



## H2020 Energy virtual info day

### Horizon 2020 - Energy Prizes



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Research and  
Innovation

## Outline

- What are Horizon 2020 Prizes
- Opportunities of Prizes in the « Energy Challenge »
- Our current running prizes
- New Prizes in the coming years



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## What are Horizon 2020 Prizes

- "**Challenge**" or "**inducement**" prizes, offering a cash reward to whoever can most effectively meet a defined challenge
- Incentive for innovation by prescribing the goal, but not how the goal should be achieved





## Prizes in the « Energy Challenge » - Strategic


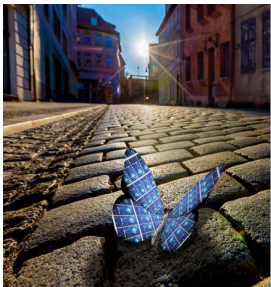
- **To stimulate innovation** and come up with **solutions to problems that matter to European citizens**
- **To contribute** to the objectives of both the Energy Union and the Strategy Energy Technology Plan.
- **To boost innovation** leading to greater sustainability and efficiency, while increasing our energy security and supporting the decarbonisation of the European economy.



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## Our current running prizes

	Title	Budget	Submission by
	<u>CO2 reuse in innovative products</u> <a href="mailto:EC-CO2REUSE-PRIZE@ec.europa.eu">EC-CO2REUSE-PRIZE@ec.europa.eu</a>	€1.5 EUR million	3 April 2019
	<u>Low carbon hospital</u> Combined Heat and Power installation in a hospital using 100% renewable energy sources <a href="mailto:EC-LOWCARBON-PRIZE@ec.europa.eu">EC-LOWCARBON-PRIZE@ec.europa.eu</a>	€ 1.0 EUR million	3 April 2019
	<u>Photovoltaics meets history</u> Integrated Photovoltaic Energy System in a European protected historic urban district <a href="mailto:EC-PHOTOVOLTAICS-PRIZE@ec.europa.eu">EC-PHOTOVOLTAICS-PRIZE@ec.europa.eu</a>	€ 0.75 EUR million	26 September 2018

## Horizon prize for Integrated Photovoltaic Energy System

- **The challenge:** To develop the most suitable architectural and aesthetical design for photovoltaic energy system in combination with optimal technical solutions, with the least visible impact on and minimal intrusion to the structure of protected historical urban buildings in Europe.
- **€750 000 reward** to a European protected historic urban **district** with perfectly integrated photovoltaic energy system.



## • Award Criteria (100):

- A new Building integrated photovoltaic system (20)
  - >50kWp
  - > 2000h operation
- High Quality architectural and aesthetic design (20)
- Reliability, easy maintenance and safety of operation (20)
- Low operation and maintenance costs, energy savings, CO2 emission reduction (20)
- Involvement of public (10)
- Scalability and adaptation to different locations and different types of buildings (10)



## Horizon prize for Combined Heat and Power (CHP) installation in a hospital using 100% renewable energy sources

- **The challenge:** To develop an innovative solution integrating at least three European renewable energy technologies into one energy system in a hospital, while ensuring a 100% secure energy supply.
- **€1 million reward** to a hospital for innovative solution integrating several technologies into one energy system, which can guarantee uninterrupted energy supply.





## • Award Criteria (100):

- A new CHP system (20)
  - > 2.000.000kWh (5)
  - > 3700h operation (5)
  - > Innovative storage solution (10)
- Reliability, easy maintenance and safety of operation (20)
- CO2 emission reduction and sustainability aspects, potential energy savings (20)
- Minimal/non-invasive impact on premises (10)
- Low operation and maintenance costs (20)
- Involvement of public (10)

Horizon prize for  
CO<sub>2</sub> reuse in innovative products

- **The challenge:** To develop innovative products which reuse CO<sub>2</sub> in order to significantly improve net CO<sub>2</sub> emissions, while overcoming technical, commercial and/or financial barriers.
- **€1.5 million reward** to a **developer** of an innovative product that reuses carbon dioxide (CO<sub>2</sub>), making a genuine contribution to achieving net emissions reductions.



## • Award Criteria (50):

- Improvement in net CO2 emissions (15[8])
  - Specific computation method
- Demonstrated effort to overcome barriers (15[8])
  - Technical, Financial, Commercial
- Exploitation plans (10[6])
- Environmental impacts (10[8])





ARTIFICIAL  
PHOTOSYNTHESIS:  
FUEL FROM THE SUN

EIC • HORIZON  
**prize**

# The Challenge

Launched on 12th December 2017

SOLVE THE CHALLENGE

**€5 million**

Apply by 3 February 2021

## ARTIFICIAL PHOTOSYNTHESIS: FUEL FROM THE SUN

- **Aim:** Develop the *best fully functional prototype* producing a sustainable fuel by combining sunlight, water and carbon via an artificial photosynthesis process.
  - *Award will be given after a grand final of the ten best prototype in which real life operation will be done*
  - **Who →** Anybody that can develop, build and run such a device
- [ec-fuelfromsun-eic-prize@ec.europa.eu](mailto:ec-fuelfromsun-eic-prize@ec.europa.eu)
- [europa.eu/!bH49tW](https://europa.eu/!bH49tW)
- [#EICHorizonPrize](https://twitter.com/EICHorizonPrize)



## Recognition Prize for 2019 and 2020

Each year for:

- 1<sup>st</sup> : 500 000€
- 2<sup>nd</sup> : 250 000€
- 3<sup>rd</sup> : 100 000€

## RESponsible Island - Prize for a renewable geographic energy island

- The prize intends to highlight the potential of renewables for decentralized energy grids by addressing energy needs for electricity, heating, cooling and transport.
- The title is inspired by RES (short for Renewables) and "responsible" to highlight the citizen in the centre of the energy system.
- Within this context, the prize recognises realised achievements in renewables on geographic energy islands.



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# Thank you!

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**EU Participant Portal**

[www.ec.europa.eu/research/participants](http://www.ec.europa.eu/research/participants)



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