

“Technology alone is not enough: the need for long-term think and interdisciplinarity in water services management”” Adjunct Professor Tapio S. Katko, Tampere University of Technology



CADWES

Capacity Development in Water and Environmental Services
Research Team at TUT, IEEB

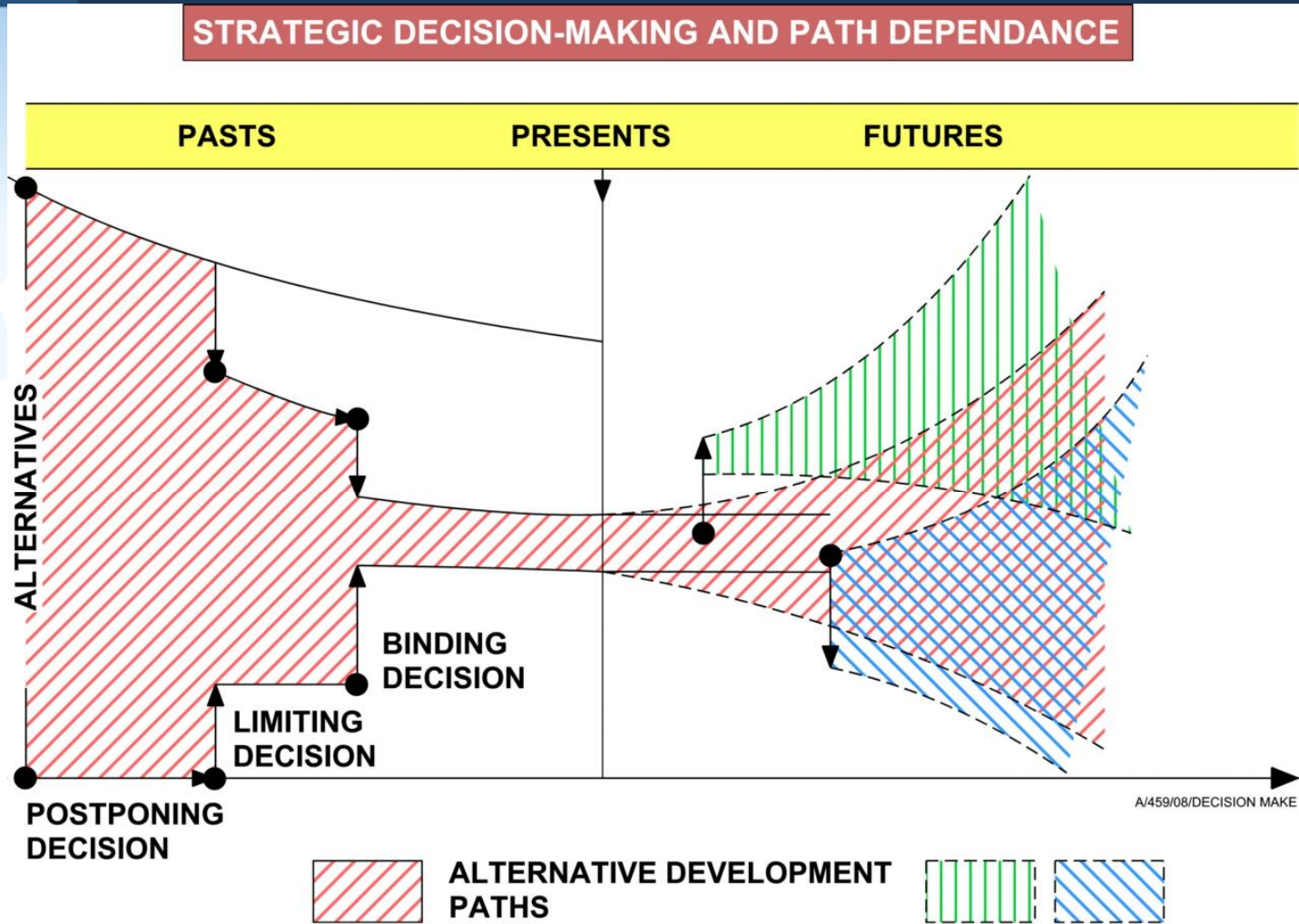
- 1. History and futures**
- 2. Relevance of the pasts**
- 3. Issues**
- 4. Reflections**
- 5. Selected Sources**

A. Pacey 1977.

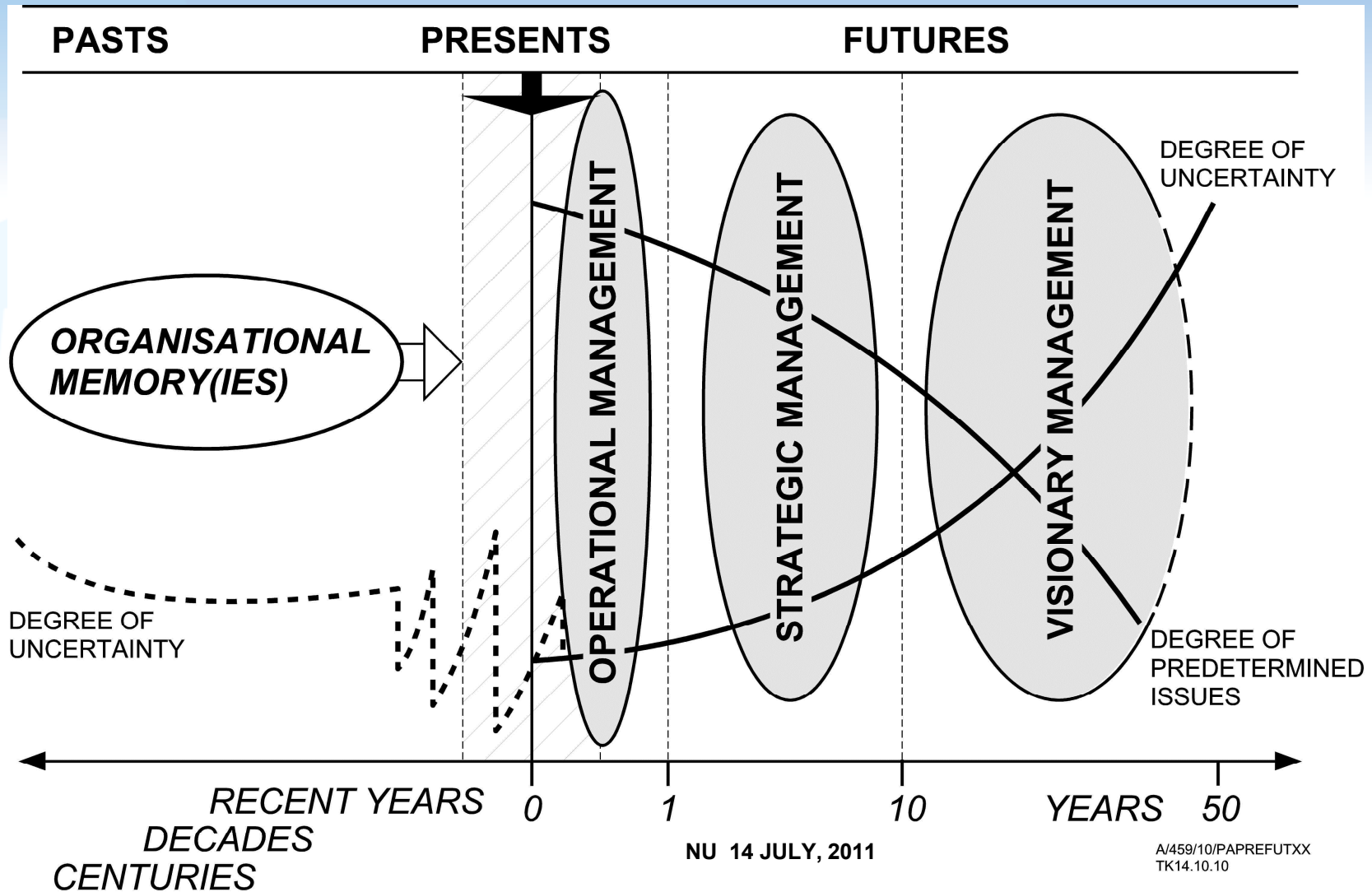
Technical, social and economic appropriateness of technology

1. History and futures

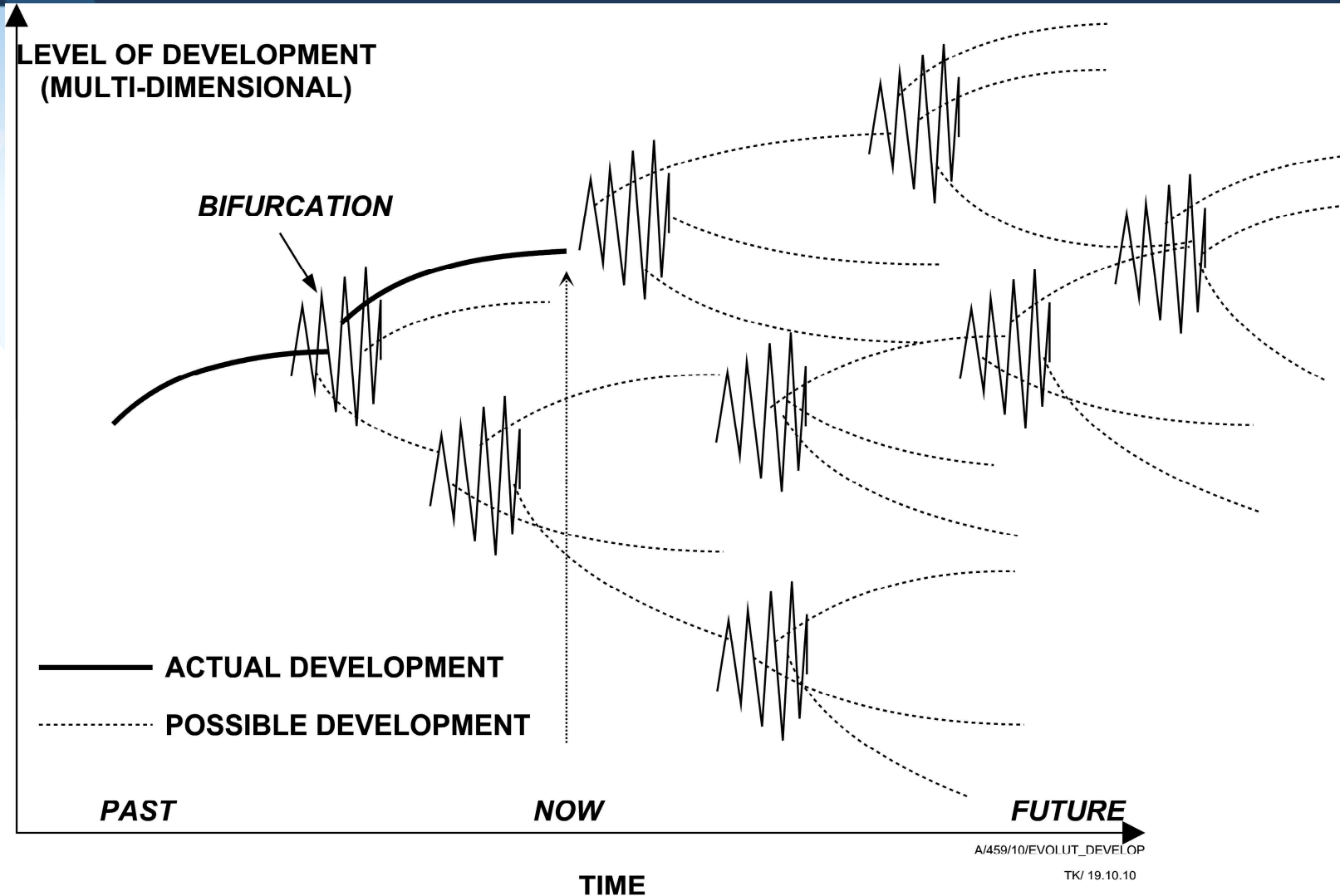
Strategic decisions (Kaivo-oja et 2004)



P_s+P_s+F_s (Kaivo-oja et 2004)



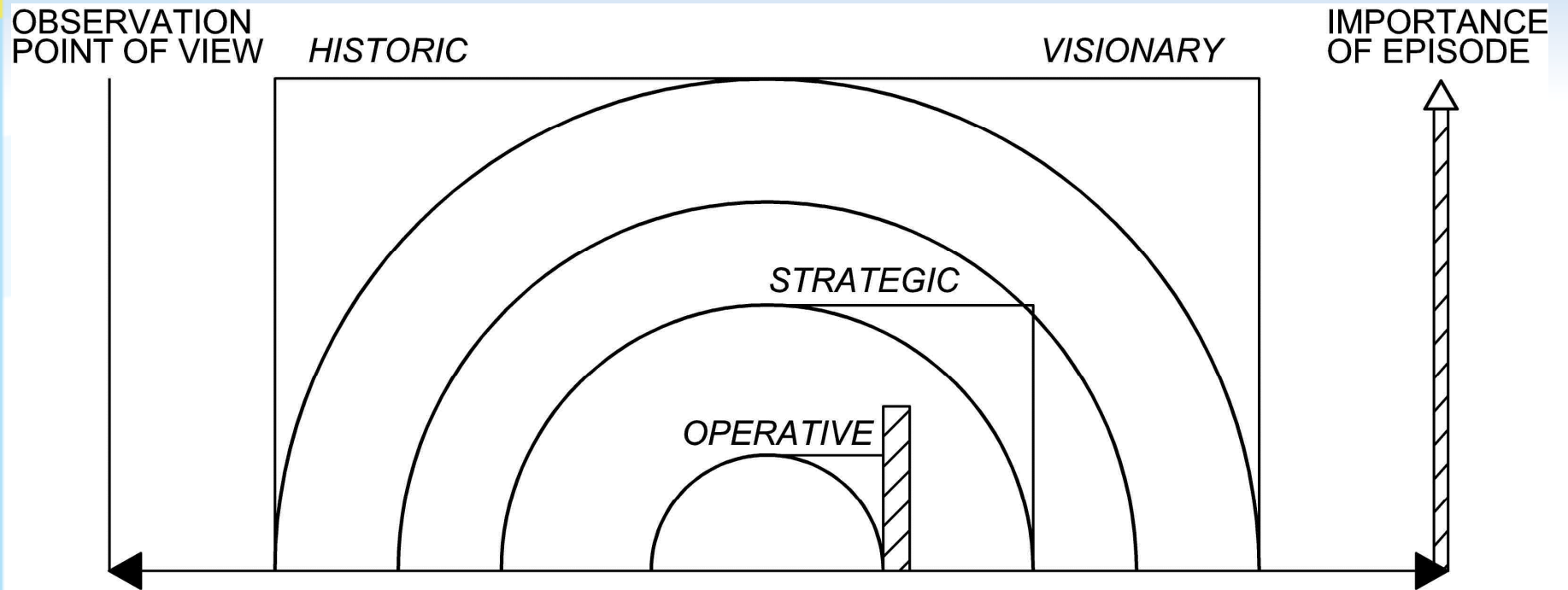
Bifurcative nature of Technological Development (Malaska, modified)



2. Relevance of the pasts for the futures



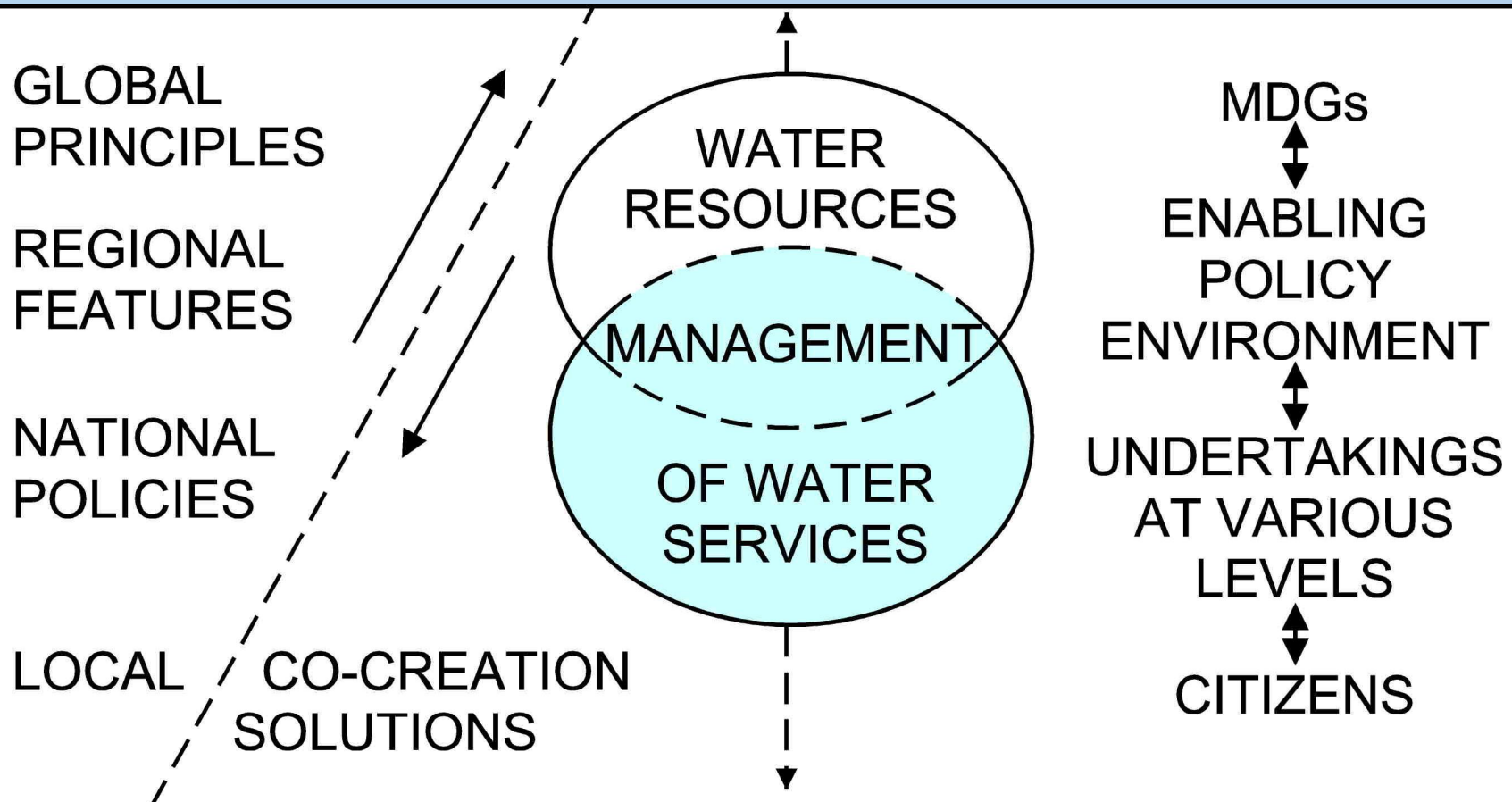
Observation point of view



© T. S. Katko 4 NOV 08

A/459/08/OBSERVATION

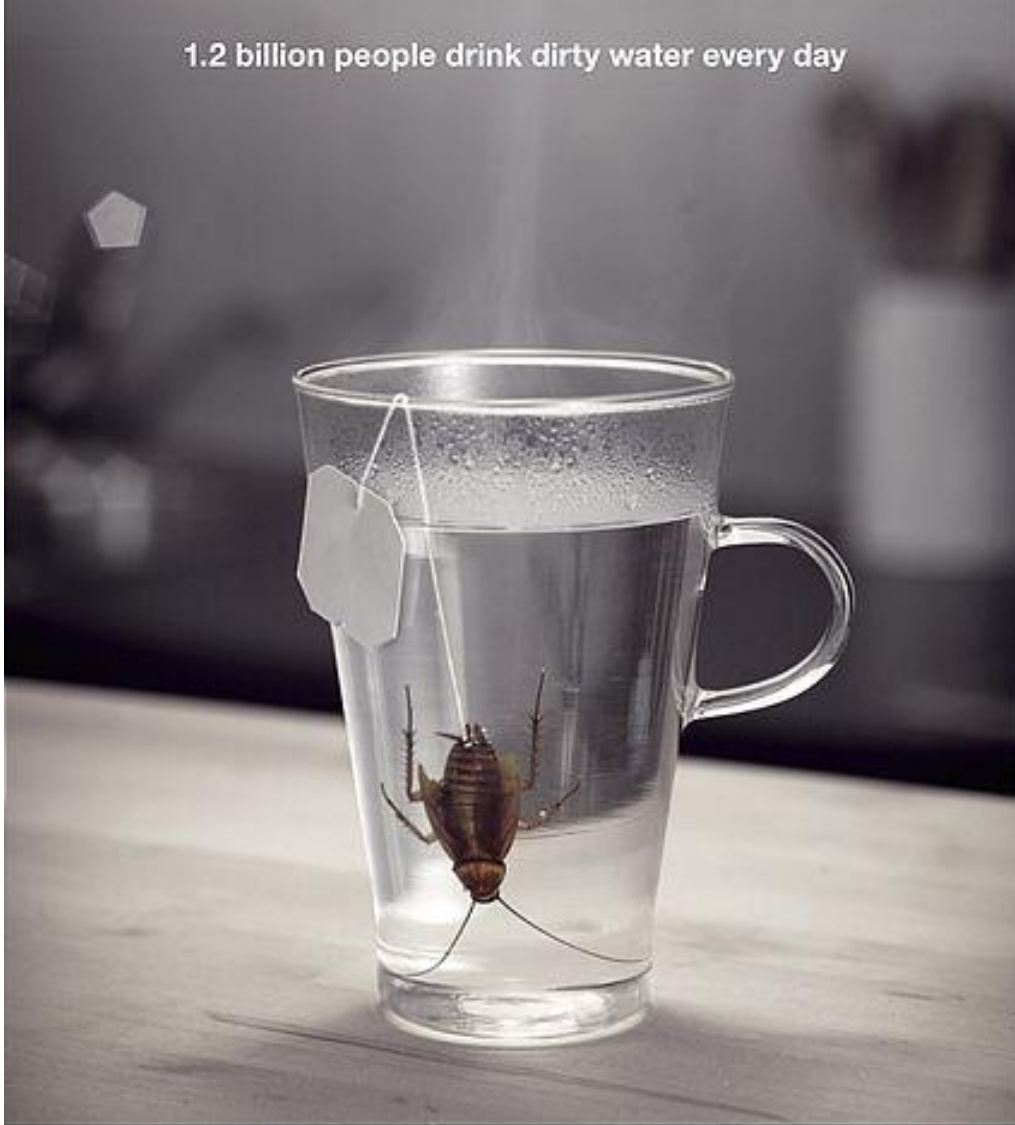
Water Resources vs. Services (Juuti et al 2008)



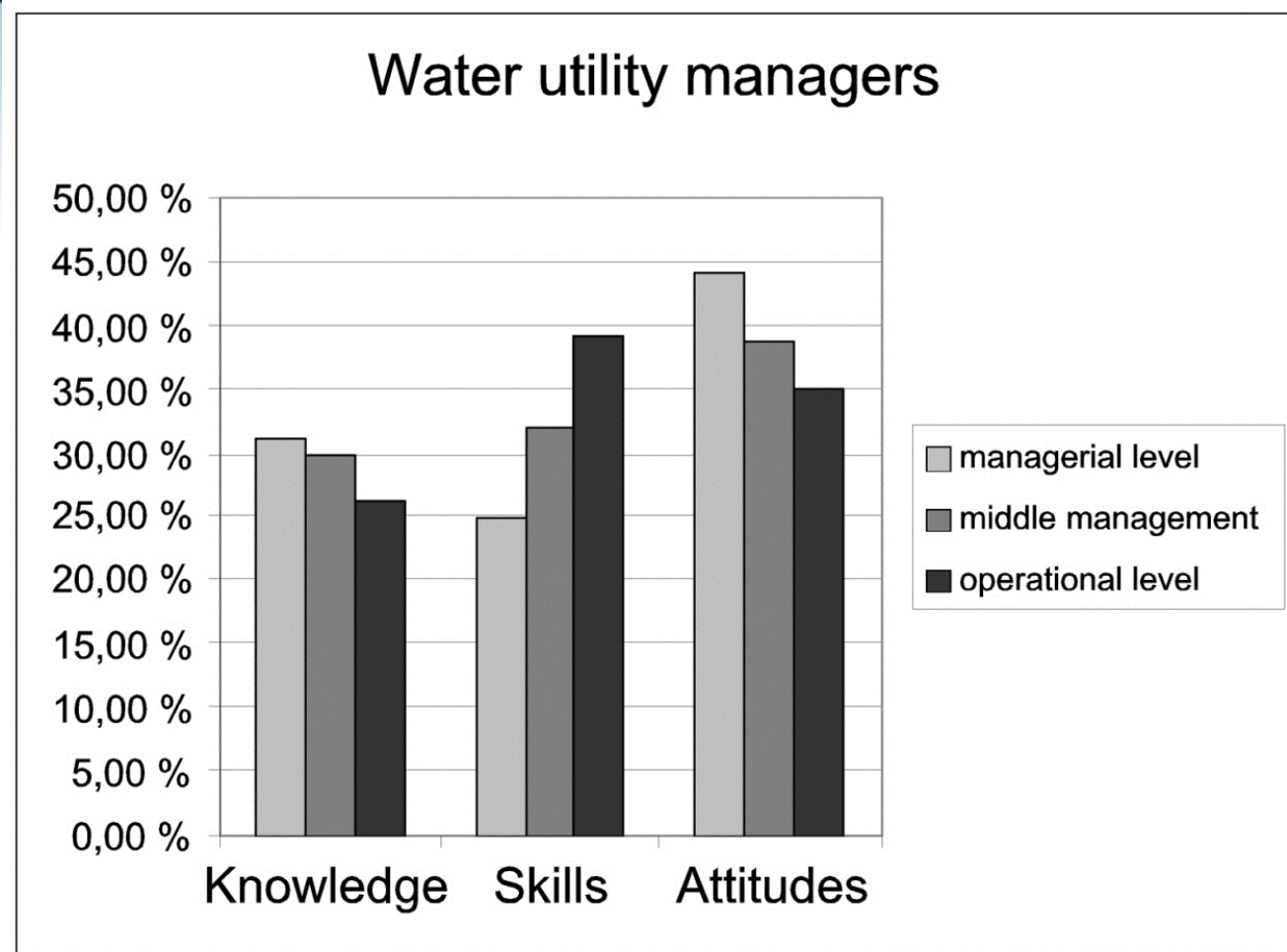


1.2 billion people drink dirty water every day

Millions of women have to do it with an audience



Knowledge, skills and attitudes (Katko 2007)





3. Issues on Water Services

- ” **Insdiversity (biodiversity)**
- ” **Role of local government**
- ” **Management at the lowest possible level**
- ” **Water as a multiple good and resource**
- ” **Aging infrastructure and workforce in the North**
- ” **Lack of HRD especially in the South**
- ” **Sanitation / water pollution control not to be forgotten**
- ” **Analogical questions in the South and North**

- ” **Inter- and transdisciplinarity: social relevance vs. Impact factors, ranking etc.**
- ” **Biased publishing policy**

4. Reflections...

1. Long-term impacts of decisions; interesting lessons:
more holistic views
- Many western countries: Pivotal role of the public sector
in water management

2. Water services vs. water resources: many links

3. Sanitation / Water pollution control a lot to be done

4. Long-term thinking: history and futures

“Those who cannot remember the past are condemned to repeat it”

George Santayana (1863–1952)

Thank you! www.cadwes.org

5. Selected sources

- Juuti P. and Katko T. (Eds.) 2005. *Water, Time and European cities. History matters for the futures.* www.WaterTime.net
- Juuti P.S., Katko T.S. & Vuorinen H.S. (Eds.) 2007. *Environmental History of Water - Global views on community water supply and sanitation.* IWA Publishing. 629 p.
- Juuti P., Katko T. & Rajala R. 2008. *Water: a Matter of Life -Long-term strategic thinking in water services.* 193 p. tampub.uta.fi/tulos.php?tiedot=214
- Kaivo-oja J.Y., Katko T.S. and Seppälä O.T. 2004. Seeking convergence between history and futures research. *Futures, Journal of policy, planning and futures studies.* Vol. 36, p. 527-547.
- Katko T. & Juuti S. 2007. *Watering the city of Tampere from the mid-1800s to the 21st century.* Tampere Water & International Water History Association. 77 p.
- Katko T.S*, Juuti P.S. & Pietilä P.E. 2006. Key long-term decisions and principles in water services management in Finland, 1860-2003. *Boreal Environment Research.* Vol 11, no. 5. pp. 389-400. <http://www.borenv.net/BER/pdfs/ber11/ber11-389.pdf>
- Pacey A, 1977. Technology is not enough: the provision and maintenance of appropriate water supplies. *Aqua.* Vol. 1, No. 1/1977. pp. 1-58.