INESC BRUSSELS HUB

MONTHLY NEWSLETTER

Number 6 / August/September 2020

WHAT IS THE MFF

Multiannual Financial Framework, the EU's longterm budget, which usually covers a period of five to seven years. The package includes, most notably: a multiannual financial framework regulation, which lays down how much the EU can spend and na own resources decision, which defines where EU revenue comes from. The Commission also makes proposals for sectoral programes for the new programming period, among which, is the Horizon Europe. More info here and in the policy section of this newsletter.



"did you know that this is the first European framework programme for research and innovation that has a strategic plan orientating the policy goals of the research calls? Knowing this is crucial for success.

R&I excellence by itself is not enough anymore"

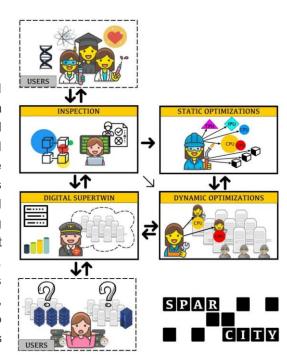
INESC PAVES THE WAY TO STRENGHTEN ITS ROLE AS A KEY PLAYER IN EU RESEARCH AND INNOVATION POLICY

Since the start of the activity of the INESC Brussels HUB, INESC has been paving the way to be a recognised and quality contributor to EU research and innovation policy making, sitting alongside other similar institutions from other European countries. We have since inception responded to many public consultation exercises, met and discussed with the European Parliament and several directors and Heads of Unit of the European Commission, in thematic areas that have been identified by the INESC Brussels HUB Management Committee and its Policy and Operations Board as key to each INESC institute. This is extended by our active participation in EARTO – the European Association of Research and Technology Organisations, which not only complements the reach of our influence, but also positions us in such a way that we are becoming trusted sources of information and structured feedback to the European Commission services, as well as national and regional public authorities. On top of all this, we have also written and published the first policy position paper, which was focused on synergies between EU funds and programmes and nationally/regionally managed funds and programmes, such as the important structural funds. This contributes to make better known the INESC brand in key sectors, but in this first year of activity our focus was bringing together the 5 INESC institutes, collectively define thematic areas and policy areas in which we want to reinforce our positioning and better capacitate the participants and the wider INESC community to lobby and achieve concrete results through that process. This is a marathon not a sprint. But results are coming our way and your engagement is crucial. Check out opportunities to participate in this newsletter and consult your focal point (see list of focal points at the end of this newsletter). For example, did you know that this is the first European framework programme for research and innovation that has a strategic plan orientating the policy goals of the research calls? Knowing this is crucial for success. Research and innovation excellence by itself is not enough anymore.

NEWS FROM THE INESC UNIVERSE

INESC ID: EUROHPC JOINT UNDERTAKING PROJECT RECENTLY APPROVED

The project was highly ranked within all the submitted projects to the 1st call opened by EuroHPC. The <u>SparCity project</u> aims at creating a supercomputing framework that will provide efficient algorithms and coherent tools specifically designed for maximising the performance and energy efficiency of sparse computations on emerging HPC systems, while also opening up new usage areas for sparse computations in data analytics and deep learning. To demonstrate the effectiveness, societal impact, and usability of the framework, the SparCity project will enhance the computing scale and energy efficiency of four challenging real-life applications that come from drastically different domains, namely, computational cardiology, social networks, bioinformatics and autonomous driving. By targeting this collection of challenging applications, <u>SparCity</u> will develop world-class, extreme scale and energy-efficient HPC technologies, and contribute to building a sustainable exascale ecosystem and increasing Europe's competitiveness.



INESC ID AND INESC TEC RESEARCHERS NOMINATED EURAI FELLOWS

The <u>European Association for Artificial Intelligence</u> (EurAl) nominated Ana Paiva (INESC ID/IST) and João Gama (INESC TEC/UP-FEP), as EurAl Fellows. In order to promote the studying, research and application of Artificial Intelligence (AI) in Europe, EurAl rewards a restricted set of researchers who stand out due to the quality and relevance of their work in the field of Artificial Intelligence. This programme started in 1999, aiming to award members of the societies and organisations that play a part in the EurAl.

INESC MN: 2 RESEARCHERS AWARDED THE 2019 UL/CGD SCIENTIFIC AWARDS



Two researchers from INESC-MN received the scientific award "Prémios Científicos Universidade de Lisboa/Caixa Geral de Depósitos - 2019 edition". Susana Cardoso de Freitas received the 1st place in the Electrical and Aerospacial Engineering panel and Katharina Lorenz received the 1st place in the area of Physics and Materials. These awards from the Universidade de Lisboa (ULisboa), with the support from Caixa Geral de Depósitos aim to promote scientific research activities and publication in top-level journals within the ULisboa community members.

INOV ORGANISED THE 29TH EDITION OF THE EUROPEAN CONFERENCE ON NETWORKS AND COMMUNICATIONS

EUCNC 2020 took place between 15th and 18th June, in online format. This year's edition focused on project's opportunities to demonstrate the path to the testing strategy of 5G networks in Europe. Since 2014, INOV has been the leader of the EuConNeCts project series (1 to 4), co-financed by the European Commission under the H2020, to organise the conference. The conference is open to the entire technical and scientific community worldwide, focusing on project demonstrations in the area. Info about the EUCC 2020 here.

INESC TEC: COST-EFFECTIVE ROBOTS FOR PRECISION SPRAYING – NEW H2020 PROJECT APPROVED AND RANKED 1ST IN THE EVALUATION!

Spraying in agriculture represents a societal challenge due to its negative impact in human and animal health in the environment. Increasing spraying efficiency towards the objective of "right time, right amount, right place", involves the reduction of losses and, consequently, amount of phytopharmaceuticals used, water usage and human and animal exposure to pesticides, and the increase of the spraying system availability while reducing labour costs. To cope with these challenges a consortium with complementary precision farming actors was formed for the SCORPION project, bringing together steep slope vineyards associations (CERVIM, INNOVI), robotics and agricultural machinery RTD institutions (INESC, EUT, and IMAMOTER, WUR), SMEs and large company (TEYME, KommTek, Deimos, SPI), and an institution devoted to innovation in the sector (IPN). The project is coordinated by INESC TEC and ranked 1st in the evaluation!

INOV COORDINATES ENSURESEC PROJECT: PROTECTION OF THE E-COMMERCE SYSTEM IN THE DIGITAL SINGLE MARKET

ENSURESEC project, coordinated by INOV and with beginning in June, aims to protect the e-commerce system through the development of an automatic, rigorous, distributed and open source toolkit. The project integrates inductive (machine learning) with deductive (formal methods) reasoning tools and techniques, so that e-commerce operations are protected by design. With focus on the challenges of the European Digital Single Market, ENSURESEC project develops in three axes: prevention and response, monitoring and mitigation, and awareness and training.



INESC TEC COLLABORATOR BECOMES EUROPEAN IP HELPDESK AMBASSADOR

Daniel Vasconcelos, head of INESC TEC's Technology Licensing Office (SAL), is the <u>new ambassador for the European IP Helpdesk, in Portugal</u>. This free service aims to disseminate and advise Portuguese Small and Medium-sized Enterprises (SMEs) in the management of intellectual property (IP). He is currently the only ambassador in Portugal.

INESC TEC: LIGHTKONE COMES TO AN END AND OBTAINS A POSITIVE SCORE IN THE FINAL EVALUATION

The European project LightKone, developed in partnership with INESC TEC's High-Assurance Software Laboratory (HASLab), obtained a positive score in the European Commission's final evaluation. According to the reviewers, "the project provided valuable results for the scientific community". LightKone started in January 2017 and ended in December 2019. The main goal of the project was the development of a scientifically thorough and industrially validated model, capable of providing distributed computing in peripheral networks. It enables faster response times for users, namely when compared to more classic solutions with centralised data centres. Among the technologies developed, we would like to highlight new database models (AntidoteDB), systems that allow direct synchronisation of web browsers on a local network, without requiring a connection to a central server (Legion), and convergent data models (CRDTs) that have been adopted and incorporated in several programming languages (used in games like League of Legends and Angry Birds). More information here.

INESC ID: NEW ERASMUS+ PROJECT - ID-GAMING

The project ID-GAMING, submitted to ERASMUS+ "Strategic Partnerships for adult education", has just been approved. The project, coordinated by Portugal (with the participation of INESC-ID) and with partners from Spain, Italy and Greece has as its main objective to increase the competences of Persons with Intellectual Disabilities (PwID) and related professionals and relatives in the implementation of ICT Serious Games for improving cognitive functions. It is estimated that 15 million EU citizens have an intellectual disability, i.e., a reduction of the ability to understand new or complex information and learn and apply new skills. These PwID may have their cognitive functions impaired, hindering proper knowledge acquisition and competence development. Traditional methodologies to train people with cognitive deficits for improving impaired cognitive functions often do not apply to PwID, or are insufficient. The use of ICT Serious Games or "training games" is fairly accepted by PwID because they are more motivated, don't feel the pressure of real world, feeling comfortable to explore virtual world, being able to keep attention on tasks, and can develop motor coordination and spatial orientation. Therefore, Serious Games constitute an alternative or complement to current training methods for PwID in order to increase their Quality of Life.

EVENTS

WORKSHOP HEALTH TECHNOLOGIES – 18 SEPTEMBER, 9H30 – REGISTRATIONS OPEN

Following the publication of the Characterisation and Matching initial report and after processing all the feedback received via email from the INESC research and innovation community, the HUB Work Group on Health Technologies is organising an event to present and discuss the findings with INESC researchers from all areas of knowledge and from all INESC institutes. This workshop will take place virtually and access will be granted only to those who register.

We will count with the presence of the National Delegate for Health, Patrícia Calado, as a discussant in the event. Patrícia will work closely with us during this event to fine-tune strategy and planning for matching our research and innovation capacity in health technologies with the opportunities in Horizon Europe.

Registrations are open until 11th September, just send an email to the Head of Brussels HUB, Ricardo Migueis (ricardo.migueis@inesc.pt) with "Registration HT" on the subject. No further text is needed.

GENDER & DIVERSITY WEEK (8, 9 AND 11 SEPTEMBER) - REGISTRATIONS OPEN

Ensuring gender equality and diversity is a key societal challenge and a European Commission priority that is transversal to its policy goals and specific programmes, namely the research and innovation related ones. Research and Technology Organisations hold a major responsibility for contributing to achieve greater gender and diversity in research, but also in education, industry and across the very diverse societal actors with which it collaborates regularly.

As the example starts within and with the goal of promoting the debate, awareness and effective change, INESC Brussels HUB is organising a series called the "Gender & diversity breakfast webinars". Beyond the crucial role of RTOs, we will discuss what would be the most effective activities and measures to implement through an R&I project addressing gender & diversity, as well as the key role of role models in promoting a more balanced participation in STEM (Science, Technology, Engineering and Mathematics) R&I. The draft programme, with the respective themes, hours and speakers is below. Registration is open – follow this link!

PROGRAM | GENDER & DIVERSITY BREAKFAST WEBINARS





8 SEPTEMBER, 8H30 GMT / 9H30 CET

Gender and Diversity in research and technology organisations in Europe Inês Lynce, President, INESC ID Muriel Attané, Secretary General, EARTO Tomas Brage, Lund University

9 SEPTEMBER, 8H30 GMT / 9H30 CET

If you had one million euros for a R&I project promoting gender and diversity, what activities would you implement?

Mina Stareva, Head of Sector, Gender, DG Research and Innovation, European Commission Marta Barbas, Senior Advisor to Administration, INESC TEC

11 SEPTEMBER, 8H30 GMT / 9H30 CET

The role of the role-models in gender and diversity in STEM research and technology Susana Cardoso Freitas, Director, INESC MN Maria da Graça Carvalho, Member of the European Parliament Sara Ricci, professor at Brno University of Technology, member of the SPARTA Project



EU R&I DAYS AS A VIRTUAL EVENT ON 22-24 SEPTEMBER 2020

The European Commission is organising the EU Research and Innovation Days, its annual flagship event virtually on 22-24 September 2020. The event aims at bringing together policymakers, researchers, entrepreneurs and citizens to debate and shape the future of research and innovation in Europe and beyond. This 2020 edition includes policy co-designing opportunities where the



participants will have the chance to join interactive sessions and provide input on how research and innovation policy and funding can help propel Europe's recovery and pave the way to a green, digital and resilient future.



LISBOA ACOLHE A SEGUNDA SESSÃO DO 40.º ANIVERSÁRIO DO INESC: "40 ANOS DE CIÊNCIA E CONHECIMENTO"

O programa da comemoração nacional do 40.º aniversário do INESC, sob o tema "40 anos de Ciência e Conhecimento", inclui três sessões em 2020 no Porto, em Lisboa e Coimbra. Lisboa acolhe a segunda sessão, que terá lugar no dia 8 de Outubro, pelas 17h na Fundação Calouste Gulbenkian, com os oradores presentes em palco e os participantes a assistir online via Webinar do Zoom.

Toda a programação dos 40 anos do INESC pode ser consultada aqui. Inscreva-se aqui para receber o link de acesso à sessão Zoom.

INESC TEC POWER & ENERGY WEBINAR SERIES – TOWARDS THE FUTURE OF ENERGY SYSTEMS

INESC TEC, throughout its Centre for Power and Energy Systems and the Energy cluster, has launched the Power and Energy Webinar Series initiative. In each webinar, a researcher from INESC TEC will present and discuss ideas, expected outcomes, or results regarding the energy systems of the future. In some webinars, external speakers will be invited. The expected duration of the webinar is between 45 minutes and 1 hour, depending on the format. Discussion between the speakers and the participants will be held in the last part of each webinar.

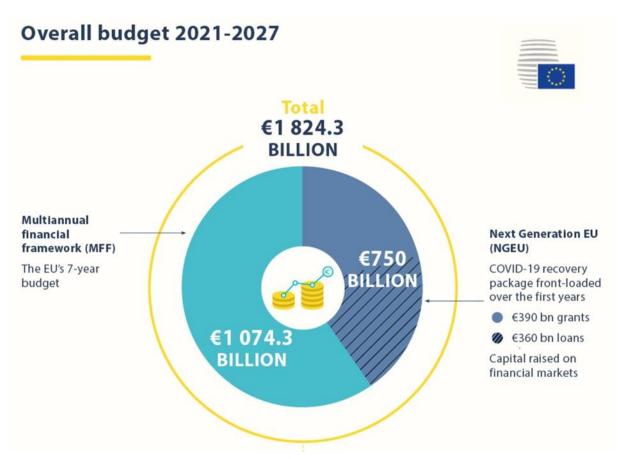
Registrations are open for the second webinar "Data science applied to the electricity market and renewable energy forecasting", September 4, 5pm (WEST).



POLICY, STRATEGY AND FUNDING

EUROPEAN BUDGET FOR 2021-2027 - KEY FIGURES FOR RD&I

The tables above show the original EC budget proposal for Horizon Europe versus the budget proposal that resulted from the European Council negotiations in July and complements the information previously circulated about the overall European budget negotiations (Multiannual Financial Framework Programme – see figure below).



The above figure represents the full picture of the European budget for the period 2021-2027, including the recovery package designated as Next Generation EU (NGEU). The subdivision of the budget is in the following headings:

- Heading 1 "Single Market, Innovation and Digital"; (€132 781M)
- Heading 2 "Cohesion, Resilience and Values" which will include a sub-Heading for

- market related expenditure and direct payments; (€356 374M)
- Heading 4 "Migration and Border Management"; (€22 671M)
- Heading 5 "Security and Defence"; (€13 185M)

Heading 1: "Single market, Innovation and Digital" is the one where Horizon Europe fits in. The overall budget of heading 1 is subdivided in several parts, such as Horizon Europe, ITER, the Space Programme, InvestEU, the Connecting Europe Facility and Digital Europe. Overall the European budget for Research and Innovation is divided as follows (Unit is millions of euros):

	ha lit		
	Multiannual Finance		
	Framework	NextGenerationEU	Total
Horizon Europe	75900	5000	80900
International Thermonuclear			
Experimental Reactor			
project (ITER)	5000		
Space Programme	13210		
of which:			
Galileo	8000		
Copernicus	4810		
InvestEU	2800		
Connecting Europe Facility	28396		
of which:			
Transport	21384		
Energy	5180		
Digital	1832		
Digital Europe	6761		
Other	714		
Total	132781	5000	137781

In what concerns Horizon Europe, the tables below show the original Commission proposal versus the proposal approved by the European Council:

Council August 2020 - Constant 2018 prices		
Horizon Europe	Amount M€	%
Pillar I - Excellent Science	20 493 €	27,00%
European Research Council	13 186 €	17,37%
Maria-Sklodowska Curie Actions	5 401 €	7,12%
Research Infrastructures	1 906 €	2,51%
Pillar II - Global Challenges	41 861 €	55,15%
cluster 'Health'	6 116 €	8,06%
cluster 'Culture, Creativity and Inclusive Society'	2 224 €	2,93%
cluster 'Digital, Industry and Space '	11 915 €	15,70%
cluster 'Climate, Energy and Mobility'	11 915 €	15,70%
cluster 'Food, Bioeconomy, and Natural Resources, Agriculture and Environment'	7 943 €	10,47%
non-nuclear direct actions of the Joint Research Centre (JRC)	1 748 €	2,30%
Pillar III 'Innovative Europe'	10 723 €	14,13%
European Innovation Council (EIC)	8 340 €	10,99%
European Institute of Innovation and Technology (EIT)	2 383 €	3,14%
Part 'Widening participation and Strengthening the European Research Area'		3,72%
'widening participation and spreading excellence'	2 505 €	3,30%
'reforming and enhancing the European R&I System' 318 €		
Total	75 900 €	100,00%

Council August 2020 - Constant 2018 prices	Original EC proposal 2018 - constant 2018 prices		% and amount change if Council proposal is adopted	
Horizon Europe	Amount M€	%	% change	Amount change (M€)
Pillar I - Excellent Science	22 891 €	27,42%	-0,42%	- 2398€
European Research Council	14 728 €	17,64%	-0,27%	- 1542€
Maria-Sklodowska Curie Actions	6 033 €	7,23%	-0,11%	- 632€
Research Infrastructures	2 129 €	2,55%	-0,04%	- 223€
Pillar II - Global Challenges	46 759 €	56,00%	-0,85%	- 4898€
cluster 'Health'	6 832 €	8,18%	-0,12%	- 716€
cluster 'Culture, Creativity and Inclusive Society'	2 484 €	2,98%	-0,04%	- 260€
cluster 'Digital, Industry and Space '	13 309 €	15,94%	-0,24%	- 1394€
cluster 'Climate, Energy and Mobility'	13 309 €	15,94%	-0,24%	- 1394€
cluster 'Food, Bioeconomy, and Natural Resources, Agriculture and Environment'	8 873 €	10,63%	-0,16%	- 930€
non-nuclear direct actions of the Joint Research Centre (JRC)	1 952 €	2,34%	-0,03%	- 204€
Pillar III 'Innovative Europe'	11 978 €	14,35%	-0,22%	- 1 255 €
European Innovation Council (EIC)	8 873 €	10,63%	0,36%	- 533€
European Institute of Innovation and Technology (EIT)	2 662 €	3,19%	-0,05%	- 279€
Part 'Widening participation and Strengthening the European Research Area'	1 863 €	2,23%	1,49%	960€
'widening participation and spreading excellence'	1 508 €	1,81%	1,49%	997€
'reforming and enhancing the European R&I System'	355 €	0,43%	-0,01%	- 37€
Total	83 491 €	100,00%		- 7591€

Negotiations will restart this September and the final figures will probably change. We are covering this closely together with the Portuguese Permanent Representation in Brussels, EARTO and contacts within the European Commission.

APPLICATIONS FOR EUROPEAN RESARCH COUNCIL (ERC) ADVANCED GRANTS 2020: FACTS AND FIGURES

The call for ERC Advanced Grants 2020 closed for applications on 26 August 2020. These are the preliminary data on the submitted proposals:

- ♣ The ERC received 2,678 proposals for Advanced Grants, an increase of 42% compared to the 2019 call when 1,881 applications were submitted. Physical Sciences and Engineering attracted the highest number of applications (1,175), followed by Life Sciences (746), and Social Science and Humanities (757).
- Women submitted 597 proposals (22%), an increase from 19% in the previous call.
- Lack the Fig. 4. The ERC Work Programme earmarked €492 million for an estimated 209 Advanced Grants in 2020.

The ERC is now starting evaluation of the proposals. The selected projects will be announced in spring of 2021. ERC Advanced Grants support excellent Principal Investigators at the career stage at which they are already established research leaders with a recognised track record of research achievements. Principal Investigators must demonstrate the groundbreaking nature, ambition and feasibility of their scientific proposal.

EUROPEAN COMMISSION RESEARCH AND INNOVATION PAPER SERIES - AUGUST HIGHLIGHTS

<u>Framing R&I for transformative change towards sustainable development in the European Union</u>. WP 2020/11 - This study discusses how R&I policy in the post-COVID scenario can leverage transformative change towards sustainable development; by Mario Biggeri and Andrea Ferrannini (University of Florence).

<u>Macroeconomic Models for Research and Innovation Policy: The Present and the Future</u>. WP 2020/10 – It presents an overview of the modelling platforms used by the European Commission for the impact assessment of R&D and innovation policies; by Cristiana Benedetti Fasil (JRC), Roberto Martino (DG R&I), Julien Ravet (DG R&I), and Miguel Sanchez-Martinez (JRC).

Regulations and technology diffusion in Europe: the role of Industry dynamics. WP 2020/09 - The paper analyses the relationship between the regulatory frameworks in the labour, goods and capital markets and innovation diffusion; by Sara Amoroso (JRC) and Roberto Martino (DG R&I).

Mapping 21st century Science/Technology linkages: has science become more important in recent technological development? WP 2020/08 - This empirical study is addressing question: is science becoming increasingly important in recent developments of emerging technologies?; by Robert Tijssen (Leiden University).

<u>Digitalisation and Its Impact on Innovation</u>. WP 2020/07 - The study reveals the complex links between innovation and market concentration, and promoting innovation in modern digital markets; by Ariel Ezrachi (University of Oxford) and Maurice E. Stucke (The University of Tennessee).

PUBLIC CONSULTATION ON HORIZON EUROPE FIRST STRATEGIC PLAN

The first Horizon Europe Strategic Plan will define the strategic orientations for our research and innovation investments over the period 2021-2024 and will act as a compass to stay on course with the political priorities of the Commission: a climate-neutral and green Europe, fit for the digital age, where the economy works for the people. This survey is part of the strategic planning process, to which the European Parliament, EU Member States, Countries of the European Economic Area (EEA Countries), as well as stakeholders and interested citizens, contribute collectively. The objective of this survey is to receive feedback on the expected impacts to be targeted by research and innovation within Horizon Europe and the contribution of Research and Innovation (R&I) investments to the EU's political priorities. The results of the survey will be used to finalise the Strategic Plan and to precise the impact logic, which will set the direction for to the future Horizon Europe work programmes. Deadline is 18 September.

The HUB is articulating with the representatives of each INESC to provide a response to this consultation. Do not hesitate in sending us your direct feedback (check the list of HUB focal points at the end of this newsletter).



THE HUB IS YOURS, WHO SHOULD YOU CONTACT

The HUB is yours. For any enquiries about services available, your main contact is your institutional contact point in the HUB's Policy and Operations Board (POB). The list of institutional contact points per institution is:

INESC Coimbra: <u>Luís Neves</u>INESC ID: Filipa Borrego

- INESC INOV: Elisabete Carreira

INESC MN: <u>Virgínia Chu</u>INESC TEC: Marta Barbas

Contact Us

INESC Brussels HUB

Rue du Luxembourg, 3 1000 Brussels +32 (0) 496 08 19 57 +351 92 444 03 51 ricardo.migueis@inesc.pt

Are you a partner or coordinate a European project?

If yes, you can now be the host of your project's events in the heart of Europe, providing you and INESC with increased centrality and relevance. You have access to a free meeting room, equipped with state-of-the-art video-conferencing facilities, which holds meetings in "u" shape of up to 30 people. Bigger rooms are available in the same building for rent.