

Supplementary Material

Table S1. Variable description and summary statistics ($N = 124$). All items are elicited on a 7-point Likert scale and scaled to a range of 0 to 1.

Variable	Min	25%	50%	75%	Max	SD	Missing
Personal self-efficacy: How easy or hard would it be for <i>you</i> to ... (easy/impossible)							
reduce air travel by 50% by 2030	0.00	0.00	0.17	0.50	1.00	0.27	3
reduce your household energy consumption by 20% by 2030	0.00	0.17	0.33	0.50	1.00	0.25	0
reduce your meat consumption by 50% by 2030	0.00	0.17	0.33	0.50	1.00	0.29	1
reduce your car travel by 50% by 2030	0.00	0.00	0.17	0.50	1.00	0.30	0
discuss climate change with people who do not share your opinion	0.00	0.00	0.00	0.33	0.83	0.22	0
develop a vision for a sustainable society	0.00	0.00	0.17	0.33	1.00	0.23	1
vote for a candidate who prioritize environmental policy	0.00	0.00	0.00	0.17	1.00	0.20	3
Mean	0.00	0.14	0.22	0.34	0.93	0.16	0
Personal response efficacy: If <i>you</i> took this action, how important would it be for reaching climate neutrality in Styria? (not important/important)							
reduce air travel by 50% by 2030	0.00	0.50	0.83	1.00	1.00	0.34	1
reduce your household energy consumption by 20% by 2030	0.00	0.67	0.83	1.00	1.00	0.31	1
reduce your meat consumption by 50% by 2030	0.00	0.50	0.83	1.00	1.00	0.32	1
reduce your car travel by 50% by 2030	0.00	0.50	0.83	1.00	1.00	0.32	2
discuss climate change with people who do not share your opinion	0.00	0.67	1.00	1.00	1.00	0.31	2
develop a vision for a sustainable society	0.00	0.67	0.83	1.00	1.00	0.30	2
vote for a candidate who prioritize environmental policy	0.00	0.67	1.00	1.00	1.00	0.30	2
Mean	0.00	0.66	0.83	0.95	1.00	0.27	0
Collective self-efficacy: How easy or hard would it be for <i>everyone in your municipality together</i> to ... (easy/impossible)							
increase the share of walking, cycling, and public transport in the modal split by 50% by 2030	0.00	0.33	0.50	0.67	1.00	0.24	4
reduce the energy consumption in private households and public facilities by 20% by 2030	0.00	0.33	0.50	0.67	1.00	0.23	10
generate all electricity from renewable sources by 2030	0.00	0.33	0.50	0.79	1.00	0.29	6
reduce plastic waste by 50% by 2030	0.00	0.17	0.33	0.67	1.00	0.25	3
develop a vision for a sustainable society by 2030	0.00	0.17	0.33	0.50	1.00	0.27	5
reduce greenhouse gas emissions by 50% by 2030	0.00	0.33	0.50	0.67	1.00	0.25	16
Mean	0.00	0.33	0.44	0.60	0.93	0.20	2
Collective response efficacy: If <i>everyone in your municipality together</i> took this action, how important would it be for reaching climate neutrality in Styria? (not important/important)							
increase the share of walking, cycling, and public transport in the modal split by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.26	0
reduce the energy consumption in private households and public facilities by 20% by 2030	0.00	0.83	0.83	1.00	1.00	0.24	0
generate all electricity from renewable sources by 2030	0.00	0.83	1.00	1.00	1.00	0.22	3
reduce plastic waste by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.26	0
develop a vision for a sustainable society by 2030	0.00	0.83	1.00	1.00	1.00	0.24	0
reduce greenhouse gas emissions by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.22	4
Mean	0.00	0.80	0.92	1.00	1.00	0.21	0
Proxy self-efficacy: How easy or hard would it be for <i>the Styrian government</i> to ... (easy/impossible)							
increase the share of walking, cycling, and public transport in the modal split by 50% by 2030	0.00	0.33	0.33	0.67	1.00	0.26	2
reduce the energy consumption in private households and public facilities by 20% by 2030	0.00	0.17	0.33	0.50	1.00	0.26	3
generate all electricity from renewable sources by 2030	0.00	0.17	0.33	0.67	1.00	0.29	4
reduce plastic waste by 50% by 2030	0.00	0.17	0.33	0.50	1.00	0.25	0
develop a vision for a sustainable society by 2030	0.00	0.00	0.17	0.50	1.00	0.30	1
reduce greenhouse gas emissions by 50% by 2030	0.00	0.33	0.50	0.67	1.00	0.28	8
Mean	0.00	0.25	0.39	0.50	0.97	0.22	0
Proxy response efficacy: If <i>the Styrian government</i> took this action, how important would it be for reaching climate neutrality in Styria? (not important/important)							
increase the share of walking, cycling, and public transport in the modal split by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.26	0
reduce the energy consumption in private households and public facilities by 20% by 2030	0.00	0.83	1.00	1.00	1.00	0.24	1
generate all electricity from renewable sources by 2030	0.00	0.83	1.00	1.00	1.00	0.24	1
reduce plastic waste by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.27	0
develop a vision for a sustainable society by 2030	0.00	0.83	1.00	1.00	1.00	0.24	1
reduce greenhouse gas emissions by 50% by 2030	0.00	0.83	1.00	1.00	1.00	0.22	4
Mean	0.00	0.81	0.92	1.00	1.00	0.22	0

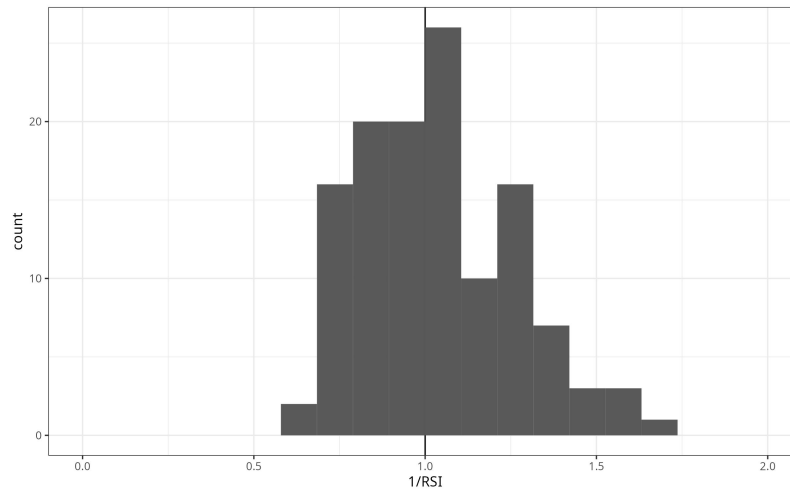


Figure S1. Distribution of the inverse RSI.

	Personal		Collective		Proxy	
	SE	RE	SE	RE	SE	RE
Workshop	-0.05** (0.02)	0.14* (0.07)	-0.00 (0.05)	-0.03 (0.04)	-0.02 (0.04)	0.02 (0.04)
Unit FE	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓
Weight	1	1	1	1	1	1
Observations	124	124	122	124	124	124
R ² (overall)	0.93	0.71	0.77	0.82	0.88	0.85
R ² (within)	0.08	0.05	0.00	0.01	0.00	0.00

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table S2. Effects of the workshop on average self-efficacy (SE) and response efficacy (RE) with regard to personal action, collective municipal action, and the Styrian government as proxy agent (equal weights). The outcome variables are scaled to a range of 0 to 1. Standard errors in parentheses are clustered by unit.

	Personal self-efficacy							Personal response efficacy						
	fly	energy	car	meat	discuss	vision	vote	fly	energy	car	meat	discuss	vision	vote
Workshop	-0.04 (0.07)	0.01 (0.06)	-0.10** (0.05)	-0.07* (0.04)	-0.06 (0.04)	-0.05 (0.05)	-0.08** (0.03)	0.05 (0.08)	0.16* (0.09)	0.16* (0.09)	0.16** (0.08)	0.14 (0.10)	0.08 (0.09)	0.24*** (0.08)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Observations	121	124	123	124	124	123	121	123	123	123	122	122	122	122
R ² (overall)	0.79	0.78	0.90	0.93	0.86	0.83	0.90	0.75	0.68	0.71	0.76	0.62	0.64	0.72
R ² (within)	0.00	0.00	0.06	0.04	0.03	0.02	0.08	0.01	0.05	0.05	0.06	0.03	0.01	0.12

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table S3. Effect of the workshop on personal self-efficacy (SE) and response efficacy (RE). The outcome variables are scaled to a range of 0 to 1 (equal weights). Standard errors in parentheses are clustered by unit.

	Collective self-efficacy						Collective response efficacy					
	traffic	energy	plastic	vision	electricity	GHG	traffic	energy	plastic	vision	electricity	GHG
Workshop	0.02 (0.08)	-0.04 (0.07)	-0.03 (0.06)	0.08 (0.07)	-0.02 (0.06)	-0.03 (0.06)	-0.02 (0.05)	-0.09 (0.06)	0.06 (0.05)	-0.05 (0.05)	0.02 (0.04)	-0.02 (0.04)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI
Observations	120	114	121	119	118	108	124	124	124	124	121	120
R ² (overall)	0.73	0.76	0.78	0.75	0.85	0.83	0.82	0.77	0.84	0.83	0.87	0.90
R ² (within)	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.03	0.02	0.01	0.00	0.00

****p* < 0.01; ***p* < 0.05; **p* < 0.1

Table S4. Effect of the workshop on municipal collective self-efficacy (SE) and response efficacy (RE). The outcome is assumed to be on a linear scale of 0 to 1.

	Proxy self-efficacy						Proxy response efficacy					
	traffic	energy	plastic	vision	electricity	GHG	traffic	energy	plastic	vision	electricity	GHG
Workshop	-0.10 (0.06)	-0.01 (0.05)	0.04 (0.06)	-0.03 (0.07)	-0.09 (0.07)	-0.07 (0.06)	0.05 (0.05)	0.01 (0.04)	0.12** (0.06)	0.02 (0.04)	0.02 (0.04)	0.00 (0.03)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI
Observations	122	121	124	123	120	116	124	123	124	123	123	120
R ² (overall)	0.80	0.87	0.83	0.86	0.88	0.85	0.82	0.83	0.84	0.86	0.86	0.91
R ² (within)	0.04	0.00	0.01	0.00	0.04	0.02	0.01	0.00	0.06	0.00	0.00	0.00

****p* < 0.01; ***p* < 0.05; **p* < 0.1

Table S5. Effect of the workshop on proxy self-efficacy (SE) and response efficacy (RE) with regard to the Styrian government. The outcome is assumed to be on a linear scale of 0 to 1.

	Personal self-efficacy					Personal response efficacy				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Workshop	-0.05** (0.02)	-0.04* (0.02)	-0.04 (0.03)	-0.06** (0.02)	-0.05** (0.03)	0.12* (0.07)	0.11 (0.08)	0.11 (0.10)	0.01 (0.08)	0.11** (0.05)
× age <35		-0.05 (0.03)					0.05 (0.12)			
× tertiary education			-0.04 (0.03)					0.03 (0.09)		
× rural community				0.01 (0.03)					0.23** (0.10)	
× male					0.00 (0.03)					0.03 (0.12)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI
Observations	124	124	124	124	124	124	124	124	124	124
R ² (overall)	0.95	0.95	0.95	0.95	0.95	0.75	0.75	0.75	0.76	0.75
R ² (within)	0.08	0.10	0.10	0.08	0.08	0.04	0.05	0.05	0.11	0.05

****p* < 0.01; ***p* < 0.05; **p* < 0.1

Table S6. Effect of the workshop on personal self-efficacy (SE) and response efficacy (RE). The outcome is assumed to be on a linear scale of 0 to 1.

Yes we can? Effects of a participatory visioning process on perceived climate efficacy

	Collective self-efficacy					Collective response efficacy				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Workshop	-0.00 (0.05)	0.01 (0.05)	0.04 (0.06)	0.07 (0.05)	0.01 (0.06)	-0.02 (0.04)	-0.03 (0.04)	-0.02 (0.04)	-0.03 (0.03)	-0.02 (0.03)
× age <35		-0.05 (0.08)					0.03 (0.05)			
× tertiary education			-0.09 (0.06)					0.00 (0.03)		
× rural community				-0.15** (0.06)					0.01 (0.04)	
× male					-0.03 (0.07)					0.01 (0.04)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI
Observations	122	122	122	122	122	124	124	124	124	124
R ² (overall)	0.81	0.81	0.81	0.82	0.81	0.87	0.87	0.87	0.87	0.87
R ² (within)	0.00	0.00	0.02	0.06	0.00	0.00	0.01	0.00	0.00	0.00

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table S7. Effect of the workshop on municipal collective self-efficacy (SE) and response efficacy (RE). The outcome is assumed to be on a linear scale of 0 to 1.

	Proxy self-efficacy					Proxy response efficacy				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Workshop	-0.03 (0.04)	-0.02 (0.05)	0.02 (0.05)	-0.03 (0.05)	-0.05 (0.05)	0.03 (0.03)	0.04 (0.03)	0.04 (0.03)	0.02 (0.03)	0.01 (0.03)
× age <35		-0.02 (0.07)					-0.01 (0.03)			
× tertiary education			-0.13* (0.07)					-0.02 (0.02)		
× rural community				-0.01 (0.07)					0.04 (0.02)	
× male					0.05 (0.07)					0.07*** (0.02)
Unit FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Period FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI	1/RSI
Observations	124	124	124	124	124	124	124	124	124	124
R ² (overall)	0.89	0.89	0.90	0.89	0.89	0.87	0.87	0.87	0.87	0.88
R ² (within)	0.01	0.01	0.07	0.01	0.02	0.01	0.01	0.01	0.02	0.03

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Table S8. Effect of the workshop on proxy self-efficacy (SE) and response efficacy (RE) with regard to the Styrian government. The outcome is assumed to be on a linear scale of 0 to 1.