RI-Links2UA | Horizon 2020 Info Day

8 June, 2018

in the framework of the IV Ukrainian-Polish Scientific Forum on cross-border cooperation

Venue: Lviv Polytechnic National University,
Lviv, St. Bandery street, 12

Olga Zyrina, NCP Poland

HORIZON 2020

Secure, clean and efficient energy

Безпечна, чиста та ефективна енергетика

how to find your topic and partners to join a successful proposal?
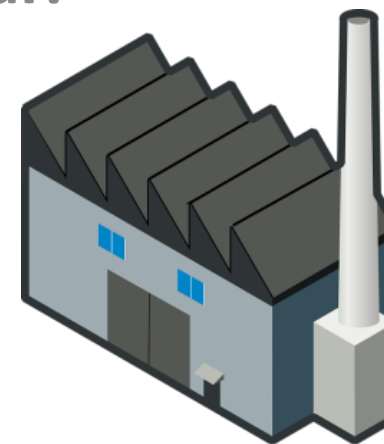
Maria Śmietanka PhD.
Secure, Clean and Efficient Energy

National Contact Point for Research Programmes of the EU
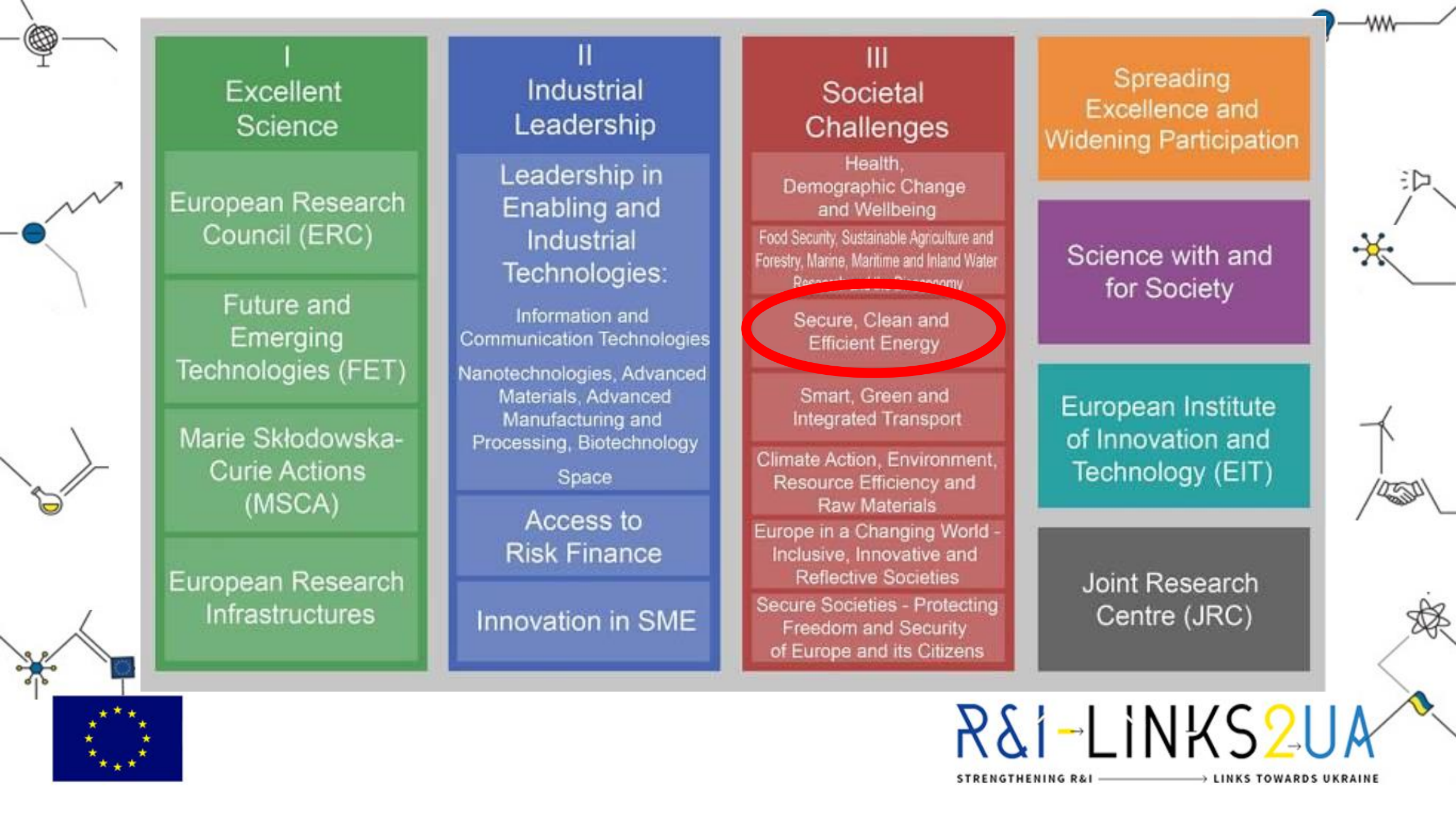Institute of Fundamental Technological Research Polish
Academy of Sciences
www.kpk.gov.pl

This presentation is based on materials from EC and/or Ministries and Agendas of RP

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STRENGTHENING R&I ———→ LINKS TOWARDS UKRAINE

I Excellent Science	II Industrial Leadership	III Societal Challenges	Spreading Excellence and Widening Participation
European Research Council (ERC)	Leadership in Enabling and Industrial Technologies:	Health, Demographic Change and Wellbeing	
Future and Emerging Technologies (FET)	Information and Communication Technologies	Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy	Science with and for Society
Marie Skłodowska-Curie Actions (MSCA)	Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, Biotechnology	Secure, Clean and Efficient Energy	
	Space	Smart, Green and Integrated Transport	European Institute of Innovation and Technology (EIT)
	Access to Risk Finance	Climate Action, Environment, Resource Efficiency and Raw Materials	
European Research Infrastructures		Europe in a Changing World - Inclusive, Innovative and Reflective Societies	Joint Research Centre (JRC)
	Innovation in SME	Secure Societies - Protecting Freedom and Security of Europe and its Citizens	

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Work Program

EN

Horizon 2020

Work Programme 2018-2020

10. Secure, clean and efficient energy

Important notice on the Horizon 2020 Work Programme

This Work Programme covers 2018, 2019 and 2020. The parts that relate to 2019 and 2020 are provided at this stage on an indicative basis. Such Work Programme parts will be decided during 2018 and/or 2019.

(European Commission Decision C(2017)7124 of 27 October 2017)

https://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-work-programmes-2018-20

Topic description

LC-SC3-RES-21-2018: Development of next generation biofuels and alternative renewable fuel technologies for road transport

Specific Challenge: Current biofuel and renewable fuel technologies are still not competitive compared to technologies of fossil fuel alternatives. This impedes their further development and market penetration. The specific challenge is to increase the competitiveness of next generation biofuel and renewable fuel technologies while diversifying the fuel supply pathways.

Scope: Support will be given to next generation non-food/feed drop-in biofuel and alternative renewable fuel technologies for energy and transport, which improve substantially beyond the state-of-the-art the performance as regards conversion efficiency, cost and feedstock supply, as well as end use compatibility. Proposals have to address one of the following:

- liquid diesel- and gasoline-like biofuels from biogenic residues and wastes through either chemical, biochemical and thermochemical pathways, or a combination of them;

- liquid gasoline-like biofuels through biogenic upgrading of biogas.

Proposals are expected to bring the technology from TRL 3-4 to 5 (please see part G of the General Annexes).

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 to 5 million would allow this challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Projects are expected to reduce costs and improve performance of renewable fuels, notably as regards the efficiency, the environment and the society. The proposed solution will contribute to strengthening the EU leadership in this area.

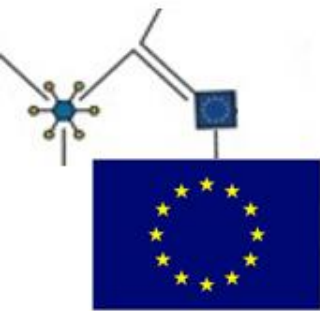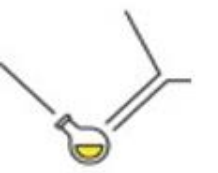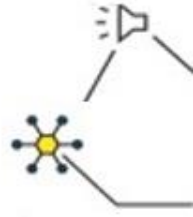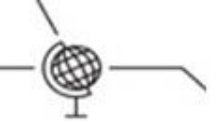Type of Action: Research and Innovation action

Title & Number

Challenge

Scope

Impact

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Important Documents

"Paris Climate Agreement" - adopted at the Paris climate conference (COP21) in December 2015 dealing with greenhouse gas emissions mitigation, adaptation, and finance starting in the year 2020.

"Clean Energy for all Europeans" – a package of legislative measures published by the EC in 2016 to facilitate the transition to a clean energy economy.
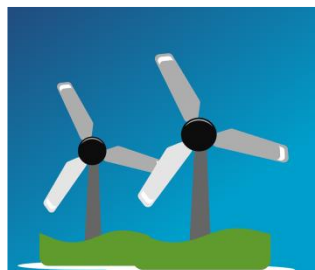
"Strategic Energy Technology (SET) Plan" – launched in 2007 and revised in 2015 aiming at more integrated approach for research and innovation in the field of low-carbon energy.

Calls for proposals
LC-SC3-2018-2019-2020

Energy efficiency
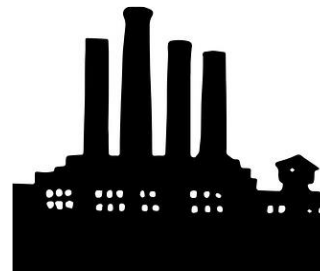192 M€*

Global leadership in renewables
445 M€*

Smart and clean energy for consumers
20 M€*

Smart citizen-centred energy system 176 M€*

Smart Cities and Communities
110 M€*

Near-zero CO2 emissions (fossil fuel power plants and carbon intensive industries) 88 M€*

Joint Actions
52 M€*

Cross-cutting issues
42 M€*

* Budget figures for 2018-2019 only (2020 to be confirmed at a later stage)

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Energy Efficiency

- **25.01.2018 – 4.09.2018**

- **EE-1-2018-2019: Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation (IA)**

  Deep renovations need to become more attractive, innovations in technology and in design and construction methods, but also in in business models

- **EE-2-2018-2019: Integrated home renovation services (CSA)**

  Create or replicate innovative local or regional "integrated home renovation services" covering the whole "customer journey„.

- **EE-5-2018-2019: Next-generation of Energy Performance Assessment and Certification (CSA, IA)**

  Stimulate and enable the roll-out of next-generation of energy performance assessment and certification
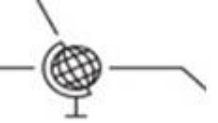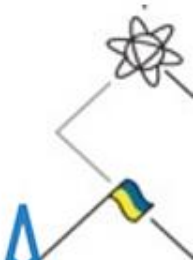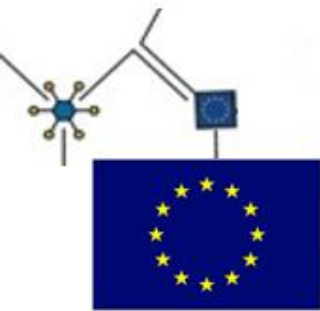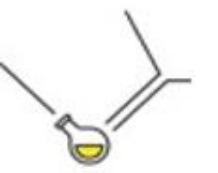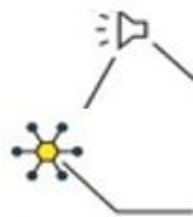
Energy Efficiency

- **EE-13-2018-2019: Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side as energy resource (CSA)**

  concepts and business models for new types of energy services integrating energy efficiency with other energy services (flexibility, distributed generation etc.) and non-energy services (comfort, safety, health)

- **EE-6-2018-2019: Business case for industrial waste heat/cold recovery (IA,** CSA**)**
  - Cost-benefit models for industrial waste heat/cold recovery - develop and demonstrate integrated cost-benefit simulation tools that can determine the best utilisation options of recovered waste heat/cold and/ or surplus renewable energy from industrial and eventual other sources

- **EE-8-2018-2019: Capacity building programmes to support implementation of energy audits (CSA)**
  - Develop staff trainings and capacity building programmes, facilitating SMEs to undergo energy audits and to implement the recommended energy-saving measures
  - Capacity building to support the take-up of audits recommendations for Large companies
  - Initiatives supporting Member States in empowering or establishing national supporting schemes for SMEs

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Energy Efficiency

- **EE-9-2018-2019: Innovative financing for energy efficiency investments (CSA)**
  - innovative regional/national financing schemes to create the conditions for adequate supply of private finance for energy efficiency investments and maximise leverage ratio of private finance to public funds

- **EE-10-2018-2019: Mainstreaming energy efficiency finance (CSA)**
  - frameworks for the standardisation and benchmarking, capacity building for banks and investors, large-scale data on actual financial performance

- **EE-11-2018-2019: Aggregation - Project Development Assistance (CSA)**
  - Project Development Assistance (PDA) to build technical, economic and legal expertise of public and private project promoters, with the final aim of launching concrete investments

Energy Efficiency

25.01.2018 – 4.09.2018

- **EE-14-2018-2019: Socio-economic research conceptualising and modelling energy efficiency and energy demand (RIA)**
  - Conceptualise the energy efficiency first principle, assess and quantify its impacts, in particular as regards: its role and value in the energy system and energy market; its role and value in financing decisions; its economic and social impacts; its correlation and interaction with other policy objectives; existing best practices worldwide.

- **EE-15-2018: New energy label driving and boosting innovation in products energy efficiency (CSA)**
  - Rescaling of current energy labels, capacity of manufacturers and retailers , awareness-raising and information campaigns, best practices

- **EE-16-2018-2019: Supporting public authorities to implement the Energy Union (CSA)**
  - Implementation and effective monitoring, Support to local and regional public authorities

Global leadership in renewables

Technology area	Research activities (RIA)	Innovation activities (IA)
Solar energy (PV, CSP)	RES-1-2019, RES-2-2018, RES-4-2018, RES-7-2019, RES-11-2018, RES-14-2019	RES-6-2018, RES-8-2019, RES-13-2018, RES-15-2019, RES-17-2019
Wind energy	RES-1-2019, RES-4-2018, RES-11-2018	RES-13-2018
Ocean energy	RES-1-2019, RES-11-2018, RES-14-2019	
Biofuels / alternative fuels	RES-1-2019, RES-2-2018, RES-16-2019, RES-21-2018, RES-23-2019	RES-17-2019, RES-22-2018, RES-24-2019
Geothermal energy	RES-1-2019, RES-4-2018, RES-11-2018, RES-14-2019	RES-8-2019, RES-13-2018
Heating / cooling, CHP	RES-1-2019, RES-4-2018, RES-11-2018	RES-5-2018, RES-8-2019, RES-12-2018
Hydro energy	RES-1-2019, RES-11-2018, RES-16-2019,	RES-17-2019
Virtual Power Plant	RES-16-2019	

- Topics for 2018 in black font; for 2019 in purple font; topics for 2020 not included (added as of mid-2018)
- Market-uptake activities (CSA, RES-28) cover all areas
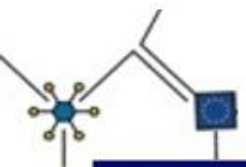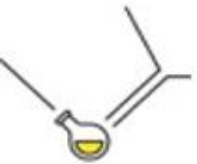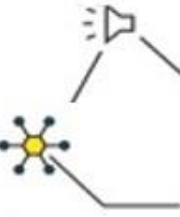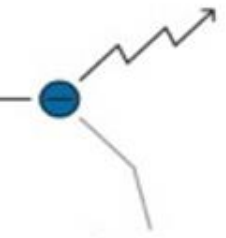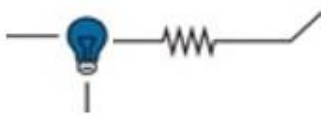
Global leadership in renewables
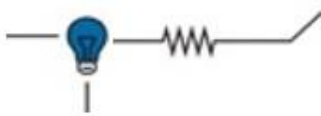
- **LC-SC3-RES-1-2019-2020**: **Developing the next generation of renewable energy technologies (RIA)**

- bring to TRL 3 or TRL 4, development of the technology, the potential lower environmental and climate impact on a life cycle basis, the better resource efficiency, issues related to social acceptance or resistance to new energy technologies, related socioeconomic and livelihood issues.

- One of sub-topics:

- new energy technologies that will form the backbone of the energy system by 2030 and 2050

- Innovative materials for geothermal heat exchangers

- Innovative testing methods and design tools for acceleration of wind energy technology development and increased life time extension

- Sustainable fuelsthrough ground-breaking conversion technologies, addressing for example development of novel microorganisms, enzymes,...

- Innovative very high efficiency thin-film photovoltaics concepts
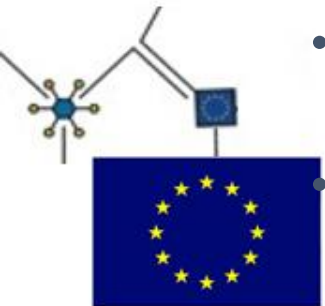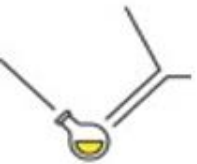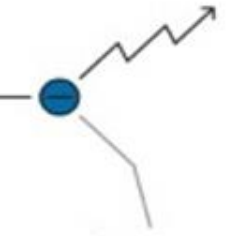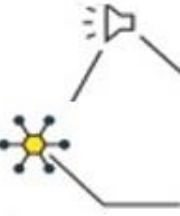
Global leadership in renewables
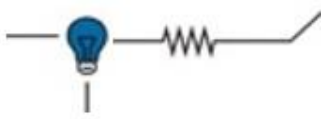
- **LC-SC3-RES-14-2019**: **Optimising manufacturing and system operation (RIA)**

- Renewable electricity technologies still require optimisation in several key processes

- One of the following sub-topics:

➢ Monitoring system for marine energy

➢ Geothermal fluids

➢ Photovoltaics

- Improved performance of manufacturing

- processes and system operation is expected to lead to increased efficiency of the system and/or reduced operational costs of the renewable technologies.
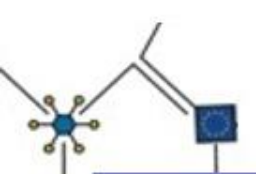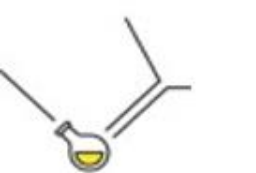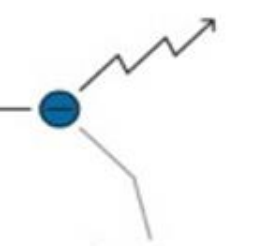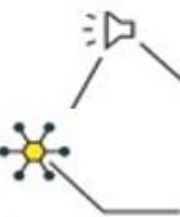
Global leadership in renewables

- **LC-SC3-RES-15-2019**: **Increase the competitiveness of the EU PV manufacturing industry (IA)**
  - Demonstrating manufacturing innovation as well as product innovation for highly performing PV technologies, pilot-line level, potential to be scaled up

- **LC-SC3-RES-17-2019: Demonstration of solutions based on renewable sources that provide flexibility to the energy system (IA)**
  Increase the potential of renewable dispatchable technologies in providing flexibility to the energy system, choice between:
  - *Intermediate bioenergy carriers*
 - *Hydropower*
  - *Thermal energy storage in Concentrated Solar Power (CSP) plants*

- **LC-SC3-RES-24-2019**: **Boosting pre-commercial production of advanced aviation biofuels**
  Pre-commercial production of sustainable and cost-competitive advanced biofuelslarge-scale production of aviation biofuels from non food/feed sustainable feedstockaccording to international aviation fuel standards

Global leadership in renewables

- **LC-SC3-RES-8-2019: Combining Renewable Technologies for a Renewable District Heating and/or Cooling System (IA)**

- Cost-effective solutions for district heating and/or cooling systems at least 50% of the energy demand - renewable energy technologies.

- The integration of sources of otherwise wasted excess heat is in the scope.

- engage operators and final users

- **LC-SC3-RES-28-2018-2019-2020: Market Uptake support (CSA)**
- solutions which can be easily implemented for overcoming barriers to the broad deployment of renewable energy solutions - recommendation for harmonisation of regulations, life cycle assessment approaches, sharing of best practice, insurance schemes, innovative financing mechanisms
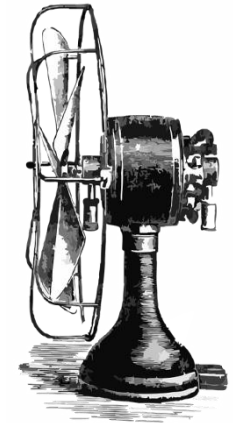
Smart and clean energy for consumers

25.01.2018 – 4.09.2018

- **EC-1-2018-2019: The role of consumers in changing the market through informed decision and collective actions**
  - Activities informing and motivating consumers to change old and inefficient installed appliances with the highest energy saving potential to more efficient and clean energy heating and/or cooling solutions

- **EC-2-2018-2019: Mitigating household energy poverty**
  - better understanding of the types and needs of energy poor households
  - behaviour change
  - set-up of financial and non-financial support schemes
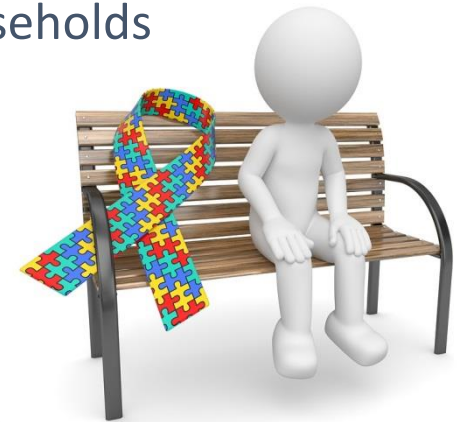
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Smart citizen-centred energy system
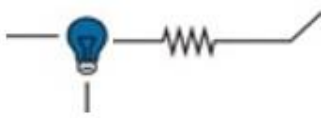
- **LC-SC3-ES-1-2019: Flexibility and retail market options for the distribution grid (IA)**
  - integrated solutions – allow the distribution grid to function in a secure and stable manner with large shares of variable renewables, Flexibility measuresdemand response, Smart grids technologies, market tools

- **LC-SC3-ES-2-2019: Solutions for increased regional cross-border cooperation in the transmission grid (IA)**
  - demonstrate integrated hardware and software solutions for cross border flows in the transmission grid in a regional context

- **LC-SC3-ES-6-2019: Research on advanced tools and technological development (RIA)**
  - modelling and forecasting energy productiondesign and planning and operation of electricity grid infrastructureEnhanced TSO / DSO collaboration and coordination toolsnew generation of reliable, robust and cost-effective energy storage technologies

- **LC-SC3-ES-8-2019: European Islands Facility - Unlock financing for energy transitions and supporting islands to develop investment concepts**
  - set up and run a 'European Islands Facility' which offers expertise and/or financial support and services to islands

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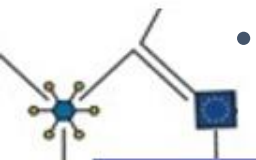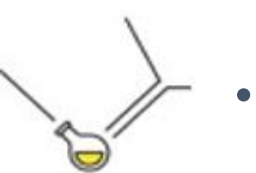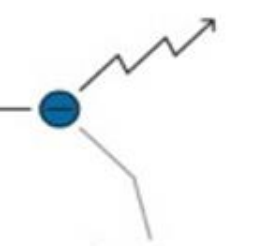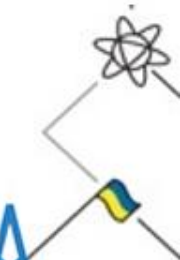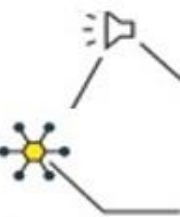
Smart cities

5.09.2018 – 5.02.2019

LC-SC3-SCC-1-2018-2019-2020: Smart Cities and Communities

COP21, EU Energy/Climate goals → Necessary energy transition in cities

- **Goal**: Positive Energy Districts
- Deploy and test integrated innovative solutions for Positive Energy Blocks/Districts in the Lighthouse Cities
- Interaction and integration between the buildings, the users and the larger energy system
- Implications of increased electro-mobility, its impact on the energy system and its integration in planning
- Consortia shall be composed of **2 lighthouse cities** and **at least 5 follower cities**

2014   **GROWSMARTER:** Köln, Barcelona, Stockholm & Graz, Cork, Valletta, Porto, Suceava

REMOURBAN: Valladolid, Tepebasi, Nottingham & Seraing, Miskolc

**TRIANGULUM:** Eindhoven, Stavanger, Manchester & Prague, Leipzig, Sabadell

2015   **REPLICATE:** San Sebastián/Donostia, Firenze, Bristol & Lausanne, Essen, Nilufer

SHAR-LLM: Milano, Lisboa, London (Greenwich) & Burgas, Bordeaux, Warsaw

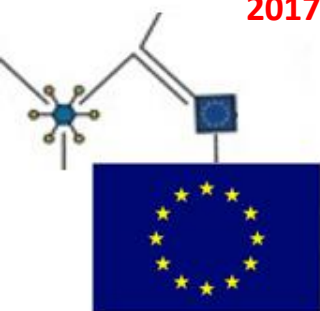**SMARTENCITY:** Sønderborg, Tartu, Vitoria/Gasteiz & Asenovgrad, Lecce

SMARTER TOGETHER: Wien, München, Lyon & Sofia, Santiago de Compostela, Venezia, Yokohama, **Kiev (observer city)**
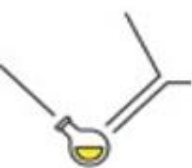
2016   **mySMARTlife:** Hamburg, Helsinki, Nantes & Varna, Palencia, Rijeka, Bydgoszcz

RUGGEDISED: Rotterdam, Ůmea, Glasgow & Brno, Parma, Gdansk

2017   **STARDUST:** Pamplona, Tampere, Trento & Cluj-Napoca, Derry, Kozani, Litoměřice

IRIS: Utrecht, Göteborg, Nice Côte d'Azur & Vaasa, Alexandroupolis, Santa Cruz de Tenerife, Focsani

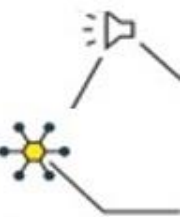**MatchUP:** Valencia, Dresden, Antalya & Ostend, Herzliya, Skopje, Kerava

➢ Collaboration in the Lighthouse Collaboration Network - specific task groups on common topics (e.g. replication, business models, dissemination)
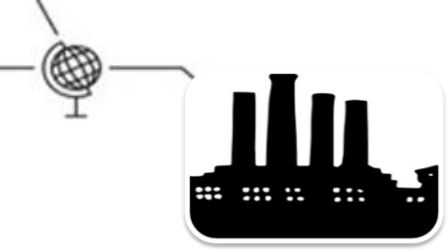
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Near-zero CO2 emissions (fossil fuel power plants and carbon intensive industries)

- **LC-SC3-NZE-1-2018: Advanced CO2 capture technologies (RIA)**
  - Pilot demonstration of advanced technologies or processes for CO2 capture that have a high potential for reduction of the energy penalty and cost

- **CE-SC3-NZE-2-2018: Conversion of captured CO2 (RIA)**
  - Development of energy-efficient, economically and environmentally viable CO2 conversion technologies for chemical energy storage or fossil fuel displacement
  - Solutions should allow for upscaling in the short to medium term

- **LC-SC3-NZE-3-2018: Strategic planning for CCUS development (CSA)**
  - Elaboration of detailed plans for CO2 gathering networks, industrial clusters and storage sites
  - Identification of transport corridors
  - Develop local business models within promising start-up regions

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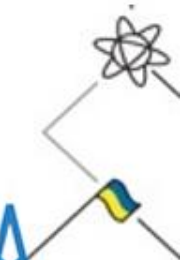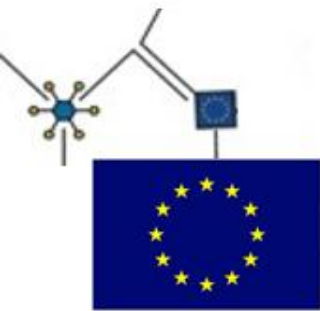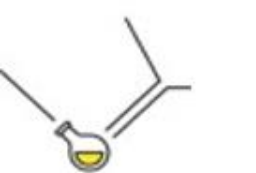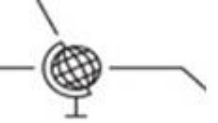
Joint Actions
Cross-cutting issues
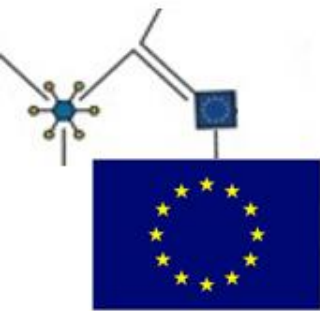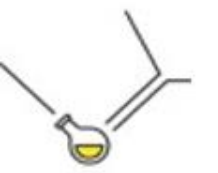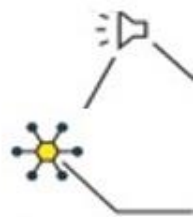
- **CC-2-2018: Modelling for the transition to a Low-Carbon Energy System in Europe**
  - Better representation of future aspects, greater transparency of tools and the role of specific actors,
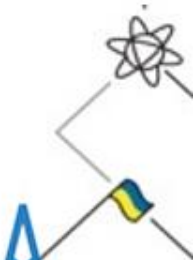
- **CC-1-2018-2019-2020: Social Science and Humanities (SSH) aspects of the Clean-Energy Transition**
  - Social innovation in the energy sector, including with respect to urban areas

- **CC-5-2018: Research, innovation and educational capacities for the energy transition**
  - Renewable energy, Energy storage, Smart and flexible energy systems, Carbon capture, utilisation and storage (CCUS) in
  - combination with relevant social sciences and humanities disciplines

- **CC-6-2018: Transition in coal-intensive regions**
  - Support regional actors in developing R&I strategies for smart specialisation
  - Investigate social challenges including re-skilling of workforce

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Energy in other parts of HORIZON2020

Transport

- User centric charging infrastructure

Security

- Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches

ICT

- Interoperable and smart homes and grids
- Big data solutions for energy
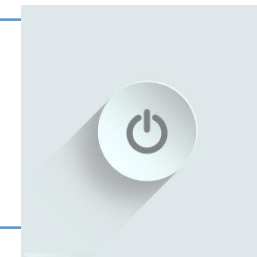
& other…

Space

Climate

Partner search

RESEARCH & INNOVATION
Participant Portal

https://ec.europa.eu/research/participants/portal/desktop/en/home.html

C-Energy2020
Energy NCP network

http://www.partnersearch.c-energy2020.eu/

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HORIZON 2020

Climate Action, Environment, Resource Efficiency and Raw Materials

Клімат та ефективність використання ресурсів, включаючи сировинні матеріали

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I — Excellent Science
- European Research Council (ERC)
- Future and Emerging Technologies (FET)
- Marie Skłodowska-Curie Actions (MSCA)
- European Research Infrastructures

II — Industrial Leadership
- Leadership in Enabling and Industrial Technologies:
  - Information and Communication Technologies
  - Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, Biotechnology
  - Space
- Access to Risk Finance
- Innovation in SME

III — Societal Challenges
- Health, Demographic Change and Wellbeing
- Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy
- Secure, Clean and Efficient Energy
- Smart, Green and Integrated Transport
- Climate Action, Environment, Resource Efficiency and Raw Materials
- Europe in a Changing World - Inclusive, Innovative and Reflective Societies
- Secure Societies - Protecting Freedom and Security of Europe and its Citizens

- Spreading Excellence and Widening Participation
- Science with and for Society
- European Institute of Innovation and Technology (EIT)
- Joint Research Centre (JRC)

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Societal Challenge 5 – Climate action: Work Programme 2018-2020

EN

Horizon 2020

Work Programme 2018-2020

12. Climate action, environment, resource efficiency and raw materials
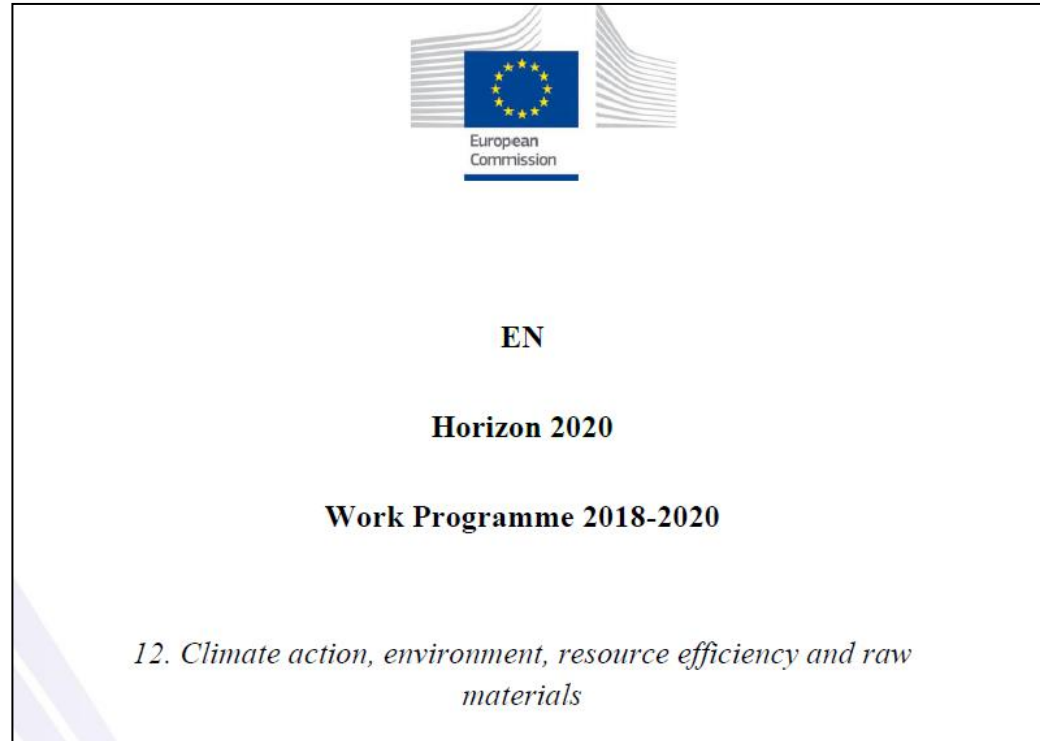
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-climate_en.pdf

2 calls:
- ➢ "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement„

- ➢ "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Budget 2018-2020: €1.1bn

Work Programme 2018 - 2020

Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

- ✓ Decarbonisation
- ✓ Climate adaptation, impacts and services
- ✓ Inter-relations between climate change, biodiversity and ecosystem services [in 2019]
- ✓ The Cryosphere [in 2019]
- ✓ Knowledge gaps
- ✓ Earth observation [in 2020]

➢ **Budget 2018:** €123 million

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

- ✓ Connecting economic and environmental gains - the circular economy

- ✓ Raw materials

- ✓ Water for our environment, economy and society

- ✓ Innovating cities for sustainability and resilience

- ✓ Protecting and leveraging the value of our natural and cultural assets: Earth observation; nature-based solutions, disaster risk reduction and natural capital accounting; heritage alive

➢ Budget 2018   €219.7 million

Work Programme 2018 - 2020

> # Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

✓ Decarbonisation

- [LC-CLA-02-2019: Negative emissions and land-use based mitig... assessment](#)
a) Feasibility of negative emissions for climate stabilisation
b) Land-based mitigation

RIA, 5-7 mln EUR, 19.02.2019 r. (1st stage)
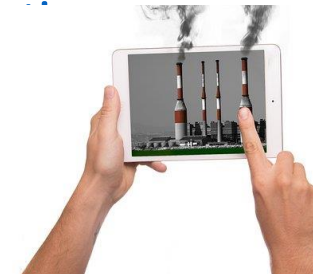
Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

✓ **Climate adaptation, impacts and services (1)**

- **LC-CLA-05-2019: Human dynamics of climate change**
a) Climate services for Africa
b) Climate and human migration

RIA, 5-7 mln EUR, 19.02.2019 r. (1st stage)

Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

✓ Inter-relations between climate change, biodiversity and ecosystem services

• LC-CLA-06-2019: Inter-relations between climate change, biodiversity and ecosystem services

RIA, 5-7 mln EUR, 19.02.2019 r. (1st stage)

Call: "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

✓ The Cryosphere

- LC-CLA-07-2019: The changing cryosphere: uncertainties, risks and opportunities

a) Sea-level changes (RIA)
b) Changes in Arctic biodiversity (RIA)
c) Sustainable opportunities in a changing Arctic (Research and Innovation action)
d) Arctic standards (Coordination and Support action):

2 mln EUR, 19.02.2019 r. (1st stage)

- LC-CLA-07-2019: The changing cryosphere: uncertainties, risks and opportunities

CSA, 5-7 mln EUR, 19.02.2019 r. (1st stage)

Work Programme 2018 - 2020

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

- ✓ Connecting economic and environmental gains - the circular economy
- ✓ Raw materials
- ✓ Water for our environment, economy and society
- ✓ Innovating cities for sustainability and resilience
- ✓ Protecting and leveraging the value of our natural and cultural assets: Earth observation; nature-based solutions, disaster risk reduction and natural capital accounting; heritage alive

➢ Budget 2018   €219.7 million

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Connecting economic and environmental gains - the circular Economy (1)

• CE-SC5-04-2019: Building a water-smart economy and society
a) Symbiosis between industry and water utilities
b) Large scale applications with multiple water users at various relevant scales
IA, 10-15 mln EUR, 19.02.2019 r. (1st stage)

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Raw materials (1)

- CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes
a) Sustainable processing and refining of primary and/or secondary raw materials (2018, 2019)
b) Recycling of raw materials from end-of-life products (2018, 2019)
c) Recycling of raw materials from buildings (2018, 2019)
d) Advanced sorting systems for high-performance recycling of complex end-of-life products (2018, 2019):

IA 8-13 mln EUR, 19.02.2019 r. (1st stage)

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Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Raw materials (2)

- CE-SC5-08-2018-2019-2020: Raw materials policy support actions for the circular economy
a) Responsible sourcing of raw materials in global value chains (2019)
CSA 3 mln EUR, termin: 19.02.2019 r. (1st stage)

- SC5-09-2018-2019: New solutions for the sustainable production of raw materials
a) Digital mine (2019)
b) Recovery of metals and minerals from sea resources (2019)
RIA 3-7 mln EUR, termin: 19.02.2019 r. (1st stage)

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Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Raw materials (3)

• SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining

a) Integrated exploration solutions (2019)

b) Services and products for the extractive industries life cycle (2019)

IA 8-13 mln EUR, termin: 19.02.2019 r. (1st stage)

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Innovating cities for sustainability and resilience

- SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems

a) Strengthening EU-CELAC collaboration (2019)

IA 5 mln EUR, termin: 19.02.2019 r. (1st stage)

- SC5-14-2019: Visionary and integrated solutions to improve well-being and health in cities

IA, 10 mln EUR, 19.02.2019 r. (1st stage)

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Protecting and leveraging the value of our natural
  and cultural assets: Earth observation;

• SC5-16-2019: Development of commercial activities and services through the use of GEOSS
   and Copernicus data
a) Coordination of European innovators in the domain of Earth observation (CSA)
b) Designing Earth observation services and products of the future, building on GEOSS and
Copernicus assets (IA)
2-3 mln EUR, 19.02.2019 r. (1st stage)

Call: "Greening the economy in line with the Sustainable Development Goals (SDGs)"

✓ Protecting and leveraging the value of our natural
and cultural assets: heritage alive

• SC5-20-2019: Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration
IA 7-8 mln EUR, termin: 19.02.2019 r. (**1st stage**)

Information

➢ **Participant Portal**

http://ec.europa.eu/research/participants/portal/desktop/en/home.html

➢ **KPK PB UE**

https://www.kpk.gov.pl/

   ➢ **CORDIS**

   http://cordis.europa.eu/

   ➢ **Horizon 2020**

   https://ec.europa.eu/programmes/horizon2020/

http://www.ncps-care.eu/
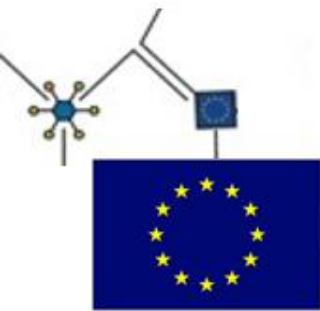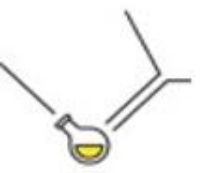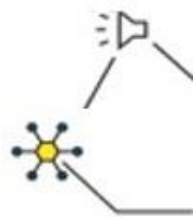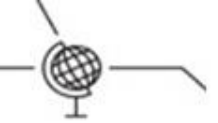
NCPs CaRE Project Website:
ww.ncps-care.eu/

NCPs CaRE Partner Search Tool:
http://partnersearch.ncps-care.eu/

NCPs CaRE Useful Guides:
http://www.ncps-care.eu/?page_id=154

Thank you!

Olga Zyrina

IPPT-PAN, Warsaw, Poland