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Discussion of:

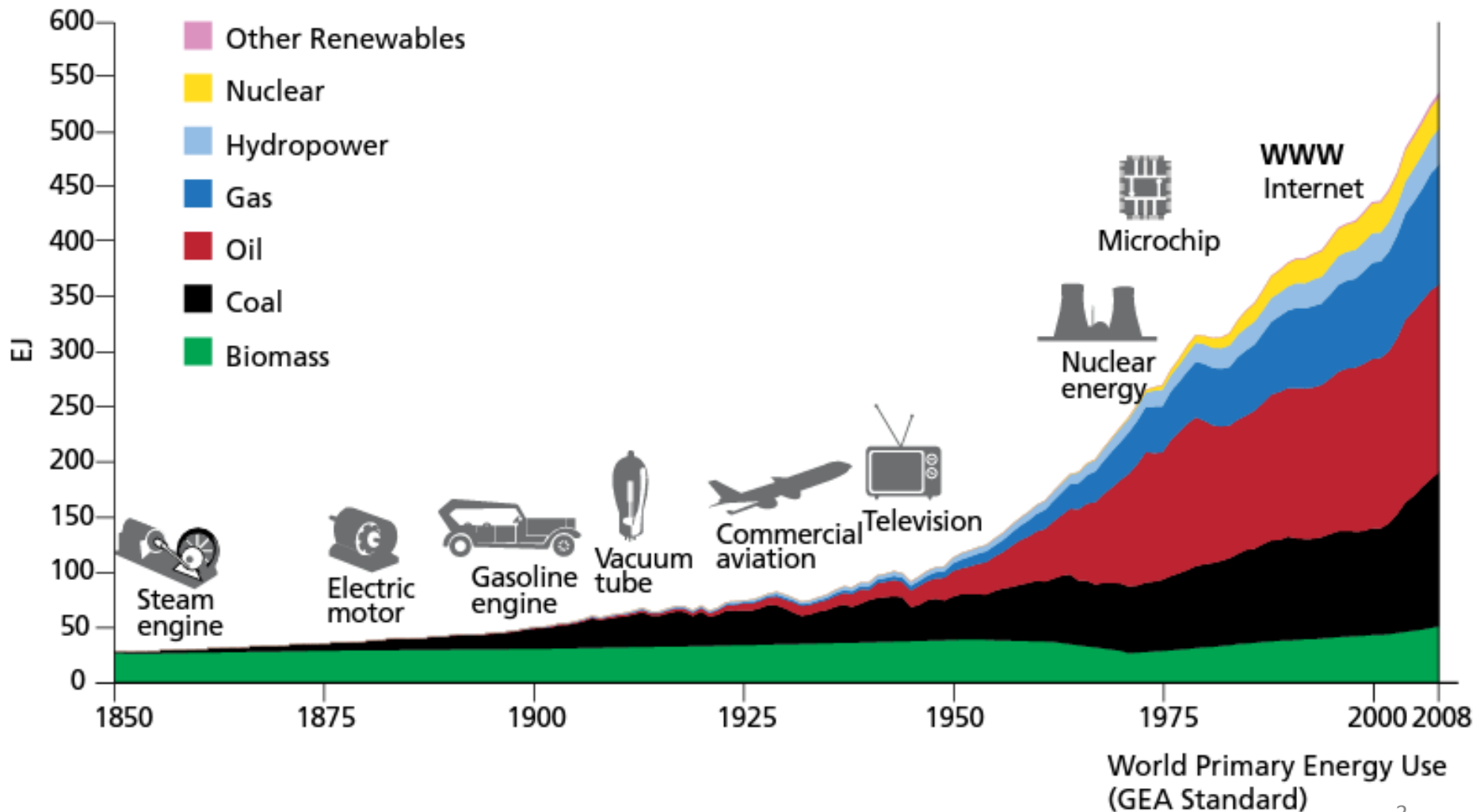
**P.Ekins, Policies for a green economy:
making a reality of sustainable
development.**

Siena, September 8, 2014

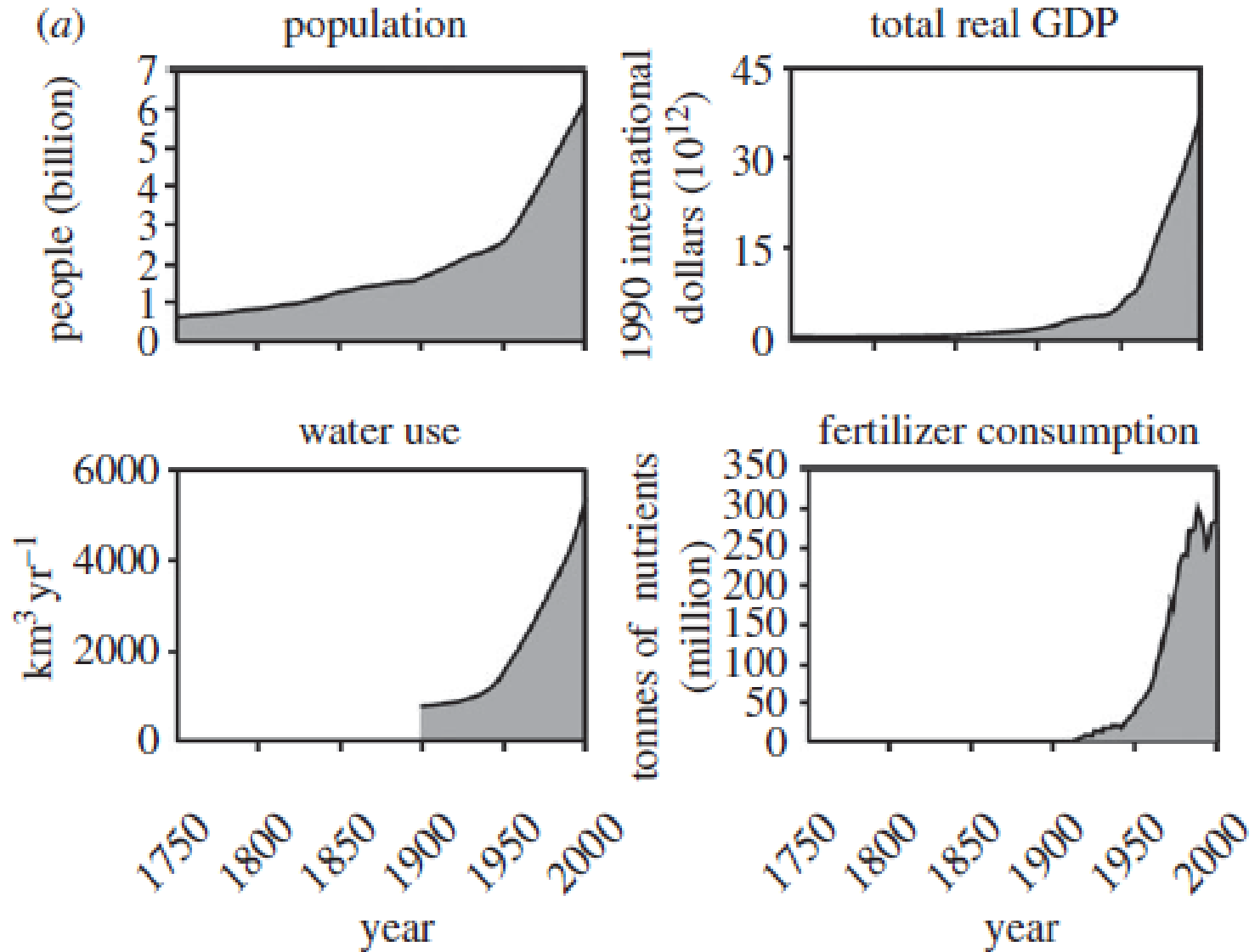
Comment's points.

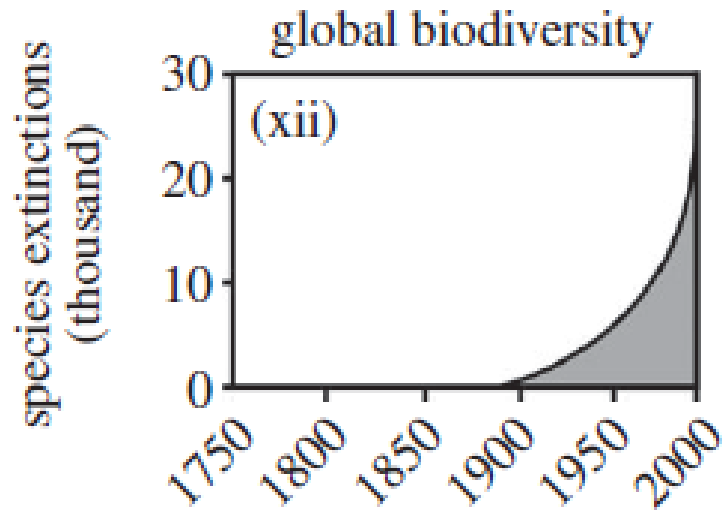
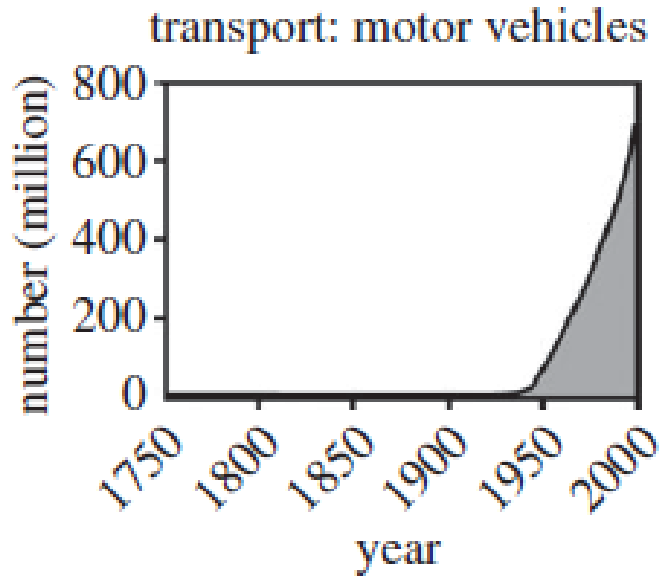
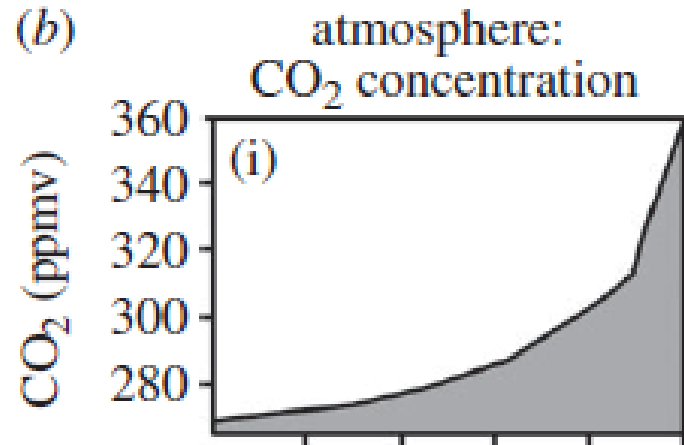
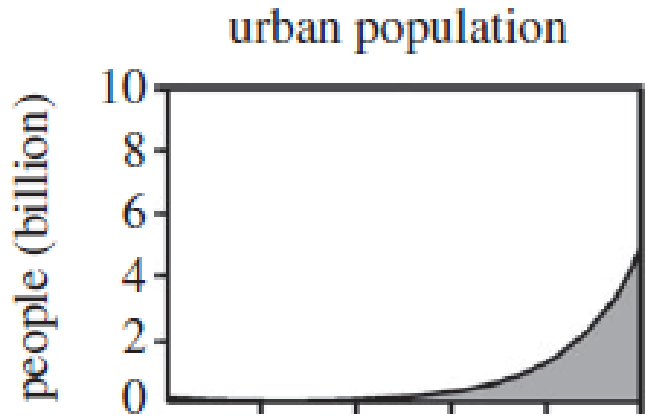
- The big challenge: from an economic growth model based upon fossil fuels.
- Making sustainable development operational: is a transition to green growth possible?
- Integration of environmental regulation and green industrial policies.
- The role of society in sustainable development.

Economic growth and technological innovation in the industrial era: the role of a fossil fuel based energy system (Global Energy Assessment, 2012)



Great Acceleration in Anthropocene (Steffen et al. 2011)





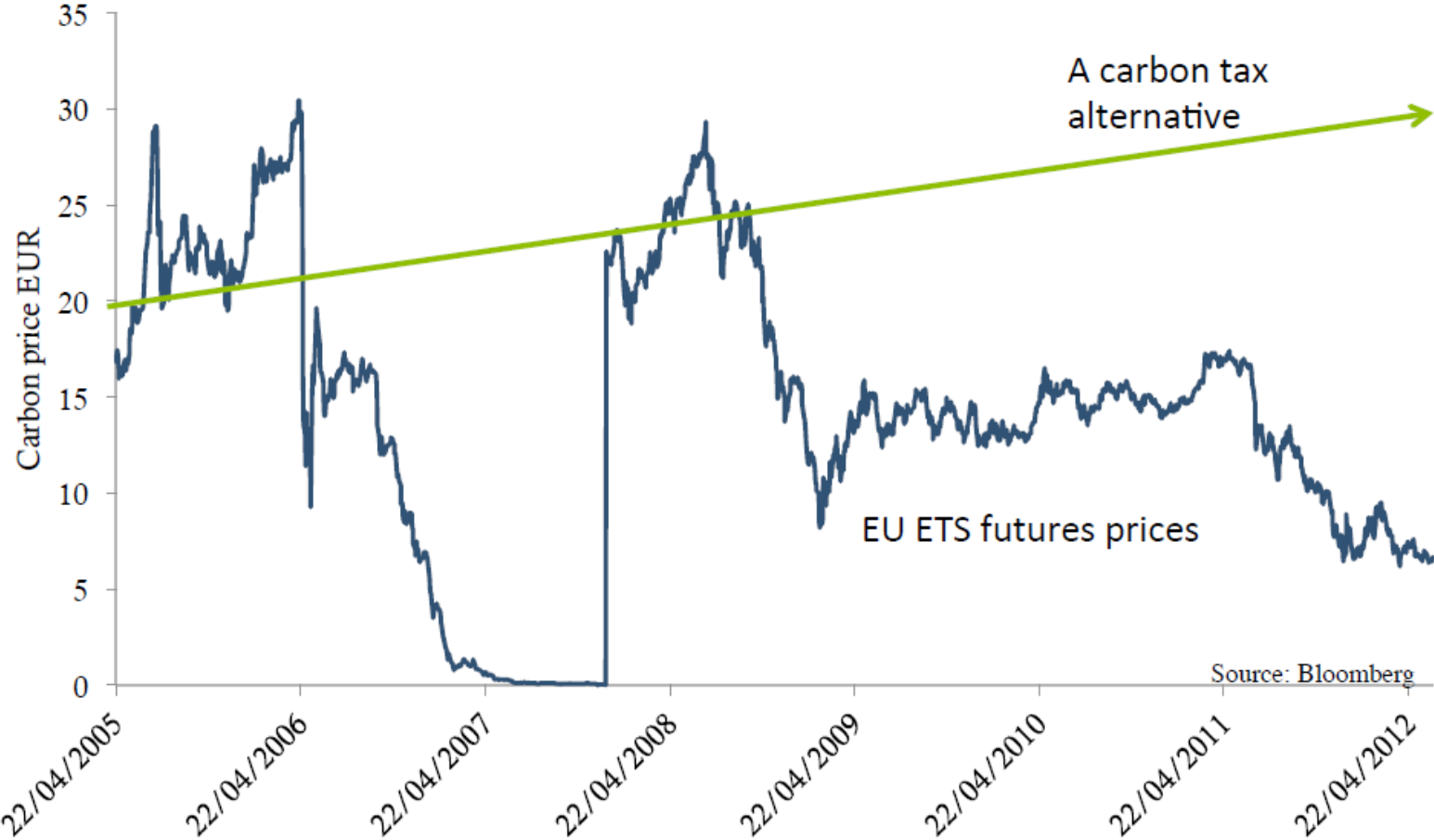
- Towards a low carbon economy ?
- Ekins: a green economy should not aim at the highest possible levels of growth, but to a sustainable pathway for growth.
- Economic growth cannot be growth of matter at the level of the whole Earth planet.
- Economic activity cannot make matter growing; it can only transform it.
- To be sustainable this transformation process must:
 - maximize recycling potential;
 - minimize entropy.

- Deep challenge for all economies: changing the locked-in structure of the current economic growth model.
- To counterbalance the negative **scale** effect of growth:
 - Environment-oriented **composition** effect not enough:
 - a life-cycle approach: services and immaterial goods always based upon material production (information technologies, tourism).
 - Ambiguity of **technological progress**:
 - an explicit environment-orientation required.

- Ekins is right: need of integrating environmental regulation, environment-oriented innovation policy and information to promote an active role of society.
- Environmental regulation provides appropriate incentive to adoption of:
 - *existing* environment-oriented technologies ;
 - *incremental* innovations in the area.
- Not enough for:
 - *radical* innovations shifting the technological regime required for **absolute decoupling** of environmental impacts from GDP growth.
 - displacing existing production structures and infrastructures (energy and transport market).

Ekins is right in focusing on environmental fiscal reform and the role of environmental taxation.

Price of carbon permits in the EUETS (Helm, 2012).



A green industrial policy: environmental regulation integrated to environment-oriented innovation policy.

- A direct and persistent government investment to promote environment-oriented innovations and widen their market :
 - Environment-oriented government's demand.
 - Supporting investments in R&D (Mazzucato, 2013, Rodrik, 2013).
- Ekins: innovation leadership crucial; manufacturing will follow.

Ambiguous role of finance.

- Financial system re-oriented to investments for sustainability.
- Opportunities for emerging countries with large savings, but focus should be on long-term social returns rather than to short-term market returns.
- In mature economies: trade-offs due to constraints on government budget and debt (Eurobonds).

The role of society in green growth: a further global challenge.

- Ekins: crucial role of information.
- Public policies for sustainable development not effective unless accompanied by a change in the social norms of behavior.
- A bottom-up polycentric approach (Ostrom): role of community network experiments.