Innovative Training Network FIbre NErvous Sensing SystEms (FINESSE)

FINESSE annual report Issue 1, October 2017

# ITN FINESSE YEARLY REPORT 1 Oct 2016 - Sept 2017



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# FINESSE in numbers

**4** years (Oct 2016 - Sept 2020)

3.88 M€ Budget

**26** partners

**8** European countries

15 ESR fellows

**5** Training Events

# **ITN FINESSE**

The objective of FINESSE (**FI**bre **NE**rvous **S**ensing **S**yst**E**ms) is to mimic the nervous system of living bodies by turning manmade and natural structures into objects that are sensitive to external stimuli owing to advanced distributed fibre-optic sensor technology, with the objective to either give early warning in case of possible danger or occurrence of damage, or to optimise the operation of the structure to allow for a sustainable use of natural resources and assets. Enabling such functionalities will greatly contribute to realizing a safe, secure and energy efficient Europe, which is a clearly identified societal concern.

To turn this ambitious concept into reality, 26 European universities, research centers and industrial partners have teamed up to set up this Innovative Training Network, with the common objective of educating and training 15 Early Stage Researchers (ESRs) in the development of a set of disruptive new optical 'artificial nervous systems' and to boost the industrial uptake of these sensors by technology transfer from academic research to the European optical fibre sensor industry.

FINESSE also engages in stimulating awareness of this technology to other scientists and a wider public, with the aim to encourage research in this field and to improve societal acceptance of distributed fibre sensing systems. Various training events, open to other early career researchers, supplemented with outreach activities support this objective.

ITN FINESSE is funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska Curie grant agreement n°722509.



# **FINESSE Consortium**

### **Coordinator:**

Ecole Polytechnique Fédérale de Lausanne (EPFL)

### **Other Beneficiaries:**

- Universidad de Alcala (UAH)
- Vrije Universiteit Brussels (VUB)
- Universitat Politècnica de Valencia (UPV)
- Leibniz Institute of Photonic Technology (IPHT)
- Tel-Aviv University (TAU)
- Fibercore (FIB)
- University of Cambridge (UCAM)
- RISE Acreo (ACREO)
- Agence Nationale pour la gestion des Déchets Radioactifs (ANDRA)

### Non-funded partners:

- Omnisens (OMNI)
- PERFOS, R&D Platform of Photonics Bretagne (PERFOS)
- Fluves (FLUV)
- Asociación Industrial Textil (AITEX)
- FBGS International (FBGS)
- Geosense Limited (GEOS)
- Cálculo y Estructuras Sensadas, SL (CAL)
- CommScope (COMM)
- Brugg Kabel AG / FOSY (BRUGG)
- FAST Laser GROUP Ltd (FAST)
- ADIF (ADIF)
- BECSA (BECSA)
- THALES Research and Technology (TRT)

	FINESSE Consortium
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Participants at the FINESSE kick-off meeting @ EPFL



#### **FINESSE EB Members**



Prof. Luc Thévenaz (EPFL) Network Coordinator (NC)



Prof. Salvador Sales (UPV) Deputy Coordinator (DC)



Prof. Miguel González Herráez (UAH)

Training coordinator (TC)



Prof. Francis Berghmans (VUB)

Recruitment & Equal Opportunities Coordinator (REOC)





# **FINESSE Management**

FINESSE adopts a 3-level organisation: (i) execution level in which research work packages in FINESSE are led by a beneficiary partner; (ii) management level (Executive Board) and (iii) decision making and advisory level, ensured by the Supervisory Board of FINESSE. Meetings are planned during all common network activities. The first two meetings were held in Brussels (M9: June 2017) and Alcalà de Henares (M12: Sept 2017) during our training events.

# Supervisory Board

FINESSE's Supervisory Board (SB) is the ultimate decision-making body of the consortium. It is composed of representatives from each beneficiary institutions, up to two representatives from non-funded partner organisations present during the meetings and two elected representatives of the ESRs. Its mission is to oversee the on-going research efforts and ensuring that the complementary strength of the network partners is optimally exploited.

# **Executive Board**

The Executive Board (EB) manages FINESSE by checking on the successful achievement of all planned activities and milestones. It is composed of seven coordinators, each carrying a specific responsibility. They regularly report to the Supervisory Board. The composition of the EB was settled amongst the beneficiaries on the 31<sup>st</sup> of May 2016.

# **FINESSE coordinators**

### **Network Coordinator (NC)**

Prof. Luc Thévenaz, from EPFL, is the FINESSE Network Coordinator. He acts as the legal entity acting as the intermediary between the FINESSE partners and the European Commission (EC) / Project Officer (PO). His main functions include chairing the SB and the EB, coordinating and stimulating the FINESSE network activities and advising on administrative matters. He is also responsible for annual and final reports, deliverables and coordinating financial and contractual issues, towards the EC and the project partners, including data collection from project partners.

### **Deputy Coordinator (DC)**

The Deputy Coordinator is Prof. Salvador Sales from UPVLC. And serves as the NC's substitute when the latter cannot materially be present and act as a secretary in the SB and in the EB.

#### Administrative Coordinator (AC) / Project Manager

The NC and DC are assisted by Dr. Kenny Hey Tow (EPFL), the AC. His responsibilities include:

• managing the day-to-day operational tasks: organisation of project meetings, training events, secondments for the ESRs,

- monitoring the project's deliverables, milestones, periodic reports and schedule, to ensure a proper coordination among partners and timely deliveries,
- ensuring the link and facilitating exchanges and cooperation between the 15 ESRs,
- contributing to the dissemination and outreach activities in FINESSE

#### **Recruitment & Equal Opportunities Coordinator (REOC)**

Prof. Francis Berghmans, from VUB, has been assigned as REOC in FINESSE. He is in charge of implementing the centralised recruitment of young researchers and providing advice and information on recruitment, of overviewing the gender balance policy and of advising ESRs on their rights and obligations.

#### **Training coordinator (TC)**

Prof. Miguel González Herráez (UAH) is the FINESSE training coordinator. His main responsibilities include the supervision all training activities and the organisation the training events (TE) together with the local organisers, whilst selecting the topics of the lectures at the network TEs and ensuring a logical connection between the schools at basic, advanced and expert level. Moreover, he evaluates the career development plans for each ESRs and monitors their progress as well as ensuring the correct recognition of training and research activities performed during scientific visits and secondments of ESRs to other nodes, and of the network meetings and schools (accreditation of credit points to ESRs).

#### **Communications Coordinator (CC)**

Dr Sylvie Lesoille (ANDRA), our Communication Coordinator, is responsible for coordinating and managing all the outreach and dissemination activities, including media contact and public relations.

### Science & Relations with Industry Coordinator (SRIC)

Prof. Thomas Crispeels (VUB-BUTO) is be FINESSE's SRIC. He is in charge of fostering communication between the participating groups by monitoring and stimulating transfer of knowledge, ideas and experience between the partners. He also ensures active collaboration between the academic and private sector partners and deals with intellectual property rights (IPR) issues as well as the identification of potentially exploitable IP. He ensures that all researchers are aware of the need for IPR protection and of the opportunities available for exploitation and entrepreneurship.

### **ESR** representatives

The ESRs nominated two representatives during an ESR meeting at TE1 (ESR 7 – Angeliki Zafeiropoulou and ESR 15 – Marie Gruber), for an initial period of one year. The ESR representatives attend the SB meetings and act as a point of contact for the Executive Board and Project Manager to address all the ESRs.





Dr. Kenny Hey Tow (EPFL)

Administrative Coordinator (AC) / Project Manager



Dr. Sylvie Delépine-Lesoille (ANDRA)

Communications Coordinator (CC)



Prof. Thomas Crispeels (VUB)

Science & Relations with Industry Coordinator (SRIC)





### **Recruitment Timeline**

May 2016: First action initiated for advertisement

August 2016: 15 ESR positions posted on Euraxess

February 2017: 2 ESRs officially start their PhD programme under ITN FINESSE

June 2017: 13 recruited ESRs attend the first FI-NESSE Training Event

September 2017: 2 candidates selected for the last two ESR positions and awaiting official employment.

# FINESSE Recruitment process

Prior to the official kick-off of the project (1<sup>st</sup> October 2016), a number of dissemination activities were already initiated by the coordinating team and the recruitment and equal opportunities coordinator (REOC) of FINESSE.

Recruitment efforts included common network actions through job posting on Euraxess, on the FINESSE website, and by means of social media pages (twitter, Facebook and LinkedIn). A dedicated FINESSE mailing list was put together and addressed as well. Beneficiaries also individually advertised the ESR positions via: i) institutional/ company websites and social media accounts, ii) national research agencies, iii) personal contacts.

On the 30<sup>th</sup> of September 2017, 13 ESRs have already started their work plan. Two candidates are already identified for the two remaining ESR positions and awaiting official

# $1^{st}$ recruitment meeting: Pre kick-off meeting, Limerick (Ireland) | $31^{st}$ May 2016

The first public announcement of FINESSE and advertising of the 15 ESR PhD positions was done during the closing session of the European Workshop on Optical Fibre Sensors (EWOFS 2016) held from May 31<sup>st</sup> to June 3<sup>rd</sup> in Limerick, Ireland. This was an opportunity of choice to announce the start of FINESSE to the international community working in the domain of fibre optic sensors, with an audience of about 150 attendants. During a pre kick-off meeting held at EWOFS, a recruitment plan and strategy devised by our Recruitment and Equal Opportunities Coordinator (REOC) for the consortium was explained to all the beneficiaries. All the 15 PhD positions were posted on Euraxess on the 22<sup>nd</sup> August 2016 and FINESSE website and social networks. FINESSE beneficiaries also took the initiative to announce and disseminate the job offers through different channels (institutional website, mailing list, LinkedIn).

### 2<sup>nd</sup> recruitment meeting: Kick-off meeting, Lausanne (Switzerland) | 6<sup>th</sup> October 2016

During the kick-off meeting, the recruitment status of each beneficiary institution was reviewed and discussed. At that stage, several beneficiaries had already identified and confirmed the future ESR appointment.

A second round of advertising was initiated using the same means, a job advertisement that has been centrally prepared was sent via FINESSE's coordination team e-mail address (<u>finesse@epfl.ch</u>) to selected European and worldwide contacts (academic and industrial partners) working in the field of optical fibre sensing, requesting them to use their own personal network for disseminating the information

### Job advertisement during workshops and conferences

- EPIC Workshop on Optical Fiber Sensors for Structural Health Monitoring, organised on 20-21 October 2016 at iXFiber in Lannion (France), 30 participants (mainly European photonic companies)
- Asia Communications and Photonics Conference in Wuhan (China), organised on 2-5 November 2016 with more than 2000 participants;
- 1<sup>st</sup> International Conference on Optics, Photonics and Materials, organised on 26-28 October 2016 in Nice (France),  $\sim$  250 participants;
- 7<sup>ème</sup> Journées sur les Fibres optiques en Milieu Radiatif, organized on 12-13 December 2016 at ANDRA in Chatenay-Malabry (France), 50 participants (both universities and industrial companies specialized in sensing, from France, Belgium and Canada).



# <u>Figure 1:</u> Examples of recruitment efforts made by the FINESSE consortium

FINESSE





# **FINESSE Early Stage career Researchers**

15 Early Stage career Researchers (ESRs), recruited and supervised by the FINESSE beneficiary institutions, will contribute to developing the field of Distributed Optical Fibre Sensing (DOFS) in European academy and industry.

As part of our training programme, the ESRs are enrolled as PhD students and trained at their host institution under academic supervision to gain experience in research methodologies, experimental set-ups, data collection methods, etc. During their secondment periods, the ESRs will be hosted by other FINESSE partners, who will give them supplementary theoretical background and hands-on experience for them to fully reach the objectives fixed in their research programme.

The FINESSE training scheme not only contains common network lectures offered to all fellows (FINESSE Training Events) but also includes tailor-made programmes for all ESRs to achieve their targeted goals as stated in their Personal Career Development Plan (PCDP).

# Research objectives of FINESSE ESRs

The research ambition in FINESSE is to use a radically innovative approach to develop customised sensing systems in combination with dedicated optical fibres leading to optimal measurement solutions instead of relying on existing optical fibres.

To reach this ambitious goal, the research partners have identified two main complementary scientific approaches that will be developed by our ESRs:



- ESR 1- 5 work on the development and implementation of new interrogation architectures, that will make DOFS more efficient with improved performance (millimetre scale resolutions over more than 100m, dynamic measurement up to 1 kHz refresh rate, etc.).
- **ESR 6 10** concentrate on the fabrication of novel optical fibres, sensitive to other parameters than temperature and strain, including pressure, electric field, curvature, gas concentration, etc. that will be used in DOFS systems.

The new interrogation architectures and fibres complementarily developed will be "assembled" to create novel DOFS systems, which will all be implemented and validated with field trials. These tasks are conducted by **ESR 11-14**, hosted by FINESSE partners all working in different fields with high potential for industrial deployment of DOFS, ranging from civil and geotechnical engineering to radioactive waste management.



The FINESSE consortium recognizes a catalyst is needed throughout the project runtime to ensure an efficient and effective technology transfer process of academic research results to the European optical fibre sensor industry **(ESR 15)**. Interdisciplinary research in the emerging domain of technology transfer research will allow for the development of methodologies to identify, screen and assess opportunities in optical fibre sensing technologies. Research results on business concept refinement and the academic entrepreneur's interactions with industry will be fed back into FINESSE's core team for superior technology transfer results. This approach will ensure swift transfer of the ESR fellows from academics to industry after their training.

# Team Spirit between FINESSE ESRs

Owing to the highly multidisciplinary nature of our research programme, the ESRs have individual specific expertise to cover all fields for the development of novel optical sensing nerves. They all have related, collaborative work plans and the synergy between them will be key to achieve ground-breaking results foreseen in the project.

Since the beginning of the project, the consortium took actions to give a "group vision" to our ESRs and they were highly encouraged to interact with each other (research-oriented discussions, organisation of communications and public outreach activities). The 13 recruited ESRs have started their employment within a 4 months window (Feb - May 2017) and have all met in June 2017, where they were encouraged to spend time together outside lecture hours during our first common network

*Ravil (ESR 9), during a FINESSE workshop at TE2: "We are a team. We win and lose together."* 

event in Brussels, which has enhanced their integration in the project and helped building their relations.

A sense of camaraderie between the ESRs could already be felt at the end of TE1. Existing connection (some of them knew each other before FINESSE or had already started working together for the project) and the developed team spirit within the group will undoubtedly contribute to the swift establishment and progress of this network.



ESRs chilling out after a public outreach activity in Alcala: Ravil, Joao, Li, Arianna, Demetrio, Regina, Sergei, Arsenii, Luis, Angeliki, Pabitro, Hari and Ignazio (Missing ESRs: Marie and Qianchen).

#### **FINESSE ESRs**

ESR 1: Pabitro Ray (India), EPFL.

ESR 2: Li Zhang (China), EPFL.

ESR 3: Hari Bhata (Nepal), TAU.

ESR 4: Luis Costa (Portugal), UAH.

ESR 5: Regina Magalhaes (Portugal), UAH.

ESR 6: Sergei Mikhailov (Russia), VUB, Belgium.

ESR 7: Angeliki Zafeiropoulou (Greece), Fibercore.

ESR 8: Joao Pereira (Brasil), ACREO RISE.

ESR 9: Ravil Idrisov (Russia), IPHT.

ESR 10: Arsenii Stam (Russia), IPHT.

ESR 11: Demetrio Sartiano (Italy), UPVLC.

ESR 12: Arianna Piccolo (Italy), Andra.

ESR 13: Ignazio Floris (Italy), UPVLC.

ESR 14: Qianchen Sun (China), UCAM.

ESR 15: Marie Gruber (Germany), VUB.





# Statistics on the recruitment process and our ESRs

Note: Based on the sample collected during the recruitment process of our first 13 ESRs

# Figure 2: Breakdown of job applications for FINESSE ESR positions



### Figure 3: Breakdown of recruited ESRs by Nationality, Gender





# Have you met...our ESRs?

Angeliki (Fibercore, UK) from Greece: "I am currently part of the Fibercore Ltd team, while being a PhD student at the University of Southampton. Before arriving in the UK, I completed a Master's degree in Materials Physics at the National and Kapodistrian University of Athens, Greece. Within the FINESSE network my project aims at the design, optimization and fabrication of special multi-core fibres for distributed sensing applications. What I really like about FINESSE is the various secondments that will help me to get a taste of the working culture in different countries and boost my future job opportunities. When I am not in the lab, I like dancing as well as walking in the parks of Southampton. I also plan to travel all around England during these three years!"

Sergei (VUB, Belgium) from Russia: "I am a PhD student at Vrije Universiteit Brussel (VUB). Before arriving in Belgium, I completed a Master's degree in Technical Physics at Peter the Great St.Petersburg Polytechnic University in Russia. My work within the FINESSE network is dedicated to the creation of photonic crystal fiber (PCF) with enhanced pressure sensitivity, which will be used in pressure sensing systems (e.g. oil- and gas industry). FINESSE network provides a great opportunity for meeting new colleagues and collaborating with different institutions. In my free time, I'm most likely chilling and testing some Belgian beers, in the name of science of course! "

Pabitro (EPFL, Switzerland) from India: "I am currently a PhD student at the Group for Fibre Optics, EPFL, Switzerland. I pursued my Master's degree in Sensors at the Indian Institute of Technology Madras, India. In the FINESSE framework, my objective is to develop a fiber optic sensing system based on weak continuous gratings, which can measure parameters like strain, temperature, humidity etc. FINESSE provides a platform for a collaborative research with various institutions as well as industrial partners, which is an attractive feature of the project. The planned secondments as a part of the project are fascinating and certainly helpful. I like cycling, swimming and traveling. I admire the way Switzerland has preserved and maintained its natural beauty. In my leisure time, I like taking a walk along the shore of Lake Geneva."

Joao (ACREO RISE, Sweden) from Brasil: "I began my PhD in March 2017 at RISE Acreo in Stockholm and I'm enjoying my new city. I completed my Masters physics degree at CBPF (Brazilian Center for Physics Research) in Brazil and my last job was in PUC-Rio as a technician. My study project in FINESSE is to develop an electric field fiber sensor to monitor high voltage. I would like to meet the other FINESSE ESR to learn about their projects. I like electronics, computers and Sci-fi movies."

Arianna (Andra, France) from Italy: "I am a Ph.D. student at the University of Nantes, doing research mainly in ANDRA, both in France. I have always been a curious person, so I started studying all around Europe: I have graduated in Telecommunication Engineering at the University of Padova, in Italy, doing my master thesis in Spain, at the University of Cantabria, within the Photonic Engineering Group. Within the FINESSE project I will aim to develop an optical fiber sensor, capable to help protecting the people and environment against radioactive waste pollution. I am really looking forward to share with other people knowledge and motivating experiences, working together to reach a common goal. If I am not studying, I like to enjoy nature, music and visit new places. I am already enjoying the green parks I find around my new home, so I cannot wait to see more!"

You'll meet 5 more ESRs in our next annual report. The bio of all our ESRs are available on our website: http://itn-finesse.eu/esrprofiles/







# **FINESSE Training Events**

5 Training Events (TE) are planned in the framework of ITN FINESSE. These Tes cover not only all the important topics involved in distributed fibre sensing but also transverse activities related to transferable skills (how to collaborate in large projects, entrepreneurship in photonics, management of intellectual property, communication strategies, etc.). Trainees external to the FINESSE consortium can also register for these events.

During these TEs, workshops and meetings are organised to foster colla-

boration, to brainstorm about difficult problems and to discuss new topics and developments within the consortium. Social activities, during which trainees and lecturers are invited to join, are also organised to improve networking opportunities.

Our 1<sup>st</sup> TE was held in Brussels in June 2017, followed three months later by a second one organized at Alcalà de Henares in Spain.

Simon Z, external trainee attending TE1 and TE2: "FINESSE training events gave me not only the opportunity to learn from the academic and industrial experts of distributed fiber sensing but also to broaden my network via fruitful interactions."

#### **FINESSE TEs**

TE1: PhD School on Fundamentals of Optical Sensors, Brussels, Belgium (June 2017).

TE2: PhD School on Distributed Sensing Methods, Alcalà de Henares, Spain (Sept 2017).

TE3: PhD School on Speciality Fibres, Jena, Germany (April 2018).

TE4: PhD School on Entrepreneurship in Photonics, Brussels, Belgium (Fall 2018).

TE5: PhD School on Field Application and Standardisation, Cambridge, United Kingdom, (Fall 2019).

### TE1: VUB campus, Brussels (Belgium) | 6th – 9th June 2017

FINESSE's first training event on "Fundamentals on Optical Sensors" was held at the facilities of VUB in Brussels, Belgium. During this PhD school, FI-NESSE ESRs and other early career PhD students and professionals were provided academic lectures dealing with the basic properties of light and optical signals, light-matter interaction me-



chanisms, important optical devices such as lasers, photode-

tectors, and optical fibers, and explaining how these can be used to construct optical sensor systems. Invited industry experts and hands-on laboratory sessions gave the participants an insight of optical sensor systems targeting the measurement of important parameters such as temperature, distance and displacement, force and pressure and industrial applications thereof. Additional transverse lectures dealt with the importance and impact of Photonics – the science and technology of light – on our economy and society, and with entrepreneurship -related topics such as the basics of intellectual property right protection. The 4day training was completed by a poster session, which gave the opportunity to the participants to present their work to professionals in the field of optical sensing and created networking opportunities for the students.





### TE2: UAH campus, Alcalà de Henares (Spain) | 11th - 15th Sept. 2017

The purpose of our second training event was to offer to our ESRs and external participants the opportunity to attend a series of key lectures given by experts in the field of distributed fibre optics sensing. The lectures offered a general introduction on all the theoretical concepts relevant in distributed sensing, from scattering physics to the ground science of all the necessary components and the overall performance of the systems and the system limitations as a function of the different parameters. A FI-NESSE workshop was organised to give the opportunity to our ESRs to develop their presentation skills and a 1-day lab session allowed the participants to acquire handson experience in making distributed fibre sensing systems.



### **Some stats on TEs**

Our two training events were opened to students external to the FINESSE network. In addition to our 13 ESRs, other students (8 for TE1 and 11 for TE2) attended the lectures; 25% are female students.

The contents of FINESSE training events are various: lectures (>50%), hands-on experiments (~ 15%) and training in dissemination and communication activities (poster presentation, oral presentation, etc.). Lectures in TE1 was more generalist (open only to Masters and early career PhD students) and more specialised - distributed fibre sensing methods - during TE2.

At least 30% of our lectures were given by industrial experts in optical fibre sensing. Some of them belong to the FI-NESSE consortium and others were invited to give talks and participate to our social events to give the opportunity to participants to build their network.

Participants affiliated to companies and academic institutions from 10 European countries attended our 2 TEs. Most of them are PhD students, but 1 Masters student, 1 earlycareer engineer and 2 post -docs also attended the training events.





# **FINESSE Training Events stats**

### <u>Figure 4:</u> Breakdown of Training Courses in our TEs



Figure 5: Breakdown of TE Lecturers

### Figure 6: Breakdown of Trainees (FINESSE and external) by Gender and Work





# **FINESSE Training Events in Numbers**

<b>2</b>	<b>33</b>	<b>52</b>
Training	Students	Training
Events	trained	hours
<b>2</b>	<b>22</b>	<b>10</b>
Lab	Lecturers	Participating
sessions	for 2 TEs	countries
<b>33</b>	<b>25%</b>	> <b>30%</b>
Lectures	Female	Lectures by
delivered	Students	industrials





Universidad de Alcalá Alcalá de Henares, Spain 11-13 September 2017 Want to register or have more information on our future training events? Drop us an e-mail at finesse@epfl.ch and we'll add you to the mailing list How to follow our activities?

FINESSE website: www.itn-finesse.eu





@ItnFINESSE



ITN-FINESSE group



### finesse@epfl.ch

# Communication and Dissemination Activities

During our first year, all FINESSE partners made substantial efforts in communication and outreach activities to raise awareness about our ITN in the European and worldwide optical fibre community.

We exploited several ways to reach the maximum audience and to explain our research objectives and training programme, ranging from official announcements in specialized conferences to reach fellow researchers and industrial partners to social media, newspaper announcements, newsletters, and website posts to convey our message to the general public.

The network is particularly active on the web (FINESSE website) and Twitter. Many people are following our progress and activities via these means.

Our ESRs are regularly invited to attend public outreach activities and Marie-Curie fellow meetings to talk about our ITN and their work plan within FI-NESSE.

# FINESSE Website



The FINESSE website (<u>www.itn-finesse.eu</u>), hosted by ANDRA, was officially launched on November 2017, and updated regularly (job offers, training events, dissemination activities, etc.) since then by the consortium.

The homepage of the website includes information on:

- The FINESSE research project
- The FINESSE consortium
- Our ESRs
- Network activities and events (PhD schools, dissemination and outreach activities, conferences and workshops) organised by FINESSE



# FINESSE Social Networks

FINESSE is also active on other social media via our ITN-FINESSE Facebook and Twitter page. We also have a Linkedin group (<u>https://www.linkedin.com/groups/8578581</u>), regrouping FINESSE consortium members and other actors in the field of distributed optical sensing who are interested in our project and the potential outcomes (research results, PhD schools, dissemination activities), has also been created. This group provides the perfect platform to boost networking opportunities between FINESSE members and external stakeholders. Anyone can join this group, pending validation by the consortium.



#### FINESSE ESRs scientific production (May 2017 -Sept 2017)

- D. Sartiano and S. Sales, "Lowcost pressure sensor based on POF embedded in mattress" 26th International Conference on Plastic Optical Fibres.
- M. Gruber and T. Crispeels, "Resource Orchestration and Academic Entrepreneurship: Literature Review and Data Gathering Strategy," Technolo- gy Transfer Society Annual Conference 2017

# **Conference Papers and Publications**

Between June and September 2017, FINESSE ESRs have submitted 2 conference abstracts, both accepted.

The first one was presented at the 26th International Conference on Plastic Optical Fibres in Aveiro, Portugal.

The second accepted abstract was sent to the Technology Transfer Society Annual Conference, which will take place in November in Washingston DC. The conference will focus on



the role of technology transfer and commercialization across sectors, locations and institutions as an enabler of smart, sustainable and inclusive growth especially in developed democracies and vis a vis its role in emerging economies mostly of a less open and democratic nature (emerging autocracies).



<b>15</b> Early Stage Researchers	<b>26</b> Partners in consortium	5 Of the second
<b>18</b> Industrial Partners	<b>FINESSE</b>	<b>8</b> Academic Institutions
9 ESR Nationalities	<b>4</b> Years (10/16 – 09/20)	<b>8</b> Countries in FINESSE

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