



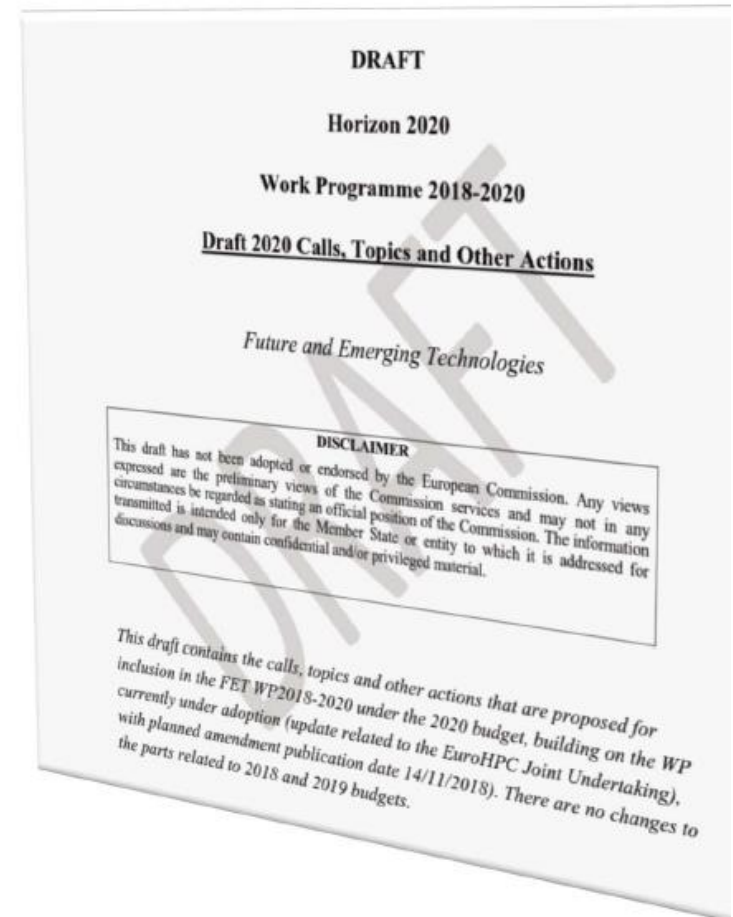
Future Battery Technologies a large scale FET initiative on future battery technologies

Catherine Gilles-Pascaud, PCN FET



FET WP 2020 – A large-scale research initiative on Future Battery Technologies

- Work Programme 2020 (draft)
- All call topics are likely to open on July 9 , 2019
- Deadline January 16, 2020
- Indicative budget 47 M€



FET WP 2020 – A large-scale research initiative on Future Battery Technologies

- **Kick start a large scale research initiative on future battery technologies**

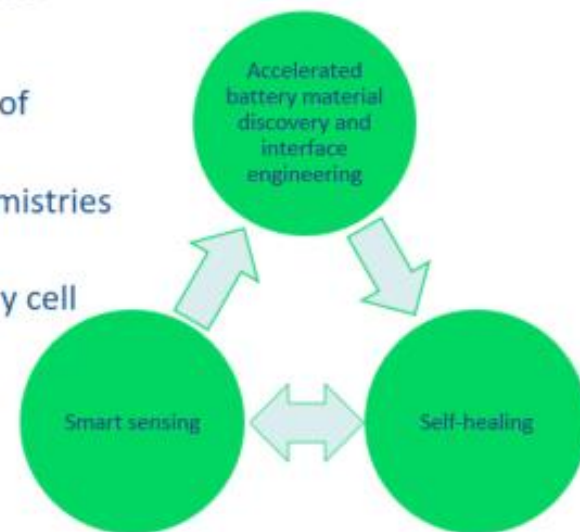
- LC-BAT-12-2020 Novel methodologies for autonomous discovery of advanced battery chemistries – 20M€, R&I
- LC-BAT-13-2020 Sensing functionalities for smart battery cell chemistries – 10M€, R&I
- LC-BAT-14-2020 Self-healing functionalities for long lasting battery cell chemistries – 10M€, R&I
- LC-BAT-15-2020 Coordinate and support the large scale research initiative on future battery technologies – 2 M€, CSA

42M€, ddl 16th of January 2020

- **Kick start Member States joint support (ERANET)**

- CE-NMBP-41-2020: Call for continuation of M-ERA.NET – 15M€
- A joint call in 2020 with 5M€ EU top-up earmarked for battery activities

5M€ for battery, ddl 13th of February 2020



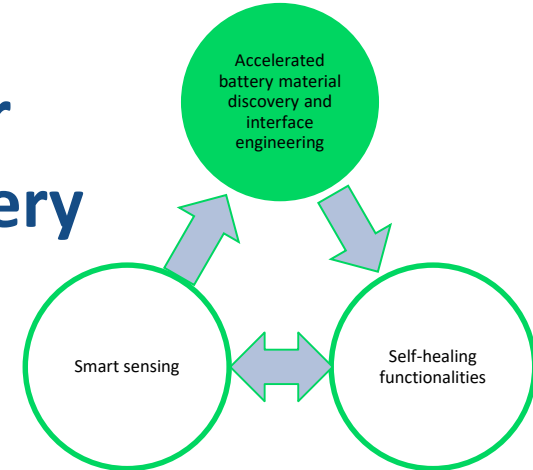
LC-BAT-12-2020 Novel methodologies for autonomous discovery of advanced battery chemistries

☐ Themes

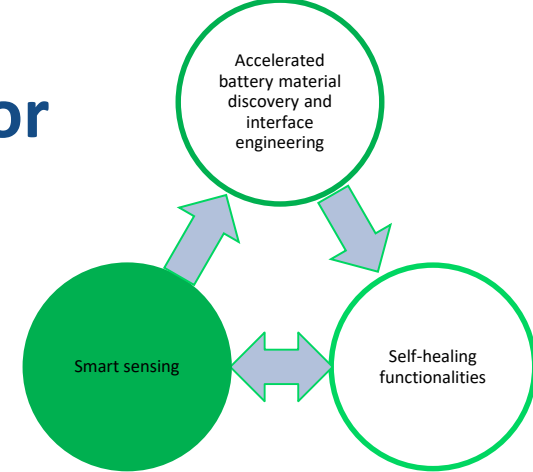
- Integration of advanced multi-scale computational modelling, materials synthesis, characterization and testing to perform closed-loop autonomous materials findings
- Develop a pilot material discovery platform and demonstrate key features, paving the way towards the development of a full-scale autonomous battery Material Acceleration Platform (MAP)
- Demonstrate a fundamental paradigm shift in the materials discovery process for clean energy materials

☐ RIA Actions of a 3 years duration, estimated EU contribution 20M€

☐ Total budget = 20M€



LC-BAT-13-2020 Sensing functionalities for smart battery cell chemistries



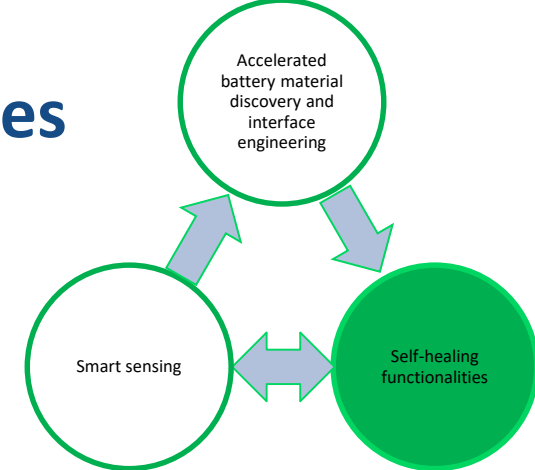
☐ Themes

- Incorporate smart functionalities into the battery cell for following relevant component parameters
- Develop a proof of concept for the establishment of successful sensing technologies capable of monitoring changes within a battery cell under various operation conditions
- Increased quality, reliability and life of the battery system

☐ RIA Actions of a 3 years duration, estimated EU contribution 2 to 4M€

☐ Total budget = 10M€

LC-BAT-14-2020 Self healing functionalities for long lasting battery cell chemistries



☐ Themes

- Sensing can help identify defective components and local spots in the cell that need to be repaired by injection or addition of self-healing functions
- Deliver proof-of-concept battery cells with self healing functionalities showing how this is achieved using advanced analytical tools
- Increased quality, reliability and life of the battery system by extending the lifetime of the battery cells and maximizing their performance

☐ RIA Actions of a 3 years duration, estimated EU contribution 2 to 4M€

☐ Total budget = 10M€

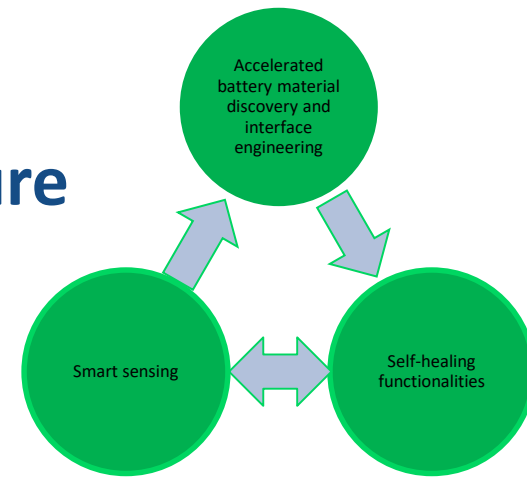
LC-BAT-15-2020 Coordinate and support the large scale research initiative on future battery technologies

□ Themes

- Network the large scale research initiative on Future Battery Technologies
- Facilitate communication, dialogue and cooperation
- Pave the way to industrial exploitation of future battery technologies in key energy or transport applications
- **All actions funded under BATFLAG call topics will be required to contribute to CSA activities**

□ Actions of a 3 years duration, estimated EU contribution to 2M€

□ Total budget = 2M€





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