DIGITALLY ENABLED SUSTAINABLE COMMUNITIES

THE PROBLEM

- Sustainability problems cannot be solved by a few key actors – they require a ***decentralized approach with multiple local collaborations***
- Collaborations depend on a ***shared digital infrastructure*** (hardware, software, and data) that different stakeholders use as a ***commons***
- Effective ***technological solutions*** for such infrastructure don't exist, neither do ***organizational and legal approaches*** for governing such commons in an ***effective, fair, and secure manner***

THE SOLUTION

- Using a ***digital-first organizing logic for sustainable communities***: Framework that specifies ***the coordination mechanisms, incentives, governance and legal aspects*** to ***provision and use a shared infrastructure*** for sustainable solutions (e.g., local decentralized energy grid)
- Built around a ***digital platform*** to facilitate both ***technical*** and ***social*** interactions
- Supported by a community that makes this transition work

THE IMPACT

Our approach will ***enable communities of organizations and citizens*** who have struggled ***to build decentralized sustainable solutions*** (for technical, organizational and legal reasons) to accomplish this objective (e.g., to build a sustainable micro-grid in a new development area)

RESULTS/OUTCOMES

- ***Interdisciplinary research team*** (business, computer science, law) focusing on ***renewable energy communities***, specifically on the topic of aligning consumption with the production of renewable energy
- Development of a ***common understanding*** of the topic across disciplines with the help of ***student teams***
- ***Literature review*** on the topic to document and identify connections across the disciplinary perspectives
- ***interviews*** with energy cooperatives to understand current approaches and challenges
- Presentation of the project at ***DiSC meetup event*** on April 5, 2024
- Follow up with ***thesis projects***
- Looking out for ***funding opportunities*** in the future

LESSONS LEARNED

- Interdisciplinary collaboration is ***fun*** but takes a ***lot of effort***
- Thinking that you are on the same page is ***no guarantee that you actually are***
- ***Students can be a valuable*** help crossing disciplinary boundaries…
- …but also add ***additional constraints*** – recruiting, accommodating teaching/exam periods

- Overall, it ***took us longer*** to get started
- We had to ***keep our goals realistic***

- This is ***just a start***; to generate real impact, we need to continue a ***more long-term collaboration***

Hans Berends, Lukas Falcke, Amanda Porter, Philipp Tuertscher (SBE)
Patricia Lago, Ilias Gerostathopoulos, (Computer Science)
Davide Rossati (Law)

SOFTWARE AND SUSTAINABILITY
S2 RESEARCH GROUP

Center for Digital Innovation

AMSTERDAM CENTRE FOR CLIMATE CHANGE AND THE LAW

VU