

Twinning project days

25/03/2021



www.greenelitproject.com



GREENELIT

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

Twinning project days, Novi Sad, 25/03/2021

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
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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, Denmark

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

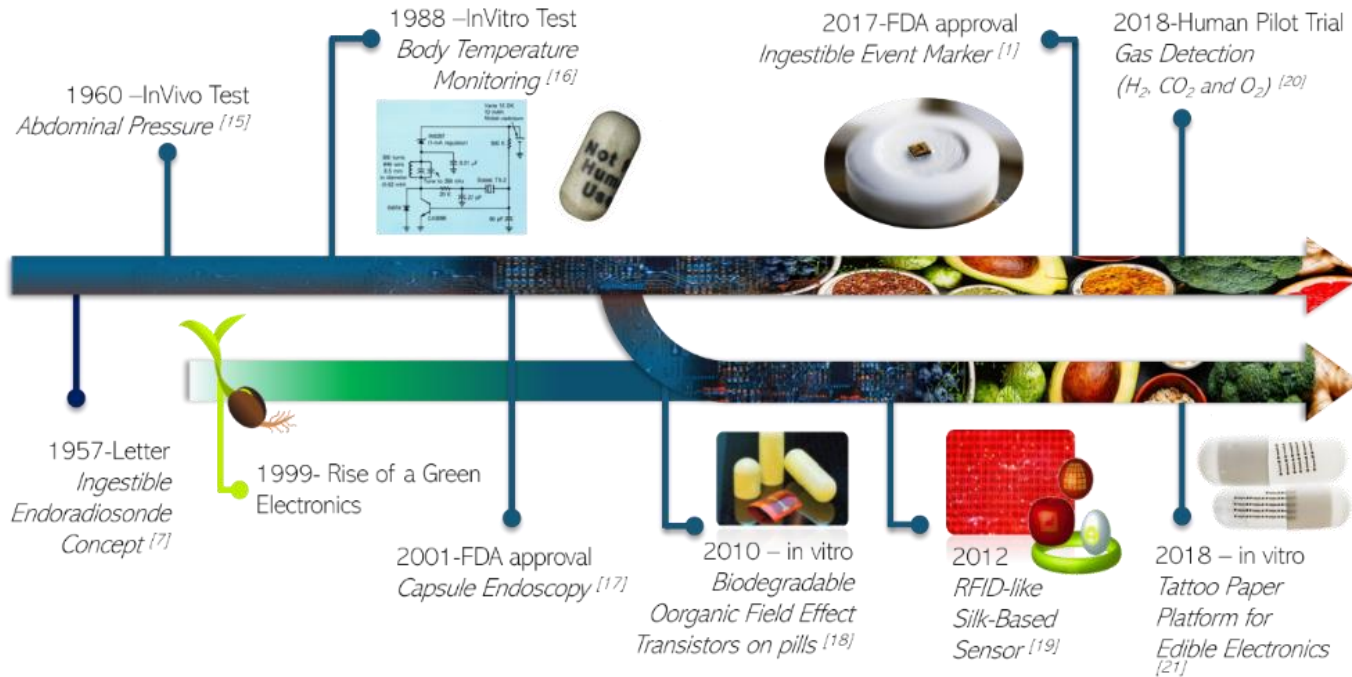
Motivation for the Project topic

- 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”.

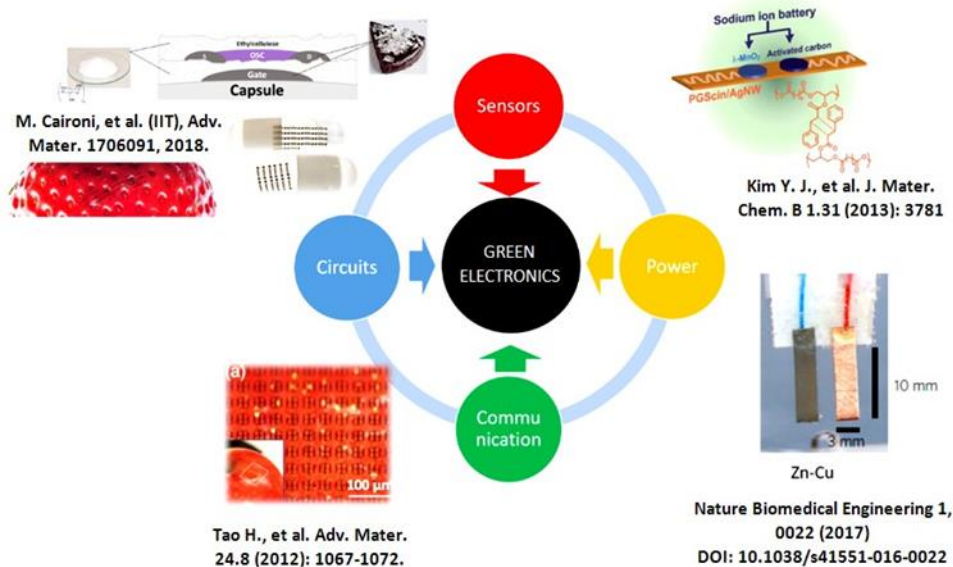


The project domain

From Ingestible to Edible Electronics

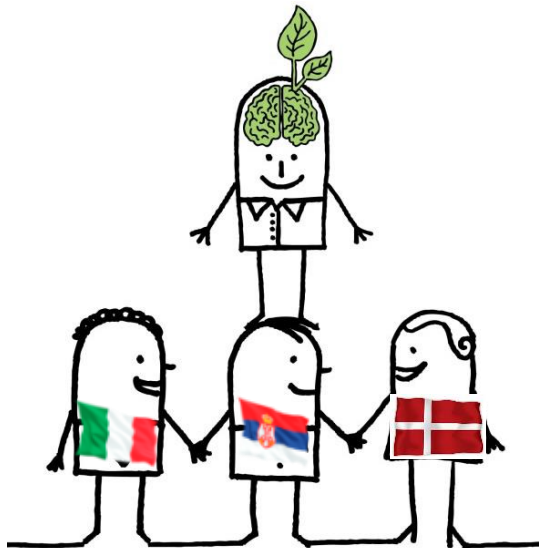


The project domain



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
✓ Vajvodina 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)



Project objectives

The overall project objective is to decrease research and innovation performance disparities between promising research institution from widening country - the University of Novi Sad (UNS), Serbia and internationally-leading counterparts - the Italian Institute of Technology (IIT), Italy and the Technical University of Denmark (DTU), Denmark, through this twinning action, in the field of Green Electronics.

Specific objectives (SOs) are:

SO1: To enhance scientific/technological capacity of UNS and collaboration with EU partners;

SO2: To raise the research profile of UNS and its staff;

SO3: To create the Scientific strategy of UNS for stepping up in the field of Green Electronics;

SO4: To provide training and networking possibilities for ESRs at UNS in the field of Green Electronics;

SO5: To increase UNS's attractiveness, visibility and its impact on national, regional and EU level.



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ABOUT PROJECT

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NEWS



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.

GREENELIT Consortium

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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4 Tweets

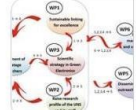
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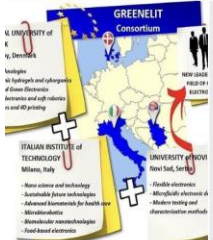
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UNIVERSITY
OF NOVI SAD



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

Published: 09 November 2020



GREENELIT

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](#).

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Kick-off meeting

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

Agenda	
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	Pause
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	Pause
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

Sending inst.	Host inst.	No. of visits	Duration (months)	Total (months)
UNS → IIT	IIT	3	2	6
UNS → DTU	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	UNS	3	1	3
DTU → UNS	UNS	3	1	3



Other H2020 projects



GREENELIT



Contact information



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Acknowledgement



This project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No. **951747**





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Thank you
for your attention!