



Distributional Assessment of Emerging Technologies

Work Package Four Mar 07
Report by Susan Cozzens



The WP4 team

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With additional contributions from

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WP goals and objectives

- *Goal: Develop a framework for policymakers to use to anticipate the distributional effects of incorporating emerging technologies in their national economies and societies.*
 - Emerging technology: new, research-based, with significant potential impact
 - Framework: key concepts to take into account, key questions to ask, key indicators to watch to monitor results
 - Examples of applications: policy choices about regulatory environments, IP; technology development portfolios of public or private laboratories

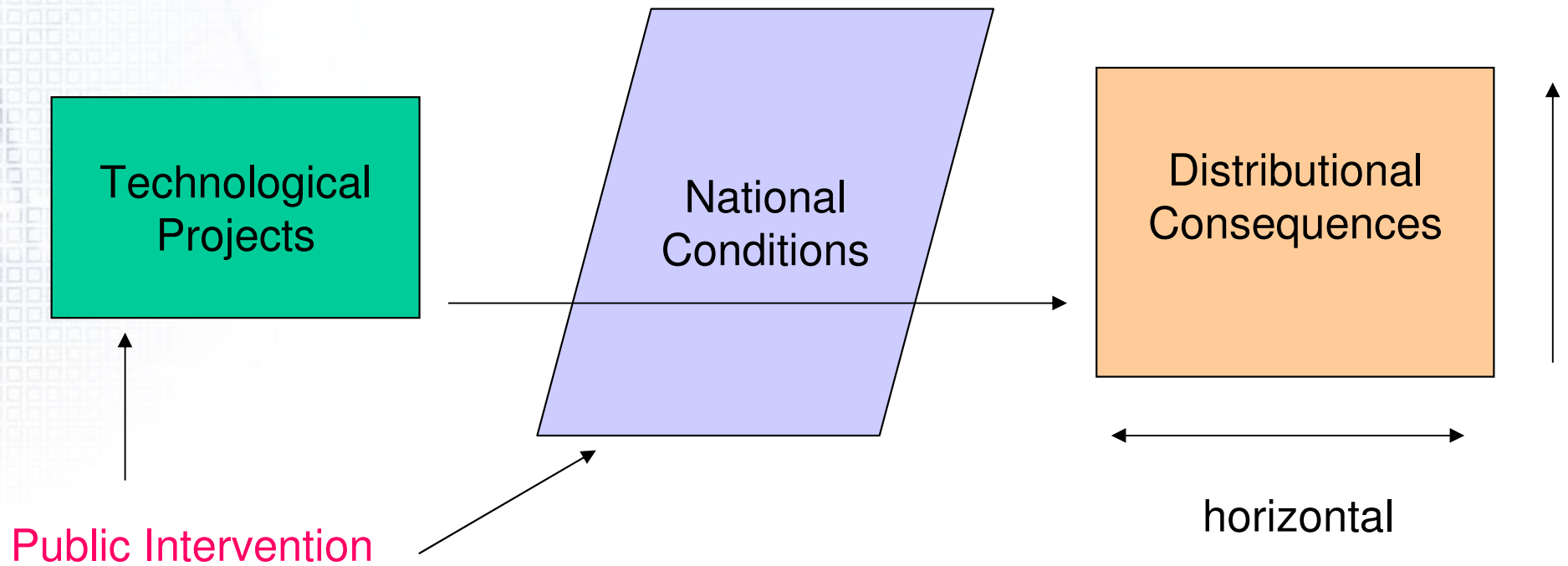


Why emerging technologies?

- Universal capabilities in these areas recommended for developing countries (MDP TF10)
- Good to study because they are
 - Still malleable
 - Influential (growing)
 - Most likely to increase inequalities
 - Demand high skills, high prices
- We will do case studies of
 - ICTs
 - Biotechnology
 - In order to think better about nanotechnology



Basic logic





Technologies

- ICTs
 - Whole sector may be examined in small countries
 - Where needed, the cases will focus on mobile phones
 - Everyone will gather information on open source, with focus on Linux if necessary
- Biotechnologies
 - Health: insulin
 - Agriculture
 - GM crops, focus on maize
 - Tissue culture crops, locally important crops



National and decision contexts

- Different roles
 - Creation (invention, innovation)
 - Production (manufacture or growing)
 - Use (consumption)
- Policy instruments
 - Regulation
 - Ownership
 - Shaping employment
 - Technology targeting
 - Public procurement
 - Human capital



Inequalities in ...

- *Wealth*, which is shorthand for capital accumulation, of both tangible and intangible assets
- *Wages*, a term that points to the creation of jobs at various levels of skills and compensation, directly and indirectly
- *Well-being*, which is a basket into which we would put indicators of the specific benefits expected from a technology.
 - Example: blood sugar control as a result of insulin
 - Price is a crucial variable here.



Case study countries

- ResIST countries
 - Germany
 - Malta
 - Mozambique
- Special additions
 - Nordic countries (mobile phones)
 - Czech Republic (GM crops)
 - South Africa (GM crops)
- Candidates in the Americas: Canada, US, Costa Rica, Argentina



Next steps

- Working on draft case study protocol
- Pilot case studies this spring (Malta, Jamaica)
- Team meeting in early fall
 - Report early observations
 - Refine case study protocol
 - Preliminary cross-case observations
- Other case studies to follow in second half of 2007
- Integrative workshop, April-June 2008, Malta