

2006 Conaccount meeting

Septembre 13-14, Vienna, Austria –

Dematerialization across scales: Measurements, empirical evidence, future options

Dematerialization and Sustainable Degrowth

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Plan

- 1- Sustainability with Growth and Efficiency?**
- 2- Factual objections**
- 3 - Theoretical objection : Rebound effect**
- 4 - Sustainable Degrowth**
- 5 - Frugal Innovation**

**1-The level of consumption of
the north is unsustainable**

**How do we solve the
problem?**

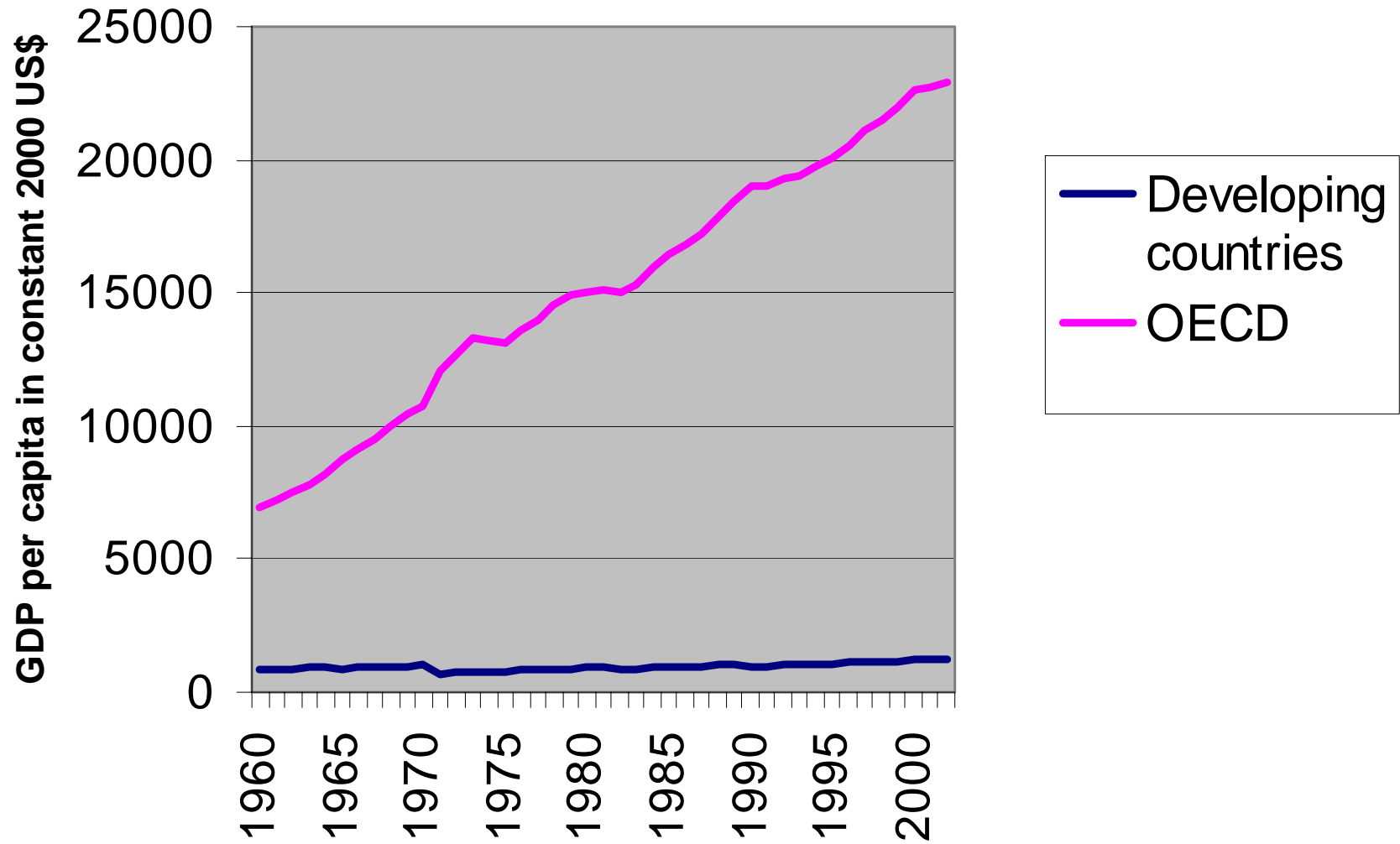
With (Eco-)Efficiency and Economic Growth we await:

- Dematerialization: less extraction and emissions
- Less unemployment
- More free time
- World equity
- More social interactions
- Security
- Health
- Happiness

We tested the remedy

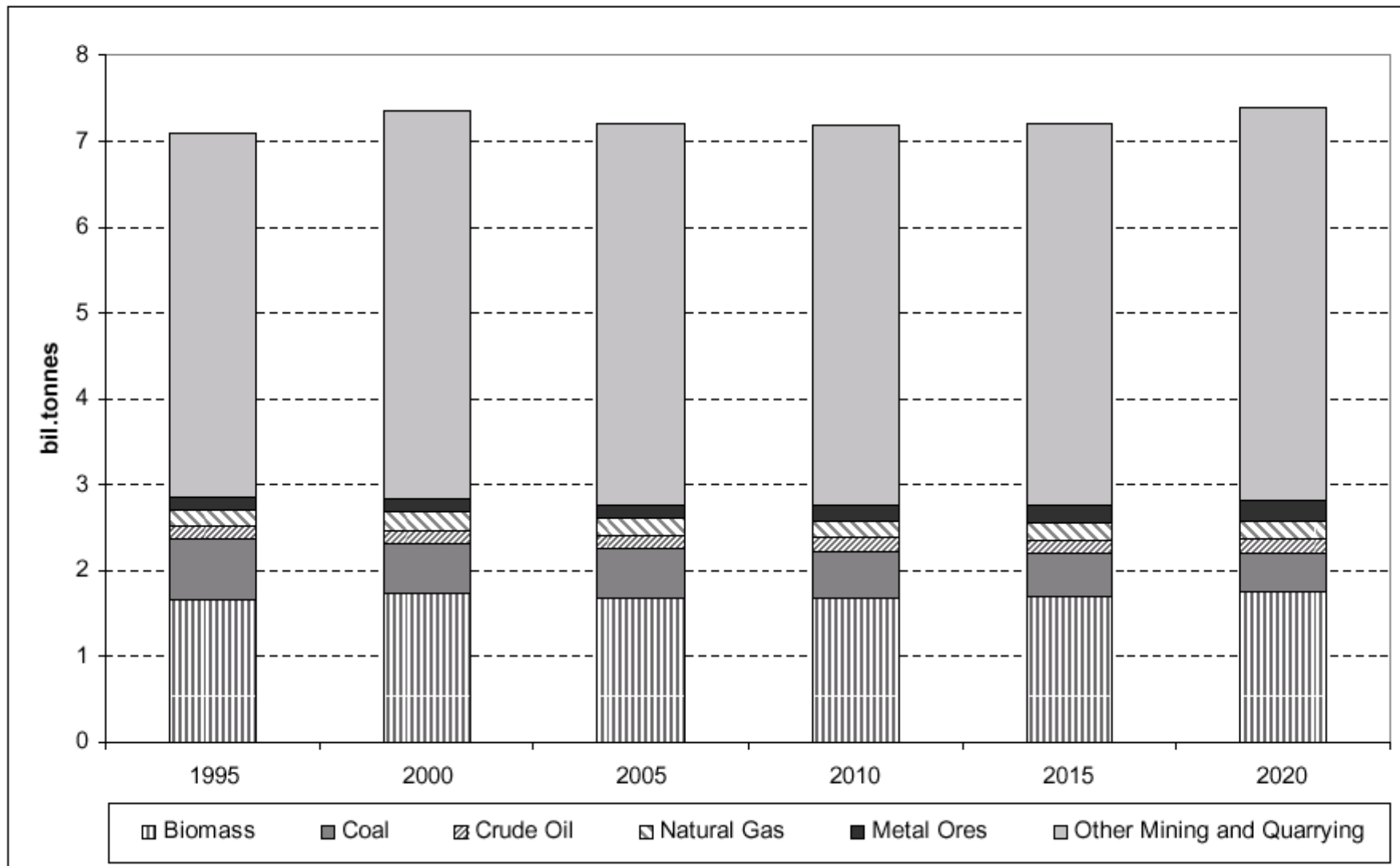
- Efficient services
- Clean cars, saving bulbs, solar panels, recycling ...
- Highways, Internet, fast trains
- Economies of scale
- Automation
- Miniaturised electronics

GDP per capita (source: World Bank)



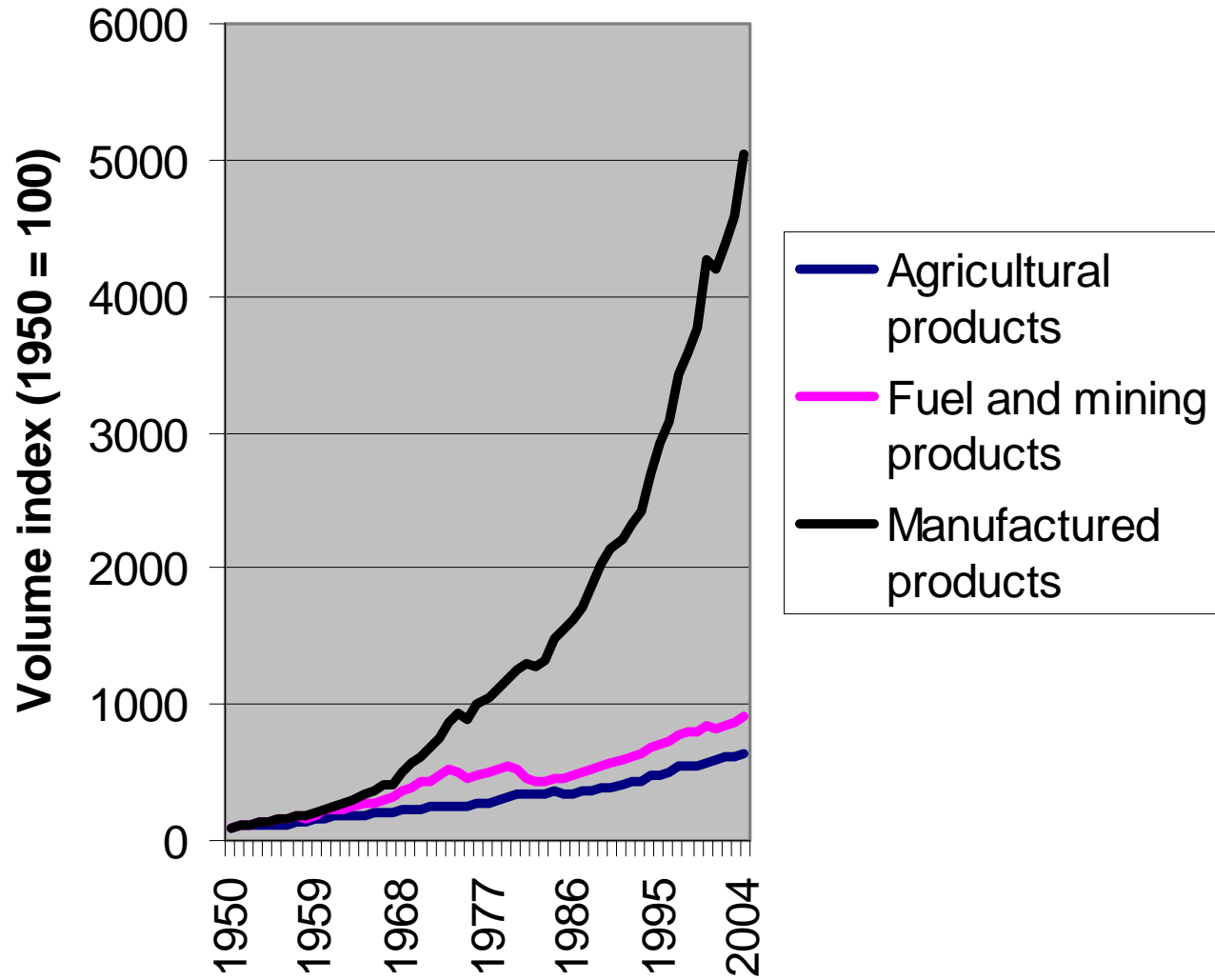
I- Factual Objections

Used domestic extraction in the EU-25, baseline scenario



Source MOSUS, source www.mosus.net

World merchandise exports



A few words of advertising

Faster!!

Cheaper!!

Safer!!

No effort!!

Ecological!!

**Smaller!
Lighter!**

Better for health

We consume always more :

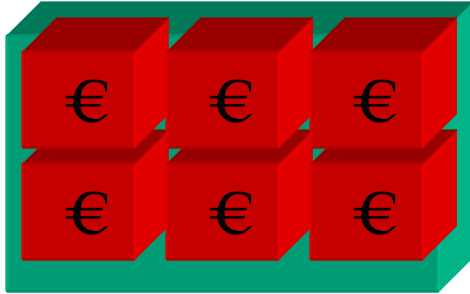
- **more flights,**
- **more cars,** heavier and more powerful, travelling longer distances,
- **more heating** and more air conditioning in larger living space,
- **more imported** products,
- **more concrete or asphalt,**
- **more products and services** in economic terms.

And ...

- The world is **not less polluted**
- We did **not save time**
- We always **spend a lot**
- **Unemployment** is not solved
- Culture is becoming more uniform
- World **inequity** is sharpening
- Our life is **not less risky**
- We are **not happier**

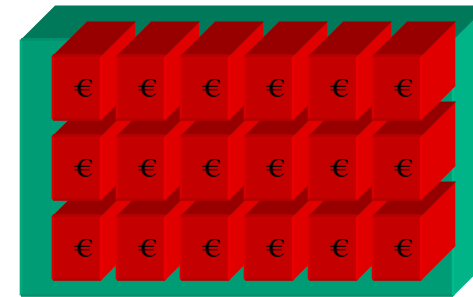
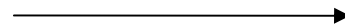
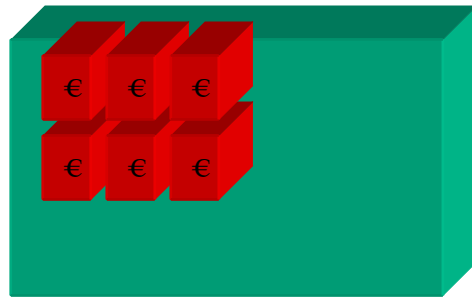
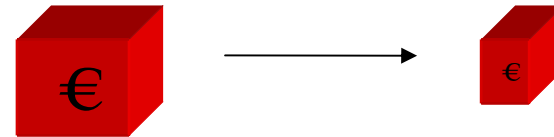
**2- Theoretical objection to
decoupling:
Rebound Effect**

Rebound effect

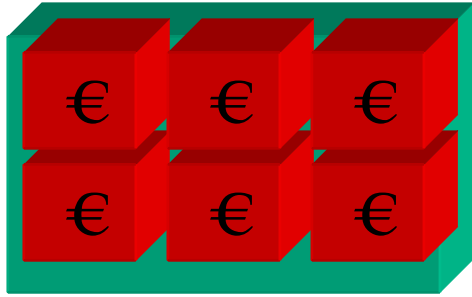


We do not want to consume more because our limits are reached

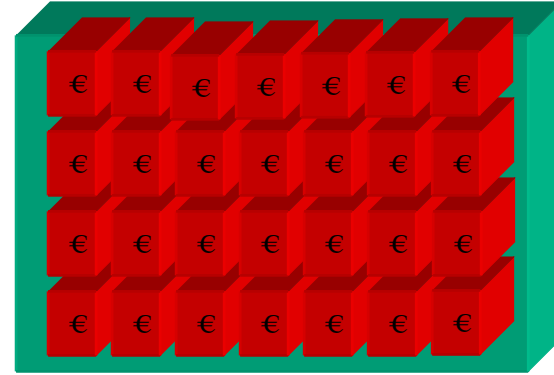
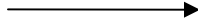
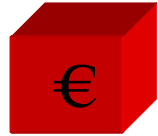
Product (or service) innovation



Rebound effect: product (or service) innovation enables us to increase our consumption.



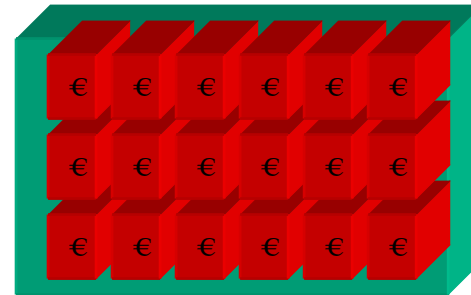
Demateria-
lisation



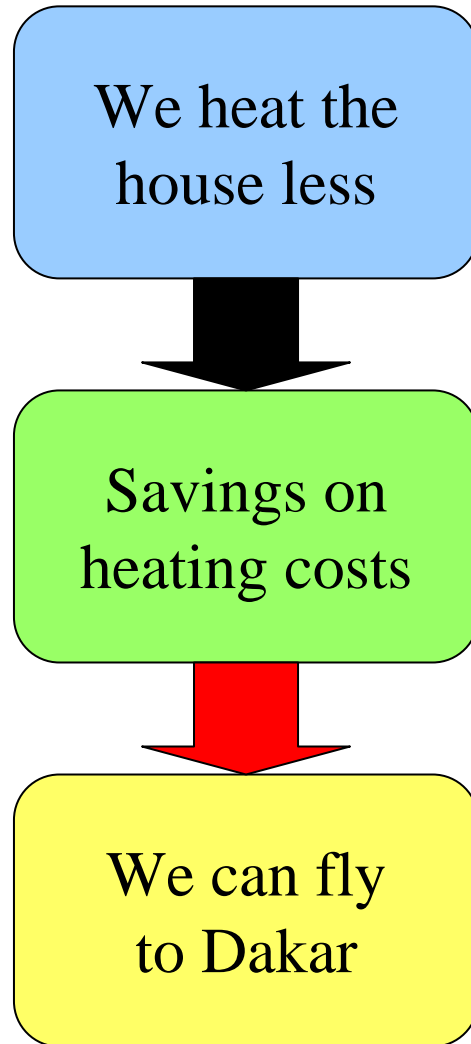
Economic growth
is achieved at the
condition of higher
levels of consumption



At the same level of
consumption we would have
Economic Degrowth



Rebound effect linked to frugality



Welcome in the service economy

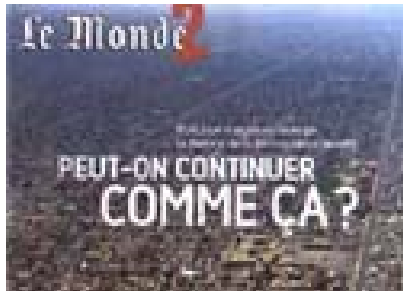
- **Increasing share of GDP**
- Services did not reduce production
- Production has largely been delocalised in countries where employment is cheaper and less regulated *Mont (2002)*
- Immaterial growth is too risky considering the rebound effect

4- Sustainable Degrowth

Short History of french Degrowth Movement

- Writings from Georgescu-Roegen, Partant, Ellul, Illich, Latouche
- Books and press
- Conferences: Unesco 2002, Lyon town-hall 2003, Montbrison 2005
- Marches
- Debates in civil society and political parties
- Networks

Some Press on Sustainable Degrowth



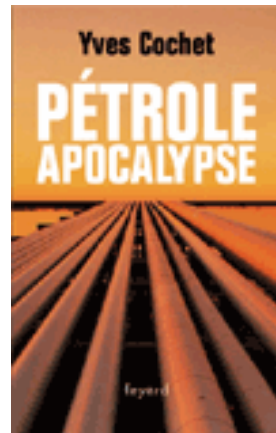
[Cap sur la décroissance](#) Manière de voir n°83, septembre 2005
[L'homme qui voulait décroître](#) La Voix des Allobroges, été 2005
[La taxe Tobin pour légitimer la spéculation ?](#) Hémisphère, décembre 2005, journal de débats sur le développement
[La décroissance soutenable](#) Hémisphère, décembre 2005
[Et la décroissance sauvera le Sud...](#) Le monde diplomatique, novembre 2004
[Décroître ou mourir...](#), Libération, 10 mars 2004
[Croâ, croâ...](#), Le canard enchaîné, mars 2004
[Décroissance ou développement durable ?](#) Alternatives-économiques, janvier 2004
[En finir avec la religion de la croissance](#), Politis, Patrick Pior, décembre 2003
[La décroissance soutenable : décroître ou mourir ?](#) - Imagine 42 - décembre 2003 - David Leloup
[Ces «décroissants» qui prônent la frugalité](#), - Le courrier, 29 novembre 2003 - par Fabio Lo Verso
[Mon thème préféré au FSE, la décroissance](#), Charlie-Hebdo, Bernard Maris, novembre 2003
[Moins c'est mieux !](#), Télérama, Weronika Zarachowicz, octobre 2003
[Ces hommes qui rêvent de décroissance](#), Lyon Capitale, Céline Bof, octobre 2003
[La décroissance économique à l'honneur](#), Le Progrès-Lyon matin, septembre 2003
[Ils sont fous ces décroissants !](#), Le canard enchaîné, Jean-Luc Porquet, septembre 2003
[La croissance, à quoi bon ?](#) Libération, Alexandra Schwartzbrod et Laure Nouahlat, 25 septembre 2003
[Le développement durable ? Impossible !](#) - Bizz - mars 2003 - Christine Scharff
[La décroissance soutenable](#) - Réél - mars 2003 - Fabienne Laurès
[Stop la croissance !](#) - Technikart - décembre 2002 - Dossier de Joseph Viellard
[Casseurs de pub et Réfracteurs](#) - Le canard enchaîné - 11 décembre 2002 - Jean-Luc Porquet
[Sortir du développement durable](#) - S!lence- décembre 2002 - Vincent Cheynet
[Chirac ou les bonobos](#) - Charlie Hebdo - 11 septembre 2002 - Bernard Maris
[Le développement est-il soutenable ?](#) - Alternatives économiques - septembre 2002 - Jacques Généreux
[Il nous faut douze planètes](#) - Le canard enchaîné - 04 septembre 2002 - Jean-Luc Porquet
[Un concept à géométrie très variable](#) - Politis - 25 juillet 2002 - Patrick Piro
[L'obésité durable](#) - Charlie Hebdo - 10 juillet 2002 - Bernard Maris
[A bas l'obscur clarté](#) - Le Canard Enchaîné - 27 mars 2002 - Jean-Luc Porquet
[Sauver le monde par la décroissance soutenable !](#) - Le monde - 21 février 2002 - Hervé Kempf



A March for Degrowth



Some books on Degrowth



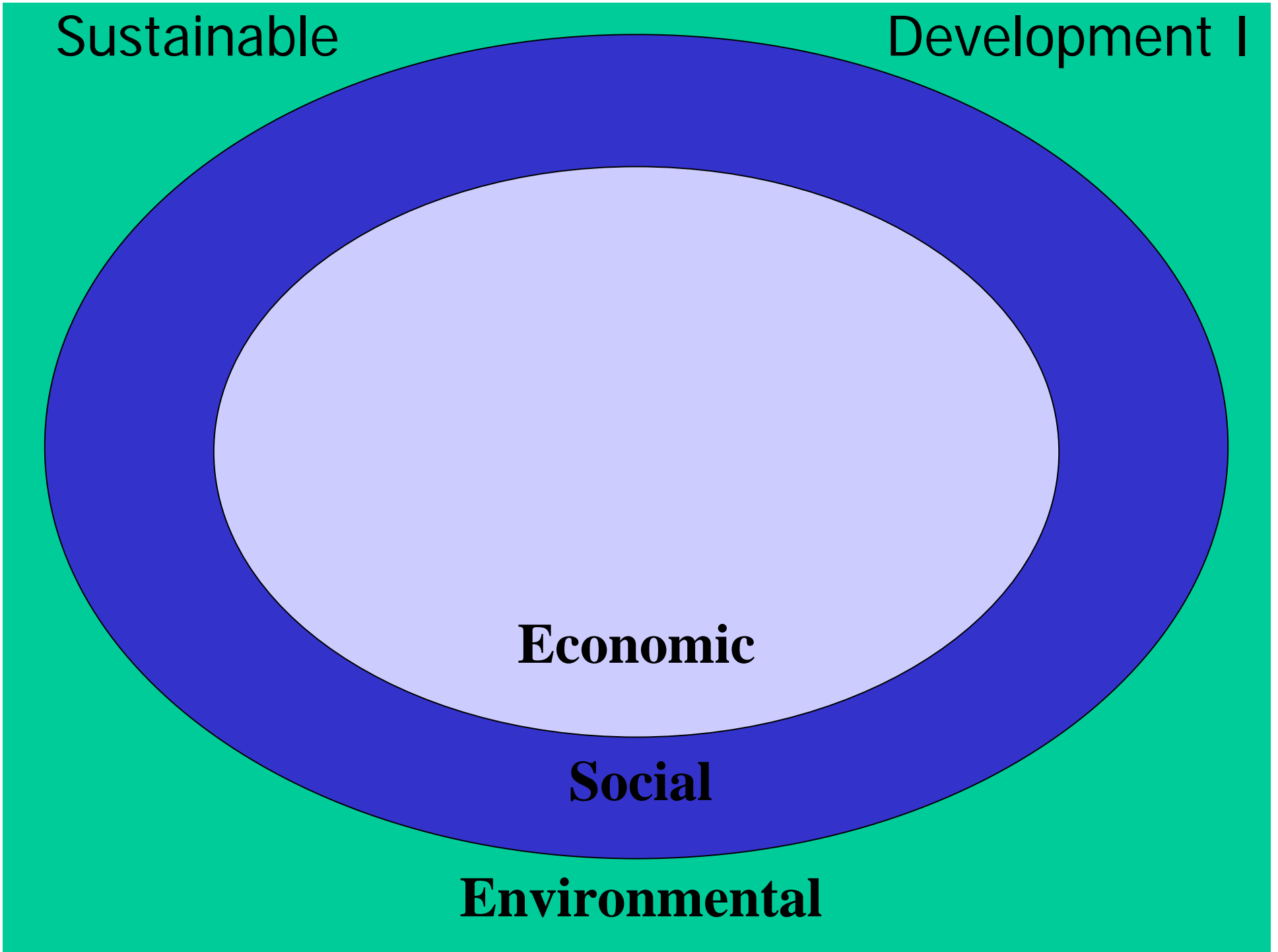
Sustainable

Development I

Economic

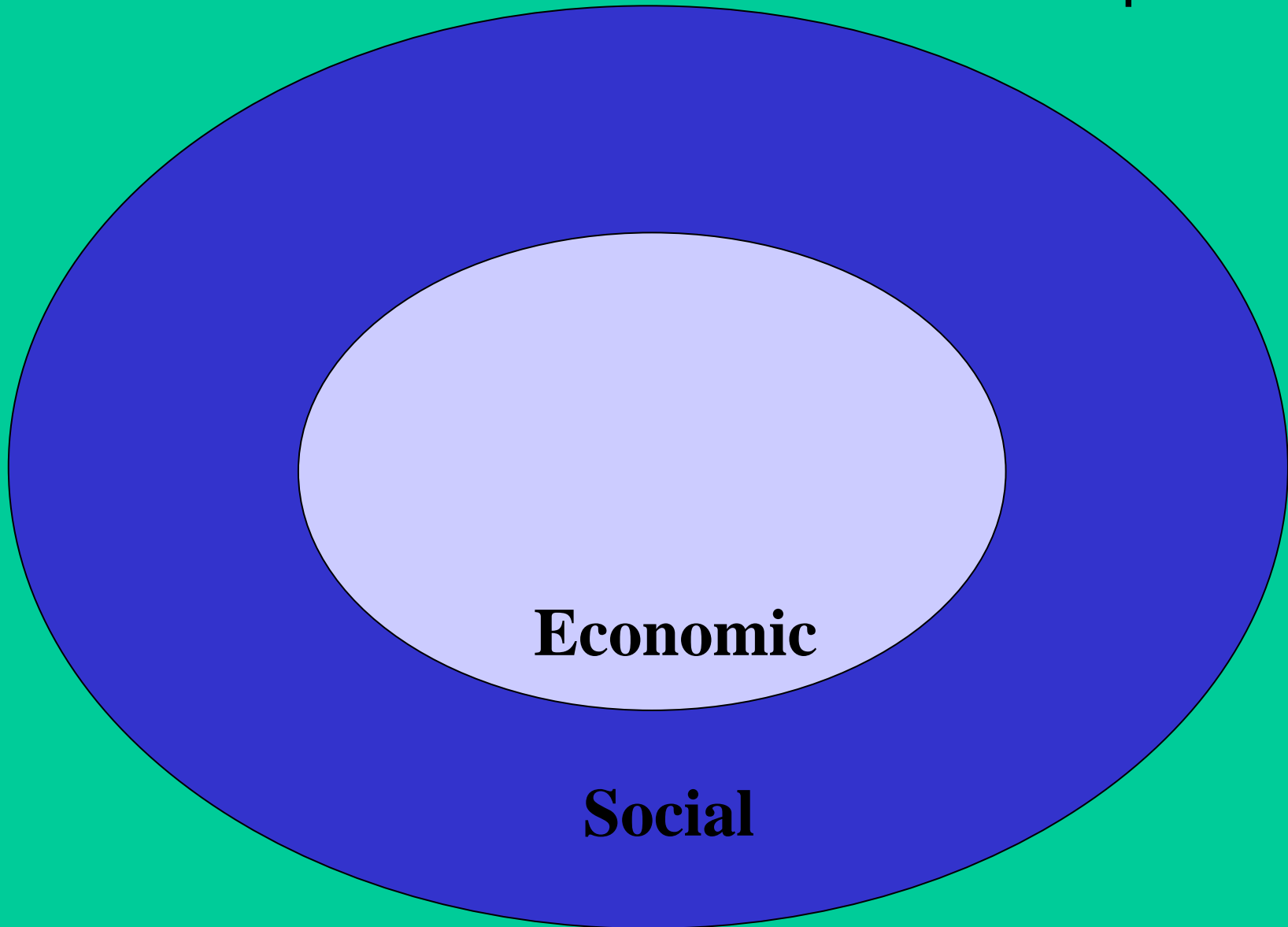
Social

Environmental



Sustainable

Development II



Economic

Social

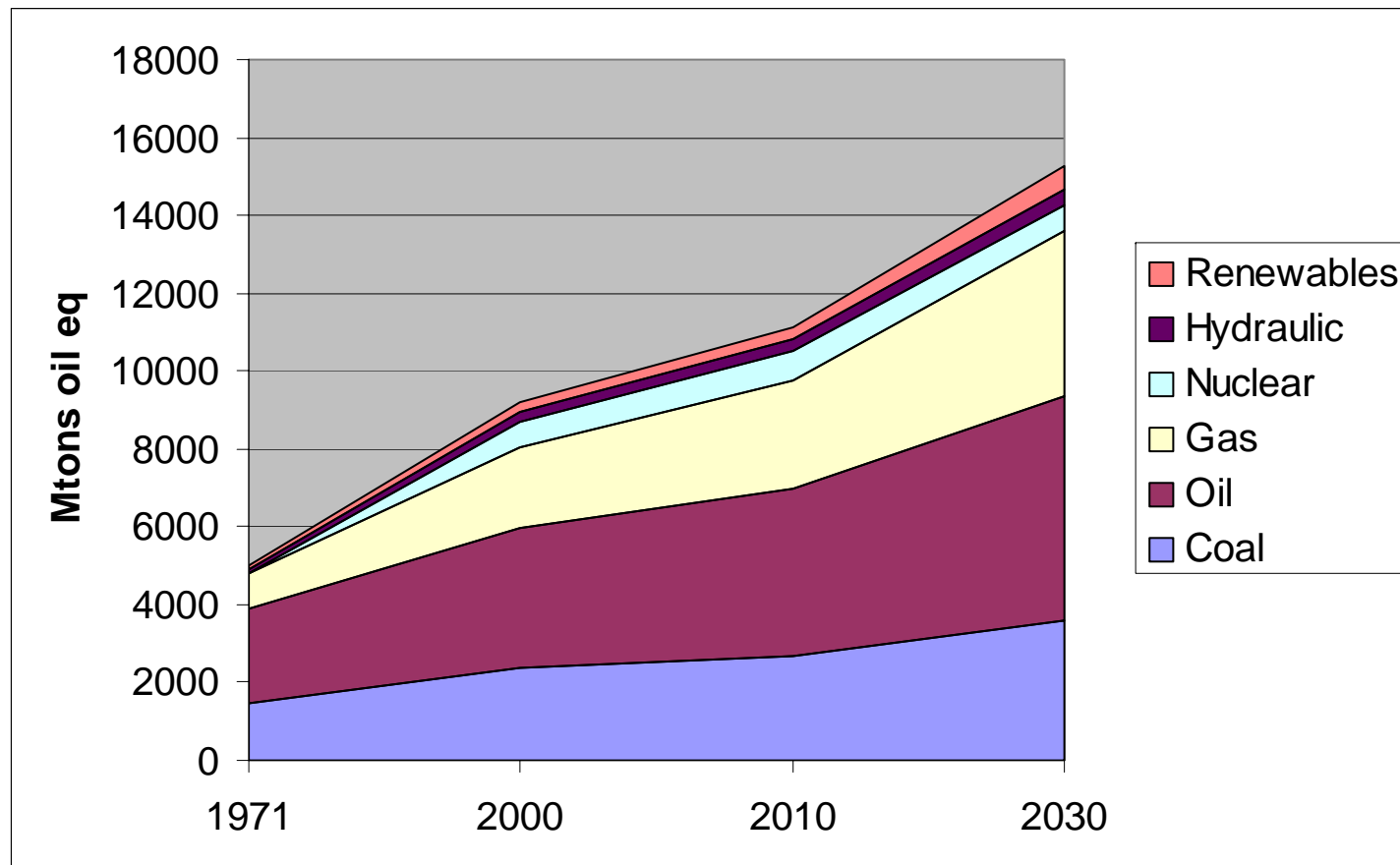
Environmental

Clarifications for Sustainable Degrowth

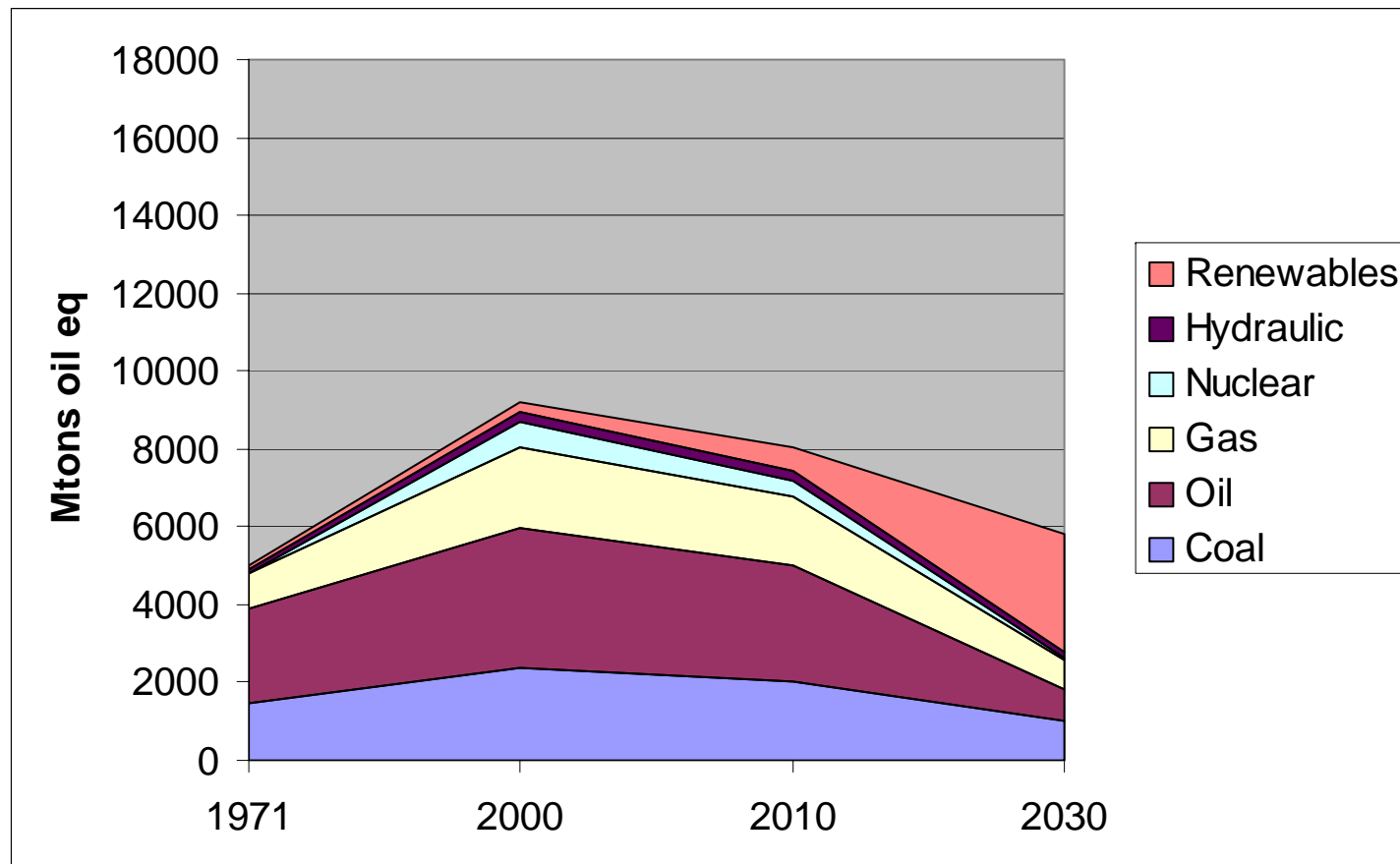
- Physical and economic processes
- Diverse
- Personal and collective at local and global levels
- Democratic
- Fair
- Avoiding crisis
- Transient
- Global
- Innovative (frugal innovation)

Forecast of energetic growth in the world

International Energy Agency 2001



Forecast of energetic degrowth in the world



4- the tracks : frugal innovation

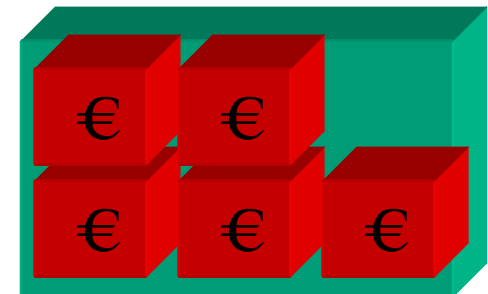
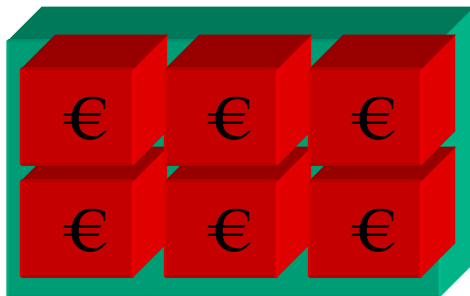
Lifestyle innovation

Societal innovation

« Frugal Innovation » I

Free areas

Nuclear free, OGM free;
Weapons-free;
Nanotechnologies-free?



« Frugal Innovation » II

Personal and collective freedom from certain technologies

Challenging cars
planes, TV, microwave...

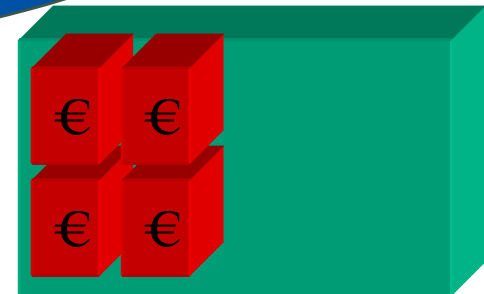
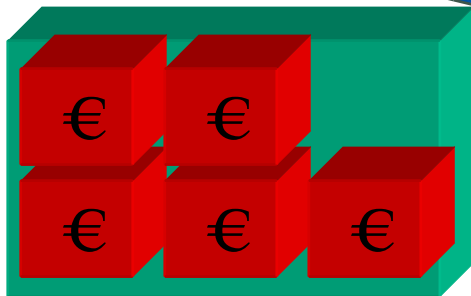
Avoiding supermarkets;

Reducing bulldozers, explosives and other extractors;

Reducing empty and secondary houses;

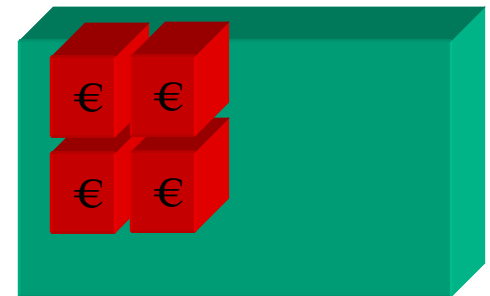
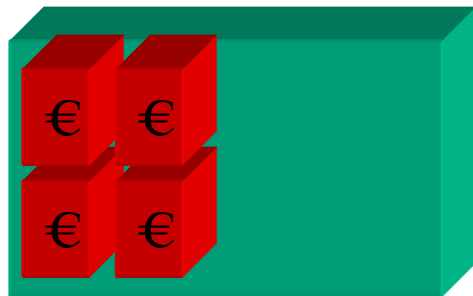
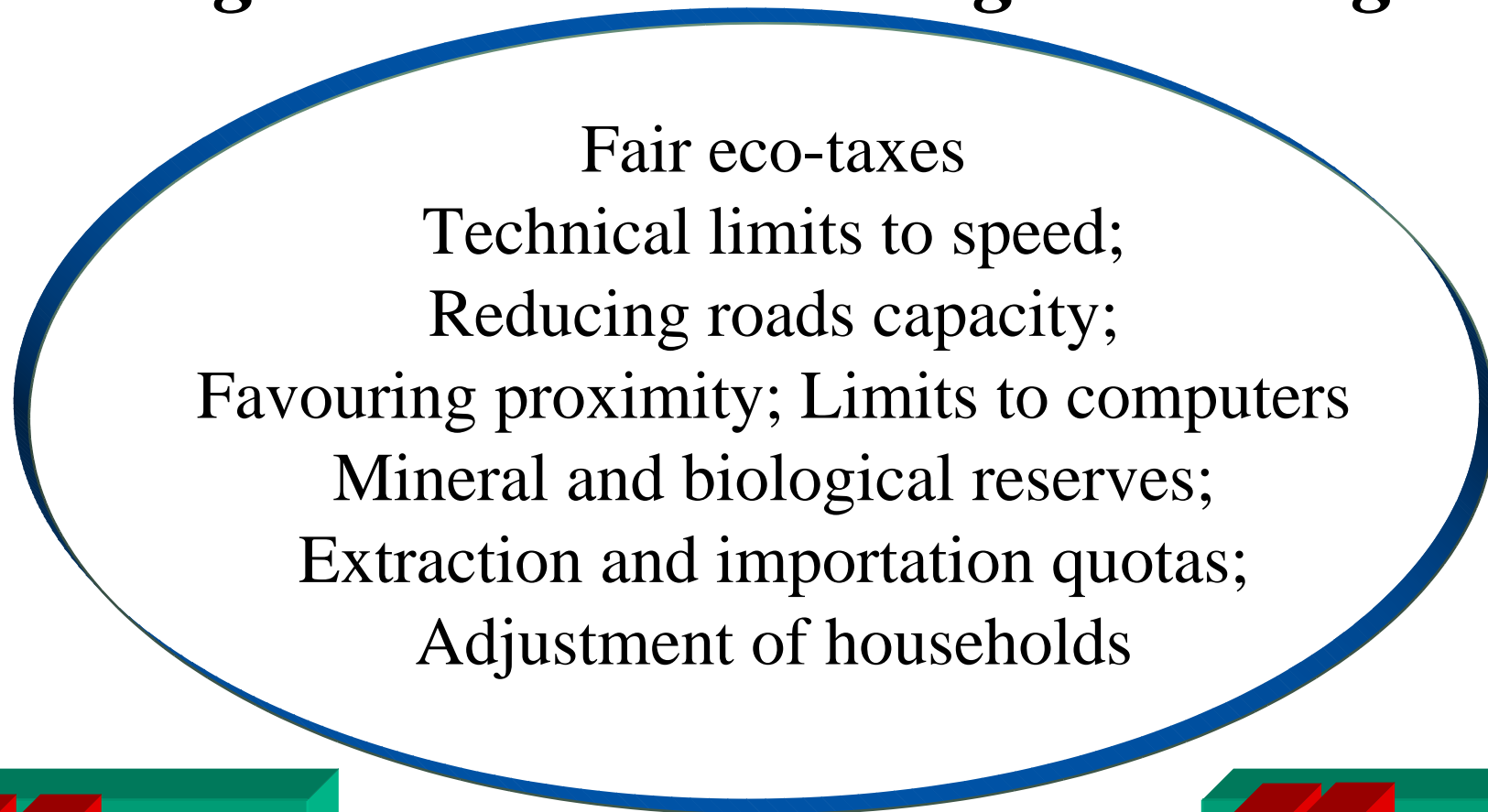
Reducing animal products;

Avoiding incineration



« Frugal Innovation » III

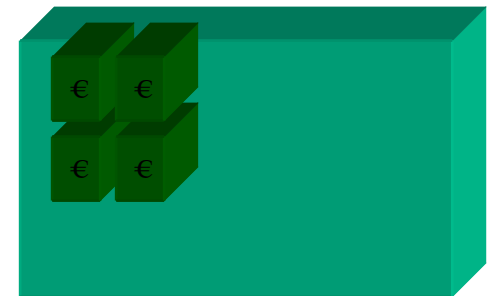
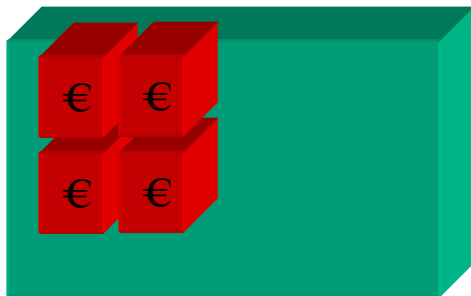
Integrate limits to existing technologies



« Frugal Innovation » IV

Developing alternatives integrating limits

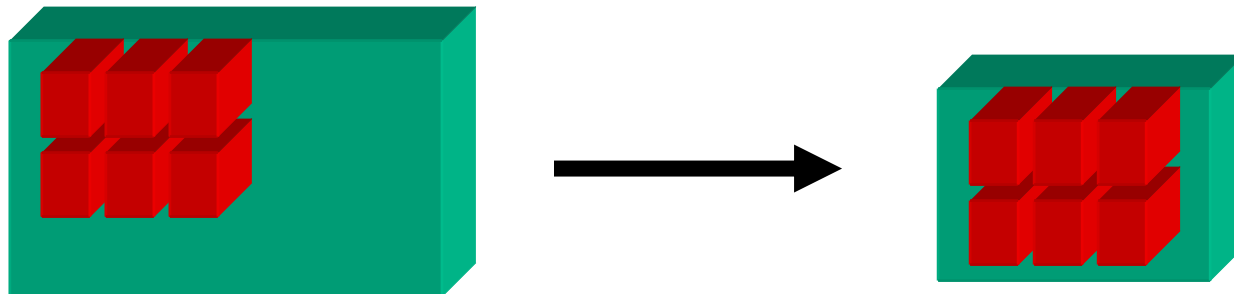
Utilitarian bicycling, hiking;
Train travel, shared goods;
Underground irrigation, rain collection,
Organic and ploughing-free agriculture;
Solar heating, windmills, small hydraulic,
returnable packaging, compost,
Sorting and recycling of waste;
local-eco-building.



V- Adjustment

Last frugal Innovation to avoid Rebound Effect

- Adjustment of consumption will and potential in accordance with personal and collective, ecological and social actions



Soft landing of the economy at a
sustainable level

COMBINING A BALANCE OF

- **Degrowth in production:**
 - Efficiency : less resources per unit produced
 - reduction of most damaging industries with eco-taxes, open-localisation, restructurations
- **Frugality:** voluntary decrease of consumption
- **Reduction of paid working hours**

Job sharing/participative democracy

Potential gains of degrowth

- **More nature**
- **More time**
- **More equity**
- **More spaces for conviviality and art**
- **More health and security**
- **Less unemployment and less stress**
- **More happiness ?**

**Internationalisation of the
debate around Degrowth**

**International Research on
Sustainable Degrowth**

New frontier : challenging the constraint of economic growth

- Generalisation of good practice
- Participatory processes for reorganisation
- Change of the present monetary system?

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Thank you

If you are interested to take part of a research platform
"Research & Degrowth

Contact: Francois.schneider@degrowth.net

Links to the very diverse Degrowth movement in France:

www.decroissance.org

www.decroissance.info

www.apres-developpement.org