

CORNET Call for Proposals: International Collective Research
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Organisation:	Łukasiewicz Research Network – Automotive Industry Institute [Łukasiewicz-PIMOT]
Website address:	Automotive Industry Institute (pimot.org.pl)
Organisation typology:	<input type="checkbox"/> SME Association <input type="checkbox"/> University <input checked="" type="checkbox"/> Research Centre <input type="checkbox"/> Other (please specify)
Sector:	<input checked="" type="checkbox"/> Materials <input checked="" type="checkbox"/> Process Engineering, Energy Technology and Environment <input type="checkbox"/> Business Management and Organisation <input type="checkbox"/> Construction and Production <input type="checkbox"/> Chemistry, Textile, Food, Health and Medical <input type="checkbox"/> Measurement and Information
Field of specialisation:	<p>Łukasiewicz – PIMOT is a professional, reliable and economically efficient research unit with modern infrastructure and equipment as well as state-of-the-art facilities. Since April 2019, we’ve been a part of the ŁUKASIEWICZ Research Network – third largest research network in Europe, operating in line with the “Science is Business” model.</p> <p>We actively cooperate in the fields of: research and development works as well as all initiatives related to road safety, scientific activities and promoting eco-friendly, sustainable mobility.</p> <p>Our major work domains are the SMART MOBILITY and SUSTAINABLE ECONOMY AND ENERGY.</p> <p>The Institute carries out development work and scientific research in the field of: automotive engineering, vehicle development, road safety improvement, alternative vehicle powering methods, fuels, biofuels, and lubricants. The main goal of the Łukasiewicz – PIMOT is to provide entrepreneurs mainly from the transport, fuels and renewable energy sources sectors with strong scientific and research support in the processes of product development and introduction of the products into world markets.</p>
Expertise offered:	<p>Competencies of our research and services units include:</p> <ol style="list-style-type: none"> 1. testing of advanced driver assistance systems (ADAS), according to the NCAP, SAE, NHTSA, or ISO standard procedures, using top world-class equipment (including a steering robot, inertial and satellite navigation systems, reference stations and so on), 2. testing of vehicles and their equipment in terms of electromagnetic compatibility (EMC), 3. strength testing of the structures of vehicles and vehicle parts (e.g. seats, steering systems, interior equipment, vehicle bodywork adaptations for special (e.g. medical) applications, child restraint systems, as well as the testing of vehicles’ front protection systems (bull-bars, additional

	<p>bumpers), dynamic and static testing of motor truck bodywork adaptations, including the video records evidence,</p> <ol style="list-style-type: none"> 4. durability testing of the structures of vehicles and their parts, 5. road testing of braking and steering systems (performing vehicle safety issues), 6. static and dynamic tests for full truck load structures and their elements made of metals and composite, as well as metal-rubber elements of vehicle suspensions, 7. competencies in the field of powertrain systems and electrical installations design (HV and LV) for vehicles, in particular high-voltage EV installations, respecting modern safety requirements, 8. designing a powertrain system, so that it can fulfill power requirements resulting from the detailed usage characteristics, 9. working on advanced simulations systems that allow determining the energy demand of an electric vehicle with high precision (and predict the range of the vehicle in various driving cycles), 10. numerical analyses (static stress, non-linear dynamic, modal analyses, fatigue, MBD simulations, crash-test analyses), 11. providing calculations related to energy storage systems and defining requirements for companies designing and carrying out batteries modules, 12. exploring operational characteristics of individual cells used in the automotive industry, 13. setting up key electronic components (VCU, BMS, BCM...) and their communication, 14. biotechnological, chemical and hybrid conversion of biomass and waste substances into biofuels and other products with high value added (circularity under bioeconomy standards), 15. studying the potential of ‘methane-generating’ raw materials of various origin, 16. developing new technologies for fuels, alternative fuels and biofuels production as well as a quality assessment and parameters optimization of them, 17. Environmental Life Cycle Assessment (LCA) of products and processes. Modeling of scenarios reducing adverse environmental impact, including assessment according to sustainable development criteria, 18. approval services for vehicles of all categories (M, N, L, O, T, R, S), 19. a large scope of certificated services that meets normative and certificated methodology, regulations and standards (UN, EU, ISO and EN).
<p>Contact person:</p>	<p>Name: Magdalena Harczuk Organisation: Łukasiewicz-PIMOT E-mail: magdalena.harczuk@pimot.lukasiewicz.gov.pl Tel: +48 22 7777-216</p>