

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 676139.







Innovation and Networking for Fatigue and Reliability Analysis of Structures – Training for Assessment of Risk

D5.16 – Outreach final report

Document Identifier:	INFRASTAR_D5.16_Outreach-final-report_IFSTTAR.pdf
Due Date of Delivery to EC:	2020.03.31
Actual Date of Delivery to EC:	2020.03.31
Dissemination Level:	Public
Work Package:	WP5: Management, dissemination, outreach and business opportunities
Lead Beneficiary:	IFSTTAR
Other Beneficiaries:	AAU, BAM, COWI, EPFL, GuD, NeoStrain, PHIMECA
Document Status:	Final

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Amendments

Date of Issue	Description
2020.03.24	Draft version by Hakim Ferria and Odile Abraham
2020.03.24	Draft sent to the beneficiaries and ESRs for comments.
2020.03.29	Validated (no issues reported by the consortium).

Applicable documents

The documents in the table below are attached at the end of the report.

N° Description

Acknowledgment

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 676139. The grant is gratefully acknowledged.

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Notation

Beneficiaries

AAU BAM	Aalborg University Bundesanstalt für Materialforschung und –prüfung
COWI	,
EPFL	École Polytechnique Fédérale de Lausanne
GuD	Geotechnik und Dynamik
IFSTTAR	Institut Français des Sciences et Technologies des Transports, de l'Aménagement et des Réseaux
NeoStrain	
PHIMECA	

Abbreviations

ESR	Early Stage Researcher
EUAB	End User Advisory Board
ImpDay	Implementation Day
INFRASTAR	Innovation and Networking for Fatigue and Reliability Analysis of Structure –
	Training for Assessment of Risk
ITN	Innovative Training Networks
MSCA	Marie Skłodowska-Curie Actions
URL	Uniform Resource Locator
WP	Work Package

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Executive Summary

The present deliverable "D5.16 – Outreach final report" is part of the outcomes in terms of outreach of H2020 MSCA ITN project Infrastar.

Whichever the scenario (construction, maintenance, rehabilitation and/or reconstruction of civil structures), the results of Infrastar project will guarantee the capacity to improve or extend the existing or future infrastructures and optimize service at any time. Although highly technical, these outcomes are of strategic importance and must be comprehensive and easily accessible to the decision makers and the general public ("UE citizen"). There is a real interest of the general public in civil infrastructures and the challenges raised by this kind of works. The focus here is mainly on two types of audience: the general public (UE citizen) and the pupils/students.

First, the report introduces the terms "communication" and "dissemination" from the European Commission point of view. Then, it presents the Infrastar communication plan: website, social networks, videos, and other dissemination materials. Finally, it gives an overview of events organised within the project as well participations in conferences and other outreach activities.

1. Introduction

The guidelines by the European Commission can be read <u>here</u>. The following information are extracted from the aforementioned guidelines.

Communication and dissemination are part of all MSCA ITN projects. The objectives are to communicate and disseminate the outcomes produced by projects via presentations at local, national, European and international workshops, conferences, publications in peer-reviewed journals, and outreach activities targeting the general public, students, industries, and the scientific community. From the European Commission point of view, the differences between communication and dissemination are summarised in Table 1 below (source: European Commission).

Communication	Dissemination
Covers the whole project (including results).	Covers project results only.
Starts at the outset of the project.	Happens only when results are available.
Multiple audiences:	Specialist audiences:
Beyond the project's own community,	Group that may use the results in their own
including the media and general public.	work, including peer groups, industry,
Multiplier effect.	professional organisations, policymakers.
Informing and engaging with society, to	Enabling the take up and use of results
show how it can benefit from research.	Enabling the take-up and use of results.

Table 1: Differences between communication and dissemination.

The present report focusses on the communication part. The dissemination based on the peerreviewed papers is reported in the following deliverables:

- "D1.2 Peer-reviewed papers" by WP1: Monitoring and auscultation.
- "D2.2 Peer-reviewed papers" by WP2: Structural and action models.
- "D3.2 Peer-reviewed papers" by WP3: Reliability approaches for decision-making.

In the MSCA projects, "outreach activities" entail research-related communications initiatives directed to the general public, rather than the research community. The goal is to create awareness among the general public about the research work performed in the MSCA projects and its implications for citizens. As well as raising the profile of MSCA with the general public, outreach activities should also introduce students from schools and universities to science, research and innovation. These students should be encouraged and motivated to pursue careers in science.

As mentioned in the <u>European charter for researchers</u>: "Researchers should ensure that their research activities are made known to society at large in such a way that they can be understood by non-specialists, thereby improving the public's understanding of science. Direct engagement with the public will help researchers to better understand public interest in priorities for science and technology and also the public's concerns".

Outreach and communication activities are related, but are not the same and a good MSCA project should include a mix of both:

 Outreach activities are meant to engage a large audience and to bring knowledge and expertise on a particular topic to the general public. Outreach activities can take several forms, such as school presentations, workshops, public talks and lab visits, etc. The objective of outreach is to explain the benefits of research to a larger public (the tax payers who fund the research). Outreach implies an interaction between the sender and the receiver of the message, there is an engagement and a two-way communication between the researcher and the public.

Communication, on the other hand, only goes in one direction from the sender to the receiver. Communication refers to articles in mainstream newspapers and magazines, or on TV and radio channels. Successful communication requires a clear language and attractive scientific subject with outstanding results that can catch the media's attention. The European Commission is aware that not every MSCA researcher is undertaking research of interest to the mass media. Researchers can start small and attempt having their research published in local newspaper. They should be able to explain their project to the large public in accessible language: imagine having to explain what you do to fellow commuters on your daily trip to work.

2. Website

The Infrastar website is detailed in the deliverable "D5.11 – Project Website". The URL is: <u>https://infrastar.eu/</u>.

The website is a key tool in the communication and dissemination strategy of the project. It aims to:

- Raise interest of society on the challenges of efficient assessment of concrete civil structures.
- Show the important role of the Marie Skłodowska-Curie Actions in training 21st century researchers in this challenging topic.
- Give a positive image of science and research careers to pupils and motivate students to embark on scientific studies in the fields covered by the project.
- Improve the communication skills of the ESRs and their ability to promote science.

The website is based on the free and open source web content management system TYPO3. The home page is shown in Figure 1. All pages include a header with the project logo as well as the European Union flag with a link towards the Innovative Training Networks webpage of the European Commission. It is also possible to contact the project coordinator through a contact form. It includes different sections detailed in the following paragraphs.

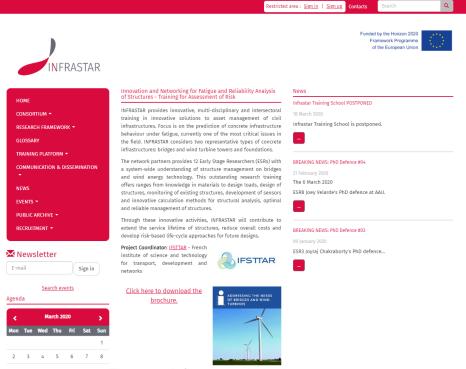


Figure 1: Infrastar website homepage.

2.1 Section "Research framework"

The section "Research framework" presents all 12 individual research projects designed towards both scientific and non-scientific people. Each webpage includes:

- An abstract.
- A video by the ESR (detailed in paragraph "5. Videos").
- Administrative information: host institution, duration, PhD enrolment, PhD defence.
- In terms of research project: objectives, tasks and methodology, expected results, secondments, literature.
- The list of publications: conference papers, journal papers.
- The list of outreach activities.

2.2 Section "Glossary"

The section "Glossary" aims at helping the non-scientific and scientific people to better understand terms and concepts used within Infrastar. Indeed, sometimes a definition of a term or concept is not fixed. There may be a lack of agreement as to a precise definition, or perhaps there are competing perspectives. In order to make consistent all research works and discussions with each other, as recommended by the End User Advisory Board, a dedicated glossary relevant to Infrastar has been established by the ESRs and validated by the supervisors.

2.3 Section "Communication & dissemination"

The section "Communication & dissemination" includes:

- The information from the European Commission (mentioned in "1. Introduction").
- The outreach activities.
- Links towards social media and ESRs' blogs (detailed in paragraphs 3. Social networks and 4. Blog respectively).

• The list of publications.

2.4 Section "Events"

The section "Events" (Figure 2) includes the events organised to present the outcomes of Infrastar to scientific and non-scientific people: implementation days and final workshop (detailed in paragraph 7. Infrastar events).

				Restricted area : Sign in	<u>Sign up</u>	Contacts	Search	٩
INFRASTAR						Fra	by the Horizon 2020 mework Programme the European Union	$\langle \bigcirc \rangle$
ne / Events								
номе	Events							
Consortium -	 Implementation 	ion Dave						
RESEARCH FRAMEWORK 👻	• <u>1st Im</u>	olementation Day						
GLOSSARY	 <u>3rd Im</u> 	<u>plementation Day</u> <u>plementation Day</u>						
TRAINING PLATFORM 👻	 <u>Mid-term rev</u> <u>Final worksho</u> 							
COMMUNICATION & DISSEMINATION								
NEWS	*			March 2020				>
EVENTS	Mon	Tue	Wed	Thu	Fri		Sat	Sun
IMPLEMENTATION DAYS								1
MID-TERM REVIEW MEETING FINAL WORKSHOP	2	3	4	5	6		7	8
	9	10	11	12	13		14	15
PUBLIC ARCHIVE 👻	16	17	18	19	20		21	22
PUBLIC ARCHIVE - RECRUITMENT -								
	23	24	25	26	27		28	29



2.5 Section "Public archive"

The section "Public archive" includes the Infrastar newsletters (detailed in paragraph 6.3 Newsletters) as well as the publications.

3. Social networks

The following social networks and relevant channels have been used:

- Facebook: <u>https://www.facebook.com/infrastar.itn/</u>
- Twitter: <u>https://twitter.com/infrastar_itn</u>
- Linkedin: https://www.linkedin.com/in/infrastar-itn
- ResearchGate: <u>https://www.researchgate.net/profile/Infrastar_Itn</u>

Note that all figures mentioned below were taken on 19 March 2020.

3.1 Facebook

The Infrastar facebook page has been launched on December 1, 2016. Based on the insights Facebook tool, there are 133 followers. Figure 3 and Figure 4 show the followers in terms of gender and age, and in terms of geographical location (<u>https://batchgeo.com/</u>) respectively.

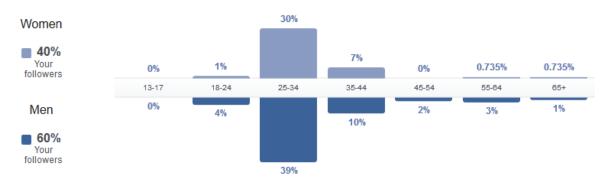


Figure 3: Infrastar Facebook page followers in terms of gender and age.



Figure 4: Infrastar Facebook page followers in terms of geographical location.

In terms of publications, 563 posts have been published: 2158 reactions, 164 shares, 29 comments, 295 photos, 44 videos, and 219 links (<u>https://sociograph.io/</u>).

Figure 5, Figure 6 and Figure 7 below show the top 3 posts that reached the most people.

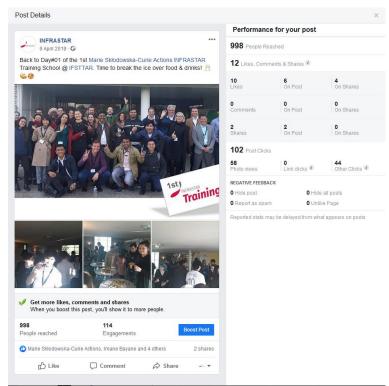


Figure 5: Facebook post that reached the most people - rank #1.

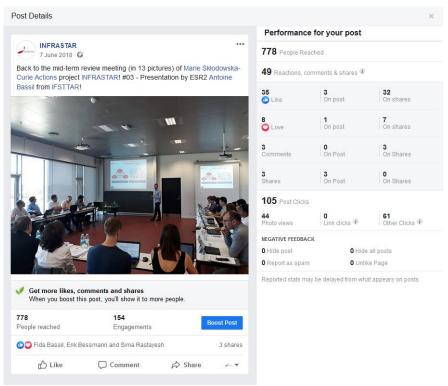


Figure 6: Facebook post that reached the most people – rank #2.

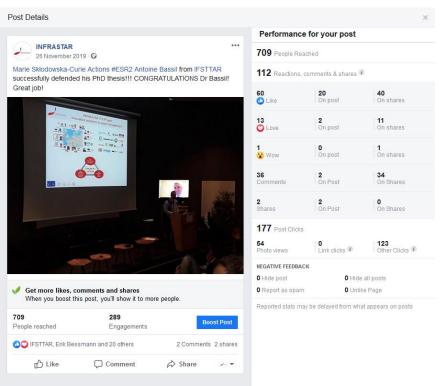


Figure 7: Facebook post that reached the most people - rank #3.

3.2 Twitter, LinkedIn, ResearchGate

The Infrastar Twitter account has been launched on January 6, 2017. The following statistics originate from Twitter Analytics tool and <u>https://followerwonk.com/</u>: 926 tweets have been published, i.e. 1.9 tweets per day / 23 tweets per month. Figure 8 shows the followers in terms of geographical location.

The Infrastar LinkedIn profile has been launched on December 2, 2016. It has 220 connections and 233 followers.

"ResearchGate is a European commercial social networking site for scientists and researchers to share papers, ask and answer questions, and find collaborators." The Infrastar ResearchGate profile includes the 12 individual projects.

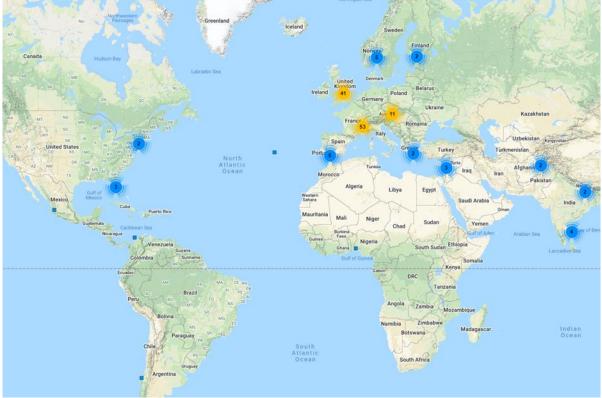


Figure 8: Infrastar Twitter page followers in terms of geographical location.

4. Blog

In June 2017, each ESR started feeding and maintaining a blog dedicated to their project. There are therefore 12 blogs. The platform used is blogspot.fr.

- Infrastar blog: <u>http://bloginfrastar.blogspot.fr/</u>
- ESRs blog: http://esrNUMBER infrastar.blogspot.fr/ (NUMBER is the ESR number, i.e. 1 to 12).

In total, 153 posts have been published with 35 611 views. Table 2, Table 3 and Table 4 list the posts published, the views and the page views per country for WP1, WP2 and WP3 ESRs respectively.

ESR		ESR	2	ESR	3	ESI	R4 1	Total
10 posts p	ublished	13 posts p	ublished	<u>9 posts pu</u>	Iblished	<u>14 posts p</u>	ublished	46
1876 v	iews	6554 v		1286 v	iews	2358 \		2 074
32 432		73 1.852		23 261		32 561		
Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	
France	432	France	1852	France	261	Switzerland	561	
United States	264	United States	1486	Russia	213	France	415	
Germany	202	Lebanon	981	United States	178	United States	393	
Ukraine	154	Germany	284	Poland	103	Morocco	186	
Russia	85	Unknown Region	242	Germany	68	Germany	138	
United Kingdom	50	Russia	206	Denmark	46	Denmark	84	
Denmark	48	Ukraine	121	Canada	38	Russia	83	
Spain	35	Belgium	96	Ukraine	33	Belgium	44	
Netherlands	33	Denmark	87	Unknown Region	25	Ukraine	37	
	32		73	South Korea	23	Canada	32	

Table 2: Audience stats of blog posts by WP1 ESRS.

ESR	5	ESR	6	ESF	R7	ESR	8	Total
18 posts pi	ublished	19 posts pi	ublished	<u>9 posts pu</u>	ublished	12 posts p	ublished	58
1790 vi		3467 vi	ews	1316 v	iews	1093 v	iews	7666
352		45 1.268		22 238		16 247		
ψ.		κ.		K		K		
Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	
Entry France	Pageviews 352	Entry France	Pageviews 1268	Germany	Pageviews 238	France	Pageviews 247	
	_				<u> </u>			
France	352	France	1268	Germany	238	France	247	
France United States	352 295	France United States	1268 357	Germany France	238 226	France Denmark	247 233	
France United States Ukraine	352 295 285	France United States Denmark	1268 357 228	Germany France Ukraine	238 226 203	France Denmark United States	247 233 155	
France United States Ukraine Russia	352 295 285 183	France United States Denmark Germany	1268 357 228 174	Germany France Ukraine United States	238 226 203 125	France Denmark United States Poland	247 233 155 118	
France United States Ukraine Russia Switzerland	352 295 285 183 116	France United States Denmark Germany Switzerland	1268 357 228 174 128	Germany France Ukraine United States Unknown Region	238 226 203 125 75	France Denmark United States Poland Germany	247 233 155 118 48	
France United States Ukraine Russia Switzerland Poland	352 295 285 183 116 94	France United States Denmark Germany Switzerland Russia	1268 357 228 174 128 126	Germany France Ukraine United States Unknown Region Denmark	238 226 203 125 75 63	France Denmark United States Poland Germany Philippines	247 233 155 118 48 32	
France United States Ukraine Russia Switzerland Poland Germany	352 295 285 183 116 94 77	France United States Denmark Germany Switzerland Russia Canada	1268 357 228 174 128 126 74	Germany France Ukraine United States Unknown Region Denmark Poland	238 226 203 125 75 63 56	France Denmark United States Poland Germany Philippines Canada	247 233 155 118 48 32 30	

Table 3: Audience stats of blog posts by WP2 ESRS.

ESR	9	ESR1	0	ESR	11	ESR	12	Total
12 posts published		13 posts published		10 posts published		14 posts published		49
3330 views		3440 views		1474 views		6627 views		14 871
8 03		50 000		22 425		122 1.083		
Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	Entry	Pageviews	
India	938	France	869	France	425	Germany	1083	
Denmark	620	United States	485	Denmark	314	Norway	906	
United States	454	India	227	United States	181	United States	820	
France	266	Russia	221	Germany	82	France	545	
United Arab Emirates	167	Ukraine	165	Ukraine	48	Denmark	370	
Russia	106	Germany	149	Canada	35	Belgium	300	
Switzerland	78	United Kingdom	68	Belgium	33	United Kingdom	228	
Germany	76	Turkey	68	United Kingdom	23	Canada	143	
United Kingdom	59	Pakistan	61	Netherlands	23	China	136	
				Switzerland	22			

Table 4: Audience stats of blog posts by WP3 ESRs.

5. Videos

During the first training week at BAM in Berlin, each ESR has recorded a video in order to present themselves and to introduce their project. All videos are available on Infrastar website. They consist of answering the following questions:

- Introduction of yourself (name, home country, PhD topic).
- What is your background what and where did you study?
- Why did you apply to a Marie Sklodowska Curie ITN?
- What is your research project about? Could explain it to a 10-years-old young "future ITN researcher"?
- How will your research contribute to society?
- What would like to do after Infrastar ITN?

During the ImpDay#2 at Eiffage, each ESR presented their work in 180 seconds as done within the so-called Three Minute Thesis (3MT®) competition. The ESRs had the opportunity to develop their communication skills by effectively explaining their research in three minutes, in a language appropriate to a non-specialist audience. They were allowed one single PowerPoint slide. The videos are available on the Infrastar website:

https://infrastar.eu/communication-dissemination/outreach-activities/three-minute-thesis/

During the ImpDay#3 at COWI, ESR8 and WP3 leader have been interviewed. The videos are available here:

https://infrastar.eu/events/implementation-days/3rd-implementation-day-in-pictures/

They are about the opportunity of collaborations in research between academia and industries, and how to best harvest the advantages of reliability analysis of structures and advanced modelling of concrete fatigue.

6. Other dissemination material

6.1 Beneficiaries institutional websites

All beneficiaries added on their institutional website a short description of the Infrastar project.

6.2 Brochure

Infrastar project has been presented and disseminated via an article published in December 2017 by Impact. Impact is a quarterly publication designed to provide an open access platform for researchers to communicate the aims, objectives and potential socioeconomic and academic impact of their research. Published under a creative commons licence, there is no copyright infringement on any of the material produced meaning the article can be re published, posted, tweeted or disseminated indefinitely. Furthermore, a 4-page dissemination brochure on the project based on the aforementioned article has been created and distributed. Two front covers have been designed showing the two civil infrastructures Infrastar focusses on, i.e. 1/ Bridges and 2/ Wind turbines.

6.3 Newsletters

The newsletters are part of the deliverable "D5.12 Project Newsletters". Four issues have been published and disseminated: May 2017, November 2017, August 2018, and February 2019. They are available on the Infrastar website: <u>https://infrastar.eu/public-archive/newsletter/</u>

7. Infrastar events

7.1 Implementation days

The purpose of the implementation days is to invite small and large companies, administrations, local authorities, academic experts in the fields of Infrastar in order to get their feedback on the progresses and to boost the networking opportunities. In other words, it offers to meet, exchange ideas and gain insights from each other. Three implementation days have been organised, each one focussed on a specific WP and comprised:

- Keynote presentations by guest speakers.
- Presentation of the WP by the respective WP leader and presentations by the ESRs who were part of it.
- Posters session.
- Round tables.
- 3-minute thesis presentation (ImpDay#02).
- Speed networking (ImpDay#03).

7.1.1 Implementation day 1

The ImpDay#01 focused on the Work Package 1: Monitoring and auscultation. The event is detailed in the deliverable "D5.19 – Implementation Days Report". The report presents an overview of the day that has been organised jointly with the partner organisation BASt, the German Federal Highway Research Institute, in Bergisch Gladbach (Germany) on Tuesday 20 March 2018. BASt regularly organises and hosts a national symposium (with 100 up to 200 attendants). Therefore, the consortium agreed to organise the ImpDay#01 before the aforementioned symposium organised the 21st of March 2018 in order to benefit from the BASt network and thus, to have a larger audience. It was also the opportunity to present Infrastar at the symposium and the Infrastar members to discuss with more people.

In terms of participants, 42 people participated in the event:

- 14 external persons, i.e. persons outside the Infrastar consortium (universities, consultants, providers, research organisations).
- 28 members of the Infrastar consortium (ESRs, beneficiaries, partner organisations, EUAB).

7.1.2 Implementation day 2

The ImpDay#02 focused on the Work Package 2: Structural and action models. The event is detailed in the deliverable "D5.18 – Implementation Days Report". The report presents an overview of the day that has been organised jointly with the partner organisation Eiffage in Vélizy-Villacoublay (France) on Friday 12 October 2018.

In terms of participants, 50 people participated in the event:

- 26 externals, i.e. persons outside the Infrastar consortium (engineers, consultants, providers, research organisations, universities): Silesia Structure, Sepia GC, Artelia, Ifsttar, Sixense Necs, Eiffage, Eiffage Marine, Subatech, University ENS Paris Saclay, Société du Grand Paris, Consolis, ETIC, Ecole Centrale de Nantes, Systra.
- 24 members of the Infrastar consortium (ESRs, beneficiaries, partner organisations, EUAB).

7.1.3 Implementation day 3

The ImpDay#03 focused on the Work Package 3: Reliability approaches for decision-making. The event is detailed in the deliverable "D5.14 – Implementation Days Report". The report

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presents an overview of the day that has been organised jointly with the beneficiary COWI A/S in Kongens Lyngby (Denmark) on Wednesday 26 June 2019.

In terms of participants, 49 people participated in the event:

- 22 externals, i.e. persons outside the Infrastar consortium: mostly from COWI, Rambøll, HOFOR-Wind, Osmos Group, Business France.
- 27 members of the Infrastar consortium (ESRs, beneficiaries, partner organisations, EUAB).

7.2 Final workshop

Taking advantage of the discussions held during the three implementation days, a widely-open final workshop has been organised at the premises of Clora in Brussels (Belgium) on Thursday 6 February 2020. The workshop targeted the industry and research sectors as well as the European Commission representatives with the aims at sharing the outcomes of Infrastar in terms of scientific results and project management best practices, and at boosting the networking opportunities.

The event is detailed in the deliverable "D5.15 – Final Workshop Proceedings". The agenda comprised keynotes, discussions, posters session, demonstrations, panel discussions, networking. Basically, the morning and the afternoon were dedicated to discussion about sciences and European projects respectively.

In terms of participants, 47 people participated in the event:

- 22 externals, i.e. persons outside the Infrastar consortium.
- 25 members of the Infrastar consortium (ESRs, beneficiaries, partner organisations, EUAB).

8. Participation in conferences

The Infrastar participations in national and international conferences are listed in Table 5 below.

Conference	Participant
<u>CFM 2017</u> , Congrès Français de Mécanique 2017, Lille, France, 28 August - 01 September 2017	ESR6
IWSHM 2017, The 11th International Workshop on Structural Health Monitoring, Stanford, California, USA, 12-14 September 2017	ESR12 supervisor
<u>T-MAPPP Workshop</u> in conjunction with the 5th International Conference on Particle-based Methods – Fundamentals and Applications (PARTICLES 2017), Hannover, Germany, 26-28 September 2017	ESR7
TSD, 17th International Technical Systems Degradation Conference, Liptovský Mikuláš, Slovakia, 4-7 April 2018	ESR3
IRSEC 2018, 5th International Reliability and Safety Engineering Conference, Shiraz University, Iran, 9-10 May 2018	ESR9, ESR11
ISOPE 2018, The 28th International Society of Offshore and Polar Engineers Conference, Sapporo, Japan, 10-15 June 2018	ESR7, ESR8
IABMAS 2018, 9th International Conference on Bridge Maintenance, Safety and Management, Melbourne, Australia, 9-13 July 2018	WP2 leader, ESR6
<u>EWSHM 2018</u> , The 9th European Workshop on Structural Health Monitoring Series, Manchester, UK, 10-13 July 2018	ESR1, ESR2, ESR12
ECNDT 2018, The 12th European Conference on Non-Destructive Testing, Gothenburg, Sweden, 11-15 June 2018	ESR1
<u>SMT and NDT-CE 2018</u> - Structural Materials Technology for Highways and Bridges and the International Symposium on Non-Destructive Testing in Civil Engineering, New Brunswick, New Jersey, USA, 27-29 August 2018	Project coordinator
14th EAWE PhD Seminar on Wind Energy, Vrije Universiteit Brussel, Belgium, 18- 20 September 2018	ESR7, ESR8, ESR9, ESR11
IALCCE 2018, The Sixth International Symposium on Life-Cycle Civil Engineering, Ghent, Belgium, 28-31 October 2018	ESR4, ESR5, ESR9, ESR11, ESR12
The 4th SRA Nordic Conference, Stavanger, Norway 8–9 November 2018	ESR11
<u>SMSS 2019</u> - International Conference on Sustainable Materials, Systems and Structures, Rovinj, Croatia, 20-22 March 2019	WP3 leader
ICASP13, The 13th International Conference on Applications of Statistics and Probability in Civil Engineering, Seoul, South Korea, 26-30 May 2019	ESR4, ESR8, ESR9, ESR10
2IIS-UHPC - The 2nd International Interactive Symposium on Ultra-High Performance Concrete, Albany, New York, USA, 2-5 June 2019	WP2 leader, ESR5
MMR, The 11th International Conference on Mathematical Methods in Reliability, Hong-Kong, 3-7 June 2019	ESR6
WESC, Wind Energy Science Conference, Cork, Ireland, 17-20 June 2019 With a special session dedicated to Infrastar.	WP3 leader, ESR7, ESR8, ESR9, ESR11, ESR12
<u>CFM 2019</u> , 24e Congrès Français de Mécanique, Brest, France, 26-30 August 2019	ESR10
SMAR 2019 - 5th Conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures, Postdam, Germany, 27-29 August 2019	WP1 leader, WP2 leader, ESR4, ESR5, ESR10
ECSMGE 2019 - The XVII European Conference on Soil Mechanics and Geotechnical Engineering, Reykjavik Iceland, 1-6 September 2019	ESR7
ICSI, 3rd International Conference on Structural Integrity, Funchal, Madeira, Portugal, 2-5 September 2019	ESR3
IWSHM 2019 - The 12th International Workshop on Structural Health Monitoring, Stanford, California, USA, 10-12 September 2019	Project coordinator, ESR2 supervisor, ESR1, ESR2, ESR6, ESR12

Table 5: Participations in conferences.

9. Outreach activities

The 12 ESRs maintained and updated an individual blog on a regular basis (see paragraph 4. Blog), and recorded a video as done within the so-called Three Minutes, 3MT® (see paragraph 5. Videos). In addition, other outreach activities have been carried out on an individual basis. They are listed in Table 6 below.

ESR	Outreach activities					
ESR1	BAM PhD day in September 2017 and May 2018.					
ESR2	 Contest "3-Minute Thesis" in France (April 2017). 					
	 French "Fête de la sciences" (October 2018). 					
ESR3	BAM PhD day (October 2017).					
	• The scientific night at The Silesian University of Technology (October 2017).					
ESR4	 The School of Architecture, Civil and Environmental Engineering ENAC 					
	Research Day at EPFL (May 2017).					
	 Night museum in Berlin (July 2017). 					
	BAM PhD day (October 2017).					
ESR5	 The School of Architecture, Civil and Environmental Engineering ENAC 					
	Research Day at EPFL (May 2017).					
	 "Pitch your impact" at EPFL (May 2017). 					
	 The School of Architecture, Civil and Environmental Engineering ENAC 					
	Research Day at EPFL (June 2018).					
	SeminApéro at EPFL (May 2018).					
ESR6	 "Flash on my thesis" in Nantes, France (May 2017). 					
	 Article on the French magazine "Trajectoires" (Issue 15, July 2017). 					
ESR7	Night museum in Berlin (July 2017).					
ESR9	 Visit of schools in rural India (February 2018). 					
ESR12	 "PhD retreat" (June 2017). 					
	Night museum in Berlin (July 2017).					
	 BAM PhD day in September 2017 and May 2018. 					
	Marie Skłodowska-Curie Actions Falling Walls Lab (September 2018).					

Table 6: Individual outreach activities.