

E T N A
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eurecat!

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Eurecat. Overview



INDUSTRIAL TECHNOLOGY AREA

Composites	Functional Printing & Embedded Devices	Product Innovation and Development	Metalic and Ceramic Materials	Plastic Materials	Process Modeling & Simulation	New Manufacturing Processes	Autonomous & Industrial Robotics	Sustainability	Functional Textile	Chemical Technologies

DIGITAL TECHNOLOGY AREA

Big Data & Data Science	e-Health	IT Security	Smart Management Systems	Audiovisual Technologies

BIOTECHNOLOGY AREA

Omic Sciences	Nutrition and Health





Project idea:
GV-06-2020

Advanced light materials and their production processes for automotive applications

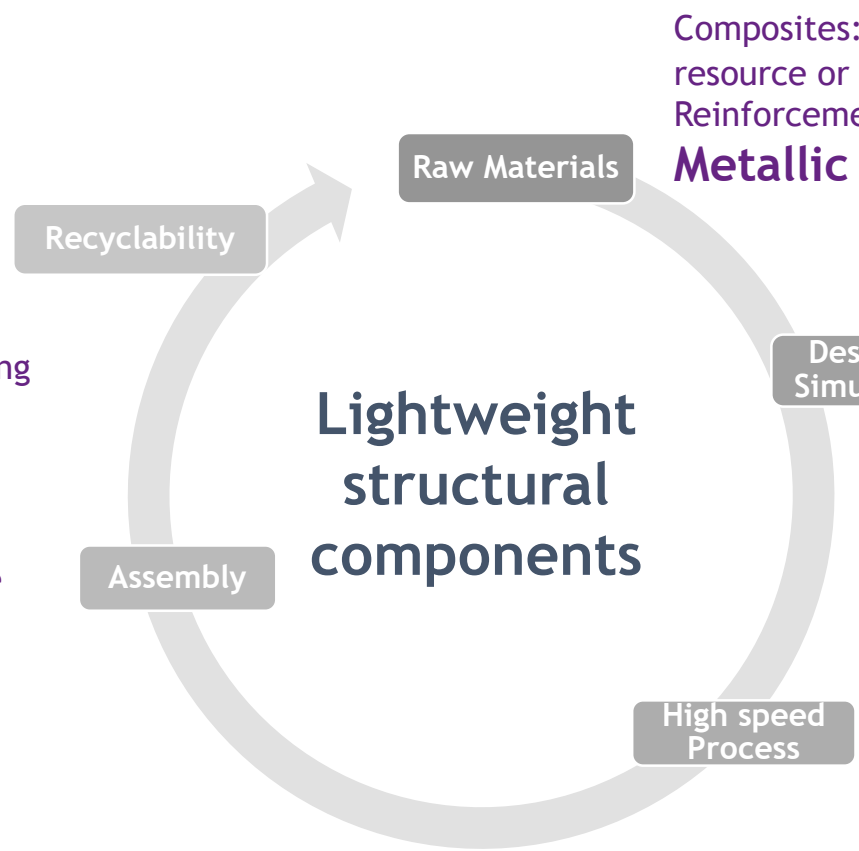
Deadline: 21.04.2020 (IA)

Sustainable development of light composite/metal components through high production rate technologies

End-of-life recovery

- Recycled technologies
- Disassembly strategies
- Recycled organosheet/SMC
- New structural part manufacturing

- Composite-composite
- Metal-composites



Composites: Matrix (Thermoset & **Thermoplastic**) bio-resource or recycled
Reinforcement: Hybrid yarns & Tow spreading.
Metallic materials (AHSS, aluminum...)

ECO-DESIGN: Crash

- Eco-design: Light weighting & disassembly
- Mechanical characterization
- Structural simulation
- Process simulation

- Composites: **Compression molding**
Mold design & process adaptation
Non conventional heating systems
- Metal technology
- Assembly process





Project idea:

GV-06-2020

Advanced light materials and their production processes for automotive applications

Deadline: 21.04.2020 (IA)

Current partners:

- Experts in thermoplastics / thermostable materials / metallic materials
- Expert in design & simulation tools and methodologies
- Expert in mechanical test & characterization
- Expert in manufacturing (compression molding)
- Expert in joining-separation processes
- Parts manufacturer
- Redesign and simulation expert

Looking for Partners:

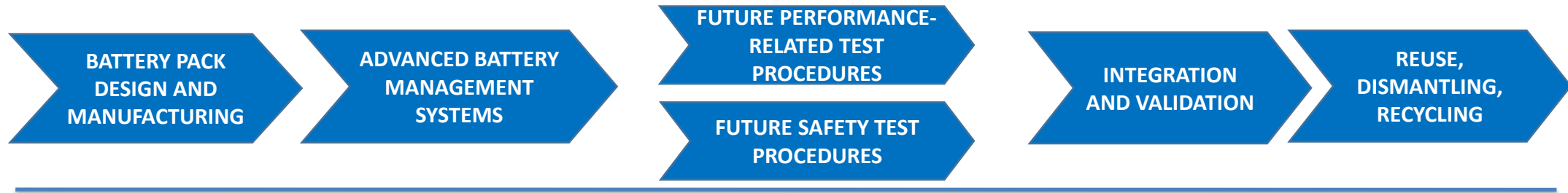
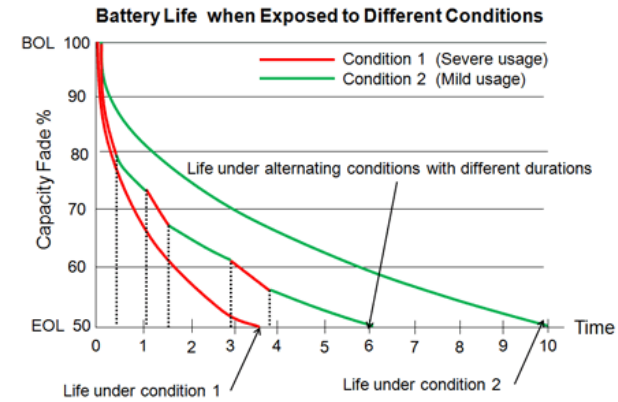
(all EU, preferably not ES)

- **Industrial partners (OEMs, Tier 1-2)**
- **Expert in design of multimaterial components + structural simulations for joining**
- **Company expert in cradle to cradle /circular economy**



Project idea:
LC-BAT-10-2020:
Next generation and
realisation of battery packs
for BEV and PHEV
Deadline: 21.04.2020 (IA)

Flexi-Batt
Lightweight, Modular, Flexible, Smart, Safe, Recyclable,
Reusable battery packs of the future





Project idea:

LC-BAT-10-2020:

Next generation and
realisation of battery packs
for BEV and PHEV

Deadline: 21.04.2020 (IA)

Current partners:

- Expert in battery design, testing, modelling & simulation
- Expert in safety tests
- Expert in BMS
- Redesign and simulation expert
- Energy storage systems provider

Looking for Partners:

(all EU, preferably not ES)

- Industrial partners (battery pack assembler, BMS provider; OEM)
- Expert in standards for recycling
- Expert in 2^o life use (RTO + industry)



Other strategic topics for EURECAT in 2020

<p><u>LC-BAT-8-2020</u> (RIA): <u>Next-generation batteries for stationary energy storage.</u> 21/4/2020.</p>	<p><i>EUT value:</i> <i>Sustainability & Product Units. Battery design, SoC-SoH evaluation, thermal/mechanical simulations & testing, 2° life, etc. Building upon COBRA, VERDE, REFER etc.</i></p>
<p><u>LC-GV-07-2020</u> (IA): <u>Reducing the environmental impact of hybrid light duty vehicles.</u> 21/4/2020.</p>	<p><i>EUT value:</i> <i>Sustainability & Smart Management Systems Unit. Battery thermal management, energy management from waste heat. Building upon COBRA, VERDE, REFER etc.</i></p>
<p><u>MG-3-5-2020</u> (IA): Next generation multifunctional and intelligent aero-structures, with emphasis on manufacturing, maintenance and recycling. 21/4/2020.</p>	<p><i>EUT value:</i> <i>Composites & New Manufacturing Systems Units. Composite thermoplastics & thermosets parts and manufacturing processes, lightweight strategies, LCAs. Building upon AIRPOXY, Rewastee, CLEAN SKY projects (Superblend, Composleeve, JIF2LAND, Lightcowls, etc.)</i></p>
<p><u>MG-3-7-2020</u> (IA): Improved Production Processes in Ship building. 21/4/2020.</p>	<p><i>EUT value:</i> <i>New Manufacturing Systems Unit. Additive manufacturing, industry 4.0 techs etc. Building upon PREVIEW, SESAME, SHAREWORK etc.</i></p>

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Other strategic topics for EURECAT in 2020

<p><u>MG-4-8-2020</u> (RIA): <u>Advanced research methods and tools in support of transport/mobility researchers, planners and policy makers.</u> 21/4/20.</p>	<p><i>EUT value:</i> Data Science Unit. in both mobility of PEOPLE and GOODS. Decision support tools, algorithmic fairness. Build upon DIAMOND, MoTiV etc.</p>
<p><u>LC-MG-1-12-2020:</u> <u>Cities as climate-resilient, connected multimodal nodes for smart and clean mobility: new approaches towards demonstrating and testing innovative solutions.</u> IA</p>	<p><i>EUT value:</i> Smart Management Systems Unit. EV Charging strategies, Smart grid management, etc. Algorithmic fairness. Building upon GreenCharge, Mobility 2.0, Parkinetics etc. Urban Living lab Coordinator (Catalonia).</p>
<p><u>MG-2-11-2020:</u> <u>Network and traffic management for future mobility.</u> RIA, 1st stage 9/1/20.</p>	<p><i>EUT value:</i> Smart Management Systems Unit. Tools for dynamic transport demand management and optimization, multi-modal trip planners, security and system resilience. Build upon MOLECULES, Mobility 2.0 etc.</p>
<p><u>MG-4-7-2020:</u> <u>Digitalisation of the transport system: data sharing.</u> RIA, 21/4/20.</p>	<p><i>EUT value:</i> Data Science Unit. Bridge the value of data with its privacy in the sharing process. Build upon SMOOTH platform on GDPR/privacy assessment.</p>
<p><u>MG-2-12-2020:</u> <u>Improving road safety by effectively monitoring working patterns and overall fitness of drivers.</u> RIA, 21/4/20.</p>	<p><i>EUT value:</i> Data Science Unit. Behaviour patterns, algorithmic fairness. Build upon DIAMOND, MoTiV, etc.</p>

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Thanks for your attention!

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Member of:

