roles aforementioned in this document, namely: participatory design or focus teacher, expert and ambassador.

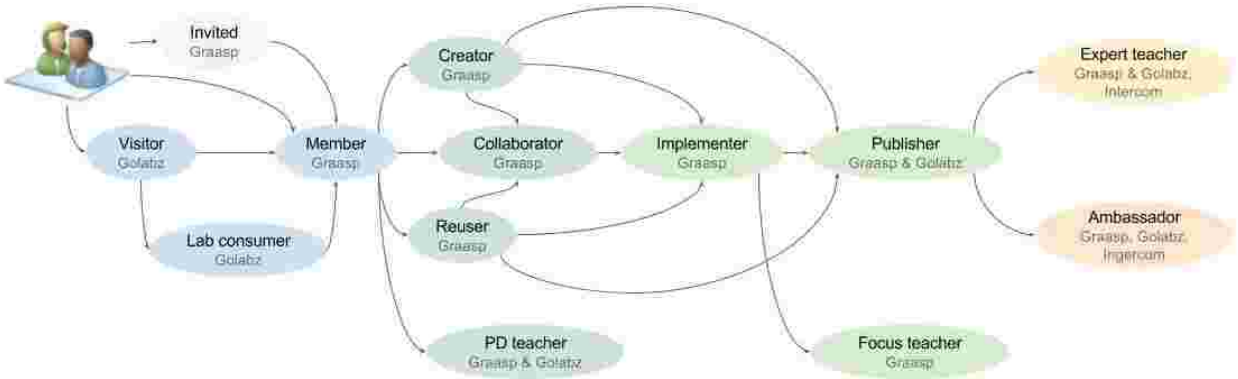


Figure 5. Teacher journey.

A more challenging goal would be to monitor the student journey. Figure 6 presents a potential way to explore this aspect. However, different difficulties may difficult this task. The first one is the dependence with the ILS design. The affordances of the ILS, the way they are presented by the teacher, and our capabilities to monitor the student interactions will condition the accuracy of the skill detection. In addition, at this point of the project, we do not have a way to assign the activity done in different ILSs to the same standalone user.

Thus, we are not able to collect the skills showed by the students across ILSs. Nevertheless, the implementations to be done regarding the e-portfolios could help to mitigate this last problem. The potential analyses of the student journey will be studied in collaboration with WP3 to evaluate its viability. In case of not been possible, we will explore the implemented ILSs to better understand which 21st century skills have been promoted.

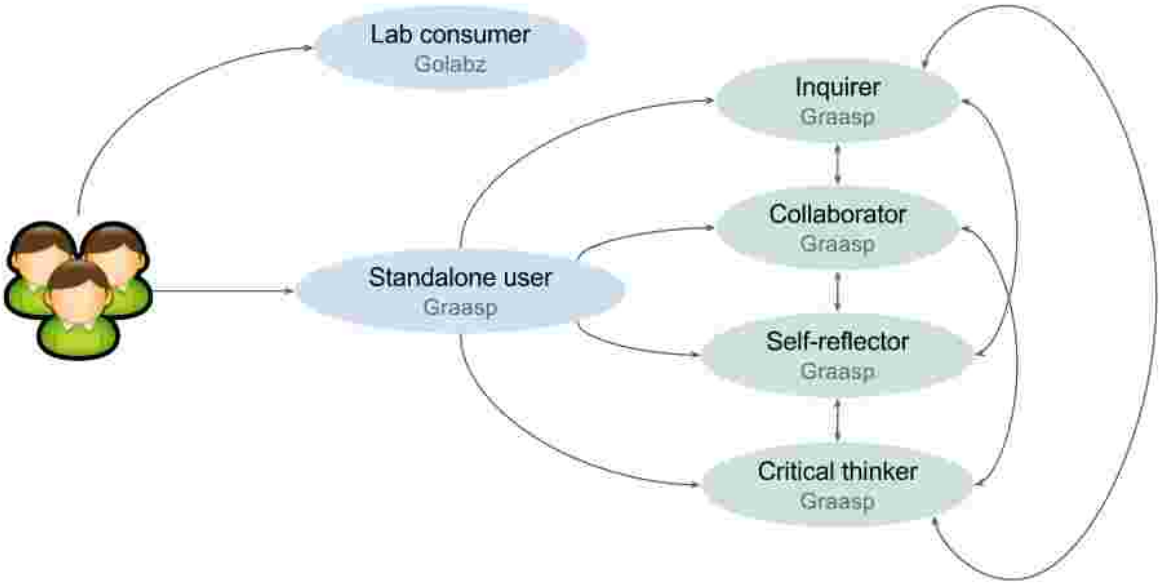


Figure 6. Student journey (preliminary proposal).

Regarding the teacher support, we need to keep control about how the different mechanisms in place contribute to their progress. Keeping track of the organised events and the participants, as well as gathering feedback about the teacher satisfaction, we will be able to assess the impact that NEC trainers, ambassadors, and expert teachers have on the users (see Figure 6).

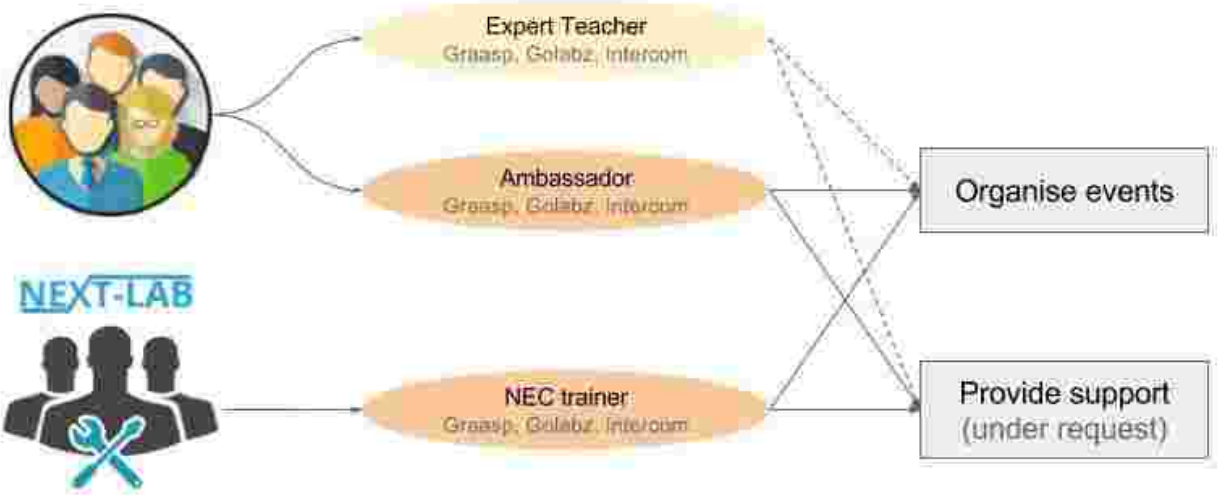


Figure 7. Tutors, ambassadors & national experts' role.

When it comes to the platforms, different indicators can be monitored, for instance, the number of users per day, the ratio between registered and active users, or even the user activity could be modelled per platform (e.g., what do users in the sharing platform do: browsing, searching resource, or looking for help?; how do registered users spend their time with the authoring platform creating, reusing or implementing ILSs?; what is the main usage of the tutoring platform: requesting support, providing training, or attending training?).

In terms of apps, labs, and published ILSs, it will be necessary not only to know how many we offer in the sharing platform but also to what extent they are embraced by the community. For that purpose, a combination of usage (number of visitors and visits, teachers and students who used the resource, number of implemented ILS based on that resource) and social evaluation could provide an idea of the adoption of such resources.

Finally, when we look at the community of users as a whole, we could measure how it grows in term of size, density (i.e., how connected is the social network), skills (referring to the teacher and student journey), and how it is distributed across countries. This information could let us identify, for instance, emergent countries where Next-Lab is arriving, or plan activities to further develop the teacher skills customised to the specific country.

If necessary, this proposal will be reviewed and extended to better satisfy the project interests and to accommodate potential constraints that may appear (e.g., due to data privacy limitations).

5.4 Roadmap

During the coming months, the following outcomes are expected in order to assess the impact of the project:

- **Monitoring portal:** Quantitative metrics will be automatically inferred from social data collected on the sharing platform (e.g., according to user votes to apps, labs or ILSs) and on log and aggregated data from the authoring platform. This information will be shared with the different partners by means of a monitoring portal. The aforementioned metrics will show the community trends and will allow us to identify potential cases of study to be explored from a qualitative perspective for better

understanding. At the start of the project, calibration activities (see following section) will take place to determine the kind of usage by teachers and students (based on a mix of specific system actions, and time spent) that determine real usage (or different levels of usage). Once determined these data will be constantly monitored and monthly overview will be produced.

- **Template for in-depth studies:** Based on the insights gain from the quantitative data (and taking into consideration the ethical and privacy considerations described in the Data Management Plan in D5.2), we will select a number of focus teachers to work with. Specific and detailed guidelines will be delivered among the Next-Lab expertise centres -and possibly ambassadors- to carry out these studies and gather the feedback in a structured and homogeneous way. The purpose of these studies will be to better understand how users adopt our proposals, their satisfaction about the facilities and activities provided, the problems that they may face, and to gather their improvement ideas.
- **Online feedback mechanism:** The Next-Lab sharing platform and the Next-Lab learning spaces will consider the possibility of including mechanisms to collect feedback from users (not only teachers but also students) at any point in time. Such mechanisms should allow quick and easy feedback can be given (e.g., by means of online evaluation forms and questionnaires) contributing to assess the impact of the project. While the analysis of all data will be done in Task 1.4, the technical facilities will be developed in Task 4.1.

5.5 Current status and calibration process

As part of the calibration process, from the beginning of the project, we are providing monthly feedback to the partners regarding the different impact indicators listed in the Next-Lab Description of Work. Table 5 shows the evolution of such indicators during the first 5 months of the project. The figures presented in this table are based on the logs retrieved from the Next-Lab learning spaces, the insight provided by Google Analytics about the Next-Lab sharing platform and learning spaces, as well as ad-hoc information provided by the partners (e.g., regarding the teacher training institutes curriculum). As it is shown in the table, some of these promises have been already achieved (see green cells) or will be reached in the near future (yellow cells). Notice that some of the tasks aiming at reaching the promises have not yet started (e.g., T2.5, which goal is to create expert ILSs)

It is noteworthy that the data analysis behind these figures is still under refinement. We are taking into consideration the feedback received from the different partners in order to adjust the algorithms in a way that show the real user behaviour. For example:

- Additional data will be necessary to cluster users in terms of country and teaching profile. Although the user's country could be inferred based on where most of the user's action took place, this assumption is not always accurate. In addition, so far there is no way to know whether they are pre- or in-service teachers, or what the educational level of the students they work with is. Thus, apart from the logs coming from the platforms, it will be necessary to put in place registration forms where the users can enter these details.
- Despite the promised number of visits referred to the total number, for better understanding, we will also obtain the number of visits discarding bouncing ones. This will allow us to leave out those cases where users do not spend enough time in order to interact with the content.

- So far, the ILS creation is measured in absolute numbers. However, there may be cases where the users simply copy an ILS from the repository to see how it looks like, or create an ILS just to try the functionality. Therefore, it would be necessary to define some filters about what we count as an ILS creation in terms of impact (e.g., imposing a minimum number of interactions with the ILS after the creation, or choosing only those that afterwards are implemented or shared in the repository).
- The identification of implemented ILS implementation is based on the number of standalone users of the ILSs. Taking into account that an average European classroom may have around 20 students who often work in pairs (Go-Lab D6.7), an implemented ILS should have at least 10 standalone users. However, this filter may ignore real implementations with fewer students or include ILSs used for testing. Thus, alternative strategies that combine not only the number of standalone users but also the actions carried out by them could be more accurate in the identification of implemented ILS. Besides, the possibility of involving users in the validation (e.g., requesting confirmation to the teacher about the implementation) or interpreting the user actions during implementations that we are aware of are also being considered.

Table 5 Project impact expectations and evolution up to June 1st, 2017. Green, yellow and red cells depict respectively promises that have been already achieved, that will be reached in the near future, or in a longer term

Impact indicators	Y0	Y1	Y2	Y3	Jan 1st 2017	Feb 1st 2017	March 1st 2017	April 1st 2017	May 1st 2017	June 1st 2017
Online labs	300	350	410	500	415	468	469	471	471	471
Apps	35	40	45	45	42	42	42	42	42	42
Professional ILSs	0	20	40	60	0	0	0	0	0	0
Countries	Europe (30)	... + Asia	... + USA	... + Latin America & Australia	Europe(44, 24*) Asia (37, 5*) America (25, 5*) African (24, 0*) Others (6, 2*) *With >20 users	Europe(44, 24*) Asia (37, 8*) America (25, 5*) African (24, 0*) Others (6, 2*) *With >20 users	Europe(44, 24*) Asia (37, 9*) America (25, 5*) African (24, 0*) Others (6, 2*) *With >20 users	Europe(44, 24*) Asia (37, 9*) America (25, 5*) African (24, 0*) Others (6, 2*) *With >20 users	Europe(44, 24*) Asia (37, 9*) America (25, 5*) African (24, 0*) Others (6, 2*) *With >20 users	Europe(44, 25*) Asia (37, 10*) America (25, 5*) African (21, 0*) Others (9, 2*) *With >20 users
Monthly visits to the sharing platform	9000	10000	11000	12000	>10600 visits >8500 visitors	>11500 visits >9300 visitors	>12400 visits >9800 visitors	>13500 visits >10700 visitors	>10200 visits >8300 visitors	>10300 visits >8200 visitors
Teachers registered at the authoring platform	7000	8000	10000	14000	>11600	>12100	>12800	>13400	>13900	>14500
SS teachers who created ILSs	3000	4000	5000	7000	>5700	>6100	>6500	>7000	>7300	>7700

ILSs created & shared in Golabz by teachers	300	400	500	1000	> 480	> 500	> 530	> 540	> 570	> 580
ILSs co-created or co-personalized by SS teachers	195	250	350	500	>542	>500	>640	>680	>730	>760
SS teachers who use an ILS in a classroom (creators with more than 10 students per ILS)	700	800	1000	1400	>330	>370	>400	>450	>490	>510
SS students using an ILS	15000	20000	25000	35000	>21000	>27000	>28500	>31600	>34000	>36800
PS teachers who use an ILS	0	40	60	80	0	0	0	0	0	0
Teacher training institutes curriculum	0	3	6	12	0	0	0	0	0	3

6. Dissemination material (T1.5)

6.1 Aims

This task aims at supporting the dissemination of the Next-Lab project and the Sharing and Authoring Platform in 30 pilot countries and beyond. On the one hand, this is done via online dissemination channels (like project website and social media) and, on the other hand, by means of dissemination materials, which can be distributed to the participants of Next-Lab events and other stakeholders in digital and/or print form. The main challenge in this task was to define the branding and communication strategy, allowing to keep well-known Go-Lab brand and to introduce the new Next-Lab brand and to apply this strategy to the project communication channels and materials in a consistent way. The following sections describe the branding and communication strategy and how it has been implemented.

6.2 Branding and communication strategy

The Next-Lab project builds on the successful Go-Lab project and continues its mission of introducing Inquiry-based Science Education with online labs in European schools. Next-Lab uses and extends technical infrastructure created in Go-Lab (the Go-Lab Portal) and keeps supporting and extending the community of teachers, which arose in Go-Lab and reached a significant number of members[6]. During its four-year duration, Go-Lab has become a well-known brand, enjoying high recognition in the teacher community. Thus, switching to a new Next-Lab brand (replacing Go-Lab) could lead to significant issues:

- Loss of high recognition in the teacher community (necessity to build up a new brand)
- Need to create new online community (social media channels) and "migrate" the members from the Go-Lab community to the Next-Lab community
- Impossibility to contact Go-Lab community members as Next-Lab project (e.g. via e-mail or newsletter), as users' consent was not given to Next-Lab
- Difficulties in communicating rebranding and strategy of the project (as the teachers are very concerned about the sustainability of the system and services, such action might have brought uncertainty in the community)
- Possible loss of some community members

In order to avoid the issues listed above and to make the transition from Go-Lab to Next-Lab as clear as possible to the community, it was decided to keep Go-Lab as the main brand, now using it independently from a project, standing for the whole Go-Lab initiative, and to place Next-Lab as the main project funding the Go-Lab initiative.

In the project communication, the names of Go-Lab and Next-Lab are used as follows:

- Go-Lab stands for Go-Lab initiative, which started in the Go-Lab project, and continues during and will continue beyond the Next-Lab project

[6] In Go-Lab, more than 1,600 teachers were trained and the online community counted more than 2,500 members (Facebook, Google+, LinkedIn, Twitter, YouTube, SlideShare, Flickr channels and Go-Lab newsletter registrations; as of 30th September 2016. See Go-Lab Deliverable D9.5 Report of Dissemination and Exploitation Activities, M48).

- Go-Lab Sharing and Authoring Platforms (or Go-Lab Ecosystem) replace the name Go-Lab Portal, stressing the unity of the two main components Golabz (sharing platform) and Graasp (authoring platform)
- Go-Lab is used for events (for example, Go-Lab teacher training workshop) and roles in the project activities (for example, Go-Lab ambassador, Go-Lab Expert Teacher)
- Go-Lab is kept as the main brand in the social media groups (for example, Go-Lab Community on Facebook) and for the newsletter
- Next-Lab stands for the Next-Lab project, which is the main funding project of the Go-Lab initiative and ecosystem (along with the Go-Lab project, the SiWay project, and some others)

While maintaining Go-Lab as the main brand, it was important to show that Go-Lab initiative was entering a new development cycle (not only in the sense of technical extensions, but more in the sense of target group extension, addressing also primary schools, pre-service teachers, and a larger number of pilot countries). Thus, a redesign of the current brand was necessary to show that these new developments are coming. A new colour scheme was defined, adding one additional colour (dark blue, to align to the colour scheme of most software developed in Go-Lab) and slightly adapting the two Go-Lab colours (turquoise and orange), so that all three colours fit together. The font has been adapted as well. An updated Go-Lab logo has been created together with the new Next-Lab project logo using the same colour scheme. Figure 8 shows the two logos.

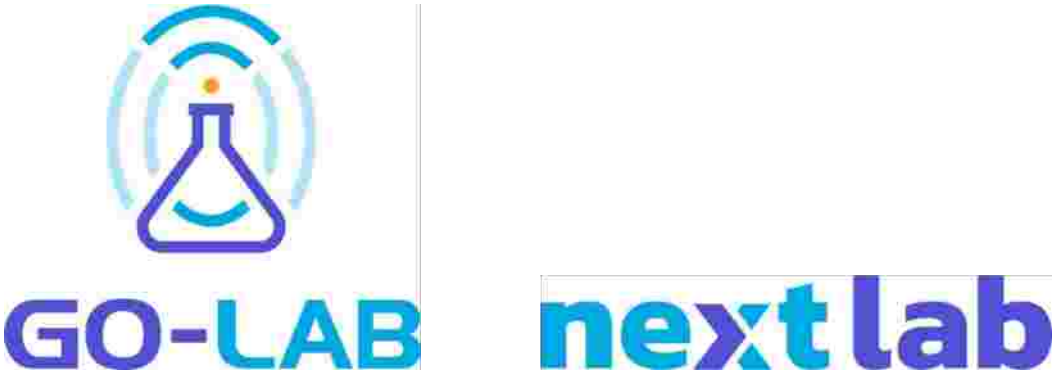


Figure 8. Go-Lab logo and Next-Lab project logo.

Furthermore, in order to give the Go-Lab initiative and the Next-Lab project a modern, fresh look, new mascots have been chosen (see Figure 9).

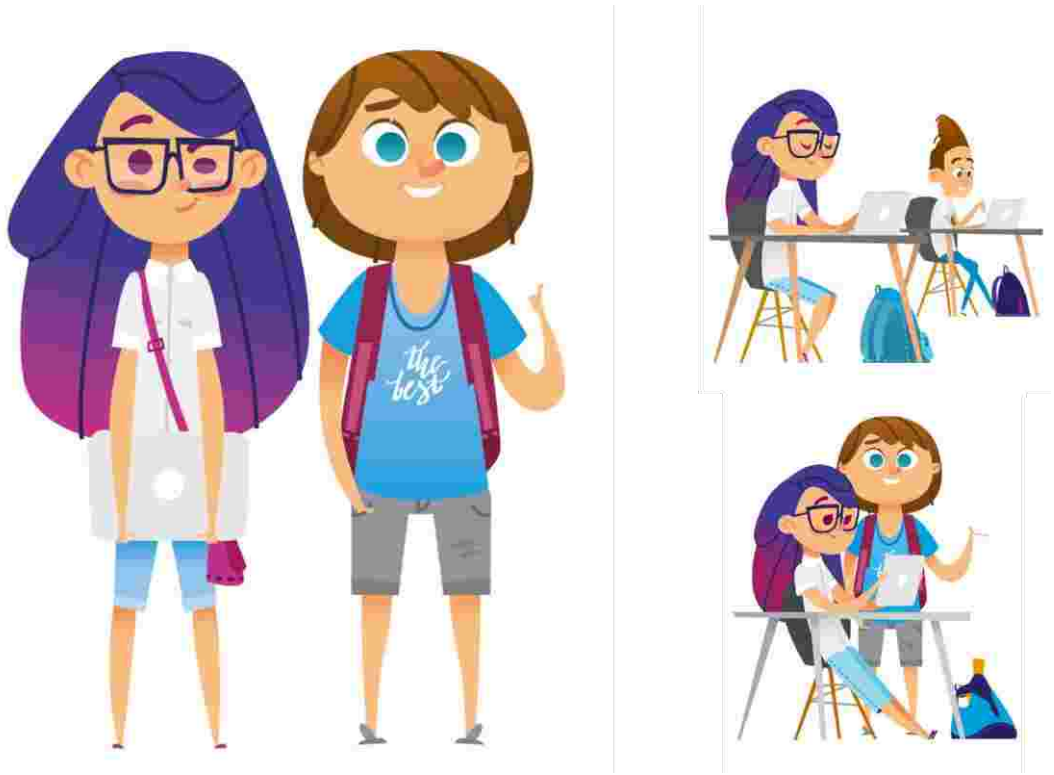


Figure 9. Go-Lab (Next-Lab) mascots.

The following sections describe in detail how the braining and communication strategy has been implemented in particular dissemination channels and materials.

6.3 Next-Lab project website

The Go-Lab Sharing and Authoring Platform (http://www.golabz.eu, further in this section: Go-Lab Platform) is the main online channel allowing users to inform about the Go-Lab initiative and the Go-Lab ecosystem and to use its software and services. The Go-Lab Platform unites the Repository for Online Labs, Learning Apps, and Inquiry Learning Spaces (Golabz Repository) and the Graasp (authoring Platform).

The Next-Lab project website is a part of the Go-Lab Platform domain, still having its own access link: http://project.golabz.eu. The website presents information about the project and its aims, project consortium, deliverables, and publications. The website provides general information about the project, whereas all information relevant for teachers (such as news, events, contacts, etc.) will be collected in the Support area of the Go-Lab Platform (as described below). Shared navigation allows to easily switch between the project website and the Go-Lab Platform. The design of the website will follow the design of the Go-Lab Sharing Platform as presented below.

Currently, the Go-Lab Sharing Platform is being migrated to a new technology (Drupal 8), where the new user interface design and an improved navigation will be implemented. It is planned to finish the migration by Month 8 of the project. The following list provides a brief overview of the upcoming enhancements and changes compared to the current version of the Sharing Platform:

- Navigation. It will be possible to access and to easily navigate between all main areas of the Go-Lab Platform (Golabz, Graasp, Support, etc.) using the main menu

on the top of the page. The overall navigation using filtering and search functions will be improved.

- Support. The Support area will be enhanced to provide all information teachers might be interested in: Call for Expert Teachers, contact information of the National Expertise Centres and Go-Lab ambassadors in the pilot countries, information about teacher training events, support materials in various formats (text tutorials, demo videos, tips & tricks with screenshots, online course, etc.), news blog, and others.
- About. The About area of the Go-Lab platform will give an overview of the funding projects and provide access to the websites of the Next-Lab project (http://project.golabz.eu) and the Go-Lab project (www.Go-Lab -project.eu). Next-Lab and Go-Lab project websites can also be accessed from the footer of the page.

Figure 10 presents the new design of the Go-Lab Sharing Platform, following the defined branding and communication strategy (to be implemented by Month 8; we use sample texts in the mock-up; changes possible).

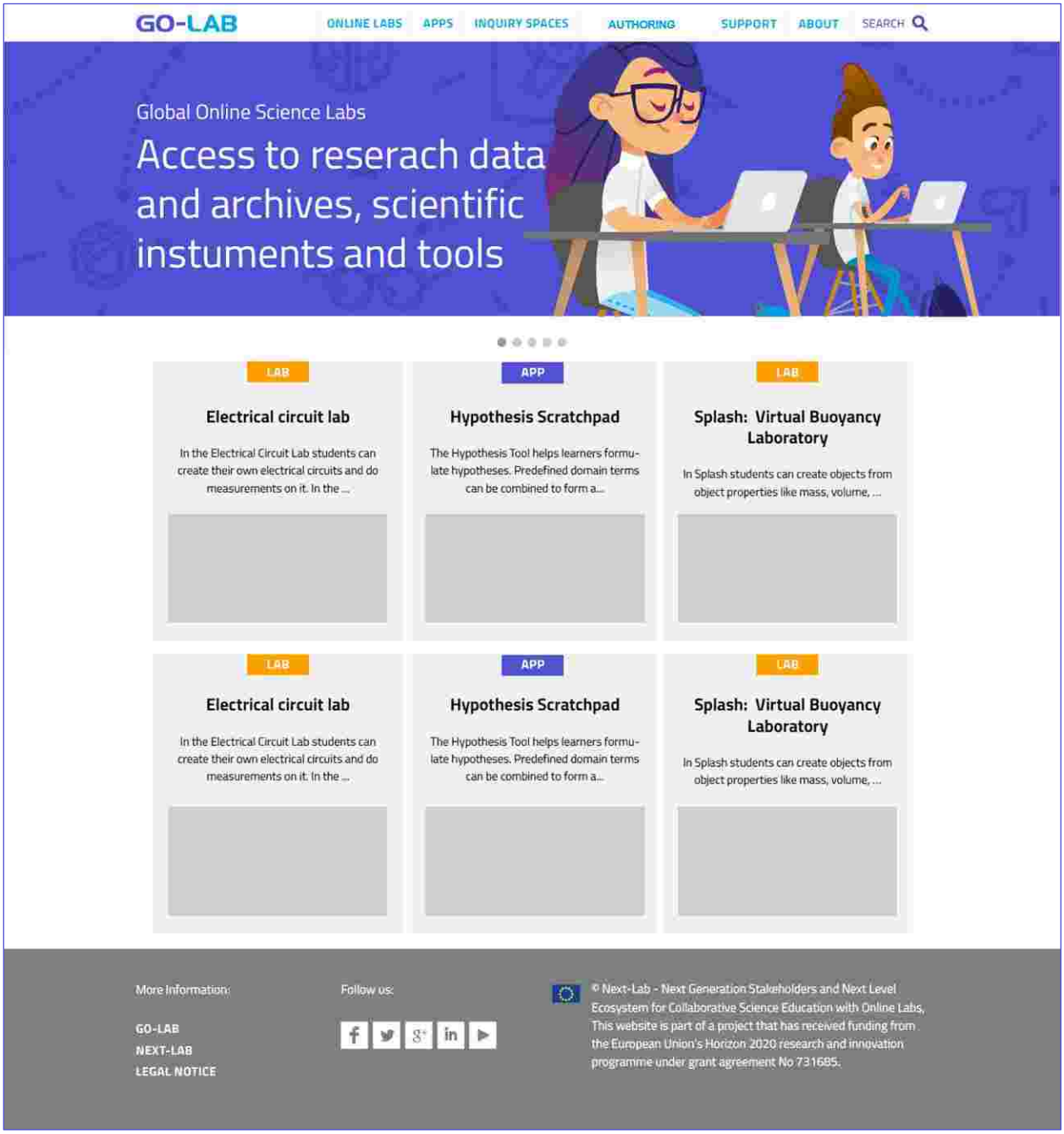


Figure 10. Go-Lab Sharing Platform (mock-up).

6.4 Social media channels

The Next-Lab project kept using Go-Lab social media channels, focusing on Facebook, Twitter, Google+, LinkedIn, and YouTube[7]. These channels have been renamed from Go-Lab "project groups" to Go-Lab "communities" and from Go-Lab "project" pages to Go-Lab "initiative" pages (in order to keep the Go-Lab brand, but to avoid talking about Go-Lab project). Information about the Next-Lab project has been provided in the descriptions of

[7] The Go-Lab SlideShare and Flickr channels are accessible online as well; however, in scope of the Next-Lab project, they do not play any central role in the project dissemination, as, according to the experience from Go-Lab, these channels are not widely used by the target group.

the groups (see Figure 11 below). The visual design of the social media channels will be updated together with the release of the new Sharing Platform.

Figure 11. Updated description of the Go-Lab community on Facebook.

In order to allow measurement of Next-Lab online dissemination activities and to clearly separate between Go-Lab project and Next-Lab project, the number of online community members has been counted in the mid of January 2017. Table 6 provides the number of members in each social media channel, who joined during the Go-Lab project or in the phase between Go-Lab and Next-Lab projects (as of January 17th, 2017). All members who joined the online community after that date will be counted as members joining the Next-Lab project.

Table 6. Go-Lab online community: number of members before Next-Lab

Channel	Nr. of members/ followers
Facebook page	1,217 (likes)
Facebook group	895 (members)
Twitter channel	1,158 (followers)
Google+ group	147 (members)
LinkedIn group	166 (members)
YouTube channel	96 (followers)
SlideShare channel	22 (followers)
Flickr channel	8 (followers)

Table 6 provides a baseline for the measurements to be done in scope of the Next-Lab project. A report on Next-Lab dissemination activities will be provided in the Deliverable D1.3 Next-Lab Year 1 dissemination and implementation activities (M12).

6.5 Dissemination materials

At the beginning of Next-Lab, the following dissemination materials have been created:

- Go-Lab Sharing and Authoring Platform leaflet, describing the main features of the platform and its advantages for the target group, and providing simple steps to start using the platform. The leaflet provides the link to the platform and lists the funding projects Go-Lab and Next-Lab, providing links to their websites as well (see 11.1)
- Next-Lab project flyer, focusing on the Next-Lab project and proving a link to the project website. The flyer has the same format as the Go-Lab Platform leaflet (DIN A4 long), so it can be perfectly used as a liner and be distributed together with the leaflet (see 11.2)
- Go-Lab initiative poster presenting inquiry learning with online labs and providing the link to the Go-Lab Platform (Next-Lab is referenced as funding project, see 11.3)
- Go-Lab initiative roll-up presenting main resources and activities and providing the link to the Go-Lab Platform (Next-Lab is referenced as funding project, see 11.4)

These dissemination materials target primarily the school teachers. However, they are also suitable be shared with the teacher trainers, policy makers, and other stakeholders. The dissemination materials can be distributed to the participants of the presence events in print or in digital form on USB-sticks. The materials are also available for download at http://project.golabz.eu/downloads

7. Lining up with national curricula (T1.6)

The aim of this task is to carry out a detailed curriculum analysis in a group of countries where Next-Lab will be implemented. The outcomes will help the team identify a set of common core topics for which labs and/or ILSs will be later on developed.

The curricula analysed will correspond mainly to compulsory secondary education level, that is to say, in most cases for ages between 10 to 18 years old. Since Next-Lab is expanding its target audience to primary education as well, the corresponding curricula will also be analysed on a smaller sample of countries.

7.1 Selection of sample countries

A comprehensive curriculum analysis will be performed from a representative sample of 10 countries that include:

1. Belgium
2. Cyprus
3. Estonia
4. Germany
5. Greece
6. Portugal
7. Finland

8. France
9. The Netherlands
10. UK-England

For Germany, the North Rhine-Westphalia state, its most populated state (Länder), is chosen to represent the country.

The sample of countries was chosen based on three main factors that can be found below:

- The **countries of provenance of WP1 partners**: Preference was given to countries of the Next-Lab members of the consortium participating into the work of WP1. This choice will facilitate the collection of the most recent curricula information when it comes to these countries.
- To ensure a **fair representation of Europe**, it was important to focus on countries that represent north, south, east and west Europe. As a result, countries representing different parts of Europe, have been chosen.
- The case of **Germany:** With the highest population among the EU member states (16, 25 % of the EU27 population, Eurostat 2013) the integration possibilities of Go-Lap portal to the national curriculum, is of great importance. However, as Germany is composed by 16 states (Länder) each one deciding its own educational policies, diverse curricula can be found across the country. This is why the North Rhine-Westphalia state, the most populated state, has been selected to represent the whole country. When it comes to secondary education focus will be given to *Gymnasium* (one of the available six different types of schools), the secondary school which prepares students to access higher education.

7.2 Collection of latest curricula information

In the last 4 years, curricula reforms have taken place in many European countries. Consequently, and before proceeding with the analysis, it is essential to ensure that we have the most current and up to date information in hand. Next-Lab partners along with resources provided through EUN's MoEs Working group are at the moment the main sources of information.

The status of our collection and main sources of information to be used can be seen below:

Country	Curricula info
Belgium	http://www.ond.vlaanderen.be/curriculum/secundair-onderwijs/index.htm http://www.ond.vlaanderen.be/curriculum/basisonderwijs/index.htm
Cyprus	http://nop.moec.gov.cy/index.php/mathimata/mathimata-a-lykeiou http://nop.moec.gov.cy/index.php/mathimata/mathimata-b-c-lykeiou
Estonia	https://www.hm.ee/en/national-curricula-2014 (basic & secondary schools)
Germany	http://timssandpirls.bc.edu/timss2015/encyclopedia/countries/germany/the-science-curriculum-in-primary-and-lower-secondary-grades/
Greece	http://www.minedu.gov.gr/gymnasio-m-2/didaktea-yli-gymn

	http://www.minedu.gov.gr/lykeio-2/didaktea-exet-yli-lyk
Portugal	1st cycle: 1st - 4th grade: http://www.dge.mec.pt/programas-1o-ciclo 2nd Cycle: 5th - 6th grade: http://www.dge.mec.pt/programas-2o-ciclo 3rd cycle: 7th to 9th grade: (it is mixed with the previous in many subject domains: http://www.dge.mec.pt/programas-e-metas-curriculares-0 Secondary: http://www.dge.mec.pt/programas-e-metas-curriculares
Finland	http://oph.fi/english/curricula_and_qualifications/general_upper_secondary_education
France	http://www.education.gouv.fr/pid24307/les-programmes-de-l-ecole-elementaire.html (primary) http://www.education.gouv.fr/pid24239/les-programmes-du-lycee.html (secondary)
The Netherlands	Secondary education (complete overview in Dutch): http://leerplaninbeeld.slo.nl Primary education (complete overview in Dutch): http://tule.slo.nl Primary education (short overview in English): http://www.slo.nl/primair/kerndoelen/Kerndoelen_English_version.doc
UK-England	https://www.gov.uk/government/publications/national-curriculum-in-england-primary-curriculum (primary) https://www.gov.uk/government/publications/national-curriculum-in-england-secondary-curriculum (secondary)

The collection of the required information was finalised at the **end of May 2017**.

7.3 Main subjects

In order to identify common topics that Next-Lab will need to address by developing dedicated labs and ILSs, our analysis for secondary education will focus on the following subjects:

- Physics
- Chemistry
- Mathematics
- Biology [8]

[8] Biology, Chemistry, Physics, Chemistry often appear all together under Science/Natural Science

- Geography
- Technology
- Mathematics
- Informatics

For primary education and in the absence of clear subjects, we will be looking for topics related to the above mentioned subjects.

7.4 Process

7.4.1 Trial phase

As a first step, a trial data collection and analysis will be carried out by EUN for the following countries:

- The Netherlands
- Estonia
- Portugal

Based on this, a set of templates (one template per subject for secondary education and one common template for primary education) are being created in order to facilitate the collection of information for the rest of the countries (through partners, Go-Lab ambassadors etc.)

Trial analysis and templates for all subjects of interest will be ready by **the end of-July 2017**.

7.4.2 Final phase

The task of data collection from all countries and subjects, bases on the developed templates, will have to be completed by the **end of October 2017.**

EUN will be responsible for the analysis and synthesis of all collected info and the composition of the final deliverable D1.2 Curriculum analysis which will include all collected information along with a set of concrete recommendations related to the subjects/topics that the Go-Lab ecosystem will need to provide labs or ILSs on, in order to maximise its outreach and adaptability throughout Europe.

7.5 Sample analysis

7.5.1 The Netherlands

7.5.1.1 Primary education

In the Netherlands primary education curriculum, the subject of ***"Personal and world orientation"*** is the more suitable for providing Go-Lab with input on possible topics to cover.

In this learning area, pupils orientate on themselves, on how people relate to each other, how they solve problems, and how they give meaning to their existence. Pupils orientate on their natural environment and the phenomena occurring in it. Orientation on nature includes ourselves, animals, plants, and natural phenomena. Orientation on the world includes the creation of a world view in terms of space and time.

More specifically the following topics within this learning area are of particular interest:

Nature and technology

Topics	Subject
The pupils learn to distinguish and name many common plants and animals in their own environment and the way they function.	Biology
The pupils learn about the makeup of plants, animals and humans and about the form and function of their parts.	Biology
The pupils learn to research materials and physical phenomena, including light, sound, electricity, power, magnetism, and temperature.	Physics
The pupils learn to describe the weather and climates in terms of temperature, precipitation, and wind.	Physics
The pupils learn to design, realise and evaluate solutions for technical problems.	Technology

7.5.2 Estonia

7.5.2.1 Primary education

In Estonia, the studying of science in primary education allows students to begin to acquire an understanding of nature as a whole. In studying science, students gain competencies in observing natural objects, phenomena and processes and exploring the connections between them. Students learn to recognize the relations in nature recognising and appreciating patterns in the way nature functions, the dependence of human beings on the natural environment and the effects of human activities on the natural environment; understanding that every phenomenon happens for a reason and that any change in nature brings about other changes which may be both desirable and undesirable; in acquiring a positive attitude towards all forms of life, and developing a desire and readiness to protect the natural environment and form sustainable values and attitudes. When it comes to Next-Lab, the following topics are of interest in

Nature

Topics	Subject
Learn to make simple observations in nature and carry out simple investigatory activities	Cross-curricula

Learn to formulate experiences acquired, with the help of their senses, associated with phenomena and objects	Physics
Learn to undertake practical work using simple tools, following instructions and safety needs	Cross-curricula
Learn to formulate information gained from observations, draw conclusions and present them both orally and in written formats;	Cross-curricula
Learn to express science concepts in appropriate ways through both oral and written formats	
Learn to apply science knowledge and skills gained from the study of science in undertaken decisions and appreciating the decisions of others in everyday life.	
Learn to make weather observations, record and describe the weather and choose appropriate clothes when going outside	Physics
Learn to describe natural and artificial objects and phenomena on the basis of information acquired through the different senses	Physics
Learn to spot changes in nature which can be associated with the changing of seasons	
Learn to identify forms of life of different organisms and the connections between them during different seasons	Biology
Learn to relate important seasonal changes that take place in nature to the life of humans	
Learn to be familiar with, and express through a variety of means, features of the most common species of plants	Biology

and animals in their living environment	
Learn to observe how others relate with nature in positive and negative ways and their appreciation of the need to co-exist with nature	Biology

7.6 Sample template (primary)

The current sample template for carrying out the curriculum analysis in primary education, can be seen below. This template came out of the analysis for the primary curricula for both The Netherlands and Estonia. The analysis of the primary curricula of 2 more countries will reveal more topics of interest and enrich the current version.

Curriculum Analysis										
Level of education: Primary										
	Belgium	Cyprus	Estonia	Germany	Greece	Portugal	Finland	France	The Netherlands	UK
Nature topics										
Learn to distinguish and name many common plants and animals, define where they live and how they function										
Learn about the makeup of plants, animals and humans and about the form and function of their parts.										
Learn to research materials and physical phenomena, including light, sound, electricity, power, magnetism, and temperature.										
Learn to describe the weather and climates in terms of temperature, precipitation, and wind.										
Numbers and calculations										
Learn to understand the general structure and interrelationship of quantities, whole numbers, decimal numbers, percentages, and proportions, and to use these to do arithmetic in practical situations.										
Learn to carry out the basic calculations in their heads using whole numbers, at least to 100, whereby adding and subtracting up to 20 and the multiplication tables are known by heart.										
Learn to count and calculate by estimation.										
Learn clever ways to add, subtract, multiply and divide.										
Learn to add, subtract, multiply and divide on paper, according to more or less contracted standard procedures.A5:A15										

Figure 12 Primary educations: curriculum analysis template

8. Conclusions

WP1 has the challenging role of building relations between Next-Lab and project's main stakeholders: teachers, organisations of teachers, and policy makers. Through Task 1.1, contacts with TTIs are taking place, aiming to provide them with the material and support needed in order to adapt the use of the Go-Lab ecosystem in their programmes. The information gathered during the 1st TTIs meeting on 20th of June 2017, provides a good starting point for the consortium. In the next months, priorities will be decided and the development of support material will materialise. In Task 1.2 the finalisation of the selection of the Go-Lab ambassadors and the launch of the Call for teachers who can later pursue other roles, will bring us with the start of the academic year 2017-2018 in a period of great activity in terms of dissemination and class implementations. In Task 1.3 and starting from

October 2017, contacts with the MoEs will be launched along with concrete advocacy on the use and outreach of the Go-Lab ecosystem. In the course of 2017-2018, the overall impact of Next-Lab will also be assessed by data analytics on different forms of usage of the Go-Lab ecosystem and by user's views that will be collected in Task 4.1 and analysed in Task 1.4. In Task 1.5 and with both dissemination material and reporting mechanisms in place, ambassadors, NECs and project partners will intensify their outreach efforts that will be reported on annual basis. Finally, and by the end of 2017 the curriculum analysis exercise that will be carried out in Task 1.6 will define the core common elements in curricula, also based on the Big Ideas of science, throughout Europe, that will guide the creation of learning resources that can be widely used.

9. Annex I – Teachers Training Institutes

9.1 TTIs meeting in Brussels, 20th June 2016

9.1.1 Agenda

The complete agenda of the 1st TTIs meeting can be seen in Table 7.

Table 7. Final agenda for the TTIs 1st meeting, 20th June 2017, Brussels

09:30 - 10:00	**Welcome coffee & registration**
10:00 - 10:10 (10')	**Next-Lab introduction & meeting overview** *by Evita Tasiopoulou*
10:10 - 11:10 (60')	**TTIs presentation: General introduction & IBL focus (5' per TTI)** - BAUSTEM Center at Bahçeşehir University, Turkey *(Sencer Corlu)* - National & Kapodistrian University of Athens, Greece *(Evangelia Mavrikaki)* - Riga Technical University - Distance Education Centre, Latvia *(Loreta Juskaite)* - Vilnius Gediminas Technical University, Lithuania *(Eugenijus Kurilovas)* - University of the Basque Country, Bilbao Campus, Spain *(Aritz Ruiz-González)* - Escola Superior de Educação de Coimbra, Portugal *(Filomena Teixeira)* - Institut Français de l'Éducation, France *(Mohammed Oubella)* - TOKL – University of Turku, Estonia *(Jussi-Pekka Järvinen)* - University of Coimbra, Portugal *(Piedade Vaz-Rebelo)* - University of Estonia – Tartu Ulikool, Estonia *(Meeli Rannastu)*
11:10 – 11:30 (20')	Coffee break
11:30 – 12:30 (60')	**Go-Lab ecosystem** - Golabz repository - ILSs and Graasp - Upcoming features *by Anastasiya Boiko*
12:30 – 13:15 (45')	Lunch
13:15 – 14:15 (60')	**Support materials - ILSs, Labs and other examples of material** *by Rosa Doran*
14:15 – 14:35 (20')	Coffee break
14:35 – 15:35 (60')	**Workshop: How IBL & Go-Lab ecosystem can be integrated into your curriculum** *by Evita Tasiopoulou and Enrique Martín*

15:35 – 16:00 (25')	**Upcoming plans, priorities & timelines**
16:00 – 16:30 (30')	**FCL Visit** *(Optional)*

9.1.2 Attendees

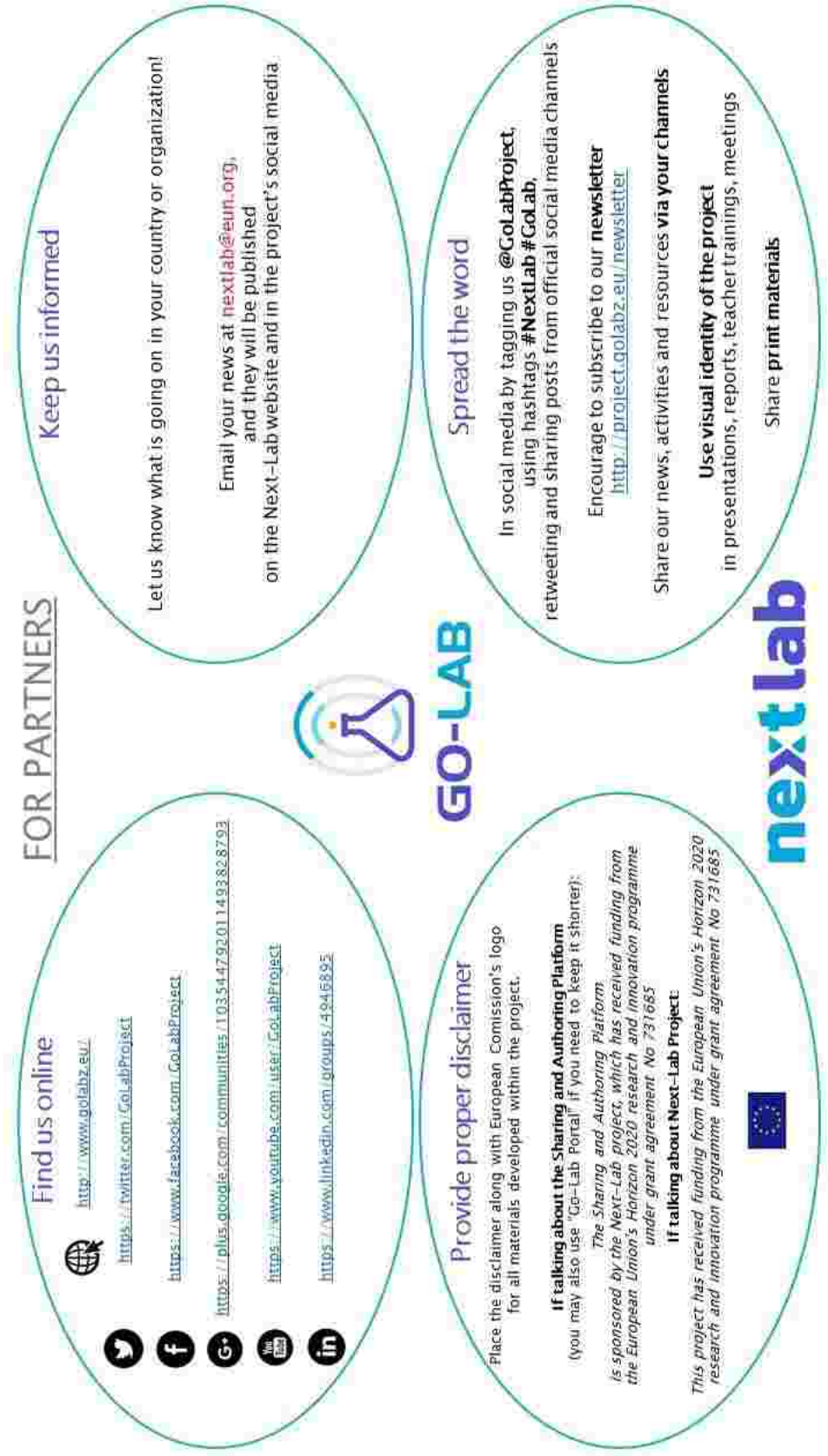
The attendees of this 1st TTIs meeting can be seen in Table 8.

Table 8. Attendees list to the 1st TTIs meeting, 20 June 2017, Brussels

	First Name	Last Name	Country	Project
1.	Agueda	Gras	Belgium	EUN
2.	Anastasiya	Boiko	Belgium	EUN
3.	Aritz	Ruiz-González	Spain	University of the Basque Country, Bilbao Campus
4.	Enrique	Martín	Belgium	EUN
5.	Eugenijus	Kurilovas	Lithuania	Vilnius Gediminas Technical University
6.	Evangelia	Mavrikaki	Greece	National & Kapodistrian University of Athens
7.	Evita	Tasiopoulou	Belgium	EUN
8.	Filomena	Teixeira	Portugal	Escola Superior de Educação de Coimbra
9.	Jussi-Pekka	Järvinen	Finland	TOKL – University of Turku
10.	Loreta	Juskaite	Latvia	Riga Technical University - Distance Education Centre
11.	M. Sencer	Corlu	Turkey	BAUSTEM Center at Bahçeşehir University
12.	Mohammed	Oubella	France	Institut Français de l'Éducation
13.	Piedade	Vaz-Rebelo	Portugal	University of Coimbra
14.	Rosa	Doran	Portugal	NUCLIO
15.	Meeli	Rannastu	Estonia	UTE – Tartu Ulikool

10. Annex II - Teachers

10.1 Guidelines for social media dissemination



FOR AMBASSADORS
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http://www.golabz.eu/
https://twitter.com/GoLabProject
https://www.facebook.com/GoLabProject
https://plus.google.com/communities/103544792011493828793
https://www.youtube.com/user/GoLabProject
https://www.linkedin.com/groups/4946895
Report your event
Before an event: Create an event in Graasp here
LINK
During an event: live post in social media
(see section "Spread the word" to learn more)
After an event: by the end of Year 1, 2 and 3 write a report
using project's template LINK
Any questions? Email us at nextlab@eun.org
GO-LAB
Spread the word
In social media by tagging us @GoLabProject,
using hashtags #NextLab #GoLab,
retweeting and sharing posts from official social media channels
Encourage to subscribe to our newsletter
http://project.golabz.eu/newsletter
Share our news, activities and resources via your channels
Use visual identity of the project
in presentations, reports, teacher trainings, meetings
Share print materials
Provide proper disclaimer
Place the disclaimer along with European Comission's logo
for all materials developed within the project.
If talking about the Sharing and Authoring Platform
(you may also use "Go-Lab Portal" if you need to keep it shorter):
The Sharing and Authoring Platform
is sponsored by the Next-Lab project, which has received funding from
the European Union's Horizon 2020 research and innovation programme
under grant agreement No 731685
If talking about Next-Lab Project:
This project has received funding from the European Union's Horizon 2020
research and innovation programme under grant agreement No 731685
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10.2 Dissemination reporting template

Next-Lab

Next Generation Stakeholders and Next Level Ecosystem for Collaborative Science Education with Online Labs

Collaborative Project in European Union's 2020 research and innovation programme

Grant Agreement no. 731685

Year 1 Dissemination and Implementation Activities (per country report)

Editor	XX (PARTNER/COUNTRY)
Date	XX MONTH XXXX
Dissemination Level	Public/Internal
Status	Draft/Final

Table of Contents

1 National dissemination strategy

Briefly summary for your national dissemination strategy.

2 Dissemination Events

2.1 Summary of dissemination events

Text

Table 1. Next-Lab Dissemination Events

Title	Location	Date	Description

2.2 Target audience and impact

Text

2.3 Outcomes

Text

2.4 Related materials

Text

*agenda, pictures, slides…

3 Implementation Activities

3.1 Summary of implementation activities

Text

Table 2. Next-Lab Dissemination Events

Title	Location	Date	Description

3.2 Target audience and impact

Text

3.3 Outcomes

Text

3.4 Related materials

Text

*agenda, pictures, slides ...

4 Website, Newsletter and Social Media

4.1 Website

Please describe Next-Lab dissemination efforts through your website.

Please include some Next-lab related screenshots from your website.

4.2 Newsletter

Please describe Next-Lab dissemination efforts through your newsletter (if applicable).

Please include some Next-lab related screenshots from your newsletter (if applicable).

4.3 Social Media Channels

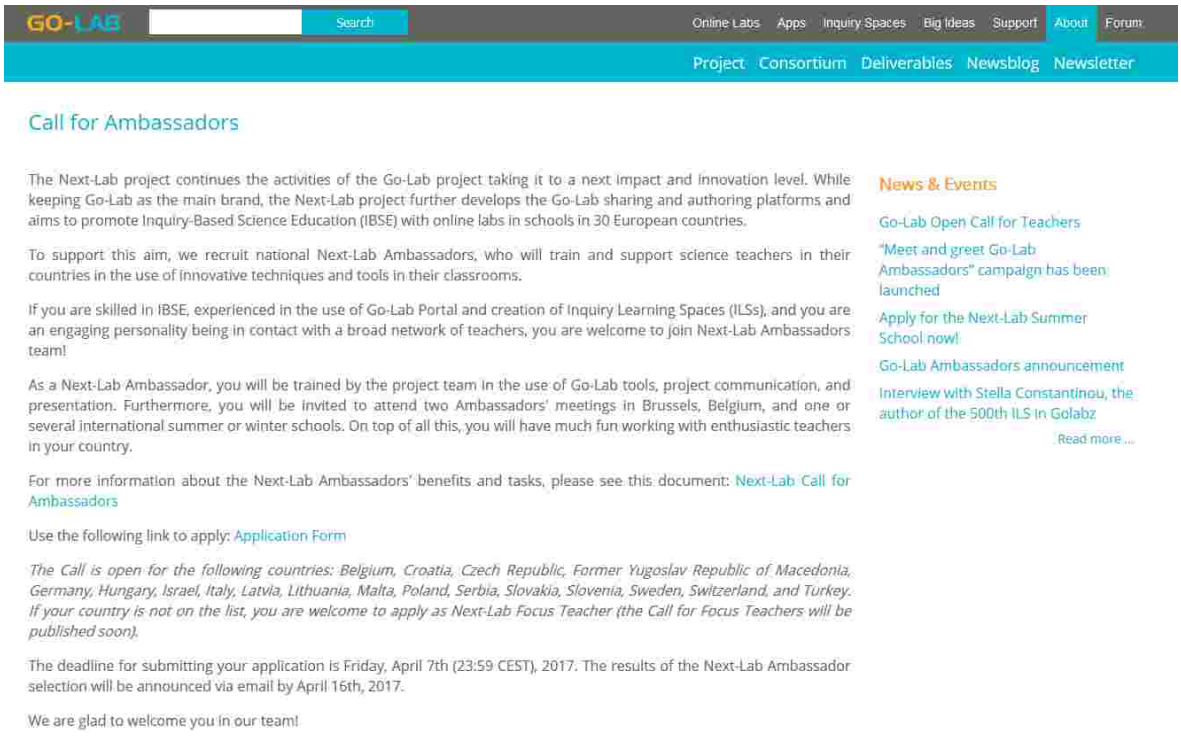
Please describe Next-Lab dissemination efforts through your social media channels (Twitter, Facebook and other social platforms).

Please include some Next-lab related screenshots from your newsletter (Twitter, Facebook and other social platforms).

4.4 Dissemination Channels Figures

Twitter followers	Facebook fans	YouTube channels view	LinkedIn group members	Newsletter	Website unique visitors	Instagram

10.3 Call for ambassadors (screenshot from the Go-Lab website)



10.4 Ambassadors Memo for the Ministries of Education

Call for Next-Lab Ambassadors
April 2017

next lab

Call for Next-Lab Ambassadors – Memo to Ministries of Education

April 2017

06/04/2017

The work presented in this document is supported by the European Commission's H2020 programme – project Next-Lab. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 731685. The content of the document is the sole responsibility of the organizer and it does not represent the opinion of the European Commission (EC), and the EC is not responsible for any use that might be made of information contained.

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CALL FOR NEXT-LAB AMBASSADORS – MEMO TO MINISTRIES OF EDUCATION

Table of Contents

About Next-Lab

The Next-Lab project continues the activities of the Go-Lab project taking it to a next impact and innovation level. While keeping Go-Lab as the main brand, the Next-Lab project further develops the Go-Lab sharing and authoring platforms and organises teacher-training events.

In the scope of Next-Lab, the open authoring (Graasp) and sharing (Golabz) platforms will be enhanced with new features required by the teachers as well as by the addition of new tools for the students. For example, collaborative creation of Inquiry Learning Spaces (ILSs) will be supported, giving teachers the possibility to jointly create cross-curriculum learning scenarios. Furthermore, students will be able to work collaboratively on their learning and research projects. Finally, learning apps enabling students to acquire 21st century skills as well as a tool to create ePortfolios will be available.

Next-Lab will increase the number of involved teachers and students, expand its target group to include younger students in primary education, and make efforts to align the project with teacher training programmes, thus, targeting also pre-service teachers. Next-Lab will sustain and extend the existing Go-Lab teacher community, so that the successful transition between the two projects is guaranteed. In particular, Next-Lab will conduct international and national Go-Lab teacher training workshops, as well as Go-Lab Summer and Winter Schools. In addition, Next-Lab will extend its on-site and online support for teachers. This Call for Ambassadors is a part of this initiative.

The Next-Lab project is implemented in the context of the European Union's Horizon 2020 programme. It has started on the 1st of January 2017 and will last for three years, coordinated by the University of Twente in the Netherlands.

European Schoolnet's role in Next-Lab

European Schoolnet is responsible for WP1 "Outreach and Impact". WP1 is meant to build strong relations between Next-Lab and teachers, organisations of teachers, and policy makers. It has a two-sided character, first it has a communication function and intends to inform on and

enthuse the user groups for Next-Lab's affordances and facilities (which is partly connected to Next-Lab Ambassadors role) and, second, it collects requirements and ideas from these groups to enable a smooth introduction of Next-Lab for students, teachers, and organisations. The specific target groups are teacher training institutes, teachers and their organisations, and policymakers. The overall impact of Next-Lab is also assessed in this WP by data analytics on different forms of usage of the Next-Lab ecosystem and by user's views as measured by in-depth case studies and online feedback and response facilities that will be created in Task 4.1 and analysed in Task 1.4. In Task 1.5 the necessary dissemination material will be produced. WP1 has finally a specific task for identifying core common elements in curricula, also based on the Big Ideas of science, throughout Europe to lay the basis for the creation of learning resources that can be widely used.

Next-Lab Ambassadors' tasks

Next-Lab Ambassadors are be selected for the whole duration of the project (Jan 2017-Dec 2019) in order to support Next-Lab implementation and outreach on their country level. The core purpose of the Next-Lab Ambassadors will be to promote and inform about Next-Lab to their peers – STEM teachers in their respective countries - extending project's coverage throughout Europe. They will present Next-Lab for schools and national teachers associations, on conferences and workshops, and will advise teachers how to get involved and use Next-Lab in their teaching.

In more detail, Next-Lab Ambassadors ' tasks include:

- **Disseminate Next-Lab at national level.** This task comprises any kind of dissemination activities, such as informal Next-Lab presentations, networking meetings or sharing of Next-Lab materials, among others. The dissemination should be done within a national level including Ambassadors' workplaces, small informal events, social media and personal networking meetings.
- **Present Next-Lab at, at least, one teachers' event / conference at national level.** All Next-Lab Ambassadors must, at least, present Next-Lab at a national, regional or local event. Those presentations must be of at least 10 minutes long and must count with a minimum of 20 people in the audience.
- **Carry out at least two teacher trainings.** With the support, both logistical & pedagogical, of EUN, Next-Lab Ambassadors will carry out at least 1 face-to-face teacher training. Each of these trainings will be attended by at least 20 teachers. One or two online trainings (using i.e. Webex) will also need to be organised.
- **Offer operational support in terms of pedagogical quality control** (e.g., analyse resources available on the portal) **and provide feedback on the project new tools and services**
- **Attend the Next-Lab Ambassadors trainings in Brussels (2 in total).** All Next-Lab Ambassadors will be invited to attend the annual, 2 days, face-to-face meeting that will take place in Brussels. During that meeting they will learn how to present themselves and the project, they will be informed about the latest

developments and features of the authoring platform and they will be equipped with all necessary skills in order to successfully support teachers and disseminate Next-Lab in their countries.

- **Report on activities carried out for the project**. Each of the Next-Lab Ambassadors has to complete events/dissemination related reports.
- **Support the Next-Lab teachers.** The Next-Lab Ambassadors are assigned to provide pedagogical and practical support to teachers in their country who are interested in using Next-Lab in their teaching. Online support with also need to be offered.

Benefits for selected Next-Lab Ambassadors

- Be part of the dynamic Ambassadors group which will cover 18 different countries
- Receive high quality training on Inquiry Based Learning (IBL) and the use of Next-Lab tools, project communication and presentation skills by the Next-Lab consortium partners
- Attend 2 Next-Lab Ambassadors 2-day trainings (one in 2017 and one in 2018) which will take place in Brussels, Belgium
- Possibility to attend one or more Next-Lab summer/winter schools

Who is eligible for applying

The Call for Next-Lab Ambassadors is open to **STEM teachers** from the following 18 countries:

Belgium[1], *Croatia, Czech Republic, Former Yugoslav Republic of Macedonia, Germany*[2], *Hungary, Israel, Italy, Latvia, Lithuania, Malta, Poland, Romania, Serbia, Slovakia, Sweden, Switzerland, Turkey*

Next-Lab Ambassadors need to have the following competences:

- Good knowledge and understanding of Inquiry Based Learning (IBL)
- Proven previous experience with Go-Lab authoring platform (Graasp) either as ILS creators or as ILS implementers/users
- Good knowledge of English
- Proven record of participation/contribution to national teachers' events, conferences etc.

[1] Selection for Belgium and Germany is pending due to lack of qualified candidates

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Call for Next-Lab Ambassadors
April 2017

Selected Ambassadors

The list of the selected Next-Lab Ambassadors can be found below:

	Country	Next-Lab Ambassador (name, surname)	City	School
1.	Croatia	Ivana Gugić	Zagreb	Primary school Frana Galovića
2.	Czech Republic			
3.	Former Yugoslav Republic of Macedonia	Silvana Ristevska	Bitola	Primary school "Stiv Naumov"- Bitola
4.	Hungary	Filep Dorina Otilia	Megyaszó	Megyaszói Mészáros Lőrinc Körzeti Általános Iskola
5.	Israel	Stella Magid-Podolsky	Haifa and Kfar Saba	Technion and beith Bert
6.	Italy	Stefano Macchia	Sommariva del Bosco (Cuneo)	IC Giovanni Arpino
7.	Latvia	Ilze Šmate	Pāle, Limbaži county	Pāle Primary School
8.	Malta	Geraldine Fsadni	Rabat	Archbishop's Seminary
9.	Poland	Malgorzata Maslowska	Kalisz	III Liceum Ogolnoksztalcace im. M. Kopernika w Kaliszu
10.	Romania	Lidia Ristea	Boldesti -Scaeni	Technological High School Teodor Diamant
11.	Serbia	Nada Stojičević	Pančevo	Elektrotehnička škola "Nikola Tesla"
12.	Slovakia	Gabriela Križovská	Poprad	ZŠ s MŠ Jamá ulica 3168/13, Poprad
13.	Sweden	Preeti Gahlawat	Stockholm	International English School, Kista
14.	Switzerland	Philippe Kobel	Lausanne	Gymnase du Bugnon
15.	Turkey			

5

**Please notice the document above did not include the final list of ambassadors.*

10.5 Primary school teachers implementation template

Next-Lab

Next Generation Stakeholders and Next Level Ecosystem for Collaborative Science Education with Online Labs

Collaborative Project in European Union's 2020 research and innovation programme

Grant Agreement no. 731685

Focus teachers

Primary Teachers Go-Lab Implementation

Editor	Name (Organization)
Date	DD MM YYYY
Dissemination Level	Internal
Status	Draft/Final

1 Introduction

Thank you for being part of the Next-Lab project! With your help we will improve our services and help other teacher get involved in the use of Go-lab.

The purpose of the form is to learn about the classroom use of the Go-Lab in Primary Education across Europe. We are keen to understand how this experience was for you and for your students and what, in your opinion, were the benefits and drawbacks of using those elements. We are also interested in learning the outcomes and impacts this experience had on students and on your teaching work. For these purposes, and if possible, we ask you to collect multimedia records, texts and other types of evidence related to the implementation of Go-Lab in your school.

General Guidelines

Below you will find a list of questions as well as a brief description of what kinds of information you can provide us with for each one of them. We leave it to you to decide on the type of information you are able to collect and provide us.

Please use this table to record what type of information you have collected and send it back to us along with your respective answers.

Evidence

The information that we would like you to collect may come in a number of formats:

- multimedia (video or audio recordings, photos)
- text (written narratives and quotations of students' views)
- other information (links to students' work, pictures or pictures of other tangible outcomes)

Please ensure that you have collected parental consent forms for all of the students whose faces are visible on the photo or video records that you produce.

Please continue with the table below.

Primary teachers' template

Your Name:	School:	ILS used:	Date:
Research Themes/Questions	**Types of Evidence** Tick the box (one type of evidence per each theme is enough)		**Answers (text):**
1. **Background details about** 1a. Your teaching background, your school and your students 1b. Other staff members in your school using Go-Lab	☐ Video or audio recording of you talking about the background details ☐ Text ☐ Will discuss in a follow-up telephone call		
2. **Why did you choose this ILS?** 2a. Did you have to adapt the ILS in any way? 2b. May Go-Lab ILSs be easily adapted/used for Primary education needs?	☐ Video or audio recording ☐ Text ☐ Will discuss in a follow-up telephone call		
3. **How did the implementation of the activity go?** 3a. The actual process of using the Go-Lab ILS in your classroom 3b. Students' behaviour and response to the practice	☐ Video recording of using the activity in your class ☐ Photos capturing the key moments of the practice ☐ Written description of the process		
4. **What was good about the ILS you have used and what were the drawbacks?** 5. **Would you do it again and would you recommend it to your colleagues?**	☐ Video/audio recording of using the activity in your class ☐ Written description of the process ☐ Sample of students' work (links, pictures etc.)		

11. Annex III - Dissemination material

11.1 Leaflet: Go-Lab Sharing and Authoring Platform

Front page:

Back page:

The Go-Lab Sharing & Authoring Platform is for pre-service and in-service science teachers in primary and secondary school. It offers innovative learning tools to support your classroom activities with students from 6 to 18 years old. With these tools, your students will gain hands-on experience with doing science and will acquire 21st century skills.

Resources

The Go-Lab Sharing Platform offers a large variety of tools for inquiry learning in the classroom:

- **Online Labs:** remotely operated and virtual laboratories, data sets and analysis tools in Physics, Astronomy, Chemistry, Biology, and other science domains
- **Learning Apps:** guidance applications that assist students in formulating hypotheses, designing experiments, and drawing conclusions
- **Inquiry Spaces:** a combination of online labs, apps, and learning resources in a structured online student environment, customizable according to your lesson plans and the needs of your students

Authoring

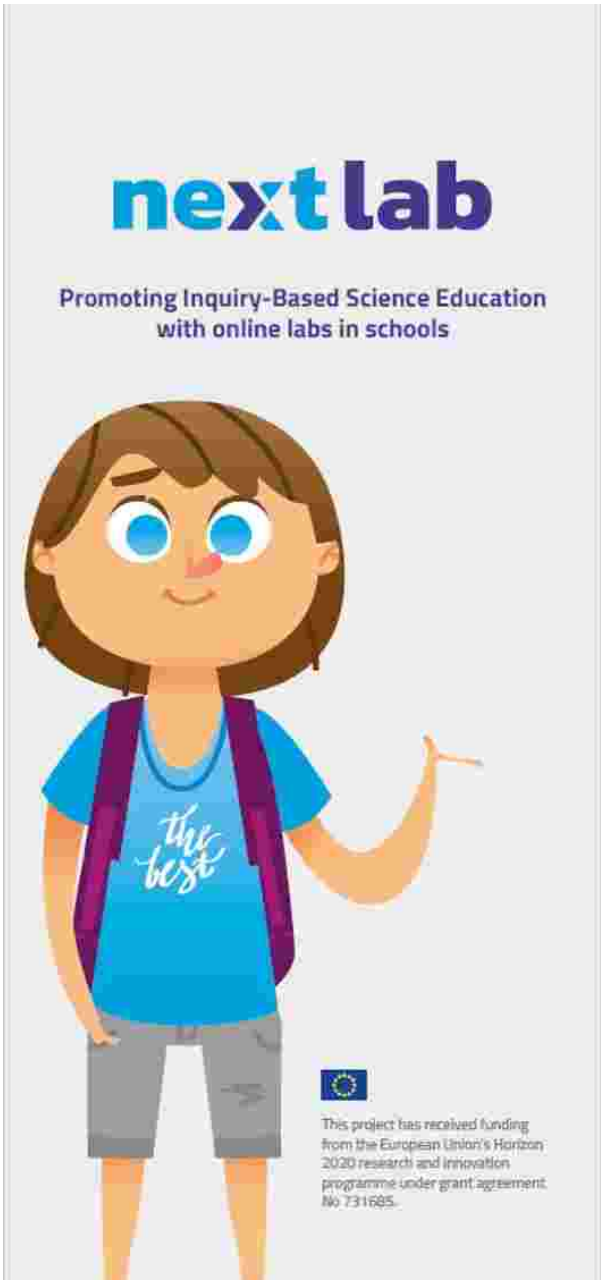
Using the Go-Lab Authoring Platform you can create personalized Inquiry Learning Spaces (ILSs) to enrich your classroom activities with appealing online experiments and demos:

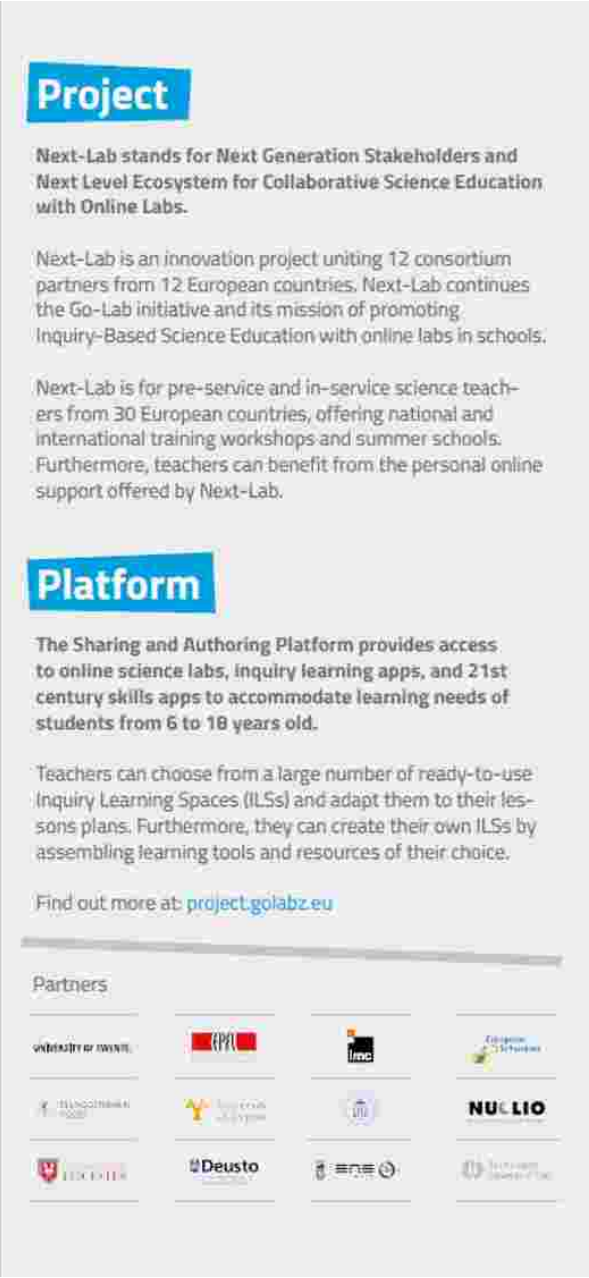
- **Create your lesson plan:** assemble online labs, learning apps, and resources of your choice, and share the Inquiry Learning Space with your students
- **Set up learning analytics:** monitor the progress of your students and provide assistance. Promote self-reflection and peer-assessment
- **Work together with your colleagues:** share your ideas, and publish results. Motivate your students to work collaboratively as well

Sharing Platform
www.golabz.eu

Authoring Platform
www.graasp.eu

11.2 Flyer: Next-Lab Project





11.3 Poster: Go-Lab Initiative

11.4 Roll-Up: Go-Lab Initiative