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**R&D – Initial Information Preparation**

**Financial Year 2022-23**

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The purpose of this document is to articulate and record an R&D project undertaken by the company in the financial year 2022-2023.

**Instructions - Please complete the following steps for activities undertaken between 1 July 2022 and 30 June 2023:**

1. Please complete the [Project Overview](#_Step_1_–).
2. Please complete the details for the [Core Activities](#_Step_2_–).
3. Please complete the details for the [Supporting Activities](#_Step_3_-) (if applicable).

**N.B. To try help as much as we can we have included guidance information throughout the document. The key below explains each type.**

The **information** in the grey boxes provides guidance.

**Examples** are provided for illustrative purposes.

* **Handy Tips** are provided to assist you.

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# Step 1 – Project Overview

This step will help us understand the project and activities undertaken this financial year (1 July 2022 – 30 June 2023).

**1a) Company/Project Details:**

Please fill out the following table:

|  |  |
| --- | --- |
| Company name |  |
| Company postcode |  |
| Project name |  |
| Project start date |  |
| Estimated end date |  |

**1b) Project Objectives:**

1. What is the overall objective of your project? (1 paragraph):

**EXAMPLE:** A baking company is doing R&D to try and add omega-3 (fish oil) to their breads:

Baking Stuff is an Australian company that produces different types of breads for the consumer market. Consumers are increasingly demanding healthier and more nutritious food options. Market research shows there is an opportunity to create breads that contain the Omega-3 vitamin.

The overall objective of this project is to develop a new range of breads that contain fish oil as a source of Omega-3, without altering the taste of the bread.

During this financial period, our R&D was focused on experimentation with novel methods of adding fish oil to a) whole-grain bread, b) white bread and c) fruit bread.

# Step 2 – Core Activities

For an activity to be a **Core** R&D activity, a competent professional cannot know or determine the outcome of the activity based on current knowledge anywhere in the world. The outcome needs to be one that you can determine only by applying a systematic progression of work, based on principles of established science.

1. You need to show that you conduct your core R&D activity for the purpose of generating **new knowledge**. This includes new knowledge in the form of a new or improved material, product, device, process or service.
2. You must show how the **outcome** of your registered core R&D activity **could not be known** or determined in advance on the basis of existing knowledge, information or experience.
3. You must show that you conduct or plan to conduct a **systematic progression of work**, which proceeds from hypothesis to experiments, observation and evaluation and leads to logical conclusions. Your systematic progression of work must be based on principles of established science.

***Please complete the Core Activity table. For an illustrative example, please expand the* ‘Core Activity – Example’ *tab below.***

## **Core Activity – Example**

This table shows a worked example of a Core Activity for guidance purposes.

|  |  |
| --- | --- |
| Activity Name | **Adding fish oil to whole grain bread** |
| Please describe the goals of the activity.(1-2 paragraphs per question) | * **Technically speaking, describe the goal/problem being solved.**   The goal of this activity is to ascertain whether fish oil can be added to *whole grain bread* without negatively impacting on the bread’s taste. The proposed solution to solve this problem was to use microencapsulation to introduce the fish oil to avoid adverse effects on flavour.   * **What are some technical complexities involved? In other words, why would a competent professional in this field not know how to solve this problem in advance?**   Information showed that the coating can break down under high temperatures and when mixed with certain enzymes. It is also possible that more abrasive grains and higher mixing speeds may have an adverse effect on the coating. |
| Please describe the experimentation that was performed using the following structure as a guide.(1 paragraph per point) | * **Experiment 1:** We ran a series of experiments where we initially produced a batch that contained less fish oil and less abrasive grains and we then varied the proportions of fish oil and grains in successive experiments. All batches were baked at our standard baking temperatures. * **Result 1:** For test batches with high abrasive grain content and more fish oil, we found that clumps form in the dough. * **Evaluation 1:** Our experiments showed that higher proportions of abrasive grain content as well as well as higher levels of fish oil were causes of the microcapsule coating breaking down. * **Experiment 2:** We ran a series of experiments where we varied the proportion of abrasive grains introduced into the batch at different mixing speeds. All batches were baked at our standard baking temperatures. * **Result 2:** The experimentation determined that the abrasive grains break down the coating on the additive at certain mixing speeds. This causes the additive and grains to clump together. * **Evaluation 2:** We evaluated the results of the experiments to determine the optimum mix of grains and additive for the whole grain loaf, as well as the optimum mixing speed. |

**Core Activity 1**

|  |  |
| --- | --- |
| Activity Name |  |
| Please describe the goals of the activity.(1-2 paragraphs per question) | * **Technically speaking, describe the goal/problem being solved.** * **What are some technical complexities involved? In other words, why would a competent professional in this field not know how to solve this problem in advance.** (You can include what the existing state of knowledge was at the time you began and why it was not sufficient to solve the specific problem you were trying to solve.) |
| Please describe the FY23 experimentation that was performed using the following structure as a guide.(1 paragraph per point) | *Please provide details of the experimentation process and explain how the results were measured & evaluated.*   * **You do not need to record every single FY23 experiment in the report. Rather you should pick 3 or 4 representitive examples. Try include ones where there were failures along the way.** * **Also don’t get bogged down by the Experiment, Obsevation structure. If you prefer you can just write in a narrative/story form and describe the journey you went through.** * **Try to focus on failures along the way.** * **Experiment 1:** * **Observations 1:** * **Experiment 2:** * **Observations 2:** * **Experiment 3:** * **Observations 3:** * **…**   *< NB - If you conducted further experiments for this activity during this period, please add them using the same structure of Experiment* *and Observations >* |

**If you have more than one Core Activity, you can add additional tables as required.**

# 

# Step 3 - Supporting Activities

A **Supporting R&D Activity** is one that *directly* supports a Core R&D Activity.

A Supporting Activity must ***directly***link to a Core Activity and may be conducted before, during or after the Core Activity.

**For example**: a literature review to develop your concept, or cleaning equipment that will be used for R&D experimentation.

More information can be found [here](https://www.rimon.com.au/rd-tax-incentive/how-it-works).

* **Background research for multiple Core Activities can be grouped into one Supporting Activity.**

***For an illustrative example, please expand the* ‘Supporting Activities – Example’ *tab below.***

**Supporting Activities**

* **Each Supporting Activity may be linked to *more than one* Core Activity.**

|  |  |  |  |
| --- | --- | --- | --- |
| *Activity Name* | *Core Activity Supported* | *How did this activity* ***directly support*** *the Core Activity? Does it support the hypothesis, experiments, or evaluation? (1 paragraph)* | *Briefly describe this Activity.*  *(1 paragraph)* |
| … | … | … | … |

## **Supporting Activities – Example**

This table shows a worked example of a Supporting Activity for guidance purposes.

|  |  |  |  |
| --- | --- | --- | --- |
| *Activity Name* | *Core Activity Supported* | *How did this activity* ***directly support*** *the Core Activity? Does it support the hypothesis, experiments, or evaluation? (1 paragraph)* | *Briefly describe this Activity.*  *(1 paragraph)* |
| Background Research into the properties of microencapsulation | Core Activity #1 | Without background research into the properties of microencapsulation, we would not have been able to develop our hypothesis/goal and set the parameters for our experimentation. | We reviewed a range of relevant journals, identified relevant articles, and then cross-analysed them to produce a set of assumptions which were used to inform our hypothesis. |