



***"Individually, we are one drop.
Together, we are an ocean."
Ryunosuke Satoro***



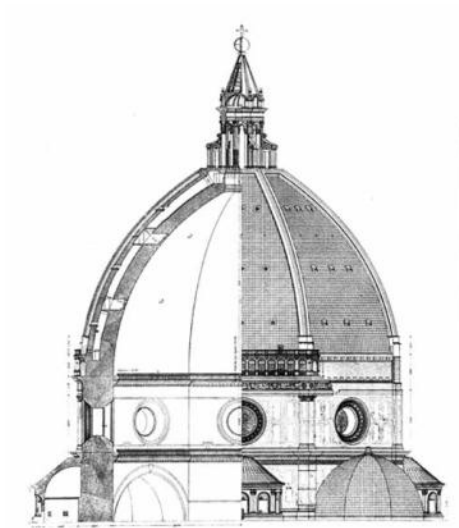
Drawing made by
primary class children
for the Paradiso
contest "the Internet of
the future seen by the
children of today"

Collective Awareness Platforms for Sustainability and Social Innovation

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http://ec.europa.eu/information_society/activities/collectiveawareness

what is the biggest artefact ever built by mankind?



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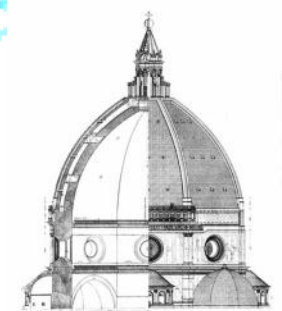


*tecnology /
infrastructures*

sociology



Life and Humanistic Sciences



art

*policy /
economy*

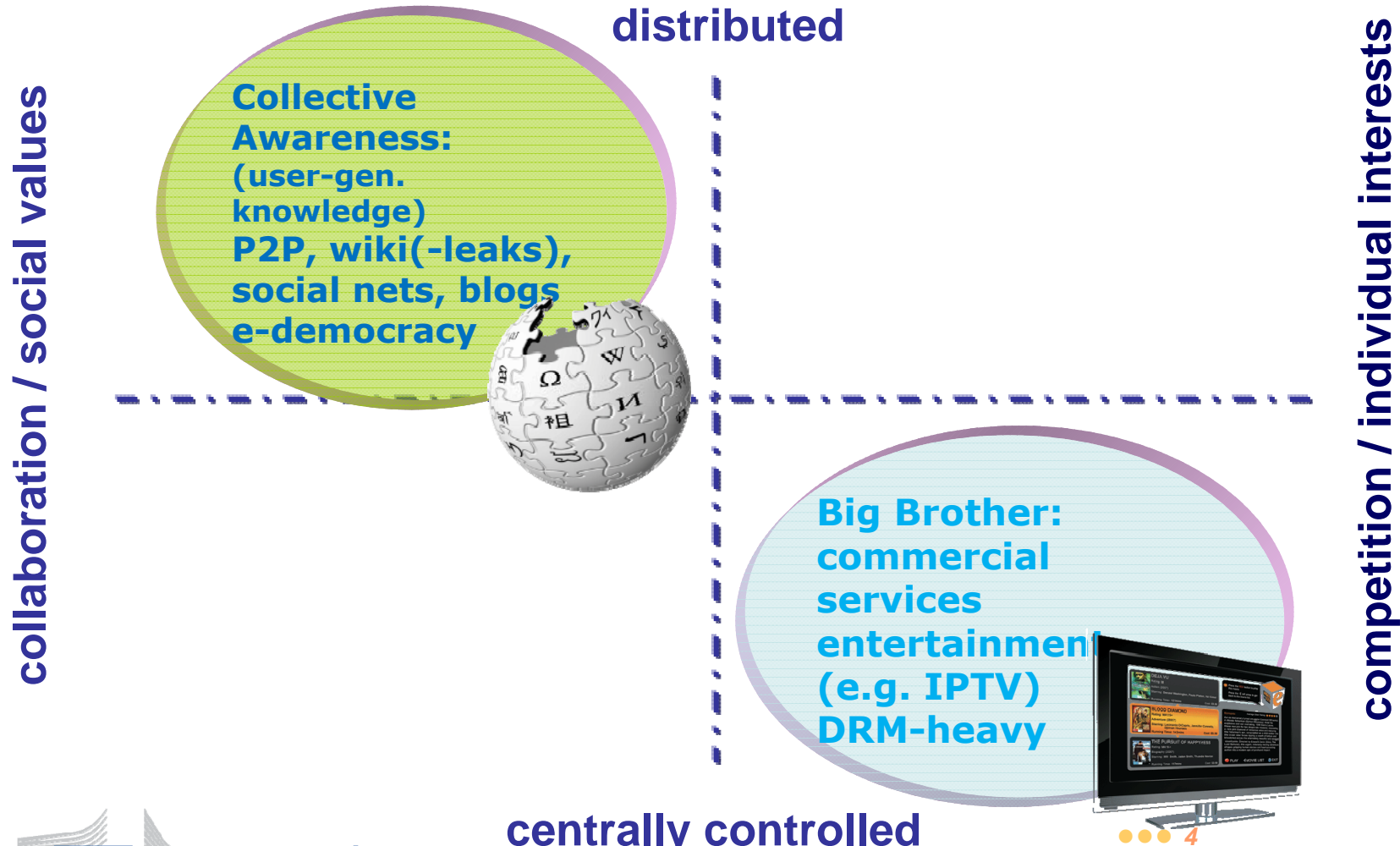


European
Commission

Communications Networks,
Content & Technology

Future Internet scenarios

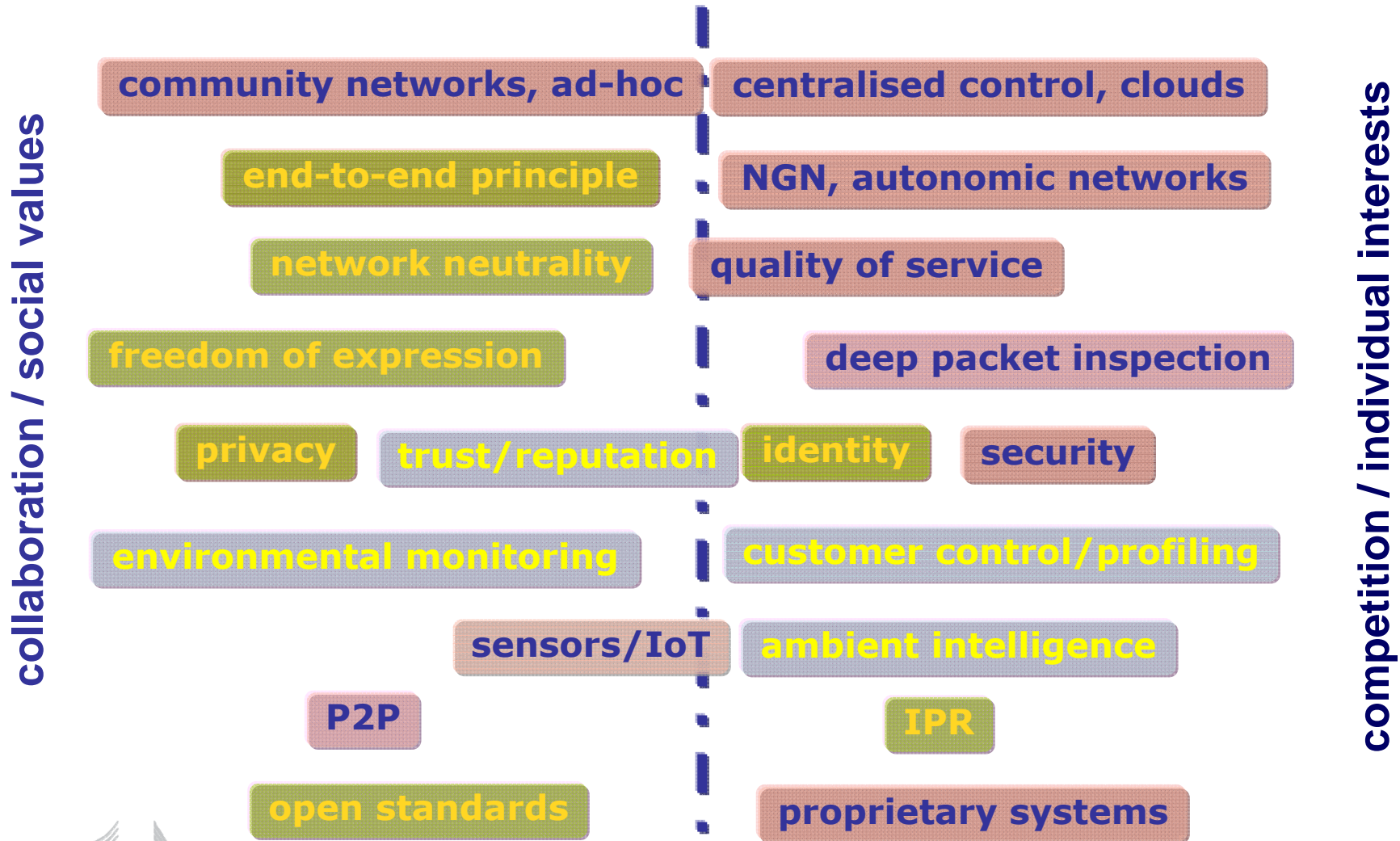
(See also the *Oxford Internet Institute Study on Technological, Social and Economic aspects of FI* http://cordis.europa.eu/fp7/ict/fire/fis/future-internet-and-society_en.html)



European
Commission

Communications Networks,
Content & Technology

ethical aspects of technological / application / policy choices



Future Internet & sustainability: an ethical question?

We are facing the convergence of multiple crises

- Financial, Environmental, Energy, Social

How can Internet help the transition towards a more sustainable future?

- Environmental-friendly way of living
 - Product ranking, Life footprint, efficiency
- Sustainable economic development
 - Empowering people, new market models, new IPR
- Participative global governance
 - Based on cooperation, sharing, low-cost access

What is "Collective Awareness"?

- **Gathering of big data about what's going on and other people's actions**
 - From humans as well as from sensors
 - Made available to all citizens as open data
 - Enriched and interrelated with other sources of information/statistics/simulations
- **Providing an extended awareness of the social world, the environment and the consequences of our actions, nudging our behaviours towards:**
 - Environmental-friendly lifestyles
 - New economic models
 - Participative global governance



*"Tell me and I'll forget;
show me and I may remember;
involve me and I'll understand."
(Chinese proverb)*

What are "Collective Awareness Platforms"?

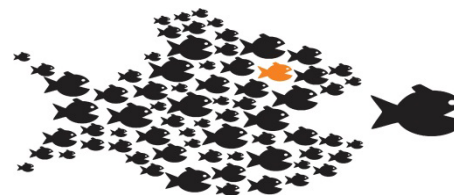
- Using *collective awareness* to support better informed and sustainability-aware decisions
 - affecting behaviours at individual and/or collective level
 - faster and more effectively than traditional "advice"
 - in specific or generic "platforms"
- Harnessing concepts from:
 - IoT - collecting data from environment
 - Social networks - interaction
 - Wikis – coproduction of new knowledge





Approach

- **Harnessing the ICT network effect**
 - to create collective intelligence
- **Sustainability as a goal**
 - beyond GDP, Low Carbon economy, natural resources, social equality, inclusion
- **Behavioural changes**
 - At personal, collective and corporate levels
 - Self-regulation based on collective awareness
- **Bottom-up**
 - And coordinated
- **Beyond commercially-driven platforms**
 - That can produce new business models and (social) innovation



What changes can CAPS achieve?

- **More balanced food, better health**

- ranking/labelling/customised advice/social feedback



- **Low carbon, energy savings**

- Sustainable consumption, environmental monitoring...



- **Smart Cities**

- Social innovation, smart transport, emergency...



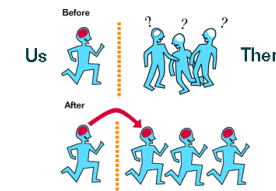
- **Safer, better Internet**

- Crowdsourcing, open social media



- **New democracy, participation**

- Politics, inclusion, youth, elderly...



An example: "The Eatery"

- *tracking the feeding habits of millions of people through mobile phone cameras*
 - Correlating this massive data with healthiness indicators
- *generating precise and personalised suggestions to improve individual habits or diets*
 - Instead of traditional nutritional advice
- *sharing and comparing individual food preferences over social networks*
 - Exploiting peer pressure to drive durable behavioural changes

network effect: healthiness as well as obesity can be "contagious"!!!



more examples...

- **Collaborative Consumption:** *lending, exchange, swapping and bartering made to operate at scale, across geographic boundaries*
 - **Airbnb:** rent a place from other people
 - **Freecycle:** grassroots movement of people giving stuff for free
- *Getting facts/evidence from citizens for better decision making (at personal or institutional levels)*
 - **Safecast:** collecting data about radiation through individual devices
 - **Alliance for useful evidence,** embedding evidence in the decision making process
 - **Crowdmap (based on Ushahidi),** to collect and map information from cellphones, news and the web
 - **Localmind:** to send questions and receive answers about what is going on—right now—at places you care about
- *Driving sustainable behaviours and lifestyles*
 - **Nike+ FuelBand:** tracks physical activity through a wearable accelerometer and syncs up with a motivational web and mobile experience
 - **Urban Eco Map:** encouraging eco-conscious decision-making at a local level
- *Developing alternative collaborative approaches to problem solving*
 - **Kickstarter, Opengeni:** open-source crowdfunding platforms for startups or scientific research
 - **Evoke:** serious games to develop and refine ideas to change the world
- **Connecting** citizens, doing things together
 - **Glancee:** discovers what friends or interests you have in common, combining fb and wikipedia

CAPS: hard ICT needs (beyond Apps)

- Interfaces with sensors, IoT
- Management of Open Data
 - from sensors and people
- Usability, interfaces for inclusion
- Integration of different systems / networks
 - open source, open hardware, free software
- Enabling unrestricted communications for inclusion
 - opportunistic, community networks, ...

CAPS: scientific needs

multidisciplinary understanding: hard and soft sciences

- simple online reputation mechanisms
 - based on identity but preserving privacy
- Understanding new collective models for value creation beyond monetisation
- Understanding motivations and incentives for online collaboration
- Impacts of social networks on sustainable collective behaviours



enabling bottom-up approaches in a regulatory framework

- *Ensure fundamental rights of the citizens*
 - **E.g. quality guarantees from collective systems**
- *Verify compatibility with policies*
 - **on open data, network neutrality, competitiveness, copyright, open government**
- *Redesign the regulatory toolbox to enable the full potential of collaborative and collective innovation*
 - **Creating a level playing field for CAPS, in line with treaties**
- *Demonstrating new forms of self-regulation instead of compliance*
 - **based on individual situational and contextual awareness of global social constraints**

Obj. 5.5: CAPS objectives (1/2)

a) Supporting multidisciplinary experiences/pilots of grassroots digital social innovation platforms involving citizens and communities (STREPs, 9M€)

- Societally, environmentally and economically sustainable solutions to societal challenges (e.g. in direct democracy, health, environment, sustainable lifestyles, etc.)
- Collective decision making tools based on the combination of social networks, wikis, IoT
- Empowering existing (local or global) communities of citizens
- Using free software, open hardware, open data

b) Providing seed money supporting bottom-up social innovation and education initiatives (1 IP with open calls, 3M€)

- based on crowdsourcing and network intelligence principles
- empowering web innovators, research teams, communities and entrepreneurs
- activities selected on the basis of excellence and crowd-funding criteria

Obj. 5.5: CAPS objectives (2/2)

Coordination Actions, 3M€:

c) Engaging citizens and society at large:

- distil best practices from existing initiatives, creating synergies and critical mass
- assess impact of CAPs on communities
- achieve a multi stakeholder approach (helping social entrepreneurs benefit from seed funding)
- discuss ethical aspects, e.g. fundamental rights such as quality guarantees
- link with policy/regulatory activities e.g. on privacy, identity, open data, NN, copyright, etc.

d) Integrating the scientific base for the multidisciplinary understanding of CAPs, addressing:

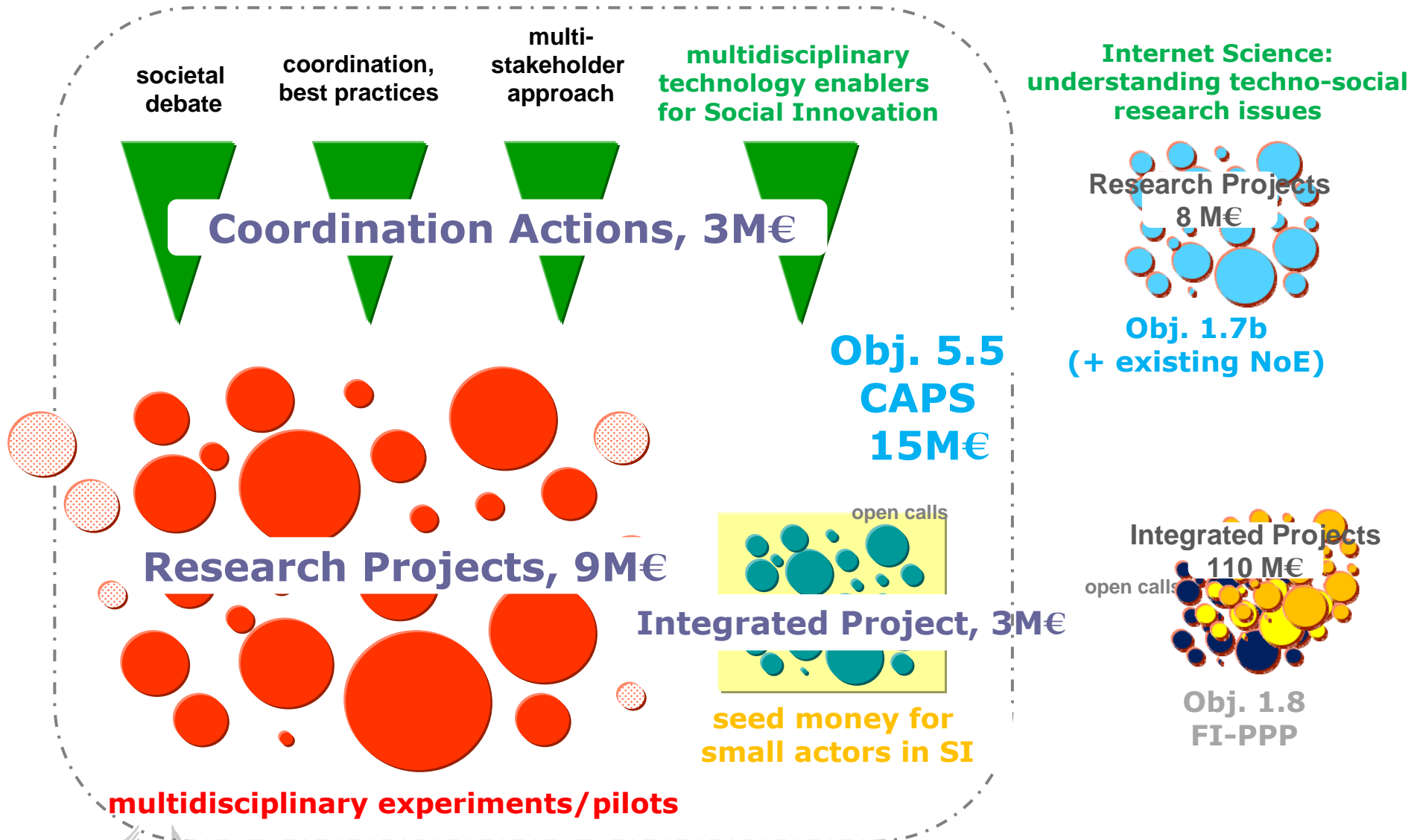
- innovative mechanisms for value creation beyond monetisation
- reputation
- motivation and incentives for online collaboration and sustainable behaviour
- innovative licensing
- open government
- new forms of "self-regulation" (based on awareness of global constraints)

instruments

- *STREPs*
 - **Small, agile, min. 3 partners/3 countries**
 - **Covering different methodologies and topics**
 - **Indicative: 0,7 - 2M€, 12-36 months, 3-8 partners**
- *IP*
 - **3M€, min. 3 partners / 3 countries, 2-3 years**
 - **Main role: opening cascade calls to fund new social innovation initiatives (85% of budget)**
 - **Coordination and visibility (8% of budget)**
- *CSAs*
 - **Min. 1 partner (SA), 100% funding**
 - **Indicative: 3 partners, 0,2 – 1 M€, 1-3 years**

No rigid prescription (beyond eligibility criteria)

CAPS - Collective Awareness Platforms for Social Innovation and Sustainability in ICT WP 2013



Key priorities for proposals

- *Innovativeness and effectiveness*
 - compared to existing "classical" solutions
- *Social value*
 - **number and type of citizens involved: young, elderly, ...**
 - **Positive impact on sustainability aspects**
- *Scalability*
 - **to reach a critical mass**
- *Portability*
 - **to other application areas**
- *User take-up and motivation*
- *Multidisciplinary approach and impact*

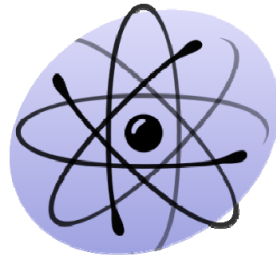


How to be "multidisciplinary"?

include participants from at least 3 of:



ICT



Physics



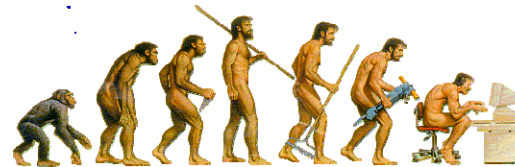
Legal



Economics



Innovation



Psychology



Philosophy



Sociology



History



Art



Network of Excellence in INTERNET SCIENCE

Coordinating and providing incentives for open multi-disciplinary investigation of internet related topics, merging technology, sociology, philosophy, economy, law, art, ...



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<http://www.internet-science.eu/>

Links between CAPS (obj. 5.5) and Internet Science (obj. 1.7b)

multidisciplinary investigation of key technological issues

- addressing reputation, network neutrality, identity, crowdsourcing, citizen involvement in content generation, new collective economic models, privacy by design, behavioural and societal changes

Open for Coordination Actions in CAPS objective 5.5

Open for multidisciplinary STREPs in IS objective 1.7b

(at least 2 non-ICT partners from sociology, economy, law, content/culture, perception/interfaces)

To know more:

Website

(background docs, links, examples, etc.):

http://ec.europa.eu/information_society/activities/collectiveawareness/

infodays (Warsaw, Paris, Barcelona, Madrid...)