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International Technology & Policy Co-operation: Our approach

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Some rationales

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- Improving technological capabilities is an important part of the transition to a more sustainable energy system
- Need for improvements often greatest in developing countries
- Substantial technology assistance is key part of a post-2012 deal on climate change – e.g. a prerequisite for China and India to make any formal commitments
- Long history of attempts to 'transfer' technology. Has often meant installing a piece of equipment in a developing country – with little attention to processes of training and learning
- Private firms often share technology (within limits) for normal commercial reasons. Challenge is to set up incentives so that this process favours low carbon / sustainable technologies

International technology transfer
What does it mean?

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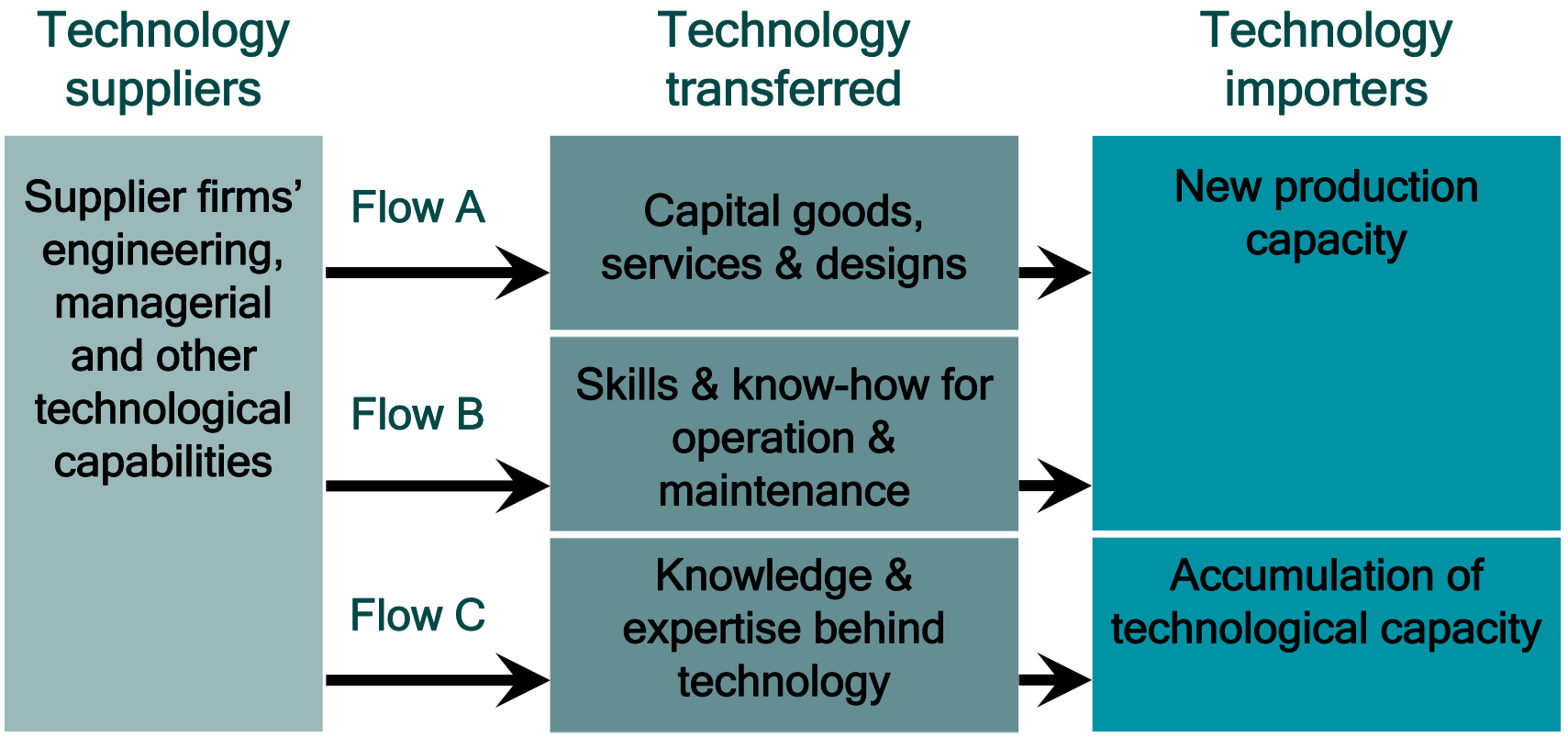

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UK-India collaborative study

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- **G8 Gleneagles Summit 2005: Developing countries pressed for more international cooperation on clean energy technologies**
- **Phase 1 (2006-07):**
  - Identify barriers to successful low carbon technology transfer
  - Identify key policy considerations for overcoming barriers
- **Phase II (2008-09; launch June 09)**
  - Taxonomy of policy considerations for technology transfer
  - More detailed analysis of intellectual property rights (IPRs)
  - Scope for joint research, development, demonstration and deployment between developed and developing countries

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Some lessons from phase 1

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- **No ‘one policy fits all’ solution to technology transfer**
- **Stage of technology development is important – technology transfer from R&D to market as well as between countries**
- **Centrality of knowledge flows. Not just capital equipment, but operational skills and deeper knowledge – ‘know why’**
- **IPR ‘necessary but not sufficient’ for technology transfer. Need more research on specific cases to understand importance.**
- **Technological change and capacity building. Joint R,D,D & D between companies is one possible route**
- **National and international policy environments (financial incentives, regulations etc) have large impact**

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Emerging thinking from phase 2

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- **IPR issues complex; applies to both software and hardware; patents often span several components / processes**
- **IPR access necessary but not sufficient; can slow diffusion; importance depends on strategy (leader or follower?)**
- **RDD&D required to adapt technology to Indian conditions but little attention to international mechanisms by interviewees**
- **Emphasise development of capacity via joint RDD&D; issues of targeting; successful innovation builds on related knowledge**
- **Joint RDD&D could overcome competitiveness / IPR worries – but benefits to international firms need to be clear**
- **Sustained finance / policy support required to mitigate risk of innovation stalling at 'valley of death'**

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Thanks

http://www.sussex.ac.uk/sussexenergygroup/barriers

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