# Technology and Public Policy - (d) Technology policies for grand and global challenges

## Summary

This course is about how to structure a policy response to the so-called grand challenges (climate change or global health). It examines mission-oriented R&D programs in various sectors as well as specific policy instruments to learn about the best ways to accelerate innovations in a given sector.

## Content

1. **Context, problems**
   - The definition and identification of societal Grand Challenges
   - Difficulties and problems raised by the Grand Challenges of our time - "the Moon and the Ghetto" argument
   - The policy debate - sector neutral policy versus sector non neutral policy and the Washington consensus
   - The need for restoring a non neutral-sector policy approach and the centrality of policy design

2. **Lessons from the past**
   - ICT revolution, life science, agriculture

3. **Policy design**
   - Beyond principal-agent governance and the principle of self discovery
   - Some specific policy instruments: public procurement for innovation; ex ante prizes

4. **The approach of smart specialisation strategy as an example**
   - The students will have to write an individual term paper on a case of policy addressing a Grand Challenge (preferably within their field of expertise (energy, health, IC, agrofood and water, etc.))

### LEARNING OUTCOMES

*By the end of the course, the student must be able to:*

- to understand the centrality of technology policy in order to meet Grand Challenges and to appreciate the role, procedure and design's implications of sector non neutral policies in order to address any Grand Challenge

## Keywords

- Grand Challenge, smart specialisation, self-discovery
- Non neutral sector policy

## Resources

### Bibliography


### Ressources en bibliothèque

- [Research Policy (online)](#)
- [Smart specialisation / Foray](#)
- [Accelerating innovation in energy / Henderson](#)
• The moon and the ghetto revisited / Nelson