



## 7SHIELD

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### D8.8 Final report on communication dissemination activities

<b>Work Package:</b>	WP8 Dissemination, Impact Creation and Exploitation Plan		
<b>Lead partner:</b>	CS GROUP (CS)		
<b>Author(s):</b>	Yasmine Boulfani (CS), Mathias Paulet (CS), Franck Ranera (SERCO) and Adriana Grazia Castriotta (SERCO)		
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0.2	31/01/2023	CS, SERCO	Update after Serco input and feedback
0.3	15/02/2023	CS, STWS	2 <sup>nd</sup> release of the document after STWS internal review
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## Quality Control

Role	Date	Who	Approved/Comment
Internal review	17/02/2023	STWS	Approved with minor comments
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## Related deliverables

ID	Title	Lead partner	Dissemination level
D8.1	Communication and Dissemination Plan	NOA	Public
D8.3	Project website	CS	Public
D8.5	Brochure and Infoboard	CS	Public
D8.9	Final networking report	SERCO	Public
D8.10	7SHIELD Video	CS	Public
D8.13	Final brochure and InfoBoard	CS	Public

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## Executive Summary

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The final report on the communication and dissemination activities of the 7SHIELD project stems from deliverable *D8.1 – Communication and Dissemination Plan*, which was submitted in November 2020, at an early stage of the project. Its aim then was to define the dissemination strategy of the project, identify the appropriate target groups and define means to reach and involve them in 7SHIELD activities throughout the project duration and beyond.

During the project, the communication and dissemination plan was regularly adapted in line with progress. The final report on communication and dissemination activities summarises the activities carried out during the project lifetime implementation in line with the Communication and Dissemination Plan of 7SHIELD (Deliverable D8.1). Moreover, it includes the final information and tools needed to facilitate the effective communication of the 7SHIELD project and its sustained visibility after its closure.

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## Definitions and acronyms

D	Deliverable
DoA	Description Of Action
EU	European Union
IDMEF	Intrusion Detection Message Exchange Format
IT	Information Technology
KPI	Key Performance Indicator
KR	Key Result
M	Month
SECEF	Security Exchange Format
WP	Work Package

# 1. Introduction

---

This document presents the Final Dissemination and Communication report related to the Deliverable *D8.8 – Final report on communication dissemination activities* within T8.1 in WP8, which aims to ensure that the impact of the 7SHIELD project is maximized through an effective campaign of communication, dissemination and exploitation activities.

This document summarises the activities carried out during the project lifetime implementation, based on the 7SHIELD communication and dissemination plan already established at M3 (in deliverable D8.1). In addition, it provides partners with the necessary information and tools to facilitate effective communication of the project and its sustained visibility after its closure.

The deliverable is organised into five (5) main chapters:

- Chapter 1 is a brief introduction to the deliverable objective.
- Chapter 2 provides the final report on the 7SHIELD communication actions, presenting the updates implemented in the project's online channels, namely website and LinkedIn, as well as the final communication materials developed during the project lifetime (e.g. brochures and infoboards, newsletters, videos, and leaflets).
- Chapter 3 concerns the final report on the 7SHIELD dissemination actions, as main findings disseminated as well as the relevant events, workshops and networking activities carried out. The chapter also outlines the reached scientific publications.
- Chapter 4 provides assessments to measure the project's impact and performance of the communication and dissemination activities, providing the achieved values against the target values of the Key Performance Indicators (KPI).
- Chapter 5 concludes the document.



## 2. Final report on communication actions

### 2.1. Online communication channels

The online promotion of the project and dissemination of its results has been done via two main channels: the 7SHIELD website and the 7SHIELD LinkedIn page.

To maximise the project's visibility and increase traffic on its channels, all partners have also published information about 7SHIELD and its outputs on their organisations' websites.

#### 2.1.1. 7SHIELD Website

The 7SHIELD website (Figure 2-1) (<https://www.7shield.eu/>) – developed by CS and released in M3 (Deliverable D8.3) – served as the main source of up-to-date information about the activities and outputs of the project. It has been updated by CS at least twice per month with input by all project partners and its traffic has been monitored using Google Analytics<sup>1</sup>.

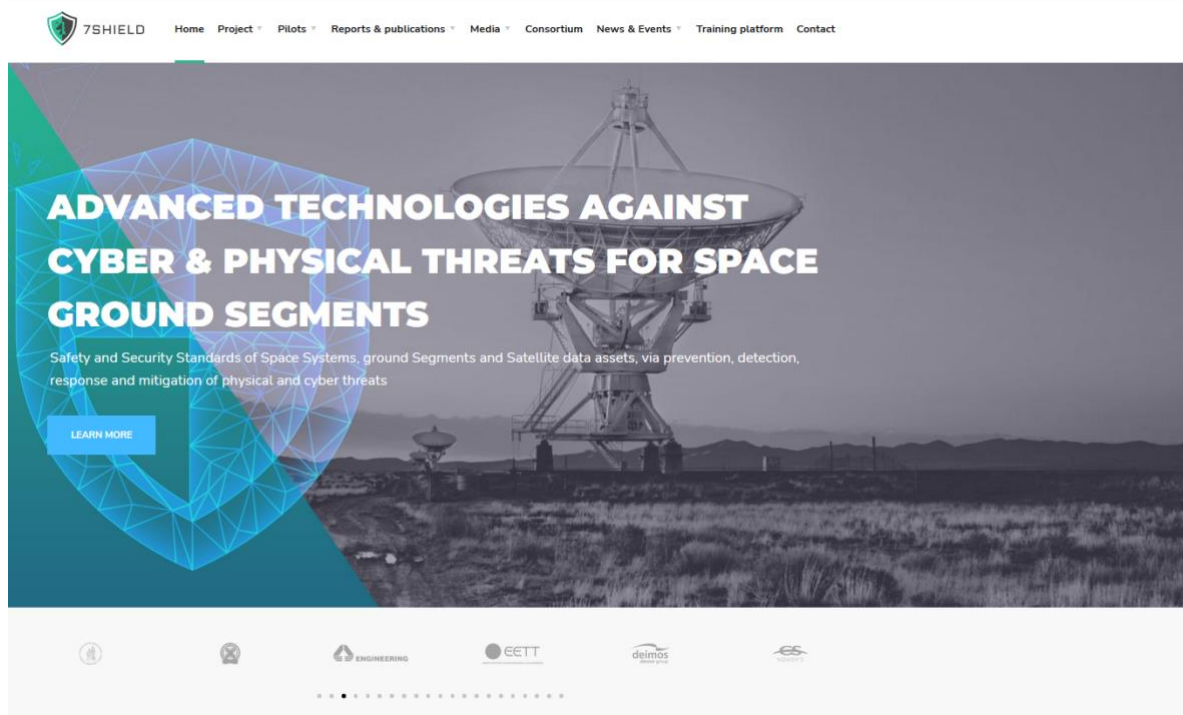


Figure 2-1: 7SHIELD website – Home page.

Figure 2-2 to Figure 2-4 show the web analytics from March 2021 to December 2022.

Figure 2-2 gives a global information of users and traffic of the 7SHIELD website. Where “pageviews” represents each individual time a page on the website is loaded, while a “session” represents a single visit to the website and can include many pageviews. As seen in the analytics of the figure, around 4,66 thousand users have visited the 7SHIELD website during the reference period and stayed averagely for 1,4 minutes.

<sup>1</sup> <https://analytics.google.com/analytics/web/>

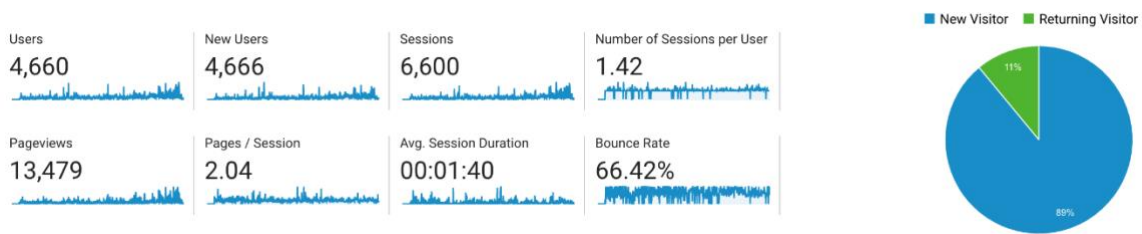


Figure 2-2: 7SHIELD web analytics – Global analytics view.

Figure 2-3 shows the monthly users visits with a peak in visits towards the end of 2022, corresponding to the [7SHIELD Infoday Event](#) which was the subject of a major communication campaign during this period.

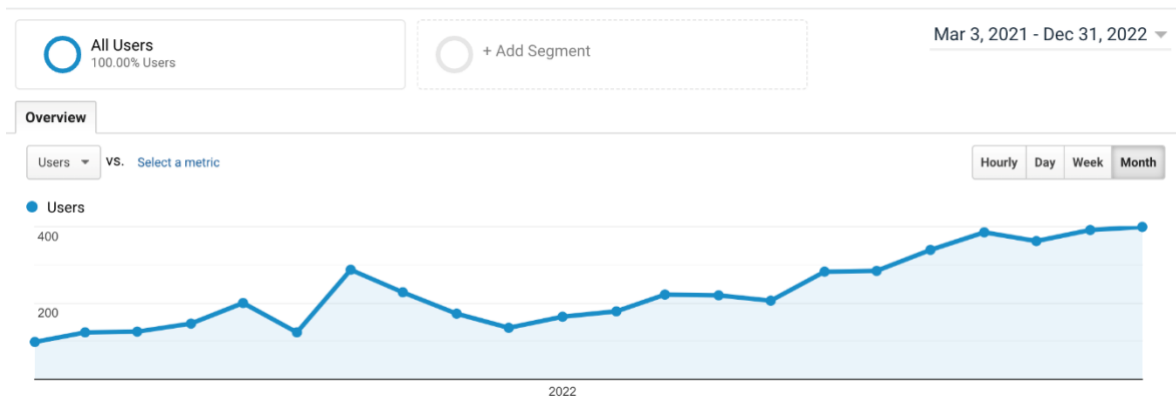


Figure 2-3: 7SHIELD web analytics – Monthly users

As seen in the analytics of Figure 2-4, the majority of users visiting the site come mainly from European countries, such as Greece, Italy and France, where the main communication channels of most of 7SHIELD's partners are carried out, but we can also observe other countries outside the EU, with the United States having the largest number of visitors (21%).

Country	Users	% Users
1. United States	979	21.02%
2. Greece	706	15.16%
3. Italy	430	9.23%
4. France	409	8.78%
5. India	159	3.41%
6. Netherlands	154	3.31%
7. Finland	153	3.29%
8. Canada	135	2.90%
9. United Kingdom	134	2.88%
10. Belgium	128	2.75%

Figure 2-4: 7SHIELD web analytics – top countries visiting the website

## 2.1.2. Social Media

Because of the sensitive information related to the project, the specificity of 7SHIELD's stakeholders and its Business-to-Business orientation, LinkedIn was the only social media platform used to relay information about the project and its results.

7SHIELD LinkedIn page (<https://www.linkedin.com/company/7shield/>) as shown in Figure 2-5 was set up by CS, September 2020 (M1). It has been maintained by CS and SERCO with regular updates thanks to contributions from all partners, as seen in Figure 2-6 which shows an example of a published post.

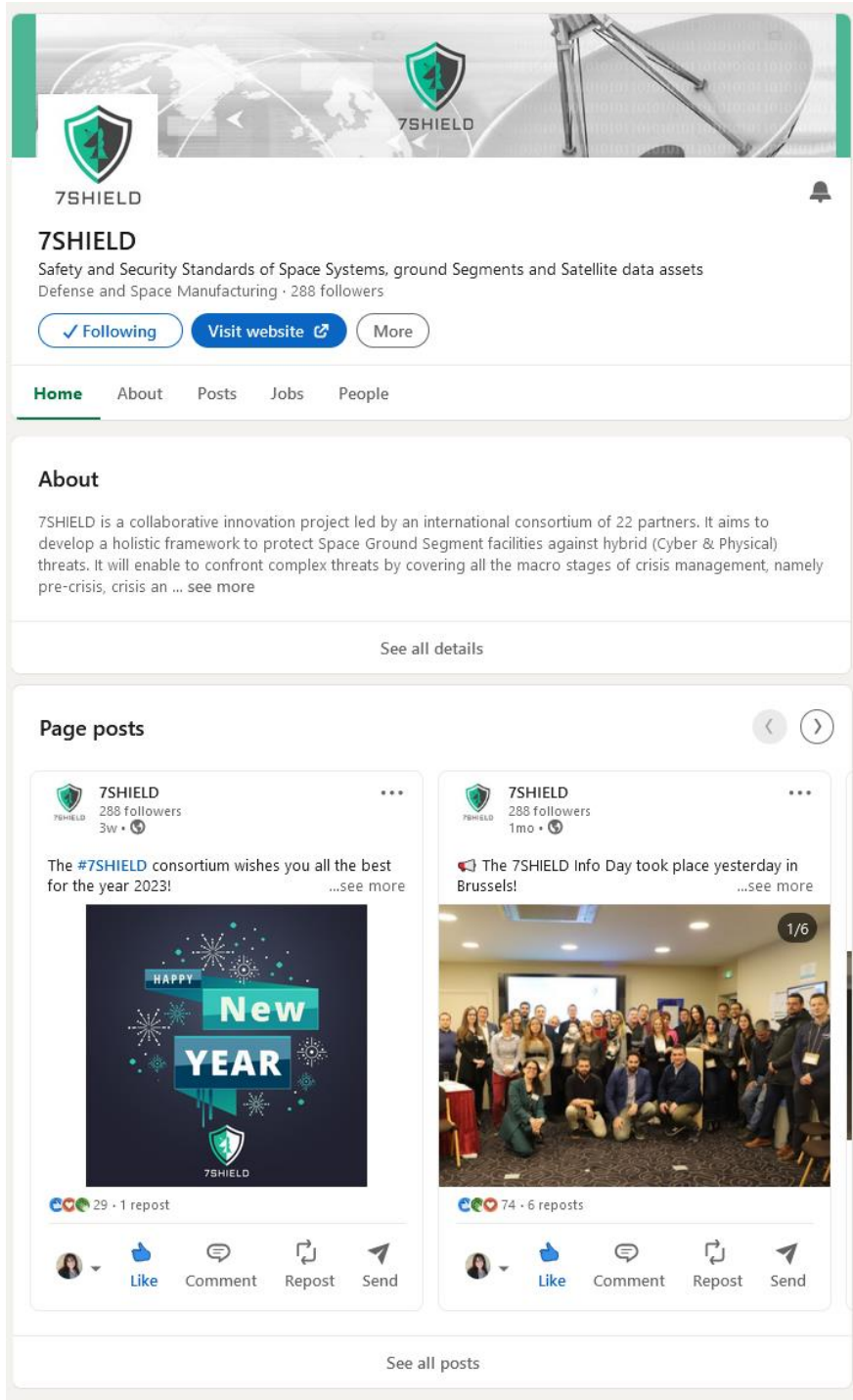



Figure 2-5: 7SHIELD LinkedIn Home page.

 **7SHIELD**  
288 followers  
1mo • 

 The 7SHIELD Info Day took place yesterday in Brussels!

It was a very fruitful meeting, with stakeholders and partners discussing the project results and exportability in a series of interactive sessions.

More than 70 participants attended the event, which was also available online. Further details will follow in the next few weeks.

 Congratulations to all the 7SHIELD partners who actively contributed to make the Info Day a success!

Engineering Ingegneria Informatica Spa, ACCELIGENCE LTD, CENTRIC, Centro Regionale Information Communication Technology - CeRICT srl, Centre for Research & Technology Hellas (CERTH), Exalens, CS GROUP, Novidy's, Elecnor Deimos, DFSL (Dr. Frucht Systems Ltd.), EETT, Finnish Meteorological Institute, Hellenic Police, INOV, Center for Security Studies (KEMEA), National Observatory of Athens, ResilTech S.r.l., Resilience Guard GmbH, Serco, Space Applications Services NV/SA, Satways Ltd

#H2020 #Horizon2020 Space #GroundSegments #CriticalInfrastructures #CyberSecurity



 Magali Tela and 73 others 6 reposts



 Like

 Comment

Be the first to comment on this

Organic impressions: 2,661 Impressions

Show stats 

Figure 2-6: 7SHIELD LinkedIn post example.

Figure 2-7 to Figure 2-10 show the LinkedIn analytics from January 2022 to January 2023 for both followers and visitors.

As seen in Figure 2-7, the LinkedIn page counts 288 followers as of January (2023), with 131 new followers joining the page in the last year, none of whom were acquired through ads and sponsored content. Most of them are working (Figure 2-8) in Research Services (13.5%) and IT Services and IT Consulting sectors (12.8%) and holding the job position in Engineering (14.6%), Research (14.2%) and Information Technology (11.5%).

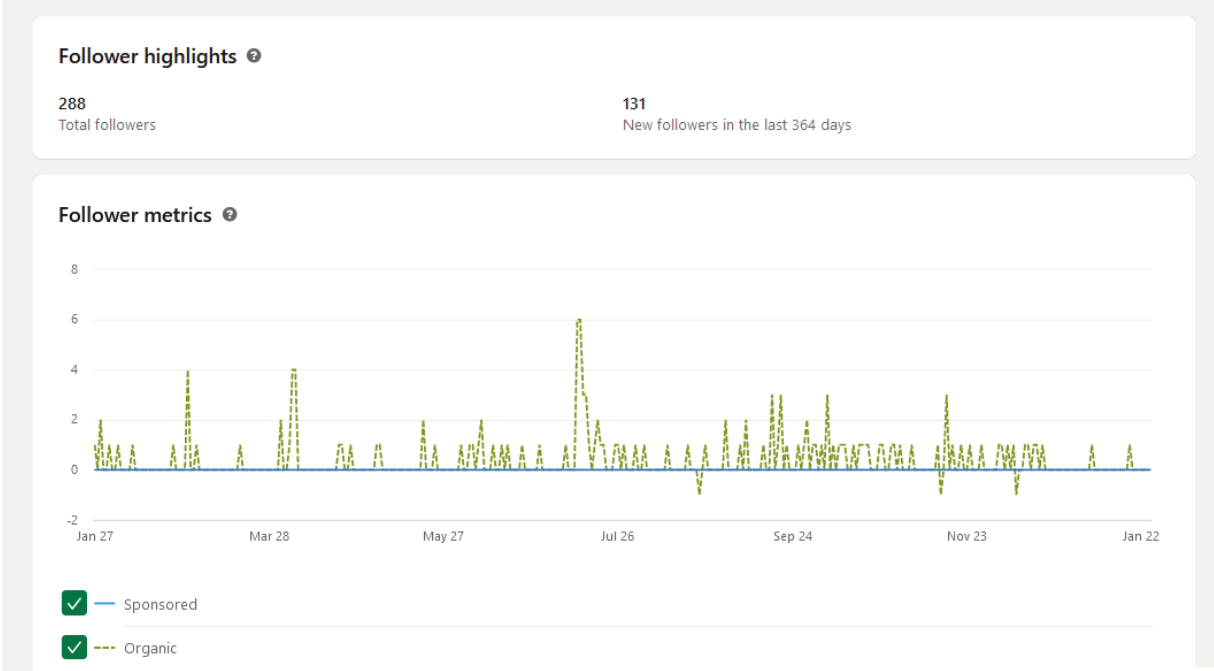
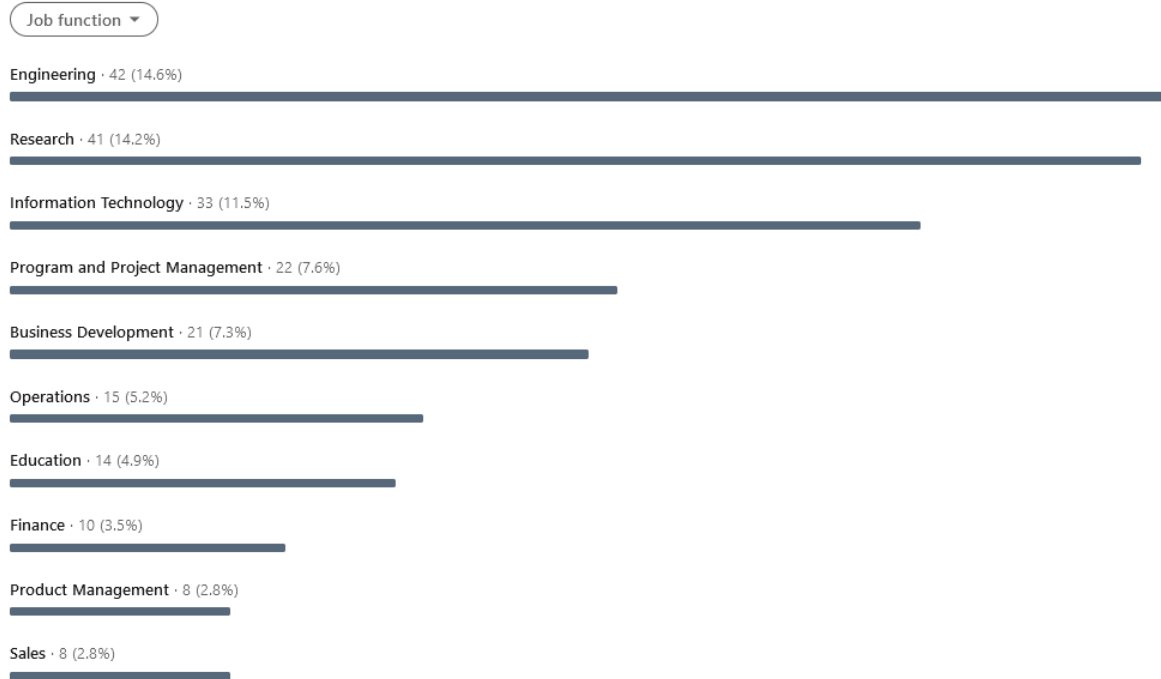


Figure 2-7: 7SHIELD LinkedIn analytics – Follower analytics (January 2022 to January 2023)

## Follower demographics



## Follower demographics

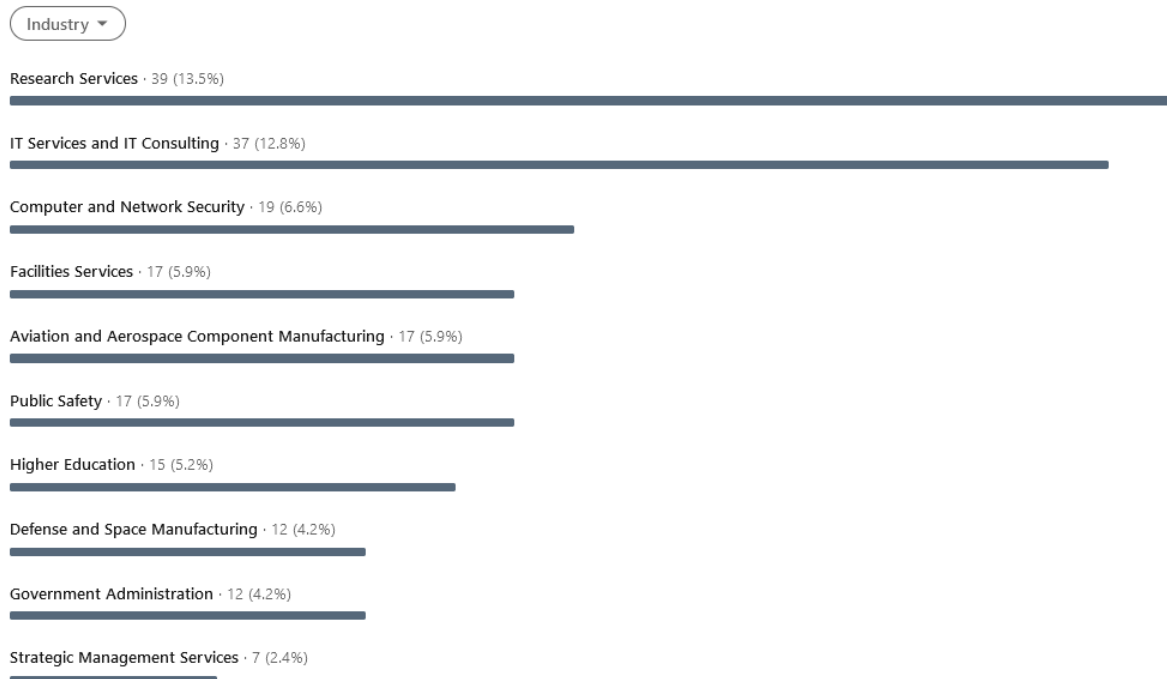


Figure 2-8: 7SHIELD LinkedIn analytics – Follower demographics (January 2022 to January 2023)

Figure 2-9 and Figure 2-10 show the same analytics mentioned above but for the LinkedIn page visitors. Figure 2-9 shows the total number of page views and unique visitors over time. Data is measured across desktop and mobile for logged in LinkedIn members. The LinkedIn page counts 1,8 thousand page views as of January (2023), with an increase of 5,3% during the last year, as well as 487 Unique visitors, showing an increase of 3,6%. Furthermore, the figure shows the traffic metrics over time with a peak in September and October 2022.

In Figure 2-10, we can observe that most of the visitors are working in IT Services & IT Consulting (35.1%), Research Services (11.6%) and Computer & Network Security (11.2%) sectors and holding the job position of Program & Project Management (29%), Engineering (15.5%), Information Technology (13.6%), Research (10.9%) and Education (8%).

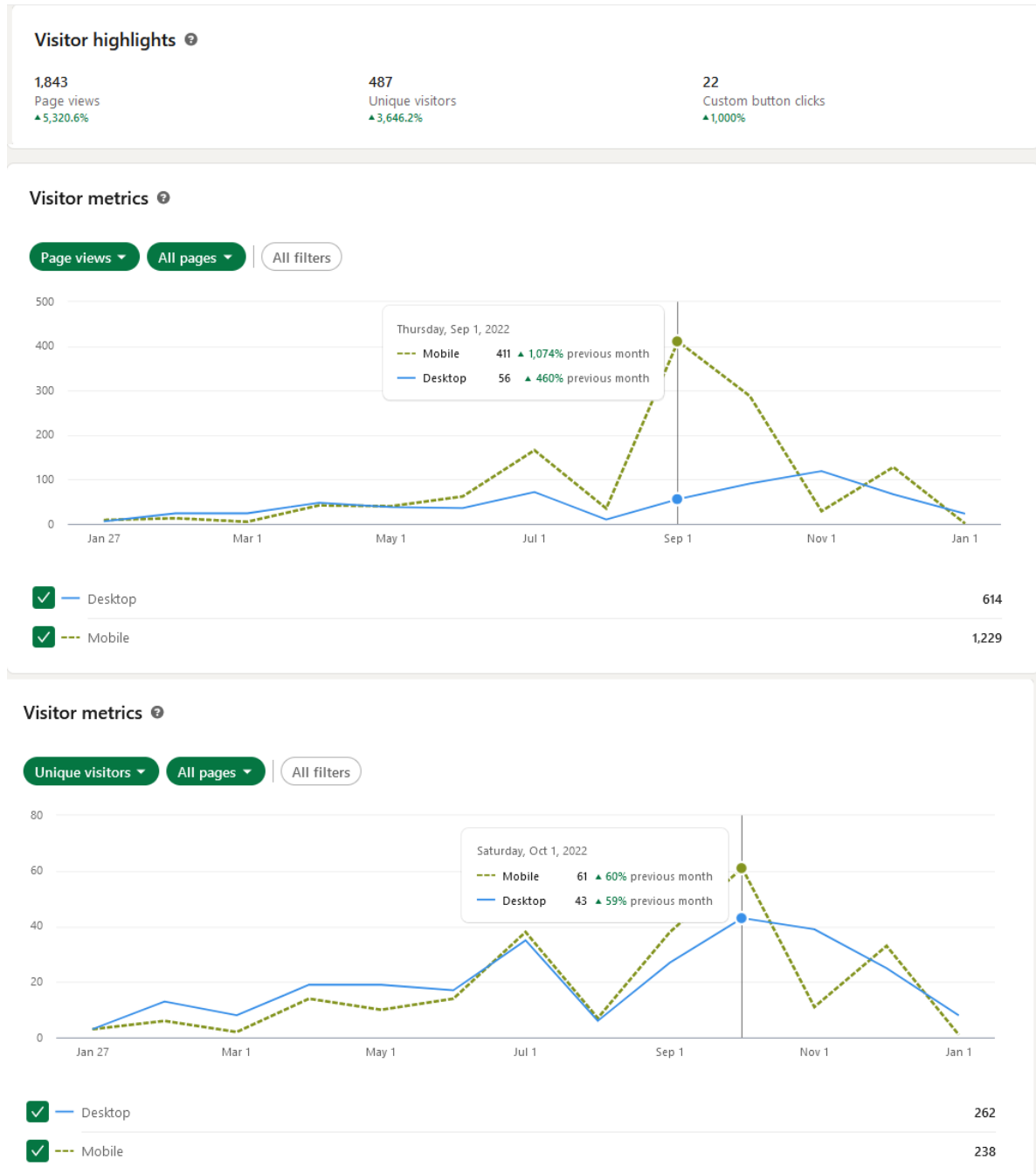


Figure 2-9: TSHIELD LinkedIn analytics - Visitor analytics (page views & unique visitors) (January 2022 to January 2023)

## Visitor demographics

Job function 

Program and Project Management · 535 (29%)

Engineering · 285 (15.5%)

Information Technology · 250 (13.6%)

Research · 200 (10.9%)

Education · 147 (8%)

Media and Communication · 46 (2.5%)

Business Development · 45 (2.4%)

Operations · 38 (2.1%)

Accounting · 32 (1.7%)

Community and Social Services · 17 (< 1%)

## Visitor demographics

Industry 

IT Services and IT Consulting · 647 (35.1%)

Research Services · 213 (11.6%)

Computer and Network Security · 207 (11.2%)

Higher Education · 134 (7.3%)

Facilities Services · 126 (6.8%)

Public Safety · 56 (3%)

Defense and Space Manufacturing · 42 (2.3%)

Aviation and Aerospace Component Manufacturing · 32 (1.7%)

Law Enforcement · 29 (1.6%)

Airlines and Aviation · 24 (1.3%)

Figure 2-10: 7SHIELD LinkedIn analytics - Visitor demographics (January 2022 to January 2023)



## 2.2. Final communication materials

### 2.2.1. Brochure and Infoboard

Two versions of the 7SHIELD brochure and infoboard were planned to be designed by CS; the first version already delivered in February 2021 (M6) and the final version is expected in February 2023 (see D8.13 – Final brochure and InfoBoard due at M30).

The brochures and information board aimed to present the benefits and expected impact of the project to the general public in easy-to-read content for non-specialists, including brief information on 7SHIELD’s key results and progress. The first versions of the brochure and infoboard (Figure 2-11 and Figure 2-12 on the right) were presented at 7SHIELD consortium and third party events, while the final versions (Figure 2-11 and Figure 2-12 on the left), present the outcomes of the project and aim to continue their dissemination and communication, including their sustained visibility eve after the project closure.

The first and final versions of this material were officially reported in the deliverables D8.5 – Brochure and Infoboard (due at M6 ) and D8.13 – Final brochure and InfoBoard (due at M30).

This material is also available on the 7SHIELD website, under the section “Media” (<https://www.7shield.eu/media/>).



Figure 2-11: Final brochure overview (back side on the right and inner side in the left)



Figure 2-12: First and final Infoboard overview (first version on the right and final one in the left)

## 2.2.2. Newsletters

Two versions of 7SHIELD electronic newsletter were planned to be published.

The newsletter layout was designed by CS and the project partners provided input for the articles.

The 1<sup>st</sup> version of the newsletter (Figure 2-13) was published in December 2021 (M16) on the 7SHIELD website (<https://www.7shield.eu/newsletter-january/>), while the 2<sup>nd</sup> newsletter (Figure 2-14), has been published in February 2023 (M30).

These newsletters have covered the latest updates of the project and have been distributed to a diverse audience by the partners, addressing the general research community, as well as the primary and secondary target audiences defined in D8.1 (Chapter 2).

## 7SHIELD 1st Newsletter

### Introduction

Dear Reader,

We are delighted to present you the first newsletter of the Horizon 2020 project 7SHIELD – “Safety and Security Standards of Space Systems, ground Segments and Satellite data assets, via prevention, detection, response and mitigation of physical and cyber threats”.

7SHIELD aims to develop a flexible and holistic security framework covering all macro-stages of crisis management (prevention, detection, response, and mitigation) to protect European Space Ground Segment infrastructures against physical, cyber and hybrid threats.

This project started on the 1<sup>st</sup> of September 2020 for a 2-year duration.

7SHIELD is led by a consortium of 22 partners from 12 different countries, composed as following:

- 5 operators of Space ground segment systems



FMI  
Finland



SpaceApps  
Belgium



DEIMOS Space  
Spain



SERCO  
Italy



NOA  
Greece

- 3 first responders and policy organizations



KEMEA



Hellenic Police



EETT

Figure 2-13: 1<sup>st</sup> 7SHIELD Newsletter

## Second Newsletter (Part 1/3)



Dear Reader,

We are delighted to present you the second newsletter of the Horizon 2020 project 7SHIELD – “Safety and Security Standards of Space Systems, ground Segments and Satellite data assets, via prevention, detection, response and mitigation of physical and cyber threats” (<https://www.7shield.eu/>).

This newsletter has the following outline:

- Status of the Project
  - Successful integration of 7SHIELD
  - Pilot tests and demonstrations
    - PUC1: Physical Attack in Arctic Space Centre in Sodankylä, Finland
    - PUC2: Cyber-physical attack in the Deimos ground segment in Spain
    - PUC3: Cyber-physical attack in the ground segment of NOA, Athens
    - PUC4: Threat detection and mitigation on the ICE Cubes Service
    - PUC5: Cyber-attack on the ONDA DIAS platform
  - Training platform
- Past Events
  - 7SHIELD Info Day
  - 6th plenary Meeting
  - Participation in Conferences and Workshops
    - Space Tech Expo Europe 2022
    - Beyond 2022
    - CERIS Annual Event 2022: Fighting Crime and Terrorism and Resilient Infrastructure
    - IAC PARIS 2022
    - ICONHIC 2022
- Recent & Upcoming Publications
- Contact

Figure 2-14: 2<sup>nd</sup> 7SHIELD Newsletter

### 2.2.3. Videos

During the project lifetime, a total of 15 videos were produced by the project partners in connection with their activities of which 14 are public. They were displayed in events where 7SHIELD was presented and are also available online on the project website (<https://www.7shield.eu/media/videos>).

In February 2023 (M30), a short project video (Figure 2-15) to present 7SHIELD outcomes is planned to be produced by CS partner in order to have a continuous dissemination and communication of the project's objectives and findings even after its closure to the partners' stakeholders.

The video is published and distributed to the public via the project's website and LinkedIn page, which is the only social media platform used to relay information about the project and its results, due to the sensitive information related to the project.

Video on the project website: <https://www.7shield.eu/media/videos>

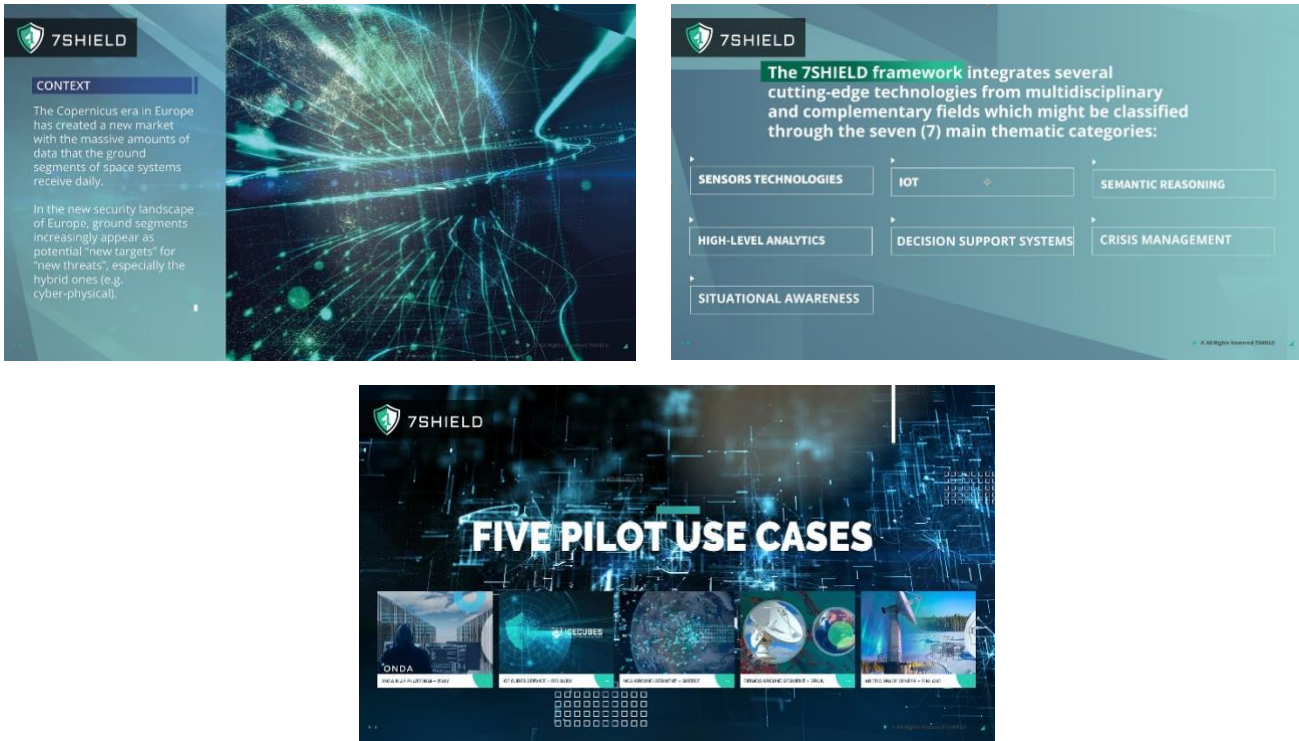


Figure 2-15: 7SHIELD Video

### 2.2.4. KR leaflets

19 Key Result (KR) leaflets were produced and published on the website (<https://www.7shield.eu/outcome/>) and advertised on the 7SHIELD LinkedIn page in the period November 2022-December 2022.

They were created in conjunction with the various partners responsible of the project's KRs. The process started with a questionnaire sent to the KR owners including 7 questions on how are the PARTNERS involved and their CONTRIBUTION, SCOPE & PURPOSE of the KR, TECHNOLOGY/METHODOLOGY used for developing the modules involved in the KR, the STAKEHOLDERS that might be interested in adopting such innovation and possible FUTURE IMPROVEMENTS foreseen.

The KR owners were invited to summarize the contribution of different contributors in max 120 words for each question and then, SERCO organized a series of interviews (1 hour of virtual meeting) with the KR owners, for reviewing the content of the questionnaire, presenting the final layout to them, defining keywords, agreeing on the thematic areas in which the KR can be assigned, and relevant changes for normalizing it in order to homogenize all the leaflets produced in the frame of the project.

All the KR leaflets, being planned to be published online, were submitted for review and approval by the 7SHIELD's Article Validation Committee and the Project Security Officer. In Figure 2-16, a sample of the KR leaflets is provided.

**7SHIELD**

## KR05 – Data Collection and Edge Processing

**SCOPE**

7SHIELD UAV is one of the first UAVs with a separate onboard computer with an embedded Jetson Xavier processor, running the latest version of Robot Operating System (ROS) in order to host Artificial Intelligence (AI) algorithms for **object detection and identification for edge processing**.

DCEP is embedding the 7SHIELD Object Detection (ODE) and interfacing with the control room provided by 7SHIELD in order to **detect physical threats**.

**PARTNERS**

**ACCELLIGENCE LTD** (ACCELL) is engaged in cutting edge R&D activities in order to boost innovation capital, improve products and ensure alignment of the services to the state of the art.

In particular, the company, since its establishment, started focussing its R&D activities on robotic systems and subsystems such as UAVs.

**PURPOSE**

The **Data Collection and Edge Processing (DCEP)** is a component including the **Unmanned Aerial Vehicle (UAV)** that embeds an edge processor able to host advanced AI algorithms to support object detection and identification services (on board processing).

Furthermore, this component provides all communication capabilities with the control room as well as the handling of basic drone functions such as **autonomous flights**, camera synchronization and locating objects during the flight.

**TECHNOLOGY**

ACCELL exploits the features of rapid prototyping through the use of **3D printing** and **Computerized Numerical Control Machine (CNC)** for the manufacturing of 7SHIELD UAV.

7SHIELD Mission UAV is capable to perform **on-board image processing**, making use of machine learning-based techniques, and more precisely Deep Neural Networks (DeepNN) and Convolutional Neural Networks (CNN) exploiting the data (e.g., 2D/ 3D images/ point clouds) obtained from the various aforementioned sensory inputs.

The innovation of DCEP development lies on the installation, integration and deployment of an GPU in the UAV flying system.

**CONTRIBUTION**

ACCELL leads the design and development of the DCEP and provides a **fully autonomous** Mission UAV, able to accommodate the various hardware components (e.g., height/ distance sensors, cameras) in order to execute smart algorithms (e.g., visual object detection and collision avoidance services, algorithms for swarming), and generally to be **easily adapted** to the current operation by the user.

**STAKEHOLDERS**

With its Autonomous UAVs equipped with embedding artificial intelligence, ACCELL is targeting the market segments listed below:

- **Critical Infrastructure Operators**
- **Civil Protection**
- **Agriculture**

The advantage of this module is that it is fully adaptable on any requirement or climate based on the needs of the operators.

**CONTACTS**

- [pvelanac@accelligence.tech](mailto:pvelanac@accelligence.tech)
- [katerina.margariti@accelligence.tech](mailto:katerina.margariti@accelligence.tech)

**FUTURE IMPROVEMENTS**

There are two areas of improvement:

1. **Fully autonomous operation.** The UAV will be operated after receiving an alert by the control room or the field sensors.
2. **Power consumption efficiency.** The use of alternative battery technology or the deployment of chargers pods on the field.

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 883284.

[www.7shield.eu](http://www.7shield.eu)

Figure 2-16: 7SHIELD KR leaflet sample

The A3 printed version of the KR leaflets were used also during one of the interactive sessions of the 7SHIELD Info Day: they were hung on the walls of the conference room (

Figure 2-17), grouped by thematic areas, and acted as a basis for the working groups to find the reasons why the 7 identified thematic areas of 7SHIELD are important in any security framework.



Figure 2-17 Configuration of the walls of the 7SHIELD Info Day conference room in which the KR leaflets were hung and grouped per thematic area

### 2.3. Press releases and communication activities

During the project lifetime, a total of 26 press releases and communication activities were issued by the project partners. Figure 2-18 shows some examples, produced by the consortium.

In addition, CS GROUP and CS Novidy's are in the process of publishing a Press Release about the contribution of 7SHIELD to the IDMEFv2 format (<https://github.com/IDMEFv2/>), in connection with SECEF (Security Exchange Format) project ([www.secef.net](http://www.secef.net)) led by CS GROUP (more details in D8.12 Security Standardisation Strategy and Policy-Planning). The article is currently being validated by CS GROUP before its release.



*Figure 2-18: Press releases and communication activities examples*



### 3. Final report on dissemination actions

Through the dissemination activities – which include networking events and workshops, synergies with similar H2020 projects and other initiatives, and publications – the partners have targeted specialised audiences identified as key stakeholders of 7SHIELD, with the aim of enabling uptake and use of the results. Consortium communication channels were also used for dissemination activities.

The following subsections summarise the disseminated project outputs, the project events, workshops and networking activities, as well as the scientific publications carried out during the project.

#### 3.1. Disseminated project outputs

Title	Type of output	Dissemination channels
D2.3 Preliminary ethics and legal framework	Report	7SHIELD Website
D2.6 Final ethics and legal framework	Report	7SHIELD Website
D4.1 Video surveillance techniques: Initial release	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D4.3 Data collection from UAVs and processing at the edge techniques	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D4.5 Video surveillance techniques: Final release	Demonstrator	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D5.1 The 7SHIELD ontology and data representation model	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D5.3 Security Risk Assessment Algorithms	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D5.4 Social Awareness and message generation	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D7.2 User training	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D7.3 Field demonstrations and final system evaluation	Demonstrator	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D8.1 Communication and dissemination plan	Report	7SHIELD Website
D8.2 Corporate identity and logo	Report	7SHIELD Website
D8.3 Project Website	Website	7SHIELD LinkedIn, Partners' institutional websites, partners' institutional LinkedIn accounts
D8.4 Market Analysis Report v1	Report	7SHIELD Website
D8.5 Brochure and Infoboard	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D8.7 Market Analysis Report v2	Report	7SHIELD Website
D8.10 7SHIELD Video	Demonstrator	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences

D8.12 7SHIELD Security Standardisation Strategy and policy-planning	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences
D8.13 Final brochure and InfoBoard	Report	7SHIELD Website, 7SHIELD LinkedIn, Workshops, Infoday, Conferences

Table 3-1 Disseminated project outputs

### 3.2. Project events, workshops and networking activities

Raising awareness of the project by disseminating its activities and results among key stakeholders, practitioners and researchers in order to establish useful connections for possible synergies can be done also by:

- (1) participating of partners in targeted international external events (workshops, conferences and exhibitions) and establishing relevant networking activities;
- (2) initiating broad and continuous dialogue between project members and other stakeholders to guide the implementation and evolution of security frameworks in the Ground Segment context;
- (3) collating information and experiences, to benefit from other projects' outcomes, methodologies, best practices and success stories, to foster clustering between associated beneficiaries of the H2020 to identify opportunities for further collaboration and to perform profitable and fruitful collaborations.

It must be noted that, especially during the first 2 years of the project, most of the events were organised virtually, and this had an impact on the success of individual networking. However, at the same time, the ability to attend more events also increased, as did the possibility to reach broader audiences with dissemination activities.

A total of 39 unique international external events of different types (Figure 3-1) were attended by the 7SHIELD partners throughout the project and the average attendance is in line with the initial expectation that each partner participates in at least 2 events. The identified events engaged various types of audiences, e.g. academia, researchers and policy-makers, including sector-specific professionals in the domains of Space Industry, Earth Observation, Remote Sensing, Critical Infrastructure, Security, Crisis Management, so as to include the maximum possible range of interested parties. Dissemination activities as well as individual interactions during the events were both key to promoting the project and building a network of contacts.

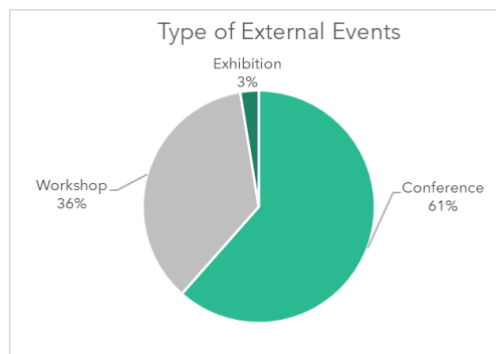


Figure 3-1 – Events – Type of events

Once the network of contacts was built and members were engaged, 7SHIELD tried to create a strong feeling of community among the different stakeholders around the same objectives to promote exchanges and interactions. 71 internal workshops were organised in coordination with all contributors

within the project partners to collect feedback and improvements and create value for the project and, approaching the conclusion of the project, on 14 December 2022, a tailored 7SHIELD Info Day was organized in Brussels in hybrid format (in presence and online) engaging publicly the participation of external stakeholders.

The objectives of the event were to describe the achievements of the project, show the results that were obtained in real conditions through the five Space Ground Segments acting as Pilot Use Cases, and raise the interest in the value and exportability of the 7SHIELD system in different contexts.

The agenda of the Info Day was purposely conceived as a series of interactive sessions requiring the active involvement of participants and allowing intercommunication among the attendees. A special focus was also given to the 20 Key Results that were discussed and presented throughout the day.

104 persons were registered for the event, including 38 external stakeholders, who learnt about the event mostly by receiving the invitation via email and word of mouth. The organization type of the external stakeholder which were interested to the event were mostly belonging to the public sector or agencies. One external critical infrastructure owner also participated in the event. 80% was the total rate of attendance and 60% of them participated in presence: 23 external stakeholders participated and 4 of them were physically present in Brussels (Figure 3-2).

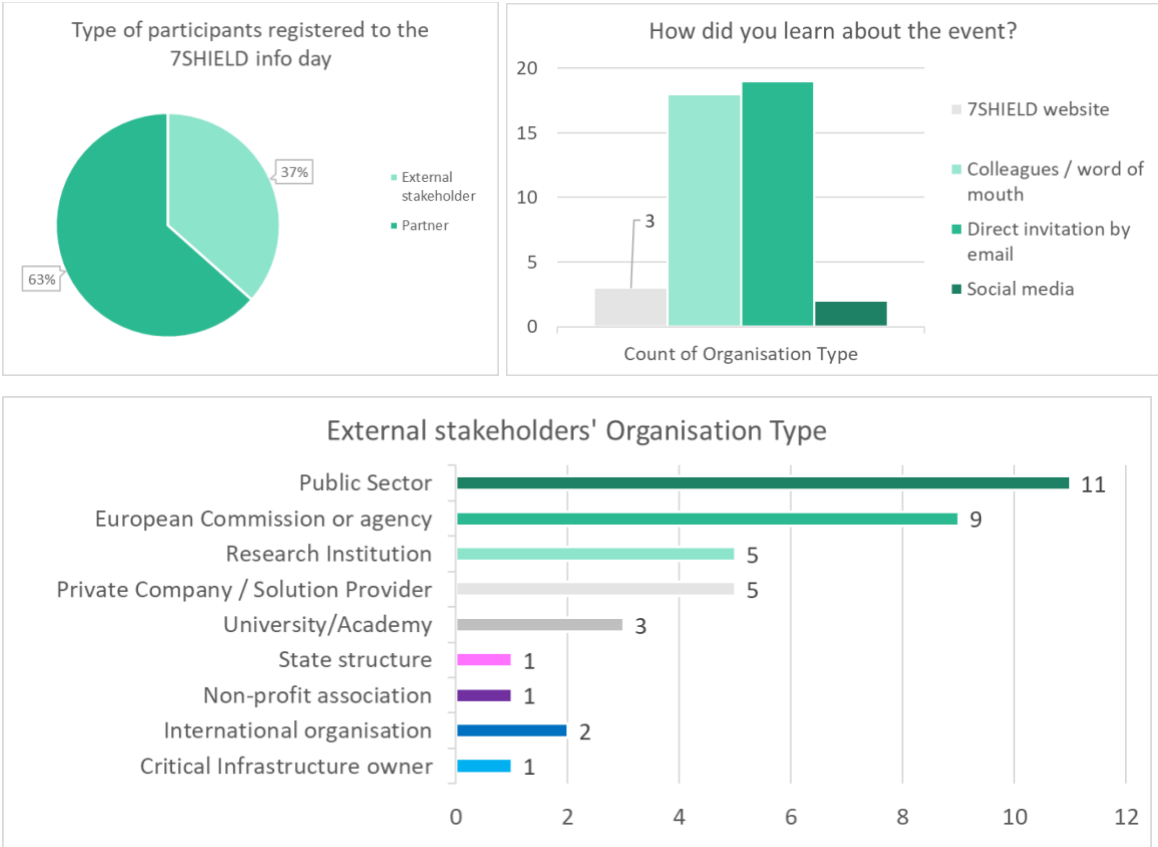


Figure 3-2 – Info Day scores

Furthermore, during the project lifetime, clustering activities took place with the objectives to collect information, to feed project evolution's lines, to stimulate the exchange of information but also to challenge technologies and ideas with feedback coming from different sources (end users, industrial stakeholders). All in all, this activity aimed to build a community of experts in the security of critical infrastructure, be it physical or cyber, and to feed the vertical and horizontal network to sustain the continuity of the service at project's end.

More details about the participation of partners in international external events (workshops, conferences and exhibitions), internal workshops and interviews and the establishment of relevant networking activities can be found in the deliverable D8.9 (submitted at M29 – January 2023).

### 3.3. Scientific Publications

7SHIELD partners were actively involved in 9 scientific or academic open access publications in technical and scientific conferences and journals. The table below summarises the conference papers, publications and scientific papers that have been published by 7SHIELD partners.

The published papers are available online on the project website (<https://www.7shield.eu/scientific-publications-and-papers/>).

Date	Title	Author(s)	Type of publication
18/02/2023	<a href="#">Solutions for Protecting the Space Ground Segments: From risk assessment to emergency response</a>	Ilias Gkotsis, Leonidas Perlepes, Aggelos Aggelis, Katerina Valouma, Antonis Kostaridis, Eftichia Georgiou, Nikolaos Lalazisis, Vasiliki Mantzana	Workshop (Springer Book)
15/02/2023	<a href="#">Consolidated Proceedings of the Second ECSCI Workshop on Critical Infrastructure Protection and Resilience</a>	Habtamu Abie, Ilias Gkotsis, Manos Athanatos, Rita Ugarelli, Denis Caleta, Lorenzo Lodi, Fabrizio Di Peppo, Aleksandar Jovanovic	Virtual Workshop (Steinbies-Edition)
28/07/2022	<a href="#">Modelling and assessing the risk of cascading effects with ResilBlockly</a>	Irene Bicchierai, Enrico Schiavone, Francesco Brancati	Conference
22/07/2022	<a href="#">Study on the Application of EfficientDet to Real-Time Classification of Infrared Images from Video Surveillance</a>	Filipe Mendes, Armando M. Fernandes, Luis Fernandes, Fernando Piedade and Paulo Chaves	Conference
01/04/2022	<a href="#">A framework for Seveso-compliant cyber-physical security testing in sensitive industrial plants</a>	Luigi Coppelino, Salvatore D'Antonio, Vincenzo Giuliano, Giovanni Mazzeo, Luigi Romano	Journal
22/11/2021	<a href="#">A MDE Tool for Security Risk Assessment of Enterprises</a>	Schiavone, Enrico; Nostro, Nicola; Brancati, Francesco	Conference
12/10/2021	<a href="#">Sen4AgriNet: A Harmonized Multi-Country, Multi-Temporal Benchmark Dataset for Agricultural Earth Observation Machine Learning Applications</a>	Dimitris Sykas; Ioannis Papoutsis; Dimitrios Zografakis	Conference
08/10/2021	<a href="#">Severity level assessment from semantically fused video content analysis for physical</a>	Gerasimos Antzoulatos, Georgios Orfanidis, Panagiotis Giannakeris,	Workshop

	<a href="#"><u>threat detection in ground segments of space systems</u></a>	Giorgos Tzanetis, Grigorios Kampilis-Stathopoulos, Nikolaos Kopalidis, Ilias Gialampoukidis, Stefanos Vrochidis, and Ioannis Kompatsiaris	
01/05/2021	<a href="#"><u>A social media analytics platform visualising the spread of COVID-19</u></a>	Stelios Andreadis; Gerasimos Antzoulatos; Thanassis Mavropoulos; Panagiotis Giannakeris; Grigoris Tzionis; Nick Pantelidis; Konstantinos Ioannidis; Anastasios Karakostas; Ilias Gialampoukidis; Stefanos Vrochidis; Ioannis Kompatsiaris	Journal

Table 3-2 Scientific publications and papers

## 4. Final impact and performance

The success of the communication and dissemination actions has been evaluated throughout the project duration based on specific metrics, according to the DoA and D8.1 – *Communication and dissemination plan*, outlined Table 4-1 that summarize the project results at month M30.

The following table shows the dissemination KPIs that were monitored and measured throughout the project.

Table 4-1: 7SHIELD Dissemination KPI

Tool	Metric	Final Target	Achieved at M30
<b>7SHIELD Website</b>	Number of i) visits/views; ii) downloads of publicly available online material, iii) website audience	i) Measurement: Google or Matomo Analytics; 20% visits increase every year; ii) 300 downloads; iii) Total visits: 10000	1 website 7407 visits 234 downloads of public outputs
<b>Final Stakeholder Forum</b>	Number of participants.	50 participants	On 14 December 2022, a tailored 7SHIELD Info Day was organized in Brussels in hybrid format (in presence and online) engaging publicly the participation of external stakeholders. 104 persons registered to the event, including 38 external stakeholders with an attendance rate of 80% of and 60% participated in person. This means that 87 participants were involved.
<b>Workshops</b>	Number of i) workshops, ii) participants/workshop (by target group)	i) 4 workshops: 1 scientific workshop collocated with a well-reputed conference with at least 20 participants and 3 workshops (road show events) focusing on 7SHIELD demonstration to security authorities	The 7SHIELD partners organized : <ul style="list-style-type: none"> <li>- 1 tailored info day in Brussels, the day before the European Commission held a CERIS event in the same city. It was participated by 87 people including 23 external stakeholders</li> <li>- 3 workshops organized internally on various thematics (user requirements, market analysis and threat taxonomy) and participated by 30-100 people:</li> </ul>

			<ul style="list-style-type: none"> <li>- 5 focus groups organized by pilots inviting the security responsible for their Ground Segments (10 attendees each one so a total of ~50 participants)</li> <li>- 20 interviews with the KR owners with ~2/3 attendees for each KR interviewed so a total of ~50 participants.:</li> </ul> <p>•</p> <p>Moreover 42 workshops participated by the project partners in which the results of the 7SHIELD project (including also the feedback collected by pilot partners) have been shown and shared with the audience. In more details, the keys clustering events participated by security authorities were:</p> <ol style="list-style-type: none"> <li>1. the final conference of the H2020 DroneWISE project,</li> <li>2. the international workshops organized by ECSCI on CPS4CIP (Cyber Physical Security for Critical Infrastructures Protection),</li> <li>3. the Annual Workshop of the EU-HYBNET project, empowering a Pan-European Network to Counter Hybrid Threats</li> <li>4. 7SHIELD participated in 3 events organized by CERIS (Community for European Research and Innovation for Security): The CERIS FCT: Protection of Public Space (April 2022), the CERIS INFRA 2022 workshop: How research supports the directive on the resilience</li> </ol>
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			<p>of critical entities (July 2022) and to the CERIS Annual Event 2022: Fighting Crime and Terrorism and Resilient Infrastructure (September 2022).</p> <p>5. The SMI2G Event 2022, co-organised by EARTO Security &amp; Defence Research Working Group, the SEREN network, EOS, IMG-S, ECSO and supported by ENLETS</p> <p>More details on 7SHIELD_D8.9 Final networking report</p>
<b>Social Media</b>	Number of i) followers groups joined, ii) active discussion forums, iii) views (Facebook, LinkedIn closed group), iv) tags and followers (Twitter), v) comments, likes, favourites and retweets	i) 2 groups, ii) 2 discussion forums (on Facebook, Twitter and LinkedIn), i) 350 followers on Facebook ii) 200 on Twitter iii) 300 views, iv) 100 tags and followers, v) at least 2-3 posts per month across all social media platforms	<p>1 LinkedIn account</p> <p>334 followers</p> <p>880<sup>2</sup> views</p> <p>223<sup>3</sup> reactions per post</p> <p>14.5<sup>4</sup> shares per post</p> <p>8.4<sup>5</sup> posts per month</p>
<b>Publications</b>	Number of i) publications in technical and scientific conferences and journals, ii) publications in industry-led magazines and websites.	At least 15 scientific or academic open access publications	9 publications
<b>Network of Interest</b>	i) Number of users, ii) diversification.	i) At least 50 users, ii) at least 3 from each domain (remote sensing, detection, IoT, semantics, security)	<p>A total of 65 users registered on the 7SHIELD Training Platform and they are:</p> <ul style="list-style-type: none"> <li>- 29 belonging to 5 pilot partners (SPACEAPPS, FMI, NOA, SERCO, DEIMOS) specialized in Ground Segment domain (including remote sensing),</li> </ul>

<sup>2</sup> Average computed on the number of views for the published posts between September 2022 and January 2023

<sup>3</sup> Average computed on the number of reactions for the published posts between September 2022 and January 2023

<sup>4</sup> Average computed on the number of shares for the published posts between September 2022 and January 2023

<sup>5</sup> Average computed on the number of published posts between September 2022 and January 2023



			<ul style="list-style-type: none"> <li>- 10 for the detection domain;</li> <li>- 3 in IoT;</li> <li>- 11 in Semantic;</li> <li>- 12 in Security ( including first responders, high level analytics, Decision support system, crisis management and situational awareness experts).</li> </ul>
<b>Newsletter</b>	i) Frequency, ii) no. of readers.	i) bi-Annually created, ii) 300 readers.	2 newsletters 760 views on LinkedIn (for the 1 <sup>st</sup> newsletter) 543 views on LinkedIn (for the 2 <sup>nd</sup> newsletter) 140 mail recipients

**Explanation of deviations:**

7SHIELD managed to meet or exceed most of the dissemination and communication targets set for the end of the project by month M30.

As can be seen in the tables above, some of the KPI scores and achievements are beyond the expected target values, while others are very close to the target. However, some of them are quite far from the expected value for the following reasons:

- **7SHIELD Website and Social Media:** The target value established in the DoA of the project includes that the 7SHIELD project would have multiple social media platforms (LinkedIn, Facebook and Twitter) to increase its visibility. However, due to the sensitive information related to the project, the specificity of 7SHIELD's stakeholders and its business-to-business orientation, LinkedIn was the only social media platform used to relay information about the project and its results. This explains why the number of website visits could not be reached (Table 4-1), as the project had only one social media source to ensure its visibility. Therefore, this also automatically decreases the number of downloads of public outputs expected from the project's website.
- **Publications:** The number (9) of publication in technical and scientific conferences and journals (Table 4-1) was lower than expected due the fact that the target value (15) is optimistic for this project, which is part of the Innovation Action program, where some partners were working on innovative technologies, sufficiently mature to not introduce substantial outcomes compared to the state of the art.

## 5. Conclusions

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In this document we presented a summary of the different communication and dissemination activities that the consortium carried out during the project lifetime. In particular, the different communication materials developed and used for communication and dissemination purposes.

The document tracks the visibility of the project with the media and the public by summarizing the number of visitors to the 7SHIELD website, the number of followers and the interaction on LinkedIn page.

Regarding the dissemination and communication materials, two versions of the 7SHIELD brochure and infoboard, as well as a video of the project were designed and published. The first versions of the brochure and infoboard were presented at consortium and third party events where 7SHIELD was presented, while the final versions of the brochure and infoboard and the video are intended to present the results of the project and to continue to disseminate and communicate about the project and its sustained visibility after its closure.

Furthermore, 2 newsletters were produced and disseminated through the partner network to several recipients.

Additionally, 19 KR leaflets were produced and published on the website and advertised on the 7SHIELD LinkedIn page. The KR leaflets have been created in conjunction with the various partners responsible of the project KR.

In more than 2 years of activity, the project partners submitted 26 individual press releases and communications. In addition, they have participated in 39 international Conferences and Workshops, and in 66% of these events they provided presentations to promote 7SHIELD. Moreover, several internal meetings (71 until the end of 2022) have been organized in order to collaborate to create a value for the 7SHIELD project, including 5 internal workshops and events that were organized by the project partner with the aim to create a specific outcome. Additionally, the organization of a tailored info day organized in Brussels, Belgium on 14 December 2022 to describe the achievements of the project and show the results. 104 persons registered to the event, including 38 external stakeholders, with an 80% rate of attendance and 60% of them participated in presence.

In parallel, during the project lifetime, clustering activities took place with the objectives to collect information, to feed project evolution's lines, to stimulate exchange of information but also to challenge technologies and ideas with feedback coming from different sources (end users, industrial stakeholders). All in all, this activity aimed to build a community of experts in the security of critical infrastructure, be it physical or cyber, and to feed the vertical and horizontal network to sustain the continuity of the service at project's end.

Finally, 7SHIELD partners have actively participated in European research activities and have advanced their knowledge in several cutting-edge areas. They have participated in 9 open access scientific or academic publications in technical and scientific conferences and journals.



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