Horizon Scanning for Scaling Science

Help us validate the 40 emerging issues: live community scoring

Community validation webinar | November 2026

SCALING COMMUNITY OF PRACTICE

WAGENINGEN UNIVERSITY & RESEARCH

CGIAR SCALING FOR IMPACT

Today in 60 minutes



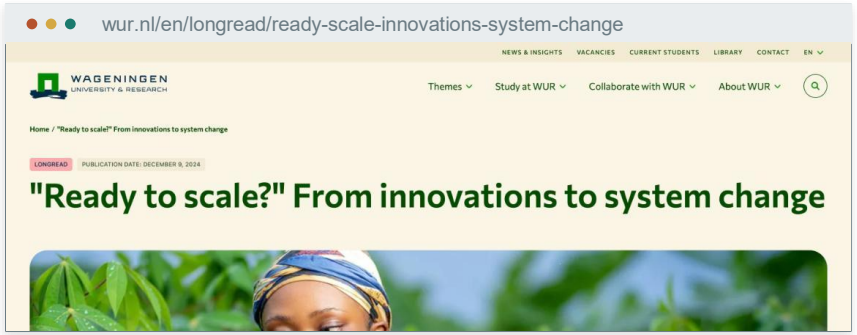
0–5 min	Charlotte	Introductions and warm-up questions
5–15 min	Marc	Background on the science of scaling and options
15–20 min	Marc & Charlotte	Move into breakout rooms, re-orientation and instructions
20–40 min	Marc & Charlotte	**Conduct poll and option to write your own priorities**
40–50 min	Charlotte	Return from breakouts, Scaling Coalition context, invite audience
50–60 min	Marc & Charlotte	Present results and next steps, closing

Timings are approximate.

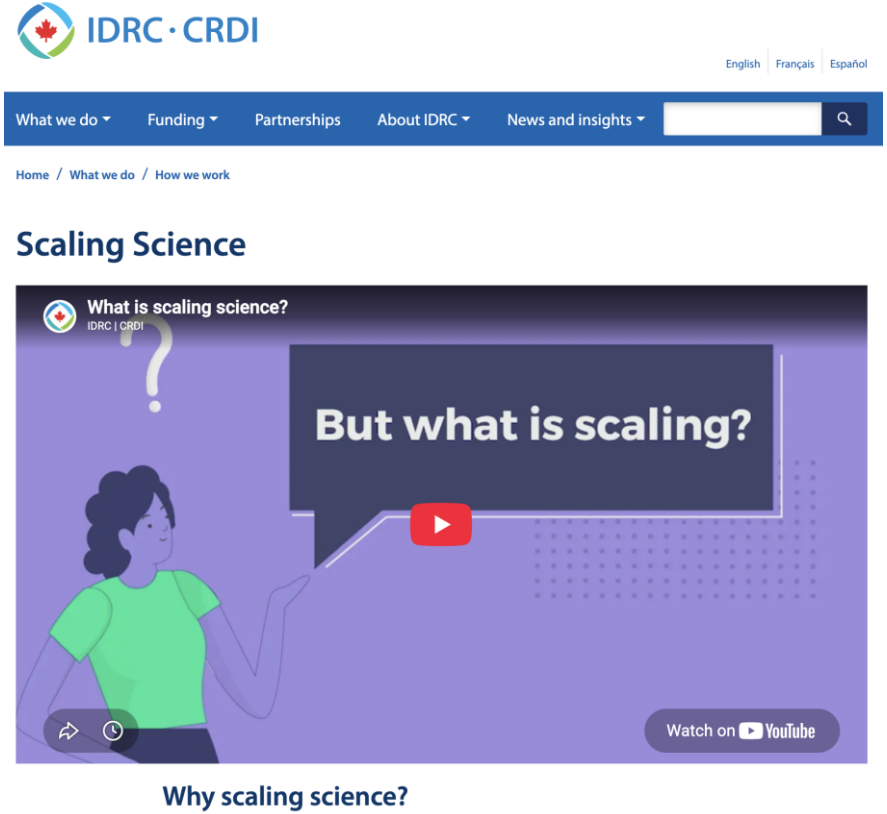
Scaling science is an emerging field



Agricultural Systems: special issue on innovation scaling



WUR: from innovations to system change



From adoption to outcomes (2020)

Schut, Leeuwis & Thiele (2020), Agricultural Systems 184, 102908. Editorial to the special issue "Science of Scaling"

FIRST WAVE

Technology adoption

Focus on getting technologies adopted

SECOND WAVE

Scaling of innovation

Focus on scaling innovation beyond single technologies (innovation bundles and packages)

THIRD WAVE

Outcome-oriented scaling

System and outcome-oriented perspective to understand and guide scaling for impact (demand-driven, complex-aware)

A research agenda for the science of scaling

Three research domains proposed in the 2020 editorial

1. **Understand the big picture**

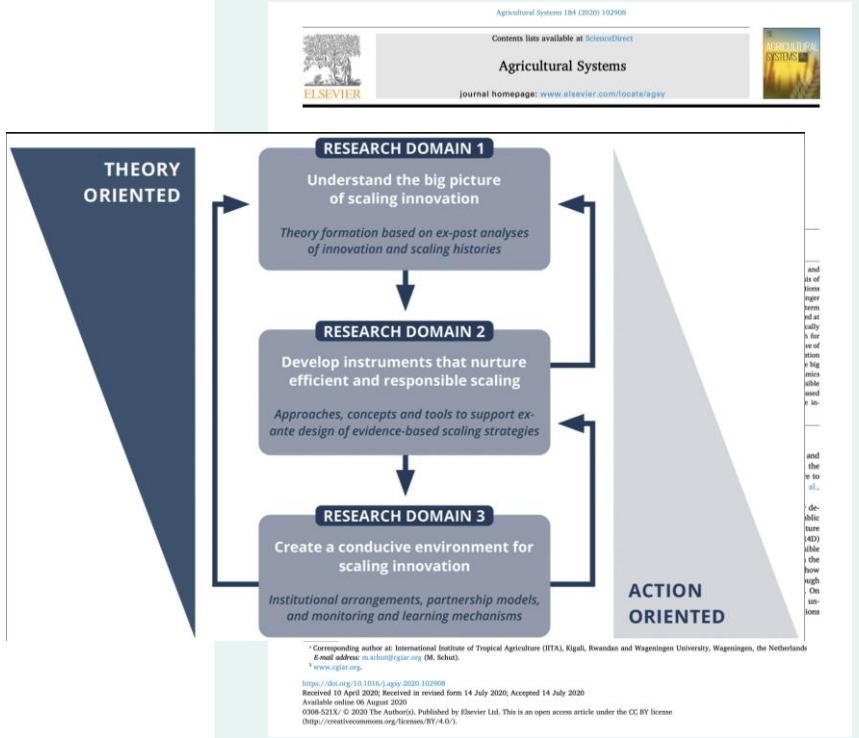
   The factors, conditions and dynamics that affect innovation and scaling processes

2. **Develop instruments for efficient and responsible scaling**

   New approaches, concepts and tools for evidence-based scaling strategies

3. **Create a conducive environment**

   Institutional arrangements, partnership models, monitoring and learning



Although still relevant - a lot has changed since 2020…

Emerging topics and themes

Research article • Open access Under a Creative Commons license ↗ Get rights and content ↗

Supporting a systems approach to scaling for all; insights from using the Scaling Scan tool

Lennart Woltering [a b c] ✉, Eva M. Valencia Leñero [a] ✉, Maria Boa-Alvarado [d] ✉, Jelle Van Loon [a] ✉, Jan Ubels [e] ✉, Cees Leeuwis [c] ✉

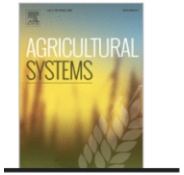
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Editorial Get rights and content ↗

Reimagining diffusion: Eight building blocks for reconceptualising the generalisation of innovation into society ☆

Douglas K.R. Robinson [a b] ✉, Susana Borrás [c] ✉, Wouter P.C. Boon [d] ✉ Show more



Editorial • Full text access Get rights and content ↗

Responsible scaling for transformative impact: Lessons from the science and practice of responsible scaling for agri-food system transformation ☆

Esther Kihoro [a c] ✉, Marc Schut [b c], Erin McGuire [d], Million Gebreyes [e], Cees Leeuwis [c] Show more

ricultural Systems

View PDF Download full issue Cite Add to Mendeley Share 10.1016/j.agsy.2025.104427 ↗

frontiers | Frontiers in Sustainable Food Systems

TYPE Community Case Study
PUBLISHED 14 August 2024
DOI 10.3389/fsufs.2024.1378883

Check for updates

OPEN ACCESS

EDITED BY
Douglas Merrey,
Consultant on Natural Resources Management, Gainesville, FL, United States

REVIEWED BY
Raquel Ajates,
Universidad Nacional de Educación a Distancia (UNED), Spain

Backcasting supports cross-sectoral collaboration and social-technical innovation bundling: case studies in agri-food systems



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Innovation portfolio management for responsible food systems transformation in the public sector: Lessons, results and recommendations from CGIAR

Marc Schut [a b] ✉, Julien Colomer [c], Emma Proud [d], Enrico Bonaiuti [e h], Iddo Dror [c f], Edwin Kang'ethe [a], Lorena Esquivias [g], Cees Leeuwis [b]

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Agron. Sustain. Dev. (2016) 36: 46
DOI 10.1007/s13593-016-0380-z

REVIEW ARTICLE

Systemic perspectives on scaling agricultural innovations. A review

Seerp Wigboldus [1,2] · Laurens Klerkx [2] · Cees Leeuwis [2] · Marc Schut [2,3] · Sander Muilerman [2,4] · Henk Jochemsen [5]

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Scaling – from "reaching many" to sustainable systems change at scale: A critical shift in mindset

Woltering L. [a] ✉, Fehlenberg K. [b] ✉, Gerard B. [c] ✉, Ubels J. [d] ✉, Cooley L. [e] ✉ Show more

Stanford SOCIAL INNOVATION Review
Informing and inspiring leaders of social change

SOCIAL ISSUES SECTORS SOLUTIONS MAGAZINE GLOBAL EDITIO

Scaling

Scaling Science

A new approach to scaling is needed in which the goal is scaling up social impact for public good. *Open access to this article is made possible by the International Development Research Centre (IDRC).*

Why scaling science matters

Inform state-of-the-art scaling practice

Innovation is key to transformation agendas and the SDGs, but only creates impact when it works at scale.

Decision support tools

Scaling now takes context, complexity and unpredictability seriously, and is seen as a means to societal transformation.

Responsible scaling needs evidence and learning

Gender and equity, unintended consequences, demand-driven approaches and portfolio choices all call for better evidence.

The research agenda is not yet set

Scaling science draws on many fields, yet nobody has systematically scanned the horizon for emerging issues and blind spots.

Horizon scanning: setting an agenda together

Adapted from Sutherland et al.'s modified Delphi method (Trends in Ecology & Evolution, annually since 2010)

Delphi iteration

Individual scores, then group discussion, then individual re-scores

Anonymity

Scores are individual and never linked to names

Triangulation

Experts, a literature scan and now the wider community

The output: a publication with the most novel and impactful emerging issues for scaling science, a benchmark for research agendas and funding conversations.



WEED RESEARCH
An International Journal of Weed Biology, Ecology and Vegetation Management

Review Paper | Open Access

Reviewing research priorities in weed ecology, evolution and management: a horizon scan

P Neve, J N Barney, Y Buckley, R D Cousens, S Graham, N R Jordan, A Lawton-Rauh, M Liebman, M B Mesgaran, M Schut, J Shaw, J Storkey, B Baraibar ... See all authors

First published: 28 March 2018 | https://doi.org/10.1111/wre.12304 | VIEW METRICS

SECTIONS PDF CITE TOOLS SHARE

Summary

Weedy plants pose a major threat to food security, biodiversity, ecosystem services and consequently to human health and wellbeing. However, many currently used weed management approaches are increasingly unsustainable. To address this knowledge and practice gap, in June 2014, 35 weed and invasion ecologists, weed scientists, evolutionary biologists and social scientists convened a workshop to explore current and future perspectives and approaches in weed ecology and management. A horizon scanning exercise ranked a list of 124 pre-submitted questions to identify a priority list of 30 questions. These questions are discussed under seven themed headings that represent areas for renewed and emerging focus for the disciplines of weed research and practice. The themed areas considered the need for transdisciplinarity, increased adoption of integrated weed management and agroecological approaches, better understanding of weed evolution, climate change, weed invasiveness and finally, disciplinary challenges for weed science. Almost all the challenges identified rested on the need for continued

What we have done so far

Late Aug

Call for issues

~30 experts submit 99 emerging issues via the pre-retreat survey

Early Sep

Clustering

99 submissions become 61 issues in 10 domains; an AI-assisted literature scan finds no major gaps

Mid Sep

Round 1 scoring

27 panelists score all 61 issues anonymously; the top 40 advance



Oct

Sharpening

Key references compiled; titles and descriptions reframed as researchable questions and reviewed by group leads

Nov

Community validation

You score the 40 issues in this webinar, informing the top 25

From 99 submissions to a top 25

Your scores today feed into the final selection

99

Raw submissions

from about 30 experts via the pre-retreat survey

61

Clustered issues

grouped into 10 domains; a literature scan found no major gaps

40

Scored at the retreat

Round 1 top 40, re-scored in Round 2 on 21 Sep

Webinar scoring

100+ scientists and practitioners score the 40, today

25

Top 25

informed by the webinar scores; not yet confirmed

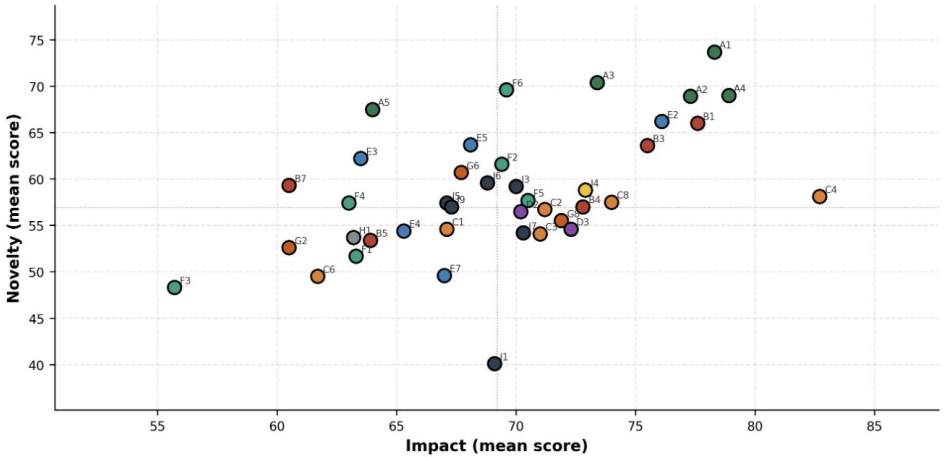
The top 25 is not yet confirmed. We combine your scores with the retreat Round 2 scores to decide which 25 issues make the priority list.

From 99 submissions to a top 25

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100+ scientists and practitioners score the 40, today



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How the live scoring works

Main room

Teams assigns you at random to one of two breakout rooms

Room 1 | Charlotte – Set A

20 issues, one scoring form



Room 2 | Marc – Set B

20 issues, one scoring form



If you participated in the 21 September in-person workshop in Nairobi, then you should NOT join the scoring !!

1 Open the form link

posted in your breakout room chat

2 Score 20 issues

Novelty and Impact, 1–100 each

3 20 minutes

about 45 seconds per issue, then add your own priorities if you like

Scoring: Novelty × Impact (1–100)

Use any whole number from 1 to 100. The anchors are guide points, not the only options.

NOVELTY (1–100)

How new is this to the scaling community?

- **1** — Already well established and widely discussed in scaling literature
- **25** — Known in adjacent fields but rarely discussed in scaling contexts
- **75** — Emerging trend with early signals; not yet on most scaling researchers' radar
- **100** — Completely novel; not yet discussed in any scaling-related literature or practice

IMPACT (1–100)

How much could this reshape scaling science and practice?

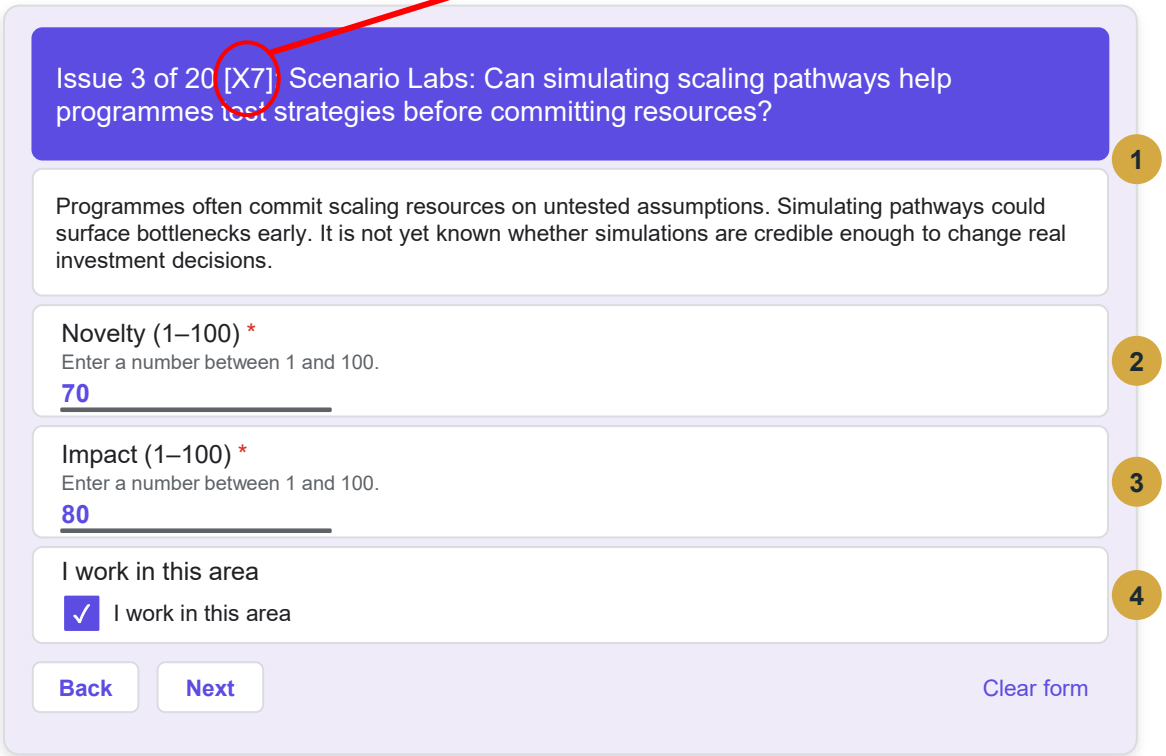
- **1** — Would affect a narrow sub-specialty with minimal practical implications
- **25** — Would influence one aspect of scaling science or practice
- **75** — Would significantly reshape multiple areas of scaling theory and practice
- **100** — Would fundamentally transform how we understand and do scaling

Trust your judgment · Issues are in random order · Tick **"I work in this area"** if it is part of your work

A worked example

Do not worry about the [code] – it is only there to track the Issue scores in the results sheet

An invented issue (not one of the 40), shown as it appears in the form, with example scores



1. **Read the issue**
   One issue per page: a title posed as a question and a short description.
2. **Novelty: 70**
   Any number from 1 to 100. An emerging trend: close to the 75 anchor.
3. **Impact: 80**
   Reshapes several areas: between the 75 and 100 anchors.
4. **Tick if it is your area**
   Separate from the scores. It shows where people work.

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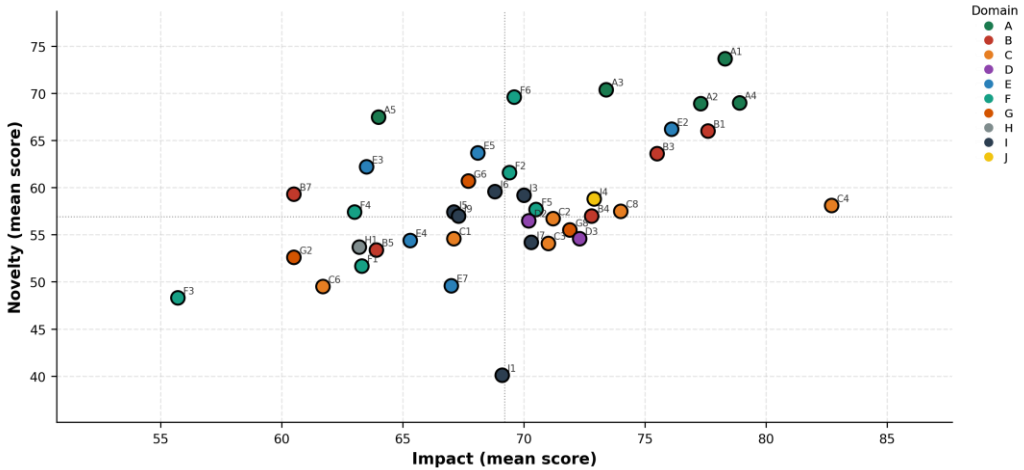
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Live results, then what happens next



Retreat, 21 Sep: Round 2 means for the 40 issues (30 experts). Next, we add your scores.

You will see: Novelty × Impact scatter, ranking, where people work

1 Compare

Webinar scores next to the retreat ranking

2 Prioritize

Combine retreat and webinar scores to select the top 25

3 Publish

A peer-reviewed paper to inform research and funding agendas

Questions and discussion

Thank you for scoring.

- Stay involved: Scaling Community of Practice, CGIAR Scaling for Impact
- Contact: Marc Schut, CGIAR / Wageningen University & Research (m.schut@cgiar.org)

