

HORIZON EUROPE

TWINNING WESTERN BALKANS SPECIAL

TOPIC ID: HORIZON-WIDERA-2021-ACCESS-02-01

PROF. GORAN STOJANOVIĆ

THE VISION OF THIS PROGRAMME

- » TO TACKLE CLIMATE CHANGE
- » TO HELP TO ACHIEVE THE UN'S SUSTAINABLE DEVELOPMENT GOALS
- » TO BOOST THE EU'S COMPETITIVENESS AND GROWTH
- » TO FACILITATE COLLABORATION AND STRENGTHEN THE IMPACT OF RESEARCH AND INNOVATION
- » TO SUPPORT THE CREATION AND BETTER DIFFUSION OF EXCELLENT KNOWLEDGE AND TECHNOLOGIES
- » TO CREATE NEW JOBS, FULLY ENGAGES THE EU'S TALENT POOL, BOOSTS ECONOMIC GROWTH, PROMOTES INDUSTRIAL COMPETITIVENESS



SCIENCE & TECHNOLOGY



SOCIETY



ECONOMY



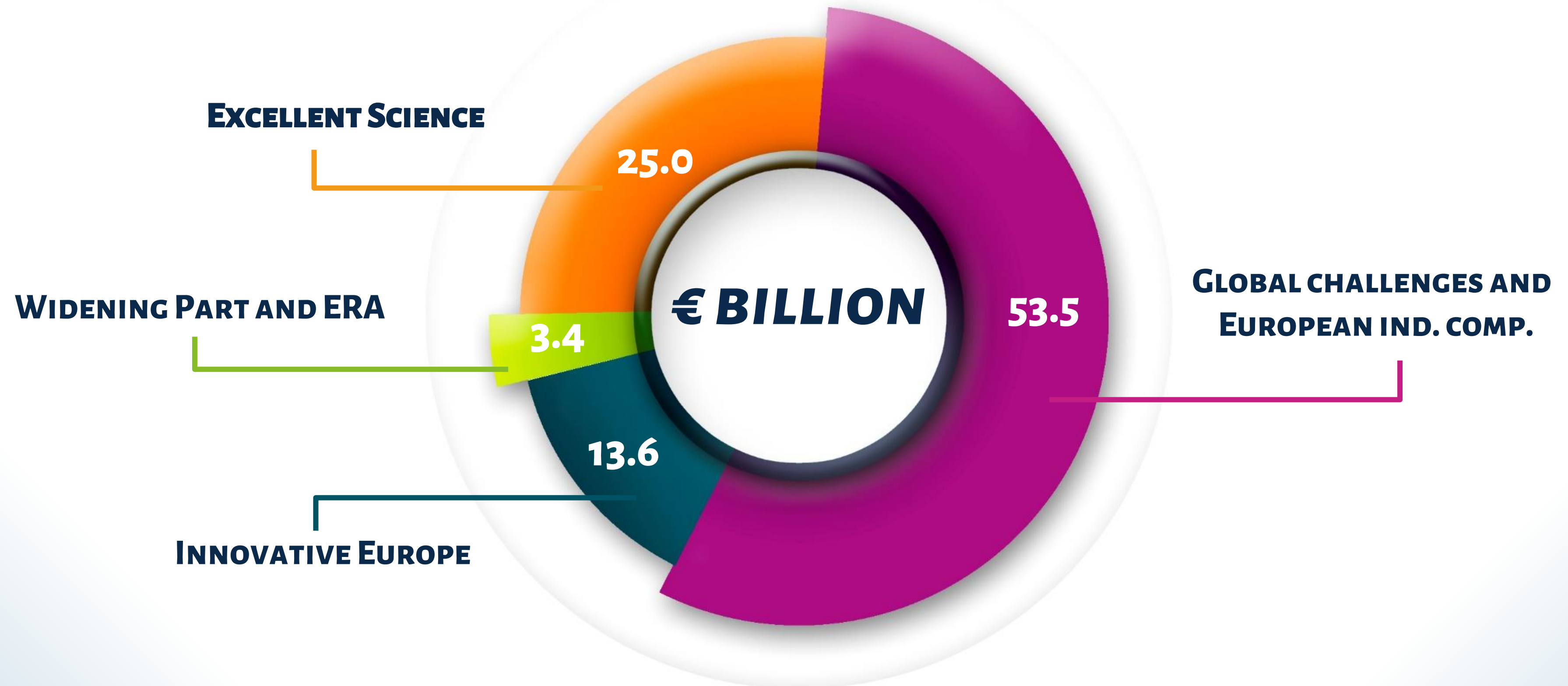
WITH HORIZON EUROPE, WE STEP UP OUR AMBITION FOR A SUSTAINABLE FUTURE. THE PROGRAMME WILL MAXIMISE ITS IMPACT BY STRENGTHENING OUR SCIENTIFIC AND TECHNOLOGICAL BASES, BOOSTING OUR INNOVATION CAPACITY, DRIVING THE GREEN AND DIGITAL TRANSITIONS AND SUPPORTING AN INCLUSIVE RECOVERY.

MARIYA GABRIEL - COMMISSIONER FOR INNOVATION, RESEARCH, CULTURE, EDUCATION & YOUTH

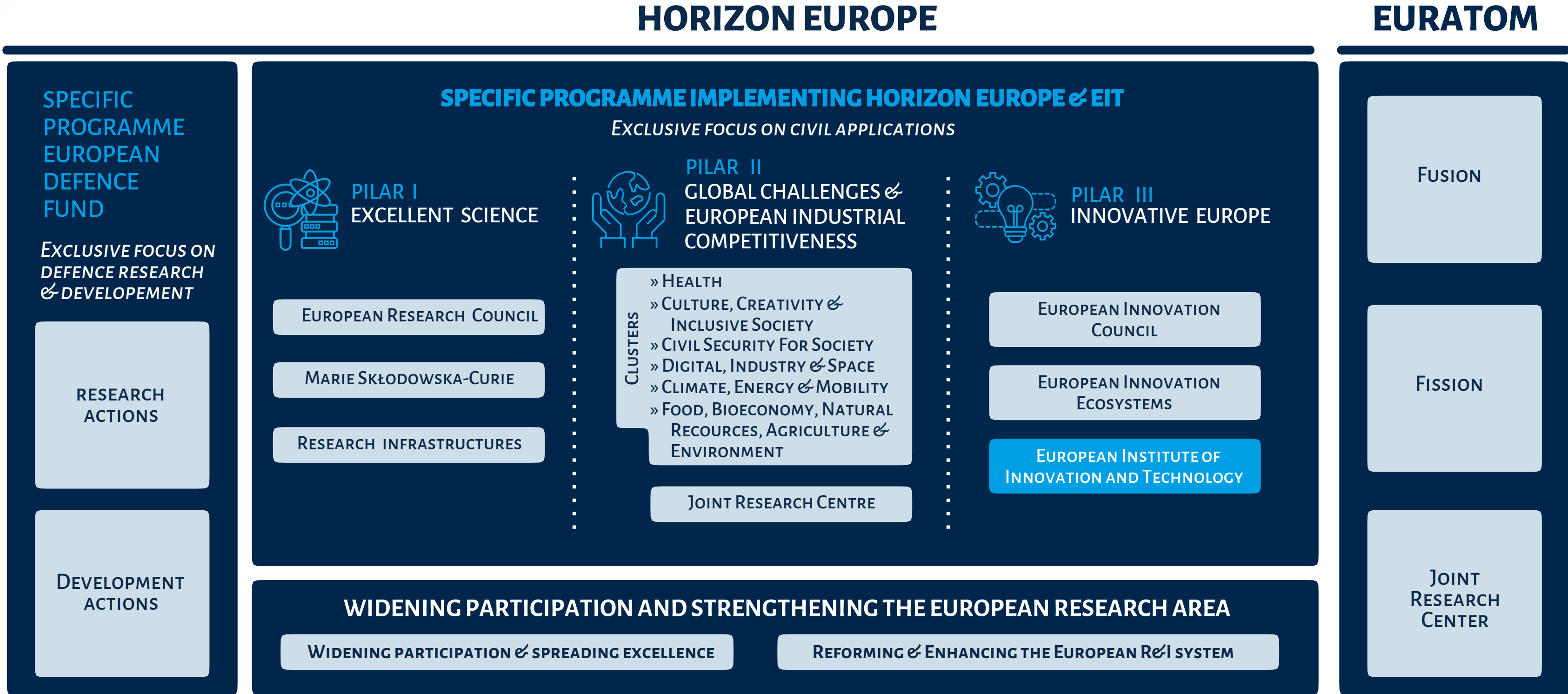
TOTAL BUDGET

HORIZON EUROPE BUDGET: € 95.5 BILLION (2021 - 2027)

(INCLUDING € 5.4 BILLION FROM NGEU –NEXT GENERATION EUROPE PROGRAMME OF RECOVERY FROM COVID -19 CRISIS)



STRUCTURE OF THE PROGRAMME



THE EUROPEAN INSTITUTE FOR INNOVATION & TECHNOLOGY (EIT) IS NOT PART OF SPECIFIC PROGRAMME

HORIZON EUROPE SUPPORTS RESEARCH AND INNOVATION ESPECIALLY THROUGH WORK PROGRAMMES, WHICH SET OUT FUNDING OPPORTUNITIES FOR RESEARCH AND INNOVATION ACTIVITIES.

HORIZONTAL -WIDENING PARTICIPATION

WIDENING PARTICIPATION AND SPREADING EXCELLENCE

€2.96 BILLION

- » TEAMING, TWINNING, ERA CHAIRS
- » EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY (COST)
- » BOOSTING NATIONAL CONTACT POINTS' (NCPs) ACTIVITIES, PRE-PROPOSAL CHECKS AND ADVICE
- » BRAIN CIRCULATION
- » EXCELLENCE INITIATIVES
- » POSSIBILITY FOR ENTITIES FROM WIDENING COUNTRIES TO JOIN ALREADY SELECTED COLLABORATIVE R&I ACTIONS
- » RECOGNITION OF PARTICIPATION
- » MATCHMAKING SERVICES

HORIZON EUROPE - WIDENING PARTICIPATION AND SPREADING EXCELLENCE - TOPICS

➤ TEAMING OF EXCELLENT RESEARCH INSTITUTIONS AND LOW PERFORMING RDI REGIONS

... WILL INVEST IN EUROPE'S RESEARCH AND INNOVATION POTENTIAL THROUGH SUPPORTING THE CREATION OF NEW (OR UPGRADING OF EXISTING) CENTRES OF EXCELLENCE ON THE BASIS OF PARTNERSHIPS WITH INTERNATIONALLY LEADING INSTITUTIONS.

➤ TWINNING OF RESEARCH INSTITUTIONS

... AIMS TO BUILD ON THE HUGE POTENTIAL OF NETWORKING FOR EXCELLENCE THROUGH KNOWLEDGE TRANSFER AND EXCHANGE OF BEST PRACTICE BETWEEN RESEARCH INSTITUTIONS AND LEADING PARTNERS.

➤ ERA CHAIRS

... WILL BRING OUTSTANDING RESEARCHERS TO UNIVERSITIES AND OTHER RESEARCH ORGANISATIONS THAT HAVE HIGH POTENTIAL FOR RESEARCH EXCELLENCE.

Programme:

Horizon Europe Framework Programme (HORIZON)

Call:

Twinning Western Balkans (HORIZON-WIDERA-2021-ACCESS-02)

Type of action

HORIZON-CSA HORIZON Coordination and Support Actions

Type of MGA

HORIZON Action Grant Budget-Based [HORIZON-AG]

Deadline model

single-stage

Deadline date: [05 October 2021 17:00:00 Brussels time](#)

The purpose of the special Twinning call is to raise the bar for excellence of all R&I actors in these countries. It will be implemented as one special call for Western Balkan countries with a limited eligibility for hosting the co-ordinator for the following countries Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia in 2021.

CALL ANALYSIS

TWINNING AIMS TO ENHANCE NETWORKING ACTIVITIES BETWEEN THE RESEARCH INSTITUTIONS OF THE WESTERN BALKAN COUNTRIES AND TOP-CLASS LEADING COUNTERPARTS AT EU LEVEL BY LINKING IT WITH AT LEAST TWO RESEARCH INSTITUTIONS FROM TWO DIFFERENT MEMBER STATES OR ASSOCIATED COUNTRIES.

THEREFORE, BUILDING ON THE HUGE POTENTIAL OF NETWORKING FOR EXCELLENCE THROUGH KNOWLEDGE TRANSFER AND EXCHANGE OF BEST PRACTICE BETWEEN RESEARCH INSTITUTIONS AND PARTNERS.

TWINNING ACTIONS INTEND TO HELP RAISE THE RESEARCH PROFILE OF THE INSTITUTION FROM THE WESTERN BALKAN COUNTRY AS WELL AS THE RESEARCH PROFILE OF ITS STAFF INCLUDING A SPECIAL FOCUS ON STRENGTHENING THE RESEARCH MANAGEMENT AND ADMINISTRATIVE SKILLS OF THE COORDINATION INSTITUTION FROM THE WESTERN BALKAN COUNTRY.

CALL ANALYSIS

TWINNING PROPOSALS SHOULD HAVE TO CLEARLY OUTLINE THE SCIENTIFIC STRATEGY FOR STEPPING UP AND STIMULATING SCIENTIFIC EXCELLENCE AND INNOVATION CAPACITY IN A DEFINED AREA OF RESEARCH AS WELL AS THE SCIENTIFIC QUALITY OF THE PARTNERS INVOLVED IN THE TWINNING EXERCISE.

THIS SCIENTIFIC STRATEGY SHOULD INCLUDE ARRANGEMENTS FOR FORMULATING NEW (OR ONGOING) JOINT RESEARCH PROJECT(S) IN THE SCIENTIFIC AREA OF CHOICE AND DESCRIBE HOW TWINNING WILL TAKE THIS RESEARCH TO A NEW STAGE, BY ENLARGING ITS SCOPE AND/OR THE RESEARCH PARTNERSHIP.

IF RELEVANT, ANY LINKS WITH SUSTAINABLE DEVELOPMENT OBJECTIVES ARE TO BE OUTLINED.

SUCH A STRATEGY SHOULD INCLUDE A COMPREHENSIVE SET OF ACTIVITIES TO BE SUPPORTED.

THESE SHOULD INCLUDE AT LEAST A NUMBER OF THE FOLLOWING: A) SHORT-TERM STAFF EXCHANGES; B) EXPERT VISITS AND SHORT TERM ON-SITE OR VIRTUAL TRAINING; C) WORKSHOPS; D) CONFERENCE ATTENDANCE; E) ORGANISATION OF JOINT SUMMER SCHOOL TYPE ACTIVITIES; F) DISSEMINATION AND OUTREACH ACTIVITIES.

AS FAR AS APPROPRIATE THESE ACTIVITIES SHOULD TAKE INTO ACCOUNT THE GENDER EQUALITY PLANS OF THE PARTICIPANTS.

CALL ANALYSIS

PROPOSALS SHOULD ALSO FOCUS ON STRENGTHENING THE RESEARCH MANAGEMENT AND ADMINISTRATION SKILLS OF THE COORDINATING INSTITUTION FROM THE WESTERN BALKAN COUNTRY.

A DEDICATED WORK PACKAGE OR TASK SHOULD EMPHASISE SPECIFIC ACTIVITIES, WHICH WILL HELP THE STAFF OF THE COORDINATING INSTITUTION TO IMPROVE THEIR PROPOSAL PREPARATION AND PROJECT MANAGEMENT/ADMINISTRATION SKILLS.

IF NOT YET IN PLACE, SETTING UP/UPGRADING A RESEARCH MANAGEMENT/ADMINISTRATION UNIT WITHIN THE COORDINATING INSTITUTION WOULD BE BENEFICIAL.

THIS WILL BE ACHIEVED BY FULLY UTILISING THE EXPERIENCE AND BEST PRACTICES OF THE INTERNATIONALLY LEADING PARTNERS AND IS EXPECTED TO BE A CONCRETE DELIVERABLE OF THE TWINNING EXERCISE.

A research component not exceeding 30% of the total Horizon Europe grant may include an exploratory research project. This will open opportunities for integrating smaller research projects and by this strengthening the commitment and the engagement of the twinning partners.

CALL ANALYSIS

THE TWINNING PROPOSALS SHOULD ILLUSTRATE QUANTITATIVELY AND QUALITATIVELY THE EXPECTED POTENTIAL IMPACT OF THE TWINNING EXERCISE WITHIN THE COORDINATING INSTITUTION (AND POSSIBLY AT REGIONAL/NATIONAL LEVEL) BASED ON INDICATORS, SUCH AS:

- EXPECTED FUTURE PUBLICATIONS IN PEER REVIEWED JOURNALS,
- COLLABORATION AGREEMENTS WITH BUSINESSES,
- INTELLECTUAL PROPERTY,
- NEW INNOVATIVE PRODUCTS OR SERVICES,
- NUMBER OF INTERNATIONAL STUDENTS AND OF LOCAL STUDENTS' NATIONAL AND INTERNATIONAL MOBILITY,
- NUMBER OF WOMEN SCIENTISTS AND THEIR ROLES IN THE INSTITUTIONS.

CALL ANALYSIS

IT SHOULD BE EXPLAINED HOW THE LEADING SCIENTIFIC INSTITUTIONS IN THE PARTNERSHIP WILL CONTRIBUTE IN TERMS OF PROVISION OF ACCESS TO NEW RESEARCH AVENUES, CREATIVITY AND THE DEVELOPMENT OF NEW APPROACHES, AS WELL AS ACTING AS A SOURCE OF INCREASED MOBILITY (INWARDS AND OUTWARDS) OF QUALIFIED SCIENTISTS.

THE BENEFITS FOR THE LEADING SCIENTIFIC INSTITUTIONS AND THE WAY THEY WOULD MATERIALISE THROUGH THE PARTNERSHIP SHOULD BE SUBSTANTIATED.

SPECIFIC ATTENTION SHOULD BE PAID TO GENDER EQUALITY OBJECTIVES, IN LINE WITH THE ORGANISATIONS' COMMITMENTS THROUGH THEIR ADOPTED GENDER EQUALITY PLANS, AND IN LINE WITH ERA OBJECTIVES, AS FAR AS APPROPRIATE.

THE RESEARCH PART OF THE PROJECT SHOULD BE PRESENTED THROUGH A DEDICATED WORK PACKAGE AND PLAN INCLUDING THE SCIENTIFIC OBJECTIVES, TASKS AND ROLES OF THE PARTNERS.

THE DURATION OF THE TWINNING PROJECT SHOULD BE UP TO 3 YEARS.

PROJECT RESULTS

PROJECT RESULTS ARE EXPECTED TO CONTRIBUTE TO ALL OF THE FOLLOWING EXPECTED OUTCOMES:

- IMPROVED EXCELLENCE CAPACITY AND RESOURCES IN WESTERN BALKAN COUNTRIES ENABLING TO CLOSE THE STILL APPARENT RESEARCH AND INNOVATION GAP WITHIN EUROPE.
- ENHANCED STRATEGIC NETWORKING ACTIVITIES BETWEEN THE RESEARCH INSTITUTIONS OF THE WESTERN BALKAN COUNTRIES AND AT LEAST TWO INTERNATIONALLY-LEADING COUNTERPARTS AT EU LEVEL.
- RAISED REPUTATION, RESEARCH PROFILE AND ATTRACTIVENESS OF THE COORDINATING INSTITUTION FROM THE WESTERN BALKAN COUNTRY AND THE RESEARCH PROFILE OF ITS STAFF.
- STRENGTHENED RESEARCH MANAGEMENT CAPACITIES AND ADMINISTRATIVE SKILLS OF THE STAFF WORKING IN INSTITUTIONS FROM THE WESTERN BALKAN COUNTRY.
- IMPROVED CREATIVITY SUPPORTED BY DEVELOPMENT OF NEW APPROACHES IN R&I COLLABORATION, INCREASED MOBILITY (INWARDS AND OUTWARDS) OF QUALIFIED SCIENTISTS

EXPECTED IMPACTS

PROPOSALS FOR TOPICS UNDER THIS DESTINATION SHOULD SET OUT A CREDIBLE PATHWAY TO CONTRIBUTING TO THE FOLLOWING EXPECTED IMPACTS:

- INCREASED SCIENCE AND INNOVATION CAPACITIES FOR ALL ACTORS IN THE ReI SYSTEM IN WIDENING COUNTRIES
- STRUCTURAL CHANGES LEADING TO A MODERNISED AND MORE COMPETITIVE ReI SYSTEMS IN ELIGIBLE COUNTRIES
- REFORMED ReI SYSTEMS AND INSTITUTIONS LEADING ALSO TO INCREASED ATTRACTIVENESS AND RETENTION OF RESEARCH TALENTS
- MOBILISATION OF NATIONAL AND EUROPEAN RESOURCES FOR STRATEGIC INVESTMENTS
- HIGHER PARTICIPATION SUCCESS IN HORIZON EUROPE AND MORE CONSORTIUM LEADERSHIP ROLES
- STRONGER LINKAGES BETWEEN ACADEMIA AND BUSINESS AND IMPROVED CAREER PERMEABILITY
- STRENGTHENED ROLE OF THE HIGHER EDUCATION SECTOR IN RESEARCH AND INNOVATION
- GREATER INVOLVEMENT OF REGIONAL ACTORS IN ReI PROCESS
- IMPROVED OUTREACH TO INTERNATIONAL SCALE FOR ALL ACTORS

ELIGIBLE COSTS

FUNDING FOR:

- SHORT TERM STAFF EXCHANGES
- EXPERT VISITS AND SHORT-TERM ON-SITE OR VIRTUAL TRAININGS
- WORKSHOPS
- CONFERENCE ATTENDANCE
- ORGANISATION OF JOINT SUMMER SCHOOL TYPE ACTIVITIES
- DISSEMINATION AND OUTREACH ACTIVITIES

EQUIPMENT WILL NOT BE FUNDED

- NO SUPPORT TO INFRASTRUCTURE AND EQUIPMENT
- NO SUPPORT FOR HIRING NEW PERMANENT RESEARCH STAFF
HOWEVER, PERSONNEL COSTS (I.E. SALARIES) ARE ELIGIBLE

A research component not exceeding 30% of the total Horizon Europe grant may include an exploratory research project

ALL PROPOSALS MUST BE SUBMITTED ELECTRONICALLY VIA THE FUNDERS & TENDERS PORTAL ELECTRONIC SUBMISSION SYSTEM (ACCESSIBLE VIA THE TOPIC PAGE IN THE SEARCH FUNDING & TENDERS SECTION).

EXPECTED EU CONTRIBUTION PER PROJECT: BETWEEN **EUR 0.80 AND 1.50 MILLION**
THE TOTAL INDICATIVE BUDGET FOR THE TOPIC IS **EUR 21.00 MILLION.**

PAGE LIMITS:

UNLESS PROVIDED OTHERWISE IN THE SPECIFIC CALL CONDITIONS, THE LIMIT FOR A FULL APPLICATION IS 45 PAGES (EXCEPT FOR 'COORDINATION AND SUPPORT' ACTIONS, WHERE THE LIMIT IS **30 PAGES**, AND FOR 'PROGRAMME CO-FUND' ACTIONS, WHERE THE LIMIT IS 70 PAGES).

Proposal Part B – Excellence

Call: [insert call identifier] – [insert call name]

EU Grants: Application form (HE CSA): V1.2 – 25.05.2021

1. Excellence

- ⚠ *The following aspects will be taken into account only to the extent that the proposed work is within the scope of the work programme topic.*

Excellence – aspects to be taken into account.

- Clarity and pertinence of the project's objectives
- Quality of the proposed coordination and/or support measures including soundness of methodology.

1.1 Objectives [e.g. 2 pages]

- Briefly describe the objectives of your proposed work. Why are they pertinent to the work programme topic? Are they measurable and verifiable? Are they realistically achievable?

1.2 Coordination and/or support measures and methodology [e.g. 6 pages]

- Describe and explain the coordination and/or support measures and the overall methodology, including the concepts, models and assumptions that underpin your work. Explain how this will enable you to deliver your project's objectives. Refer to any challenges you may have identified in the chosen methodology and how you intend to overcome them. [e.g. 4.5 pages]

- ⚠ *This section should be presented as a narrative. The detailed tasks and work packages are described below under 'Implementation'.*

- ⚠ *Where relevant, include how the project methodology complies with the 'do no significant harm' principle as per Article 17 of [Regulation \(EU\) No 2020/852](#) on the establishment of a framework to facilitate sustainable investment (i.e. the so-called 'EU Taxonomy Regulation'). This means that the methodology is designed in a way it is not significantly harming any of the six environmental objectives of the EU Taxonomy Regulation.*

- Describe how appropriate open science practices are implemented as an integral part of the proposed methodology. Show how the choice of practices and their implementation are adapted to the nature of your work, in a way that will increase the chances of the project delivering on its objectives [e.g. 1 page, including research data management]. If you believe that none of these practices are appropriate for your project, please provide a justification here.

- ⚠ *Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process. Open science practices include early and open sharing of research (for example through preregistration, registered reports, pre-prints, or crowd-sourcing); research output management; measures to ensure reproducibility of research outputs; providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); participation in open peer-review; and involving all relevant knowledge actors including citizens, civil society and end users in the co-creation of R&I agendas and contents (such as citizen science).*

- ⚠ *Please note that this question does not refer to outreach actions that may be planned as part of communication, dissemination and exploitation activities. These aspects should instead be described below under 'Impact'.*

- **Research data management and management of other research outputs:** Applicants generating/collecting data and/or other research outputs (except for publications) during the project

Proposal Part B – Impact

2. Impact

Impact – aspects to be taken into account.

- Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions due to the project.
- Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

The results of your project should make a contribution to the expected outcomes set out for the work programme topic over the medium term, and to the wider expected impacts set out in the 'destination' over the longer term.

In this section you should show how your project could contribute to the outcomes and impacts described in the work programme, the likely scale and significance of this contribution, and the measures to maximise these impacts.

2.1 Project's pathways towards impact [e.g. 4 pages]

- Provide a **narrative** explaining how the project's results are expected to make a difference in terms of impact, beyond the immediate scope and duration of the project. The narrative should include the components below, tailored to your project.
 - (a) Describe the unique contribution your project results would make towards (1) the **outcomes** specified in this topic, and (2) the **wider impacts**, in the longer term, specified in the respective destinations in the work programme.
 - ⚠ *Be specific, referring to the effects of your project, and not R&I in general in this field.*
 - ⚠ *State the target groups that would benefit. Even if target groups are mentioned in general terms in the work programme, you should be specific here, breaking target groups into particular interest groups or segments of society relevant to this project.*
 - ⚠ *The outcomes and impacts of your project may be:*
 - *Scientific, e.g. contributing to specific scientific advances, across and within disciplines, creating new knowledge, reinforcing scientific equipment and instruments, computing systems (i.e. research infrastructures);*
 - *Economic/technological, e.g. bringing new products, services, business processes to the market, increasing efficiency, decreasing costs, increasing profits, contributing to standards' setting, etc.*
 - *Societal, e.g. decreasing CO₂ emissions, decreasing avoidable mortality, improving policies and decision making, raising consumer awareness.*

Only include such outcomes and impacts where your project would make a significant and direct contribution. Avoid describing very tenuous links to wider impacts. However, include any potential negative environmental outcome or impact of the project. Where relevant, explain how the

Proposal Part B - Implementation

Call: [insert call identifier] – [insert call name]

EU Grants: Application form (HE CSA): V1.2 – 25.05.2021

Table 3.1b: Work package description

For each work package:

Work package number	Lead beneficiary					
Work package title						
Participant number						
Short name of participant						
Person months per participant:						
Start month				End month		

Objectives

Description of work (where appropriate, broken down into tasks), lead partner and role of participants

Deliverables (brief description and month of delivery)

EU Grants: Application form (HE CSA): V1.2 – 25.05.2021

Call: [insert call identifier] – [insert call name]

Table 3.1f: Summary of staff effort

Please indicate the number of person/months over the whole duration of the planned work, for each work package, for each participant. Identify the work-package leader for each WP by showing the relevant person-month figure in bold.

	WPn	WPn+1	WPn+2	Total Person-Months per Participant
Participant Number/Short Name				
Participant Number/Short Name				
Participant Number/Short Name				
Total Person Months				

Table 3.1g: 'Subcontracting costs' items

For each participant describe and justify the tasks to be subcontracted (please note that core tasks of the project should not be sub-contracted).

Participant Number/Short Name	Cost (€)	Description of tasks and justification
Subcontracting		

Table 3.1h: 'Purchase costs' items (travel and subsistence, equipment and other goods, works and services)

Please complete the table below for each participant if the purchase costs (i.e. the sum of the costs for 'travel and subsistence', 'equipment', and 'other goods, works and services') exceeds 15% of the personnel costs for that participant (according to the budget table in proposal part A). The record must list cost items in order of costs and starting with the largest cost item, up to the level that the remaining costs are below 15% of personnel costs.

Participant Number/Short Name	Cost (€)	Justification
Travel and subsistence		
Equipment		
Other goods, works and services		
Remaining purchase costs (<15% of pers. Costs)		
Total		

Proposal Part B - Deliverables and Milestones

Call: [insert call identifier] – [insert call name]

EU Grants: Application form (HE CSA): V1.2 – 25.05.2021

Table 3.1c: List of Deliverables²

Only include deliverables that you consider essential for effective project monitoring.

Deliverable (number)	Deliverable name	Work package number	Short name of lead participant	Type	Dissemination level	Delivery date (in months)

KEY
Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>.
For example, deliverable 4.2 would be the second deliverable from work package 4.

Type:

Use one of the following codes:

- R: Document, report (excluding the periodic and final reports)
- DEM: Demonstrator, pilot, prototype, plan designs
- DEC: Websites, patents filing, press & media actions, videos, etc.
- DATA: Data sets, microdata, etc.
- DMP: Data management plan
- ETHICS: Deliverables related to ethics issues.
- SECURITY: Deliverables related to security issues
- OTHER: Software, technical diagram, algorithms, models, etc.

Dissemination level:

Use one of the following codes:

- PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)
- SEN – Sensitive, limited under the conditions of the Grant Agreement
- Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444
- Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444
- Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

Delivery date

Measured in months from the project start date (month 1)

² You must include a data management plan (DMP) and a 'plan for dissemination and exploitation including communication activities as distinct deliverables within the first 6 months of the project. The DMP will evolve during the lifetime of the project in order to present the status of the project's reflections on data management. A template for such a plan is available in the [Online Manual](#) on the Funding & Tenders Portal.

Call: [insert call identifier] – [insert call name]

EU Grants: Application form (HE CSA): V1.2 – 25.05.2021

Table 3.1d: List of milestones

Milestone number	Milestone name	Related work package(s)	Due date (in month)	Means of verification

KEY

Due date

Measured in months from the project start date (month 1)

Means of verification

Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype that is 'up and running'; software released and validated by a user group; field survey complete and data quality validated.

Table 3.1e: Critical risks for implementation

Description of risk (indicate level of (i) likelihood, and (ii) severity: Low/Medium/High)	Work package(s) involved	Proposed risk-mitigation measures

Definition critical risk:

A critical risk is a plausible event or issue that could have a high adverse impact on the ability of the project to achieve its objectives.

Level of likelihood to occur: Low/medium/high

The likelihood is the estimated probability that the risk will materialise even after taking account of the mitigating measures put in place.

Level of severity: Low/medium/high

The relative seriousness of the risk and the significance of its effect.

Acronym	Title
ENeRAG	Excellency Network Building for Comprehensive Research and Assessment of Geofluids
EXPOSOGAS	The Exposome Paradigm and its Applications in Health and Safety Aspects of Hydrocarbons Operations in the Eastern Mediterranean
TRUST	Twinning foR indUstrial SustainabiliTy
PORTWIMS	Portugal Twinning for innovation and excellence in marine science and Earth observation
AeRoTwin	Twinning coordination action for spreading excellence in Aerial Robotics
iBioGen	Twinning for European excellence in Island Biodiversity Genomics
LAMBDA	Learning, Applying, Multiplying Big Data Analytics
FoodEnTwin	Twinning of research activities for the frontier research in the fields of food, nutrition and environmental 'omics
KEEN	Creation of the "Knowledge-Empowered Entrepreneurship Network" to position Kaunas University of Technology at the forefront of EU research in entrepreneurship
Clim4Vitis	Climate change impact mitigation for European viticulture: knowledge transfer for an integrated approach
GeoTwinn	Strengthening research in the Croatian Geological Survey: Geoscience-Twinning to develop state-of-the-art subsurface modelling capability and scientific impact
DRIVEN	Increasing the scientific excellence and innovation capacity in Data-Driven Simulation of the University of Luxembourg
Promised	Promoting Archaeological Science in the eastern Mediterranean
DeINAM	Strengthening the Research Area of Delivery of Nucleic acid mimics (NAMS) into bacteria to fight the antibiotic crisis
PHINDaccess	Strengthening Omics data analysis capacities in pathogen-host interaction
RENATURE	promoting Research Excellence in NATure-based soluTions for innovation, sUstainable economic GRowth and human wEll-being in Malta
CyCAT	Cyprus Center for Algorithmic Transparency
TImPANI	Twinning in atmospheric Plasma science and applications

Acronym	Title
MiCoBion	Microbial Communities in Biomedical and Environmental Areas, and Systems Biology
SINNCE	Strengthening Nanoscience and Nanotechnology Research at CEITEC
JUMP2Excel	Joint Universal activities for Mediterranean PV integration Excellence
LYSOCIL	Excel in Rare Diseases – Research: Focus on LYSOsomal Disorders and CLiopathies
SPINTECH	Boosting the scientific excellence and innovation capacity in spintronics of the D. GHITU Institute of Electronic Engineering and Nanotechnologies of the Academy of Science of Moldova
INEX-ADAM	INCREASING EXCELLENCE ON ADVANCED ADDITIVE MANUFACTURING
NanoMedTwin	Promoting smart specialization at the Technical University of Moldova by developing the field of Novel Nanomaterials for BioMedical Applications through excellence in research and twinning
TIMB3	Twin to Illuminate Metals in Biology and Biocatalysis through Biospectroscopy
Achilles	Overcoming specific weaknesses in tendon biology to design advanced regenerative therapies
FASTER	Farmers – Adaptation Sustainability in Tunisia through Excellence in Research: FASTER
ACORN	Nanoparticle-Based Therapeutic Applications and Detection of Carbon Monoxide Releasing Molecules
DRAGON	Data Driven Precision Agriculture Services and Skill Acquisition

Twinning project



www.greenelitproject.com



Twinning for reaching sustainable scientific and technological excellence in the field of Green Electronics

Acronym: GREENELIT
Grant No: 951747
Type of action: Horizon 2020, WIDESPREAD-05-2020-
Twinning
Start Date: 01/11/2020
Starting Date: 31/10/2023
Project Duration: 3 years



GREENELIT

GREENELIT – general presentation

Prof. dr Goran Stojanović, University of Novi Sad, Serbia

Basic information

Title:	Twinning for reaching sustainable scientific and technological excellence in the field of Green Electronics
Acronym:	GREENELIT
Grant No.:	951747
Type of action:	H2020-WIDESPREAD-05-2020 - Twinning
Start Date:	01/11/2020
End Date:	31/10/2023
More info:	https://cordis.europa.eu/project/id/951747
Beneficiaries:	(1)University of Novi Sad (UNS); (2) Italian Institute of Technology (IIT); (3) Technical University of Denmark (DTU)



Motivation – personal story



Dr Mario Caironi, IIT, Italy

around 20 published papers in journals per year

h-index: 38

ERC grant



Dr Alireza Dolatshahi-Pirouz, DTU,

around 12 published papers in journals per year

h-index: 28



Lago di Como



Dr Goran Stojanović, UNS, Serbia

around 10 published papers in peer-reviewed journals per year

h-index: 16

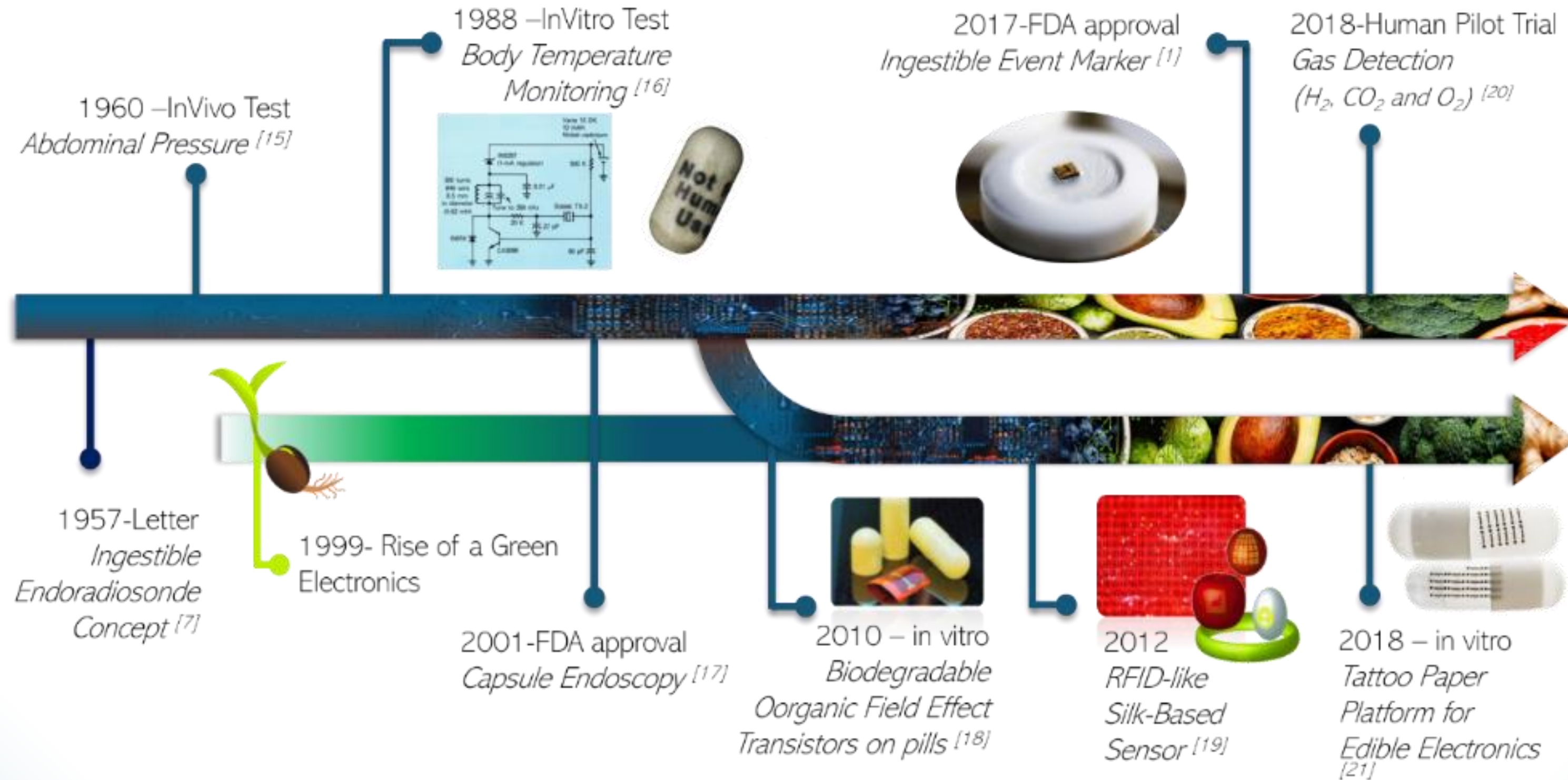
Motivation for the Project topic

- With the technological development and the expansion of a consumption driven society, the problem of plastic and electronic waste (e-waste) is becoming more urgent.
- Since the mid-1990s, e-waste has been recognized as the fastest-growing category of hazardous solid waste in the world, with the current stream of 50 million metric tons per year.
- The recycling activities are not able to keep pace with the global generation of e-waste, what poses severe risks to the environment and human health, and leads to the loss of valuable finite resources.
- Striving to reverse the prevailing destructive cycle and advance into the safe environmentally conscious technological future, electronics finds itself at an inflection point of becoming “green”.

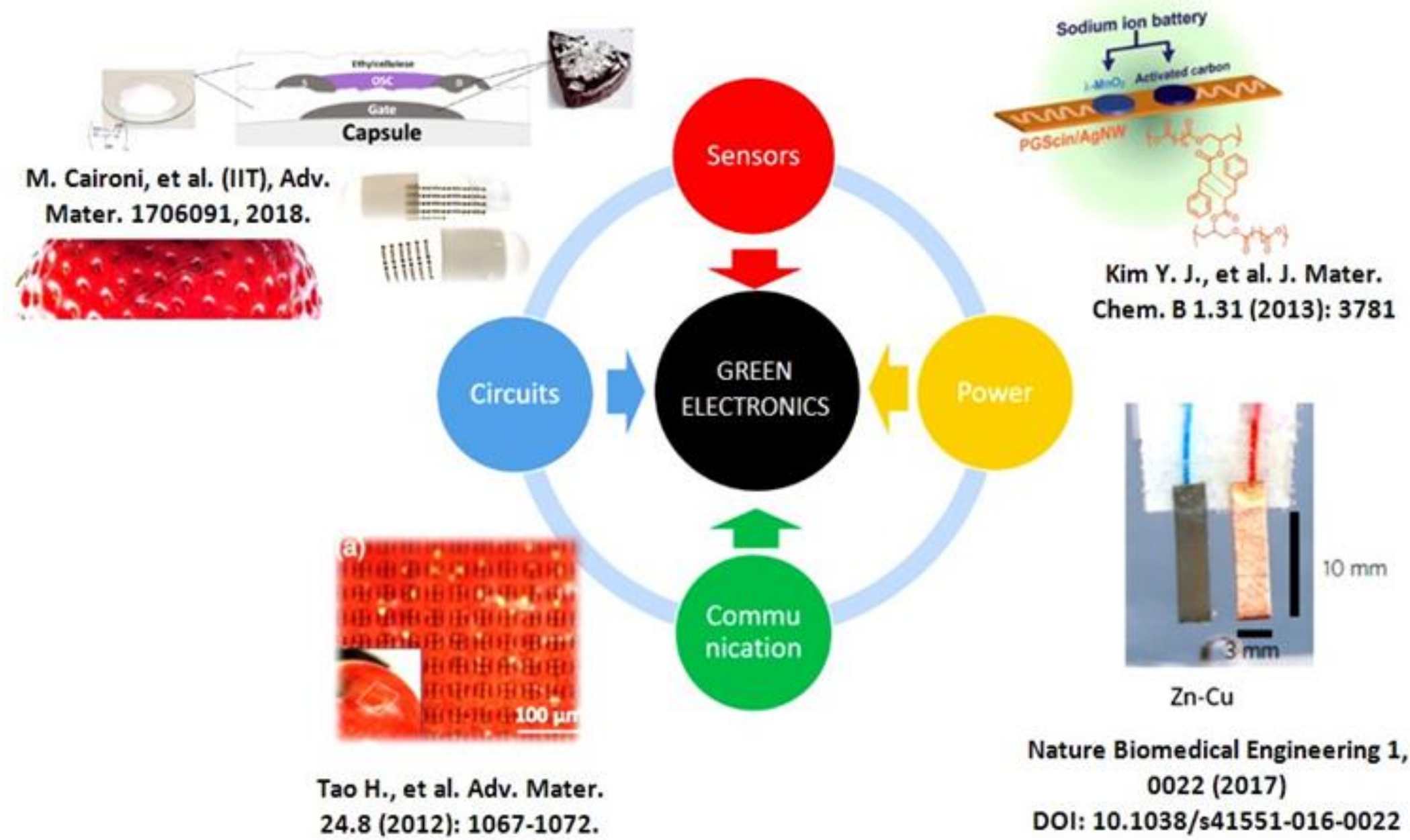


The project domain

From Ingestible to Edible Electronics

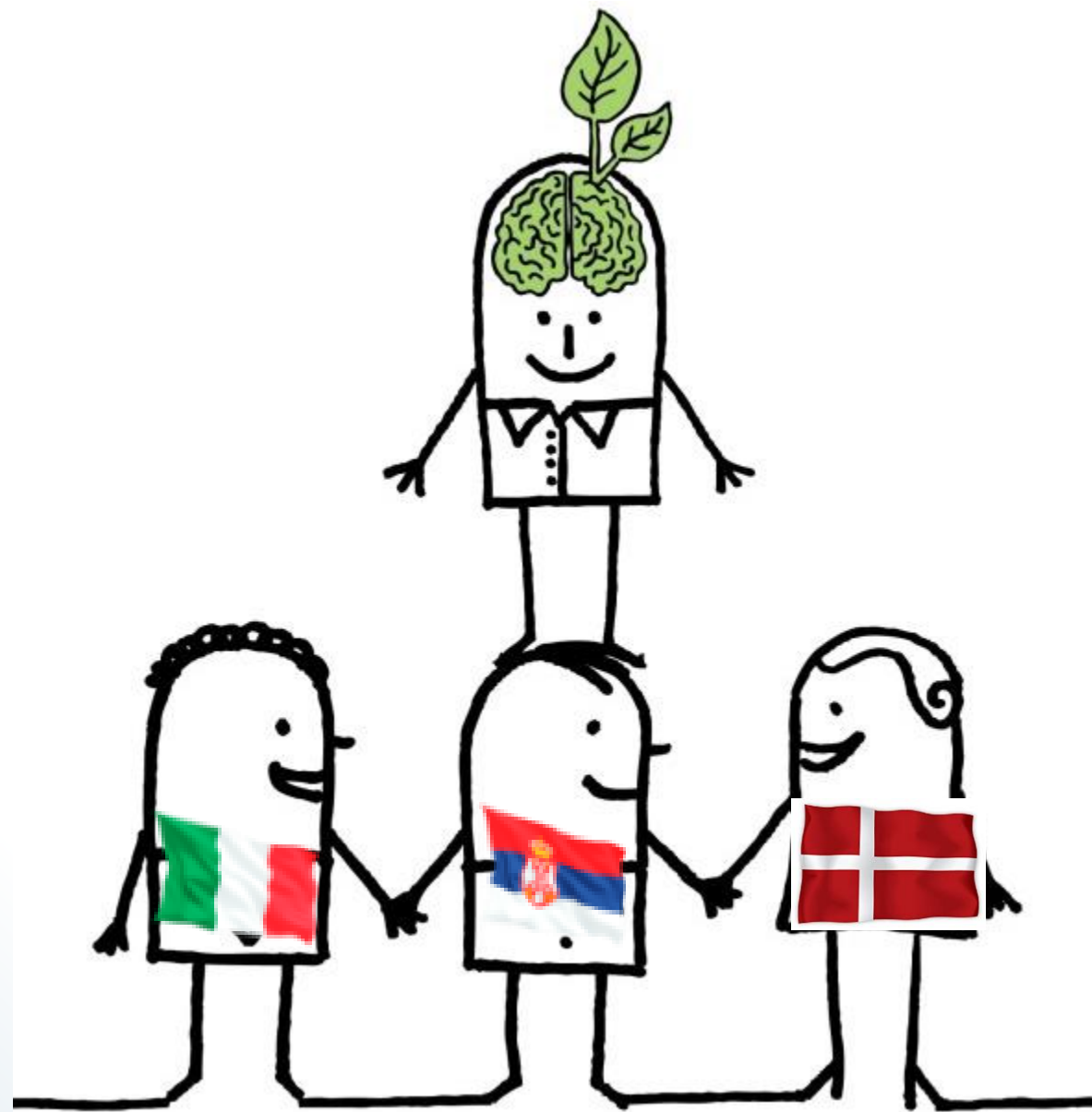


The project domain



Project concept

‘If I have seen further, it is by standing on the shoulders of giants’



Institutional networking → enhancing **S&T capacity** of the institutions



UNIVERSITY of NOVI SAD
Novi Sad, Serbia
✓ Flexible electronics
✓ Microfluidics
✓ Food-based biofilms
✓ Vojvodina agricultural region



ITALIAN INSTITUTE of TECHNOLOGY
Milano, Italy
✓ Direct printing techniques
✓ Food-based electronic systems
✓ Food-compatible electronics
✓ Electronics onto food and pharmaceutical capsules

Green Electronics

TECHNICAL UNIVERSITY of DENMARK
Kgs. Lyngby, Denmark
✓ Bioinspired materials and complex nanostructures
✓ Green solutions in nanomedicine
✓ Foldable substrates for flexible electronics
✓ New self-healable and stretchable materials



✓ Food-based edible electronics
✓ Microfluidic degradable devices

Applications:

1. Theranostic biomedical applications (health technologies)
2. Internet of Things (sensors, wearable electronics)
3. Food industry (edible electronics)



We have already done...



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As the main research and higher education institution of the Autonomous Province of Vojvodina, Serbia - the University of Novi Sad (UNS) is one of the very rare campus-oriented universities in the South and East Europe. With its inherent diversity (6 official languages and 23 nationalities) and long-lasting tradition in entrepreneurship, the Autonomous Province of Vojvodina (north part of Serbia) has been always in the forefront of the economical development in the region, with the strong ambition to keep this place in future, by supporting new developments and emerging areas in research and technology. The UNS gained significant international reputation as a point of excellence for several areas of modern electronics. These include printable electronics, sensors, microfluidic devices and medical electronics. The initial step in increasing the research potential of UNS with cutting-edge technologies – organic and nano electronics (known as post silicon electronics) has already been achieved.



The IIT participates to the GREENELIT project proposal through the recently established Center for Nano Science and Technology (CNST), located in Milan, where the research line "Printed and Molecular Electronics" is active. CNST, through the "Printed and Molecular Electronics" (PME) line, led by Dr Mario Caironi, has developed a strong expertise in the printed and flexible electronics field, in particular of the processing of organic semiconductors for micro-electronic and opto-electronic applications. PME has a solid know-how in printing technologies of functional materials (e.g. inkjet, flexography, bar-coating, slot-die coating, screen printing) and has developed fully-printed, fully transparent, all polymer, complementary integrated circuits and photodetectors.



DTU is an international elite technical university where education, scientific consulting, and innovation rest on a solid foundation of world-class research. The University is at the academic and multidisciplinary forefront of the technical and the natural sciences—with new initiatives in a number of demanding engineering disciplines, including sustainable energy technology and life science. #TeamBioEngine, at DTU Nanotech is included in this project. Currently, the group is a part of the newly launch department, Health Technology, and their research lies at the crossroads of biology, engineering, physics, chemistry and materials. #TeamBioEngine aim to create advanced material innovations based on bioinspired discoveries, and they believe such bioinspired materials and complex nanostructures will drive the engine of the next big revolution in material science. They are trying to explore interesting green solutions in the fields of nanomedicine, electronics and tissue engineering.

TECHNICAL UNIVERSITY of DENMARK
Kgs. Lyngby, Denmark

- Health technologies
- Bioelectronic hydrogels and cyborganics
- Flexible and Green Electronics
- Blending electronics and soft robotics

NEW LEADER IN THE FIELD OF GREEN ELECTRONICS

NEWS



Kick-off meeting of the GREENELIT project

🕒 05/11/2020 🗨️ 0

Tentative month for organization of the Kick-off meeting of the GREENELIT project is January 2021

Twinning Coordinators Day


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twitter.com/greenelitproje1

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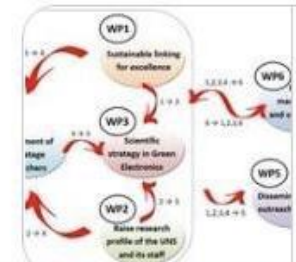
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GREENELIT Consortium

TECHNICAL UNIVERSITY of DENMARK
Kgs. Lyngby, Denmark

- Health technologies
- Bioelectronics, hydrogels and cyborgs
- Flexible and Green Electronics
- Blending electronics and soft robotics
- Biopolymers and 4D printing

ITALIAN INSTITUTE of TECHNOLOGY
Milano, Italy

- Nano science and technology
- Sustainable future technologies
- Advanced biomaterials for health care
- Microbotics
- Biomolecular nanotechnologies
- Food-based electronics

UNIVERSITY of NOVI Sad, Serbia

- Flexible electronics
- Microfluidic electronics
- Modern testing and characterization methods

GREENELIT

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COVID-19

Cpп 中文



UNIVERSITY
OF NOVI SAD



UNIVERSITY ▾ MEMBERS ▾ STUDIES ▾ SCIENCE ▾ INTERNATIONAL COOPERATION ▾ CONTACT

THE UNIVERSITY OF NOVI SAD AS A CENTRE OF GRAVITY FOR GREEN ELECTRONICS THANKS TO A NEW H2020 PROJECT

Published: 09 November 2020



The University of Novi Sad has been granted one more Horizon 2020 project entitled *"Twinning for reaching sustainable scientific and technological excellence in the field of Green Electronics"* – GREENELIT (no. 951747).

The Project aims at significantly strengthening research and innovation capacities of the University of Novi Sad (UNS), Serbia in the emerging field of Green Electronics by twinning action with EU internationally-leading research institutions – Italian Institute of Technology (IIT), Italy and Technical University of Denmark (DTU), Denmark.

Thanks to this project, RDI capacity of the involved institutions will be enhanced and staff's research profile will be improved. Green electronics has no negative impact on the environment at its end of life and can

revolutionize the area of biomonitoring.

The coordinator of the GREENELIT project is Prof. Dr. Goran Stojanović, a full professor at the Faculty of Technical Sciences, University of Novi Sad. The starting date of the project is November 1, 2020, with the period of realization in the next three years. The total budget of the project is 898,800 Euro.

More information can be found on [the official Project web site](#).

We have already done...

Kick-off meeting

"Twinning for reaching sustainable scientific and technological excellence in the field of Green Electronics", GREENELIT, H2020-WIDESPREAD-05-2020 - Twinning

<i>Agenda</i>	
Kick-off meeting, Friday, 29/01/2021	
On line platform, Zoom	
10:00 – 10:10	Registration of participants
10:10 – 10:20	<i>Introductory words and presentation of all attendees</i> Prof. Dr Goran Stojanović, UNS, coordinator of the GREENELIT project
10:20 – 10:45	<i>Guidelines on Policy and Project Monitoring</i> Nataša Kuručki, Project Officer, Research Executive Agency, EC Paula Mota Alves, Project Officer, Research Executive Agency, EC
10:45 – 11:00	<i>General overview of the GREENELIT project</i> Prof. Dr Goran Stojanović, UNS, coordinator of the GREENELIT project
PART I – Presentations of GREENELIT consortium beneficiaries	
11:00 – 11:10	<i>University of Novi Sad, Serbia (UNS)</i> Sanja Kojić, UNS
11:10 – 11:20	<i>Italian Institute of Technology, Italy (IIT)</i> Dr Mario Caironi, IIT
11:20 – 11:30	<i>Technical University of Denmark, Denmark (DTU)</i> Firoz Babu Kadumudi, DTU
11:30 – 11:50	<i>Pause</i>
PART II – Presentations related to WPs	
11:50 – 12:00	<i>Presentation of WP1: Sustainable linking for excellence</i> Dr Milan Radovanović, UNS
12:00 – 12:10	<i>Presentation of WP2: Raise research profile of the UNS and its staff</i> Dr Mario Caironi, IIT
12:10 – 12:20	<i>Presentation of WP3: Scientific strategy for stepping up in the field of Green Electronics</i> , Firoz Babu Kadumudi, DTU
12:20 – 12:30	<i>Presentation of WP4: Involvement of early stage researchers</i> Dr Alessandro Luzio, IIT
12:30 – 12:40	<i>Presentation of WP5: Dissemination and outreach activities</i> Sanja Kojić, UNS
12:40 – 12:50	<i>Presentation of WP6: Project management and coordination</i> Prof. Dr Goran Stojanović, UNS
12:50 – 13:00	<i>Pause</i>
PART III – Action plan for the next period and legal issue	
13:00 – 13:10	<i>Main Conclusions and messages from Coordinators' day</i> , Prof. G. Stojanović
13:10 – 13:20	<i>Action plan for the next period</i> , All participants
13:20 – 13:30	<i>Establishment of all project management bodies</i> , All participants
13:30 – 14:15	<i>Discussion of all open issue</i> , All participants



What is influenced by COVID-19

Task 1.1 Staff exchanges from UNS to IIT & DTU

<u>DTU</u>	Sending inst.	Host inst.	No. of visits	Duration (months)	Total (months)
	UNS →	IIT	3	2	6
	UNS →	DTU	3	2	6

Task 1.2 Staff exchanges from IIT & DTU to UNS

Sending inst.	Host inst.	No. of visits	Duration (month)	Total (months)
IIT →	UNS	3	1	3
DTU →	UNS	3	1	3



Other H2020 projects



GREENELIT



Contact information



Coordinator:

Prof. Dr Goran Stojanović
Faculty of Technical Sciences
University of Novi Sad
Trg Dositeja Obradovića 6
21000 Novi Sad
Serbia

Email: sgoran@uns.ac.rs

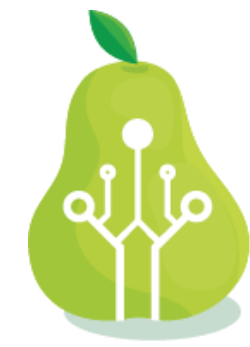
Mob: +381 64 3905715

Acknowledgement



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GREENELIT

Thank you
for your attention!