

# Work-Package 6, update

ZHAW

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# Social Innovation in Energy Transitions





# 1. Overview of surveys

What instrument?	Who?	When?	Unit of analysis	Type of metric	Aims	Contributions	#Responses
Survey 1V1	Researchers SIE-representatives	Before Interview After Interview	SIE-initiative	subjective	X	X	53
Survey 1V2	Field-actors	After Interview	SIE-Field	subjective	X	X	31
Survey 2	SIE-representatives	After Interview	SIE-initiative	objective		X	0
Survey 3	SIE-members	After Interview	SIE-member	subjective	X	X	13

analyzed



## 2. Overview of aims and their types

General Category	Aims	EU Goal Category
<b>Cross-cutting</b>	improve quality of life	
	impact energy policy processes	
<b>Economic</b>	reduce energy bill for consumers	
<b>Environmental</b>	<b>reduce energy consumption</b>	<b>Sustainability</b>
	<b>reduce greenhouse gas emissions</b>	<b>Sustainability</b>
	reduce impact on the environment	
<b>Socio-cultural</b>	improve the transfer of knowledge in the energy sector	
	improve social acceptance of renewable energy production	
	strengthen local community	
<b>Socio-economic</b>	<b>increase local economic development</b>	<b>Competitiveness/ social fairness</b>
	improve economic feasibility of renewable energy projects	
	provide support for other energy-related initiatives or projects	
	<b>increase trade of energy with neighbouring regions</b>	<b>Interconnection</b>
<b>Socio-political</b>	increase independence of energy supplies	
	advocate for regional renewable energy projects	
<b>Socio-technical</b>	<b>increase the production from renewable energy sources</b>	<b>Sustainability</b>
	<b>improve security of energy supply</b>	<b>Security</b>
	<b>increase energy efficiency</b>	<b>Efficiency</b>
<b>Technical</b>	<b>develop new renewable energy technologies</b>	<b>Competitiveness/ innovation</b>



## 2. Questionnaire

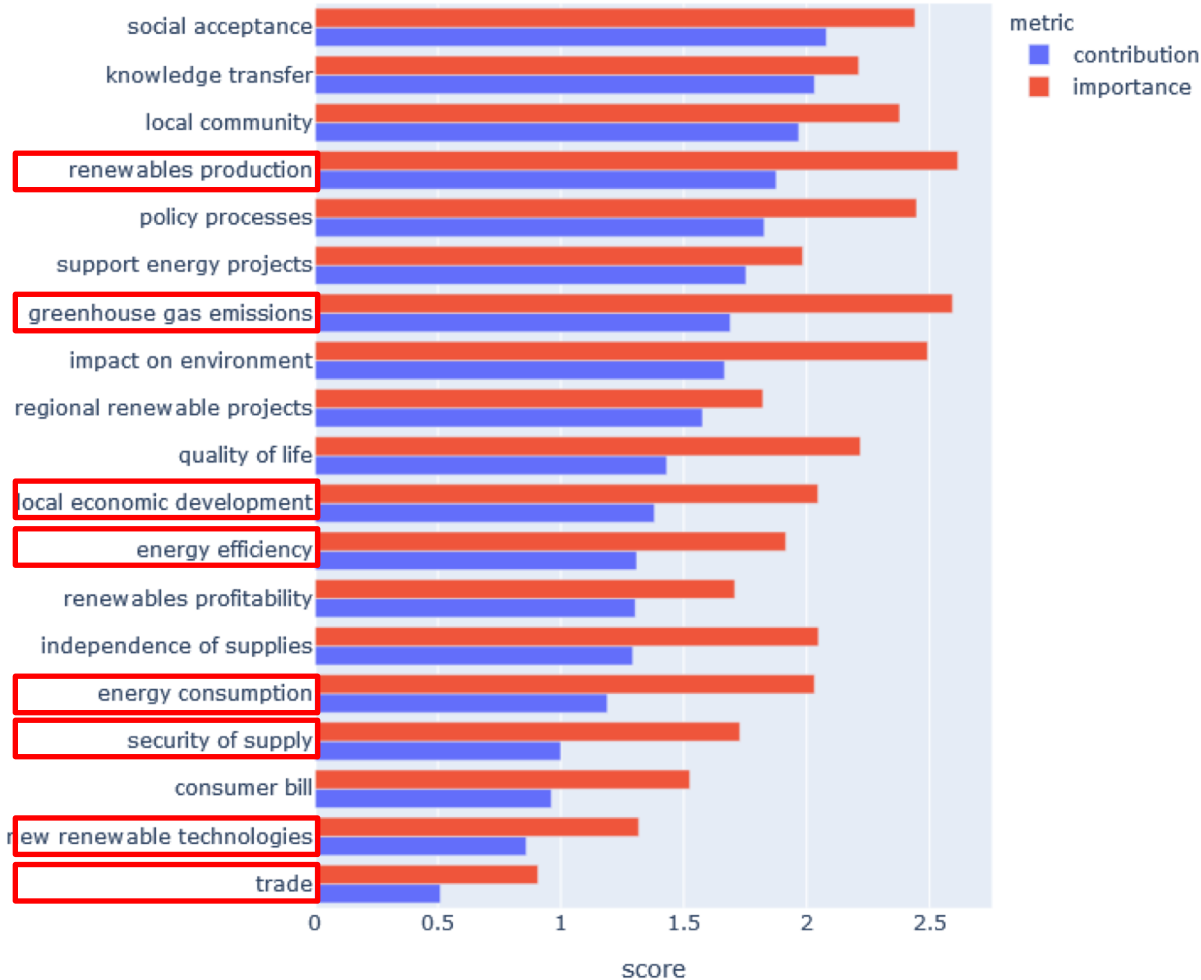
**\*From your perspective, how important are the following aims to ORGANISATION-NAME?**

	Very important	Moderately important	Hardly important	Not important	I don't know
improve quality of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
impact energy policy processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase independence of energy supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reduce energy consumption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reduce greenhouse gas emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase the production from renewable energy sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reduce impact on the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improve the transfer of knowledge in the energy sector.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improve social acceptance of renewable energy production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase local economic development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improve economic feasibility of renewable energy projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide support for other energy-related initiatives or projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
improve security of energy supply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
develop new renewable energy technologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
advocate for regional renewable energy projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase energy efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
strengthen local community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
reduce energy bill for consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
increase trade of energy with neighbouring regions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



### 3. Preliminary Results Survey 1

Average contribution and importance scores of all survey and respondents



Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

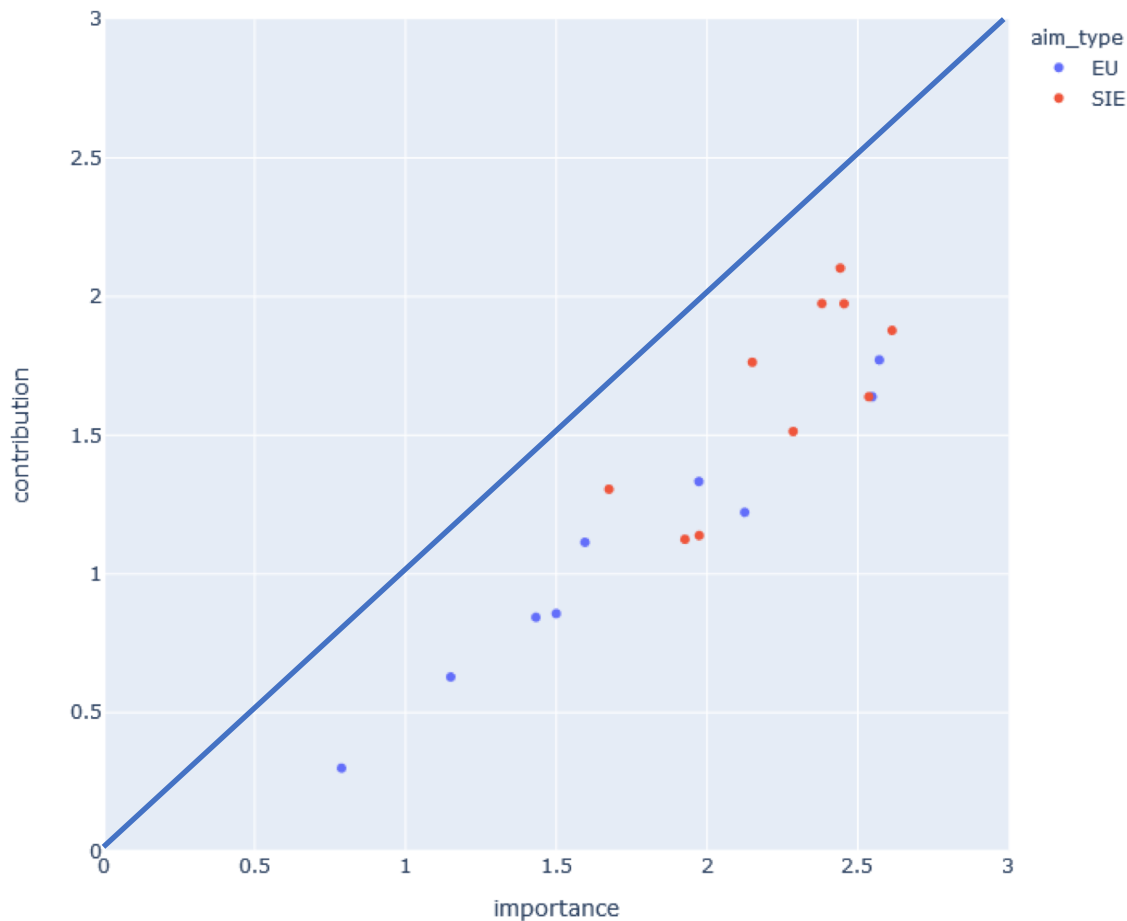
#### Preliminary Conclusions:

- SIEs contribute more to aims that are seen as important
- Contribution to EU is lower than contribution to SIE goals
- Importance score tends to be higher than contribution score



### 3. Preliminary Results Survey 1

Average importance and contribution rating for each goal



Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

#### Preliminary Conclusions:

- SIEs contribute more to aims that are seen as important
- Contribution to EU is lower than contribution to SIE goals
- Importance score tends to be higher than contribution score



### 3. Preliminary Results Survey 1

Correlation between importance rating of different aims

	aim	aim	correlation
0	energy efficiency	energy consumption	0.743664
1	trade	renewables profitability	0.622044
2	trade	new renewable technologies	0.598224
3	social acceptance	regional renewable projects	0.596487
4	renewables profitability	independence of supplies	0.595169
5	impact on environment	greenhouse gas emissions	0.593643
6	renewables production	independence of supplies	0.593245
7	trade	regional renewable projects	0.590023
8	renewables profitability	new renewable technologies	0.588633
9	social acceptance	renewables production	0.570643

aim

Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

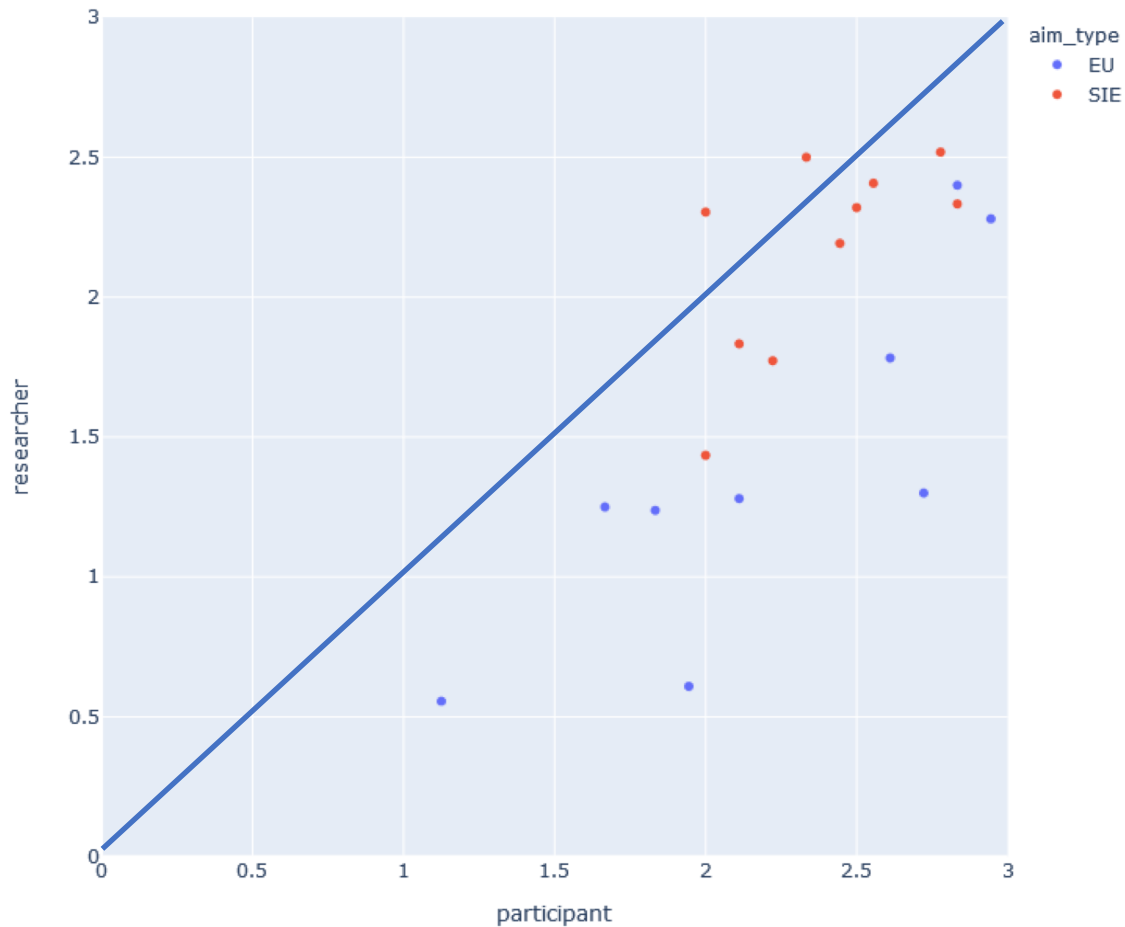
#### Preliminary Conclusions:

- Strong correlation between the score for some of the aims
- *Do they describe similar concepts?*



### 3. Preliminary Results Survey 1

Average importance rating of researchers vs. participants



Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

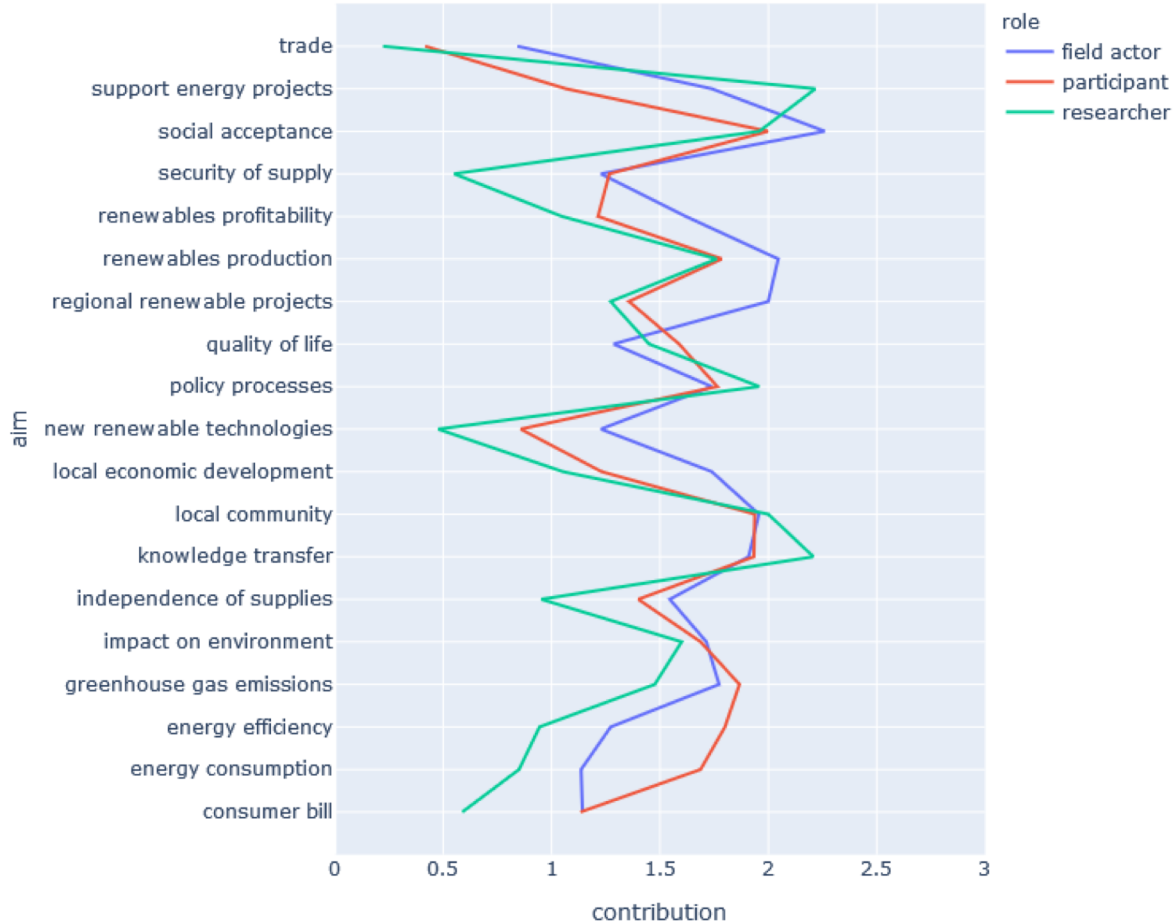
#### Preliminary Conclusions:

- Strong correlation between importance rating of participants and researchers
- Importance rating of participants tends to be higher than that of researchers (in particular for SIE-goals)



# 3. Preliminary Results Survey 1

Average contribution rating for each goal and respondent type



Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

## Preliminary Conclusions:

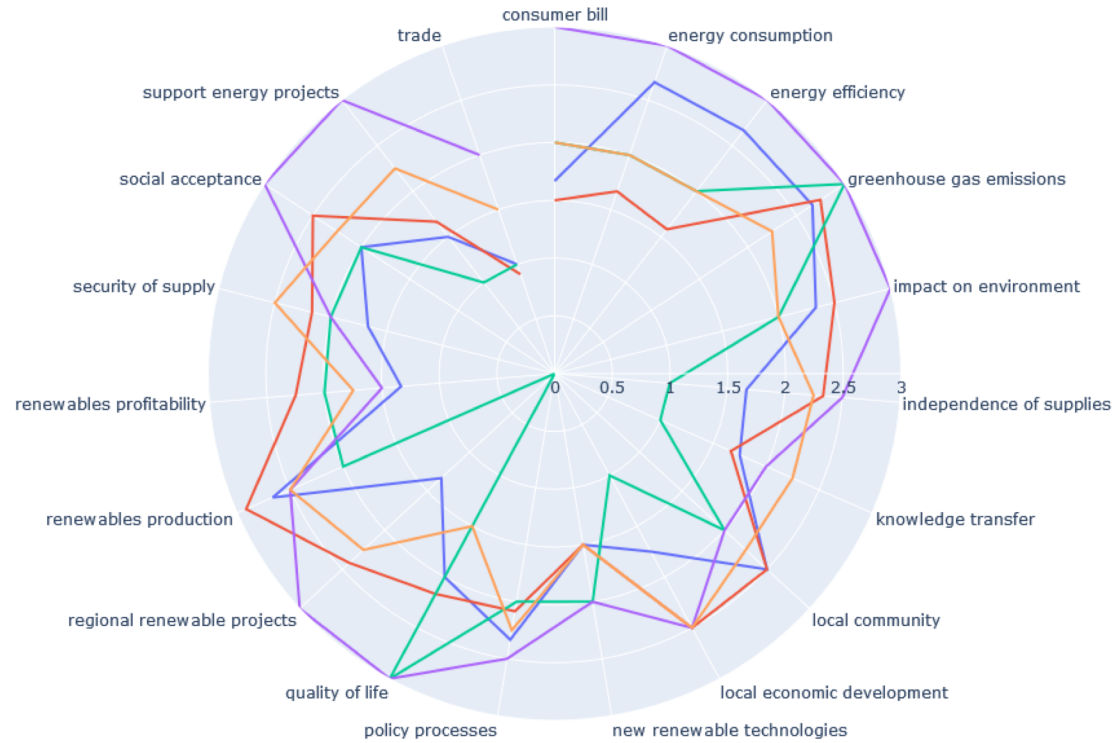
- Strong correlation between rating by different actors

role	field actor	participant	researcher
field actor	1	0.625821	0.811489
participant	0.625821	1	0.678361
researcher	0.811489	0.678361	1



### 3. Preliminary Results Survey 1v2

Average importance rating for each goal and field



field

- City-level competitions for sustainable energy
- Cooperative organisational models for renewable energy
- Framings against specific energy pathways (with a focus on fossil fu)
- Investment and finance mechanisms
- Local electricity exchange
- Participatory incubation and experimentation

Who?	Field	Country	Aim	Contribution
Researcher				
SIE-representatives				
Field-actors				

### Preliminary Conclusions:

- The importance of different aims seems to depend strongly on the fields that were analyzed



### 3. Preliminary Results Survey 1

	<i>Dependent variable: contribution</i>	
	(1)	(2)
d_aim_type_SIE	0.603*** (0.079)	0.237*** (0.064)
d_lang_en	-0.399*** (0.107)	-0.454*** (0.082)
d_lang_fr	-0.908*** (0.145)	-0.955*** (0.112)
d_lang_nl	-1.059*** (0.239)	-0.817*** (0.185)
d_lang_pl	-0.168* (0.101)	-0.281*** (0.078)
d_role_participant	1.337*** (0.084)	0.091 (0.090)
d_role_researcher	1.280*** (0.085)	0.334*** (0.081)
importance		0.653*** (0.032)
Observations	607	607
R <sup>2</sup>	0.169	0.505
Adjusted R <sup>2</sup>	0.160	0.499
Residual Std. Error	0.969 (df=600)	0.749 (df=599)
F Statistic	20.288*** (df=6; 600)	87.284*** (df=7; 599)

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Who?	Field	Country	Aim Imp.	Contribution
Researcher				
SIE-representatives				
Field-actors				

#### Preliminary Conclusions:

- Increase of aim importance by 1 point, increases the contribution by <1 point
- Researchers and participants assume higher contribution than field-actors
- *French and Dutch respondents are most pessimistic; Germans most optimistic* (Subject to unobserved variable bias, as investigated fields depend on country)
- SIEs achieve higher contribution for their own aims



## 4. Next steps and todos

- Create list of all interviewed SIE-initiatives, including their: name, country, SIE-field... and other relevant „codes“ from WP2 and WP3 interviews?
- *Repeat bivariate calculations using average ratings per **individual SIE**,*
- *Include SIE\_fields in the regression*
- *2 stage regression of: aim importance -> contribution*
  
- Run some more robustness checks
- Collect (and evaluate) more responses (until 31st March 2021)



## 4. Project Timeline

When?	Where?	What is done?	Who is in charge?
November 1st 2020	Via Email	Start sending invitations for WP6 survey 03 (surveys 01 and 02 are already running)	WP3 Researchers WP2 Researchers
<b>31st December 2020</b>	<b>Online</b>	<b>Deadline for survey responses to be used in preliminary analysis.</b>	<b>WP3 Researchers</b>
December 2020 to January 2021	-	Preliminary goal alignment analysis	WP6 Researchers
20th -23rd January 2021	Disentis/ Online conference	Discuss preliminary results of the goal alignment analysis and the evaluation scheme the conference in Disentis (or online).	WP6 Researchers
<b>31st March 2021</b>	<b>Online</b>	<b>Deadline for survey responses to be used in final analysis.</b>	<b>WP3 Researchers</b>
May 14th 2021	Via Email	Circulate goal alignment analysis (D24) for review	WP6 Researchers
May 28th 2021	Via Email	Submit review comments for goal alignment analysis (D24)	WP6 Reviewers(?)
<b>June 11th 2021</b>	<b>Via Email</b>	<b>Submit revise goal alignment analysis (D24)</b>	<b>WP6 Researchers</b>
July 1st 2021	Via Email	Circulate results of evaluation scheme (D25) for review	WP6 Researchers
July XX, 2021	TBC	Discuss results of goal alignment and evaluation scheme at Sonnet workshop	WP6 Researchers
<b>August 2021</b>	<b>Via Email</b>	<b>Submit revised results of evaluation scheme (D25)</b>	<b>WP6 Researchers</b>

Thank you!

## Stay in touch

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# SONNET Partners



Fraunhofer ISI  
(Project Coordinator)



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