

Building an Audit-Ready Core Technology Register

10/06/2026 10:54 am IST

When Revenue or CRA applies a science test to an R&D claim, they are asking a specific question: can the company demonstrate that it was advancing a specific technology (or technologies) beyond the known state of the art, through systematic investigation, in a way that a competent professional could not have resolved through standard practice?

An audit-ready core technology register is a document that helps answer that question. Not in the moment the auditor asks, but continuously, as the work happens. Here is what it contains and how it is built.

What the Register Contains

A core technology register is not a list of projects. It is a structured record of the technology areas the company is advancing, built up over time across all three identification streams; strategic development, product and service delivery, and process optimisation R&D.

For each core technology, the register should contain: the technology name and a clear definition of its scope within the company's context; the state of the art at the time each major period of R&D began, what was known and achievable using publicly available knowledge and standard techniques; the specific advancement the company was pursuing and why it represented a genuine step beyond the known state; the investigations conducted, what was attempted, what was tested, what failed, what succeeded; and the outcomes, what was learned, what was advanced, and what the new state of knowledge is.

In manufacturing, this might cover the development of a new joining technique, documented from the initial challenge through to the validated approach. In software, it might cover the development of a proprietary algorithm, from the gap in existing approaches through to the working implementation. In MedTech, it might cover a materials science investigation connected to a device component, from the biocompatibility question through to the testing results.

How it is Built – and Why Timing Matters

The most important characteristic of an audit-ready register is that it is built contemporaneously. It is created as the work happens, not after it. This is not just good practice. It is the difference between a record that reflects what was actually known and understood at the time, and a reconstruction that reflects what seems plausible in retrospect.

Revenue and CRA auditors are experienced at identifying retrospective reconstruction. The tell is usually in the precision: contemporaneous records contain uncertainty, dead ends, and specificity about what was not known at the time. Reconstructed records tend to be cleaner, more certain in tone, and missing the detail that only exists when it is written down close to the work.

The practical implication is that the register needs to be maintained as part of normal R&D workflow and not as a separate documentation exercise. Work package records, project charters, R&D diaries, and investigation notes all feed into the register. The key is that each piece of activity is connected to the core technology it is advancing at the time it happens, so the register accumulates rather than being assembled under deadline pressure.

The Governance Layer

An audit-ready register is not a document one person maintains. It has a governance layer: an R&D Board or equivalent structure that ratifies the core technology areas, confirms the state-of-the-art assessments, and provides formal sign-off on the classification of qualifying activity.

This governance layer does two things. It creates an internal audit trail that provides evidence that the technology areas were reviewed and approved by appropriate decision-makers, not identified retrospectively to support a claim. And it creates accountability for the quality of the register. It ensures that the state-of-the-art documentation is rigorous and that the activity connected to each technology genuinely qualifies.

For a finance director, the governance layer is also the mechanism for oversight: the R&D Board is where you get visibility into what the technical team is classifying as qualifying activity, and where you can ask the questions that a Revenue or CRA auditor would ask before they do.

What this Means in Practice

If your current claim process involves asking the technical team to produce an R&D narrative at year-end, the register approach changes that process significantly. The narrative is not written at year-end. It exists already, built up through the year as the work happened.

The claim preparation exercise becomes one of consolidation and formatting rather than reconstruction. The technology areas are already named. The state of the art is already documented. The investigations are already recorded. The qualifying activity is already connected to the technology it advances.

ReaDI Watch's platform is designed to make this process practical. It provides the structure for building and maintaining the register in real time, and generating the outputs needed for claim preparation and audit defence. If you would like to see how it works, we are happy to walk through it.
