

# Governance of technology and science in China's society

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Western knowledge societies came into existence in a several centuries lasting process that also have resulted in some checks and balances between science and society. Developing countries have less time and meet quite different circumstances.



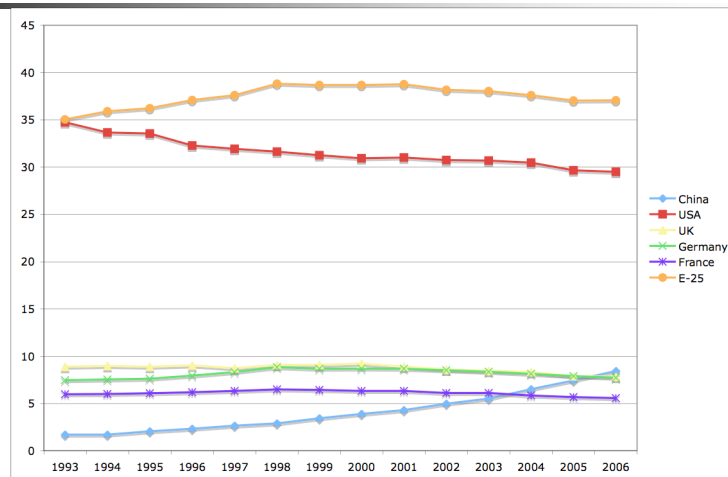
China's Premier: Wen Jiabao:

"We have only been industrializing for several decades, while developed countries have been on this road for over 200 years."

Science, October 17th 2008



## China is 2nd in rank number International Publications



Source: L. Leydesdorff ([2http://www.scidev.net/en/china/editor-letters/st-publication-rates-the-bigger-picture.htm](http://www.scidev.net/en/china/editor-letters/st-publication-rates-the-bigger-picture.htm))



## Science philosophers: Turn

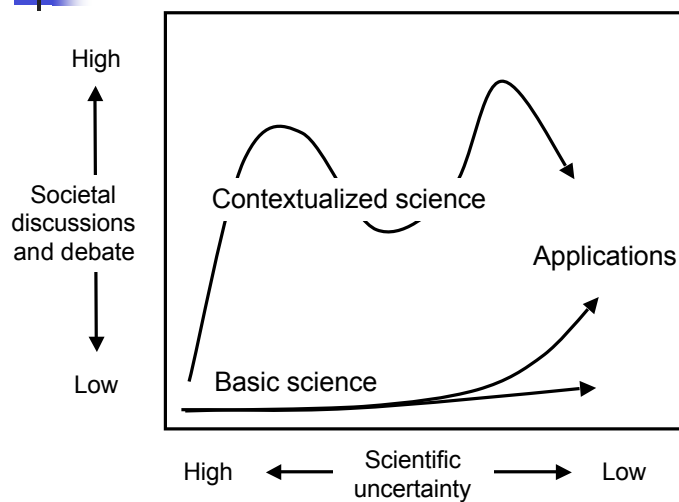
	<b>Science 1.0</b>	<b>Science 2.0</b>
Applicability	Applications follow basic science	Simultaneously, within the context of application
Disciplinarity	Monodisciplinarity	Transdisciplinarity
Rationality	One truth, one interpretation	Reflexive, multiple interpretations
Accountability	Only towards peers	Extended to society



## Drivers of the turn

- Economic impact of science and technology
- Increasing private funding
- Recognition of risk society: fall out, DDT, ozon, BSE, etc.
- Mass education: "society talks back"
  
- Checks and balances
  - Ethical committees (COGEM, DEC's, MEC's)
  - Safety standards
  - Precautionary principle
  - Strong NGOs
  - Free media
  - Flanking ELSI research (genomics, nano-technology)
  - Technology assessments
  - Public debates

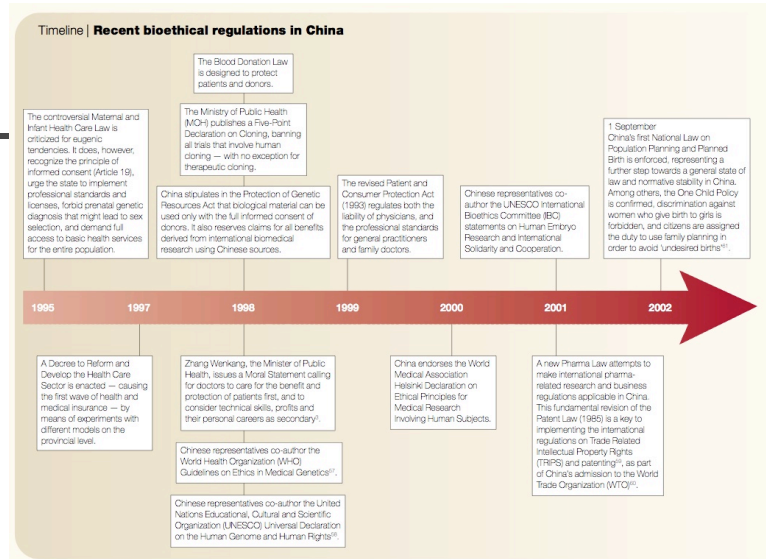
## Contextualization



After Swart & Van  
Anel (2008)  
Journal of Applied  
Ecology 45: 82-90

## Developments in China

- International conventions
  - IPP, Climate, Biodiversity, etc.
- Recognition ethical aspects of modern science
  - Informed consent
  - Animal ethics



Source: Ole Döring (2003) China's struggle for practical regulations in medical ethics. Nature Reviews 4:233-238.

## Developments in China

- International conventions
  - IPP, Climate, Biodiversity, etc.
- Recognition ethical aspects of modern science
  - Informed consent
  - Animal ethics
- Recognition of risk society: baby milk scandal
- Space for discussion: e.g. Bt crops
  - See e.g. Jane Qiu (2008) Is China ready for GM rice? Nature 455: 850-852
- Reversed brain drain



## Chinese science 2.0 ?

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- Level of education / knowledge
- Implementation and upholding regulation
- Control to the media
- Velocity of economic, scientific and technological development