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Co-designed strategic planning in academia: case study of an action research group

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(Meta)research questions

A meta-research perspective: “research on research processes” (Ioannidis et al., 2015):

- 1. How can co-creation lead the strategic planning process of a (social sciences) research group?**
- 2. What would be the impact of a co-designed strategic planning on the (agile) project management of research?**

Science of Team Science challenges

- Need of **more evidence on successful approaches** to research project management (Derrick & Nickson, 2014)
- Collaboration across disciplines requires progressive adaptation of **shared language and different tools** (Jeffrey, 2003)
- Strategic thinking usually emerges in groups oriented to **impact beyond the academic domain**, like action research (Fuster Morell, 2009) or mission-driven research (Holm et al., 2013)

Research on strategic planning

- One of the most widely used strategy tools **in business, and also in public and non-profit organisations** (Ferlie & Ongaro, 2015)
- **Shift in research on strategic planning:** benefits from the perspective of participative and socialized process models (Wolf & Floyd, 2013)
- More a “process” than a “product”: evolutionary and integrative activity, **strategy-as-practice paradigm** (Jarzabkowski & Spee, 2009)

Strategic planning applied to research

- Has gained some popularity in the **general operation of universities** (Srinivasa et al., 2015)
- Several studies on **how to engage iteratively different academic communities** of practice around research strategic planning (Best et al., 2015)
- Diversity of approaches about the research mission, constrained by broader **organizational structures** of universities, and the **complex nature of the research enterprise itself** (Sá & Tamtik, 2012)

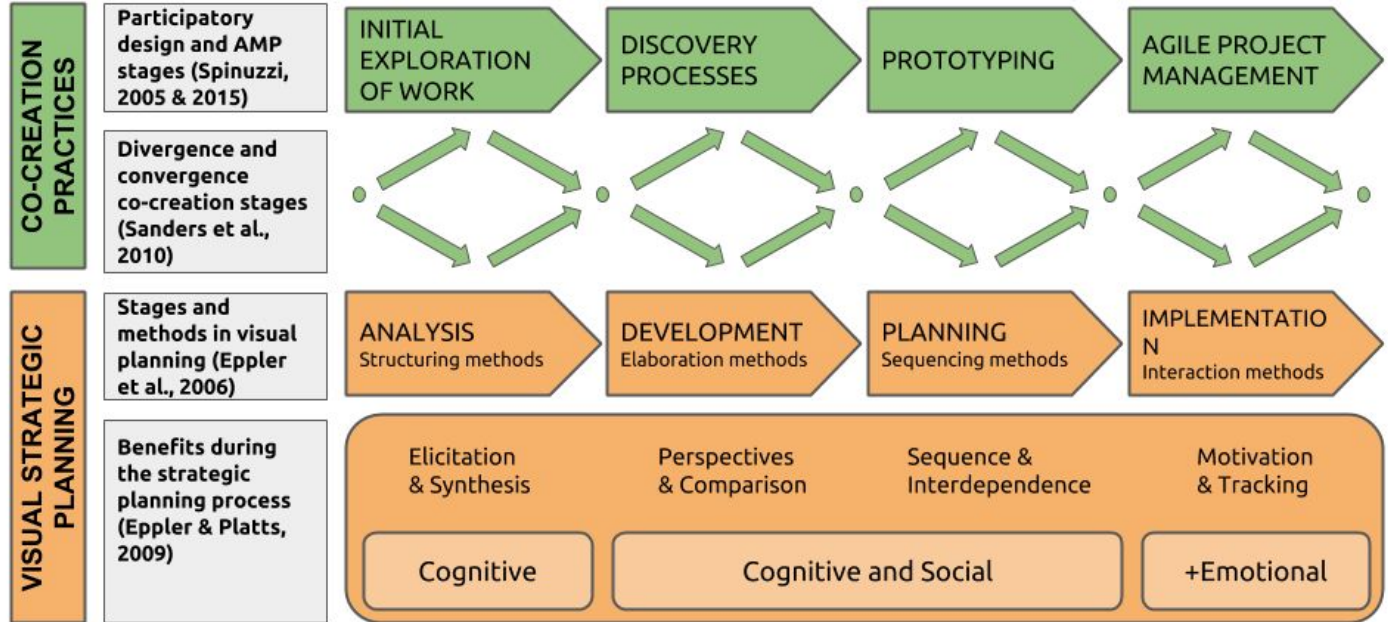
Co-creation and participatory design

- **Participants as “domain experts”** of their own needs and experience (Visser et al., 2005)
- Importance of expert **facilitation and visualization** techniques (Sanders & Stappers, 2008)
- Integrate **diverse perspectives**, mutual understanding, inspiration and engagement between participants (Eppler & Platts, 2009)

Characteristics of the case study

- Created in 2016, **Dimmons** (Digital Commons) is one of the 11 research groups of the Internet Interdisciplinary Institute (IN3) at Universitat Oberta de Catalunya (UOC)
- **Action research** for the study of socioeconomic innovation and platform economy, from perspectives of economic and policy innovation (also via **methodological experimentation**)
- Embed in **Quadruple helix of social innovation** context (Carayannis & Campbell, 2010)

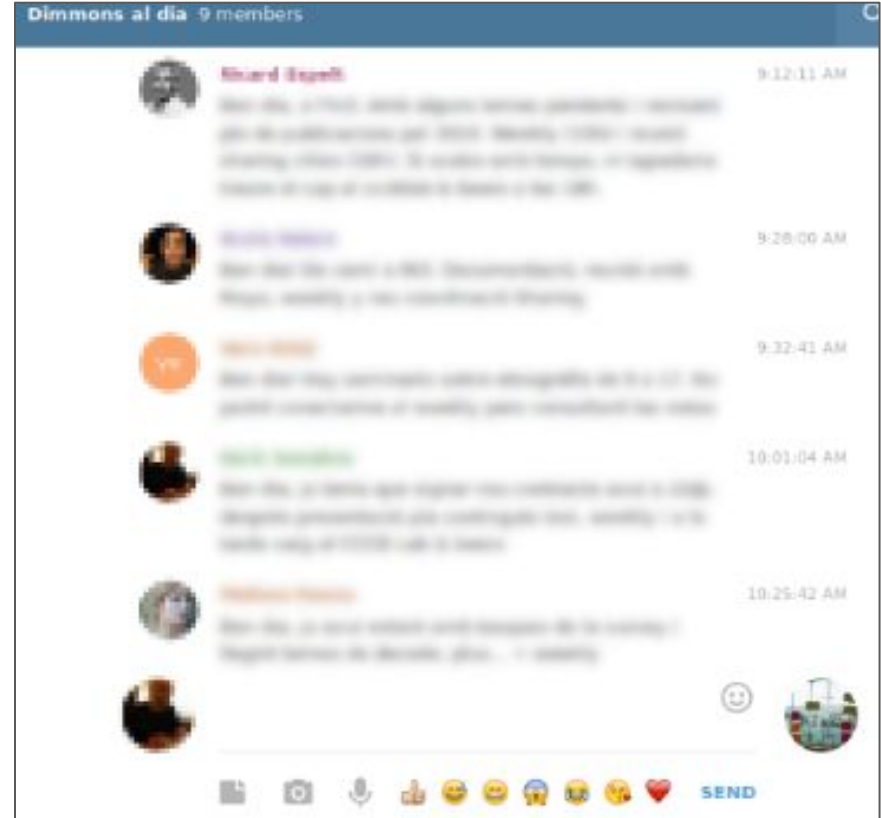
Methodology: participatory design



Sequence based on the framework for visual strategizing of Eppler and Platts (2009)

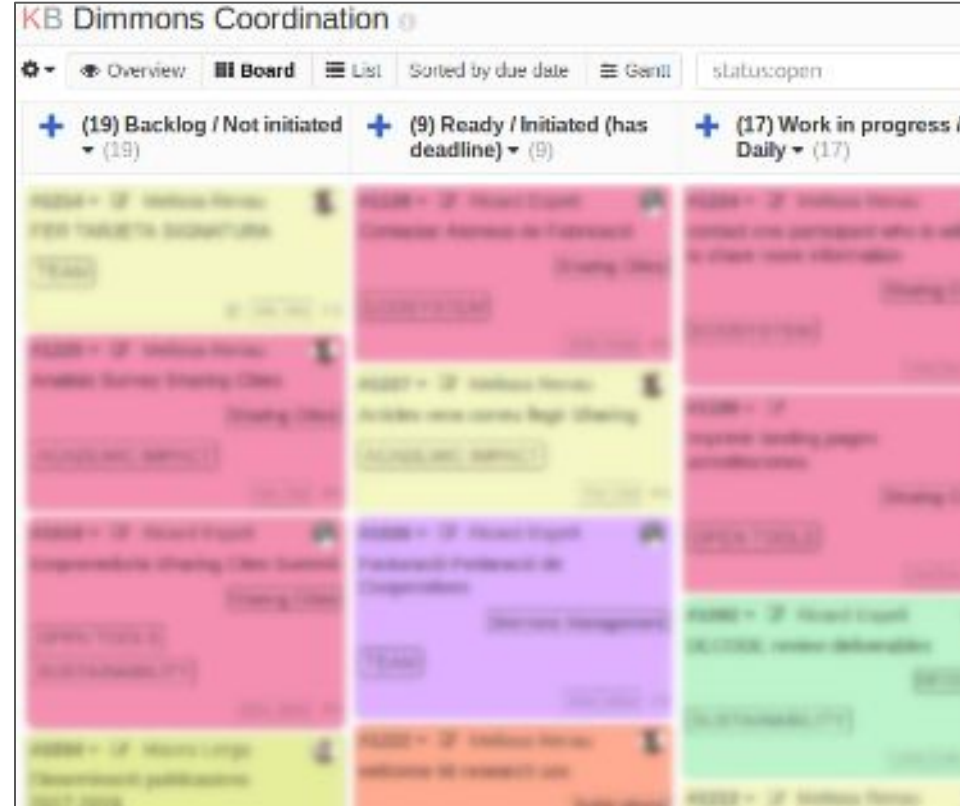
Methodology: content analysis

- **Daily chat (agile “standups”)**
 - Monday-Friday each team members (n=15) informs about **planned tasks for the day**
 - 28 months of activity: corpus of **6,520 messages** (794,464 characters, 6,941 lines of text)
 - **Comparing periods** of “pre-strategic” plan until Dec. 2017 and “post-strategic” one
 - Focus on coordination-related and strategy-related terms in each segment



Methodology: content analysis

- **Kanban board (workflow of tasks and who is doing what)**
 - In connection with the 6 strategic goals, **each planned task tagged** (selecting “academic impact”, “open tools”, etc.) according to researchers’ criteria
 - **166 user-defined tasks** with tags, and category (among the 11 existing projects and initiatives), users activity and accomplishment
 - Relevant despite **unequal participation**



Output: Dimmons strategic plan 2018-2023



O1: REFERENCE PUBLICATIONS



O2: OPEN TOOLS



O3: ECOSYSTEM BUILDING



O4: EMPOWERED TEAM



O5: CATALYTIC SUSTAINABILITY

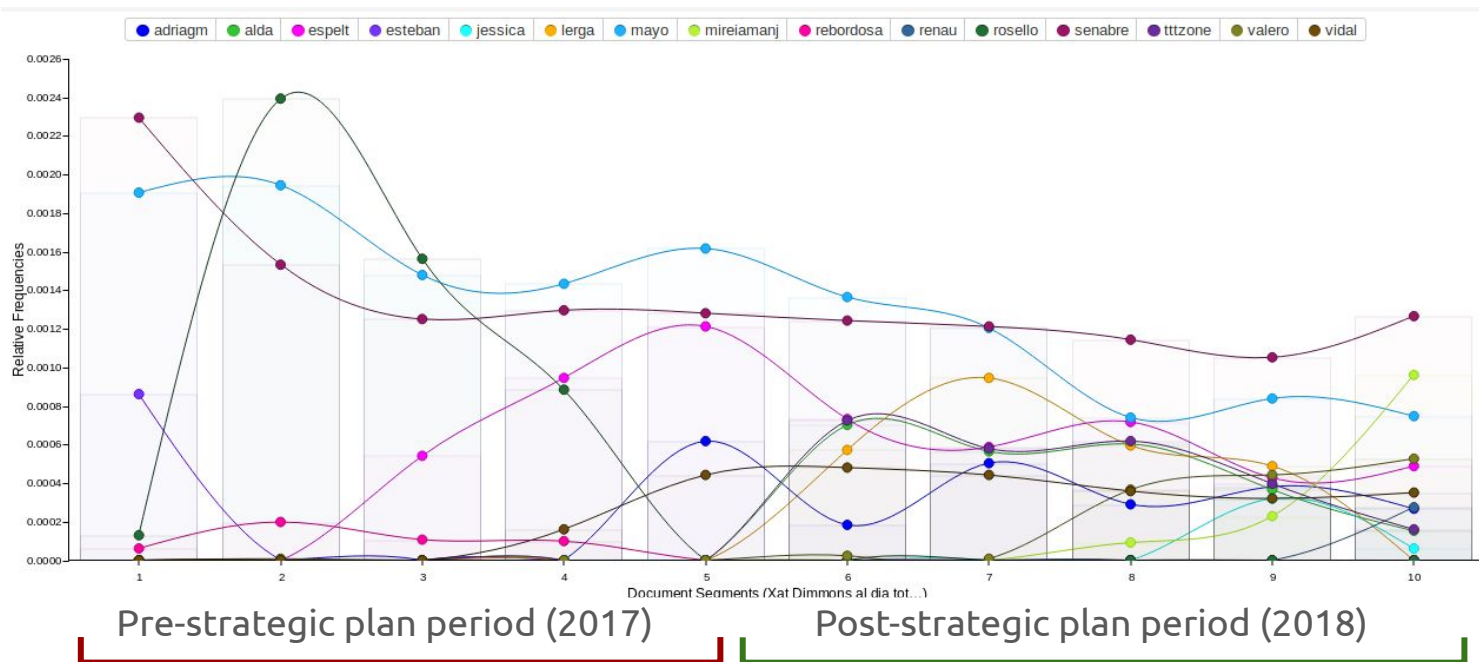


O6: UNIVERSITY SHIFT

- By 8 team members and more than **30 participants** from the “ecosystem”
- 38 actions defined in accordance with **6 main strategic goals**
- **Benchmarked** with UN’s Sustainable Development Goals (9 of 17) and Responsible Research and Innovation (RRI) principles
- Each action with **average of 3 key performance indicators** (97 in total)
- By end of 2018, 24 of the 97 KPI accomplished satisfactorily: **accomplishment of 24%**
- <http://dimmons.net/strategic-plan-2018-2023/>

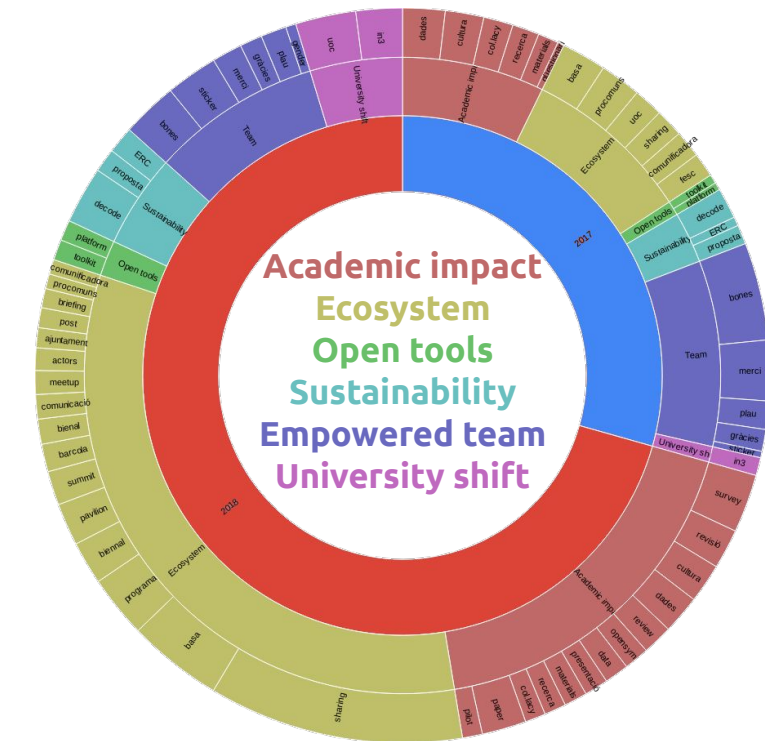
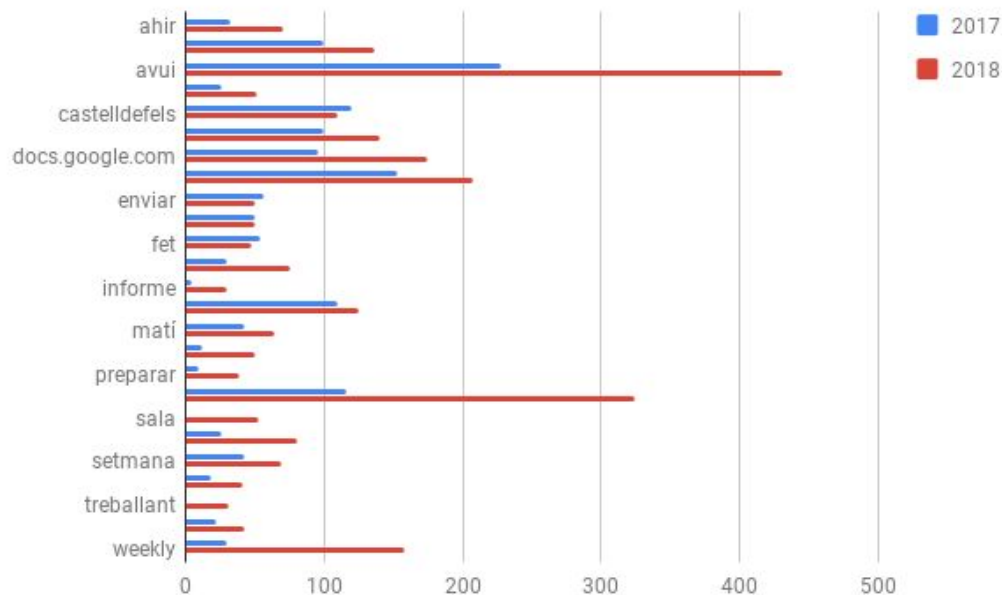
Results: more balanced chat participation

Communication dynamics evolved from being relatively asymmetric (with just few users very active) to a significantly **more balanced distribution of participation** after co-created strategic planning, where all members contributed following the “standup” meetings and derived conversations.



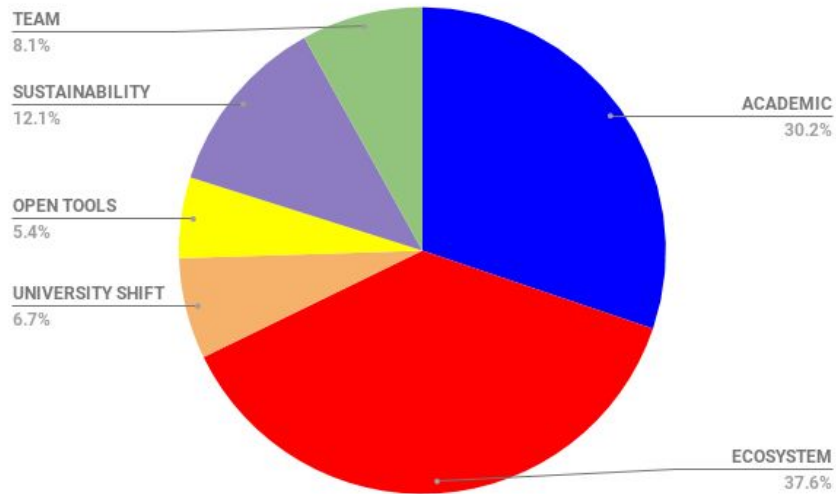
Results: increase of coordination & strategic discussions

Vocabulary from the “standup” online chat, comparing the corpus of terms between periods, show a significative **increase of coordination-related terms** (Fig. left) and of **terms related to the different strategic goals** (Fig. right).

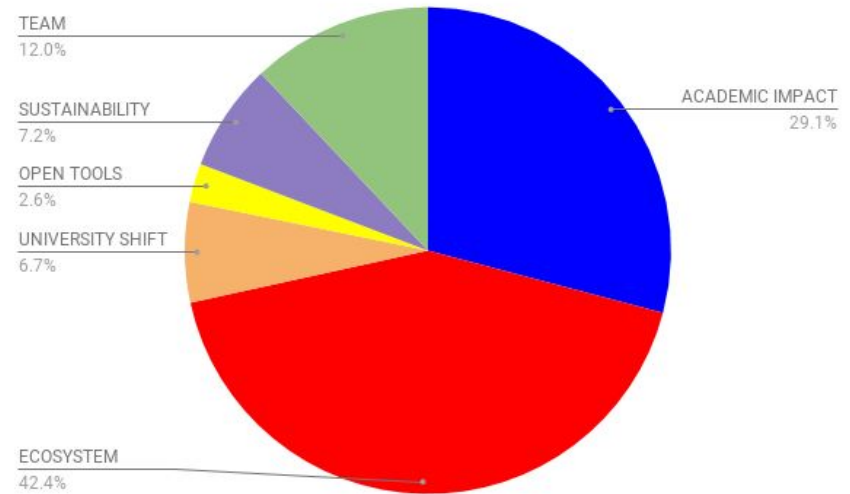


Results: consistency when comparing communications

Most used tags on the kanban board, related to the strategic goals when informing the regular tasks of team members (Fig. left), point to **relevant consistency by a very similar distribution** as in the standup chat (Fig. right). Suggests a **coherent integration of the strategic goals with the agile methods**, which ensured an interconnection between the strategic plan and the daily activities.



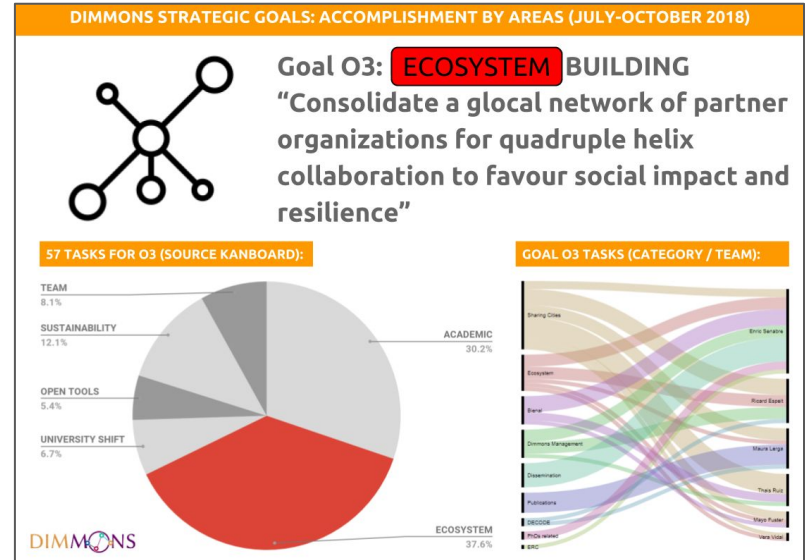
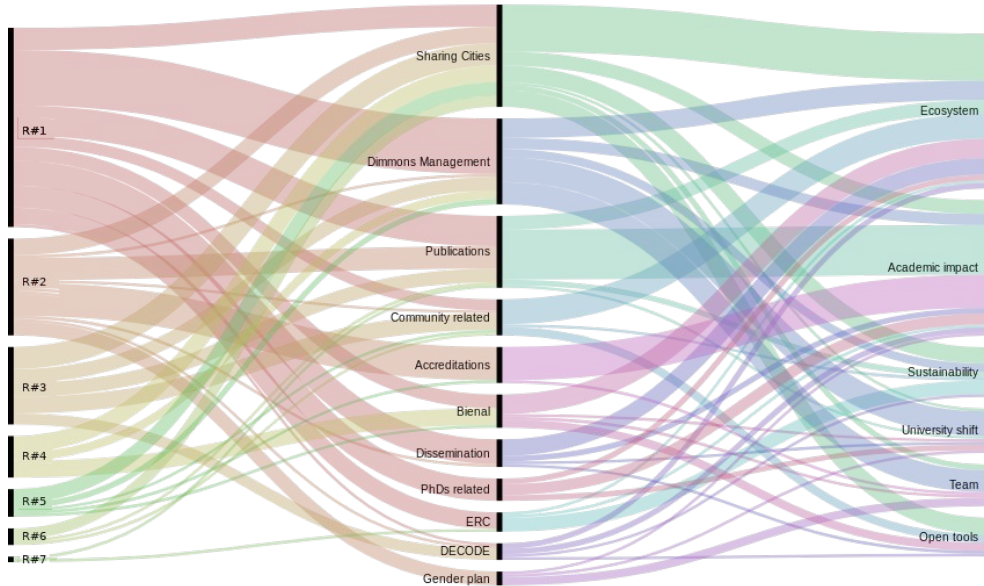
Strategic goals on the kanban board (tags)



Strategic goals on the standup chat (terms)

Results: significant levels of cross-functionality

Good balance of members contributions to projects and initiatives, connected to the strategic goals. Instead of a specialization pattern or “monolithic” distribution of projects to researchers, there was a relevant **distribution of teamwork in terms of shared projects and cross-functionality** (Fig left). This was **part of internal group analysis** when doing retrospective group meetings (Fig right).



1. **How can co-creation lead the strategic planning process of a (social sciences) research group?**
 - Design thinking as a practical approach for enabling transdisciplinary diversity and as a **process for “shaping processes”** (Lindberg et al., 2010).
 - Connects to the need to adapt strategic planning to co-creation practices as a **decentralized, integrative and iterative dialogue** (Wolf & Floyd, 2013).

2. What would be the impact of a co-designed strategic planning on the (agile) project management of research?
 - Contributed to **team collaboration under a shared vision** and helped to deal with the inherent complexity of research activity (Fuster Morell, 2012)
 - **Unequal participation and distribution of goals** reflect challenges in front of competition for excellence and the “projectification” of university research (Fowler et al., 2015)

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