

Research Readiness Level (RRL)

25/03/2024 7:45 pm GMT

Background to Research Readiness Level (RRL)

In recent years increasing efforts are being made internationally to measure the excellence and the impact of research, development and/or innovation (RDI).

In academia, a number of metrics are commonly employed to monitor the success and impact of R&D work being undertaken. However, in the field of applied RDI, particularly at the level of individual firms and sectors, the authors have noted a distinct lack of robust measurement indicators which permit the evaluation of RDI excellence.

In [this paper](#), a new methodology for the assessment of research readiness for excellence is proposed. This methodology makes use of a new Index which has been developed by the lead author and is entitled the “**Research Readiness Level-Index [RRL-Index]**”.

The new methodology offers a highly structured approach to RDI assessment at higher TRL levels, and was developed in part by Prof. Gerry Byrne & Dave Byrne, Co-Founders of [ReaDI-Watch](#).

RRL: an Underpinning Diagnostic Tool in the ReaDI-Watch Platform

At **ReaDI-Watch**, we understand the growing international efforts to measure the excellence and impact of research, development, and innovation (RDI). While academia has a number of metrics to monitor the success and impact of R&D work, we’ve observed a distinct lack of robust measurement indicators in the field of applied RDI, particularly at the level of individual firms and sectors.

To address this gap, we’ve integrated the **Research Readiness Level (RRL)** into our platform. The RRL is a new methodology for assessing research readiness for excellence. This methodology makes use of a new index, the **Research Readiness Level-Index [RRL-Index]**.

The RRL-Index offers a highly structured approach to RDI assessment at higher Technology Readiness Levels (TRLs). It allows for a consistent comparison of maturity between different types of R&D projects, focusing on the readiness of the research for transition from research to operation, application, commercial product or service, or other use.

By incorporating the RRL-Index into our platform, ReaDI-Watch is committed to providing a robust and comprehensive tool for evaluating RDI excellence. We believe that this will greatly enhance the ability of firms and sectors to measure and monitor the success and impact of their R&D efforts.

Introduction to the Research Readiness Level Index (RRL)

Assessment for R&D excellence in academia is mature and there are strong evaluation methods in place. These however are not transferable to R&D work at higher TRL and the number of associated variables for excellence readiness in applied R&D is significantly more complex to collate.

There is a significant need for the robust measurement of R&D excellence in industrial and also in applied R&D environments. Large investments in industrial R&D, shorter lifecycles and development timeframes (innovation cycles) demand highly efficient R&D processes and decision-making.

The age of digital transformation brings with it significantly higher levels of complexity and requires new and evolving skills from RDI staff and management. In order to keep up with the changing environment, strong RDI assessment and informed strategic RDI roadmaps are key.

The **RRL-Index** provides a quantifiable and systematic method for analysing the readiness for research excellence in companies, research organisations and on a sectoral level.- RRL can support decision-making processes related to investments, staffing, key technological fields and carrying out of R&D.

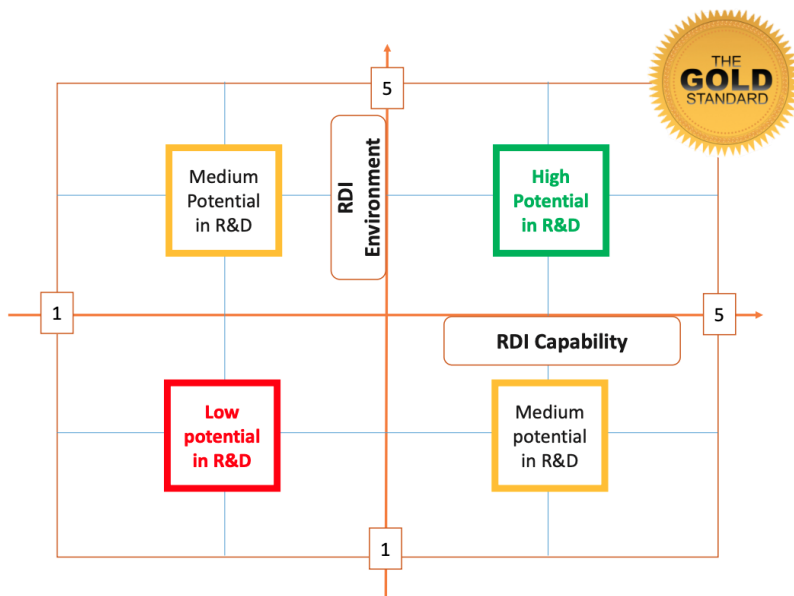


Figure 2. Research Readiness Level (RRL)

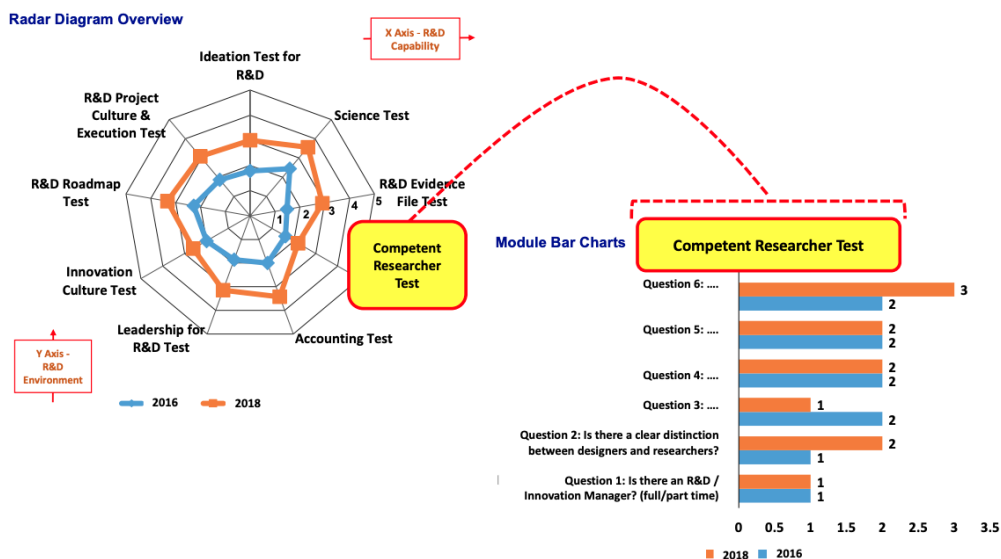


Figure 3. Examples of RRL Analysis broken down into a) Radar Diagram, and b) Module Bar Charts

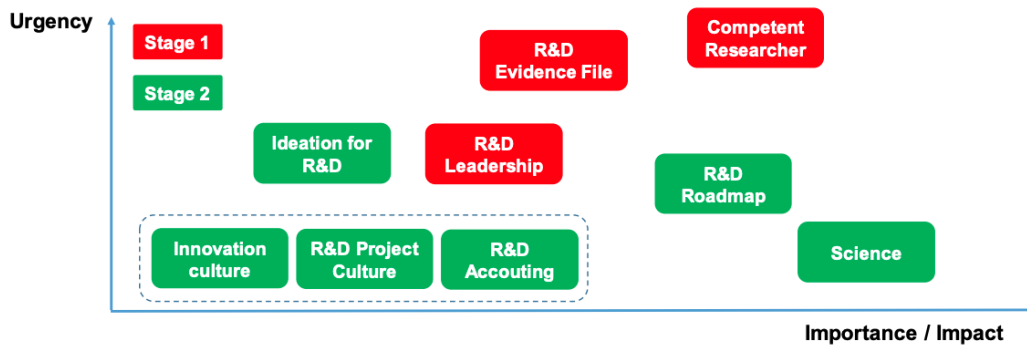


Figure 4. Strategic planning for improvement of RRL following RRL analysis

A correlation between advancement along the TRL scale and the RRL has been identified. At a high RRL, the resistance to moving along the TRL scale is lower. As such, the RRL-Index can also be interpreted as a measurement of the impact potential of RDI processes.

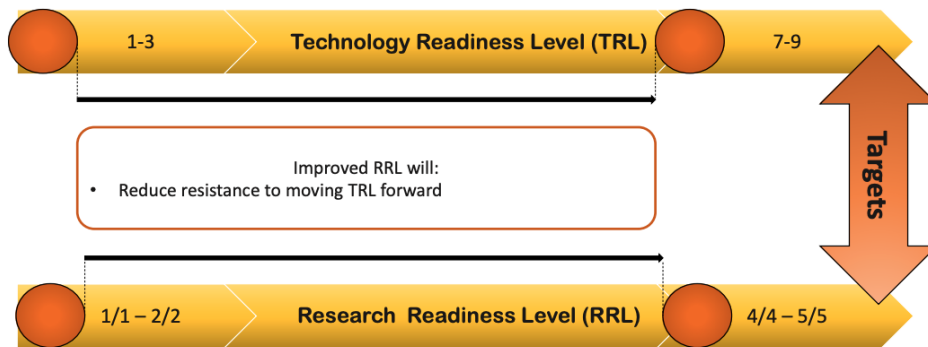


Figure 5. Relationship between TRL and RRL