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FOSSIL

THE NEW AMERICAN CLASSIC

# After the Car

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**AFTER THE CAR Polity 2009 (with K Dennis)**

**MOBILE LIVES Routledge 2010 (with A Elliott)**

**CLIMATE CHANGE AND SOCIETY Polity 2011**

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## **W. H. Auden**

**Dark was that day when Diesel  
conceived his grim engine that  
begot you, vile invention...  
metallic monstrosity,  
bale and bane of our Culture,  
chief woe of our Commonweal**

## **Schumacher**

**There is no substitute for energy. The whole edifice of modern society is  
built upon it....it is not 'just another commodity' but the precondition of all  
commodities, a basic factor equal with air, water, and earth**

## **Ivan Illich:**

**Yet only a ceiling on energy use can lead to social relations that are  
characterized by high levels of equity**

# Systems and process

- that all systems are necessarily processual and flow within time with no tendency for systems to move towards equilibrium
- be no distinction to be made between states of equilibrium and periods of growth
- almost all systems significant in the contemporary world are simultaneously economic, physical, technological, political and social
- there is increased interconnectedness or the linking of system components through software, cybernetic architecture and a networked character of life
- the unpredictability of systems
- the significance of positive feedback mechanisms and lack of proportionality or 'non-linearity' between apparent 'causes' and 'effects'
- the way that systems once established can get 'locked in'
- the significance of the ordering of events in time that are then not 'forgotten' and hence 'time matters'
- systems adapt and co-evolve in relationship to each other
- each system has to find its place, to climb the peaks, within a fitness landscape

# Futures

- central to many future scenarios are various new technologies and of their presumed transforming impacts.
- it is important to resist a technology-first analysis since technologies do not just develop for endogenous reasons
- nor do they then simply transform the economic and social landscape in their own image once developed
- technologies are always to be seen as heavily embedded within forms of economic, social and political life.
- they depend upon business *and* sociological models
- innovation is a matter of synchronisation across many different social, economic and political entities
- it is systems that have to change

# Automobility system

**Automobility changes the environment or fitness landscape for all other existing and future systems. It has achieved this by :**

- **adapting as it spreads along the paths and roads of each city**
- **drawing in many aspects of its environment which are then reconstituted as components of its system,**
- **being central to and locked in with the leading economic sectors and social patterns of twentieth century 'carbon capitalism'**
- **promoting the notion of convenience rather than speed**
- **seemingly providing the solution to the problems of congestion that it itself generates**
- **being able to externalise dangers onto those outside the system as it provides enhanced security for those 'within'**
- **being central to the individualist, consumerist affective culture of contemporary capitalism**

# Climate change

- with business as usual, the stock of greenhouse gases could treble by the end of this century
- 20% risk of more than a 5 C increase in temperatures
- transformation of the world's physical and human geography through a 5-20% reduction in world consumption levels and the capabilities of life around the world
- very substantial reductions in the standard of living
- reductions in the overall population worldwide
- such impacts being especially experienced in poorer countries in much of Africa and significant parts of Asia – 'climatic genocide'

# Transport and 'global heating'

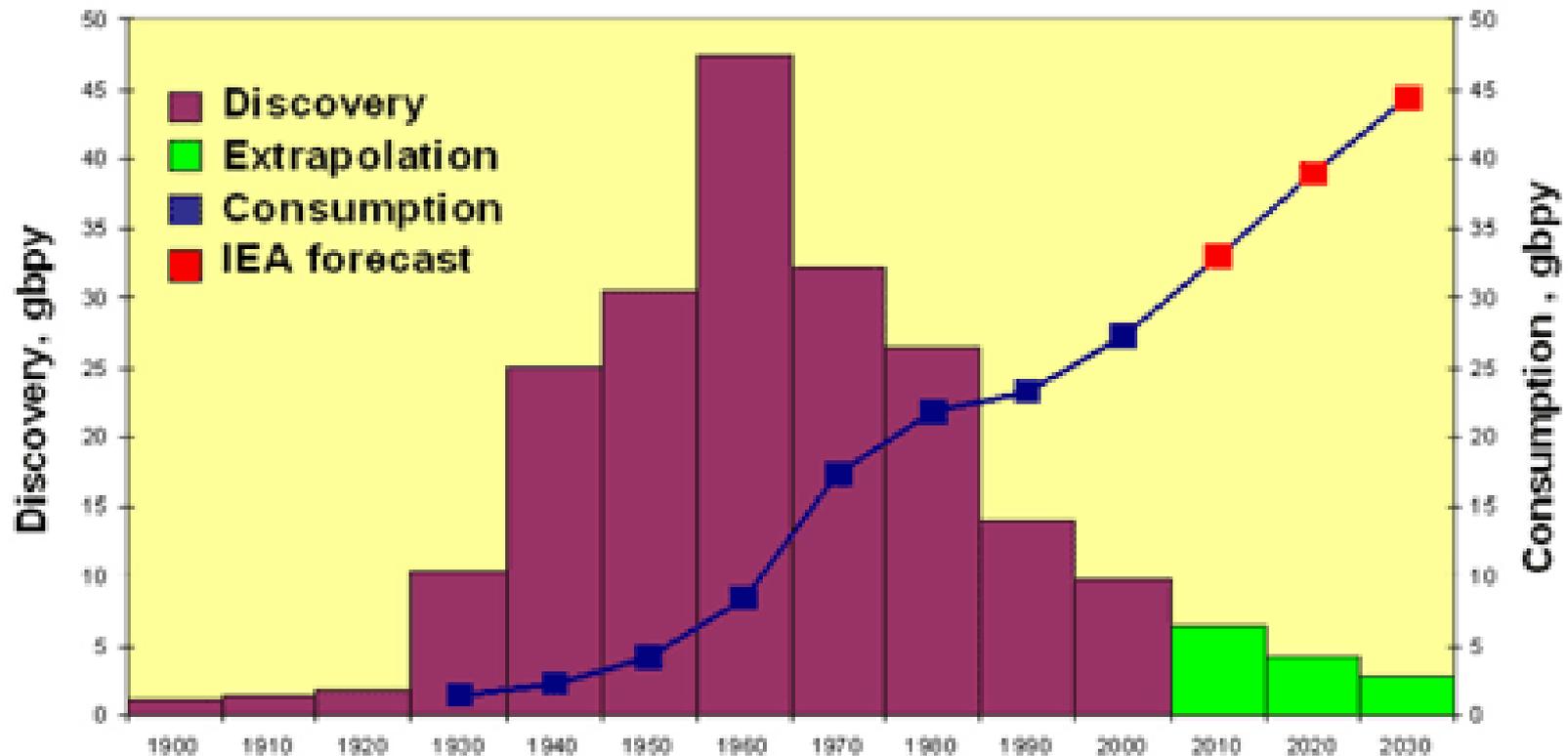
- According to Stern, there are overwhelming and immediate economic reasons for reducing global carbon consumption
- Bearing down on carbon use within transport is crucial - it accounts for one-third of total carbon dioxide emissions
- It is also the fastest growing source of greenhouse emissions, with growth of car and lorry travel within China and elsewhere, the rapid growth of air travel, and the increased 'miles' flown by both manufactured goods, foodstuffs and friends
- In 1800 people in the US travelled on average 50 metres a day – they now travel 50 kilometres a day
- World citizens move 23 billion kilometres; by 2050 it is predicted that that figure will have increased to 106 billion

# Oil and energy systems

- Rifkin argues: 'Like Rome, the industrial nations have now created a vast and complex technological and institutional infrastructure to sequester and harness energy' (2002: 62).
- The US possesses 5% of the world's population - consumes .25 of the world's energy and produces almost .25 of carbon emissions
- Rifkin claims that the oil age is 'winding down as fast as it revved up' with 3-4 barrels consumed for every new one discovered.
- The peaking of oil in the US occurred in 1970 - now imports 60% and this may rise to 75% by 2030
- Worldwide the largest oilfields were discovered over half a century ago, with the peak of oil discovery being in the mid 1960s. Strahan refers to the 'imminent extinction of petroleum man'

# Peak oil?

Comparison between discovery and consumption

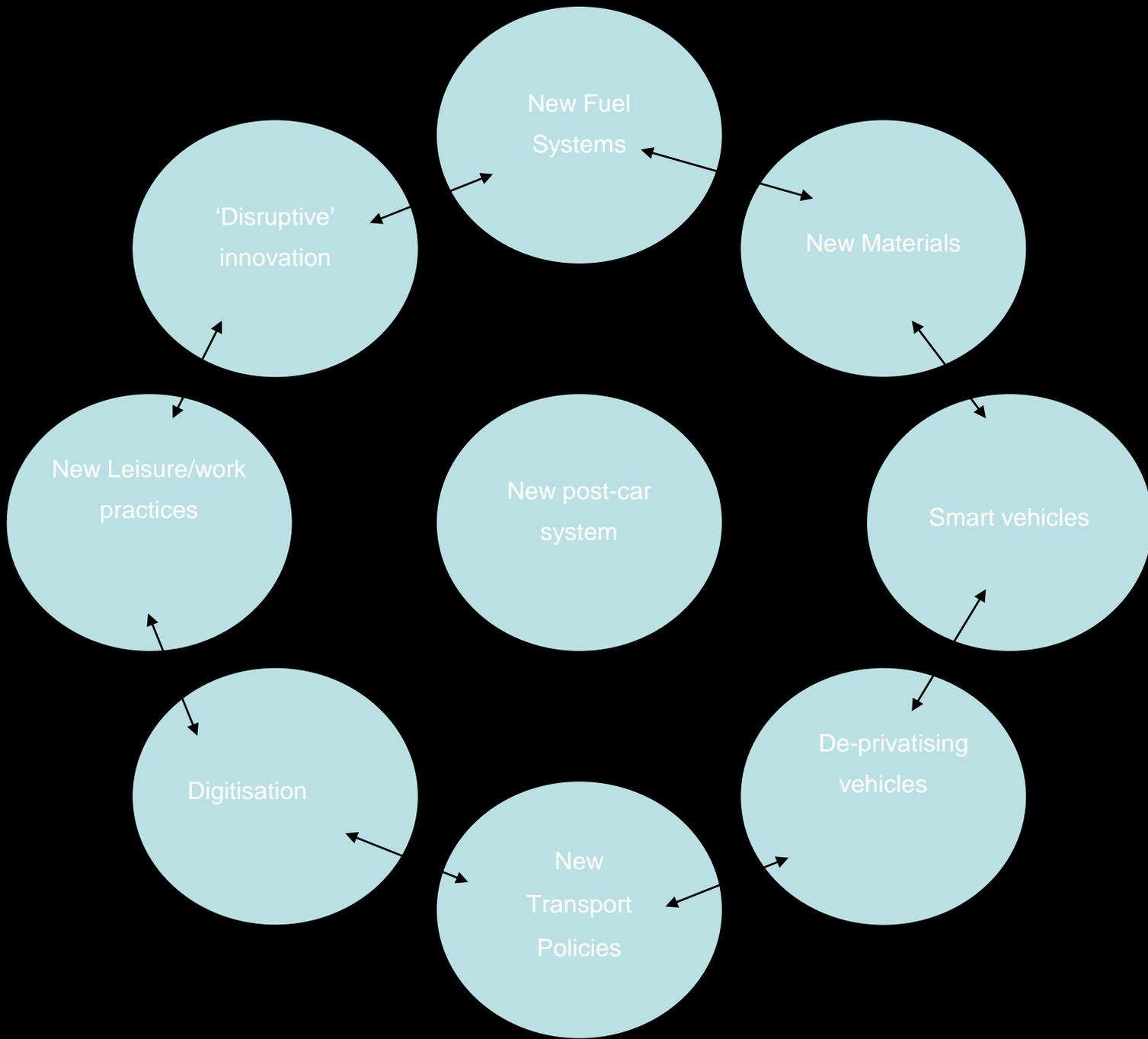


# Peaking

- **US National Intelligence Council: ‘an energy transition, for example, is inevitable...An energy transition from one type of fuel (fossil fuels) to another (alternative) is an event that historically has only happened once a century at most with momentous consequences’.**
- **Lovelock: ‘So is our civilization doomed, and will this century mark its end with a massive decline in population, leaving a few survivors in a torrid society ruled by warlords on a hostile and disabled planet?’**

# A future?

- **shifts in transport *policy* in cities away from predict and provide**
- **new *fuel systems* for cars, vans and buses**
- ***new materials* for constructing 'car' bodies**
- ***smart vehicles***
- ***deprivatise* cars through city-wide car-sharing, cooperative car clubs and smart car-hire schemes**
- **'smart-card' *technology* to transfer information from car to home, to bus, to train, to workplace, to web site, to bank.**
- **new *social* practices**
- ***disruptive* innovation**



# Organic nexus 'system'

- multiple, dense forms of movement mainly of small, ultra-light, smart, deprivatised 'vehicles'
- flexibilised travelling accessing small, light mobile pods as and when required
- electronic regulators embedded in lampposts and in vehicles to regulate access, organise price and control vehicle speed.
- some vehicles would be driverless
- vehicles would be electronically and physically integrated with other forms of longer range collective mobility
- electronic coordination between motorised and non-motorised transport
- smart 'cards' would control access to and pay for people's use of the various forms of mobility
- software systems 'intelligently' work out the best means of doing tasks, meeting up or getting to some place or event
- some rationing of carbon

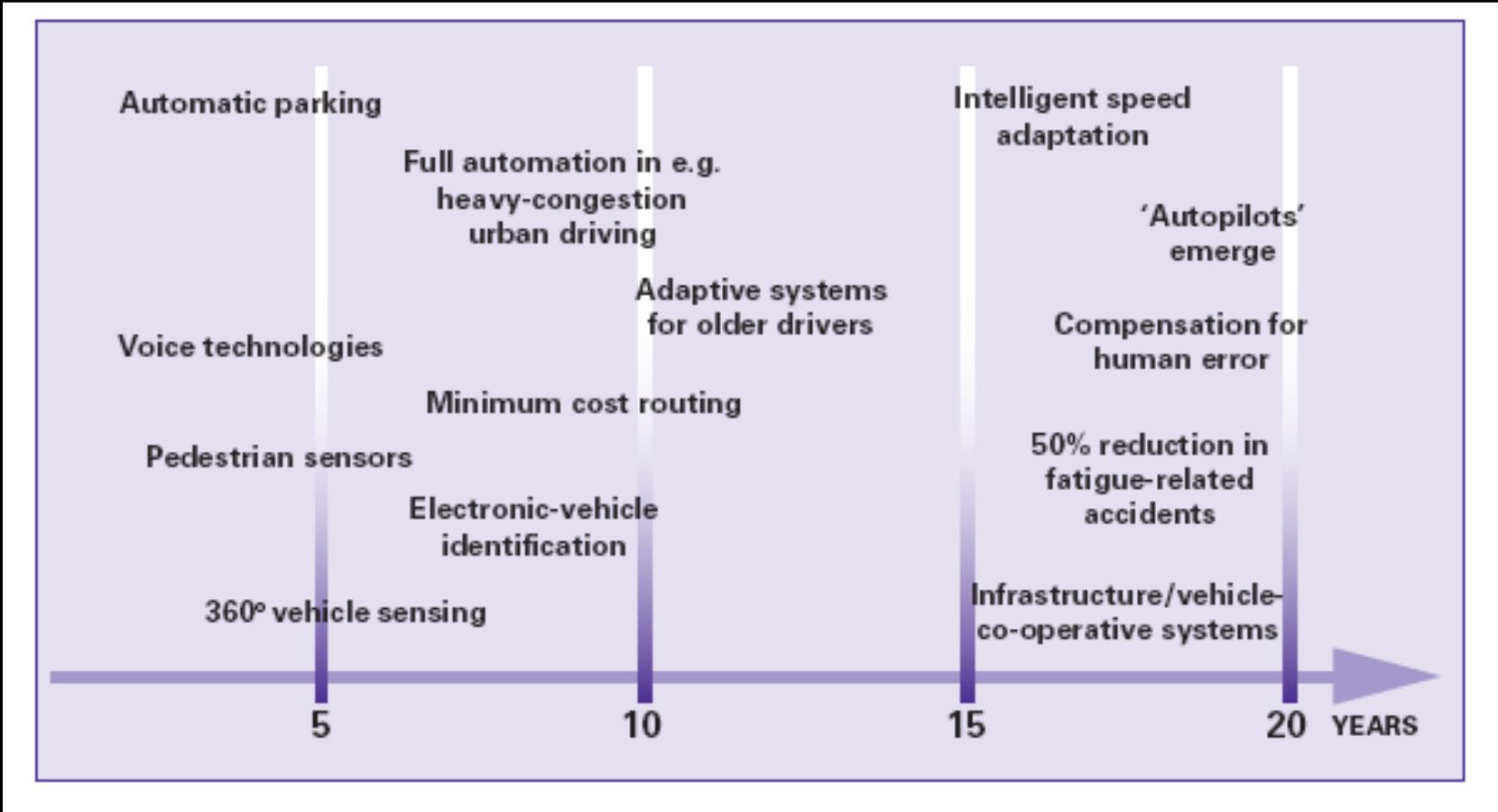


Figure 1: Foresight Vehicle Technology Roadmap: main capabilities identified

# Electric vehicles

- **Personal vehicle decline**
- **Competition**
- **Complementarity**
- **Substitution**

# Perpetual Motion (Le Corbusier)

- hypermobility,
- patterns of mobile lives based on new communication and transportation practices continue to develop on an extreme scale.
- resource shortages and effects of climate change turn out to be much less significant at least for those in the rich North whose movement gets more extensive, frequent and part of their very 'persona'.
- people are 'always on', with messages and individual media streamed continuously to miniature intelligent devices especially when 'on the move' which they are much of the day and night.
- average citizens are travelling four to five hours a day,
- regular special trips into at least inner space  
(<http://www.youtube.com/watch?v=wa2DUe2vJew> (accessed 16.12.2008)).
- devices connect consumers directly with global wireless networks

# Local sustainability (Schumacher)

- a worldwide reconfiguration of economy and society around 'local sustainability'.
- a global shift towards lifestyles more intensely local and smaller in scale.
- friends would be chosen from neighbouring streets,
- families would not move away at times of new household composition,
- work would be found nearby,
- education would be sought only in local schools and colleges,
- the seasons would determine which and when foodstuffs were consumed,
- most goods and services would be simpler and produced nearby.
- households would not live apart.
- status attributions will be re-localised. Long distance travel would be uncommon.

Thus Kunstler states that: 'the transportation picture in the mid-twenty-first century will be very different from the fiesta of mobility we have enjoyed for the past fifty years. It will be characterized by austerity and a return to smaller scales of operation'

# Regional warlordism (Hobbesian)

- extreme weather events and extensive flooding
- oil (and gas and water) wars
- substantial breakdown of many of the mobility, energy and communication connections
- systems of repair dissolve
- a plummeting standard of living
- a relocalisation of mobility patterns; increasing separation between different regions, or 'tribes'
- local warlords controlling recycled forms of mobility and weaponry
- no monopoly of physical coercion in the hands of a national state; relatively weak imperial or national forms of governance
- only the super-rich would travel
- a Hobbesian war of each warlord dominated region/city against their neighbours

Kingsley Dennis and John Urry

# after the car



Mobile Methods

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# MOBILE LIVES

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