## IAS Student Presentations

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## Task 5: Present a pitch for your project!

- You have now learned a lot of details about superconducting science and technology in accelerators and done some basic calculations for SC magnets and SC RF cavities – now time to put it into action!
- Almost all accelerator projects are large collaborative activities, so the point of this exercise is to work with your group to make a pitch for your project.
- For this task, imaging you are making a pitch for funding your great idea which needs superconducting technology.
- Prepare a short presentation of around 5 slides to present in 15 min plus 5 min question time.
- Use the different skill sets in your group to work together and nominate a spokes person to deliver the presentation to the whole school.

## Guide for presentation task

A suggested structure for your presentation:

- 1. Motivation: the big idea!
  - What is the science or engineering challenge you are trying to address, why do you want to carry out your idea?
  - Decide on an audience, e.g. the general public, lab management, thesis supervisor, politician or a colleague or collaboration.
  - What are the science or engineering you want to do, e.g. study the Higgs boson, set a world record or create a medical application.

- 2. Challenges: what are the parameters that you need to achieve and why?
  - What particle type and energy do you want to achieve?
  - What are the existing systems that can produce these parameters?
- 3. Solutions: using basic calculations, show some possible solutions to your challenges.
  - What are the physics and engineering principles that govern your idea?
  - Calculate for example your magnetic or electric field you require.
- 4. Outcomes: what will your idea lead to?
  - When your idea succeeds, what will it lead to? New knowledge, better medical treatment, cheaper operations, more stable operations, other new discoveries.