

# Science, Technology, and Inequalities in the Global Knowledge Economy: Policy Dimensions

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Draft preliminary position paper (WP1, del. # 1)

Susan Cozzens, Georgia Institute of Technology,  
Egil Kallerud, NIFU STEP,  
Louise Ackers, University of Leeds,  
Bryony Gill, University of Leeds,  
Jennifer Harper University of Malta,  
Tiago Santos Pereira Coimbra University,  
Noel Zarb-Adami, University of Malta

# Objectives

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- Provide an initial overview and framework on how policies affect the production and distribution of knowledge resources
  - Locating ResIST within the broader science, technology and innovation (STI) policy agenda: a bird's eye view
  - Introduce and discuss potential useful key concepts for use within the whole project

# Outline of draft framework paper

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- Concepts
  - The Knowledge Economy
  - Inequality
  - Policy for science, technology and innovation
- Illustrations: how does inequality figure in STI policies at different levels
  - National
  - Regional (Europe)
  - Global

# The Knowledge Economy (KE)

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- KE a dominant discursive framework in STI policy
- Focused on (aggregate) growth and competitiveness
- Growth do not automatically translate into wide distribution of benefits
  - Persistent exclusion, increasing inequalities
- Social objectives, distributional implications and effects should be moved to the centre of KE policies

## Reframing KE policy

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- Towards “multiobjective” STI policy, which explicitly incorporate and balance social and economic goals
  - The Lisbon agenda: the most competitive/dynamic, knowledge-based economy *and* social cohesion *and* environmental protection
- Towards (more) needs-based research policies
  - “Making science and technology work for the poor”
- Policies which incorporate additional objectives, broader accountability, new “good practice” models

# Inequality

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- Multidimensional, complex
- Need to be specific vs diffuse policy speak (“cohesion”)

# Global Inequalities

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## ○ **Between-country inequalities**

- Differences between countries in GDP per capita.
  - Synonymous with the problem of development.
- ## ○ Growth vs. development
- Not only economic growth, but also social and political conditions.

# Within country inequalities

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- **Vertical inequalities**
  - Differences among individuals or households in such economic measures as
    - Household incomes
    - Wages
- **Horizontal inequalities**
  - Defined as inequalities between culturally-defined groups
    - Religious groups
    - Ethnic groups
    - Gender
    - Regions



# Three types of inequality

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- Distributional (in)equality
  - Benefits: wealth, well-being (health, education, environmental quality)
- Structural inequality
  - S&T capacity, human resources
- Representational inequality
  - Who gets a voice; participation, power

## Potential hypothesis and/or heuristic:

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- Interdependency between the types of inequality – inclusive policies means (may mean) more equal distribution of benefits
  - Representational inclusiveness
    - E.g. participatory practices
  - Structural inclusiveness
    - What technologies (incl low-tech), forms of knowledge (learning, traditional/indigenous knowledge) and innovation are targeted and mobilised

# Types of S&T policies

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- Research policies:
  - advancing knowledge
- Innovation policies:
  - stimulating the production of new goods or services; includes intellectual property, diffusion, technology transfer
- Regulatory policies:
  - setting the ground rules for the introduction of new technologies
- Human resource policies:
  - educating, attracting, and retaining people with the technical skills to support the other policies

# Inequality in STI policies: Illustrations

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- National
  - Not salient in developed countries, explicit and central in developing countries (e.g., Mozambique, Brazil)
- Regional:
  - Europe (EU): present, but somewhat implicitly ("cohesion"); tensions and contradictions
- Global:
  - Shift towards STI for development/poverty reduction, but also conflict (WTO, WIPO)