



# Technology Pull-Through Stage 1 Express of Interest Application 2020/21

Guidelines

July 2019

# General Guidelines

- This proposal should provide a brief synopsis of the proposed project to gain approval to Stage 2 submission.
- A maximum of one paragraph per field will be accepted with the total document not to exceed two pages in length. Submissions exceeding this limit will be discarded.
- Incomplete forms will be discarded.
- Extensive use of pictures is discouraged at this stage, however use of URLs and reference to existing literature may be beneficial.
- Project proposals can last for an initial maximum duration of 12 months.
- The submission deadline is Friday 27<sup>th</sup> September 2019 at 11:59pm. Submissions received after this time will be discarded.
- Please note that we do not contemplate appeals to the process.



# Q1 - Technology Theme

- Select one theme from the drop down menu to which your proposal best aligns.
- Only the proposals which align to one of the theme will be considered for reviewing.



## Q2 - Technical background and State Of The Art

- Brief description of the research context in which the technology is being developed.
- Describe prior and current research activity that led the technology to the current readiness level.
- Briefly describe the current SOTA.



## Q3 - Technology overview

- What improvements does the technology offer?
- Brief outline of the technology, including its current level of development.
- Define the benefit that the technology would potentially bring specifically to the field of composites.
- Outline the challenges to further development.



## Q4 - Main Objectives

- List the objectives within the scope of the proposed project.



## Q5 - Supporting partners

- List the industrial partners that have supported the technology to date (if any).
- Specify the type of support received (in kind contribution, letter of support, funding, etc).
- Include academic research partners (if any).
- List here any previous or ongoing collaboration/contract with other Catapult centres or RTO's.



## Q6 - Background IP and known freedom to operate

- Background IP can include patent rights, design rights, utility models, rights in computer software, database rights, moral rights, copyright, rights in inventions, rights in know-how, confidential information and trade secrets and unfair competition rights.
- If patents are pending / granted, explicitly state application numbers, status, etc.





## Q7 - TRL assessment

- Use a fair assessment substantiated by evidence to state the current TRL of the technology.
- Use the same process to predict the expected TRL of the technology at completion of the project.
- During the selection process, priority will be given to those technologies already at TRL3 or above.
- The following TRL definition may be used for reference:

TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

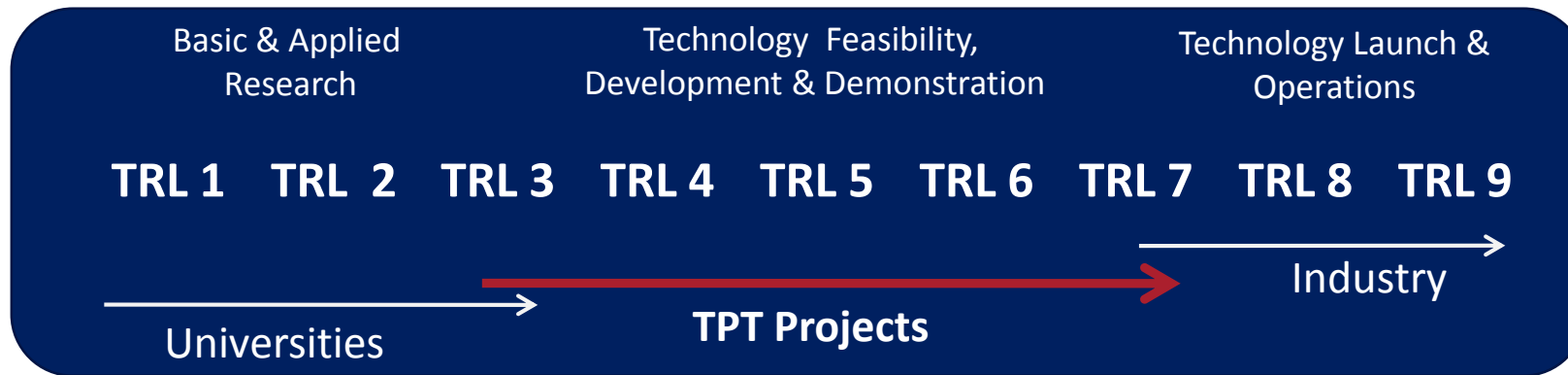
TRL 7 – system prototype demonstration in operational environment

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)



# Q7 - TRL assessment



## Q8 - Research activities proposed

- List the main activities expected to be carried out during the project.
- List the main deliverables and highlight any main risks.
- Limit the project scope to the first 12 months only (April 2020 to March 2021).
- Detailed list of planned tasks, deliverables, risks and mitigations are not needed at this stage, but will be required in Stage 2.



## Q9 - NCC support

- Describe the NCC competencies and capabilities required to support the research activities proposed.
- List any equipment you expect to use at the NCC.
- Mention here if you have any specific contact at the NCC.



## Q10 - Industrial application area

- Describe briefly potential industrial applications of the technology.



# Q11 - Technology end goal and commercialisation

- What are the barriers to commercialisation?
- Outline a path to develop the technology to such point, identifying a timeline for the development; this may go beyond the proposed 12-month project.
- Identify the format in which the technology is expected to be commercialised.
- This could be a product, licence, training offering, equipment, process, etc.



## Q12 - Benefits for the stakeholders

- Outline the expected outcomes of the successful completion of the proposed 12-month project.
- State expected benefits and opportunities for the NCC, the University and the UK Composite Industry.



## Q13 - University costs

- Ignore the NCC costs, this will be assessed during stage 2 application by NCC personnel.
- Provide a high-level indication of the expected costs to the university for the academic support of the project.
- This may include academic staff time, labour, overhead, materials, equipment, travel & subsistence.
- For the avoidance of doubt this will be covered by the NCC upon successful application.
- Limit the project scope and cost to the first 12 months only (April 2020 to March 2021).
- Proposals will be scored based on value for money.
- Detailed breakdown of costs, resources, materials and equipment are not needed at this stage, but will be required in Stage 2.







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