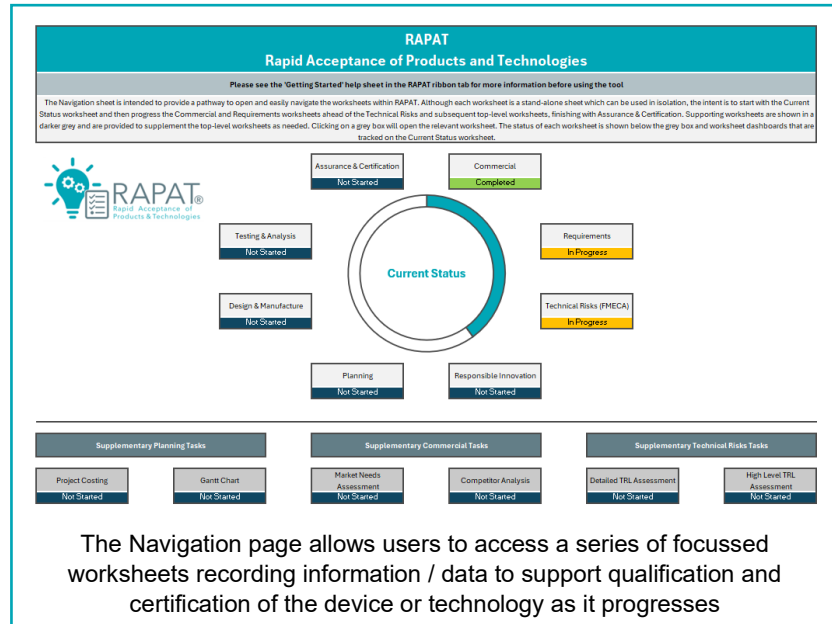


RAPAT is an easy-to-use Excel-based tool created to help innovators and technology developers achieve successful product acceptance and deployment. More information on RAPAT is available at: <http://www.astrimar.com/RAPAT>. The tool helps users to:

- Define technology and user requirements
- Understand and manage commercial and technical risks
- Plan required testing and assurance activities
- Prepare funding applications, including market appraisals, TRL assessment and cost estimates
- Align with responsible innovation expectations
- Document fulfilment of requirements to facilitate product acceptance / certification



It facilitates an efficient risk-based approach from concept development to identification and collation of appropriate assurance evidence to demonstrate the extent to which a product will meet both user and regulatory requirements.

The tool is also able to support acceptance / procurement authorities reviewing the submitted evidence of the product's fitness for purpose and certification when required.

### Key Features:

- Supports any technology
- Cloud-based for real-time collaboration
- Online & desktop Excel compatible
- A range of risk assessments
- Links to regulations, codes, and standards
- Customisable assessments & output
- Help sheets & tutorials
- Progress and tracking dashboards
- Windows & Mac compatible

RAPAT's recent development as a cloud-based product leads to:

- A simpler assessment process, allowing for real-time communication and collaboration
- Immediate access to software updates, improving functionality and user experience
- Flexibility for project personalisation – adapt RAPAT to the needs of the project

### User Testimonial:

*"RAPAT gives developers a much better understanding of what is required for product acceptance. It drives them to think about user requirements alongside commercial and technical risks ensuring these are understood and addressed from the outset. The tool enables best practice, improving capability and efficiency in the UK supply chain."*

For more information contact: [RAPAT@astrimar.com](mailto:RAPAT@astrimar.com) or use the QR code

~~ Please see RAPAT examples overleaf ~~





## High Level TRL Assessment

High Level TRL Assessment Dashboard										
TRL	TRL1	TRL2	TRL3	TRL4	TRL5	TRL6	TRL7	TRL8	TRL9	Overall
Completion Status	Completed	Completed	In Progress	In Progress	In Progress	In Progress	Not Started	Not Started	Not Started	Not Started
3 Complete hardware activities TRL	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3	3/3
No. Not Started	0	0	1	2	2	0	0	0	0	0
No. In Progress	0	0	2	2	1	1	0	0	0	0
No. Completed	5	5	2	2	0	0	0	0	0	0

TRL	TRL Description	Completion Status	TRL Tasks	Completion Status
1	Basic Research: Research begins with activities to support identification, observation and reporting of basic scientific requirements/principles. Examples might include exploratory studies of a technology's basic properties. Multiple and iterative levels reported at this stage.	Completed	Basic Research: Basic research activities and experiments established.	Completed
2	Concept Formulation: Basic principles observed and reported. Research objectives are defined. The technology concept and/or application is formulated. Multiple and iterative levels reported at this stage.	Completed	Concept Formulation: Research objectives are defined. Technology concept and/or application is formulated. Multiple and iterative levels reported at this stage.	Completed
3	Concept Development: Concept formulation has been completed and verified. The technology concept and/or application is developed. Multiple and iterative levels reported at this stage.	Completed	Concept Development: Concept formulation has been completed and verified. The technology concept and/or application is developed. Multiple and iterative levels reported at this stage.	Completed
4	Concept Demonstration: Concept formulation has been completed and verified. The technology concept and/or application is developed. Multiple and iterative levels reported at this stage.	Completed	Concept Demonstration: Concept formulation has been completed and verified. The technology concept and/or application is developed. Multiple and iterative levels reported at this stage.	Completed

TRLs 1 – 9 each assessed against 5 detailed contributing elements to simplify quantifying and justifying TRLs

Real-time updating dashboard for a quick 'at-a-glance' overview of TRL statuses

Individual completion status for each contributing element, for a detailed progress overview

## FMECA (Failure Mode, Effects and Criticality Analysis)

Completely customisable risk matrix to evaluate your technology's risks using the most relevant terminology

Likelihood	Consequence Severity	Risk Category	Impact Severity					
			Negligible	Noticeable	Significant	Major	Catastrophic	
Occurs more frequently than every few weeks	Greater than or equal to 1 in 10 uses	Frequent	Very Low	Low	Medium	High	Very High	
Occurs every few months	Greater than or equal to 1 in 100 but less than 1 in 10 uses	Probable	Very Low	Low	Medium	High	Very High	
Occurs less than once a year	Greater than or equal to 1 in 1000 but less than 1 in 100 uses	Occasional	Very Low	Low	Medium	High	Very High	
Occurs less than once every several years	Greater than or equal to 1 in 10,000 but less than 1 in 1000 uses	Remote	Very Low	Low	Medium	High	Very High	
Not expected to occur	Less than 1 in 10,000 uses	Unlikely	Very Low	Low	Medium	High	Very High	

NOTE: This includes example risk categories. These are as needed to align them with the size of the project in relation to the size and capability. See the help sheet for further guidance. No changes to the risk matrix definitions.

Rigorous colour-coding to highlight areas of greatest risk

Dropdowns for users to select likelihood and severity levels, automatically evaluating risk criticality level – populated from user-defined likelihoods and severities in risk matrix

Likelihood	Consequence Severity	Mitigated Likelihood	Mitigated Consequence Severity	Mitigated Risk Criticality	Completion Status
Occasional	Significant	Unlikely	Negligible	Very Low	Completed
Remote	Negligible	Remote	Negligible	Very Low	No Action Required
Frequent	Noticeable	Remote	Noticeable	TBC	In Progress

Changes to risk matrix will be retrospectively reflected in risks evaluation table – no pressure to define likelihoods, severities & criticalities before beginning FMECA

Colour-coding to indicate mitigated risk criticality and risk evaluation completion status