SOCIALRES

A Socio-Economic Examination of Participation in Socially Innovative Energy Projects

Task 3.2

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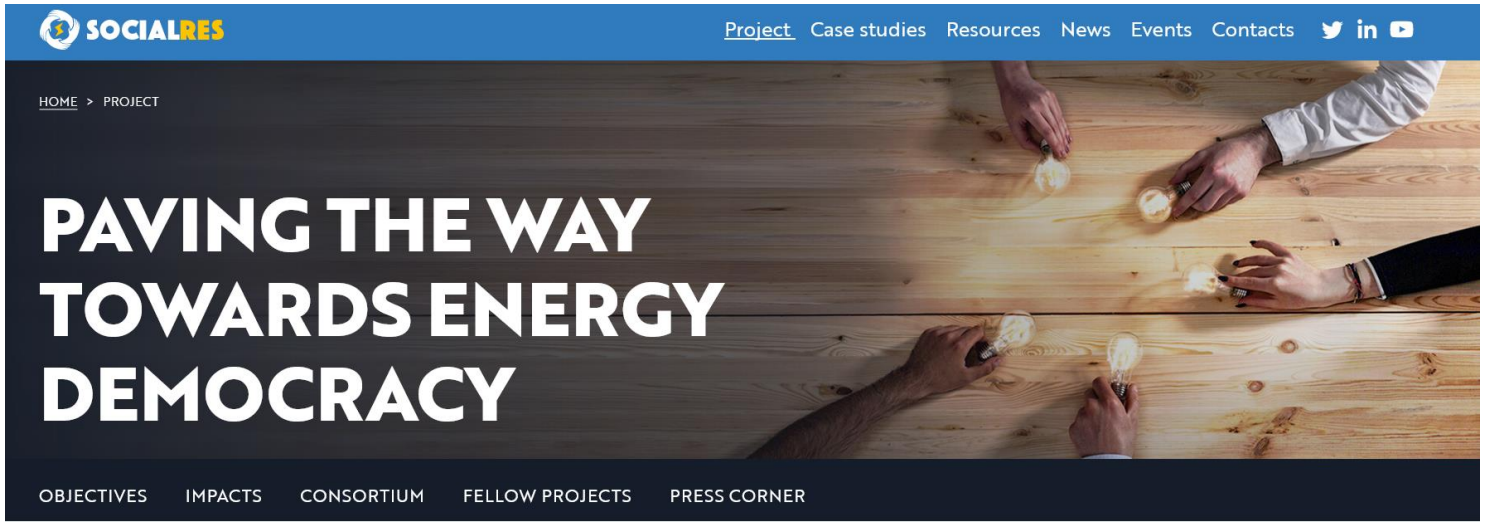
Presentation Outline

- What is the SocialRES project?
- What did we do?
- Survey design and distribution
- Some results
- What's next?

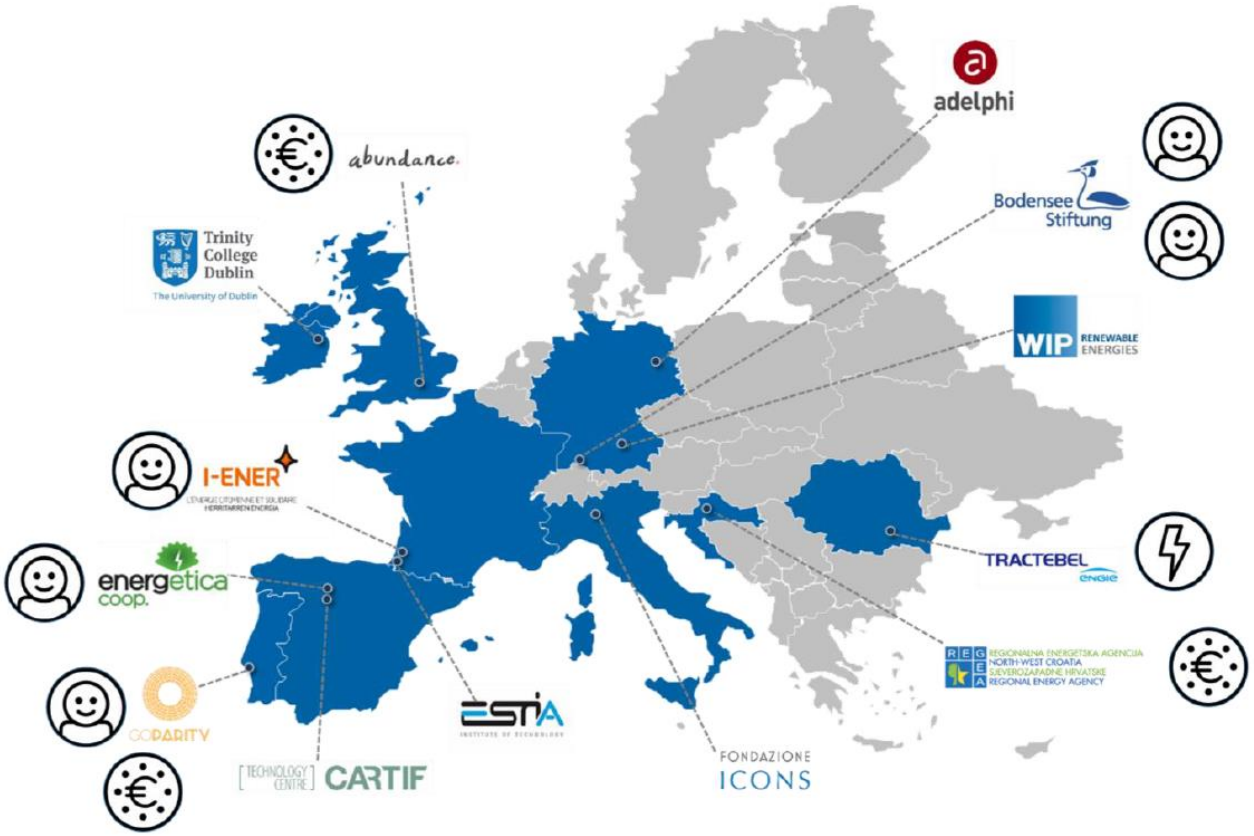
What is the SocialRES project?

- **Closing non-technological research gaps** that impede the widespread uptake of social innovation business and service models in the European energy sector.
- **Better understanding** of the socio-economic, socio-cultural, socio-political and gender factors that influence the behaviour of consumers in the energy system.



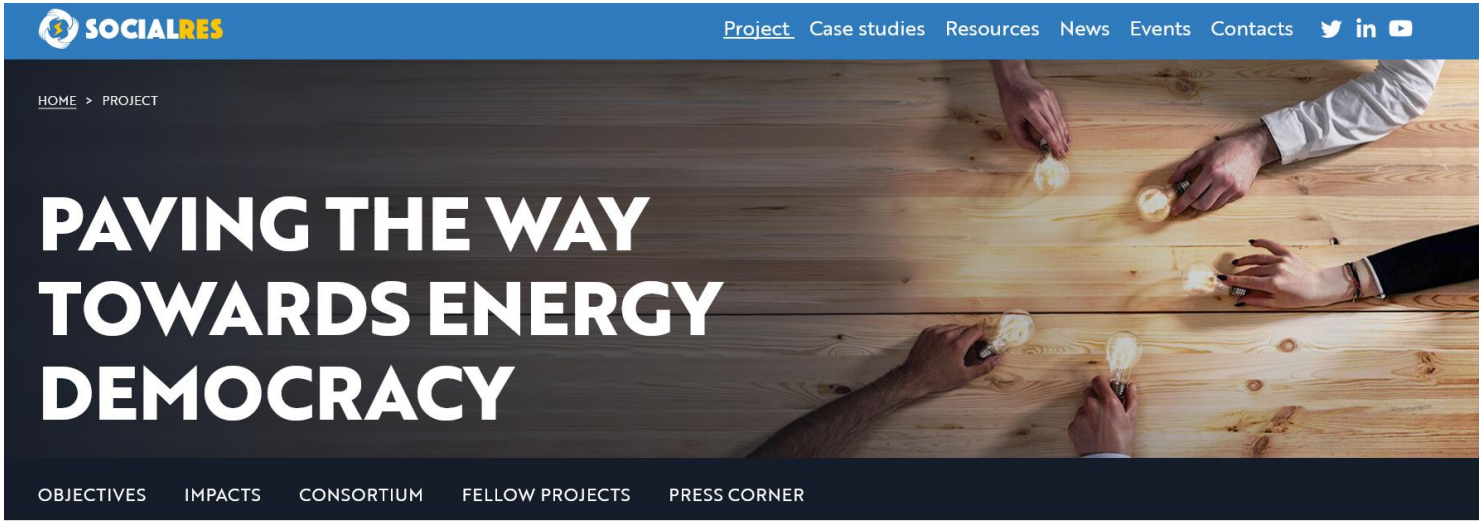
SocialRES partners

COOPERATIVES P2P PLATFORMS CROWDFUNDING PLATFORMS



What do we do? Research questions

- What aspects of energy cooperatives, crowdfunders and peer-to-peer platforms are important to attract investors/participants?
- How do early participants differ from the general public?
- Why do people opt-out of participation?



What did we do?

- 2 large surveys on energy organisations

- Survey #1, 12 countries
  - General public
  - Attitudes, preferences
  - Discrete choice experiment

- Survey #2, 5 countries
  - Existing customers of our case study providers

Survey Design

- Survey design

  - Introduction
  - Warm up screening questions/energy behaviour
  - A discrete choice experiment
  - Investment motivations and barriers
  - Environmental attitude and concern
  - Demographics and energy characteristics.

This survey explores community renewable energy projects.

This research is being carried out on behalf of researchers at Trinity College Dublin, Ireland, and has NO commercial purpose. Your answers are 100% CONFIDENTIAL, at no point will you be asked to provide details which may identify you. The data you provide will remain in Trinity College and your responses will not be given to a third party.

By proceeding with this survey you are confirming that you are over 18 years of age. Your participation in this survey is voluntary and you may withdraw at any time without giving a reason.

The survey will take approximately 15 minutes.

The survey is part of a research project funded by the European Commission called SocialRES. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 837758.

Thank you in advance for your participation in this survey

Survey Design

- Discrete choice experiment
- Three versions of DCE
  - Coop
  - Crowdfunder
  - Aggregator
- Each respondent makes 8 choices

	Project A	Project B
Annual Return	2.5 %	5 %
Type	Solar	Wind
Annual CO2 Reduction	3,000 tonnes	12,000 tonnes
Land Cover	5 football pitches	20 football pitches
Location	Within your region	Outside your country
Minimum Investment	€ 100	€ 500
Minimum Duration	5 years	2 years
Participation	Quarterly meetings	None

- ○ Project A
- ○ Project B
- ○ I would NOT choose either

An example of choice cards for the cooperative version

Attributes and levels

Attributes	Levels				
Annual return	0%	2.5%	5%	7.5%	
Type of the project	Solar energy	Wind energy			
Carbon emissions reduction and the corresponding size of the project	150 tonnes (a quarter football pitch)	600 tonnes (1 football pitch)	3,000 tonnes (5 football pitches)	6,000 tonnes (10 football pitches)	12,000 tonnes (20 football pitches)
Location of the project	Within your local area	Within your region	Within your country	Outside your country	
Minimum amount of investment	€50	€100	€500	€1,000	€5,000
Minimum duration of investment	No minimum duration	1 year	2 years	5 years	
Participation	None	Quarterly meetings	Annual meetings		

Survey Distribution

- Initial plan
  - Coops
    - France = 800 responses
    - Germany = 800 responses
    - Spain = 800 responses

    2,400
  - Crowdfunder
    - Croatia = 800 responses
    - Portugal = 800 responses
    - UK = 800 responses

    2,400
  - Aggregator
    - Romania = 800 responses

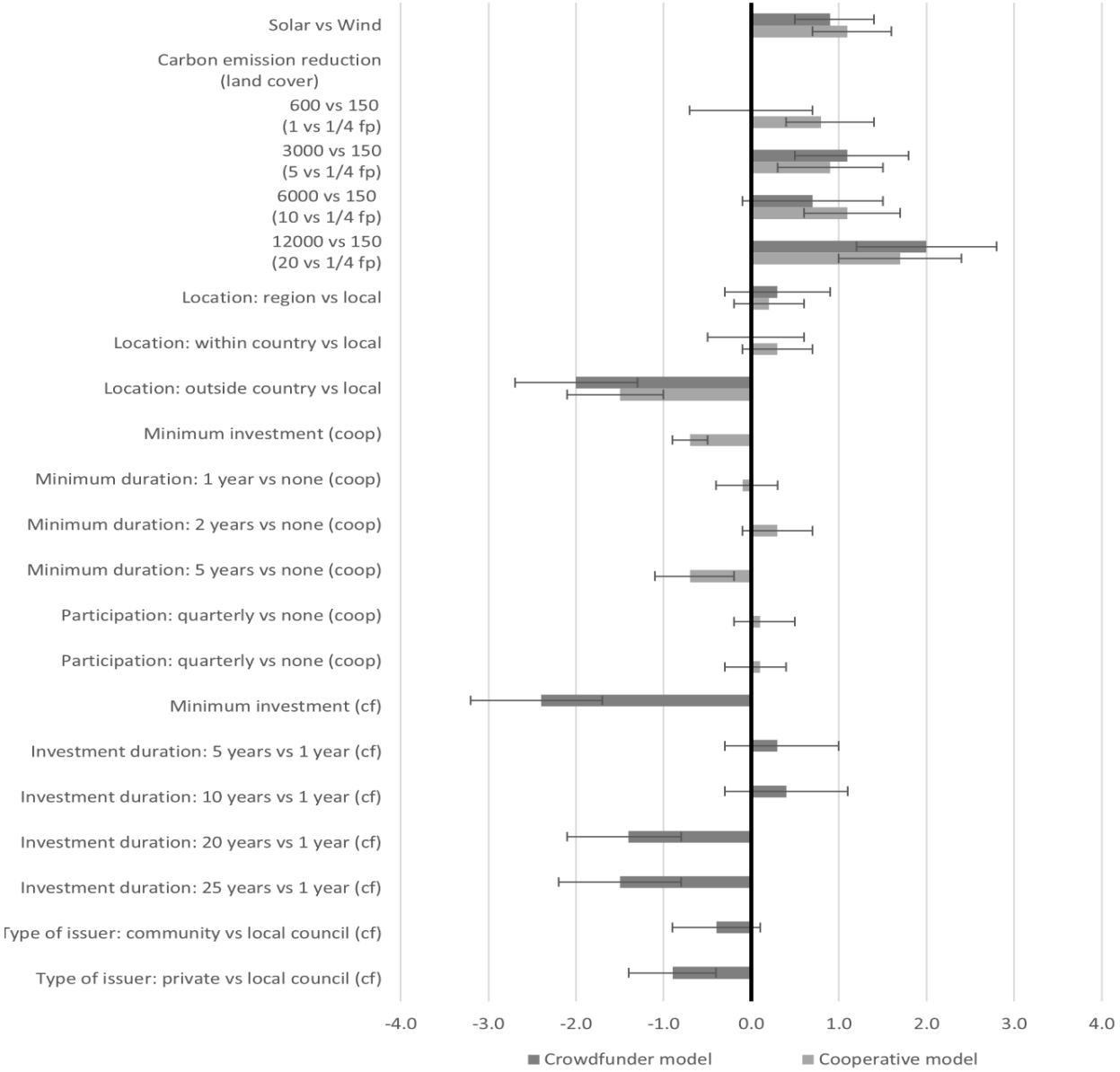
    800
- Additional
  - Coop
    - Sweden 800
    - Poland 800

    1,600
  - Crowdfunder
    - Italy 800
    - Ireland 800

    1,600
  - Aggregator
    - Germany 800
    - USA 800

    1,600

Results – DCE Cooperatives & Crowdfunders



Harnessing Citizen Investment in Community-Based Energy Initiatives – Evidence from ten European Countries

Hangjian Wu, James Carroll, Eleanor Denny

Figure 2. Mean WTA values for the Cooperative and Crowdfunder sample. The panel on the left represents the characteristics of a typical energy cooperative or a crowdfunded project. The bar represents the extent to which a level is preferred over the reference level of the attribute. The larger the bars on the positive domain (on the negative domain), the more respondents value (dislike) the alternative level relative to the reference level.

Note:

"fp" refers to football pitch; "coop" refers to attributes for the Cooperative Model and "cf" refers to attributes for the Crowdfunder Model.

All the WTA estimates are presented in percentage of annual return.

95% confidence is calculated using Krinsky & Robb [35]'s approach.

Preliminary results – correlations

Previous participants
(marginal effects)

- Education ↑
- Age ↓
- Female ↓
- Upgraded heating system ↑
- Investment experience ↑
- Trust ↑

Aspects of energy organization design
(Likert scales)

<u>Aspects</u>

1. Clear legal structure
2. Previous positive investor experience

<u>Attributes</u>

1. CO_2 reduction
2. Investment duration or amount (crowdfunding and cooperative)
2. Energy/bill savings (peer-to-peer)

Opt-outs
(ZINB count models)

- Trust ↓
- General previous investing experience ↓
- Risk aversion ↑
- Female ↑
- Age ↑

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What's next?

- Discrete choice experiment cooperatives & crowdfunding (submitted)
- DCE paper on aggregators (in progress)
- Current participants and individuals that opt – out (in progress)
- The effect of age on participation - both quantitative and qualitative data (idea)

Thank you

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