

# **A leading role for Europe**

## **There is no alternative**

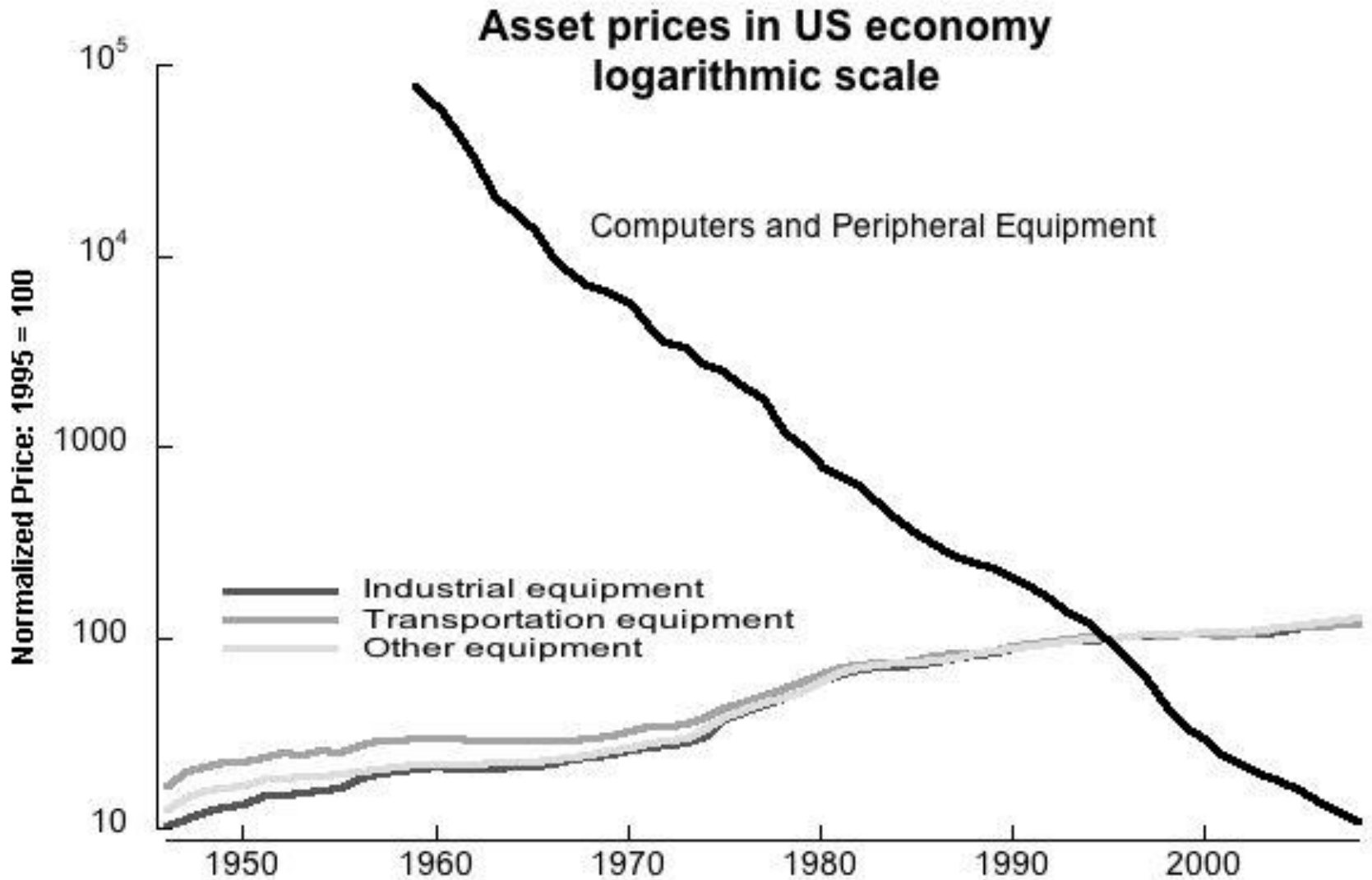
**Wim J.de Ridder**

**May 30,2013**

# DNA, blueprint of life



# Computers: blueprint of growth

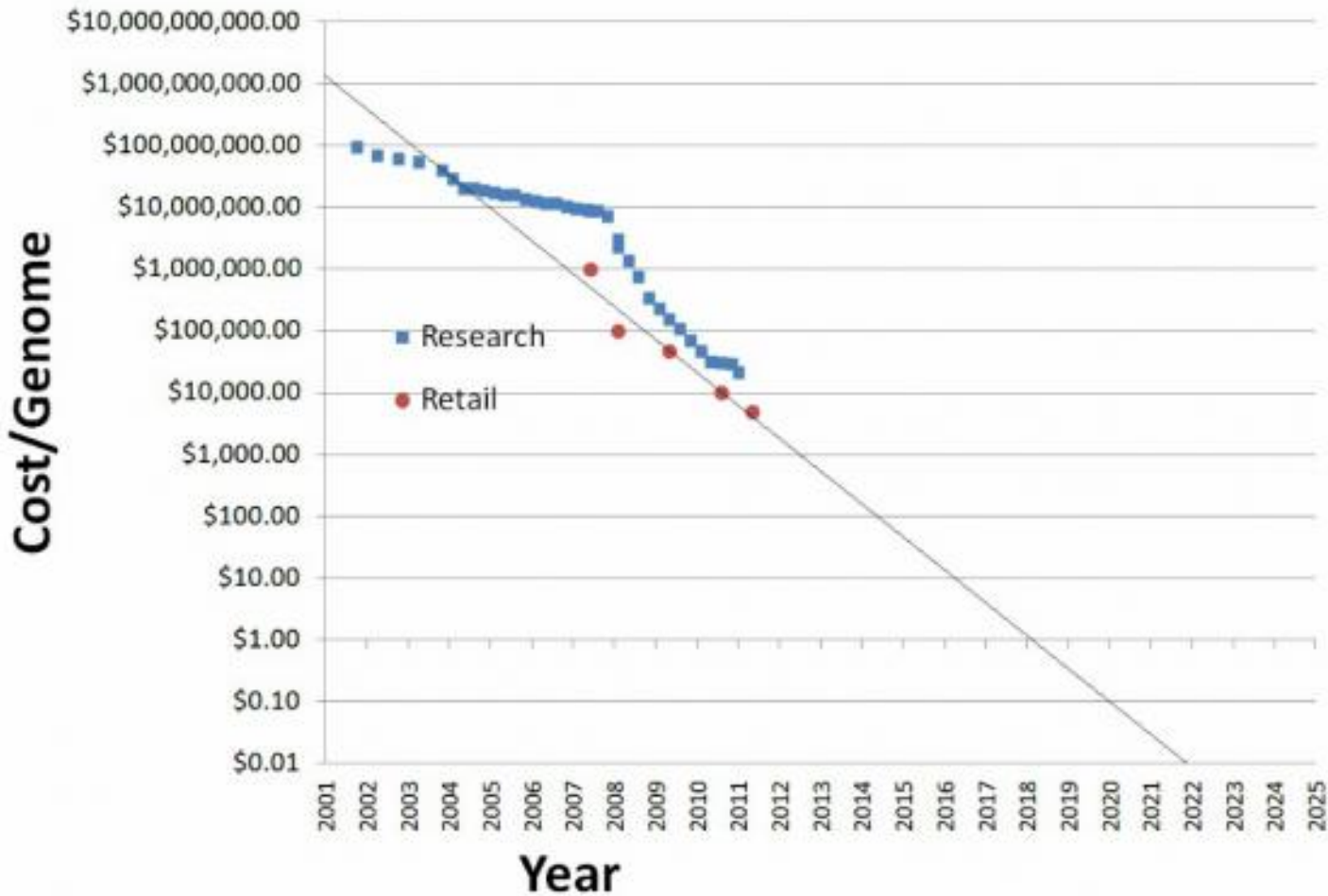


# International platform



International Technology Roadmap for Semiconductors

# Genetics, blueprint of health care



# International platform

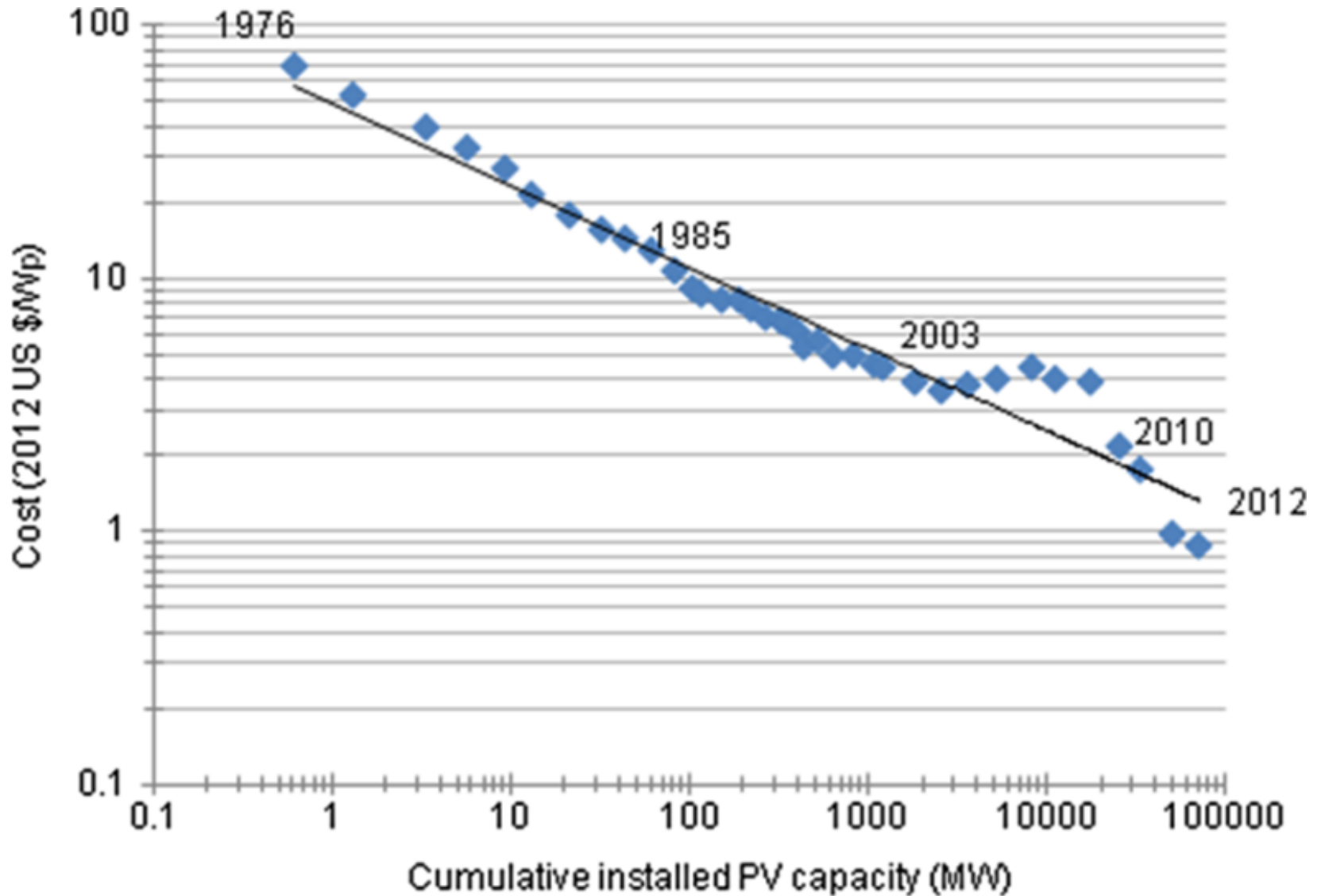


genome.gov

National Human Genome Research Institute

National Institutes of Health

# Solar, blueprint of energy



# International platform

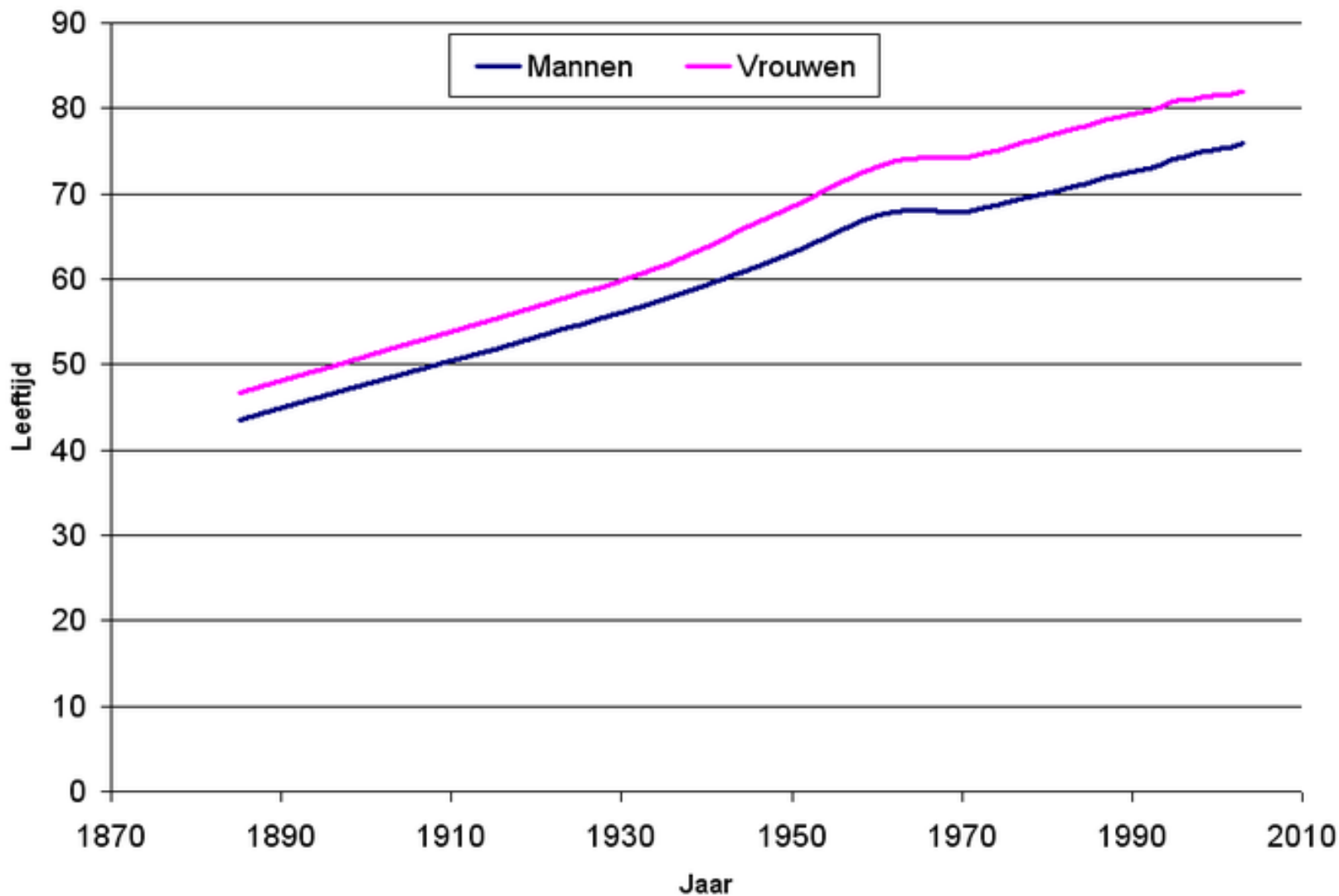


**National Renewable Energy Laboratory**

*Innovation for Our Energy Future*

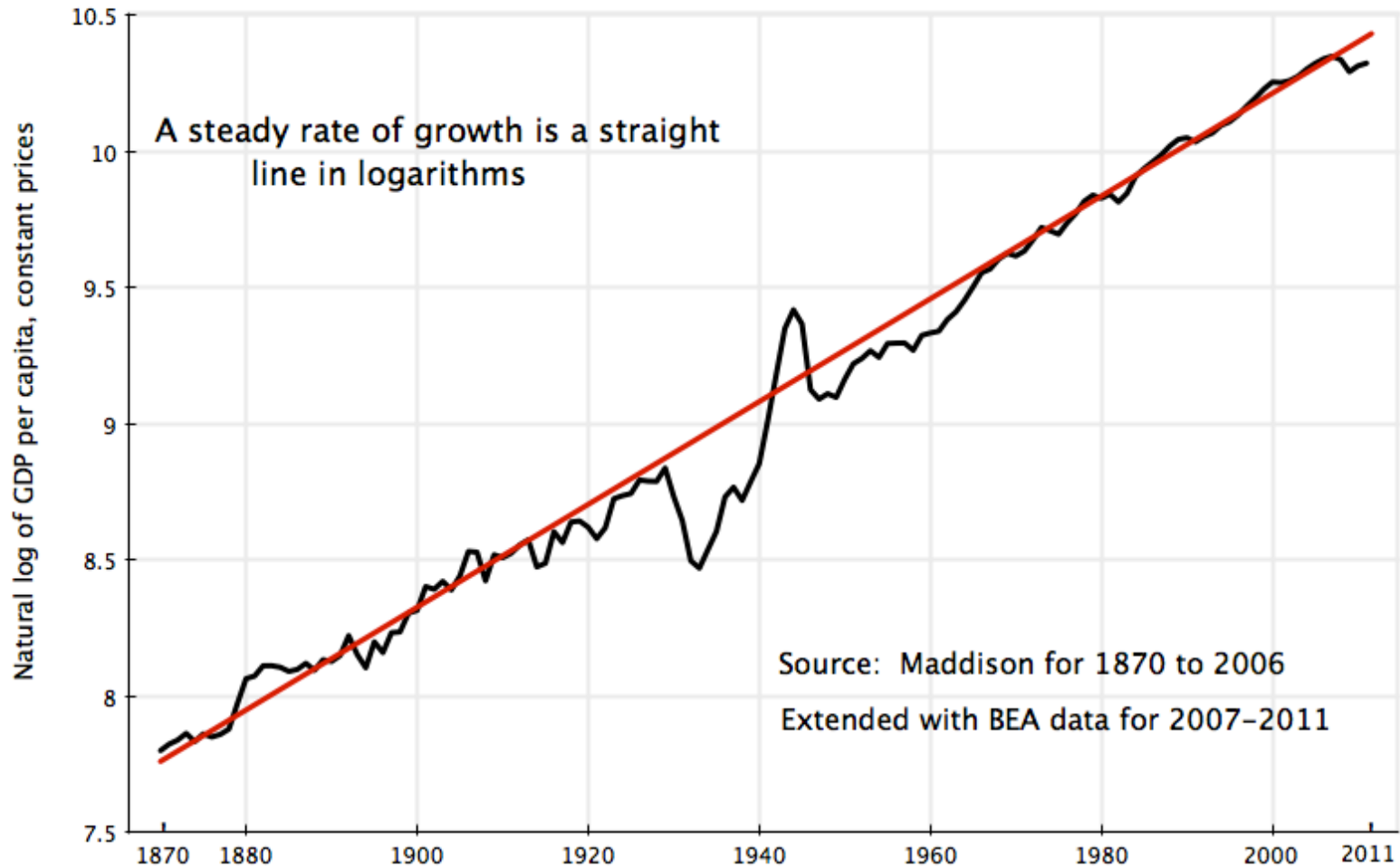


# Life expectancy

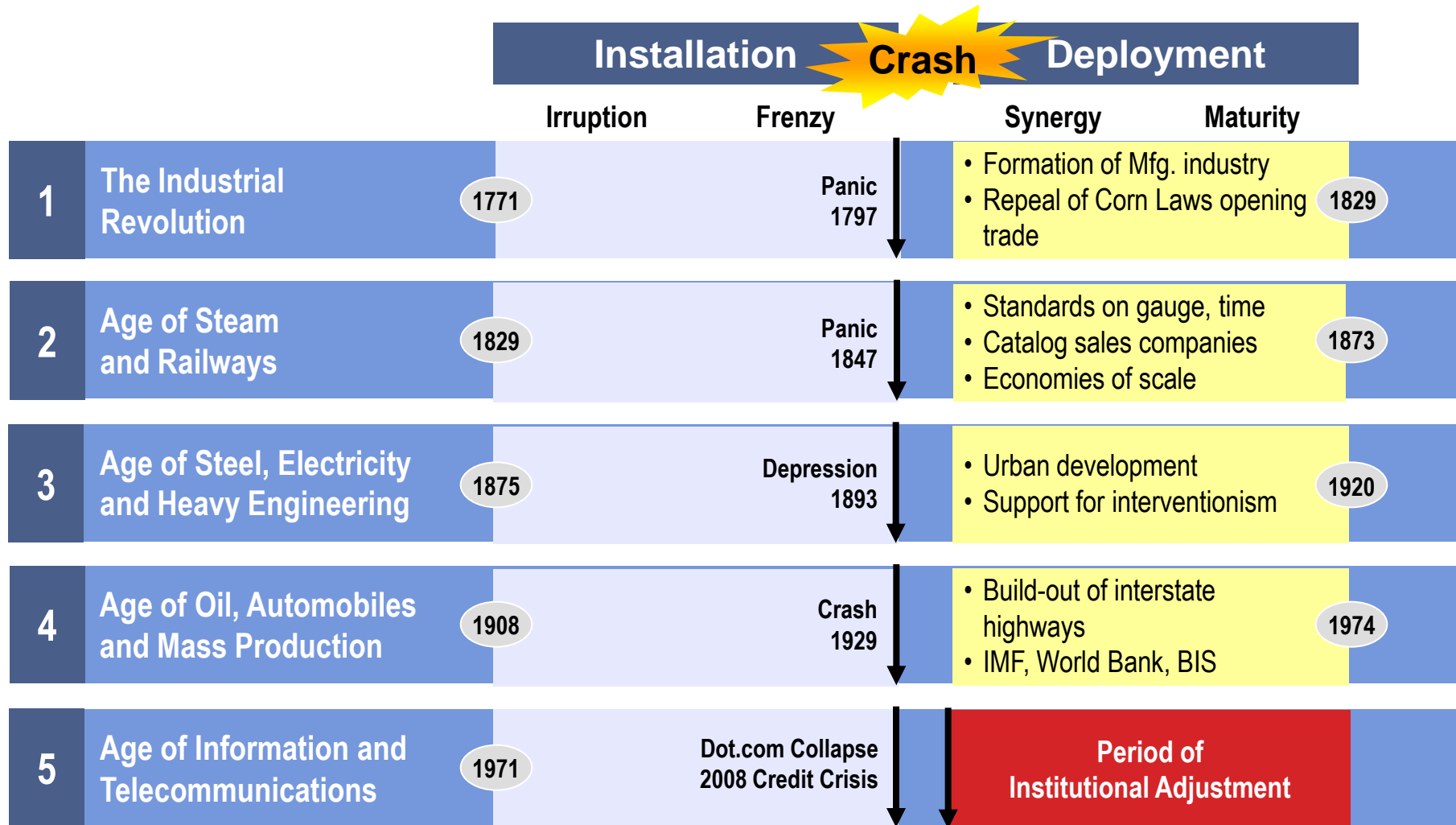


# Economic growth

GDP per Capita of the US, in logarithms  
1870 to 2011



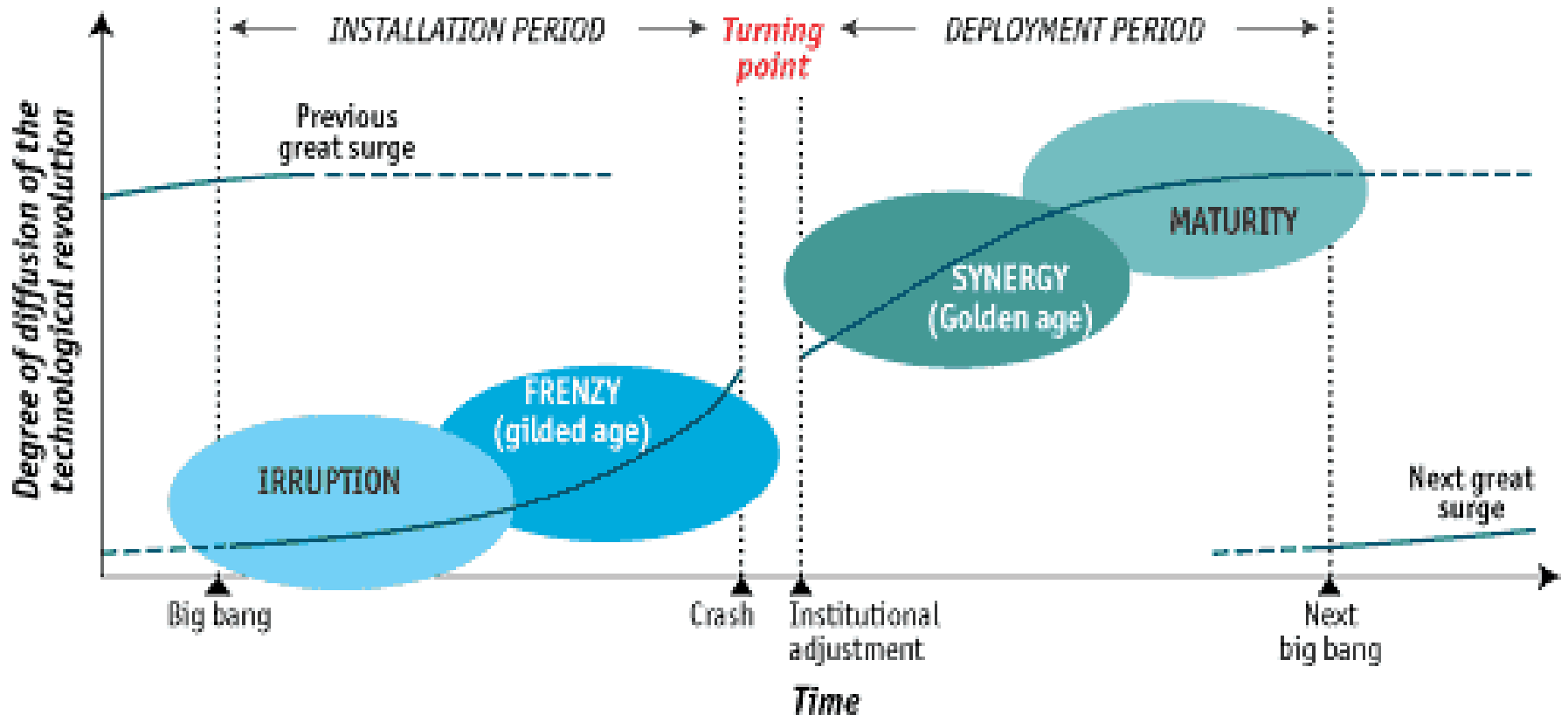
# Five Technological Revolutions in 240 yrs



# Long term hype cycle

## The life and times of a technology

Recurring phases of each great surge



Source: Carlota Perez

# Europe 1971 – 1985

## Irruption phase (computer)

- **Economy: oilcrises, high inflation**
- **Social: government takes care for work, health, living**
- **Europe = engine of economic growth**

# Europe 1985 – 2000

**Frenzy phase (soft ware industry)**

- **Economy: Thatcherism, privatisation**
- **Social: greed is good**
- **Europe = aiming to be a global power  
(Treaty of Maastricht, Euro)**

# Europe 2000 – 2010

Synergy (internet, mobile phone)

- **Economy: financial system crises in developed countries**
- **Social: empowerment of people, social media**
- **Europe = lack of identity**

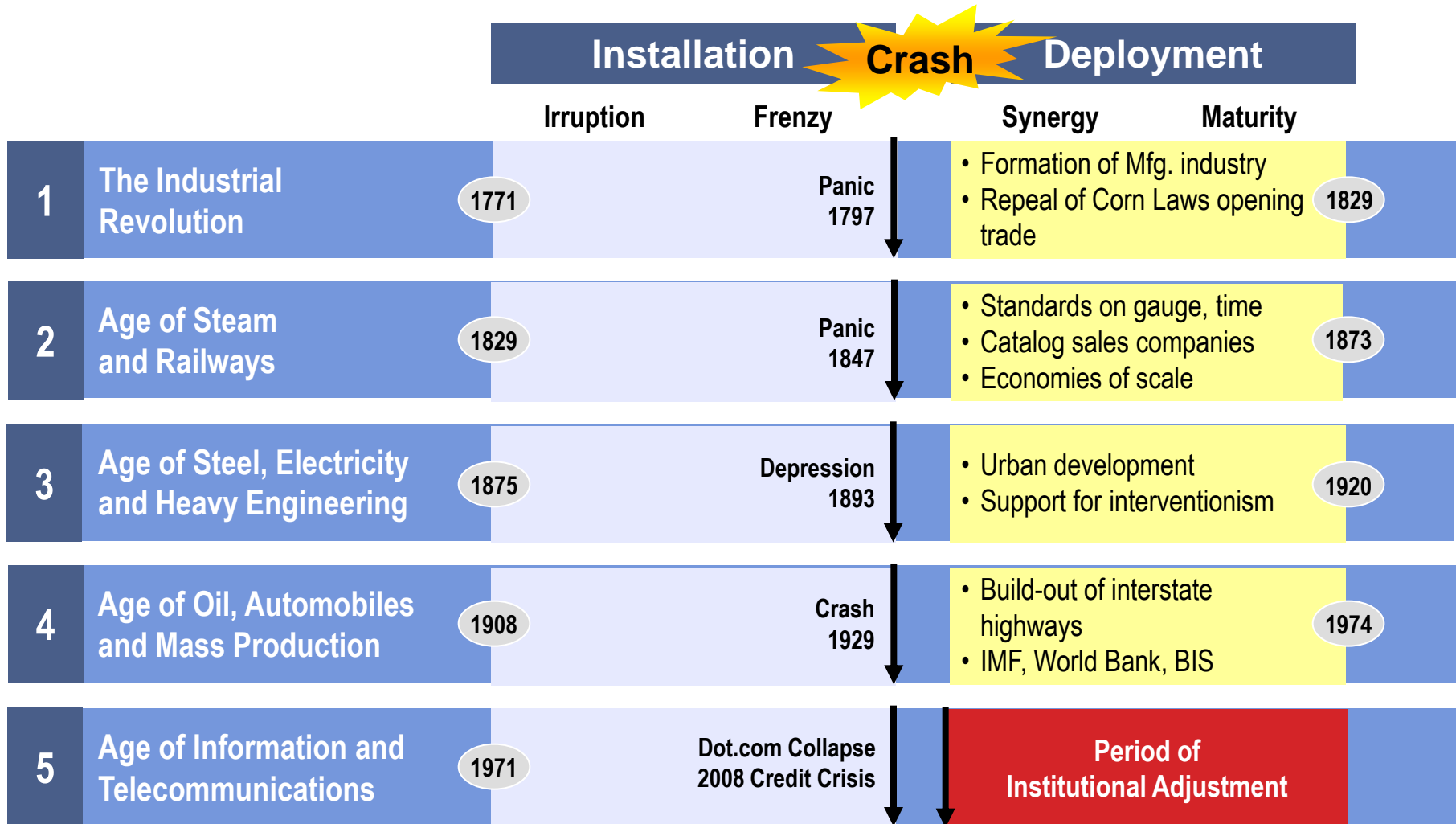
# Europe 2010 – 2020

## Maturity (singularity)

- **Economy: structural adjustments, implosion of market chain**
- **Social: growing post modernism**
- **Europe = identity crisis, facilitating administration, implosion of EU-budget**



# After 2020: robotics, clean tech and genetics



Source: Perez, C., "Technological Revolutions and Financial Capital", 2002

# Europe 2020 – 2030

**First stage 6th Industrial Revolution  
(AI, clean tech, genetics)**

- **Economy: jobless growth**
- **Social: community/network based society**
- **Europe = engine of economic growth, bridging China - USA**



Nieuwe leiders nemen het stuur over

# De strategische revolutie

- [www.futuresstudies.nl](http://www.futuresstudies.nl)
- [www.futuresfit.nl](http://www.futuresfit.nl)