



harnessing blockchains to decentralise data governance

Fabrizio Sestini
DG CONNECT E3 Net Innovation

<http://ec.europa.eu/digital-agenda/en/collectiveawareness>

hot policy/regulatory issues

- *The role of Platforms*
 - **Avoiding concentration of power**
 - **Creating a level playing field**
 - **Defining responsibilities**
- *Big Data aggregation (see also DSM)*
 - **Defining a clear legal framework**
 - **Protecting privacy and ownership of data**
 - **Ensuring digital sovereignty of EU citizens**

Fixing asymmetry in data governance

The 'culprit' is the extremely centralised architecture of the dominant data platforms – which results in:

- **unparalleled new public services from big companies**
- **extraordinary revenues (for big companies)**
- **unprecedented risk for privacy leaks**
- **uncompetitive advantage and high barriers for new entrants, stifling innovation**

Fixing asymmetry in data governance

*Vision: a **distributed architecture** where each piece of user-generated information remains under the full control of the user who generated it*

- **on personal data spaces at local level**
- **subject to on-demand aggregation by third parties**

*enabling **decentralised data governance***

Can we build it?

- *technologies already exist:*
 - **P2P networks (robust distributed architecture)**
 - **blockchains and other distributed ledgers (decentralised certification and security of transactions)**
 - **Open data, linked data**
- *to be generalised to clouds, social networks and IoT*
- *with robust standards*

the goal: creating a decentralised innovation ecosystem

- **Open to new entrants and open innovation:**
 - Low entry barrier to access big data
 - privacy-by-design business models
- **Open to new services: allowing more SMEs and social enterprises to implement social innovation**
 - for collaborative public services
 - collaborative economy
 - collaborative making
 - participatory consumption
 - environmental action
 - open policy making and open democracy

Digital Social Innovation @ DG CONNECT

Call ICT-12b: Distributed architectures for decentralized data governance

- **Demonstrating a distributed open source and software platform supporting decentralised data and identity management and bottom-up participatory innovation**

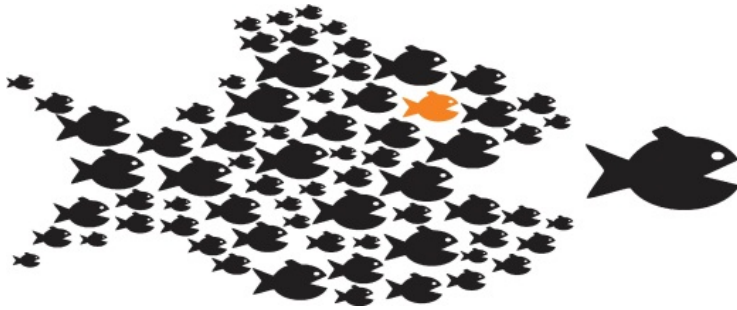
Call ICT-11: Pilots of Collective Awareness Platforms for Sustainability and Social Innovation (CAPS)

- **Demonstrating new forms of bottom-up innovation and social collaboration based on open data, open knowledge, open source software and open hardware**
- **Building on 36 running projects**

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



Collective Awareness Platforms for Sustainability and Social Innovation



To harness **ICT networks**, **network effects** and **collective intelligence** for **cooperation**, supporting new economic models beyond GDP

To create awareness of **sustainability** challenges - and of bottom-up solutions grounded on **real communities** of people

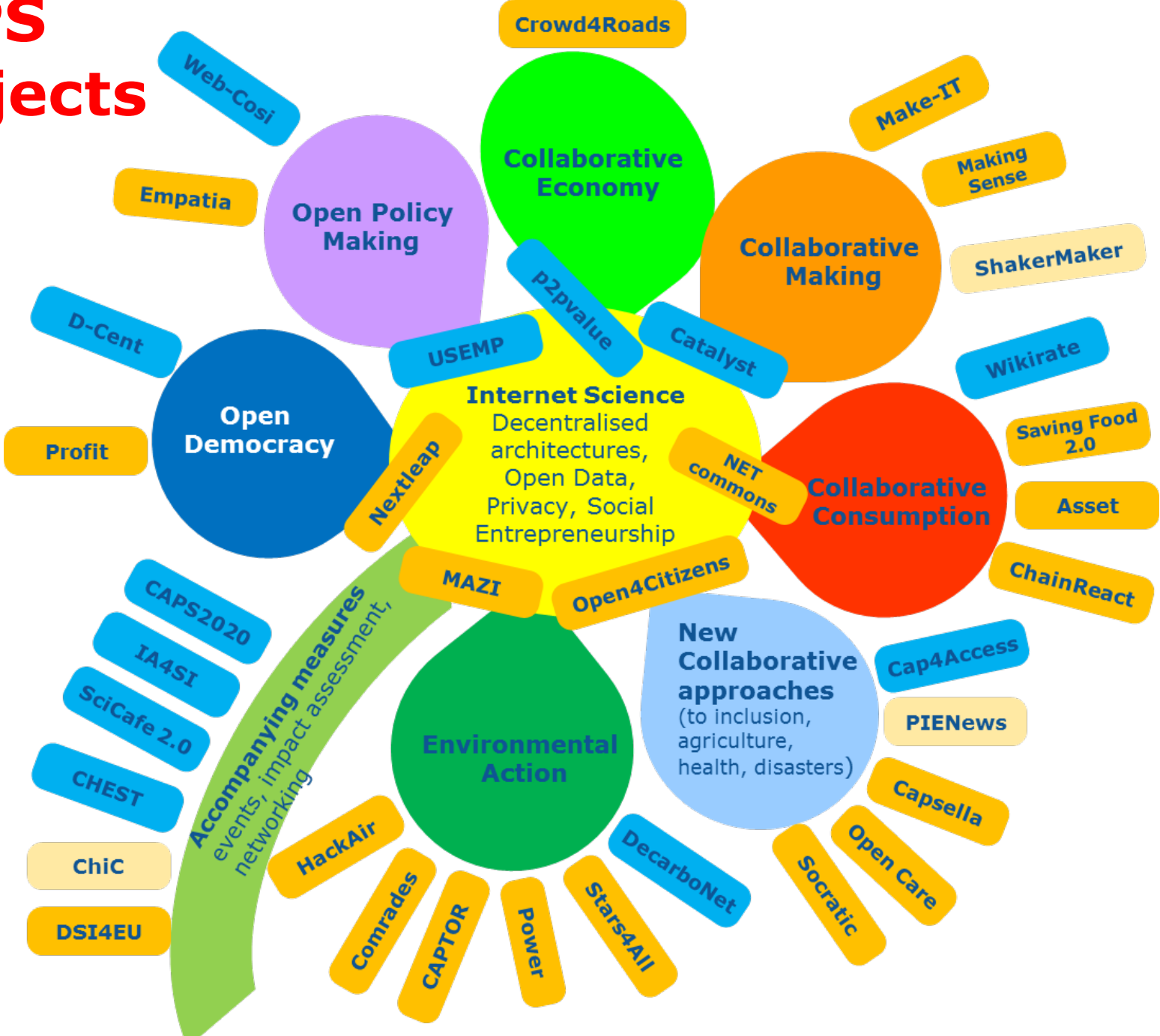
Based on **open data**, open source and open hardware **participatory innovation paradigms**

Requires participation of at least two entities from **non-ICT** domains

Appeals to new **grassroots** actors (including social entrepreneurs, students, hackers, civil society organisations)

<http://ec.europa.eu/digital-agenda/en/collectiveawareness>

CAPS projects





Workshop "**Blockchains for Social Good**"

Brussels, 21st June 2016

<https://ec.europa.eu/digital-single-market/en/news/blockchains-social-good>

Workshop "**Digital Social Innovation in Europe**"

Brussels, 29th June 2016

<https://www.eventbrite.nl/e/dsi4eu-shaping-the-future-of-digital-social-innovation-in-europe-tickets-24925801744>

ICT-11-2017 (CAPS)

✓ **Submission deadline:** 25 April 2017

✓ **Budget:** 10 M€

Website (background docs, projects, examples, etc.):

<http://ec.europa.eu/digital-single-market/en/collectiveawareness>
Crowdmapping DSI actors and networks: <http://digitalsocial.eu>

fabrizio.sestini@ec.europa.eu

Areas of **Digital Social Innovation** activities



EC Study on **Digital Social Innovation in Europe**

Crowdmapping actors and networks: <http://digitalsocial.eu/>