

## SMARTELECTRODES

**Project ID:** 778357

**Funded under:** [H2020-EU.1.3.3. - Stimulating innovation by means of cross-fertilisation of knowledge](#)

### Multiscaled Smart Metallic and Semiconductor Electrodes for Electrochemical Processing and Devices

**From** 2018-01-01 **to** 2021-12-31, ongoing project

#### Project details

<b>Total cost:</b> EUR 684 000	<b>Topic(s):</b> <a href="#">MSCA-RISE-2017 - Research and Innovation Staff Exchange</a>
<b>EU contribution:</b> EUR 598 500	<b>Call for proposal:</b> H2020-MSCA-RISE-2017 <a href="#">See other projects for this call</a>
<b>Coordinated in:</b> Lithuania	<b>Funding scheme:</b> MSCA-RISE - Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

#### Objective

Demand of “smart” electrodes/systems has recently increased due to significant role of various devices/equipment based on these electrodes - urgent needs of present and forthcoming human activities. The multi- and interdisciplinary project SMARTELECTRODES is proposing elaboration of advanced systems covered under umbrella of “smart” electrodes which will be involved and play significant roles in several important electrochemical/electrophysical applications as catalysis/electrocatalysis, sensing, thermoelectrics, electrowinning, electrochemical machining and electrospark alloying. The development of multiscaled (from nano- to macro-; from nanodot to volumized 3D-) metallic and semiconductor electrodes and integration of them into working systems/equipment is the main target of SMARTELECTRODES. The project is well-balanced, highly innovative R&D training network, which aims:

- To develop long lasting collaborations between four academic (Vilnius University, Lithuania; Institute of Applied Physics, Moldova; Northeastern University, USA; Research Institute for Physical Chemical Problems of BSU, Belarus) and two companies (JSC Topaz, Moldova and JSC “Electronics Treatment Technologies”, EPT, Lithuania);
- To develop new electrodes (based on chalcogenides, iron group metals and “technological” electrodes) by well-established institutions;
- To increase career perspectives of each participant that will lead to benefit of each member and partnership as a whole. Partners will be complimentary involved into realization of the proposed research. The research tasks will be implemented through multidisciplinary Work Packages devoted to the fabrication, adapting and investigation of electrodes/materials, also they include the activities towards training and management. Namely, advanced training will be provided to the seconded staff through well-integrated programs, including workshops and conferences.

## Coordinator

---

VILNIAUS UNIVERSITETAS  
UNIVERSITETO G. 3  
01513 VILNIUS  
Lithuania

Lithuania

**EU contribution:** EUR 265 500

**Activity type:** Higher or Secondary Education Establishments

[Contact the organisation](#)

## Participants

---

Institute of Applied Physics of the Academy of Sciences of Moldova  
Academiei 5  
MD2028 Chisinau  
Moldova

Moldova

**EU contribution:** EUR 220 500

**Activity type:** Research Organisations

[Contact the organisation](#)

ELEKTRONIKOS PERDIRBIMO TECHNOLOGIJOS UAB  
MEDEINOS G 45-79  
06140 VILNIAUS  
Lithuania

Lithuania

**EU contribution:** EUR 54 000

**Activity type:** Private for-profit entities (excluding Higher or Secondary Education Establishments)

[Contact the organisation](#)

INTREPRINDEREA MIXTA UZINA TOPAZ SA  
PIATA DIMITRI CANTEMIR 1  
2004 CHISINAU  
Moldova

Moldova

**EU contribution:** EUR 58 500

**Activity type:** Private for-profit entities (excluding Higher or Secondary Education Establishments)

[Contact the organisation](#)

## Partner organisations

---

CLARKSON  
UNIVERSITY  
CLARKSON AVENUE 8  
13699 5500 POTSDAM NY  
United States

United States

**Activity type:** Higher or Secondary Education Establishments

[Contact the organisation](#)

LENINGRADSKAYA ST. 14  
220006 MINSK  
Belarus

**Activity type:** Research Organisations

[Contact the organisation](#)

**Last updated on** 2017-10-31

**Retrieved on** 2018-02-06

**Permalink:** [https://cordis.europa.eu/project/rcn/212229\\_en.html](https://cordis.europa.eu/project/rcn/212229_en.html)

© European Union, 2018