

The Key Criteria for an Activity to be Considered as R&D

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The Frascati Manual for Research & Experimental Development is considered as one of the leading manuals for the classification of R&D. Originating from Frascati, Italy, this OECD manual has been revised many times (latest 2015)

According to the Frascati Manual, there are Five key criteria for the classification of an activity to be considered R&D. These classifications have been adapted and adopted across the globe and OECD member states, to understand, define and measure innovation and R&D, including impact.

Novel

Creative

Uncertain

Systematic

Transferable

What is R&D? Criteria

The criteria for defining R&D:

1. Novel
2. Creative
3. Uncertain in its outcome
4. Systematic
5. Transferable or reproducible

Novel: to be aimed at new findings

New knowledge is a requirement in an R&D project.

Creative: to be based on original concepts & hypotheses

The R&D work must have objectives of new concepts or ideas that improves the existing body of knowledge (state-of-the-art). It is also noted that human input is inherent to creativity in R&D - R&D projects require the contribution of a researcher.

Uncertain: to be uncertain about final outcome

The outcome & cost (including time allocation) of a project cannot be precisely determined relative to the goals of the project.

Systematic: to be planned & budgeted

R&D must be performed systematically – conducted in a planned way, with records kept of both the process followed & the outcome.

Transferable: reproducibility of results

An R&D project should result in the potential for the transfer of new knowledge, ensuring its use & allowing other researchers to reproduce the results as part of their own R&D activities.

Results cannot remain tacit (i.e. remain solely in the minds of researchers) - the purpose of R&D is to increase the

stock of knowledge! It is important to note that while R&D knowledge must be transferable, it need not be transferred from those who undertook the work.

Impact of the Five Criteria on International R&D Incentives

Different member states of the OECD have used the Frascati definitions for what comprises qualifying R&D, to design their RD&I incentive programmes, such as R&D tax credit incentives and legislation.

In the below image, we can see a comparison of the guidelines for what constitutes qualifying R&D (in companies), to be incentivised for R&D tax credits.

Identifying R&D: International Guidelines

Ireland

- Activity must be **systematic, investigative or experimental**, in a field of science or technology.
- They must seek to achieve scientific or technological **advancement**
- Involve the resolution of scientific or technological **uncertainty**
- Must encompass one or more of the following categories:
 1. Basic Research
 2. Applied Research
 3. Experimental Development

Canada

The first step determines if there is any SR&ED (scientific research and experimental development) (248(1)(a-c) using the following five questions:

Q1: Was there a scientific or a technological uncertainty?

Q2: Did the effort involve formulating hypotheses specifically aimed at reducing or eliminating that uncertainty?

Q3: Was the overall approach adopted consistent with a systematic investigation or search, including formulating and testing the hypotheses by means of experiment or analysis?

Q4: Was the overall approach undertaken for the purpose of achieving a scientific or a technological advancement?

Q5: Was a record of the hypotheses tested and the results kept as the work progressed?

Australia

Core R&D activities are experimental activities:

whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:

- is based on principles of established science; and
- proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and

that are conducted for the purpose of generating new knowledge (including new knowledge in the form of new or improved materials, products, devices, processes or services).

United Kingdom

To get R&D relief you need to explain how a project:

looked for an advance in science and technology
had to overcome uncertainty
tried to overcome this uncertainty
could not be easily worked out by a professional in the field

Your project may research or develop a new process, product or service or improve on an existing one.

[Irish Revenue Guidelines, Canadian SRED Guidelines, Australian Business R&D Tax Incentive, UK R&D Tax Reliefs]

While there are differences and nuances between members states as to what constitutes qualifying R&D, each have a root (or genesis) in the Frascati criteria.