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SEnDIng

D5.3.1

OPEN CALL FOR PARTICIPATION OF COMPANIES IN THE VOCATIONAL TRAININGS

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Delivery Slip

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PROJECT SUMMARY

SEnDIng project aims to address the skills' gap of Data Scientists and Internet of Things engineers that has been identified at the ICT and other sectors (e.g. banking and energy) at which Data Science and Internet of Things have broad applications. To achieve this goal, SEnDIng will develop and deliver to the two aforementioned ICT-related occupational profiles two learning outcome-oriented modular VET programmes using innovative teaching and training delivery methodologies.

Each VET program will be provided to employed ICT professionals into three phases that include: (a) 100 hours of on-line asynchronous training, (b) 20 hours of face-to-face training and (c) 4 months of work-based learning. A certification mechanism will be designed and used for the certification of the skills provided to the trainees of the two vocational programs, while recommendations will be outlined for validation, certification & accreditation of provided VET programs.

Furthermore, SEnDIng will define a reference model for the vocational skills, e-competences and qualifications of the targeted occupational profiles that will be compliant with the European eCompetence Framework (eCF) and the ESCO IT occupations, ensuring transparency, comparability and transferability between European countries.

Various dissemination activities will be performed – including the organization of one workshop at Greece, Bulgaria and Cyprus and one additional conference at Greece at the last month of the project – in order to effectively disseminate project's activities and outcomes to the target groups and all stakeholders. Finally, a set of exploitation tools will be developed, giving guides to stakeholders and especially companies and VET providers, on how they can exploit project's results.

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1 Introduction

In September 2019 (4/9/2019), we published an open call inviting companies and IT professionals to participate in the Data Science and IoT VET programs. The call remained open until October 10th, 2019.

The call announced the launch of the free Data Science and Internet of Things training programs for IT professionals organized in the framework of the SEnDIng project and invited companies to express their interest concerning their employees that they would like to be trained on these technologies. In addition the call also addressed IT professionals working as freelancers provided that they could make arrangements to also participate in the work-based phase of the training (meaning that they would find a company to host them during that phase). The call was circulated using the following channels:

- Direct email to network contacts from all project partners
- Special page on the official project website
- Informational flyers for IT companies and professionals
- Posts in project's social channels (LinkedIn/Facebook/Twitter)

All aforementioned channels linked to a Google form designed to collect contact details and estimated number of participants for the two training programs.

2 Open call for participation of IT companies and professionals

2.1 Direct email messages to network of contacts

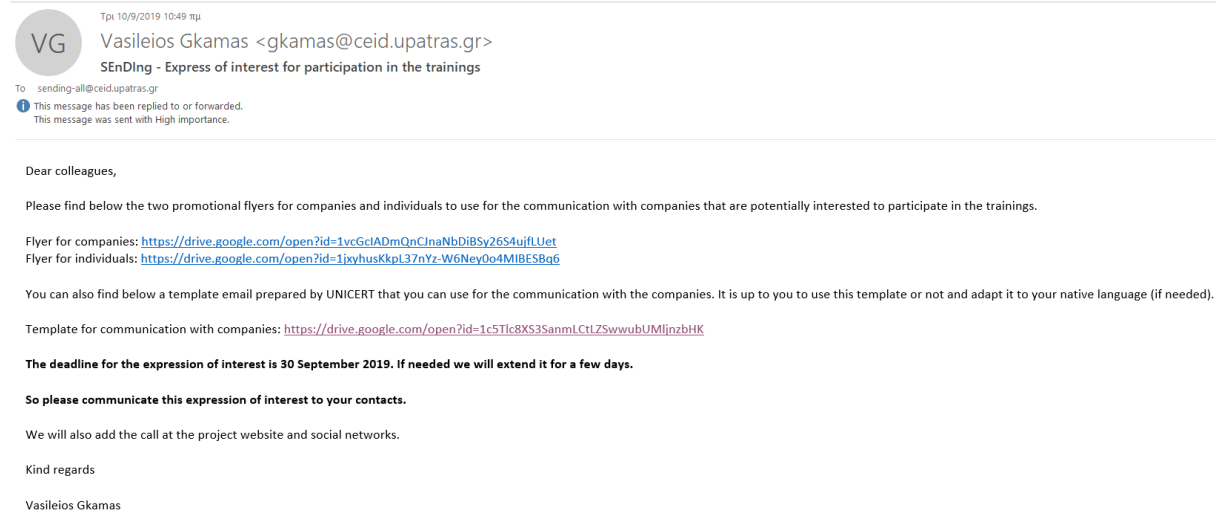
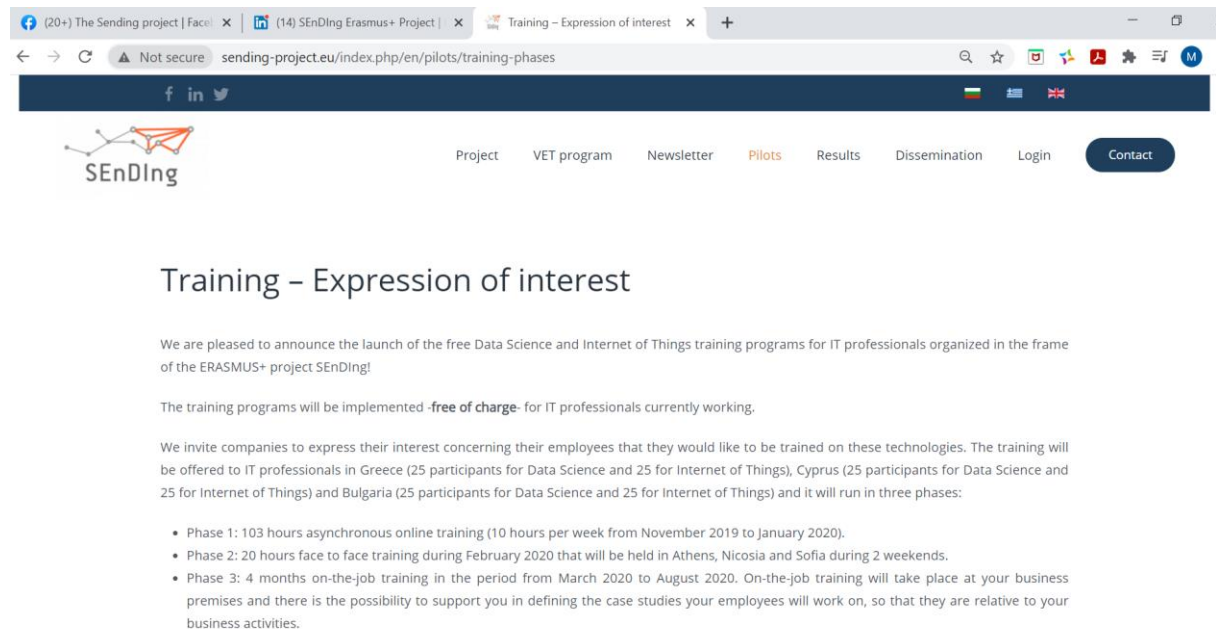


Figure 1. Email message sent to direct partners' contacts and networks

2.2 Open call on the official project website



After the completion of the training, certification exams will held in a training center where the participants who will pass the exams will receive a certificate of the programme.

Expression of interest: <https://bit.ly/2XWvtZY>

Deadline: ~~30/09/2019~~ 10/10/2019 (extended)

Details about the trainings can be found below:

[For companies](#)


[For IT professionals](#)

[< Prev](#)

[Next >](#)

Figure 2. Page on the official project website concerning the expression of interest for companies and individual to participate in the SEnDIng trainings (<http://sending-project.eu/index.php/en/pilots/training-phases>)

2.3 Informational flyers for IT companies and professionals

www.sending-project.eu


Vocational Training program IoT & Data Science

Expression of Interest : **FREE of Fees*** (<https://bit.ly/2XWvtZY>)
 Registrations: **September 2019**
 Duration: **November 2019 - August 2020.**

*THE COST OF THE TRAINING PROGRAMS ARE FUNDED BY THE ERASMUS+ PROJECT SENDING

24,697 open Data Scientist positions on LinkedIn in the United States alone, while the top 3 most common skills requested in LinkedIn data scientist job postings are Python, R, and SQL.

“Your Staff, Your Asset, Your Future”

28% demand increase for DS professionals in 2020

43% IT Industry reports lack of DS skills

0.5M Unfilled DS Positions by 2020

68% businesses struggle to hire IoT experts



The SEnDIng vocational training programs are based on modular and multi-disciplinary curricula combining technical with transversal (or soft) skills. They have been designed in consultation with VET providers, academics, technology companies and experts that are active at the Data Science and IoT domains. Their aim is to fight the skills' gap by providing vocational trainings that meet the demand and last trends of Data Science and IoT industries.

- ◆ **Upskill your employees at Data Science and IoT domains for FREE**
- ◆ **Find experts on IoT and Data Science certified by SEnDIng VET program**
- ◆ **Boosting Data Science & IoT Skills**
- ◆ **Meet new challenges in the market**
- ◆ **Reap reduced training expenses.**
- ◆ **Help your organization to capitalize on the Data Science and IoT potential.**
- ◆ **Available in Greece, Cyprus and Bulgaria**

- ◆ **Phase 1** Online training (103 hours)
The online training will be provided in the form of asynchronous courses at the areas of Data Science or IoT. Each online training program consists of a series of modules that helps you master specific knowledge, skills and competences at the areas of Data Science or IoT.
- ◆ **Phase 2** Face to face training (20 hours)
The face to face training aims to cultivate the transversal skills of the trainees. Trainees will be eligible to participate in the face to face training, once the online Data Science or IoT training are completed. Offered in Greece, Bulgaria and Cyprus
- ◆ **Phase 3:** Work based learning (4 months)
Work based learning aims to provide knowledge, skills and competences by doing a job and by reflecting on the experience. It will run at the companies whose employees will participate in the training. The use cases will be defined in cooperation with the companies participating in the program based on their interests and needs.
- ◆ **Final Exams- Certification**
After the completion of the 3 phases training, the trainees will be asked to take a final exam in order to be formally certified.

Contact us!

EMAIL gkamas@ceid.upatras.gr
rigou@ceid.upatras.gr

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Figure 3. Flyer for IT companies (page 1)

www.sending-project.eu



SEnDIng

Vocational Training program IoT & Data Science

Expression of Interest: **FREE of Fees**** (<https://bit.ly/2XWvtZY>)
 Registrations: **September 2019**

Expression of Interest

** THE COST IS FUNDED BY THE PROJECT SENDING

What your staff will learn?

Those interested to participate in work based learning will be eligible, given that they have successfully attend the online Data Science (103 hours) or IoT training (103 hours) and the face to face training on transversal skills (20 hours). Please visit our website <http://bit.ly/vet-program> to see the Data Science & IoT online courses, as well as the face to face courses for transversal skills.

<p style="text-align: center; font-weight: bold; color: #f4a460;">IoT LEARNING OUTCOMES</p> <p>Knowledge</p> <ul style="list-style-type: none"> Describe the value that IoT delivers in different business domains. Explain the business processes related to IoT in specific domains. Understand IoT architectures and the related network and communication protocols. Recognize different types of sensors, actuators, displays and related embedded electronics Design the application level (e.g. use protocols that support different IoT applications) of IoT in the context of big data, cloud technologies and DS. Formulate requirements about IoT information security. <p>Skills</p> <ul style="list-style-type: none"> Analyse, argue and describe the business value of a particular IoT system. Design an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection. Develop and deploy workflows and dashboards for an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection. Develop working code for an IoT system that includes sensors, controllers, actuators and displays, connected to a cloud platform through Internet connection. Apply IoT information security concepts. 	<p style="text-align: center; font-weight: bold; color: #f4a460;">DATA SCIENCE LEARNING OUTCOMES</p> <p>Knowledge</p> <ul style="list-style-type: none"> Describe the key concepts of Data Science. Describe ICT methods and tools applicable for the storage and retrieval of data. Describe methods and tools applicable for the statistical analysis of data. Explain basic concepts and requirements related to information security and privacy. <p>Skills</p> <ul style="list-style-type: none"> Analyse domain specific trends and present them as structured information. Create code to statistically analyse data. Apply data statistics and data visualization. Deploy simple machine learning techniques. Deploy data storage and retrieval techniques. Implement data models validation techniques. Ensure that IPR, security and privacy issues are respected.
---	---

Competence



- Exercise self-management within the guidelines of work or study contexts that are usually predictable, but still are a subject to change.
- Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.

Transversal (soft) Skills

- Communication skills.
- Adaptability to change.
- Teamwork.
- Ability to present in front of colleagues and clients.
- Goal-orientation. Thinking outside the box. Agile mind-set.

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Figure 4. Flyer for IT companies (page 2)

www.sending-project.eu



Vocational Training program IoT & Data Science

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- ◆ **Available in Greece, Cyprus and Bulgaria**
- ◆ **Boosting Data Science & IoT Skills**
- ◆ **Get certified knowledge, skills and competences**
- ◆ **Work with the latest technology stacks**
- ◆ **Meet new challenges in the labor market**
- ◆ **Grab the top paying Data Science and IoT expert job titles**
- ◆ **Get qualified to occupy new positions**
- ◆ **Apply the knowledge and skills gained at a real working environment**

◆ **Phase 1** Online training (103 hours)

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Figure 5. Flyer for IT professionals (page 1)

www.sending-project.eu



SEnDIng

Vocational Training program

IoT & Data Science

Expression of Interest: **FREE of Fees**** (<https://bit.ly/2XWtZY>)
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Figure 6. Flyer for IT professionals (page 2)

2.4 Open call for expression of interest on project's social channels (LinkedIn/Facebook/Twitter)

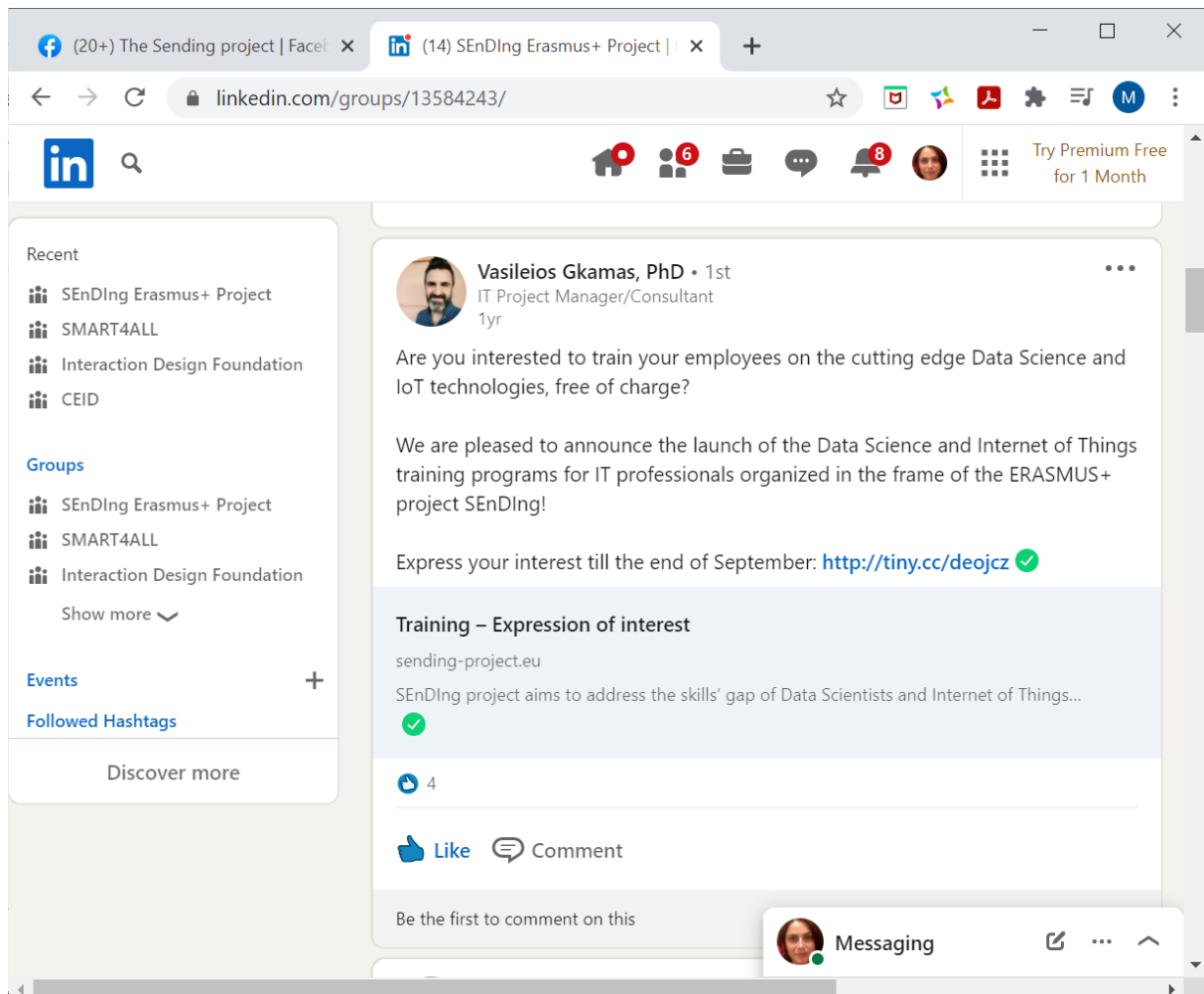


Figure 7. Post on SEnDIng LinkedIn page concerning the expression of interest for companies and individual to participate in the SEnDIng trainings

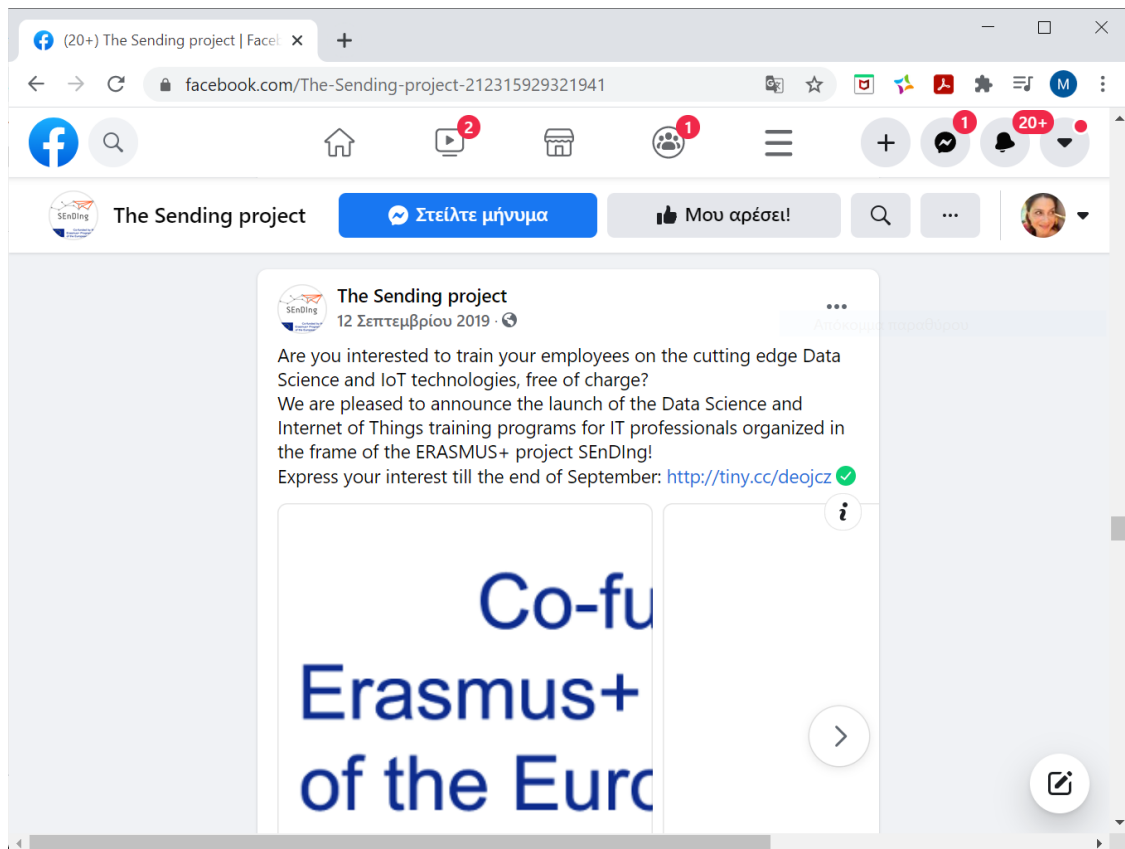











Figure 8. Post on SEnDIng Facebook page concerning the expression of interest for companies and individual to participate in the SEnDIng trainings

- 
-  **Home**
-  **Explore**
-  **Notifications**
-  **Messages**
-  **Bookmarks**
-  **Lists**
-  **Profile**
-  **More**

Tweet

SEnDIng Erasmus+ Project
29 Tweets

SEnDIng Erasmus+ Project @SEnDIng_project · Sep 11, 2019

Are you interested to train your employees on Data Science and IoT technologies, free of charge?
We are pleased to announce the launch of the DS and IoT training programs for IT professionals organized by project SEnDIng!
Express your interest now: tiny.cc/deojcz

SEnDIng Erasmus+ Project @SEnDIng_project · Apr 3, 2019

Read @SEnDIng_project 2nd newsletter at sending-project.eu/index.php/en/j...

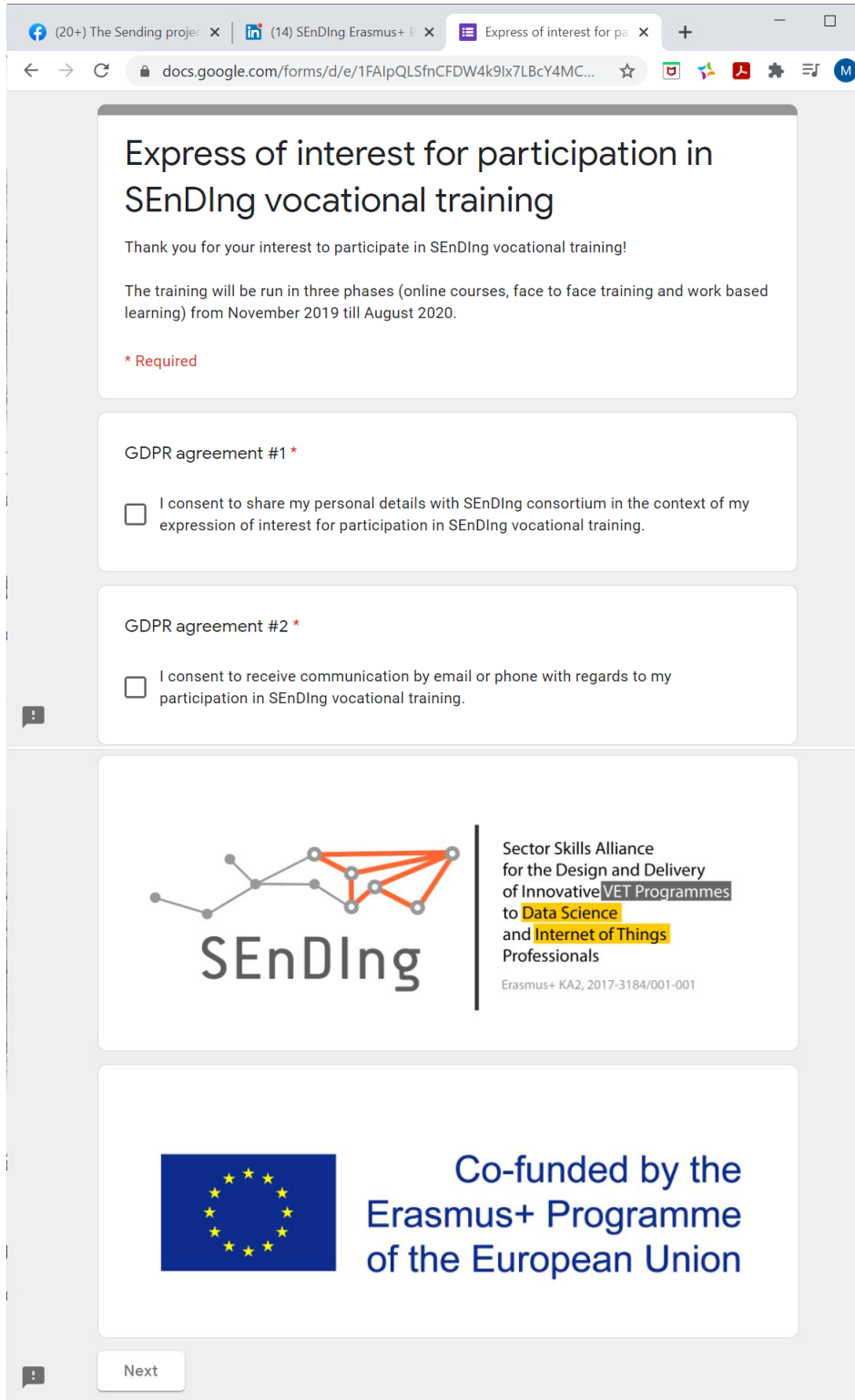
Topics to follow
Tweets about the Topics you follow show up in your Home timeline

Viral Tweets + ×	Funny Tweets +
Bitcoin cryptocurrency + ×	NBA +
BTS + ×	Football +

[More Topics](#)

Figure 9. Post on SEnDIng Twitter page concerning the expression of interest for companies and individual to participate in the SEnDIng trainings

3 Online Form for collecting Expressions of Interest



The screenshot shows a Google Form in a browser window. The browser tabs include 'The Sending projec...', '(14) SEnDIng Erasmus+ P...', and 'Express of interest for pa...'. The address bar shows the URL 'docs.google.com/forms/d/e/1FAIpQLSfnCFDW4k9lx7LBcY4MC...'. The form content is as follows:

Express of interest for participation in SEnDIng vocational training

Thank you for your interest to participate in SEnDIng vocational training!

The training will be run in three phases (online courses, face to face training and work based learning) from November 2019 till August 2020.


*** Required**

GDPR agreement #1 *

I consent to share my personal details with SEnDIng consortium in the context of my expression of interest for participation in SEnDIng vocational training.


GDPR agreement #2 *

I consent to receive communication by email or phone with regards to my participation in SEnDIng vocational training.

 **SEnDIng**

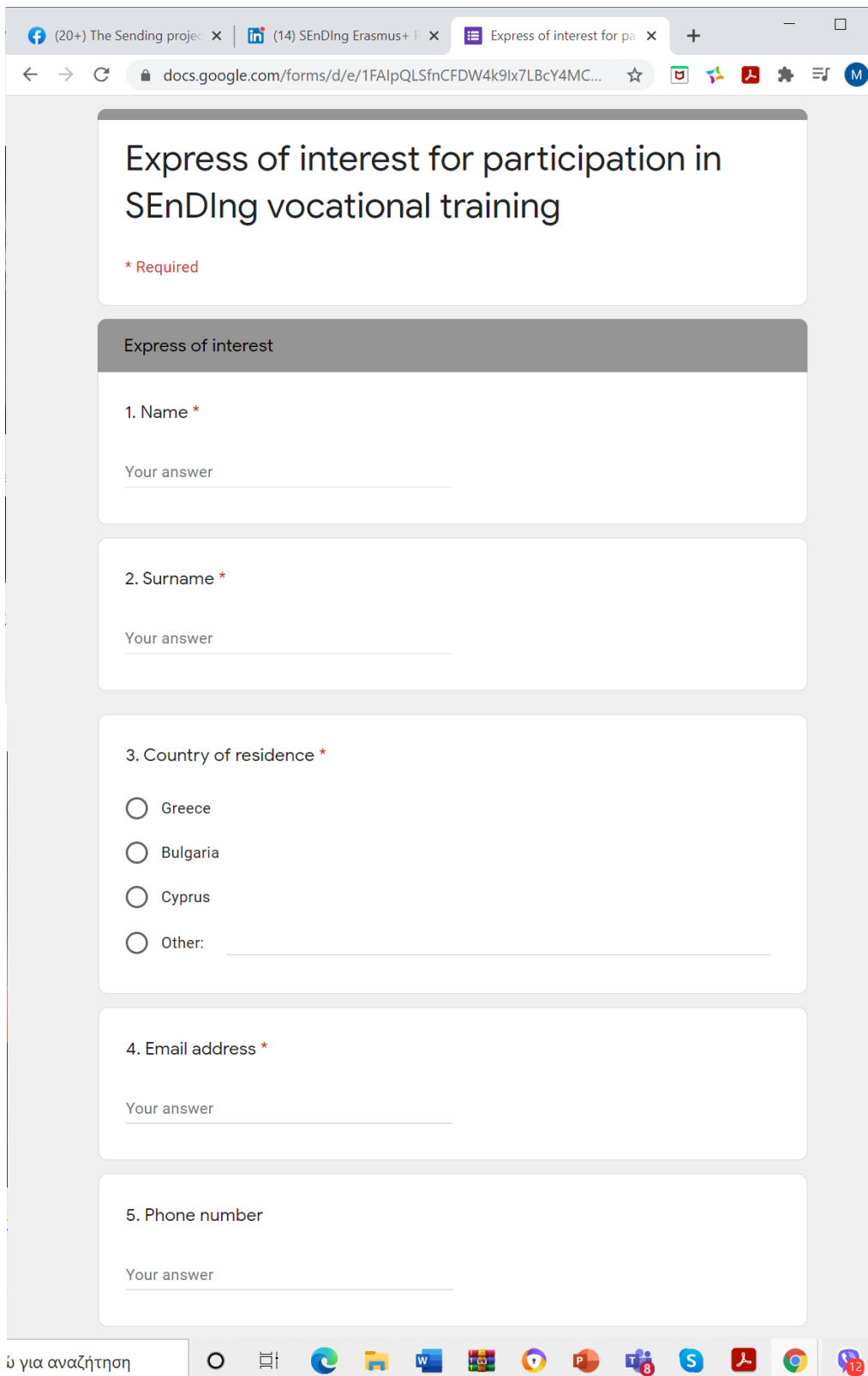
Sector Skills Alliance
for the Design and Delivery
of Innovative VET Programmes
to **Data Science**
and **Internet of Things**
Professionals

Erasmus+ KA2, 2017-3184/001-001

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Next

Figure 10. Google form for Online Form for collecting Expressions of Interest (part 1)

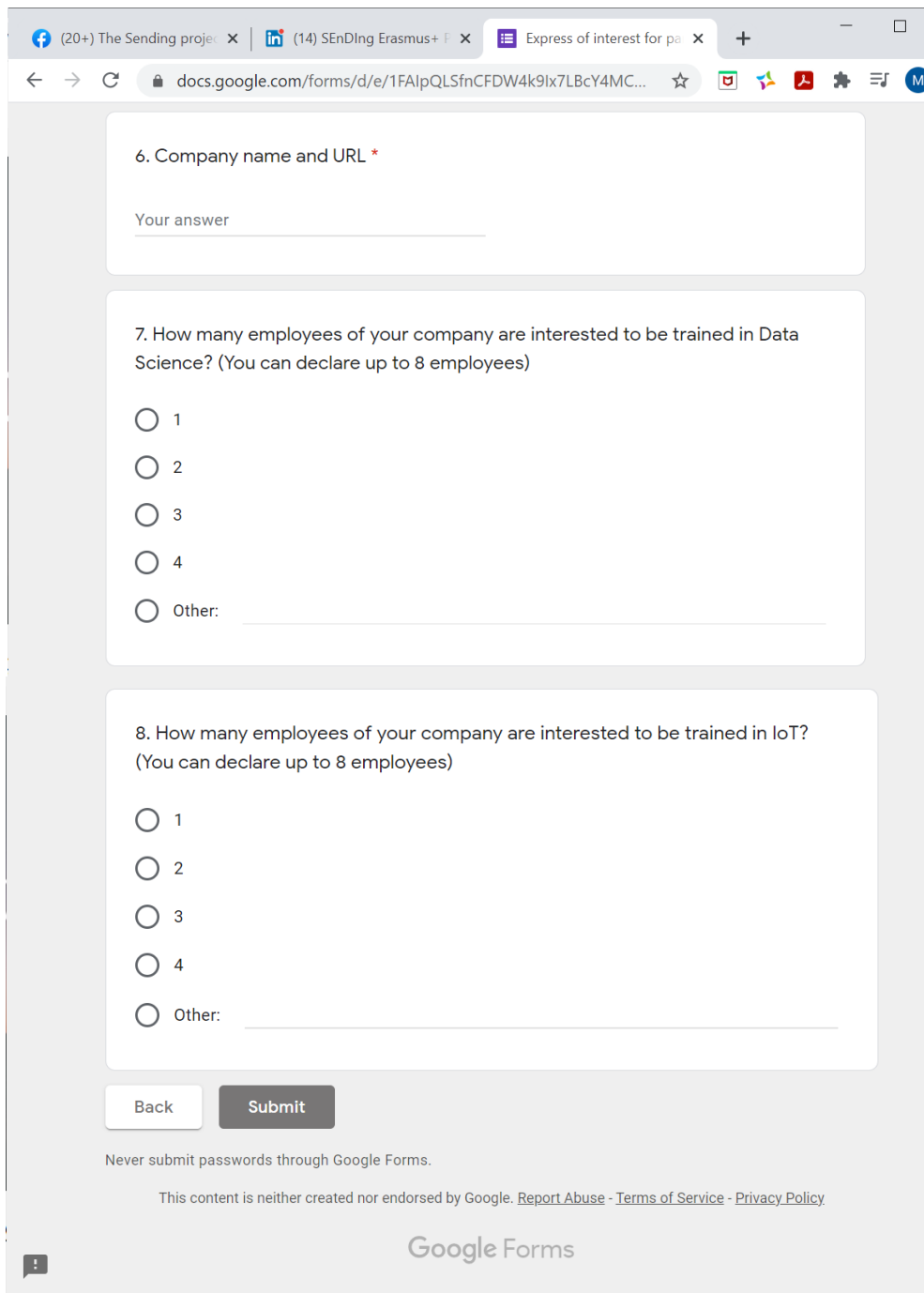


The image shows a Google Form titled "Express of interest for participation in SEnDIng vocational training". The form is displayed in a browser window with the URL "docs.google.com/forms/d/e/1FAIpQLSfnCFDW4k9lx7LbcY4MC...". The form contains five required questions:

- 1. Name *
- 2. Surname *
- 3. Country of residence *
 - Greece
 - Bulgaria
 - Cyprus
 - Other: _____
- 4. Email address *
- 5. Phone number

Each question has a "Your answer" input field. The form is part of a larger document, as indicated by the browser tabs and the "Express of interest for pa" tab.

Figure 11. Google form for Online Form for collecting Expressions of Interest (part 2)



The screenshot shows a Google Form with three questions. Question 6 is a text input field for 'Company name and URL'. Question 7 is a radio button selection for the number of employees interested in Data Science training, with options 1, 2, 3, 4, and 'Other'. Question 8 is a radio button selection for the number of employees interested in IoT training, with options 1, 2, 3, 4, and 'Other'. The form includes 'Back' and 'Submit' buttons at the bottom, along with a footer containing the Google Forms logo and a disclaimer: 'This content is neither created nor endorsed by Google. Report Abuse - Terms of Service - Privacy Policy'.

Figure 12. Google form for Online Form for collecting Expressions of Interest (part 2, continued)

3.1 Expressions of Interest collected

The Google form collected 108 responses from the project participating countries plus Palestine; 50 submissions from Bulgaria (from which 14 came from individual IT professionals), 35 from Greece (14 from individual IT professionals), 35 from Palestine (due to prior collaboration of University of Patras with a specific University in the country) and 10 from Cyprus (3 of which came from individual IT professionals) and one from Cyprus-Bulgaria. The responses by country of residence are depicted in Figure 13.

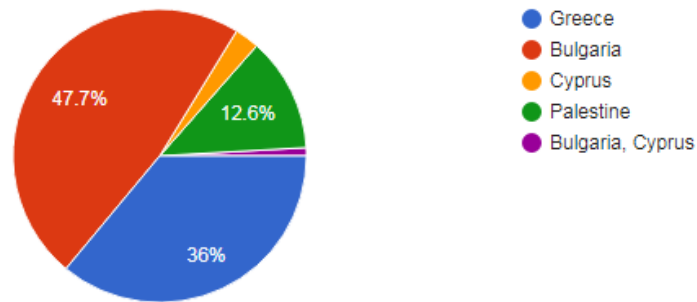


Figure 13. Responses to the Expression of Interest form by country

According to the data collected these IT companies and professionals stated that they were interested to declare a total of 208 trainees in the Data Science and 210 trainees in the IoT training program (there were 68 responses where trainees would attend both programs).



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