

Innovation strategies: What is needed to make an innovation reality?



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Who we are ...

- VDI/VDE Innovation + Technik GmbH
is – since more than 30 years – a service
provider to (mainly) public bodies
 - Innovation agency, R&D programme
management agency
 - Research and consultation services in the
domain of innovation and technology policies
 - The Institute for Innovation and Technology
(iit) is the 'R&D branch' of VDI/VDE-IT

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An old example ...

- The Golf Ecomatic was introduced in 1993
- Start-stop system
- 4.4 l diesel / 100 km (53.5 mpg)
- About 3,000 units sold
- Considered as one as the most prominent ‚flops‘ in German car manufacturing history



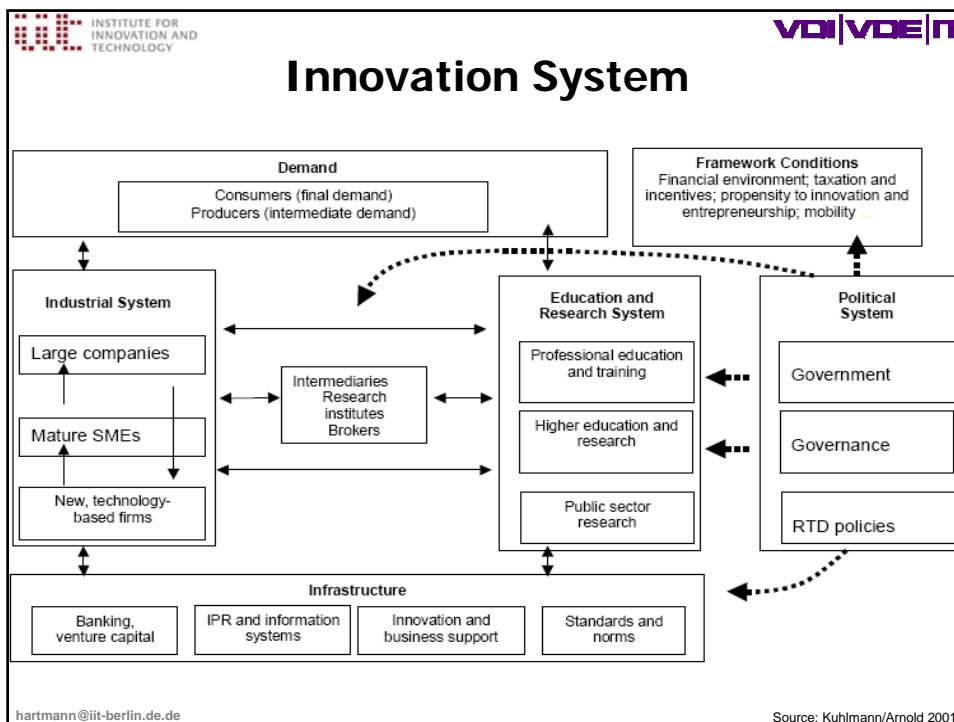
What was missing? (1)

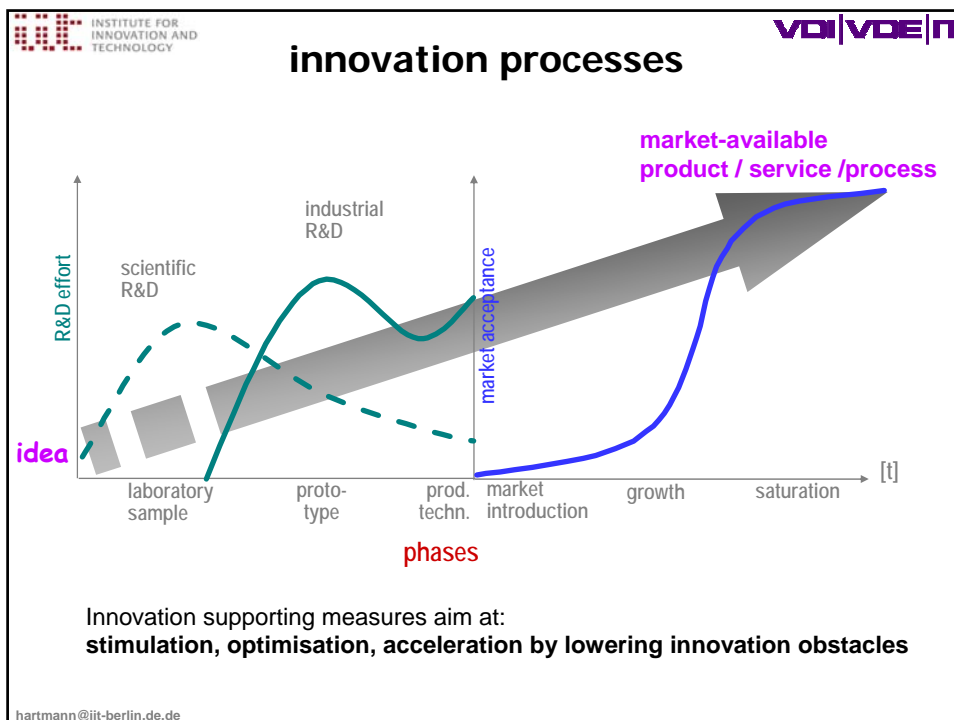
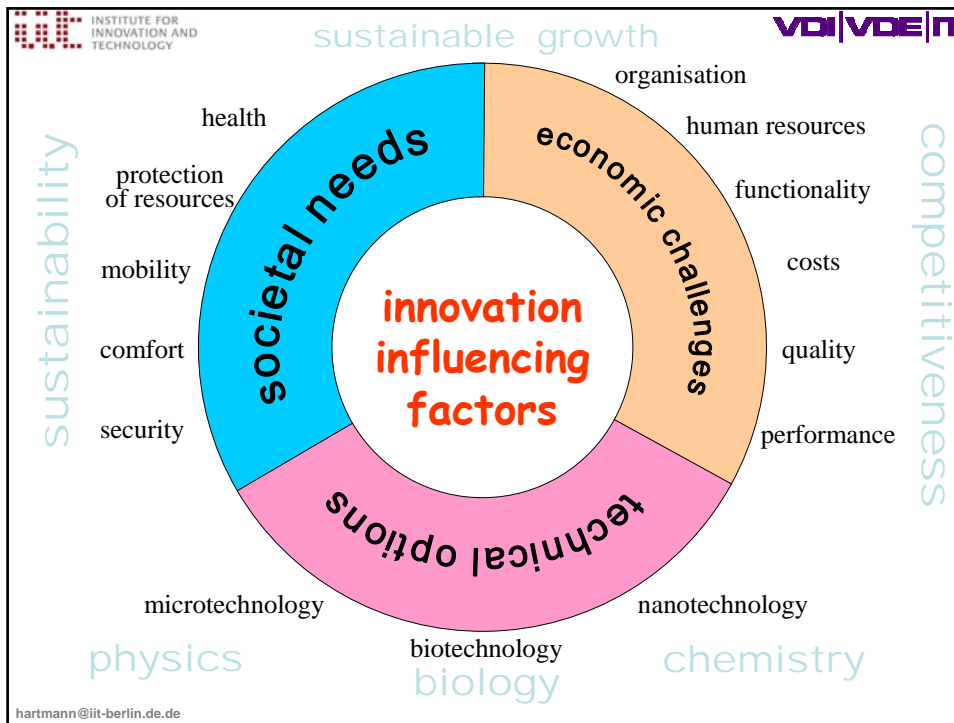
- Regulatory Framework
 - No ‚Porter / van der Linde effect‘
- Coherent product / marketing strategy of manufacturer
 - Competing Diesel-High-Pressure-Injection model (Golf TDI)
- Concern for users‘ habits and expectations
 - Unusual driving behaviour, unusual semi-automatic gear box



What was missing? (2)

- Systemic innovation approach
 - Single product / single technology innovation
- Public awareness and acceptance
 - ‘Sportive’ car vs ‘rational’ car
- Awareness and knowledge among professionals
 - Car salespeople were not prepared to counsel prospective customers appropriately


cf. Knie, 1994
Bieker, 2005






Innovation processes Trends to be Considered





from relay race to team play

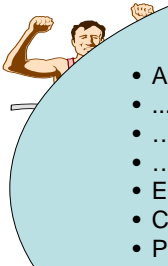


- from **technology transfer** to **technology interchange**
- from **value chains** to **value nets**
- from **sectors** to **cross-sectoral innovation fields**
- from **national innovation systems** to **cluster-oriented transnational systems**
- from **globalisation** to **glocalisation**

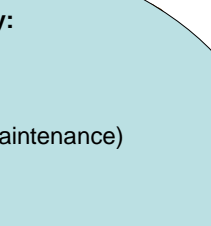
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Innovation processes Trends to be Considered



from relay race to team play



Example Electro Mobility:

- Automotive OEMs ..
- ... and suppliers ...
- ... and vendors ...
- ... and service suppliers (repair & maintenance)
- Energy suppliers
- City planning authorities
- Public transport
- Car rental services
- Housing services
-

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Innovation processes trends to be considered

Example Electro Mobility:
Multiple products, multiple services
'Hybrid product/service innovation'

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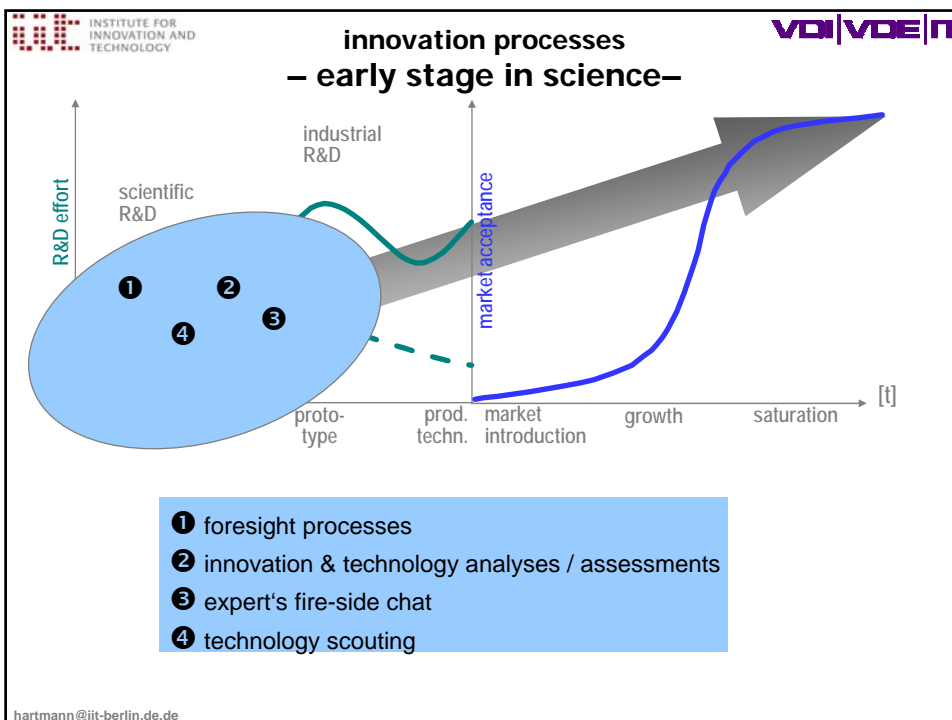
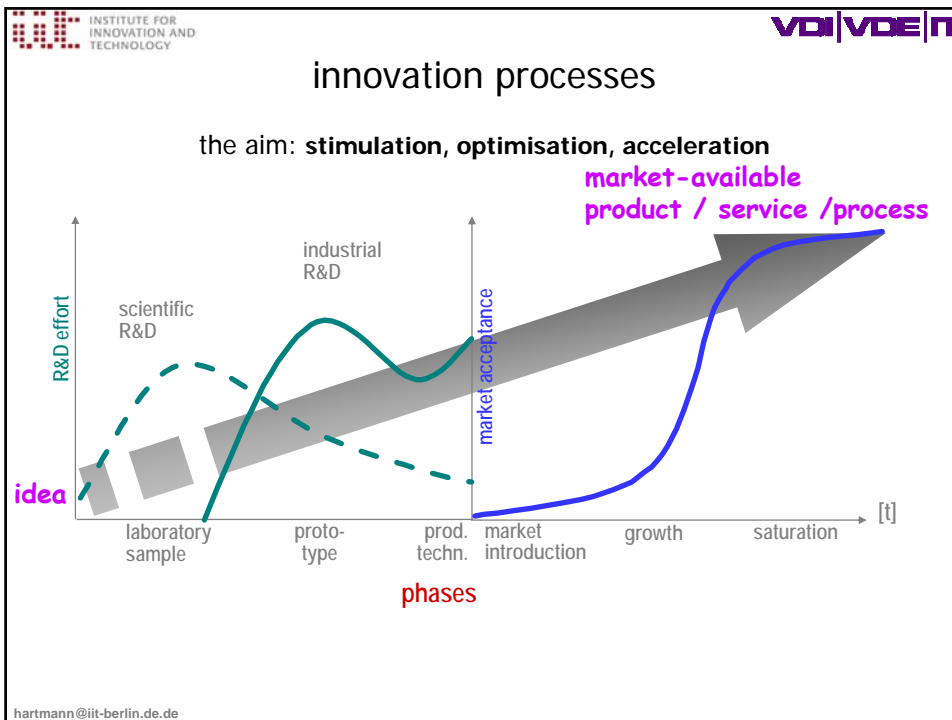
Innovation processes trends to be considered

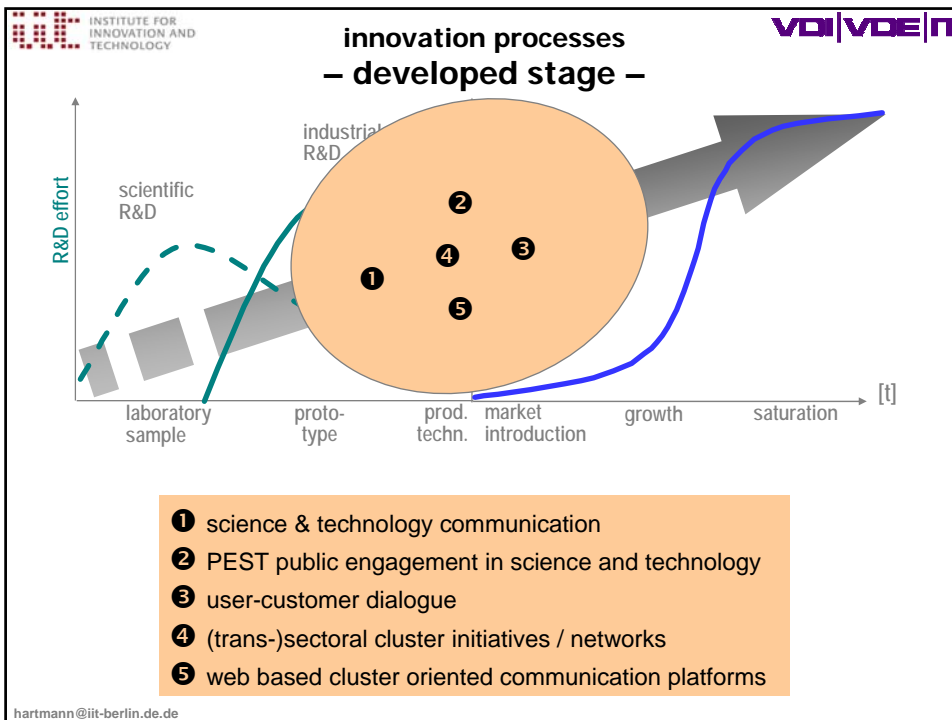
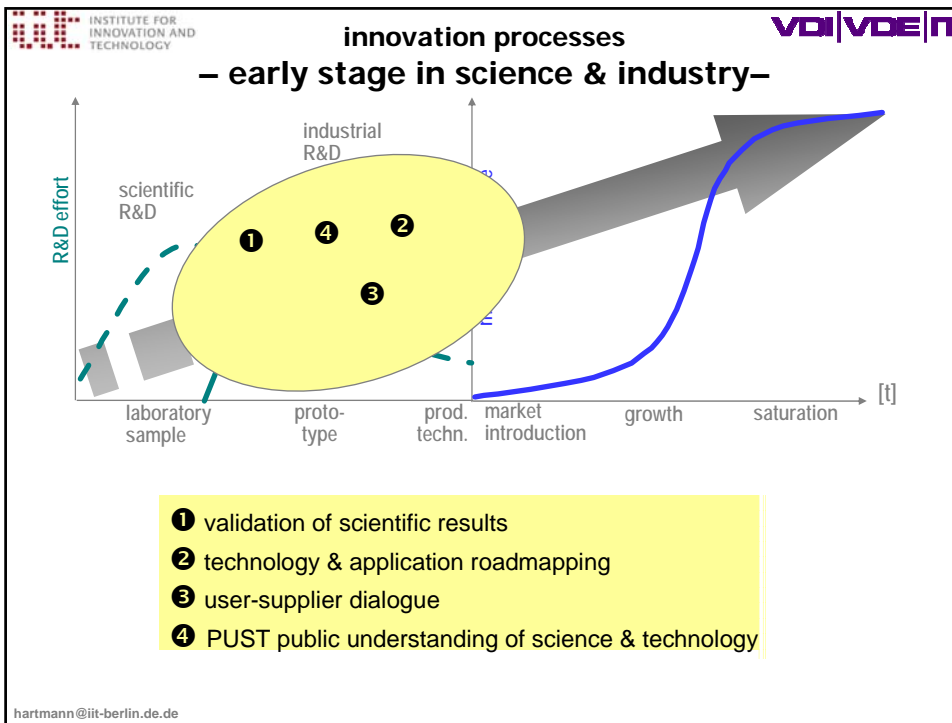
from relay race to team play

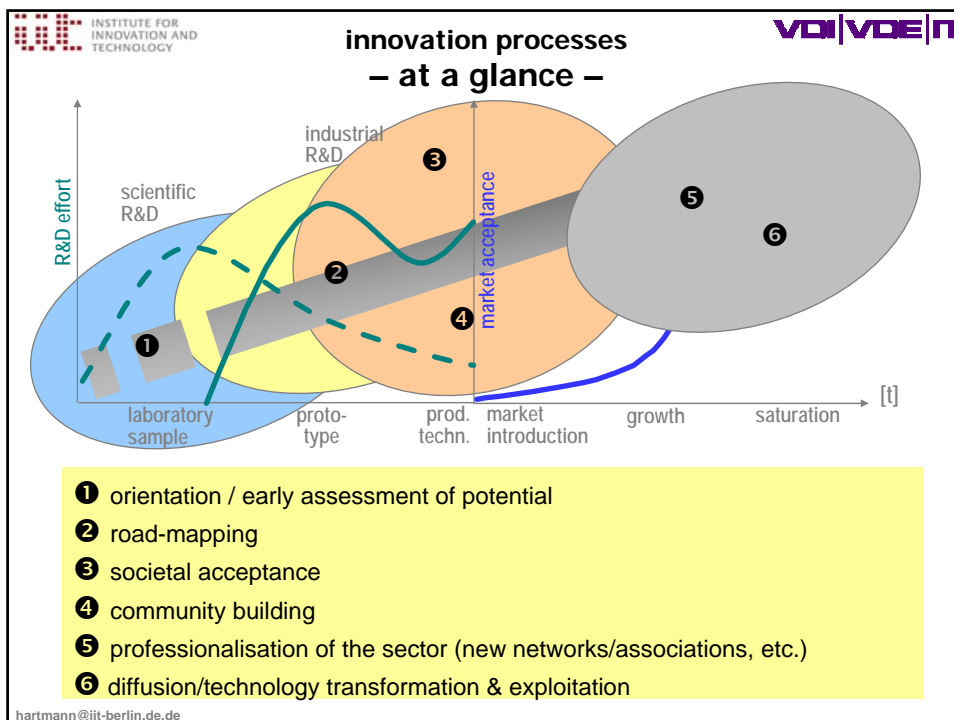
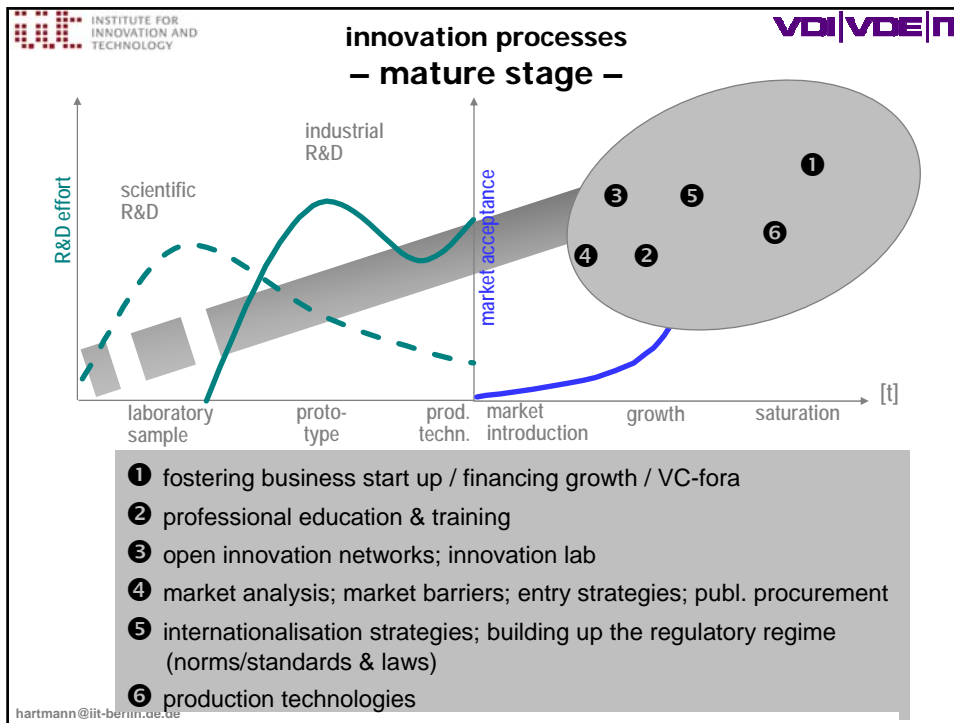
Example Electro Mobility:
Relating global challenges to local structures, cultures and conditions

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Electro Mobility: Current Issues in Germany (1)

- National Strategy Conference Electro Mobility
 - 25 / 26 November, 2008, Berlin
 - Kick-off for National Development Plan Electro Mobility
 - from basic research to market introduction
 - Germany as lead market for electro mobility



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Electro Mobility: Current Issues in Germany (2)

- National Development Plan Electro Mobility: Technological Challenges
 - Energy storage / batteries
 - Vehicles, drive trains, components
 - Integration of vehicles into power grids
 - Vehicles as de-central energy storage devices
 - This might contribute to solving problems with renewable energies
 - **Systemic innovation approach!**



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Electro Mobility: Current Issues in Germany (3)

- National Development Plan Electro Mobility: Framework conditions
 - Education and training
 - Recycling (e.g. batteries, scarce raw materials)
 - Standardisation (e.g. power plugs)
 - City planning (e.g. charging stations)



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Electro Mobility: Current Issues in Germany (4)

- National Development Plan Electro Mobility: Markets
 - Business cases at the interface of automotive and energy industries (and some others ...)
 - Early stage user integration
 - Speeding up market penetration (e.g. public procurement)



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Thanks for listening ...



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