

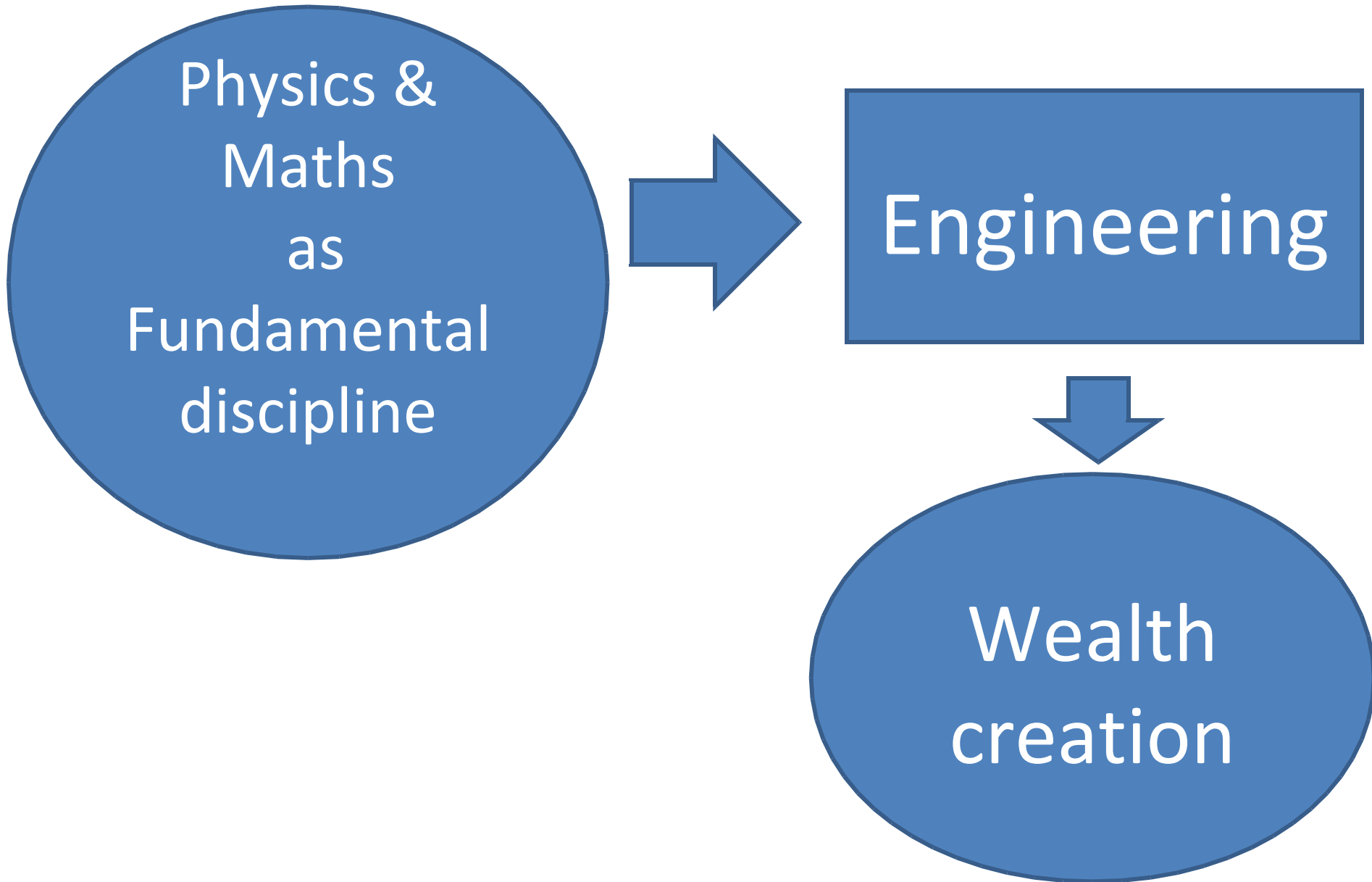
# Physics Education for Engineering students

Room 20

# Message: Purpose

- Convey problems & solutions?
- Convey potential of a physics education to engineering
- Convey opportunities, e.g. career
- Perceptions – Myths?

# Summary



# Perceptions

- Example – Mobile phone
- Physics as the fundamental discipline to innovation
- At a lower level (primary school level)
- Level of difficulty – Physics is tough!?

# Points discussed

- Course design on applicability in real life – “Physics in everyday life”
- Job security – teachers/nurses vs engineers
- Teachers can encourage but students make the final decision – eg, dropping Physics as requirements for Engineering in universities.

# Points discussed

- H2 physics requirements – bridging modules needed in universities.
  - Preparation – lengthen the time needed in the universities
  - Physics enrollment still above biology
- Basic level (O-level) needed at entry point, and extra at the university level?
- Wider contents – rather than deeper (harder).
- Teaching too much – appreciate applications, hands-on

# Points discussed

- Engineer – salary attractive, work in many varied areas, appreciate what they are doing (the machines) in other countries.
- Engineering is boring ? Engineering needs ingenuity.
- Those who chose Engineering as career – because of creativity and innovation.

# Points discussed

- Vicious cycle – with dropping Physics early, and thus university drops physics requirements
- Interest and passion to be built young –
- Business – “soft” option. May want to do it later.