## Research and Development Request -Profile Template

## Last update: December 2017

The following table can be used as a template for drafting a Business Request. Please be sure to refer to the Profile Drafting Guidelines for what information you should include in each field.

## Please note:

- Fields marked with asterisk (\*) are mandatory
- Fields that can be ticked should only have one selection when drafting the profile unless specified under the field title.

Field	To be completed
Title *	PS: EIC-FTI-2018-2020: Industrial partners sought for the market uptake of cost-effective and value-added thermoplastic prepreg.
Internal Reference	
Summary * (1-500 characters)	A Turkish university is developing a proposal for the next FTI call. The project aims to develop a cost-effective and value-added thermoplastic prepreg for composite part production. The university is looking for original equipment manufacturers (OEMS) from the automotive or white goods sector.
Advantages and Innovations (50-2000 characters)	-Adjustment of the viscosity of the recycled PA6.6 to be used in the production of cast sheets by the use of chain extenders and reactive extrusion, i.e. to reduce the melt flow index (MFI) from 10 up to 20 (275oC, 5 kg).



Scaling of a continuous carbon/glass fiber reinforced thermoplastic epregs (woven) which have polyamide 6.6 matrix with the follow echanical properties (Tensile strength: 350 MPa; Tensile modulus: > 20 Pa; Flexural strength >400 MPa; Flexural modulus: > 19 GPa) and ermal properties (> 50°C HDT Method A).
Recycled raw materials of graphene and post-industrial polyamide used r thermoplastic prepreg production will reduce the manufacturing costs possiderably.
Improvement in the mechanical properties of composite prepeg (without gnificant weight reduction) up to 15% with design optimization by the ddition of graphene ( up to 2 wt%) in combination with optimized fabrics onfigurations and amounts (<50% w/w).
Optimum resin amount will be applied to minimize waste production ring prepreg production.
Prototype production by this new design thermoplastic prepregs and their alidation in composite parts for automotive or white goods market.
Already on the market         Available for demonstration         Concept Stage         Field Tested / Evaluated         Project Already Started         Project in Negotiations - Urgent         Proposal under development         Prototype available for demonstration         Under development / lab tested
the context of this project, post-industrial recycled polyamide 6.6 from e tire industry and continuous synthetic fabrics (carbon fibres, glass pres or combination of both) will be used for the production of reliable, ost-effective and value-added thermoplastic prepreg for composite part oduction. raphene platelets produced from recycled carbon will be integrated in olyamide resin at low loadings to improve the interphase between the atrix and the reinforces fibers and in consequence the mechanical operties of the prepregs. hermoplastic polyamide film as a matrix is the first attempt for the oduction of thermoplastic prepreg in the composite market.

	composite part production by overmolding or compression molding techniques. Obtained capital expenditures (CAPEX) and operating expenses (OPEX) will cause economic feasibility for serial production because cost-effective and recycled thermoplastic composites promise compatibility with selected production techniques. The consortium consists of textile manufacturer, formulation provider, compounder and film producer. The current members of the consortium are from Spain and Turkey. Turkish university is looking for an OEM in automotive or whitegoods sector other than Spanish or Turkish origin
IPR Status Note: Multiple fields can be selected.	<ul> <li>Copyright</li> <li>Design Rights</li> <li>Exclusive Rights</li> <li>Other (registered design, plant variety, etc.)</li> <li>Patent(s) applied for but not yet granted</li> <li>Patents granted</li> <li>Secret Know-how</li> <li>Trade Marks</li> </ul>
Comments Regarding IPR Status	
Technology Keywords *	
Market Keywords *	
Responsible *	In Merlin, select who from your organisation will be responsible for this profile
Sector Group	<ul> <li>Auronautics &amp; space</li> <li>Agrofood</li> <li>Automotive, transport and logistics</li> <li>Bio Chem Tech</li> <li>Creative Industries</li> <li>Environment</li> <li>Healthcare</li> <li>ICT Industry and Services</li> <li>Intelligent Energy</li> <li>Maritime Industry and Services</li> </ul>

	<ul> <li>Materials</li> <li>Nano – and Microtechnologies</li> <li>Services and Retail</li> <li>Sustainable Construction</li> <li>Textile and Fashion</li> </ul>
	Tourism and Cultural Heritage Women entrepreneurship
Restrict Dissemination to specific countries	
Type and Size of Client *	<ul> <li>Industry SME &lt;= 10</li> <li>Industry SME 11-49</li> <li>Industry SME 50 - 249</li> <li>Industry 250-499</li> <li>Industry &gt;500</li> <li>Industry MNE &gt;500</li> <li>Inventor</li> <li>Other</li> <li>R&amp;D institution</li> <li>University</li> </ul>
Year Established	
NACE keywords *	
Turnover (Euros – Millions)	<ul> <li>  &lt;1M</li> <li>  1-10M</li> <li>  10-20M</li> <li>  20-50M</li> <li>  50-100M</li> <li>  100-250M</li> <li>  250-500M</li> <li>  &gt;500M</li> </ul>
Already Engaged in Trans - national	Yes (In Merlin tick the check box for yes) No

Cooperation?	
Additional Comments	
Certification Standards	
Languages Spoken *	
Client Country	
Type and Role of Partner Sought *	Partners from industry that are willing to take responsibility in tests and validation studies for approval of the part are sought. The partner shall also work in concept studies and part and mold design of prototypes produced by using overmolding method.
Profile is Opened for Expressions of Interest?	☑ Yes (In Merlin tick the check box for yes) ☐ No
Type and Size of Partner Sought Note: Multiple fields can be selected.	<ul> <li>SME &lt; 10</li> <li>SME 11-50</li> <li>SME 51 - 250</li> <li>251-500</li> <li>&gt;500</li> <li>MNE &gt;500</li> <li>Inventor</li> <li>R&amp;D institution</li> <li>University</li> </ul>
Type of Partnership Considered *	Research cooperation agreement
Framework Programme *	
Call Name *	PS: EIC-FTI-2018-2020
Evaluation Scheme *	

Anticipated Project Budget	
Coordinator Required	Check the check box if you are seeking a coordinating partner for the project
Deadline for Call *	21 February 2019
Deadline for Expression of Interest *	
Funding Scheme *	
Project Duration	
Weblink to the Call	
Project Title and Acronym	
Attachments	To be added in Merlin