




Future Internet Europe in Action

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***How were the successive
technology revolutions
unleashed?***

**By widening demand and stretching
the reach of the infrastructures**

Technological Revolutions

The Industrial Revolution (machines, factories, canals)

Age of Steam, Coal, Iron and Railways

Age of Steel (electrical, chemical)

Age of the Automobile, Oil, Petrochemicals

Age of Telecommunications and IT

Age of Networking, Smart Infrastructures

Each Revolution transforms the economy and drives a great surge of development and shapes innovation for 50 years or more

Each Revolution reshapes the opportunity space and the ways of living and working

1771

1829

1875

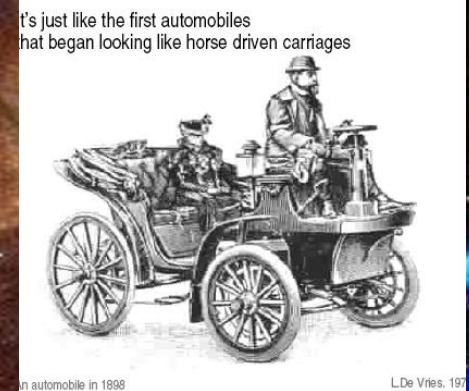
1908

1971

2009

At the beginning of a new Era

- ❖ Mature industries are close to technology exhaustion, their innovation drive is weak
- ❖ Old economies stagnate, new technologies are incipient
- ❖ Need to select the new engines of growth
- ❖ Moving from laissez faire to the active comeback of the state
- ❖ Shifting from supply-push to demand-pull in investment and innovation
- ❖ Moving from individual focus to collective interests



We are in the midst of a profound social and economic business transformation!!!!

- We are now all connected: technically , socially and economically
- The world is becoming smarter: systems, processes, service delivery
- The world is becoming instrumented, interconnected, intelligent
- We are able to turn data into intelligence
- Hybrid Intelligence (AI+user feedback) is prevalent
- But:
 - Numerous digital divides around us
 - Non-ICT sectors have not yet been fully ICT enabled
 - Traffic jams costs Europe 135 B€ annually
 - 80% of the population lives in urban areas. They are responsible for 70% of CO2 emissions.
 - 40 to 70% of all electrical energy is lost because of inefficient grids

The wireless and broadband Internet are the enablers of a smarter world

Smart energy grids - Energy grids will increasingly face risks of congestion and blackout. Internet connectivity, computing power, digital sensors and remote control of the transmission and distribution system will help to make grids smarter, greener and more efficient,

Smart environmental information systems - the use of sensor networks for collecting real or near real time environmental data is a growing field of application. It requires Internet connectivity for data management, dissemination and integration in complex information systems,

Smart systems for transport and mobility - Putting 'intelligence' into the roads and cars with e.g. sensor networks, radio frequency tags, and positioning systems offer a promising alternative. The internet provides a solution to interconnect these diverse technologies and bring more efficiency to mobility through real-time management of public and private transport resources, traveller information and decision-making tools, way beyond the capability of current solutions,

Smart healthcare systems - Current research experiments aim to develop technologies for 'ambient' environments capable of assisting patients and satisfying their information and communication needs. These technologies combine devices (sensors, actuators, special hardware and equipment), networks and service platforms to harness information about medical conditions, patient records, allergies and illnesses.

Effective cross-sector public-private partnerships are needed

- The Future Internet will accelerate a new industrial revolution where **internet operators, service developers and equipment manufacturers** will be called upon to work in partnership with non-ICT stakeholders.
- An essential characteristic of such a PPP should be to develop open, standardised, cross-sector service platforms .

Public Private Partnerships as Engines of Growth

- Increase the **effectiveness of business processes** and the operation of infrastructures and applications of high societal value.
- Leverage the Internet infrastructure as an **open, secure and trusted platform** for building networked applications on the basis of user-centred **open innovation schemes**.
- Maximise the **societal benefit** through involvement of civil society where needed.
- Ensure a greater **take-up** of broadband.

EU Action on the PPP

- The Commission will allocate **€300m** under the upcoming ICT work programme covering the period 2011-2013, with a first call for proposals to be issued in 2010.
- The Commission expects industry to define a **focused PPP content by mid-2010** to meet the dual objective of:
 - ❑ i) advancing Europe's industrial know-how in Future Internet technologies and systems; and
 - ❑ ii) supporting the emergence of Future Internet-enhanced applications of public relevance.
- The Commission calls on the **Member States**, to support the Future Internet PPP and to help refine policy/usage requirements.