

CORNET Call for Proposals: International Collective Research

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Organisation:	TC3 Ltd.
Website address:	www.tc3.pl
Organisation typology:	 x SME Association Driversity
	 Research Centre Other (please specify)
Sector:	 x Materials process Engineering, Energy Technology and Environment Business Management and Organisation
	 x Construction and Production Chemistry, Textile, Food, Health and Medical Measurement and Information
Field of specialisation:	High performance composites, non-flammable composites, Lit-ion composites for battery covers, bio-fibres, sound and vibration absorbing composites, designing a new materials
Expertise offered:	TC3 Ltd. specialize in the production of ultra-light and durable multi-layer composite materials using carbon fiber, aramid, glass and green materials like basalt, flax and cork agglomerate. Combination of different kind of fibers give us a unusual solutions. The composite we manufacture, are one of the best alternatives to concrete, steel and other heavy structures. Our materials, which are based on cork agglomerate - a natural, renewable material that absorbs CO ² . Our composites are created to meet individual customer needs and are used to manufacture components for a wide range of industries, including automotive, motorsport, public transport, the maritime industry, the medical sector and defense - wherever low weight must be associated with high durability. At TC3, we focus on the development of environmentally sustainable composite technology and our R&D department have a wide database of test results for the properties of our sandwich composites, which we can adapt to specific applications. Our composites are able to meet the most restrictive performance criteria and hence fulfil the demanding standards required by our customers. We developed a new material, that is environmental friendly and can be used as a protection of the battery Lit-lon in case of catches fire. For the medical industry, we are developing a composite that will facilitate the work of doctors during operations and protect them from X-rays. The composite has already passed laboratory tests and will be implemented in this year. Science and its development, technical and technological progress as well as the acquisition, creation and use of knowledge for the purposes of



	innovation play a key role in our company. From our composites, we have designed and manufactured e.g. elements for rally cars, where light weight and enormous resistance to extreme conditions are necessary. The main recipient is the X-Raid company (BMW group - rally cars), which has been winning the Dakar rallies for several years and also for Sebastien Loeb racing. In addition to rally cars, we have designed and created a saddle for a rally horse - a junior champion. Speed, lightness and modernity are the advantages of our services.
	Our R&D department employed people with many years of experience in international projects management. We are facilitates our work using tools such as the Logical Framework Approach, Business Model Canvas and Design Thinking. We carried out a research project for the Ministry of National Defense, designing a lightweight ballistic composite, and we are currently implementing two another projects financed by the EU.
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