



Towards more sustainable food provision

Legitimacy trade-offs in organic public procurement

Evidence from a cross-country factorial survey experiment

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ESA 2026 Warsaw · 28 August 2026



Funded by
the European Union



A confession: I am an economist

My normal tool is the discrete choice experiment. Today I am using yours.

You call them **vignettes**. We call them **choice cards**. Similar design, ranks or ratings instead of discrete choices, two literatures, and hardly any cross-border research journeys or shared references – I came to fix my half of that.

A policy can be judged on different dimensions

- **Fair?**

Does everyone get treated the same way?

- **Effective?**

Will it actually grow organic farming?

- **Feasible?**

Will it ever survive politics?

We can measure the trade-offs between these dimensions.

The EU wants 25% organic farmland by 2030

Farm to Fork target: **25% by 2030** · Reality in our five countries:

16% ↑

CZ

11% ↑

DE

6% ↑

HU

5% →

PL

3% ↓

UK

For years the policy answer was: **pay farmers to convert.**

But farmers are not naive. Convert, and if nobody buys the more expensive product, you lose.

The missing piece is not supply – it is demand.

Arrows: direction of travel over the past decade. Sources: Eurostat 2024; Willer et al. 2025; Defra Organic farming statistics 2025 (UK: 540k ha, up 7.3% on 2024 after a decade of decline).



So buy it. Public kitchens eat every day.

~14%

of EU GDP goes through public procurement

Schools, hospitals, care homes, canteens buy food **in volume, on long contracts, forever** – exactly the predictable demand organic producers need. Denmark and Sweden show it can work.

But a lot has to happen first

Someone has to redesign menus • find certified suppliers • write legally safe tenders • and pay the organic premium.

Procurement is not one instrument – it is a **policy package**. It creates incentives, it costs money, and it can be designed to look fair, effective and feasible.



The question we actually ask:

Not: “Do you like organic food?” Everyone does – in a survey.

But: **which procurement package do the people who would have to run it see as legitimate?**

- **Fairness** – does everyone get treated the same way?
- **Effectiveness** – will it grow organic demand?
- **Political feasibility** – can it survive the budget and the ministry?

Experiment: four building blocks, 64 possible packages

Organic content

none · 10% · 40% · 70%

Local / seasonal sourcing

not required · required

Support

none · advisory · network & value chain · comprehensive

Who pays the premium

market price · public funding

$4 \times 2 \times 4 \times 2 = 64$ scenarios → 8 blocks × 8 vignettes.

Respondents saw one block of eight.

Policy scenario

This policy scenario is characterised by the following features:

Attribute	Level
Requirement for Organic Content 	There is no obligation for organic content; the state does not mandate an organic percentage.
Requirement for locally sourced produce 	Tenders must specify the inclusion of locally sourced products and explicitly exclude non-seasonal products, ensuring that only items available in their natural growing season are procured.
Support for Organic Product Use 	The state provides financial assistance for advisory services to help caterers, public kitchens and processors transition to using organic products.
Cost Management 	There are no financial incentives or subsidies. Additional costs will be absorbed by public kitchens and caterers and/or passed on to consumers.

One scenario, as respondents saw it – attribute order fixed, scenario order randomised – then rated on three 0-10 scales.



The sample: 1,281 stakeholders • 10,248 vignette ratings

1,281

respondents

10,248

evaluations

5

countries

9

months of fieldwork

PL 552 • CZ 484 • UK 87 • HU 79 • DE 79 (Nov 2024 – Jul 2025)

Targeted stakeholder sample – agriculture, food, public administration, catering, NGOs, all with a link to procurement or catering decisions. Not the general public.

Recruitment differed by country and sample sizes are very unequal → **equal-country weights, separate country models, robustness checks.**



Three things that are true about these data

Nothing exotic – but each one rules out the convenient linear regression model:

3→4 is not the same distance as 8→9

a ranking, not a distance → free thresholds
(ordered choice model)

The three ratings are not three separate stories

one person, 3 ratings → estimate them jointly
(multivariate)

8 answers from one person are not 8 people

some people rate everything low → correlated
respondent effects (multilevel; panel)

→ multivariate multilevel ordered probit (Bayesian)

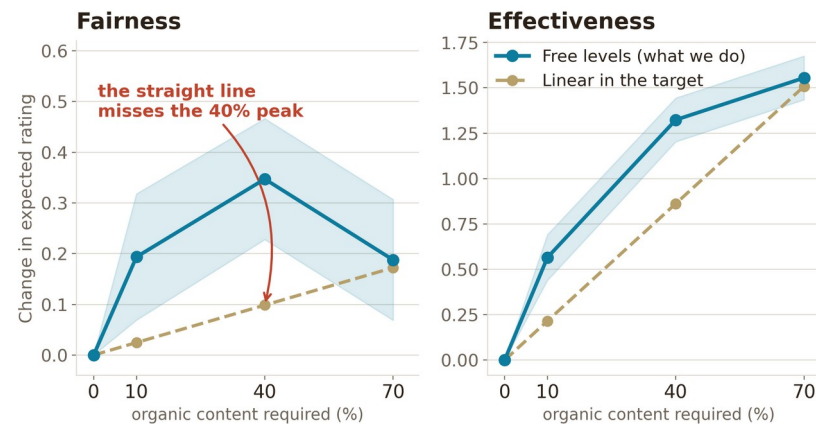
Multilevel is already standard in FSE (Treischl & Wolbring 2022), and the linear mixed model is the honest benchmark. What we add is the combination: an **ordered** outcome, and the three ratings estimated **jointly**.

Which choice actually changes the answer?

① is about the attribute. ① ② ③ are the three words in the model's name — and they do very different things.

① How the attribute enters

linear in the target vs free levels



Changes the shape.

A straight line through zero cannot see the 40% fairness peak. Freeing the levels: AIC -19 (fairness), -73 (effectiveness).

① ② ③ Ordered • multilevel • multivariate

Monte Carlo, 1,000 replications, on the 0-10 rating scale

What each shortcut costs

none of them biases the effect — bias stays under 0.01 rating points

① treat the rating as a number

linear mixed, not ordered

+4%

② ignore the panel

pooled, not multilevel

+20%

③ one outcome at a time

separate models, not multivariate

+12%

0% 5% 10% 15% 20%

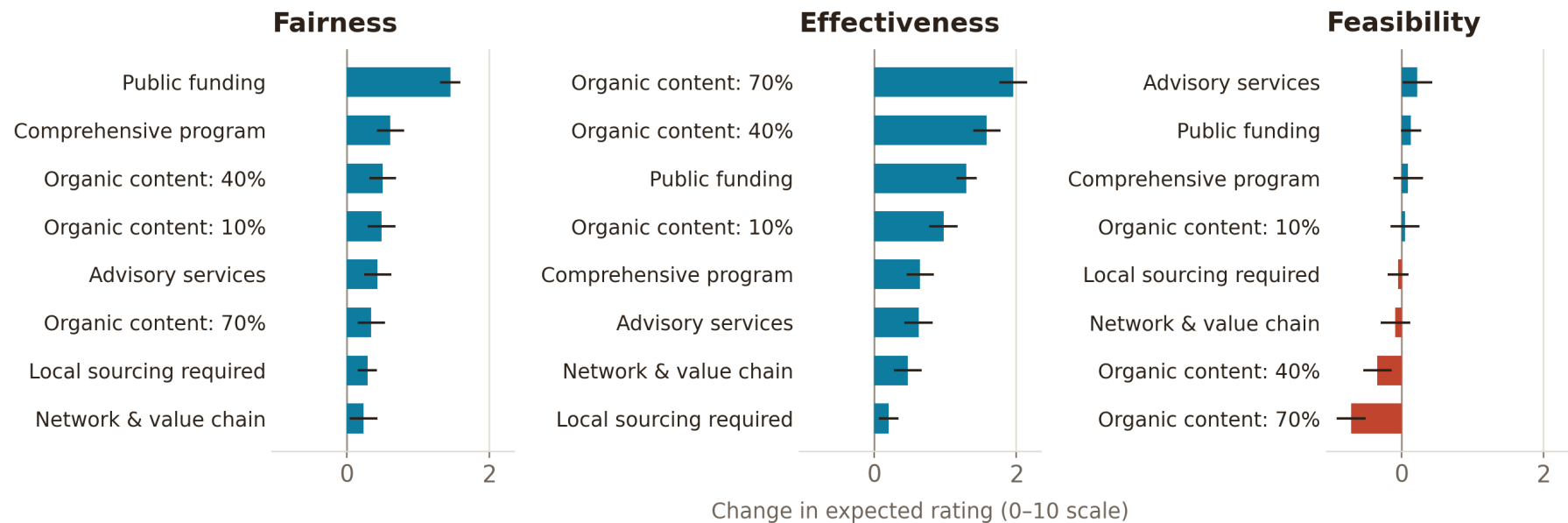
how much wider the 95% interval you report becomes

Changes the precision, not the story.

24 / 24 signs agree with the linear mixed model, $r = 0.98$. No shortcut biases the effect — each one widens the interval you end up reporting.

Neither specification lets the effect differ across rating categories; both could, at a large cost in parameters (supplement S4.6). • Also robust to: respondent controls • a Gaussian SUR • the knowledge-check subsample.

Everything, on one slide



Money moves fairness. Targets move effectiveness. Almost nothing moves feasibility up.

Average discrete changes in the expected 0-10 rating vs. the omitted reference level; 95% credible intervals. Weighted multivariate ordered probit, FSE attributes only.



1. Money is the only no-regrets instrument

If the state covers the organic price premium:

+1.45

Fairness

+1.30

Effectiveness

+0.13

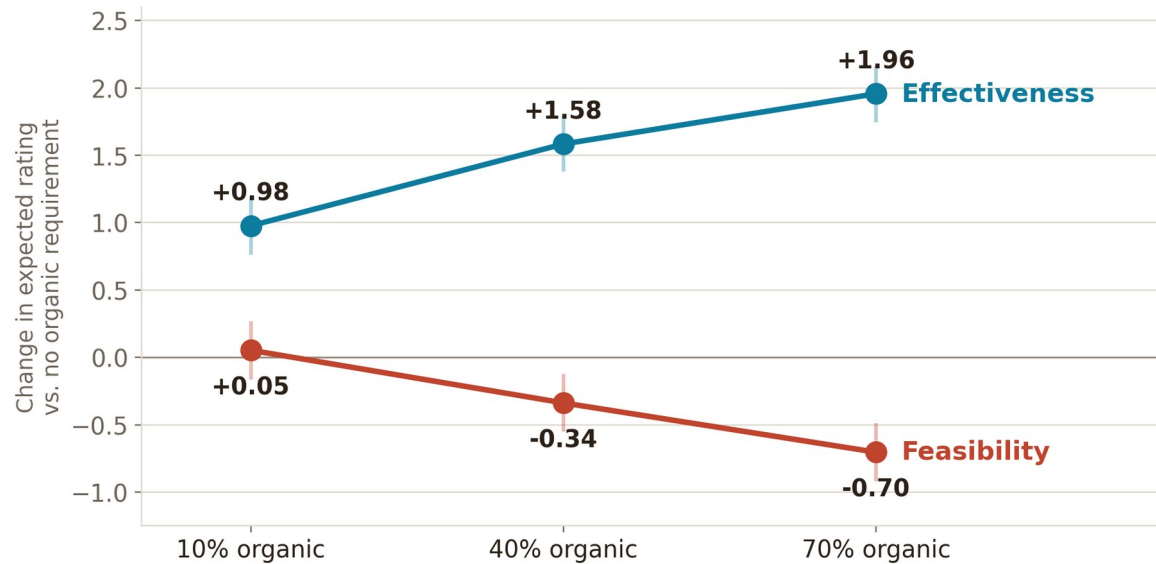
Feasibility

The largest single effect in the study — and, unlike the targets, it buys effectiveness without paying for it in feasibility.

Not just a subsidy – could also be a **signal of commitment**: the state pays for the transition it is asking others to deliver.

Change in expected 0–10 rating vs. costs absorbed by kitchens / passed to consumers.

2. “It would work. It will never happen.”



Raise the organic requirement and the two curves separate.

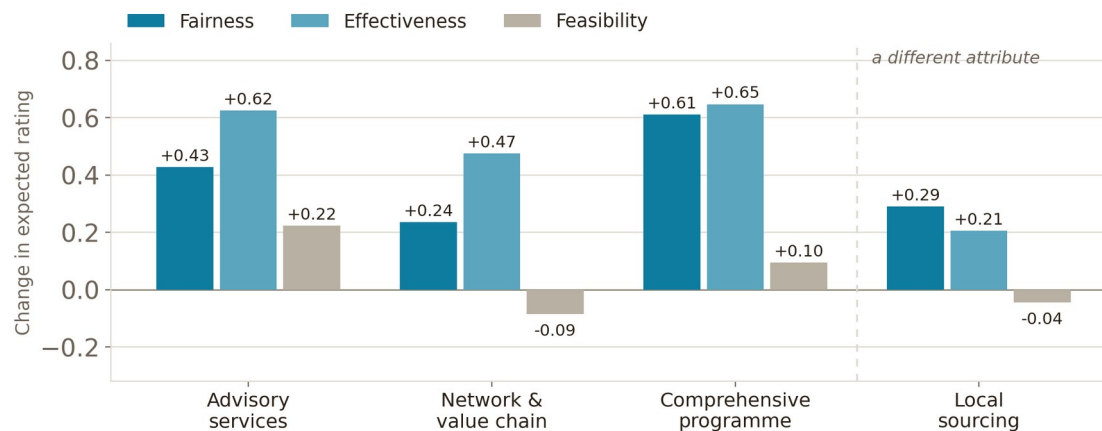
Effectiveness climbs all the way to 70%.

Feasibility falls from the 40% threshold on.

This is scepticism about implementation, not about organic farming.

The ambition–feasibility trade-off, measured: the more it would work, the less anyone believes it will be adopted.

3. Tools help — and the popular one helps least



The **comprehensive programme** wins on fairness and effectiveness.

But only **advisory services** clearly raise feasibility. Networks and value chains alone do not.

Practical know-how is what makes a policy look **doable**.

Local sourcing — politically the most popular idea we tested, empirically the weakest of the four: it moves fairness and effectiveness a little, and feasibility not at all. Procurement law and seasonality are real, and our respondents know it.

4. Same instruments, five different countries

Fairness							Effectiveness							Feasibility						
	10%	40%	70%	Local	Support	Funding		10%	40%	70%	Local	Support	Funding		10%	40%	70%	Local	Support	Funding
DE	+0.39*	+0.39*	+0.29*	+0.16*	+0.65*	+0.93*	DE	+0.73*	+1.25*	+1.62*	+0.18*	+0.64*	+0.79*	DE	+0.03	-0.43*	-0.94*	-0.28*	+0.13	-0.56*
UK	+0.17	+0.28*	+0.24*	+0.20*	+0.27*	+0.69*	UK	+0.61*	+1.18*	+1.39*	+0.27*	+0.20*	+0.68*	UK	+0.03	-0.06	-0.29*	+0.10	-0.08	+0.34*
HU	+0.06	+0.18	+0.15	+0.10	+0.46*	+0.73*	HU	+0.06	+0.43*	+0.36*	+0.04	+0.43*	+0.63*	HU	+0.09	+0.02	-0.16	-0.04	+0.18	+0.49*
PL	-0.07	+0.02	-0.04	+0.05	+0.16*	+0.40*	PL	+0.11*	+0.24*	+0.31*	+0.10*	+0.27*	+0.38*	PL	-0.10*	-0.20*	-0.29*	-0.05	+0.11*	+0.29*
CZ	-0.10*	-0.05	-0.27*	-0.02	+0.13*	+0.22*	CZ	+0.04	+0.18*	+0.04	+0.04	+0.09*	+0.26*	CZ	-0.01	-0.14*	-0.37*	-0.04	+0.08	+0.11*

Ordered probit coefficients, country models (unweighted). * = 90% credible interval excludes zero.

DE enthusiast with trust issues — even public funding lowers feasibility (-0.56)

UK similar but calmer; only 70% hurts; the one place local sourcing is welcome

HU targets move effectiveness only — tools and money do the rest

PL even a 10% quota lowers feasibility: build capacity first

CZ most organic land, least appetite for more quotas — 70% even lowers fairness



Conclusion: Rules with tools

- **A mandate on its own is not a policy.**

Attach money, advice and coordination, or the ambition reads as noise.

- **Sequence the ambition.**

A moderate target now — 40% is also the fairest; raise it when kitchens and supply chains can deliver.

- **Money buys legitimacy, not just food.**

Covering the premium moves fairness and effectiveness most — and it costs almost nothing in feasibility.

- **And for this session:**

the FSE measures policy trade-offs beautifully — and it deserves a model that respects what the data are.

Data, code and the model comparison are in the replication package — including the Monte Carlo that, for once, mostly flatters us.



Towards more sustainable food provision

Thank you.

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Funded by the European Union under GA no. 101060538. Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or REA. Neither the European Union nor the granting authority can be held responsible for them.

The work of UK participants was funded by UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee [grant numbers 10037976 (University of Aberdeen) and 10044788 (University of Exeter)].



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