

**Programme:** EU-HORIZON 2020 Excellent science - 2014-2020

**Call:**

Specific Challenge:

The challenge is to develop a safe and sustainable battery for electric-vehicles through the development of new materials and chemistries making use of abundant, sustainable low cost materials, which are easily available in Europe. Solutions are required to provide the same or better performance than vehicles with internal combustion engines and to be capable of recharging the electric vehicle within a time equivalent to fill a conventional gasoline/diesel fuel tank.

This prize will contribute significantly to the decarbonisation of Europe for the benefit of the EU's economy and its citizens.

This prize has been set-up to:

Foster knowledge, innovation and competitiveness in e-vehicle battery/ energy storage technologies.

Enhance the European manufacturing base for e-vehicle batteries.

Strengthen the European Industrial value chain (e.g. through exploitation or synergies with existing European industrial infrastructures).

Strengthen European value added in the supply and knowledge of advanced materials and chemistries for batteries.

Encourage electro-mobility, opening up new markets and incentivising technological innovations.

Enhance employment prospects along the entire electro-mobility value chain.

Contribute to a significant drop in CO<sub>2</sub> and NO<sub>x</sub> emissions in line with global environmental policies.

The specific rules of the contest will be published in the fourth quarter of 2017 by the European Commission, which will directly launch and manage the contest and award the prize based on the judgement of independent experts.

Expected Impact:

A prototype battery with fast repowering and long-distance range, high recyclability, and long life cycle.

Cross-cutting Priorities:

Open Science  
Open Innovation  
Clean Energy

**Topic/s:**

1. Eligible countries: described in part 4 of the Rules for Contest.
2. Eligibility and exclusion criteria: described in part 4 of the Rules for Contest.

The contest is open to any legal entity (including natural persons) or group of legal entities established in an EU Member State or in a country associated to Horizon 2020. [[For reasons of fostering Europe's competitiveness in the innovative battery sector, participation to this prize contest will be limited to EU Member States and Countries Associated to Horizon 2020.]]

Proposal page limits and layout: Please refer to the application template below.

3. Evaluation and award criteria and procedure: described in part 5 of the Rules for Contest.

The prize will be awarded, after closure of the contest, to the contestant(s) who in the opinion of the jury demonstrates a solution that best meets the following cumulative criteria for a prototype battery (demonstrated and tested in adequate environment):

Provides high standards for safety, sustainability and recyclability;

Provides the same experience and user convenience, in terms of range and time required to recharge, as a conventional gasoline/diesel car;

Has whole-life costs (in terms of battery materials and its functionality) equivalent or better than gasoline/diesel car;

Demonstrates reliable power delivery without significant loss of performance for an economically acceptable life time (power delivery to be demonstrated for a life time higher than batteries currently available);

Ensures that other performance criteria (car acceleration, safety, etc.) are maintained in comparison to a combustion engine powered vehicle;

Demonstrates a significant advance in new material technologies while avoiding dependence on import materials (e.g. expensive, rare, and unsustainable materials).

4. Indicative time for evaluation and award of prizes:  
The evaluation and award for the prize will be done in the first half of 2021.

5. Application template:

This application template serves as an example.  
The template to be filled in is available after entering the submission tool below.

Members of consortium are not required to conclude a consortium agreement.

6. Additional documents:

- 1. Introduction WP 2018-20
- 17. European Innovation Council (EIC) WP 2018-20
- General annexes to the Work Programme 2018-2020

Legal basis: Horizon 2020 Regulation of Establishment

Legal basis: Horizon 2020 Rules for Participation

Legal basis: Horizon 2020 Specific Programme

**AG1 priority fields:** Energy

**Call Budget:** 10000000,00€

Co-funding type:

**Co-funding type:** € euro

**Co-funding euro maximum:** 10 000 000,00 €

**Opening date:** 22 Feb 2019

**Deadline date:** 17 Dec 2019

**Field:** Innovation

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