# Amgen Teach Programme for Life Science Teachers



www.amgenteach.eu



Enrique Martin New Perspectives in Science Education 17 March 2016, Florence



**Inspiring the Scientists of Tomorrow** 



### **ABOUT US**

European Schoolnet is the network of 30 European Ministries of Education, based in Brussels. As a not-for-profit organisation, we aim to bring innovation in teaching and learning to: Ministries of Education, schools, teachers, researchers and industry partners.

European Schoolnet pledges to:

**Support** schools in achieving an effective use of ICT **Improve** and raise the quality of education in Europe **Promote** the European dimension in education

Through our activities, we aim to transform teaching and learning processes, using the integration of ICT as a force for improvement.

Connect with us: 📑 💽 鵩

www.europeanschoolnet.org



## EUN PAST AND CURRENT STEM PROJECTS











ONLINE LEARNING BY EXPERIMENTING











NANO









### **SCIENTIX REPORT - JANUARY 2016**



### EFFORTS TO INCREASE STUDENTS' INTEREST IN PURSUING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS STUDIES AND CAREERS

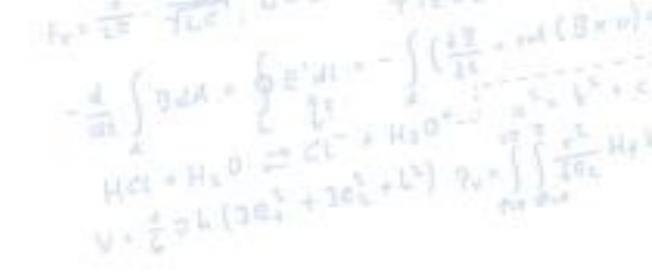
National Measures taken by 30 Countries - 2015 Report

Caroline Kearney









- Underachievement in STEM a priority area.
- Wide implementation of inquiry-based learning.
- Changes to the curricula:
- > Effective ICT use.
- New STEM resources.
- New pedagogy.
- > More focus on training of in-service teachers than initial teacher training.



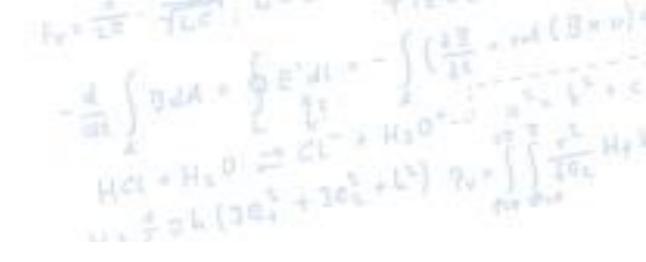
# WHERE CAN YOU FIND IT?

On the Scientix online portal: <u>www.scientix.eu/</u>

Full report.
Executive summary.
18 national responses.
Introductory video







Home > Observatory > comparative-analysis-2015

### EFFORTS TO INCREASE STUDENTS' INTEREST IN PURSUING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS STUDIES AND CAREERS

#### NATIONAL MEASURES TAKEN BY 30 COUNTRIES – 2015 REPORT



PURSUING SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS STUDIES AND CAREERS National Measures taken by 30 Countries - 2015 Report Caroline Keerney

The information provided in this report is based on the national contributions received from the Scientix National Contact Points representing 30 countries, in response to a survey on national measures and initiatives to increase students' interest in pursuing STEM studies and careers, launched in the summer of 2015 by European Schoolnet. This main source of data is complemented with information presented by a number of Ministries of Education during European Schoolnet's annual conference, Eminent, on 18-19 November 2015, which was organised by the Scientix project.

The previous edition of the current report was published in 2011. This report is the latest edition, and has been written by European Schoolnet, with the support of the project Scientix. This latest report in the series updates the information published on certain issues in the 2011 edition, provides further information where available

about ongoing initiatives, as well as new information concerning the additional nine countries who have contributed to this year's report (Bulgaria, Croatia, Cyprus, Greece, Hungary, Latvia, Malta, Poland, and the United Kingdom).

Moreover, this 2015 edition of the report has a **special focus on teacher education policies and initiatives**. This focus is the result of the previous edition of the report (covering a wide range of issues in relation to STEM education), which identified improving initial teacher education and continuous professional development at the heart of the drive to make STEM studies and professions a more popular option for young learners. This current edition looks more deeply into how countries are developing initiatives in these areas.

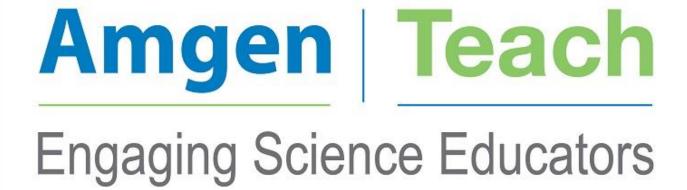
DOWNLOAD THE EXECUTIVE SUMMARY

DOWNLOAD THE FULL REPORT

# Amgen Teach Programme for Life Science Teachers

Content:

- Main programme objectives
- Main programme characteristics
- Face to face & online activities
- Evaluation





### www.amgenteach.eu





# Main objectives

- Launched in 2014, Amgen Teach supports hundreds of science teachers each year across Europe through meaningful professional development opportunities.
- Supported by a €2 million grant from the Amgen Foundation over a three-year period, Amgen Teach deepens student interest and achievement in science by strengthening the ability of life science secondary school teachers to use enquiry based teaching strategies in the classroom.
- Amgen Teach uses training workshops and distance learning events to provide educators with the skills and confidence to transform the student experience in learning science



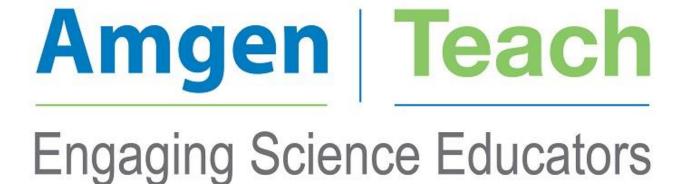




# Main characteristics



www.amgenteach.eu



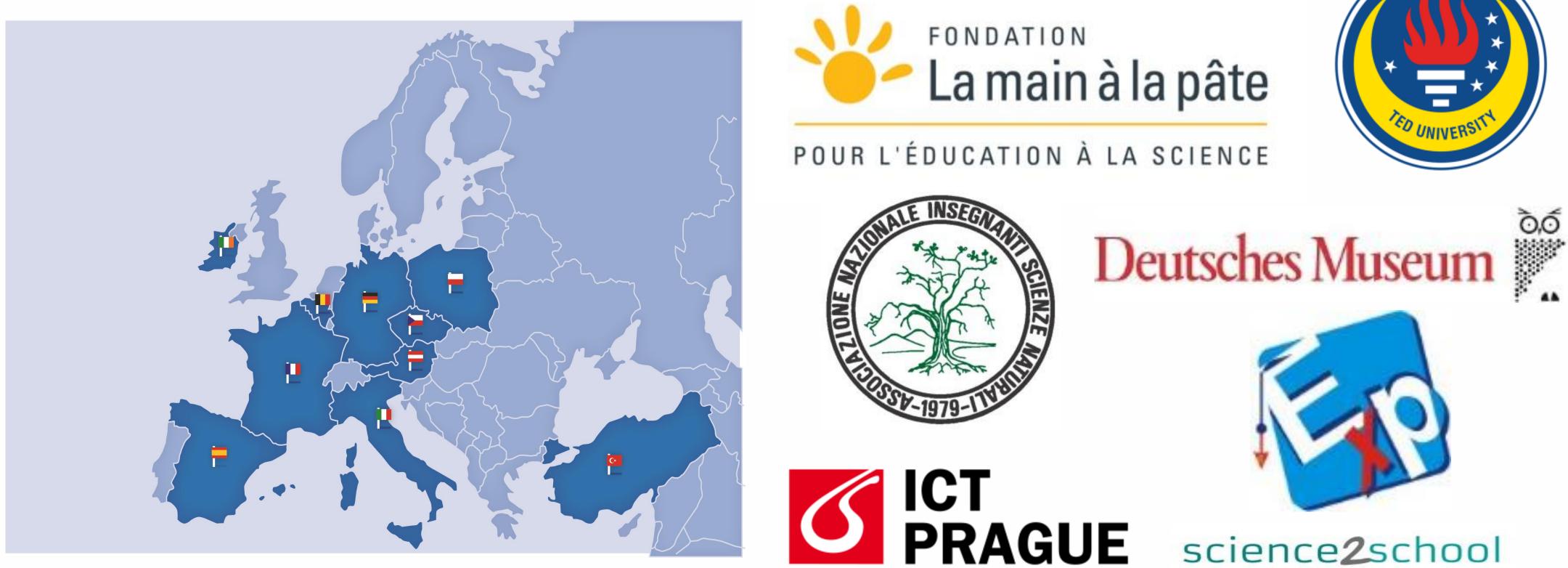


# Centralized registration & Evaluation



European Schoolnet

# Face-to-Face national activities **Training Providers**





Warszawskie Centrum Innowacji Edukacyjno-Społecznych i Szkoleń

Instytucja Edukacyjna m. st. Warszawy











science2school FORSCHEN : LERNEN



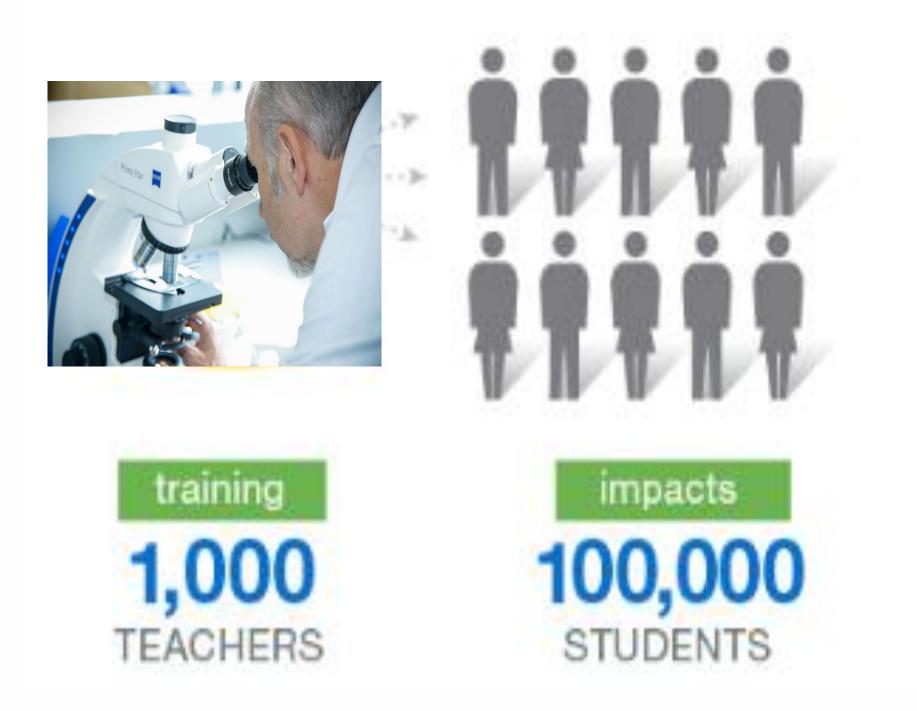
um Fhorbairt Ghairmiúil do Mhúinteoirí

rofessional Development Service for Teachers

# Face-to-Face national trainings

- Duration: 2-3 days
- Objective: to improve teachers' ability and confidence to use IBSE methods in the classroom









### Amgen | Teach Face-to-Face international workshops **Engaging Science Educators**

Workshops in the Future Classroom Lab



- Discover resources for promoting life science and IBSE in an interactive classroom
- interaction in the classroom
- Use a mix of media and tools in the FCL
- Share experiences and exchange best practices with other teachers from other European countries

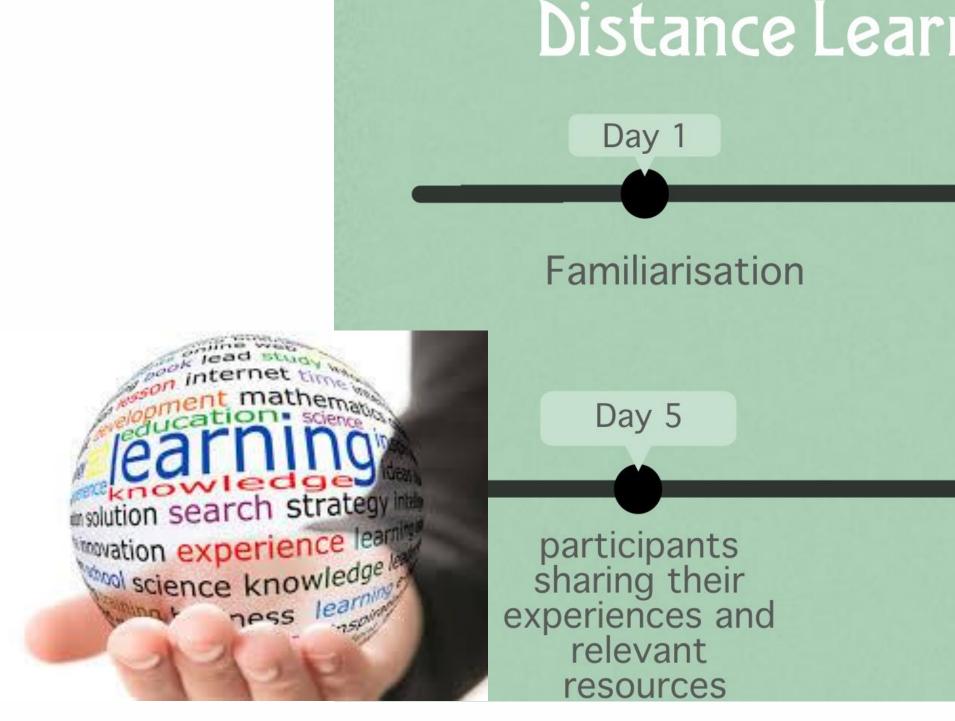
• Discover new tools and methodologies to increase





# **Online Distance Learning Activities** (DLAs)

- **3 DLAs** per academic year (e.g. "Nanotechnology around us", "Stem cells biology", etc)
- Short and intensive online learning course of 5 days duration







### **Engaging Science Educators**

nin	a a	cti	viti	es

Day 2

Live session

Day 3 & 4

Questions in the online community





# **Teacher Community**

### Join the Forum



### Browse Teaching Resources





### **Engaging Science Educators**

### Participate in Distance Learning Activities







# Join the forum

#### GINA MIHAI CA Amgen | Teach 1. W **Engaging Science Educators** in th Public website Teacher Communit Res the teac acco SIGN IN WELCOME TO AMGEN TEACH TEACHERS' COMMUNITY FORUM $\bigcirc$ cour Please, note that to access the Forum and the Picture gallery, you need to be logge Your request processed $\odot$ your openID. successfully. If you do not have an openID, it is because you did not register to the programme yet. SIGN OUT You are signed in as Gina Mihai. HERE YOU CAN: Sign Out Web Content Display - Look and Feel -See the frequently asked questions in the forum, ask your own questions and start ne Configuration - Close with fellow teachers from all over Europe! TEACHER COMMUNITY Share pictures of your class implementing some Enquiry based learning activities, pictures of your face-to-face training. FORUM DISTANCE LEARNING Please make sure everyone appearing on the picture gives their consent before you upload it. The best p ACTIVITIES be used for promoting the Amgen Teach programme on websites and/or brochures, giving extra visibility your school. RESOURCES in the second se i 🖉 🔅 🔜 FORUM Recent Posts Statistics Banned Users My Subscriptions My Posts Categories Search Categories Add Category Permissions Search Showing 13 results CATEGORY CATEGORIES THREADS POSTS 1. Workshop with AmgenTeach teachers in the FCL, 22-24 April 2016, Brussel Respond to these questions to apply for < 🥜 Actions the workshop on 22-24 April 2016. 15 0 8 51

# Amgen | Teach

### **Engaging Science Educators**

ATEGORY		CATEGORIES	THREADS	POSTS		
the FCL, 22-24 Ap	estions to apply for 4 April 2016. 15 ted taking into ition of places by	0	8	51	s Actions	
ged in with	5. Spain training, 25/7 Methodological Discu Dear Teachers, Your tr about to finish! What a touch with colleagues a discussing with them? space to do so!	<b>ission</b> aining activity is bout staying in and keeping	0	3	4	الله الم
etworking , or some pictures will	6. France training- Wi Chemists Living organisms can p of biomaterials, and stu development is extrem order to produce custor materials. Stay in touc	oroduce a wide range udying their ely interesting in m-made sustainable	0	1	1	ی ک
Forum 1: Less the 1st year of <u>Subcategories</u> : 2nd year of train What do you ren training?, What trainings in your	Recommendations for the ning provided by Amgen? member most from the have you used from the class already?, What is plem you have had in	ie 2, 4	13	37	< 🎤 Actio	ns
Implementation Teacher Trainin	n of IBSE in Amgen ngs	0	2	5	< 🥜 Actio	ons
News		0	1	2	< 🥜 Actio	ns



**Inspiring the Scientists of Tomorrow** 



# Participate in Distance Learning Activities Engaging Science Educators

### Amgen | Teach

**Engaging Science Educators** 

#### SIGN IN

#### $\odot$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$ $\bigcirc$

#### **SIGN OUT**

You are signed in as Gina Mihai. Sign Out

Web Content Display - Look and Feel -Configuration - Close

TEACHER COMMUNITY

FORUM

DISTANCE LEARNING ACTIVITIES

RESOURCES



#### WELCOME TO THE DISTANCE LEARN

#### WHAT IS A DISTANCE LEARNING ACTIV

A DLA is a short and intensive online learning session

The topics of the DLAs are very varied and are anima kinds of activities such as webinars, discussions in fo

### WHY SHOULD I PARTICIPATE?

Participate in a DLA means to get in touch with exper coming from the whole continent. You will have the ch

#### HOW DO I PARTICIPATE?

To access the Distance Learning Activities, you need

1. Have your OpenID

Contact your Training Provider (at least 3 days before the survey you find on the DLA page. To be updated in use the link to join the WebEx session.

If you do not have an openID, it is because you did no now!

#### I HAVE TROUBLES IN JOINING THE DLA.

Please, send a message to elena.turci@eun.org - al

### UPCOMING DLAS:

AMGENTEACH DLA6 - TESTING SCIENT CONSTRUCT EXAMS QUESTIONS TO AS



GINA MIHAI 🛛 🛠	English 🔻			
Public website	Teacher Community Login Help 👩			
NING ACTIVITI	ES ©⊖⊖⊗			
/ITY (DLA)?				
n which usually last fo	or 5 days.			
ated by experts in the subject. Each DLA involves different forums, videos, documents, podcasts, articles, etc.				
	ground and with Science teachers get a certificate of participation.			
d to:				
	i do not have a Training Provider, fill in join the webinar, go to "Schedule" and			
not register to the programme yet. Join the Teacher Community				
	DIDO?			
always available before	e and during the DLA.			
TIFIC SKILLS: EX SSESS SCIENTIF	PLORING A PROTOCOL TO			





# **Browse Teaching Resources**

### Amgen | Teach

**Engaging Science Educators** 

	*****
SIGN IN OOOO	RESOURCES
SIGN OUT	To access this section, you need to be logge
You are signed in as Gina Mihai. Sign Out	If you do not have an openID, it is because y
Web Content Display - Look and Feel - Configuration - Close	HERE YOU CAN ACCESS:
TEACHER COMMUNITY	<ul> <li>Amgen Teach Videos</li> </ul>
FORUM	<ul> <li>Amgen Teach webinar recordings</li> </ul>
DISTANCE LEARNING	<ul> <li>Teachers testimonials</li> </ul>
RESOURCES	<ul> <li>Access to former DLAs</li> </ul>
	A 400 - A 4
A 🕸 📑	
	RESOURCES FROM TRAININGS (BY
	Folders My Documents Recent Documents
	Search F
	FOLDER
	AUSTRIA

Subfolders: Gemüse bestimmen\_Versuche mit Pflanzen, Gerechtigkeitsbecher, Mandalavorlagen für Pipettenversuche, ViOLab Unterlagen, wie wissensc funktioniert\_paläontologen

BELGIUM



### **Engaging Science Educators**

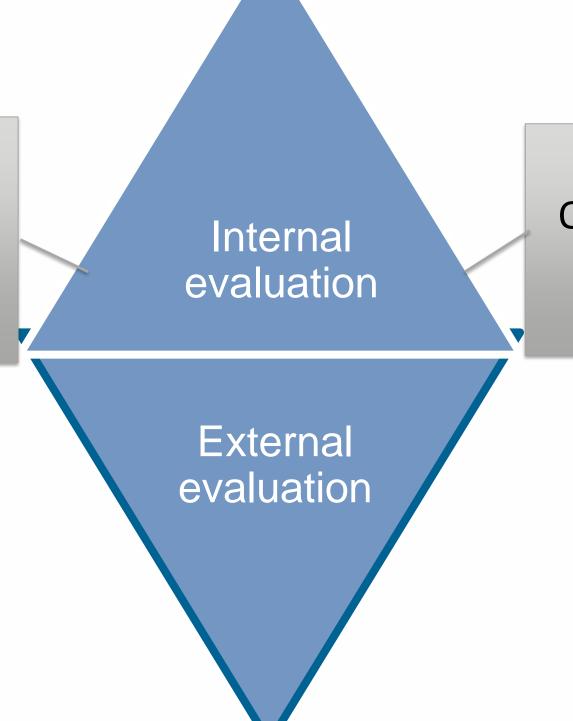
INA MI	HAI 🛛 🛠		English <b>v</b>
Ρ	ublic website	Teacher Community	Login Help 🗿
	with your oper id not register	nID. to the programm	e yet.
	NTRY)		;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
older	s Add Folder	Permissions	
	# OF FOLDERS	# OF DOCUMENTS	
r haft	6	26	∢ 🌽 Actions
	0	1	< 🌽 Actions



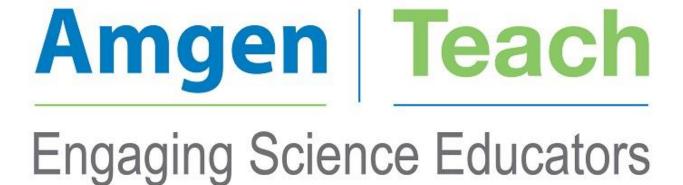


# **Evaluation: Impact of activities**

**Quantitative:** Questionnaires (behaviour, IBSE knowledge, selfevaluation, intention)



Qualitative: interviews with teachers & students













# Thank you!

### Contacts:

Enrique Martin - <u>enrique.martin@eun.org</u> Gina Mihai – gina.mihai@eun.org Ioanna Leontaraki – ioanna.leontaraki@eun.org





