GO-LAB

GLOBAL ONLINE SCIENCE LABS
INQUIRY LEARNING AT SCHOOL

Go-Lab project
01/09/2012-01/09/2016

UNED

February, 14th 2014
Elio Sancristóbal
Irene Lequerica Zorrozua
IEEC

Go-Lab project

➢ Europe needs young people who are skilful in, and enthusiastic for STEM and regard them as their future career fields in order to guarantee competiveness and prosperity.

➢ STEM:

- Sciences: physics, biology, chemistry, astronomy, geology, etc.

- Technology, including computer science

- Engineering

- Mathematics

Go-Lab stakeholders

➢ Institutes:

- Teachers

- Students from 10 to 18 years old

➢ STEM laboratory owners

➢ Industry

Go-Lab goals (I)

➤ Create a federation of online labs

➤ Make remote labs available from schools:

- Smart Device specifications

- Legacy labs through SmartGateway

- Provide a uniform solution for authentication, booking and scheduling

➤ Development of an AppComposer

➤ Development of client applications

Go-Lab goals (I)

GO-LAB

➢ http://golab.collide.info/web/ilsPrototype1/ilsPrototypeB.html

Go-Lab goals (II)

➢ "ALL"

- Accessible from Go-Lab Portal

- With Inquiry Learning Spaces (ILS)

- Using learning analytics tools

- Used by more than 1000 schools

- …..

➢ "ALL compatible with GRAASP"

Go-Lab partners

Nº	Name	Short name	Country
1	UNIVERSITEIT TWENTE	UT	Netherlands
2	ELLINOGERMANIKI AGOGI SCHOLI PANAGEA SAVVA AE	EA	Greece
3	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	EPFL	Switzerland
4	EUN Partnership AISBL EUN Belgium	EUN	Belgium
5	IMC INFORMATION MULTIMEDIA COMMUNICATION AG	IMC	Germany
6	RESEAU MENON E.E.I.G.	MENON	Belgium
7	UNIVERSIDAD NACIONAL DE EDUCACION A DISTANCIA	UNED	Spain
8	UNIVERSITY OF LEICESTER	ULEIC	United Kingdom
9	UNIVERSITY OF CYPRUS	UCY	Cyprus
10	UNIVERSITAET DUISBURG-ESSEN	UDE	Germany
11	CENTRE FOR RESEARCH AND TECHNOLOGY HELLAS	CERTH	Greece
12	UNIVERSIDAD DE LA IGLESIA DE DEUSTO	UDEUSTO	Spain
13	FACHHOCHSCHULE KARNTEN - GEMEINNUTZIGE PRIVATSTIFTUNG	CUAS	Austria
14	TARTU ULIKOOL	UTE	Estonia
15	EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH	CERN	Switzerland
16	EUROPEAN SPACE AGENCY	ESA	France
17	University of Glamorgan	UoG	United Kingdom
18	INSTITUTE OF ACCELERATING SYSTEMS AND APPLICATIONS	IASA	Greece
19	Nucleo Interactivo de Astronomia	NUCLIO	Portugal

Workpackages and Leaders

WP1	**Pedagogical framework**	**UT (NL)**
WP2	**Go-Lab federation of online labs**	**EA (GR)**
WP3	**Participatory design**	**ULEIC (EN)**
WP4	**Go-Lab infrastructure**	**EPFL (CH)**
WP5	**Go-Lab portal**	**EPFL (CH)**
WP6	**Community building and support**	**MENON (BE)**
WP7	**Large scale pilots**	**EA (GR)**
WP8	**Validation and evaluation**	**EUN (BE)**
WP9	**Dissemination and exploitation**	**IMC (D)**
WP10	**Coordination**	**UT (NL)**

UNED project tasks

➢ WP 4 Go-Lab Infrastructure. EPFL.

- 58 PM. M1-M36

- T 4.1 Lab-owner Services-Plug Technology. UNED. 40PM. Elio Sancristóbal

- T 4.2 Cloud Services. Share Technology and Smart Gateway. UD / CUAS. 12 PM. Irene Lequerica

- T 4.4 Add-on Services. IMC. 6 PM. Elio Sancristóbal

UNED project tasks

➢ WP 4 Go-Lab Infrastructure. EPFL.

- T 4.1 Lab-owner Services-Plug Technology. UNED. 40PM

  - T 4.1.a MUREE laboratories integration

  - T 4.1.b Building new laboratories from scratch

UNED project tasks

➢ WP 5 Go-Lab Portal. EPFL.

- 24 PM. M1-M48

- T 5.3 App Composer. UD. 12 PM. Miguel Latorre

- T 5.5 Widget-based Lightweight Client Apps. EPFL. 12 PM. Elio Sancritóbal

UNED project tasks

➢ WP 9 Dissemination and exploitation. IMC.

- 6 PM. M1-M48

- T 9.3 Synergy actions within related Associations. UNED. 3 PM. Miguel Rodríguez

- T 9.4 Standardization. UNED. 3 PM. Miguel Rodríguez

UNED interactions

T4.1 & T4.2 Lab-owner & Cloud Services		T4.3 & T4.4 Analytics, Scaffolding, add-on services		T5.1 & T5.3 Portal & App Composer		T5.2, T5.4 & T5.5 Personalization, Inquiry Learning & client Apps		
G4.1 (M6), D4.1 (M12), D4.3 (M21), G4.3 (M27), D4.5 (M30), D4.7 (M33)		G4.2 (M9), D4.2 (M18), D4.4 (M24), G4.4 (M30), D4.6 (M33), D4.8 (M36)		G5.2 (M6), G5.3 (M9), D5.2 (M12), D5.4 (M24), G5.4 (M27), D5.6 (M36), G5.5 (M42), D5.7 (M48)		G5.1 (M6), D5.1 (M9), D5.3 (M18), D5.5 (M32), G5.5 (M42), D5.7 (M48)		
T4.1 - 76 pm **Plug**	T4.2 - 46 pm **Share**	T4.3 - 48 pm **LA, Scaf.**	T4.4 - 36 pm **Add-on**	T5.1 - 64 pm **Portal**	T5.3 - 36 pm **App Comp**	T5.2 - 66 pm **Pers. & IL**	T5.5 - 66 pm **Clients**	T5.4 - 36 pm **Devices**
Elio	Danilo	Tobias	Yiwei	Sten	Pablo	Adrian	Adrian	Panagiotis
UNED 40 EPFL 36	**CUAS** 12 **UD** 12 UNED 12 CERTH 6 IMC 4	**UDE** 18 UT 18 EPFL 12	**IMC** 24 UNED 6 UD 6	**EPFL** 52 UDE 6 UT 6	**UD** 24 UNED 12	**EPFL** 24 UDE 24 UT 18	**EPFL** 18 UNED 12 UT 8	**CERTH** 36

UNED team members

Name		Effort
Llanos Tobarra	Ll.T.	10 h/week - 4 weeks
Agustín Caminero	A.C.	10 h/week
Antonio Robles	A.R.	10 h/week
Salvador Ros	S.R.	Collaboration
Miguel Rodríguez	M.R.	5 h/week
María José Albert	M.J.	5 h/week – 6 months

UNED team members

Name		Effort
Charo Gil	C.G.	5 – 10 h/week – 6 months
Mohamed Tawfik	M.T.	15 h/week
Germán Carro	G.C.	20 h/week
María Ángeles Cañas	M.C.	20 h/week
Félix García	F.G.	20 h/week
Miguel Latorre	M.L.	30 h/week
Elio Sancristóbal	E.S.	20 h/week
Programador 1	P.1.	40 h/week
Irene Lequerica	I.L.	40 h/week

Outline diagram

	T 4.1.a	T 4.1.b	T 4.2	T 4.4	T 5.3	T 5.5	T 9.3	T 9.4	Metadata	Coord.
LI.T.	10h/w x 4w									
A.C.			10 h/w							
A.R.					10 h/w					
S.R.										Collab.
M.R.							5 h/w			
M.J.		5 h/w x 6 m								
C.G.		5-10 h/wx6m								
M.T.								5 h/w		
G.C.		20 h/w								
M.C.		20 h/w								
F.G.		20 h/w								
M.L.					20 h/w	10 h/w				
E.S.										20 h/w
P.1.			20 h/w			20 h/w				
I.L.			20 h/w							20 h/w

Go-Lab Dissemination

- **<u>Synergies</u>**

  - An advisory group to identify possible normalization processes and potential standards

- **<u>Research cooperation</u>**

  - Define and launch the proposal for IEEE FIE 2014

- **<u>Stakeholders</u>**

  - European associations: SEFI, Global Online Laboratory Consortium, etc.

Go-Lab management

➢ To the consortium:

- Technical meetings every fortnight

  alternating

- Executive meetings every fortnight

➢ Internally:

- 15' skype brainstorming sessions

- Weekly timesheet report

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Thank you for your attention

February, 4th 2014
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