Is duurzame energie een utopie?

Tussen kernenergie en de opwarming van de aarde

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Inhoud

- Omvang van het energiesysteem
- Keuzen maken
- Globaal beleid
- Achtergrond
- Relatie techniek en maatschappij
- Philosophical ethics
- Keuzen maken

Omvang

Het energiesysteem is enorm:

- **2015: 580 quadriljoen (10 tot de 24ste) BTU**
- **2040: 820 quadriljoen BTU**

Duurzame energie:

- **2015: 60 quadriljoen BTU**
- **2040: 100 quadriljoen BTU**

The British thermal unit (BTU or Btu) is a traditional unit of energy equal to about 1055 joules or 252 cal.

Figure 1. World energy consumption, 1990-2040

quadrillion Btu

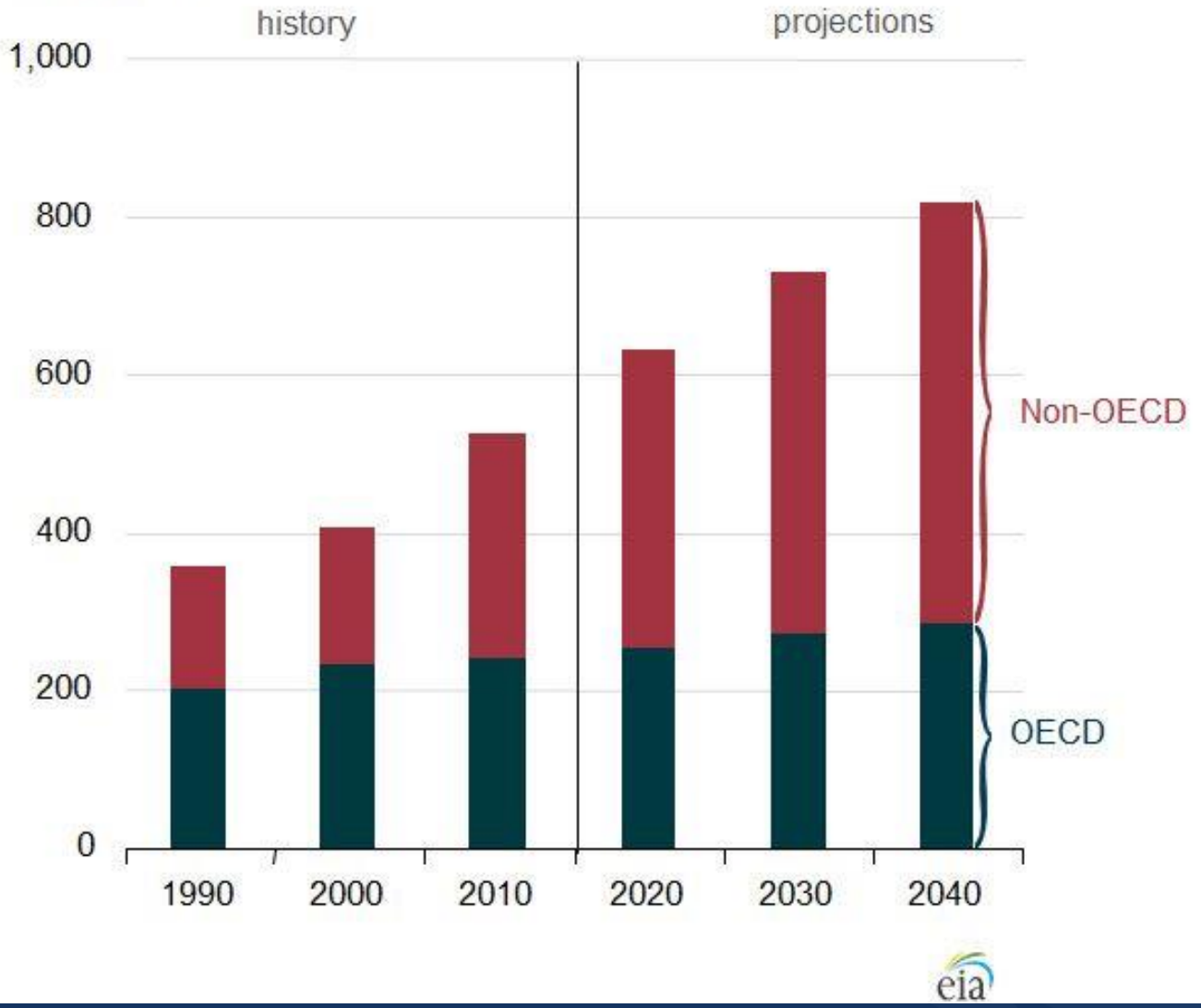


Figure 13. Energy consumption in the United States, China, and India, 1990-2040

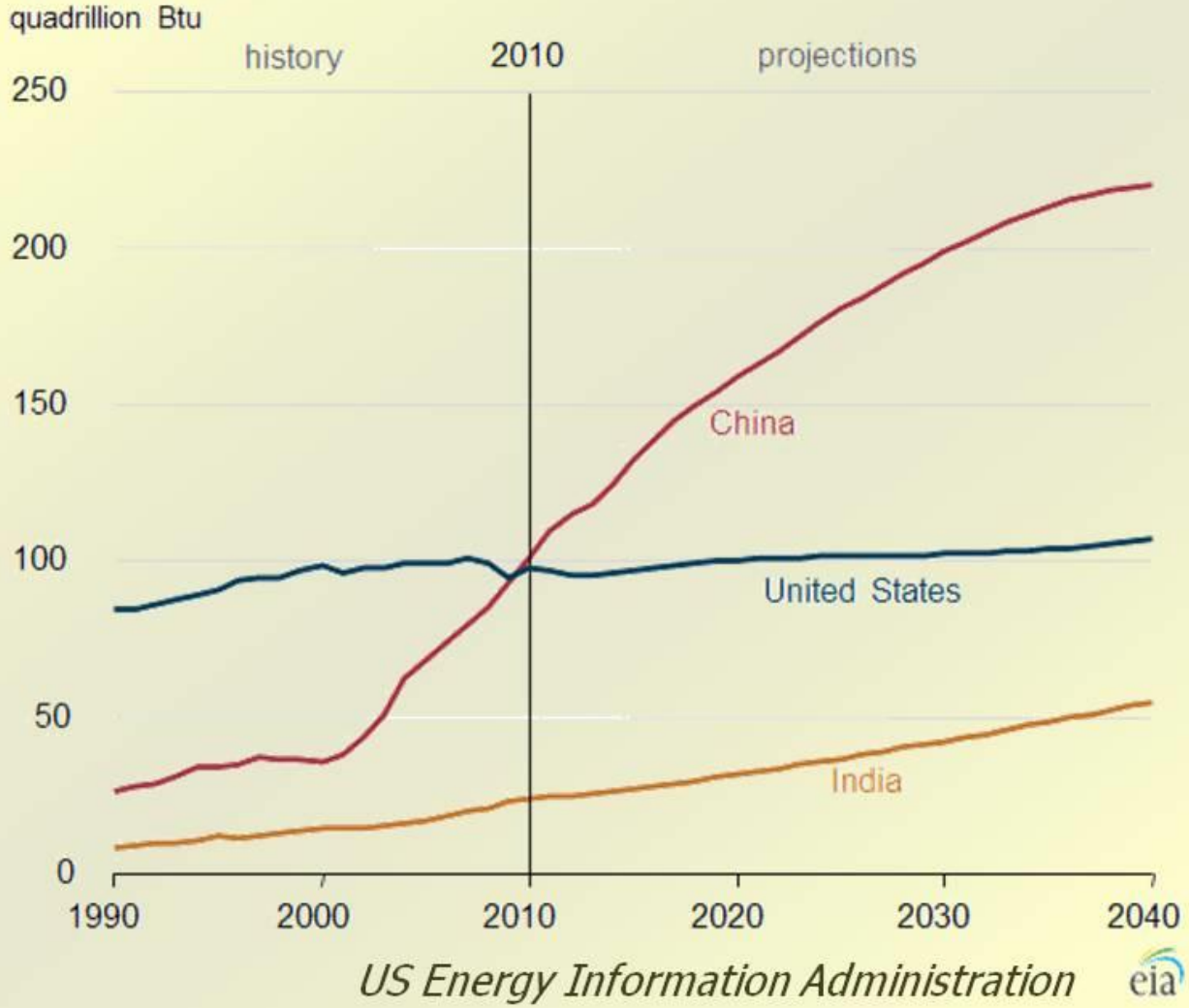
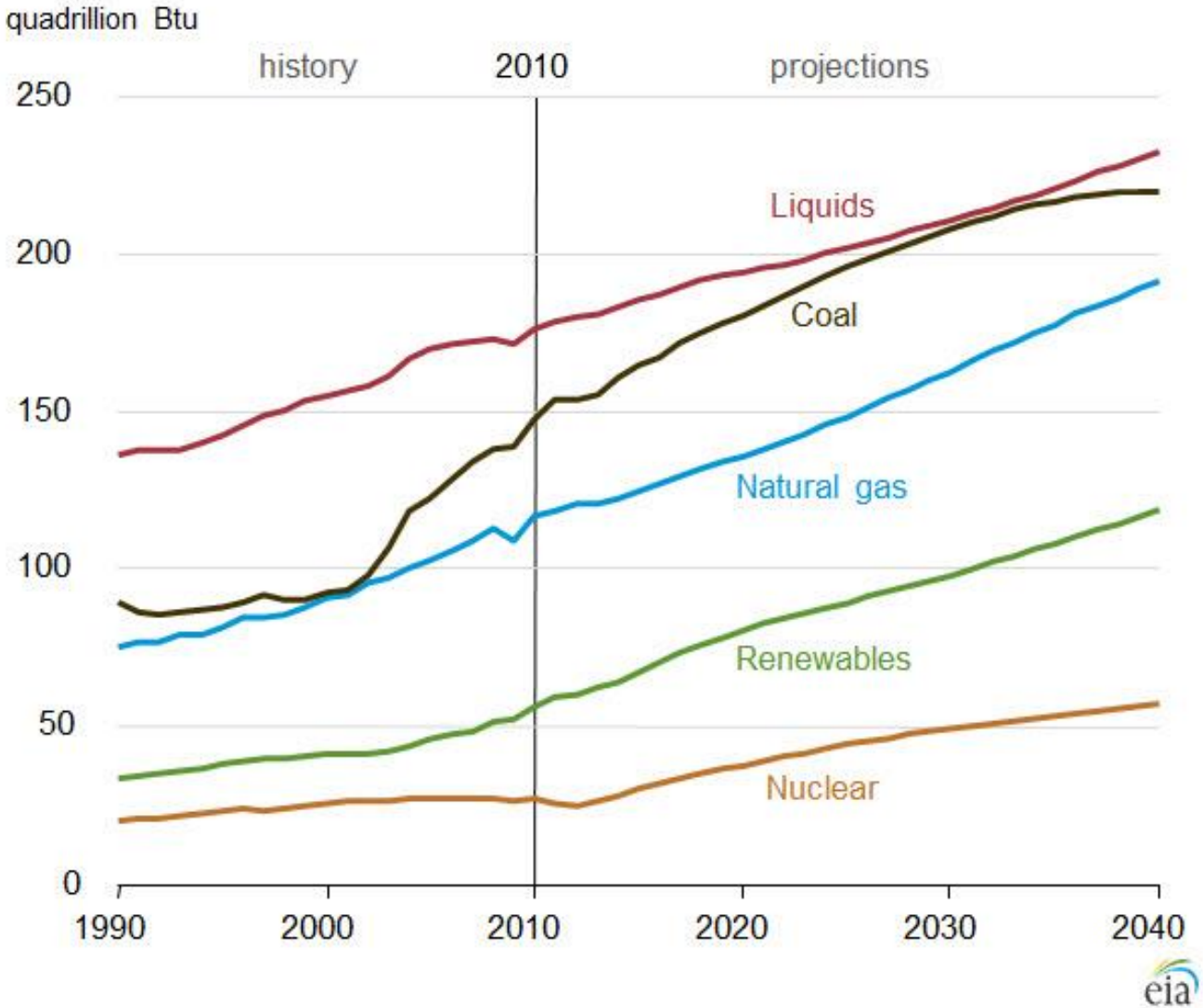
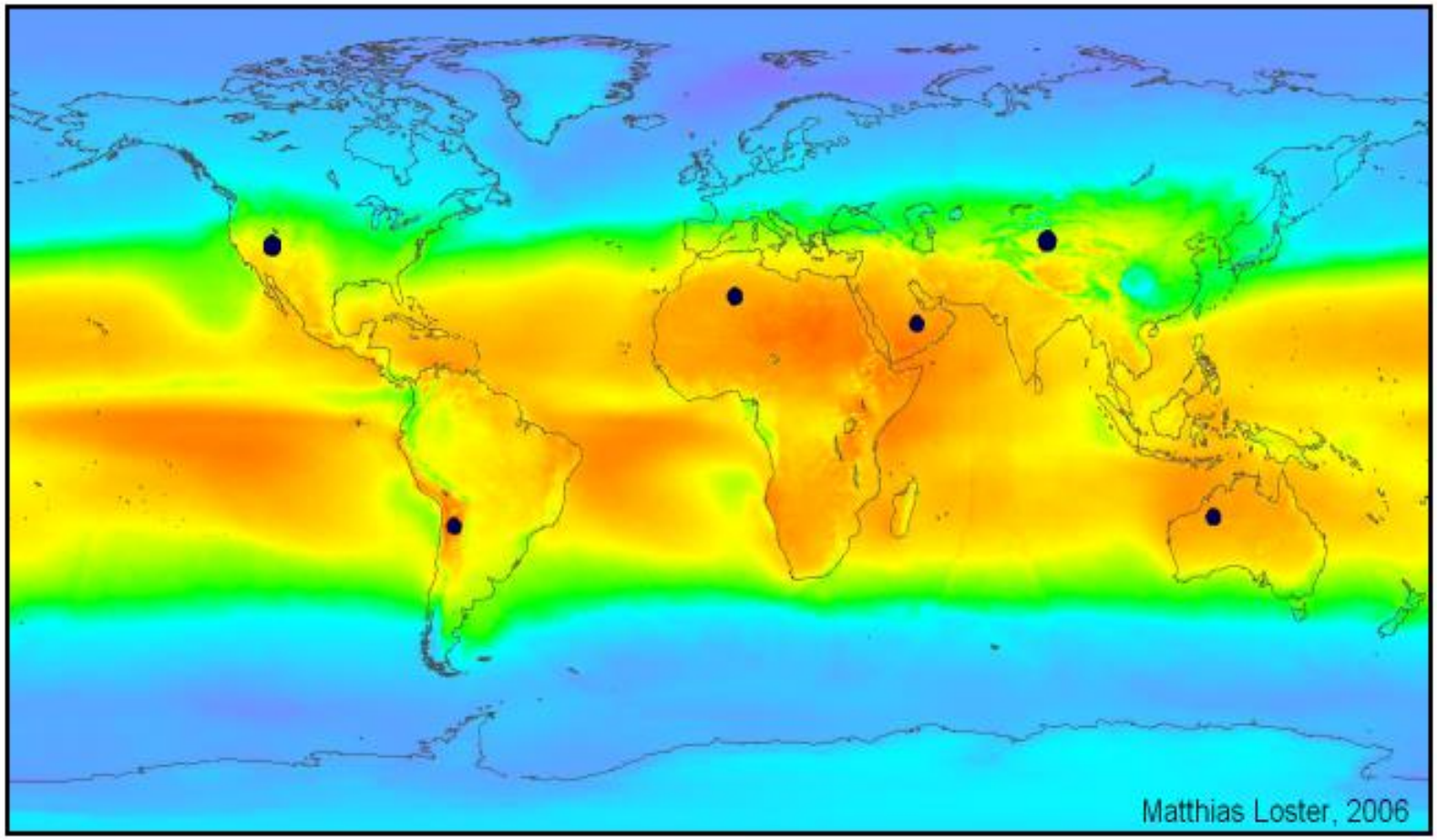


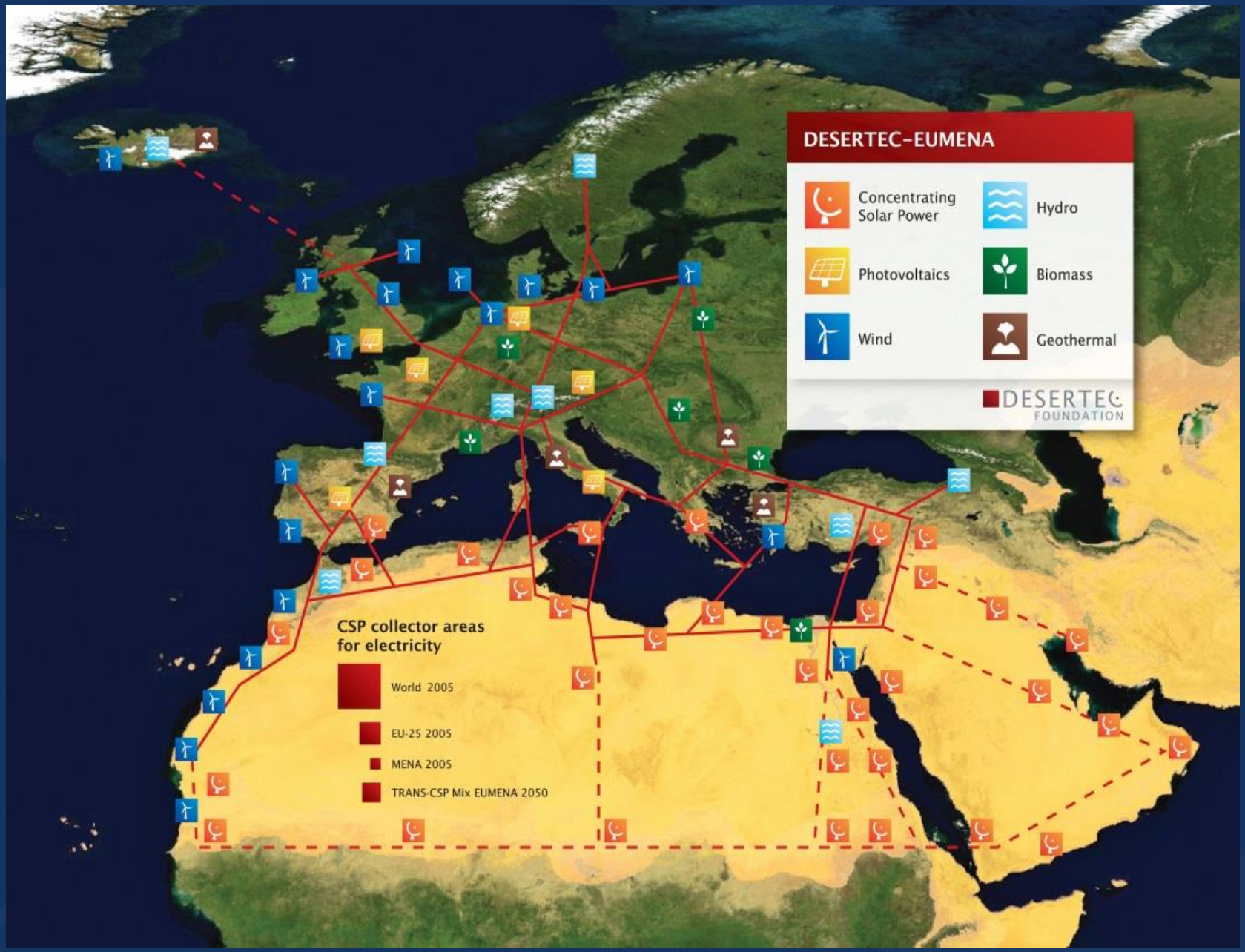
Figure 2. World energy consumption by fuel type, 1990-2040



Keuzen maken

- **Acceptable**
- **Available**
- **Affordable**


Matthias Loster, 2006
0
50
100
150
200
250
300
350
W/m²
Σ● = 18 TWe


DESERTEC-EUMENA
Concentrating Solar Power
Hydro
Photovoltaics
Biomass
Wind
Geothermal
DESERTEC FOUNDATION
CSP collector areas for electricity
World 2005
EU-25 2005
MENA 2005
TRANS-CSP Mix EUMENA 2050

Globaal beleid

- **IEA and IPCC**
- **Noodzaak Europese energiepoliek (3 A's, beleid mbt Rusland etc)**
- **Noodzaak Globale energiepolitiek (3 A's, internationale handel)**

- **Voorbeeld: gevaar van voorop lopen**

Achtergrond

- White: christendom heeft de weg vrijgemaakt voor de uitbuiting van de natuur
- nadere analyse: probleem is autonome mens die zichzelf centraal stelt
- wijsgerige wortels in Renaissance
- christenen en humanisten hebben samengewerkt aan de opbouw van de westerse samenleving
- Welke idealen geven de samenleving nu vorm?

Relatie techniek en maatschappij

Twee visies:

- **determinisme (Ellul): techniek ontwikkelt zich autonoom**
- **constructivisme (Pinch, Bijker e.a.): techniek is een menselijke constructie**

Beide visies geven waardevol perspectief

Philosophical Ethics

Main theories in the history of philosophy

Focus on ‘profiles’ (unity of theory and practice)

What is a profile?

A philosophical ethic is a form of (scientific) reflection on behavior in terms of good and bad. Mostly, such an ethic has its breeding ground in a specific style of living.

Profile = unity of theory and practice = unity of reflection and moral life . Different profiles highlight different aspects of moral life

MacIntyre: ethics is related to practices

Different profiles

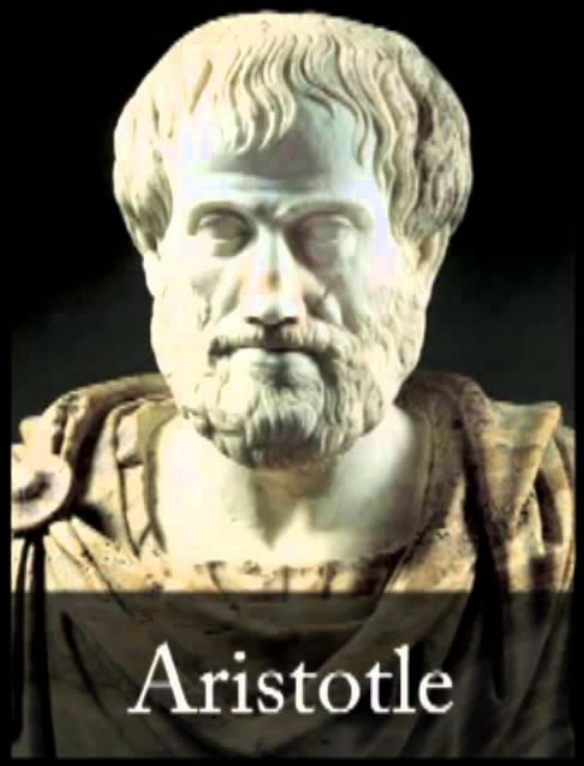
- **Aristotle: A virtuous life**
- **Bentham and Mill: Living for public utility**
- **Kant: Living according to the moral law**

Additional:

- **Habermas: Consensus in dialogue**

Aristotle

"Those who educate children well are more to be honored than they who produce them; for these only gave them life, those the art of living well"



Aristotle

Virtue ethics is inextricably bound up with Greek culture and Greek community life in the polis. It is a classical example of a profile: unity of style of life and ethical theory.

Virtue ethics is not a general theory about human actions but is a guide for humans to search for a style of life in which they realize their abilities and will be happy.

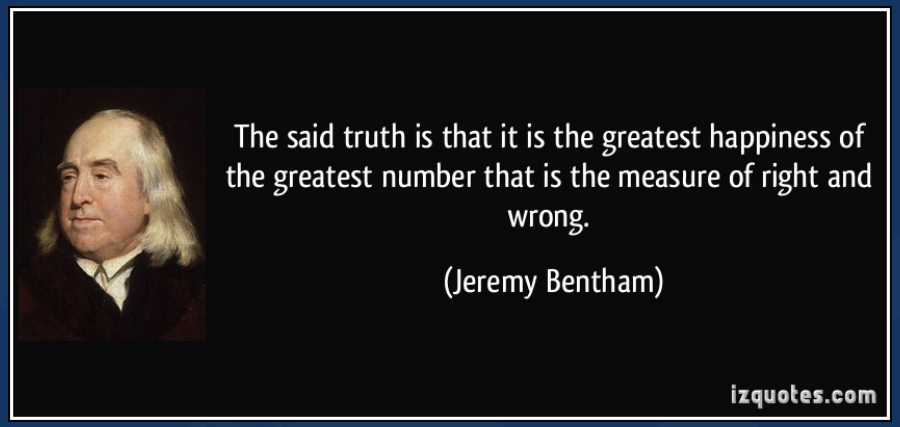
A virtue is a desirable moral quality by which man keeps oriented on the good life. Virtues have a stable and durable character. Most important virtue = prudentia (practical insight).

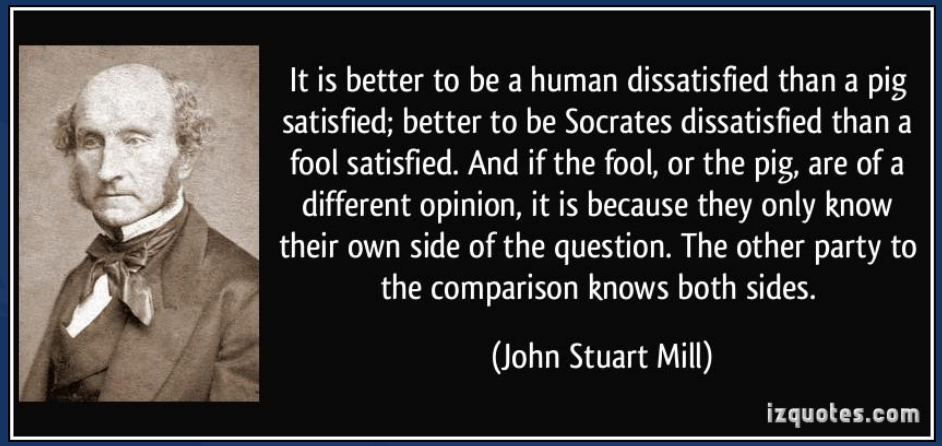
Aristotle

Teleology: Our actions are always motivated by an end. There are final ends and subordinate ends. The good is a final end that we choose for itself (and not because it is useful). E.g. happiness, honor, beauty, reason.

Eudemonia: state in which humans manage to be a true human. Actualization of human potential. A moral life is a happy life. Three types of life: vulgar pleasure, politics and contemplation. High appreciation for contemplation. Most human: political type.

Bentham and Mill





Bentham and Mill

Large changes in the 16th century: religious change (Calvin, Luther), breakthrough in science, and in the life world (economics).

Idea of the free market and the modern liberal state

New view on the nature of man: man is attracted by things that result in pleasure and avoids everything that causes pain

Bentham and Mill

Utilitarianism or consequentialism:

- **The principle of consequence: an action has to be judged by the moral utility.**
- **The principle of utility: ‘the greatest happiness for the greatest numbers’.**
- **The principle of pleasure: maximizing the satisfaction of needs.**
- **The principle of sociality: idea of general well-being (‘ the greatest numbers’)**

Bentham and Mill

Utilitarianism or consequentialism:

- **Bentham developed a quantitative program and Mill stressed qualitative differences**
- **A theory of justice cannot be based on utilitarian considerations.**

Immanuel Kant

There is, therefore, only one categorical imperative. It is: Act only according to that maxim by which you can at the same time will that it should become a universal law.

(Immanuel Kant)

izquotes.com

Immanuel Kant

Theoretical approach: conditions for a moral life? It is about formal rules.

Kant rejects an appeal to the authority outside ourselves (heteronomy) and pleads for self-legislation (autonomy).

Kant emphasizes the duty or obligation. Amongst other as reaction upon utilitarianism: satisfaction of needs never can be the core of moral life

Immanuel Kant

- **Good will: the intention to move beyond our own interests. Moral recognition of man based on the good will. The good will is good ‘ as such’.**
- **Duty or obligation: difference between duty and inclination. Morality is acting from a sense of duty. It is a principle of willing and not a strive for an end.**
- **Respect: acting out of respect for the law as expression of humanity**

Immanuel Kant

- **Categorical imperative: ‘Act only on that maximum whereby thou canst at the same time will that it should become a universal law‘ or ‘Act as to treat humanity, whether in thine own person or in that of any other, in every case as an end withal, never as means only’ (humanity as the core of ethics).**
- **Freedom: an autonomous moral life is a free life**

Habermas

Habermas

Consensus in dialogue:

- **Freedom of all participants**
- **Equality of all participants**
- **Emergence of consensus**

Focus on the ethical dialogue as a process.

Keuzen maken

- **Aristoteles: deugden**
- **Bentham / Mill: consequenties**
- **Kant: regels, ge- en verboden**
- **Habermas: dialogen**

Kern: consequentialistische benadering

Keuzen maken

Van de Veer:

a) Na 2060 belangrijke bijdrage zonne energie
b) Gas (natural, shale) die kolen vervangen

Beleid:

a) Zwaar inzetten op duurzame energie
b) Sterke beperking van kolen + CO2 tax
c) Opschalen kernenergie?
d) Accepteren opwarming van de aarde?

Keuzen maken

Dit betekent dus:

- **nieuwe technologieën**
- **nieuwe economische modellen**
- **nieuwe politieke maatregelen**
- **nieuwe waarden**