

**Ignazio Musu,
Ca' Foscari University**

Discussion of Gouldson and Clark.

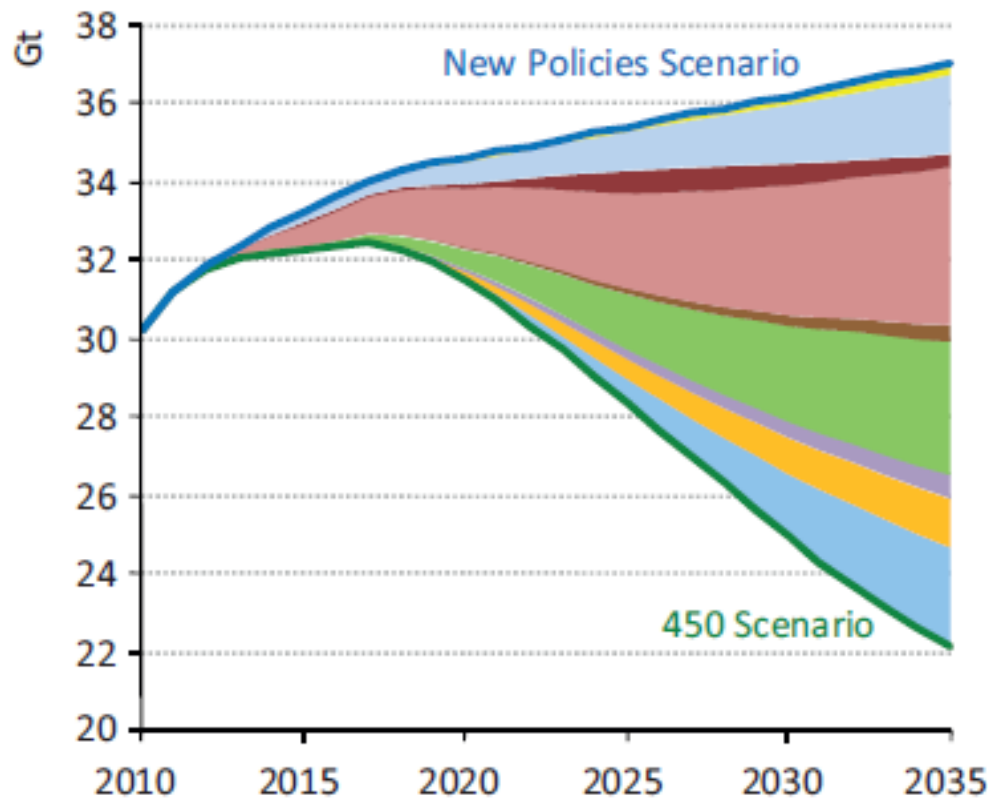
Siena, September 9, 2014

Andrew Gouldson,

**Innovative Financing Models for Low Carbon
Transitions**

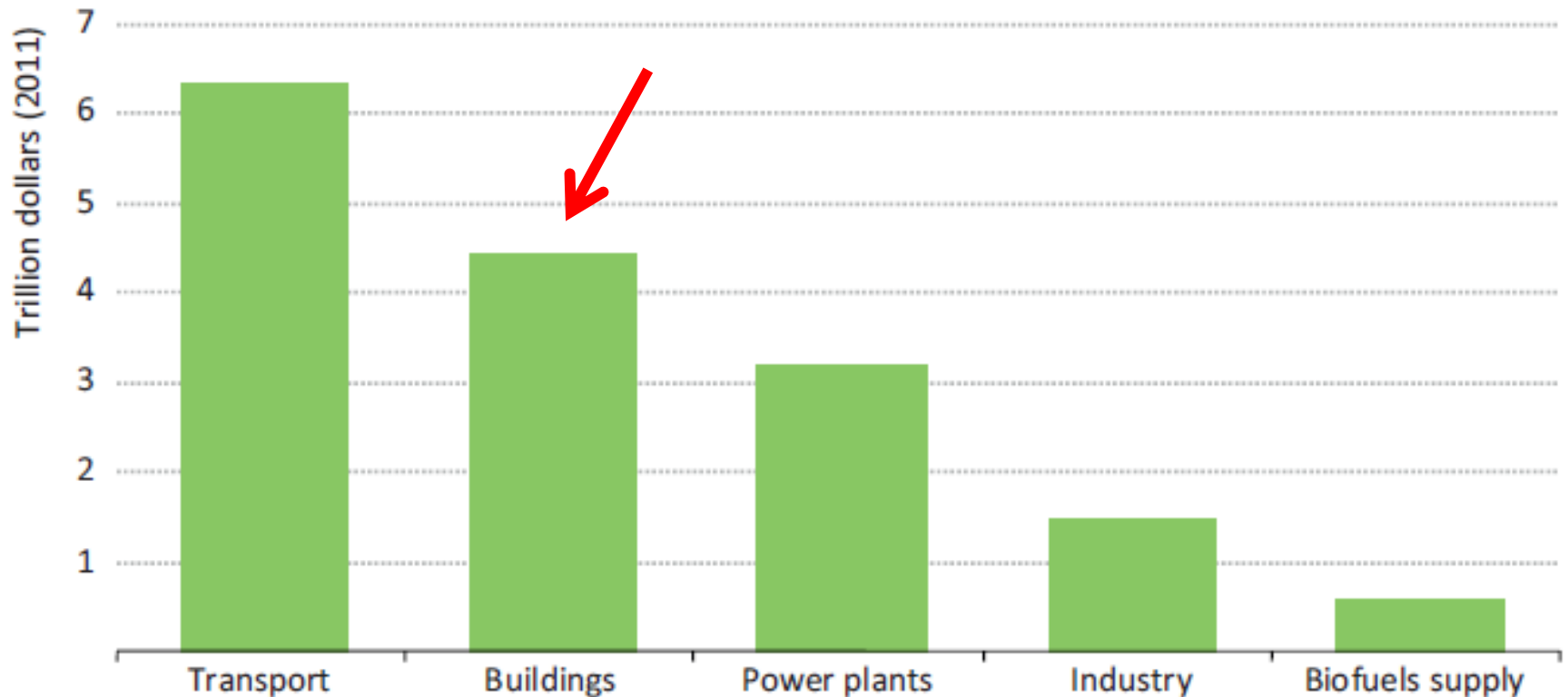
The importance of energy efficiency.

Global CO₂ emissions abatement in 450 scenario relative to the New Policies Scenario (IEA, WEO 2012): almost half due to energy efficiency.



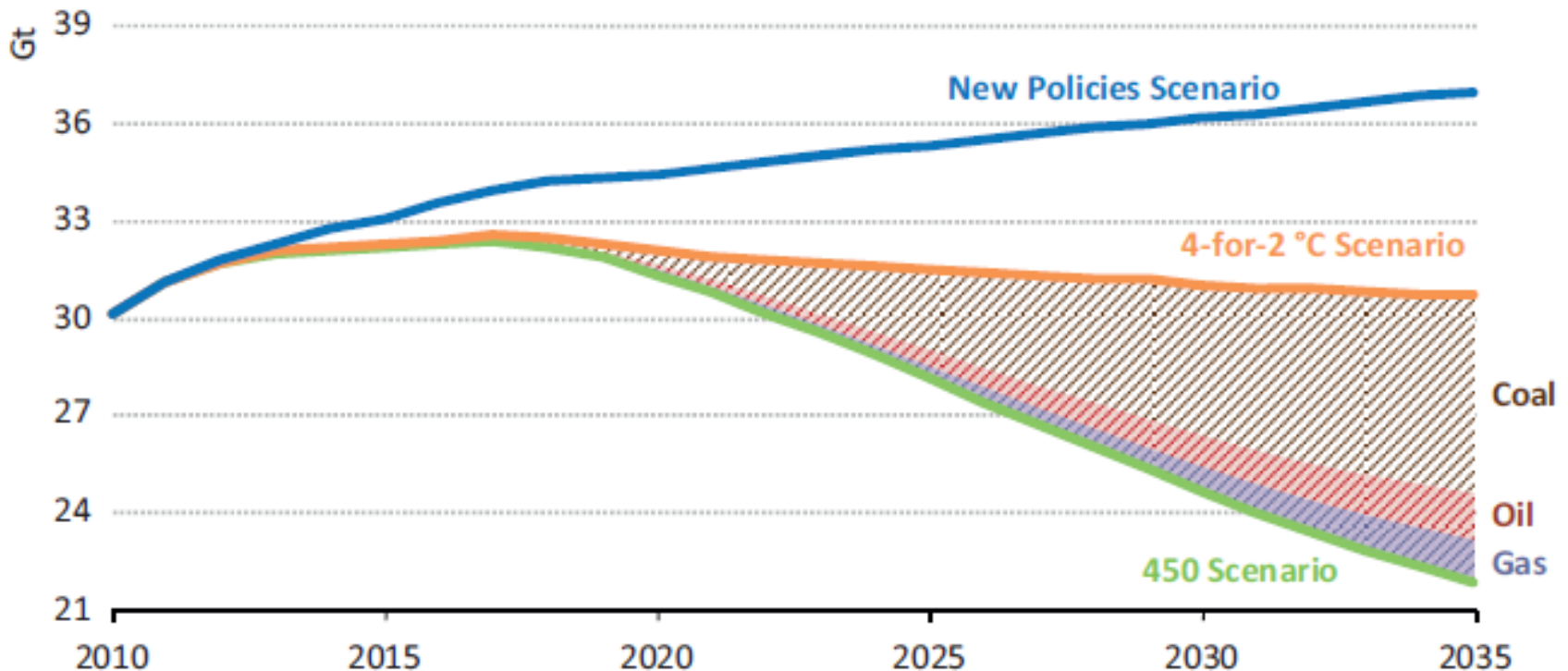
CO ₂ abatement	2020	2035
Activity	2%	2%
End-use efficiency	18%	13%
Power plant efficiency	3%	2%
Electricity savings	50%	27%
Fuel and technology switching in end-uses	2%	3%
Renewables	15%	23%
Biofuels	2%	4%
Nuclear	5%	8%
CCS	4%	17%
Total (Gt CO ₂)	3.1	15.0

Cumulative change in world investment by sector in the 450 Scenario relative to the New Policies Scenario (IEA, 2013): importance of buildings.

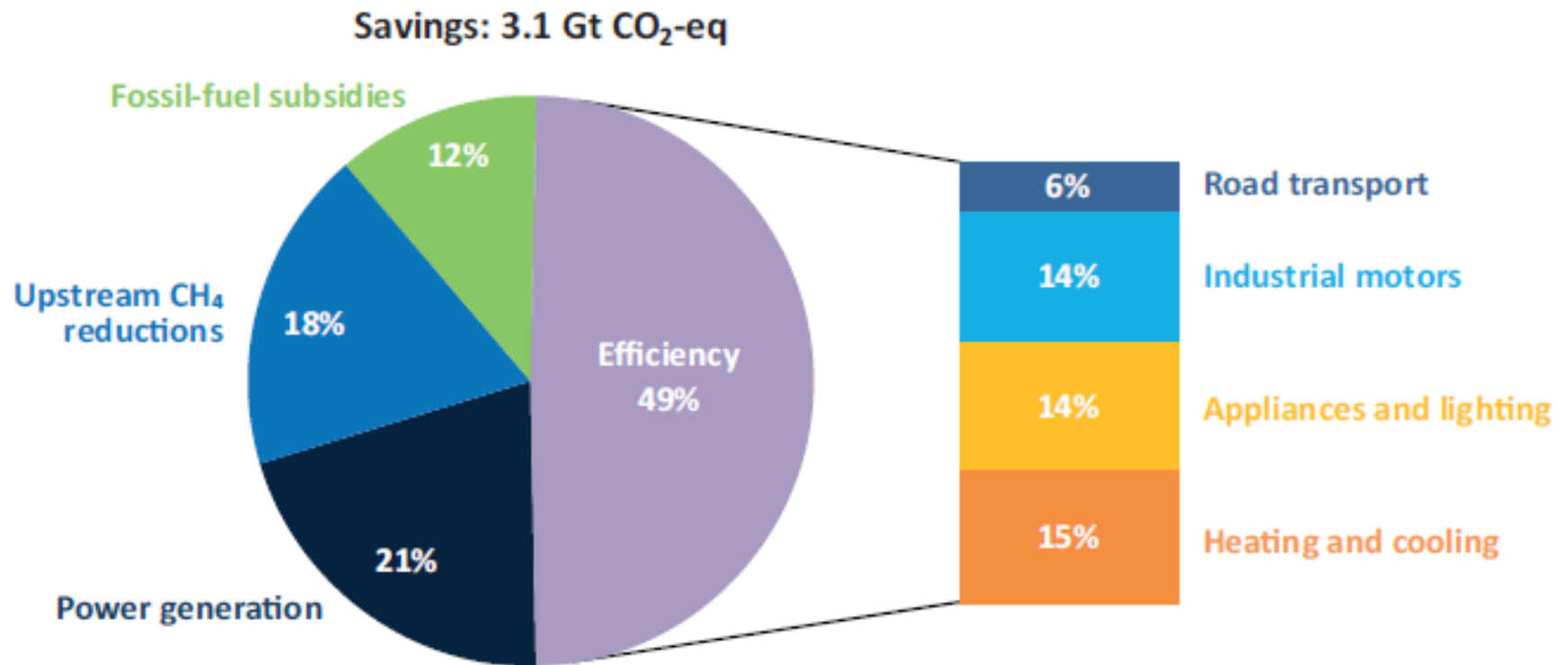


The IEA scenario “4-for-2 C”: what could be done to avoid closing forever the door to limiting temperature increase to 2 .

World energy-related CO₂ emissions by scenario (IEA, 2013)



Change in world CO₂ and CH₄ emissions in the 4-for-2 C Scenario by policy measure relative to the New Policies Scenario, 2020 (IEA, 2013): crucial role of energy efficiency in buildings.

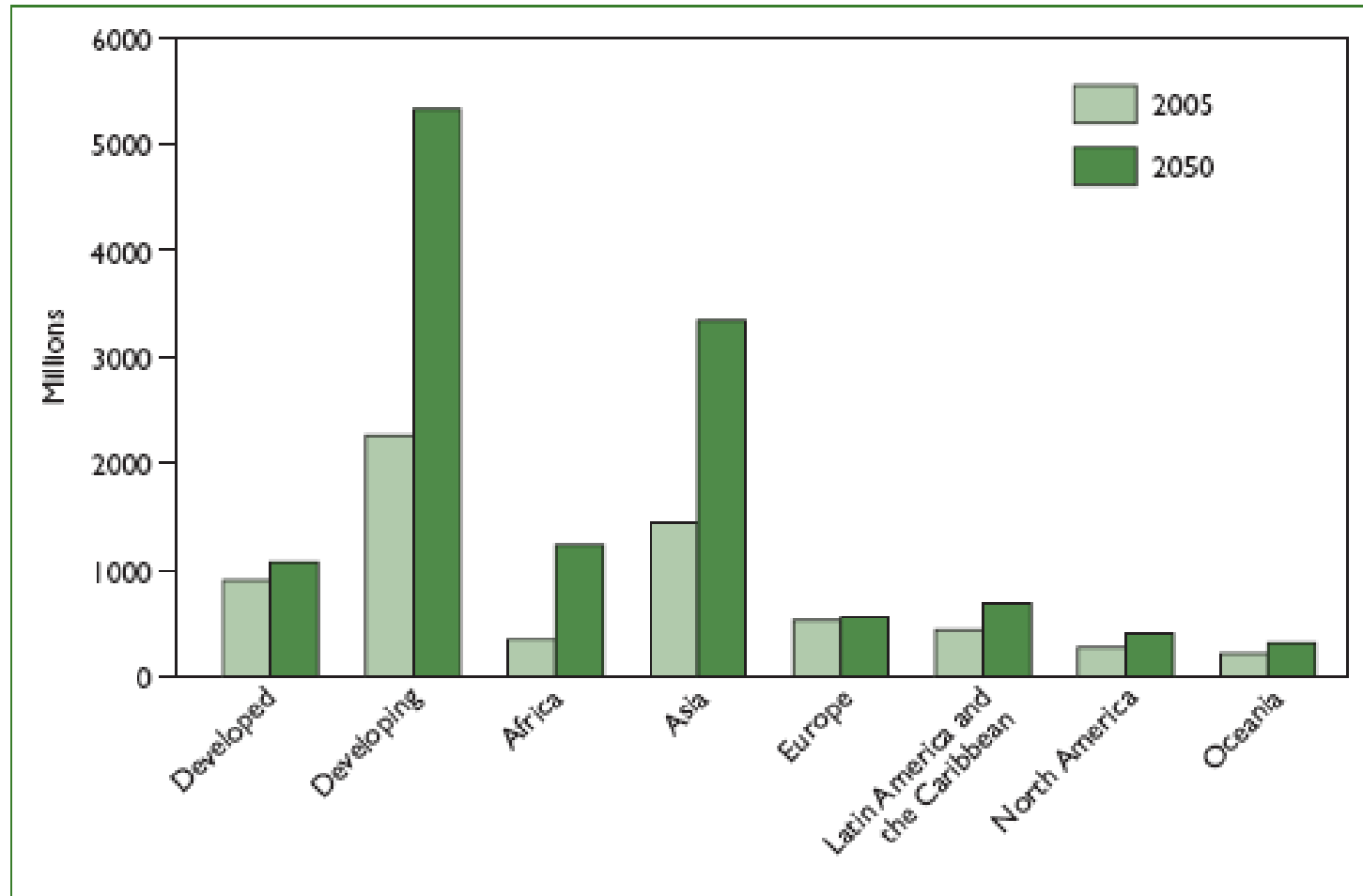


- Energy efficiency stimulated by a higher energy price, **if** current costs of the energy improvements are lower than the present value of the benefits from future lower energy use (rebound effects?).
- Difficulties: perception of present higher costs for energy improvement lower than that of the future energy savings.
- Skepticism on Energy Saving Companies (ESCOs).
- Need of wider and better articulated instruments: the presented revolving fund as a step forward.
- Mainly in its attempt to better involve households (making loans, promoting participation).
- Importance of the role of public sector (fiscal measures) to promote initiatives.

Eric Clark,

**Drivers and consequences of financialisation on
built environment**

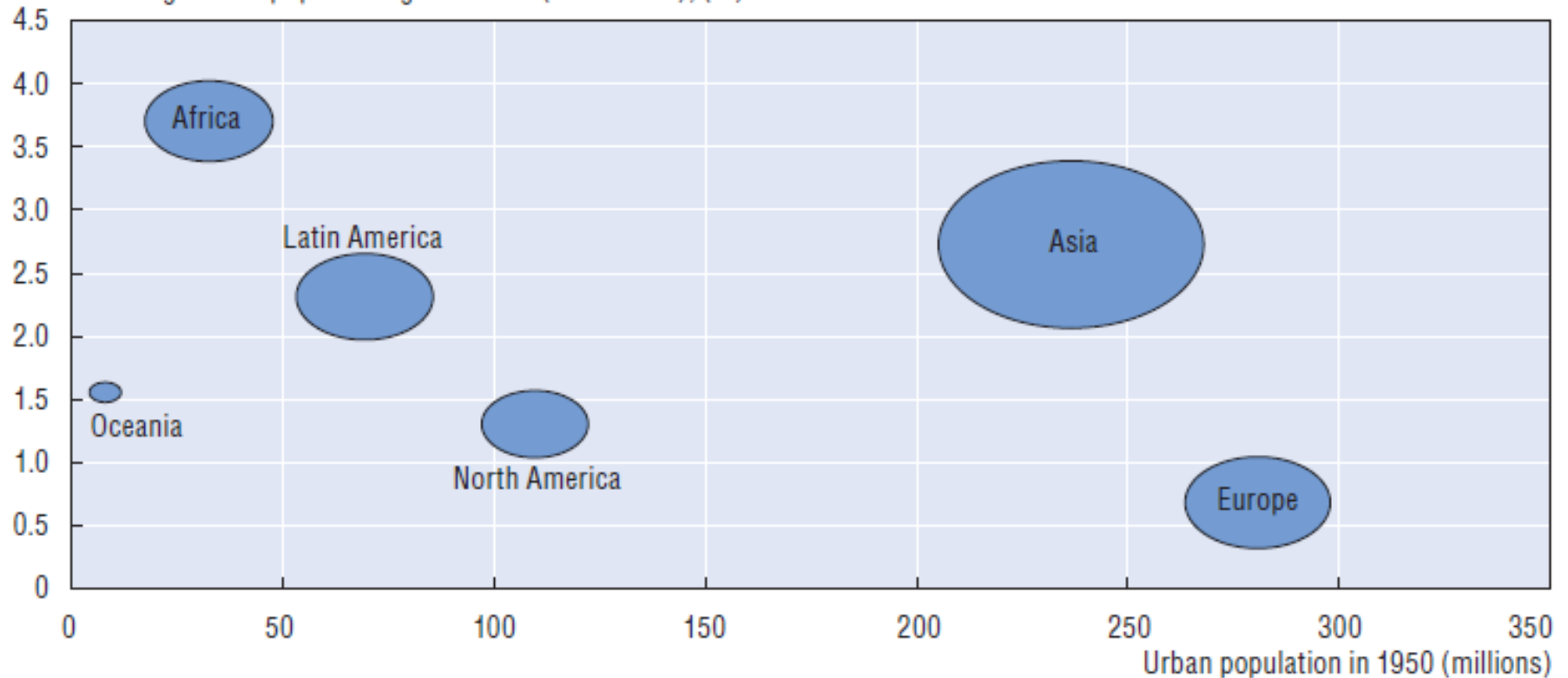
Wider issue: sustainable urban development.
Importance of cities.



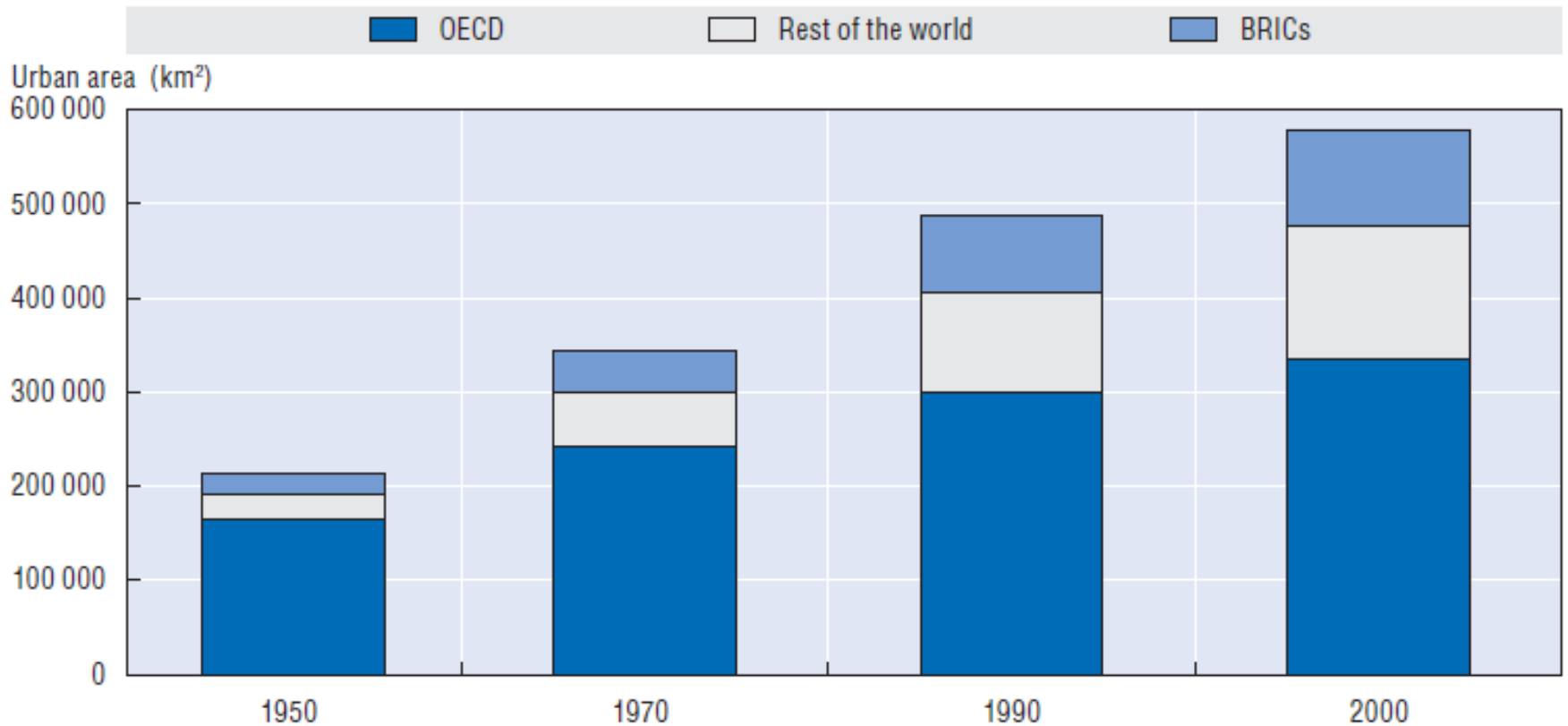
Trend in urbanization by continent (OECD, 2010)

Urban population and growth (1950-2050)

Annual average urban population growth rate (1950-2050), (%)



Urban sprawl: trends in urban land expansion (OECD, 2010)



Urban areas in 2025 (IPPC, 2014)



- Focus on the Swedish experience.
- Attention drawn on the social aspect of sustainability.
- But social and environmental aspects strongly related: poor households marginalized in environmentally damaged urban areas.
- Financialisation contributes, but not only; sometimes with perverse effects (subprime).
- Constraints on a more sustainable finance in urban areas?
- Ethical banking?