



## Digital Futures foresight - findings and next steps

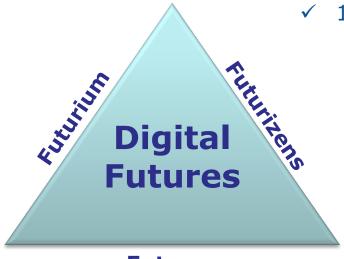
EIF Dinner Debate 21st January 2014

Franco Accordino, DG CONNECT - European Commission



- Breaking into new policy making practices
- ✓ Futurium model

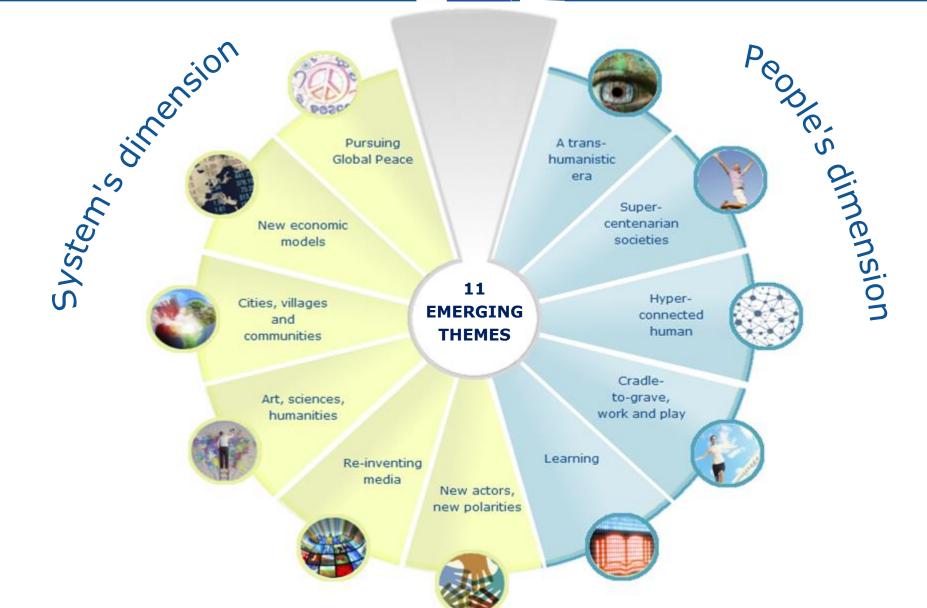
- ✓ 100+ Events, 2000+ cocreators
- √ 1600> Futurium members



#### **Futures**

- √ 210+ Futures (2030-2050)
- √ 1700+ Evidence items



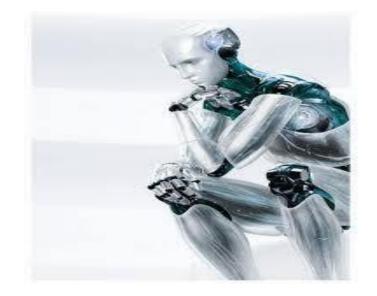




## People: the singularity is approaching!

In 2050, our cognitive and physical capabilities will be enhanced with bio-technological add-ons. Cyborgs will perform complex tasks like humans they take over all routine jobs, from agriculture to construction, from office to industrial automation. We will live longer and healthier because we apply pre-birth prevention, regenerate and repair organs as needed. We will be able to learn, work and play from the cradle to the grave.

In a world of enhanced humans, what would happen to our jobs? To our welfare systems? To our free time? To our norms and values?

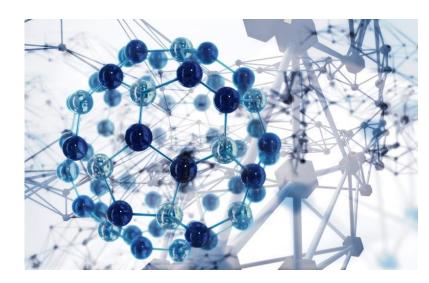




## **Systems:** "the matrix" is no longer fiction!

In 2050 the internet will connect bits and atoms at the speed of light. Its algorithms will orchestrate zillions of smart objects, which will share zettabytes of data every month, thus bridging the physical and virtual worlds instantaneously. In such a scenario, prediction and decision will be easier and faster than ever, based on scientific evidence and people aspirations and on the outcomes of experiments we do in a simulated world.

How far will today's decision systems apply to a world where everything is represented in the "matrix"? What are the rules of the game in a hyper-connected society?



## More information

Paper: "The Futurium - a Foresight Platform for Evidence-Based and Participatory Policymaking"

http://www.springerlink.com/openurl.asp?genre=a rticle&id=doi:10.1007/s13347-013-0108-9

The futurium platform:

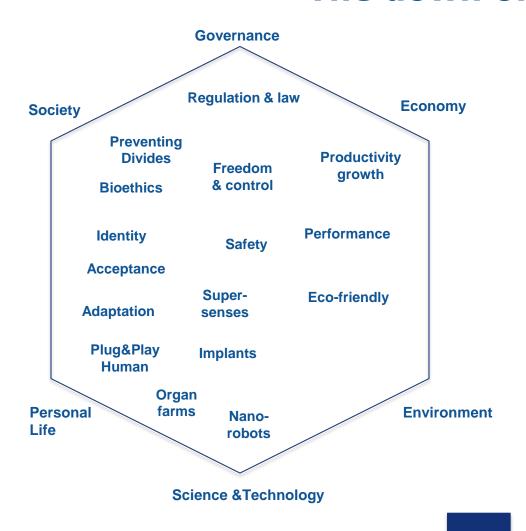
http://ec.europa.eu/digital-agenda/futurium/

# Thanks!

# **Background Slides**



#### The down of a trans-humanistic era

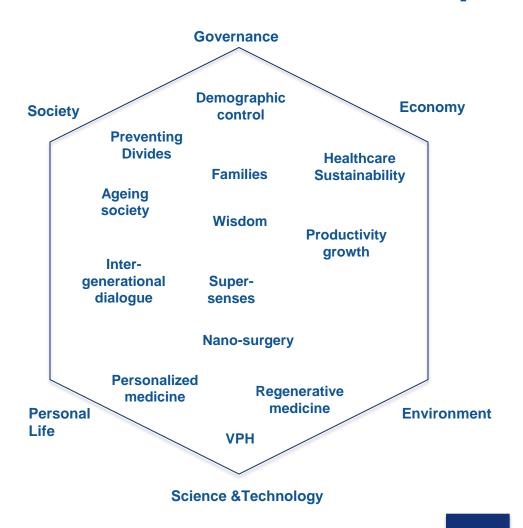


- What are the ethical and regulatory implications?
- Will people adapt?
- What are the opportunities?





#### **Super-centenarian societies**

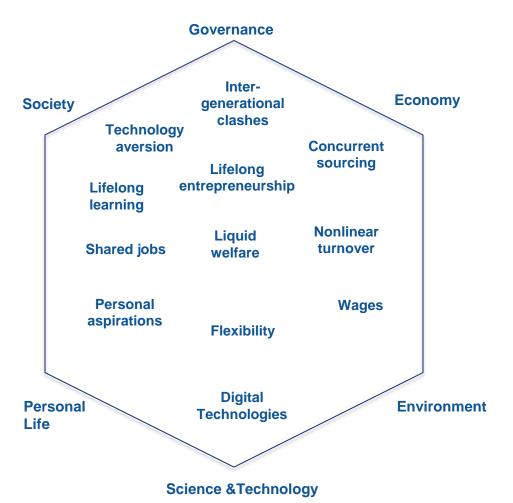


- How to harness the opportunity of an ageing population?
- How to ensure intergenerational dialogue?
- How to prevent new divides?

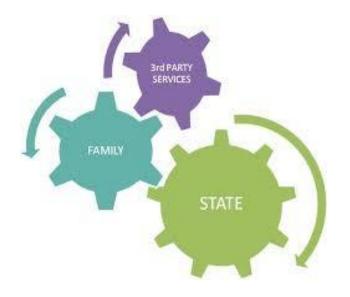




#### Cradle-to-grave, work and play



- How to stop erosion of job market?
- How to ensure a lifelong learning for all?
- How can we build a liquid welfare?





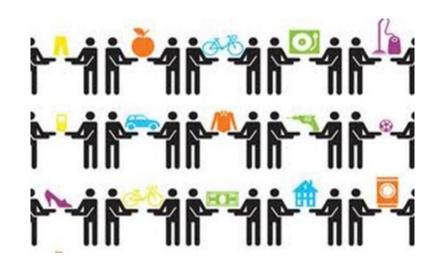
#### Governance **Agile** governance **Economy Society** Social **New indexes Innovation** Circular economy **Non-monetary** Re**systems** localization **Productivity** Crowd growth funding Lifestyles Co-growth **Sustainability** equations **Do-It-Yourself** Just-in-time **Systemic 3D Printing Automation Personal Environment** Internet

Science & Technology

Life

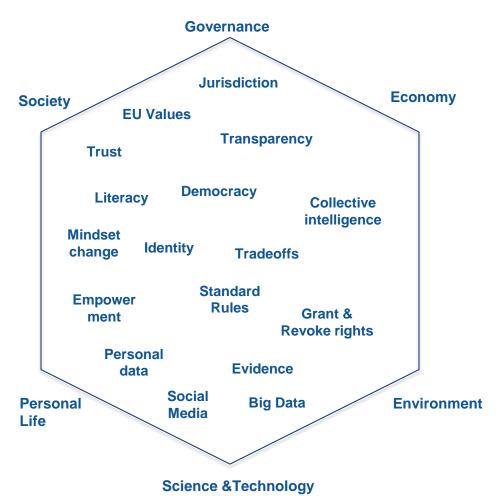
#### **New economic models**

- How to break the debt conundrum?
- How to build the foundations for a new economic system?
- How to harness the new geolocalisation of prosumption?





#### **New actors and polarities**

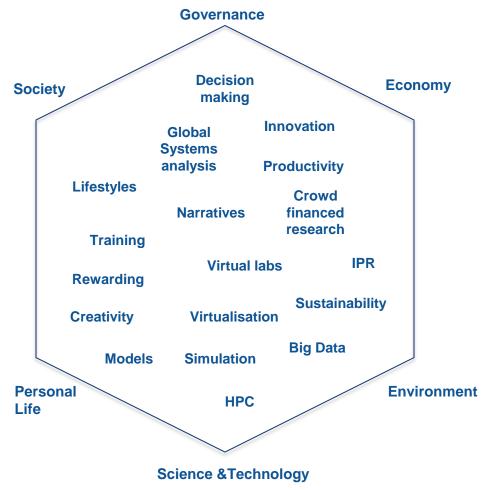


- How to ensure right balances?
- What rules for Big Data?
- How to make sense of the emergent intelligence?
- How to fill the skills gaps?
- A new bill of right reflecting new EU values in digital transformation?

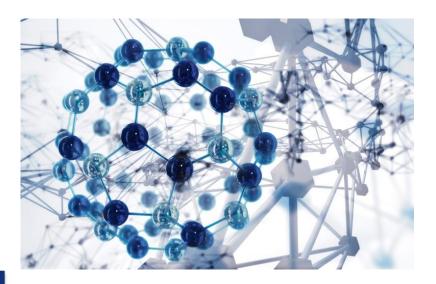




#### **Arts, sciences and humanities**

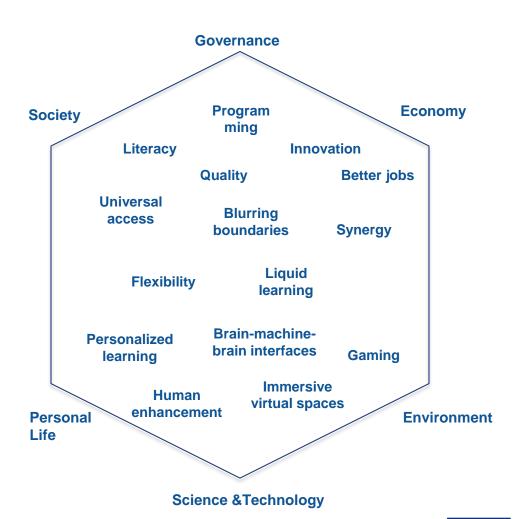


- How to achieve the involvement of policy makers and civic society?
- How to assure the quality and credibility of data and models being used?
- How to ensure reward and recognition and prevent plagiarism?
- How creativity can be reflected into innovation?





#### Learning



- How to achieve universal access to learning?
- How to maintain quality within a 'liquid' system
- How to ensure that education leads to better jobs and innovation?





#### Governance Regulation **Economy Society Transparency Ethics** Quality **Pluralism** Change of roles Vested interest **IPR Culture** Copyright Media prosumption New media Creativity **Big Data** Search **Personal Environment** Life Content **Science & Technology**

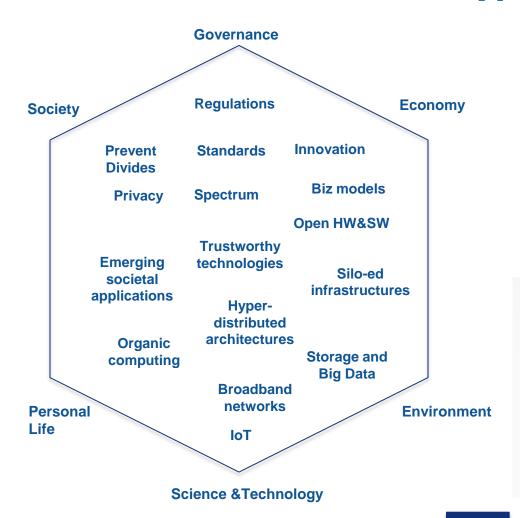
### Re-inventing media

- How to raise awareness of role of media? New and traditional?
- How to ensure quality in a world of co-creators?
- How to manage IPR in mash-ups?

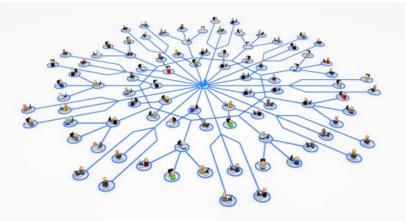




#### **Hyper-connected human**

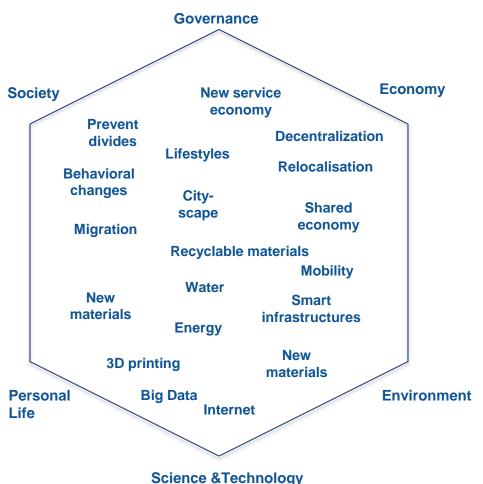


- How to support European industrial competitiveness?
- How to ensure EU values are reflected in future Internet Governance?
- How to ensure that hyperconnectivity is brought to all?





#### Cities, villages and communities



- How to maintain cities and villages as hubs for open streams of people and ideas to move between them?
- How to develop a fair competitive landscape throughout the territory?
- Can we assure that investments are equitably distributed geographically?
- How to stimulate behavioural changes to balance the sustainability equation?
- ➤ How can ICT, new materials help?





#### Governance Social **Economy** control Society **Rights** Religion **Work force** Multi-polar **Values** tensions Middle Inter-generational class Competition gap **Equity** Fundamen **Demography** Multiculturalism talism **Equality** Resource Commonal sharing ities **Solidarity** Surveillance integration Right balances Trust **Environment** Personal Life Science & Technology

### Pursuing global peace

- Will we succeed in reconciling the fragmentations of today's humanity due to ethnic, culture, religious, economic, educational dividers?
- Can a responsible development of technology be useful to manage tensions and to prevent conflicts?
- How digital technologies can help manage migration and integration?
- How can they foster multi-culturalism and equality?







Being Human in a **Hyperconnected Era** 

http://ec.europa.eu/digital-agenda/onlife-initiative





# Being human in a hyperconnected era



- ✓ Hyperconnectivity calls for reengineering concepts, such as privacy, identity, presence, attention, interaction, etc...
- ✓ The Onlife Initiative has gathered 12 scholars who met 5 times over a year and generated a joint outcome.
- ✓ In the Onlife Manifesto, they call on :
  - 1. promoting the relational self,
  - 2. shaping a new digital literacy
  - 3. caring for our attentional capabilities.
- ✓ Inspiring the RRI approach in H2020!