



OPIN Webinar: Problem Solving with OPIN

17th June 2021

Welcome

- Attendees' microphones will be muted during the event.
- After the presentation there will be time for a Q&A Session.
- Questions can be formulated in the chat at any time, and they will be addressed during the Q&A session.
- The event will be recorded and the slides will be shared on the OPIN website.

Agenda

- 14:00 – 14:10** **OPIN Introduction** *Lesley Doyle – Scottish Enterprise*
- 14:10 – 14:20** **What is a TAP?** *Magnus Willett – Offshore Renewable Energy Catapult*
- 14:20 – 14:35** **TAP case study – Crack Map and follow-on support received** *Dr Saber Khayatzaadeh – Crack Map Ltd*
- 14:35 – 14:40** **What is a CIG?** *Lesley Doyle – Scottish Enterprise*
- 14:40 – 14:50** **OPIN-led CIG case study** *Jeroen Tacq – Sirris*
- 14:50 – 14:55** **How to get involved in a future TAP or CIG** *Lesley Doyle – Scottish Enterprise*
- 14:55 – 15:15** **Q&A**



OPIN Introduction

Lesley Doyle – Scottish Enterprise

What is OPIN ?

Ocean Power Innovation Network (OPIN) is a **European collaborative network**

OPIN Aim:

- Develop both cross-regional and cross-sectoral **collaboration**

OPIN Targets:

- Support over 100 companies
- Develop a self-sustaining network (>200 members)



4 years from 2019 to 2022



2.6M€ total project budget
1.5M€ in financial support from Interreg North West Europe



[Join the network \(free\)](#)

Who are OPIN ?

7 partners from Ireland, UK, Belgium, France, the Netherlands and Germany

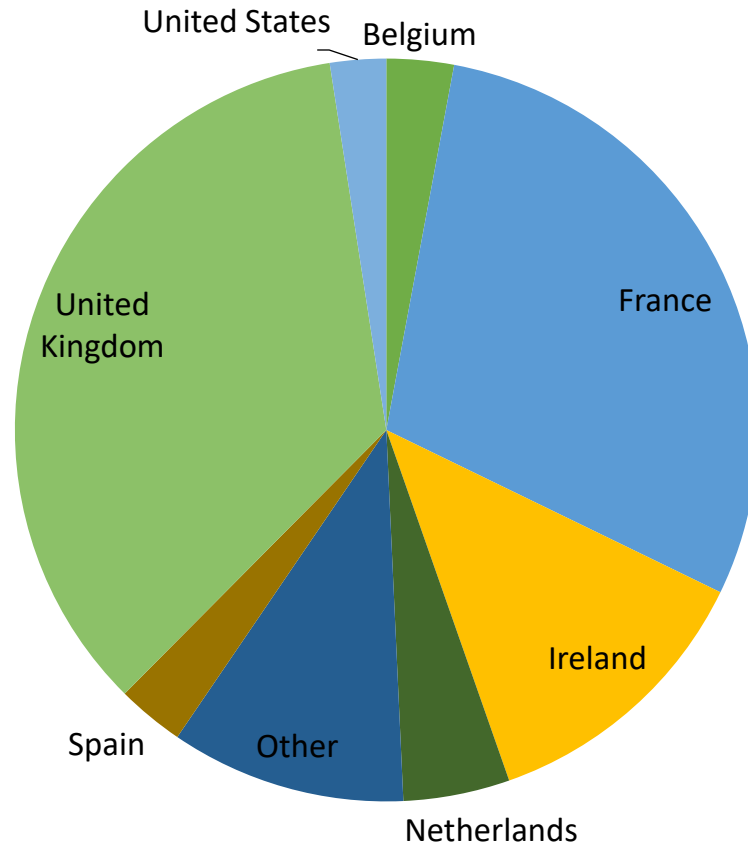


Project Partners	Countries/Regions
Sustainable Energy Authority of Ireland (SEAI)	Ireland
Scottish Enterprise (SE)	Scotland
Offshore Renewable Energy Catapult (OREC)	United Kingdom
Sirris, het collectief centrum van de technologische industrie (SIRRIS)	Belgium
West Atlantic Marine Energy Community, École Centrale de Nantes (WEAMEC)	France Pays de la Loire
Dutch Marine Energy Centre (DMEC)	Netherlands
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (Fraunhofer IEE)	Germany

OPIN Members

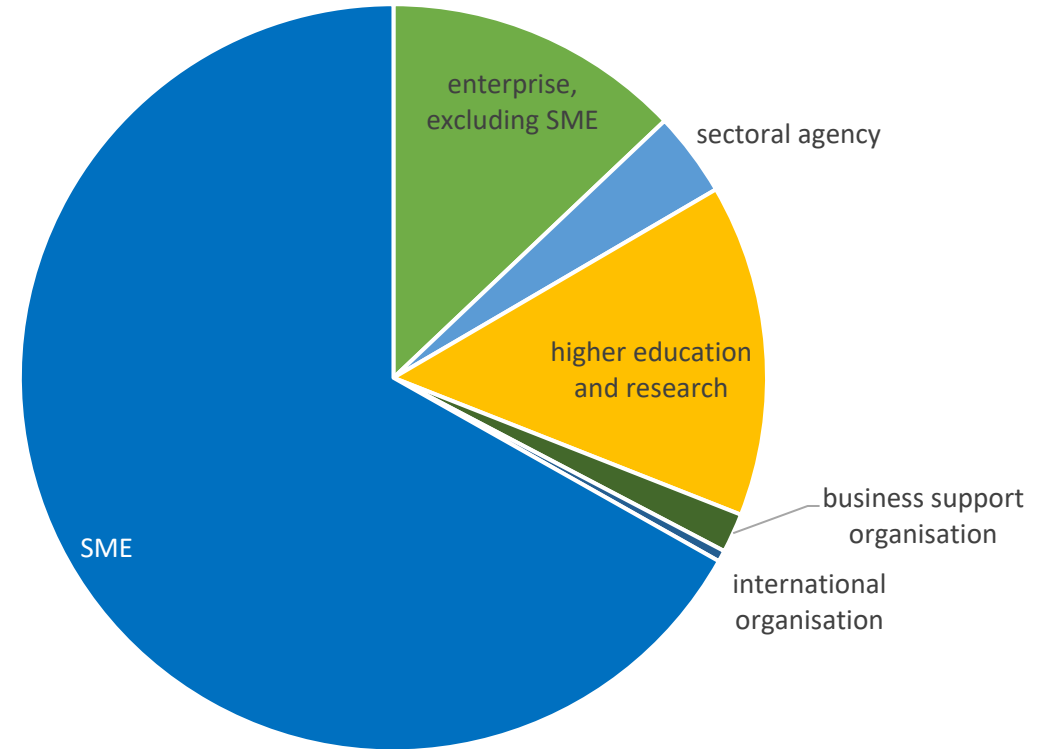


424 members from
28 countries



Other countries (2 members or less):

Australia, Canada, Denmark, Finland, Germany, Hong Kong, India, Indonesia, Italy, Malaysia, Monaco, Norway, Russia, Sweden, Switzerland, Vietnam



What can OPIN do for you (1/2)

Access **free events**: learning and networking opportunities

New Webinars coming soon:

- Operations & Maintenance – July 2021
- IEA Technology Collaboration Programme – July 2021

Our OPIN symposium will take place on 23 September as part of Seanergy in France and will be a blended event.

Keep an eye on our [Events page](#)

What can OPIN do for you (2/2)

Receive **travel support**

- ✓ Enabling Irish and Scottish Enterprise SMEs to travel abroad for OPIN events



Access **expert advice** on your technology (TAPs)

- ✓ Independent expert opinion – e.g. on the route to market, on reducing development risks and costs, etc.
- ✓ Advice on next steps, funding and collaboration opportunities



Support **collaborative projects** (CIGs)

- ✓ Preparatory step to National and EU research calls
- ✓ Find ways to solve technical or financial problems you are facing
- ✓ Expand your network nationally and internationally
- ✓ Benefit from the experience of those in other industries

OPIN Resources



[OPIN Members list](#)



[OPIN Library:](#)

- Workshops/masterclasses presentations
- Value chain study - summary report
- Ocean energy challenges and recommendations: Desktop analysis of studies and reports



OPIN [Twitter](#) and [Linkedin](#) groups. Join us for the latest updates!



Email us at: OPIN@seai.ie



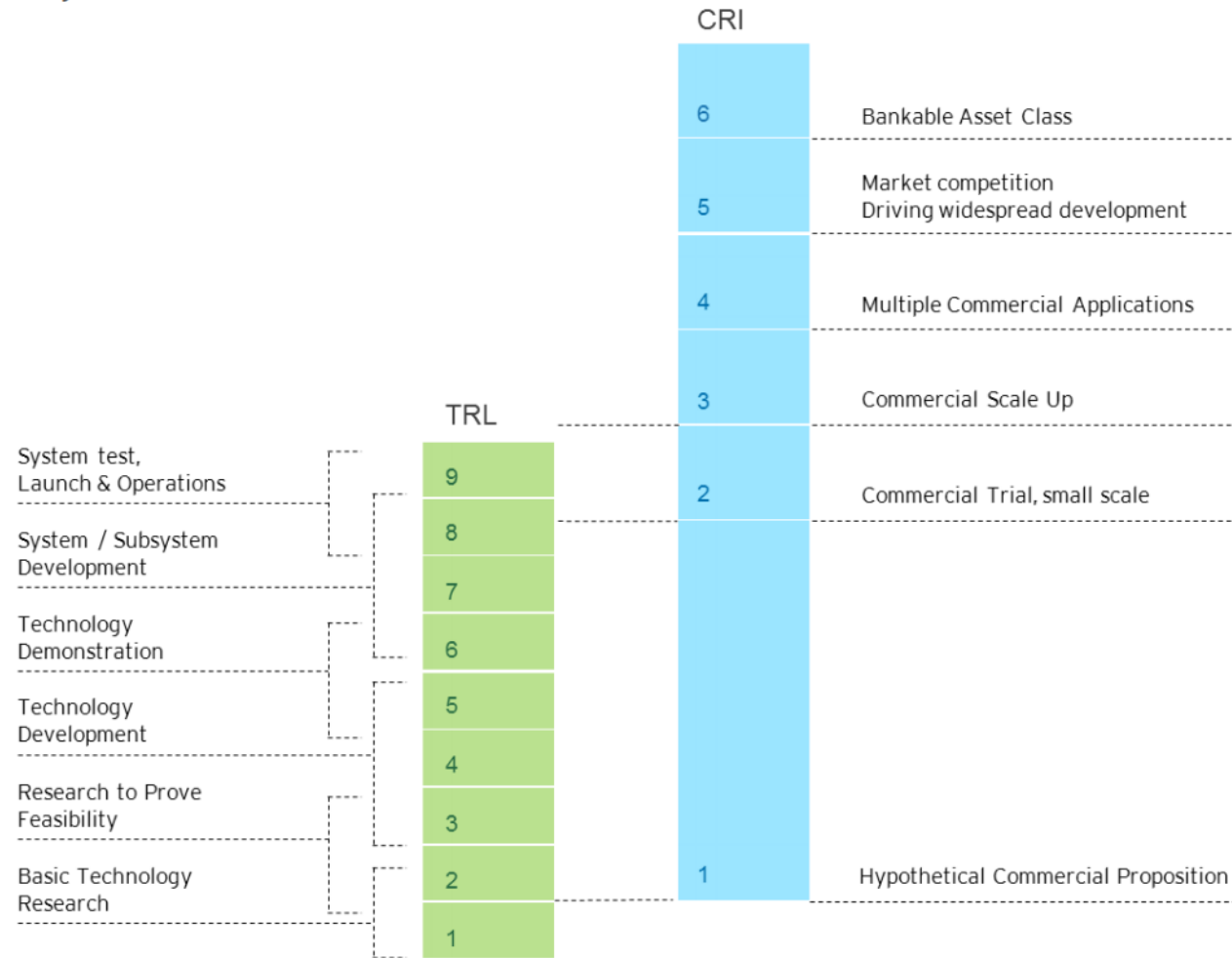
Technology Assessment Process (TAP)

Magnus Willett, Offshore Renewable Energy Catapult

Agenda

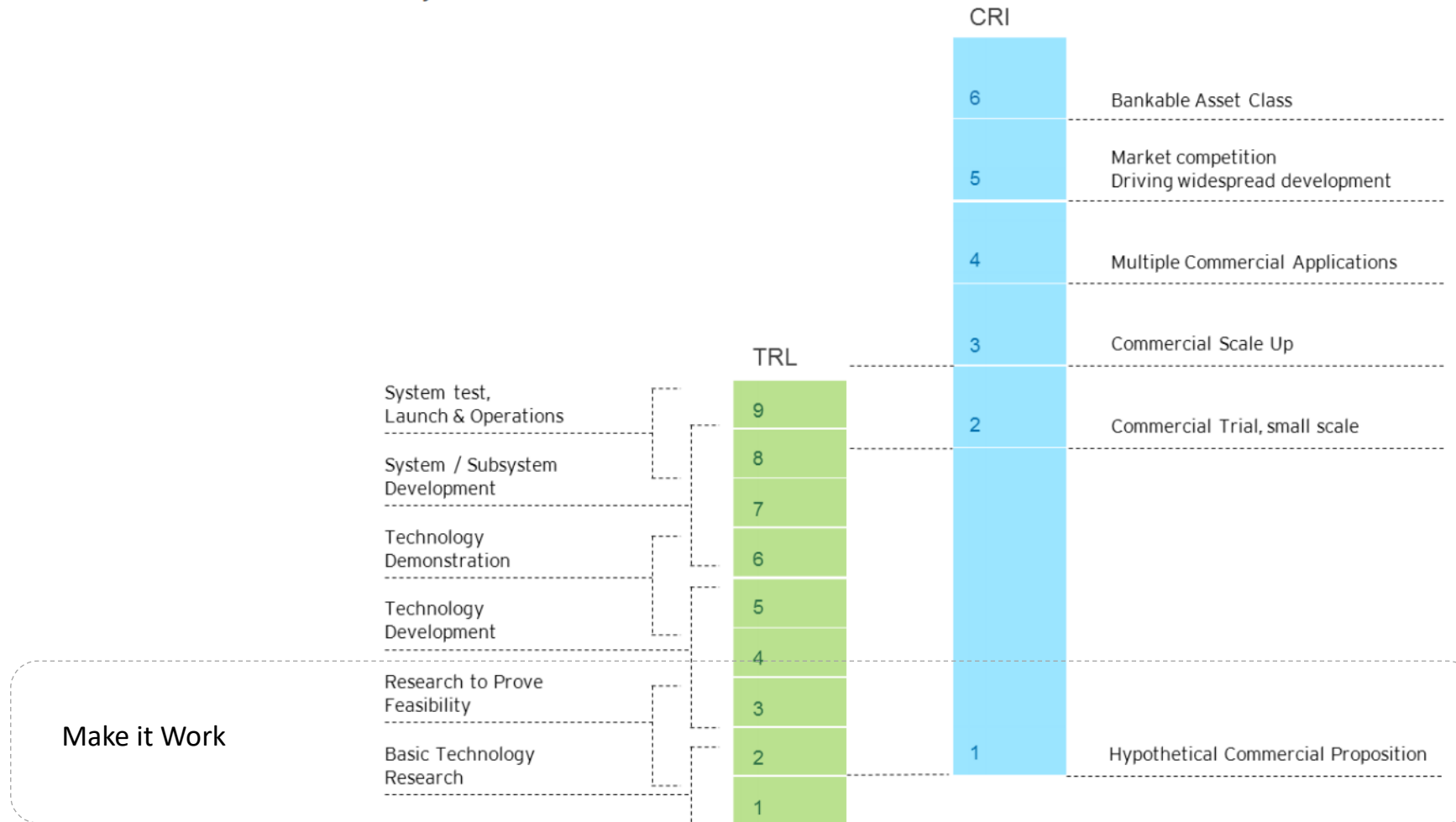
- **Technology Development in Renewable Energy**
- **What is a Technology Assessment Process (TAP)?**
- **The OPIN TAP Process**
- **How to apply for an OPIN TAP**

Technology Development Pathway



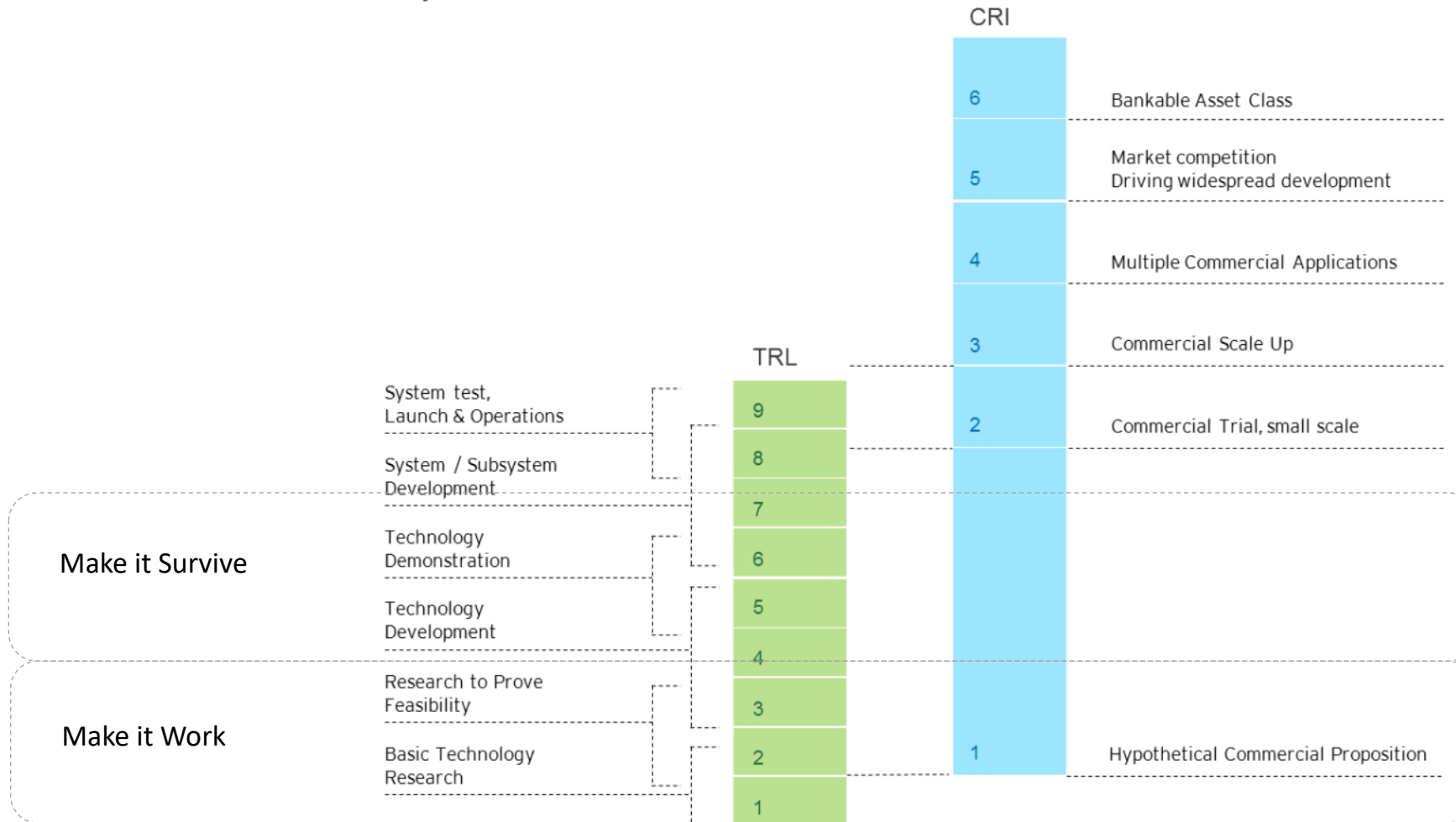
Australian Renewable Energy Agency TRL Definition:

Technology Development Pathway



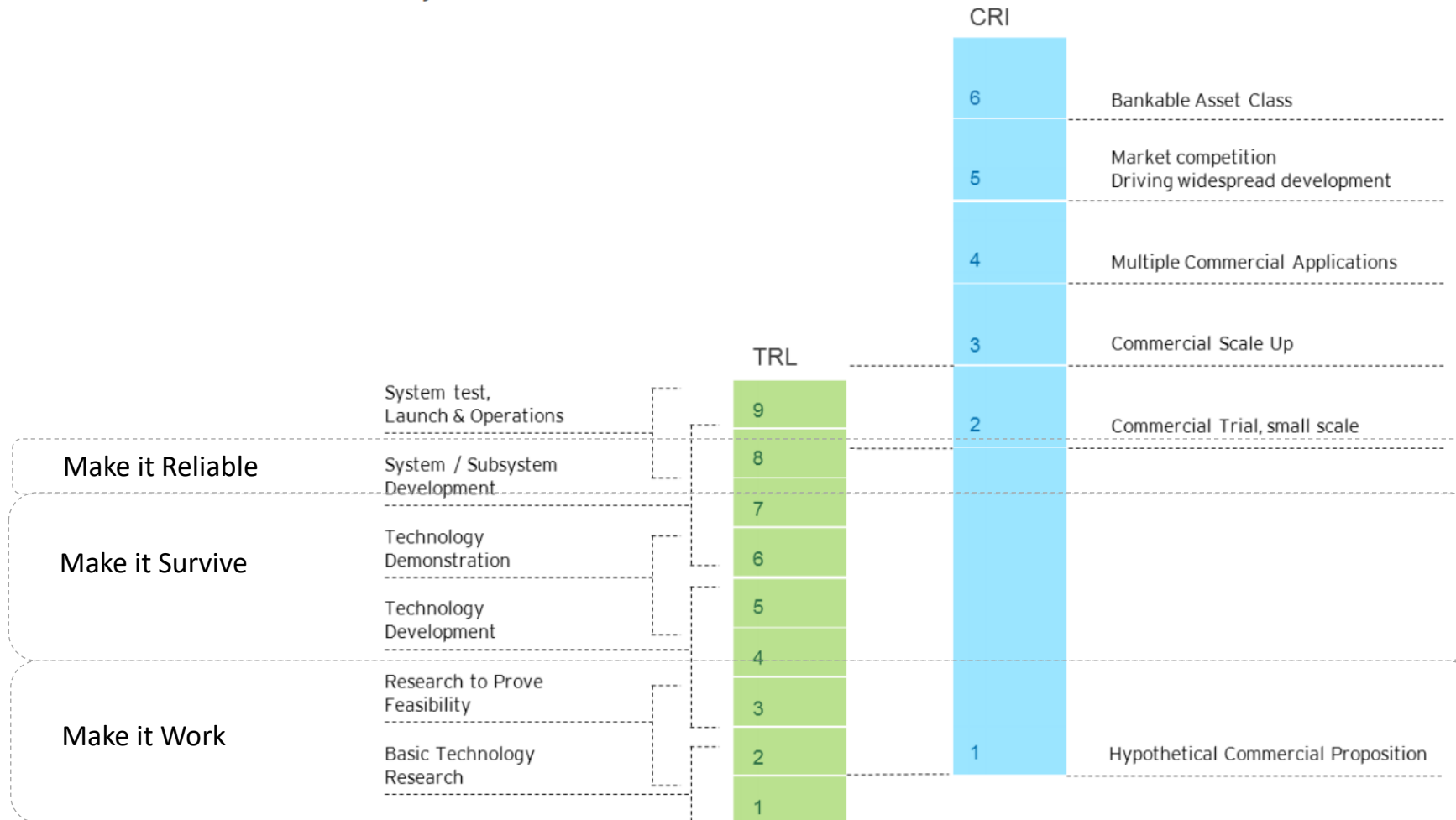
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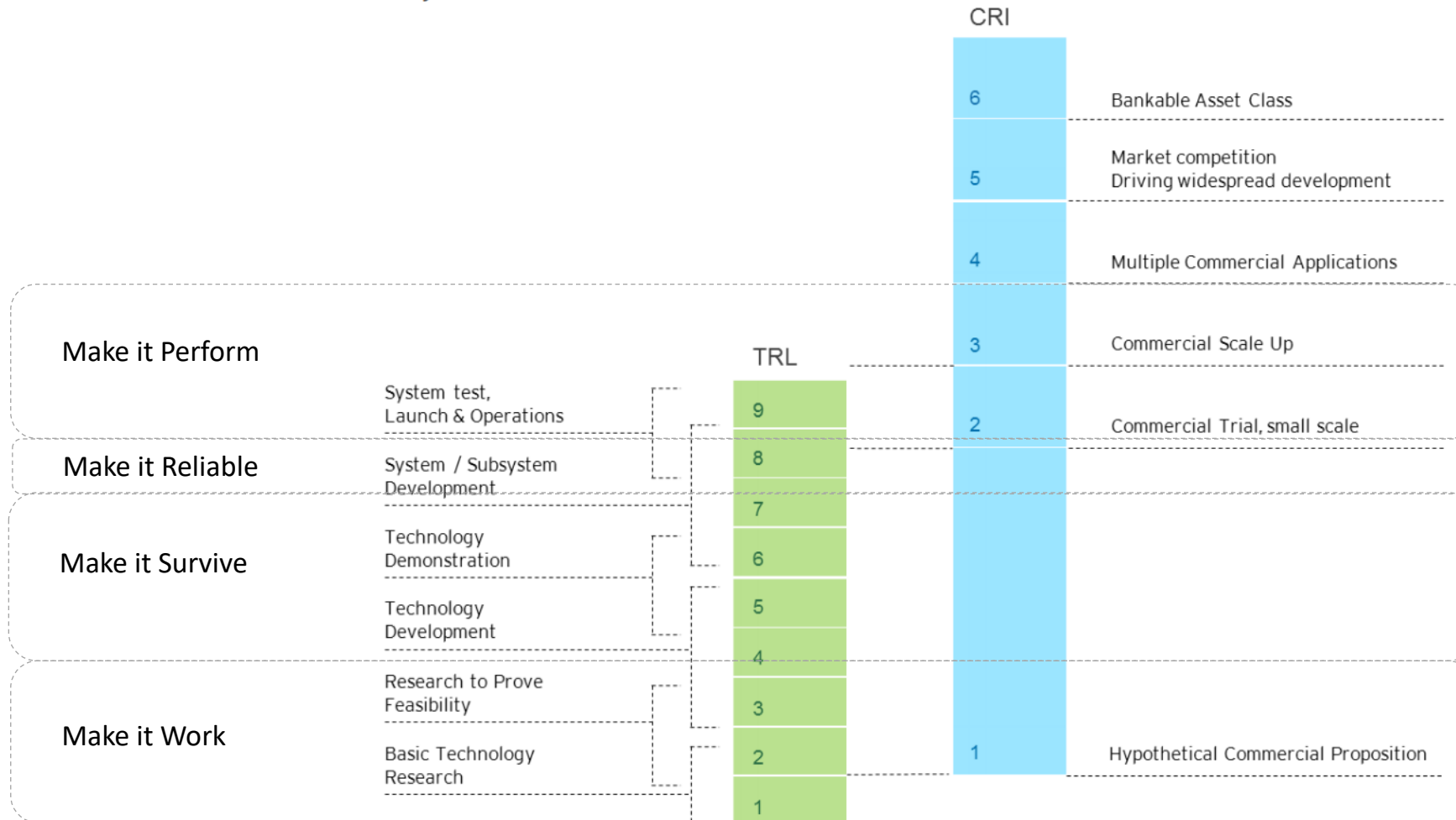
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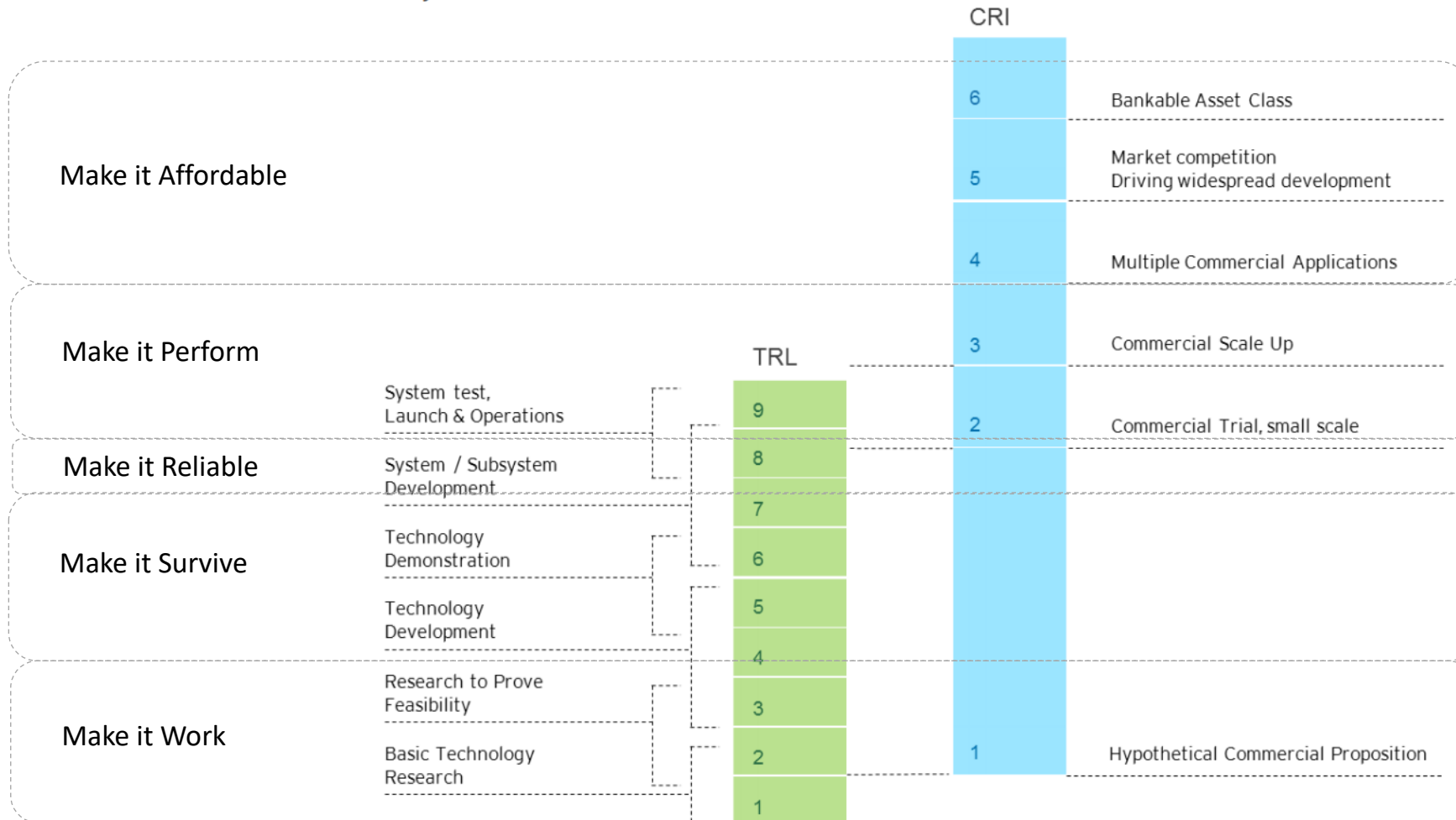
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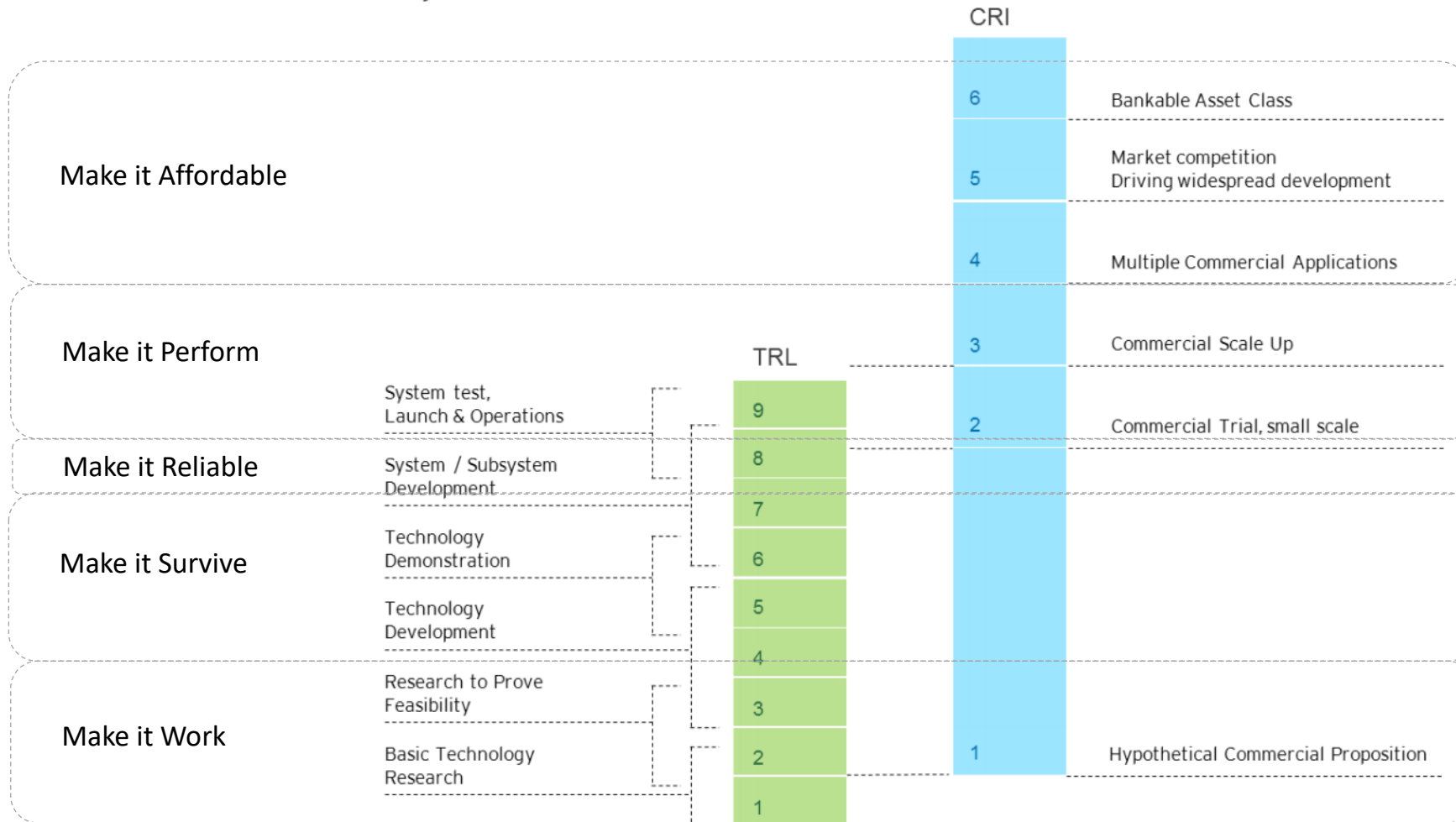
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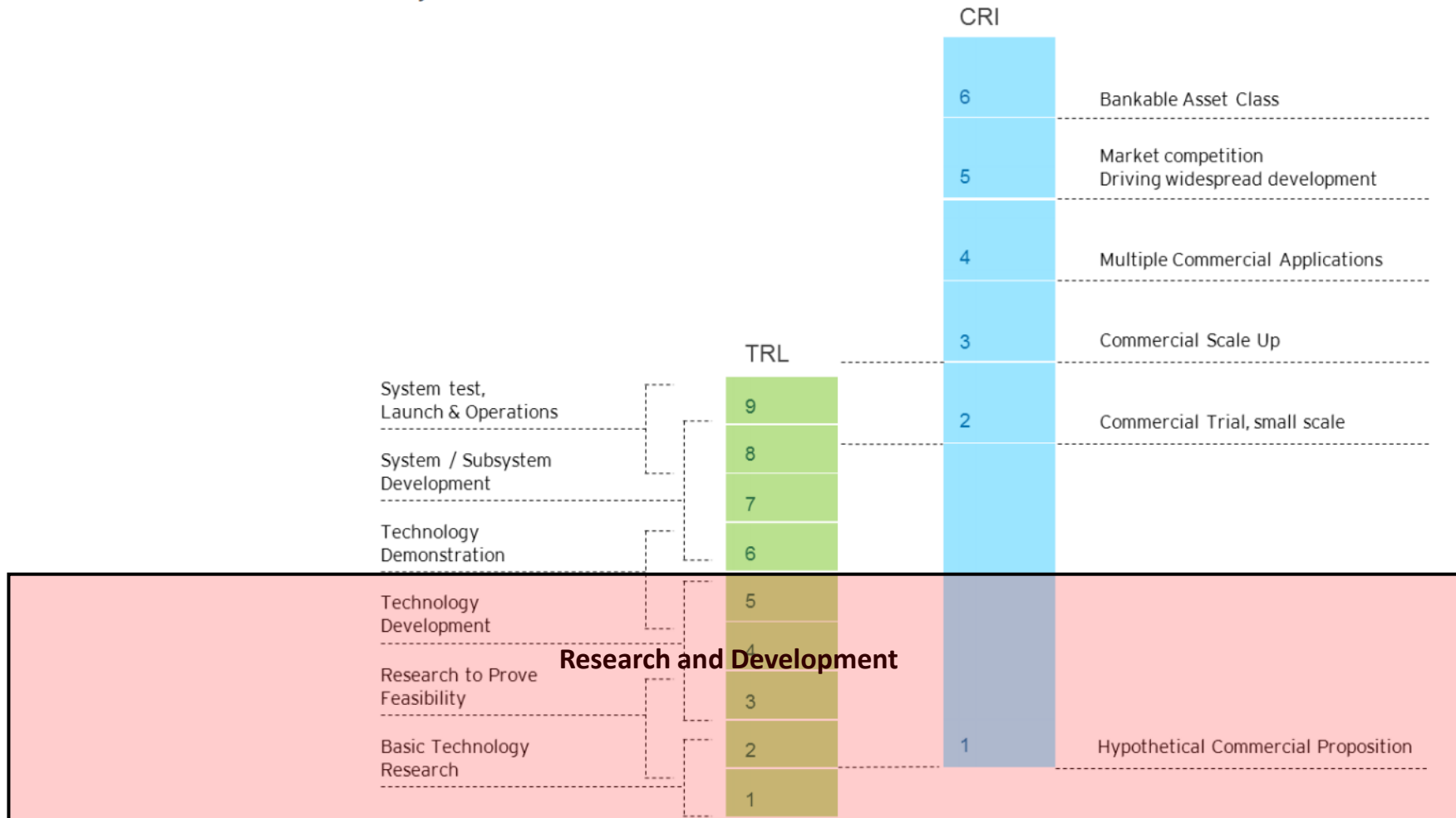
Technology Development Pathway



Typical TRL/CRI Pathway

Australian Renewable Energy Agency TRL Definition:

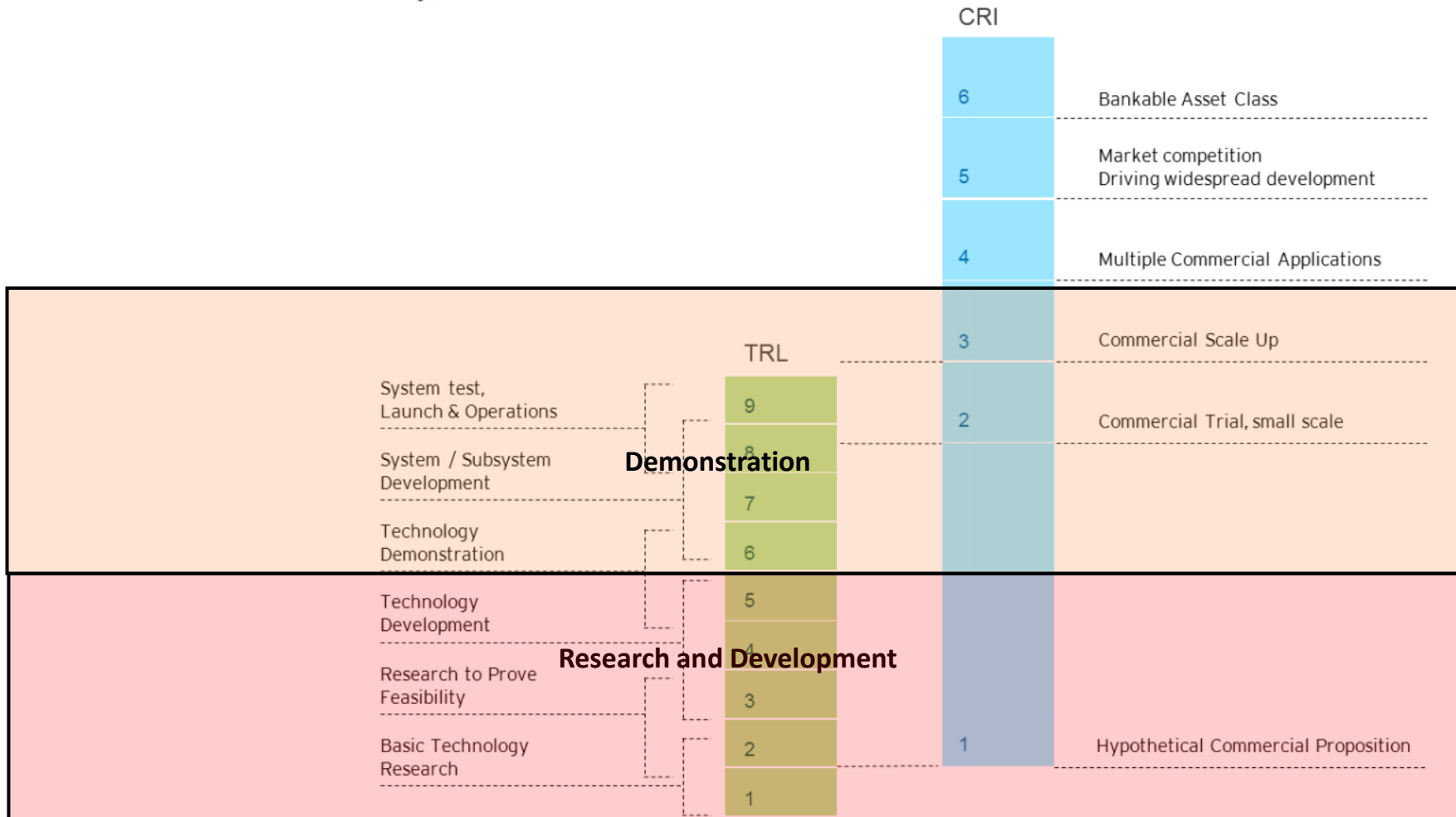
Technology Development Pathway



Typical TRL/CRI Pathway

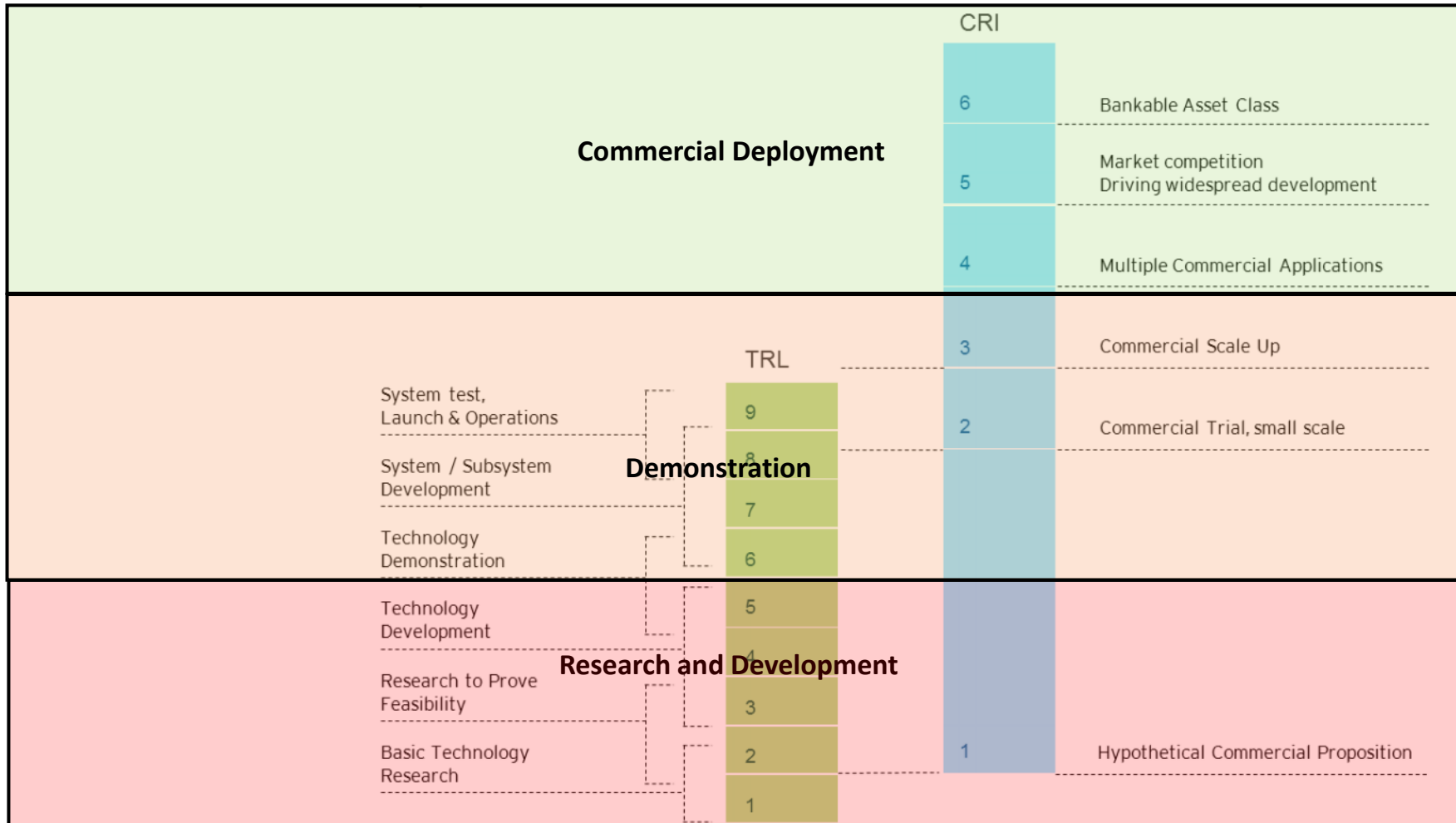
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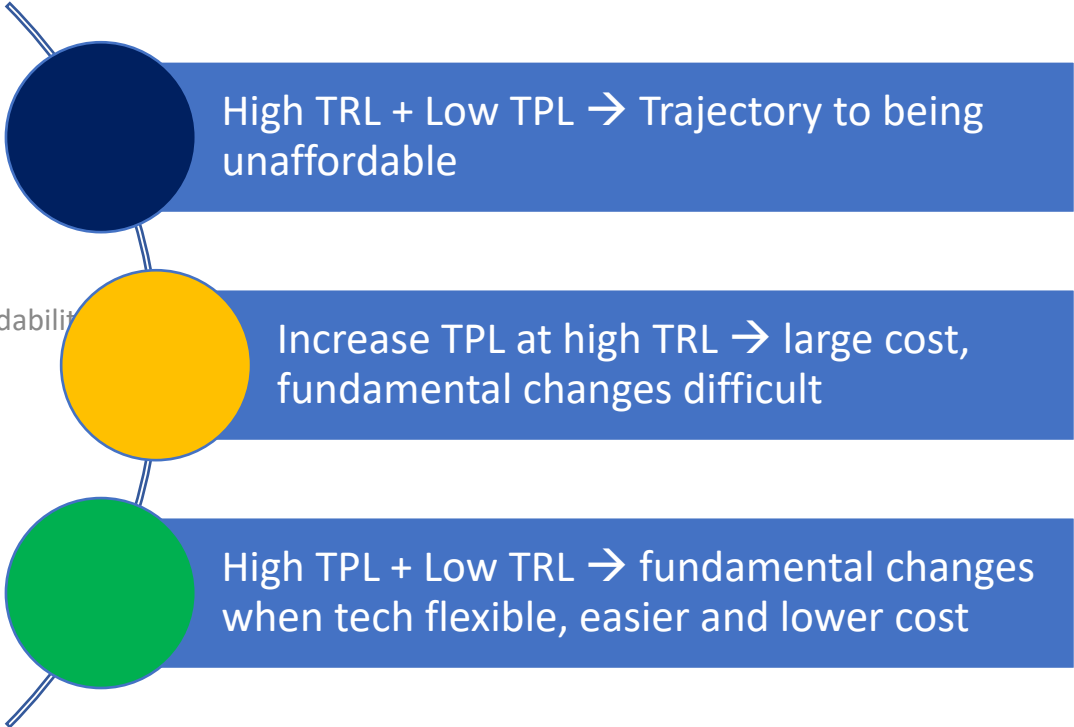
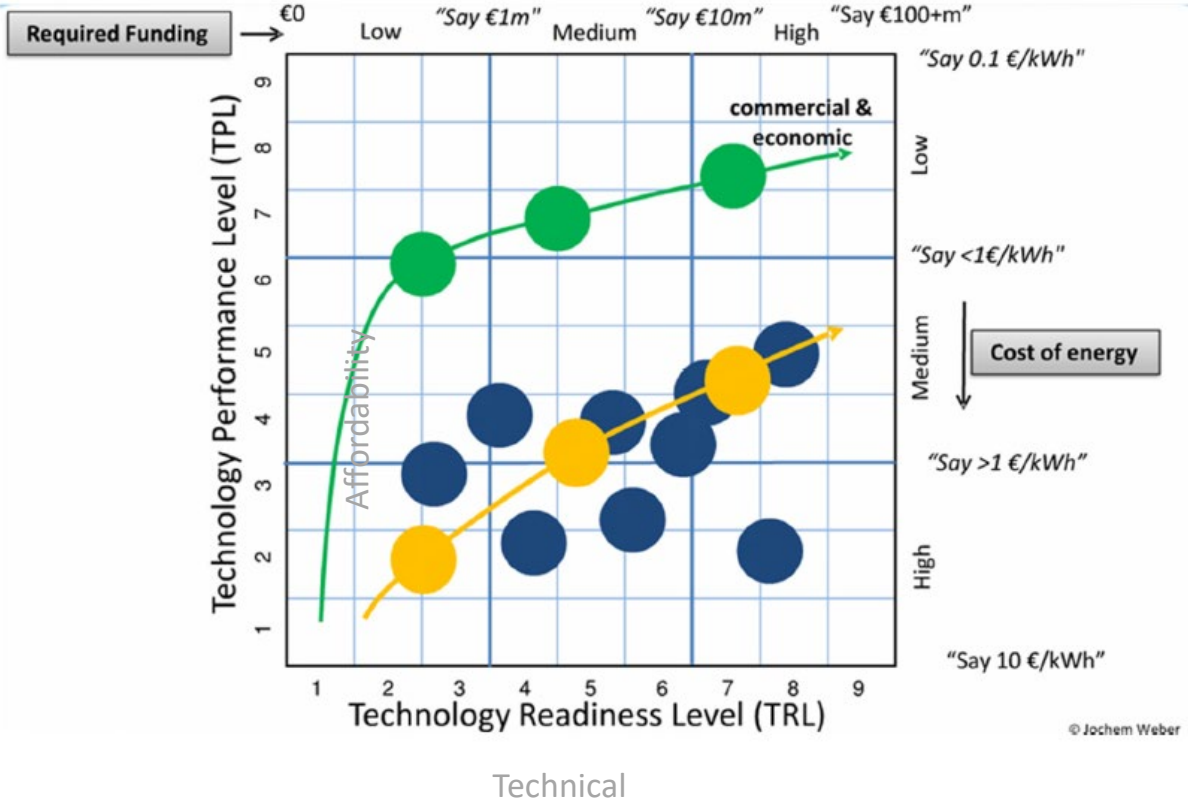
Technology Development Pathway



Typical TRL/CRI Pathway

Australian Renewable Energy Agency TRL Definition:

Challenges with the Technology Development Pathway



Weber, J. WEC Technology Readiness and Performance Matrix - http://www.icoe-conference.com/publication/wec_technology_readiness_and_performance_matrix_finding_the_best_research_technology_development_trajectory/

Technology Assessment Process (TAP)

What is a TAP?



Assessment of new and emerging ocean energy technologies and services

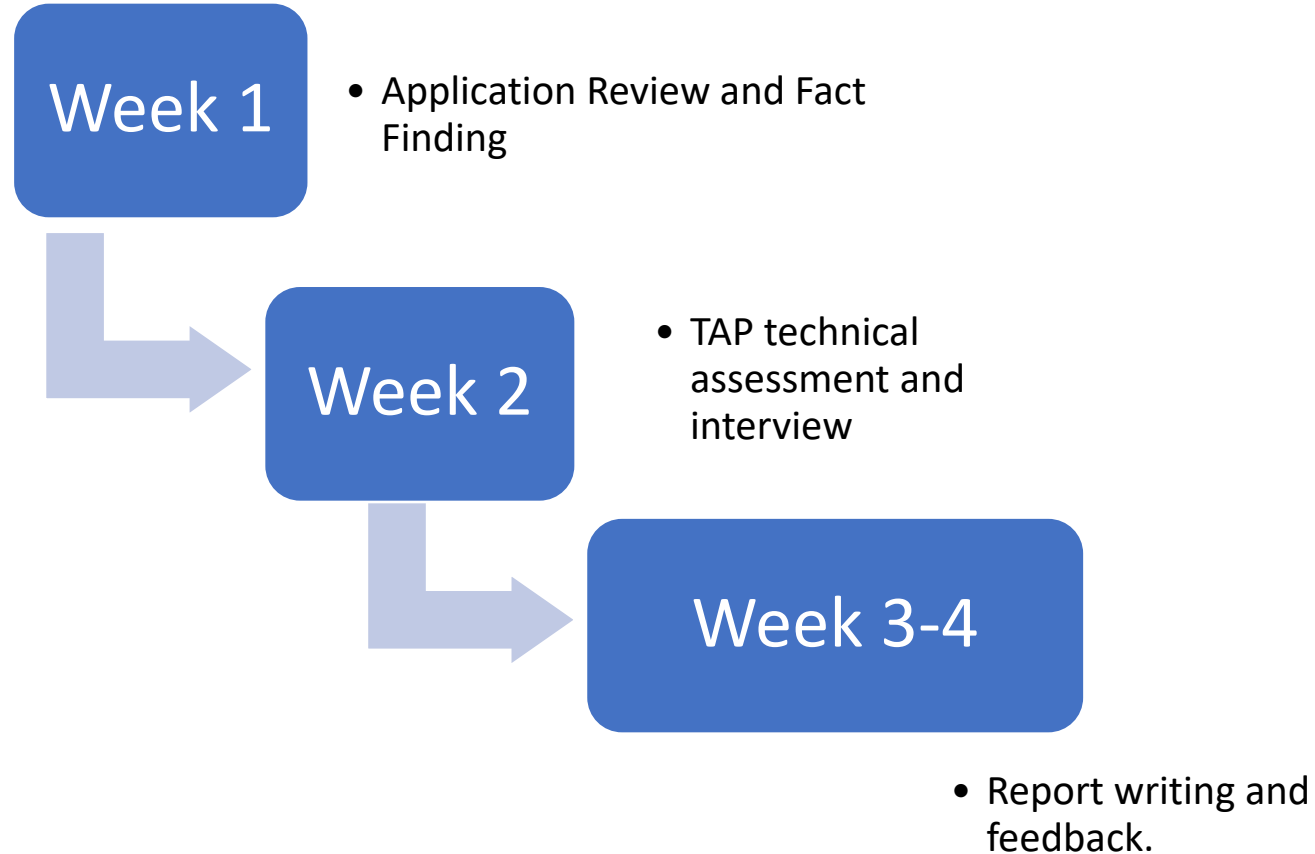


Evidence based Dossier



Examination of system, sub-system or component

The OPIN TAP Process and Report



The report generated during the TAP process would consist of the following.

- Methodology
- Technical viability
- Techno-economic competitive prospects
- The technology development route map and its progression targets
- References – list of evidence provided

How to Apply for a TAP?

- As part of the OPIN project, project partners offer a high level assessment of an SMEs technology free.
- As part of the TAP, OPIN partners will discuss:
 - Design principles
 - Opportunities to de-risk onward development
 - Route to commercialisation.
- Transfer of technology from other sectors into ocean energy.
- The value of the Tap is limited to €2,000.

TAP Applications and Guidelines

- Evaluation Criteria
 - Strength of the Scientific/Technical Approach
 - Ability to competently carry out the project/development
 - Impact
- Application forms can be found [here](#).
- Application forms should be sent to OPIN@seai.ie
- Guidelines for applications can be found [here](#).



What is a CIG?

Lesley Doyle – Scottish Enterprise

What is a CIG?

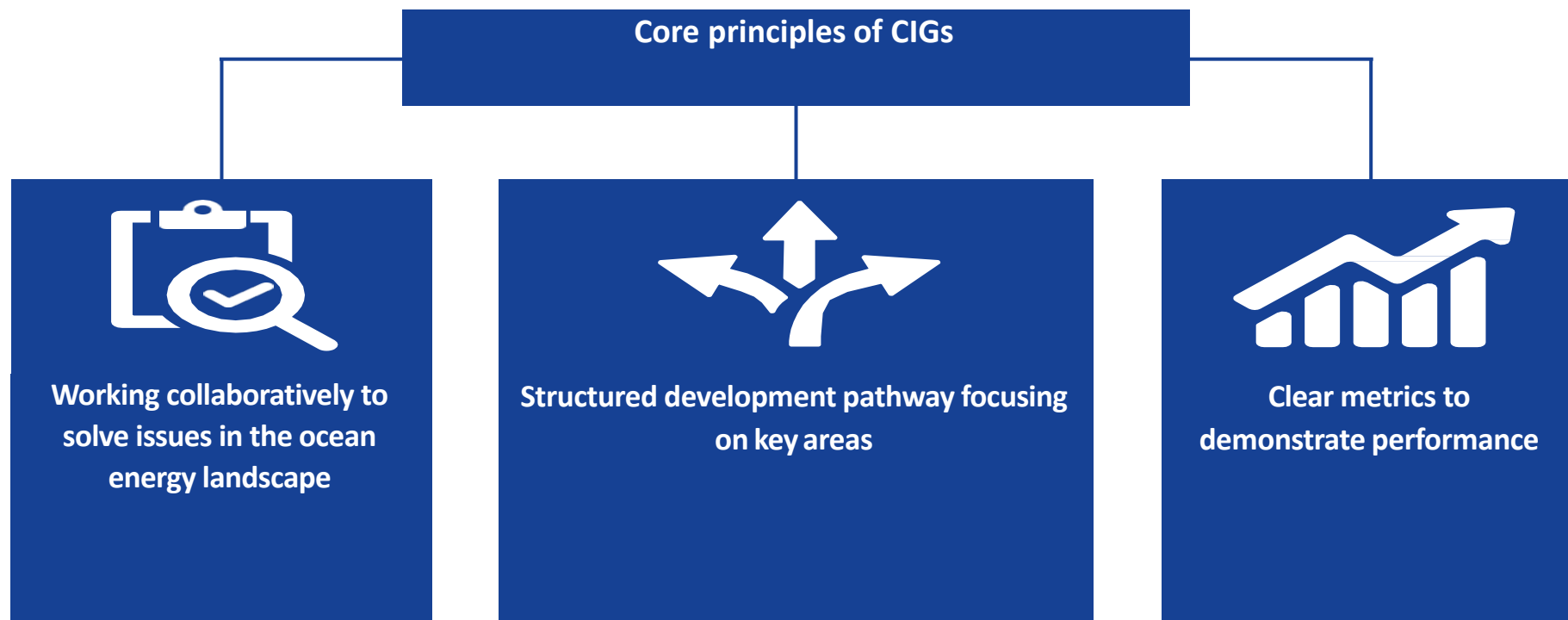
A CIG is one of the services offered to developers and businesses through the Ocean Power Innovation Network (OPIN).

If you have an issue or challenge within the ocean energy sector that cannot be solved by your business alone, a CIG allows you to work with others to find a solution.

The total level of support can be up to €20,000 of OPIN partner resources. This is not a grant to your organisation and reflects in-kind support. No financial contribution required from companies but ensure company staff / resources are available for tasks

Wave, tidal, and floating platforms are all innovation areas supported by OPIN.

Core principles of CIGs



CIIG topic examples

CIIGs can be formed to respond to identified challenges for the ocean energy sector and its value chain, and can include the following:

- **Technology challenges** – for example power transmission, grid connection and integration
- **Economic & supply chain** – for example LCoE analysis and cost reduction strategies; and Industry and supply chain development
- **Regulatory / environmental** – for example environmental impact assessment and monitoring

Benefits of CIGs and follow on support

- Explore opportunities for new products, services, markets
- Expand your network nationally and internationally
- Gain complementary skills and expertise
- Preparatory step to National and EU research calls

Following on from CIG support, there are other mechanisms available to explore your ideas further including support from:

- Other European projects such as [Marine Energy Alliance](#) and [OceanDEMO](#)
- OPIN partner organisations – contact details can be found on the [OPIN website](#)
- [Enterprise Europe Network](#)

SME led CIGs

- An SME led CIG will be led by one SME and our supplier, and will work in collaboration with SMEs from other jurisdictions within the project area. The lead SME will be monitored and supported by the corresponding OPIN partner in the region.
- The supplier will work with the CIG to scope out each idea in more detail, facilitate the CIG, help organisations to deliver their projects and support the preparation of the final CIG report and summary report.

OPIN led CIGs

- Each OPIN led CIG will be led by an OPIN partner. The CIG should still include at least 2 SMEs from 2 different jurisdictions within OPIN. OPIN partners will take the lead on these CIGs, attracting interest from companies. The OPIN partner will be responsible for ensuring that the final report and summary report are completed.

CIG Eligibility

- Minimum of 2 SMEs
- Large companies and research organisations may participate
- Cross border – members from minimum of 2 OPIN regions
- Cross sector - recommended





How to get involved in a future CIG or TAP?

Lesley Doyle – Scottish Enterprise

Contacts

For queries related to the CIG service, please contact: OPIN@seai.ie

For queries related to the TAP service, please contact:
magnus.willett@ore.catapult.org.uk

Future CIG on Corrosion of Concrete for offshore renewable energy devices

Scope: Focus on corrosion of reinforced concrete in offshore environment

Within this CIG, the following opportunities will be explored:

- Understanding corrosion propagation mechanisms within the concrete material and associated monitoring strategies
- Alternative materials for rebars
- Alternative formulations for the concrete material

Details of organisations needed to tackle the project

- **Research centres/Companies/organisations** involved in corrosion management/modelling for concrete structures
- **Sensor technology/monitoring system suppliers** for corrosion monitoring
- **Manufacturers** of concrete structures for the offshore renewable energy sector
- **Certification Bodies** developing rules and guidelines for the offshore renewable Energy sector
- **Offshore renewable energy Project Developers** interested in concrete structures
- **Test sites and test infrastructures operators**

Q&A

Any Questions?

Interreg



North-West Europe

OPIN

European Regional Development Fund

Thank you!