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## Objectives and benefits

Description of the projects objectives, for example the scientific unknowns or clinical or scientific needs it's addressing.

What's the aim of this project?

Potential benefits likely to derive from the project, for example how science might be advanced or how humans, animals or the environment might benefit - these could be short-term benefits within the duration of the project or long-term benefits that accrue after the project has finished.

Why is it important to undertake this work?

What outputs do you think you will see at the end of this project?

Who or what will benefit from these outputs, and how?

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How will you look to maximise the outputs of this work?

Species and numbers of animals expected to be used

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## Predicted harms

Typical procedures done to animals, for example injections or surgical procedures, including duration of the experiment and number of procedures.

Explain why you are using these types of animals and your choice of life stages.

Typically, what will be done to an animal used in your project?

What are the expected impacts and/or adverse effects for the animals during your project?

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Expected severity categories and the proportion of animals in each category, per species.

What are the expected severities and the proportion of animals in each category (per animal type)?

What will happen to animals used in this project?

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What steps did you take during the experimental design phase to reduce the number of animals being used in this project?

What measures, apart from good experimental design, will you use to optimise the number of animals you plan to use in your project?

## Refinement

Give examples of the specific measures (e.g., increased monitoring, post-operative care, pain management, training of animals) to be taken, in relation to the procedures, to minimise welfare costs (harms) to the animals. Describe the mechanisms in place to take up emerging refinement techniques during the lifetime of the project.

Which animal models and methods will you use during this project? Explain why these models and methods cause the least pain, suffering, distress, or lasting harm to the animals.

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