Grassroots Inovations Assembly for Agroecology

Credits and acknowledgements

This booklet was developed as part of the Grassroots Innovations Assembly for Agroecology (GIAA), an informal assembly of organisations working to make visible and strengthen grassroots innovations for agroecology, facilitated by Schola Campesina.

It draws on the exchanges, reflections and documentation generated through the GIAA Encounters (2025-2026), with contributions from participating organisations including L'Atelier Paysan, Tzoumakers and other members of the Assembly.

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L'Atelier Paysan

Tzoumakers

Schola Campesina

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11th Hour Project

Creating local pathways toward agroecology, food sovereignty, and technological sovereignty in rural communities.

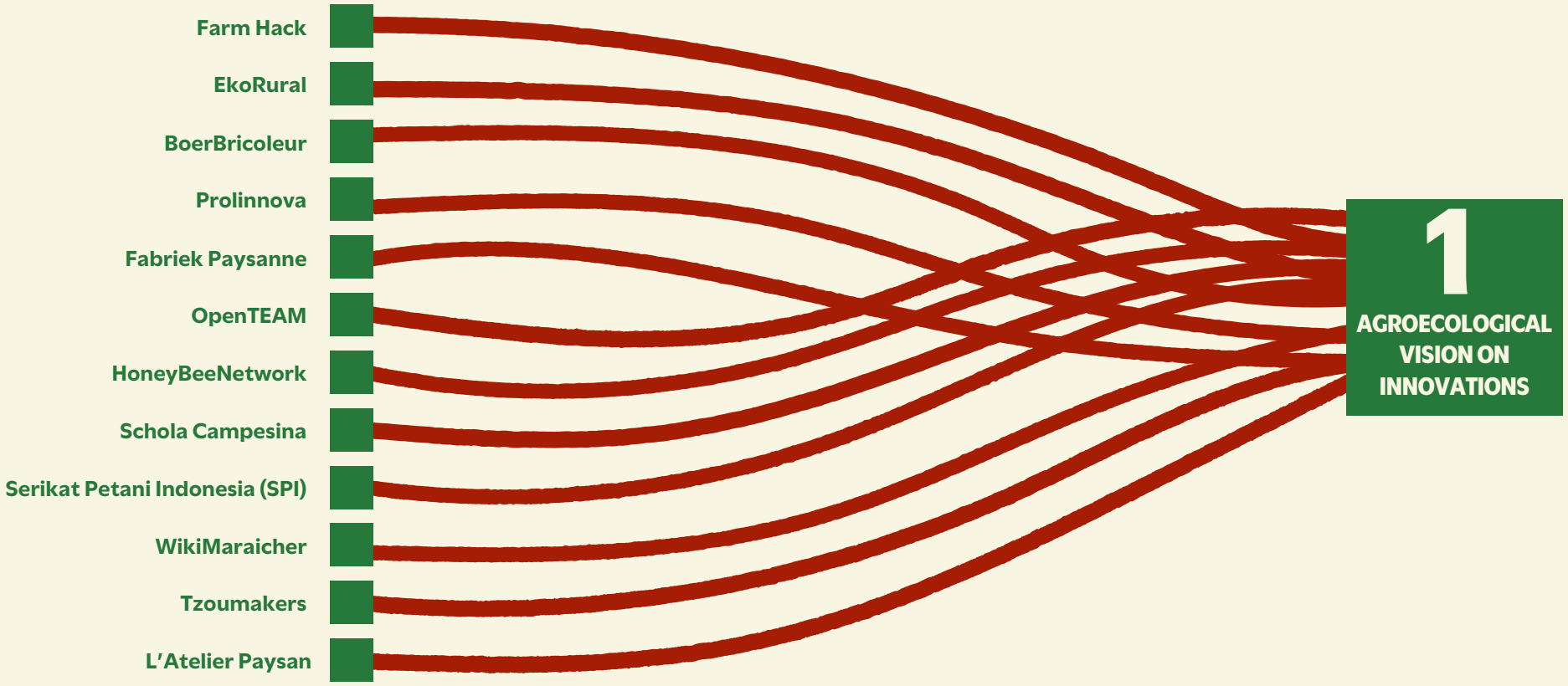
Introducing GIAA in 2026

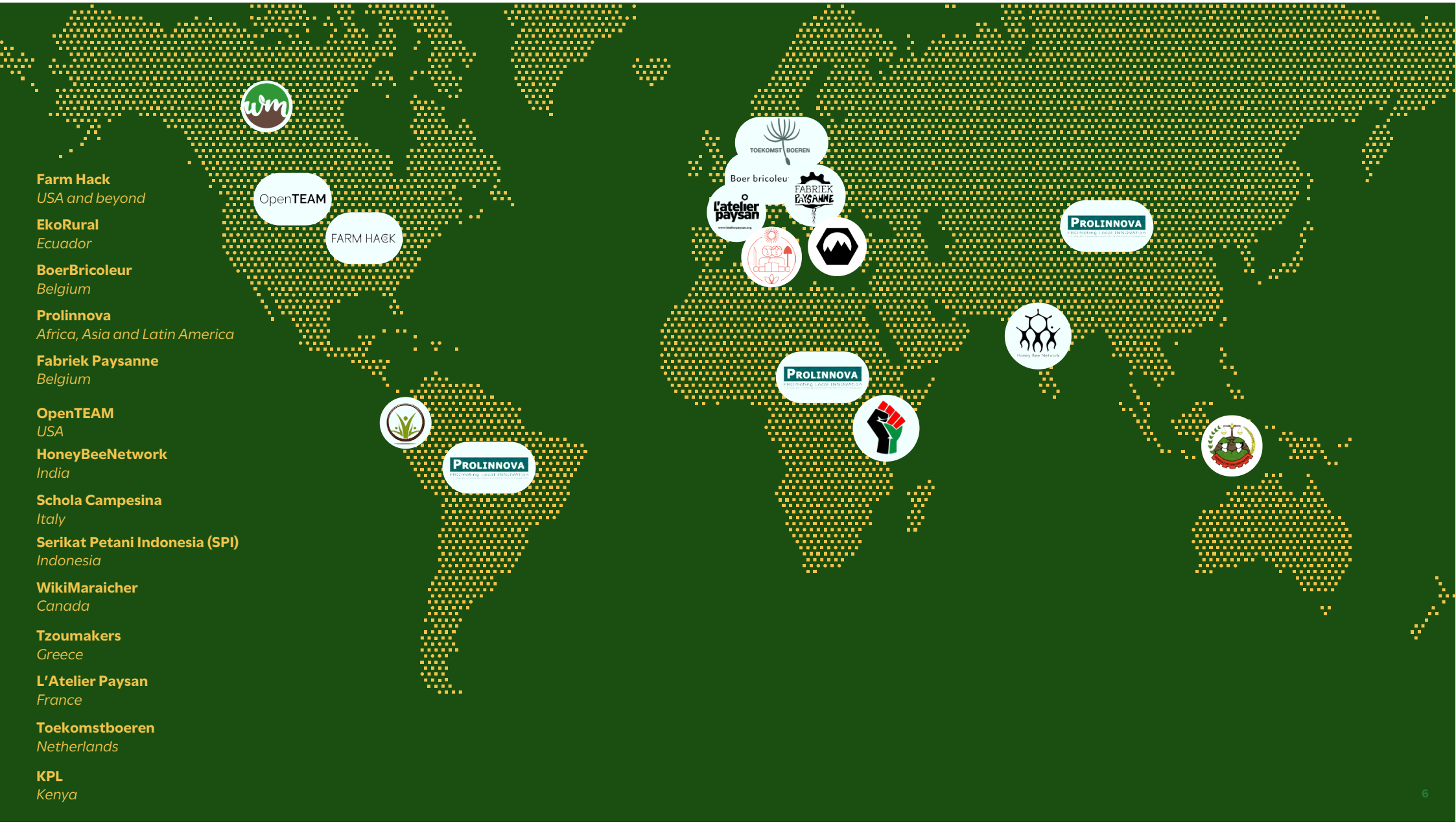
The Grassroots Innovations Assembly for Agroecology so far brings together 12 grassroots organisations and networks from 7 countries across 4 continents. Through 2 in-person gatherings and recent online Encounters, members have shared experiences, methods and practical questions about how grassroots innovation can strengthen agroecology in their territories. As one GIAA member put it during an Encounter: "Grassroots innovations are not only about new tools, but about building an ecosystem of collaboration, knowledge-sharing and autonomy."

This booklet offers a visual journey through the gatherings, Encounters and shared questions shaping an agrocological understanding of innovation: grassroots innovation for agroecology. It follows how organisations exchange practices, learn from one another and make visible the knowledge, skills and creativity already present in their communities and territories.

The online Encounters created a structured space for this peer-to-peer learning. GIAA members L'Atelier Paysan, a French cooperative working with farmers to design and build tools adapted to peasant agroecology, and Tzoumakers, an open community laboratory in Greece, shared their paths, methods and challenges with the wider Assembly. Their dialogue explored how grassroots organisations identify needs, co-design and build tools, develop practical skills, share knowledge and adapt their work to different local realities. They agreed that they want "technological autonomy not autonomous technology".

A path walked by many agroecological organisations





Farm Hack
USA and beyond

EkoRural
Ecuador

BoerBricoleur
Belgium

Prolinnova
Africa, Asia and Latin America

Fabriek Paysanne
Belgium

OpenTEAM
USA

HoneyBeeNetwork
India

Schola Campesina
Italy

Serikat Petani Indonesia (SPI)
Indonesia

WikiMaraicher
Canada

Tzoumakers
Greece

L'Atelier Paysan
France

Toekomstboeren
Netherlands

KPL
Kenya

GIAA's path thus far

OUTCOME
The foundations of GIAA are laid: Declaration of the International Forum for Agroecology

Nyeleni International Forum on Agroecology
Sélingué, Mali

OUTCOME
The idea of GIAA is born

FAO's Second International Symposium on Agroecology
"Scaling up Agroecology to Achieve the Sustainable Development Goals"

OUTCOME
1. **Sharing on knowledge systems**
2. **Identified and shared grassroots innovations**

GIAA First Gathering
Gallese, Italy

OUTCOME
1. **GIAA Charter is adopted.**
2. **Schola Campesina becomes the Secretariat.**
3. **Website and logo are created**
4. **Themes debated:**

I. Knowledge systems
II. Policy economy
III. Threats of digital agroindustrial complex
IV. Grassroots innovations process
V. Infrastructure to support GIAA

GIAA Second Gathering
Ahmedabad, India

Pan-African Convening on Biodigital Technologies

FAO Science and Innovation Forum
Rome, Italy

Prolinnova Conference

UVM IFA Praxis course on Digital sovereignty

Infrastructure working group meeting at Dweb Camp

2015 Feb
2018 Apr
2023 Oct 18-21
2025 Jan 24-30
Mar
Apr
Sep
Oct
Nov
2026 Mar
Apr
May
Jun
Jul

UVM IFA Praxis course on Agroecology & Innovations

UVM Praxis Course on Agroecology and Innovations and Digital Sovereignty Curriculum

GIAA Encounters of L'Atelier Paysan and Tzoumakers

Click on each GIAA Gathering for more information

The Myth Box

The dominant innovation narrative presents corporate, digital and external solutions as inevitable.

What this hides

- Profit-driven markets
- New dependencies
- Data and power concentration
- Data extraction
- Loss of confidence in local knowledge
- Political causes of rural vulnerability
- New forms of colonialism

What kind of innovation, and for whom?

We say innovation is not neutral. It always carries assumptions and serves specific interests. We ask: who knows, who owns, who controls, who decides, who benefits? We recognise that smallholder farmers, agricultural workers and other food producers are at the centre of our innovation processes.

Our Innovations

L'Atelier Paysan

Three Willows Farm
Isere, France

A raised-bed cultivator and clod-breaking cage roller at Three Willows Farm

Metalworking workshop for women and gender minorities

Demonstration of farmer-built vineyard equipment, including rubber-finger weeding

Three Willows Farm
Isere, France

Metalworking and farm-tool construction training in Renage

Adjusting and fine-tuning farm tools at Coteau Gardens
Isere, France

Our Innovations

Tzoumakers

A Tzoumakers workshop supporting practical skills development

Making an Inox grinder for aromatic plants

Mechanical press

Making an Inox grinder for aromatic plants

A Tzoumakers workshop on loom construction and operation

Making a small-scale wind turbine

GIAA Encounters: Connecting experiences, learning across contexts

Digitalization is not the only possible innovation.

Grassroots organisations develop knowledge, tools and ways of working in response to the realities of their own territories. Yet many of these experiences remain little known beyond the places where they emerge.

GIAA creates a space for organisations to bring these practices into conversation. Members share how they identify problems, experiment with solutions, develop skills, document their work and organise collective processes around innovation.

The aim is not to reproduce one model everywhere. Through peer exchange, organisations can learn from one another, recognise common challenges and adapt useful ideas to their own social, cultural and ecological contexts. They do this while also co-developing infrastructures for sharing knowledge and innovations in the form of commons and online posts (here).

A Series of 8 online Encounters took place between June 2025 and June 2026. This series gave peer organisations an opportunity to exchange knowledge in a structured way, learn from one another, and document valuable—often invisible—practices that support the co-creation of grassroots innovations. Each Encounter is organised around a dialogue between two peer organisations, who first complete a series of broad questions. They share their own paths, methods and challenges, while other GIAA members listen, ask specific questions and bring in experiences from their territories. The first exchanges followed L'Atelier Paysan (see page 10) in France and Tzoumakers (see page 11) in Greece as they described their origins and explored how farmers, makers and engineers identify needs, co-design tools, build prototypes and improve them through users' feedback. This format allows practical knowledge to be examined in depth while opening it to wider collective learning.

Documentation, such as this visual booklet, helps these experiences travel. It makes often-invisible practices easier to understand, discuss and build upon, while keeping them connected to the people and places from which they come.

The 8 GIAA Encounters were created to support this process: connecting organisations across territories, strengthening mutual learning and making grassroots innovation practices more visible.

Read more...

Encounter 1
History, context and motivation of our organizations

Encounter 2
Farmer-led research and development

Encounter 3
Pedagogies, ways to develop skills

Encounter 4
Scale out grassroots innovations for agroecology

Encounter 5
Governance models in agroecology technologies

Encounter 6
Building an agroecology narrative on innovations

Encounter 7
What kind of technologies are desirable to advance agroecology and people's agency?

Encounter 8
Financing grassroots innovations for agroecology

2025 Jun 24 · Sep 9 · Oct 7 · Nov 18 · Dec 16 · 2026 Feb 3 · Mar 24 · Jun 16

Encounter 1

Diverse contexts, shared vision

L'Atelier Paysan and Tzoumakers introduced the histories, purposes and local contexts that shaped their work. Their experiences showed how organisations in different territories can share a commitment to bringing the design and development of tools closer to farmers and rural communities.

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Encounter 2

Farmer-led R&D

The two organisations shared how farmers' needs guide the co-design and co-building of agricultural tools. They explored practical steps such as identifying a problem, working with engineers and makers, developing prototypes, testing them locally and using farmers' feedback to improve the design.

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Encounter 3

Pedagogies and skills

L'Atelier Paysan and Tzoumakers presented learning approaches grounded in practice, including collective tool-building, peer-to-peer training and the sharing of skills across different backgrounds. The discussion also explored methods such as knowledge mapping, memory harvests, intergenerational learning and documentation that help communities build and retain locally controlled knowledge.

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Encounter 4

Scale out grassroots innovations

L'Atelier Paysan shared its mobile "factory vans" and its approach to "swarming" through autonomous local groups, while Tzoumakers reflected on trust-building, community hubs and locally adapted forms of outreach. Their experiences showed that grassroots innovations travel through relationships, shared principles, practical infrastructures and adaptation to each territory.

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Encounter 5

Governance models in agroecology technologies

Participants explored how agroecology organisations make decisions, involve farmers and communities, and organise shared responsibility around tools, knowledge and innovation processes. The exchange focused on practical ways to keep governance participatory, respond to power dynamics and ensure that the people directly involved help shape how innovations are developed and used.

Encounter 6

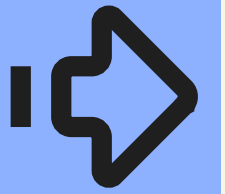
How can agroecology broaden the meaning of innovation beyond digitalisation to include tools, knowledge, cooperation and governance?

Discussion revealed the political-economic agenda of the innovation imperative, promoted by public institutions and benefiting large agtech actors. High-tech adoption can trap smallholders in dependencies while extracting their data. Grassroots innovations are socially driven, rooted in problem-solving, trials, feedback, continuous improvement, and ancestral and situated knowledge.

Encounter 7

What kind of Technologies are desirable to advance Agroecology and people's Agency?

More than 50 participants from organisations and international institutions attended this Encounter to learn about how communities can assess technologies according to their own needs, knowledge and agroecological realities. The exchange considered how digital literacy, data and knowledge protection, and informed collective discussion can help communities choose tools that support collaboration, autonomy and food sovereignty rather than creating new dependencies.



Encounter 8

Financing grassroots innovations for Agroecology.

Financial sustainability was understood not as independence from grants, but as resilience over time: sustaining the people, spaces, relationships and infrastructures that make grassroots innovation possible. Participants discussed combining public grants, private support and local contributions; sharing resources and proposals; strengthening transparency; retaining core staff and organisational knowledge; supporting “swarming” rather than scaling up; and helping funders understand grassroots realities.

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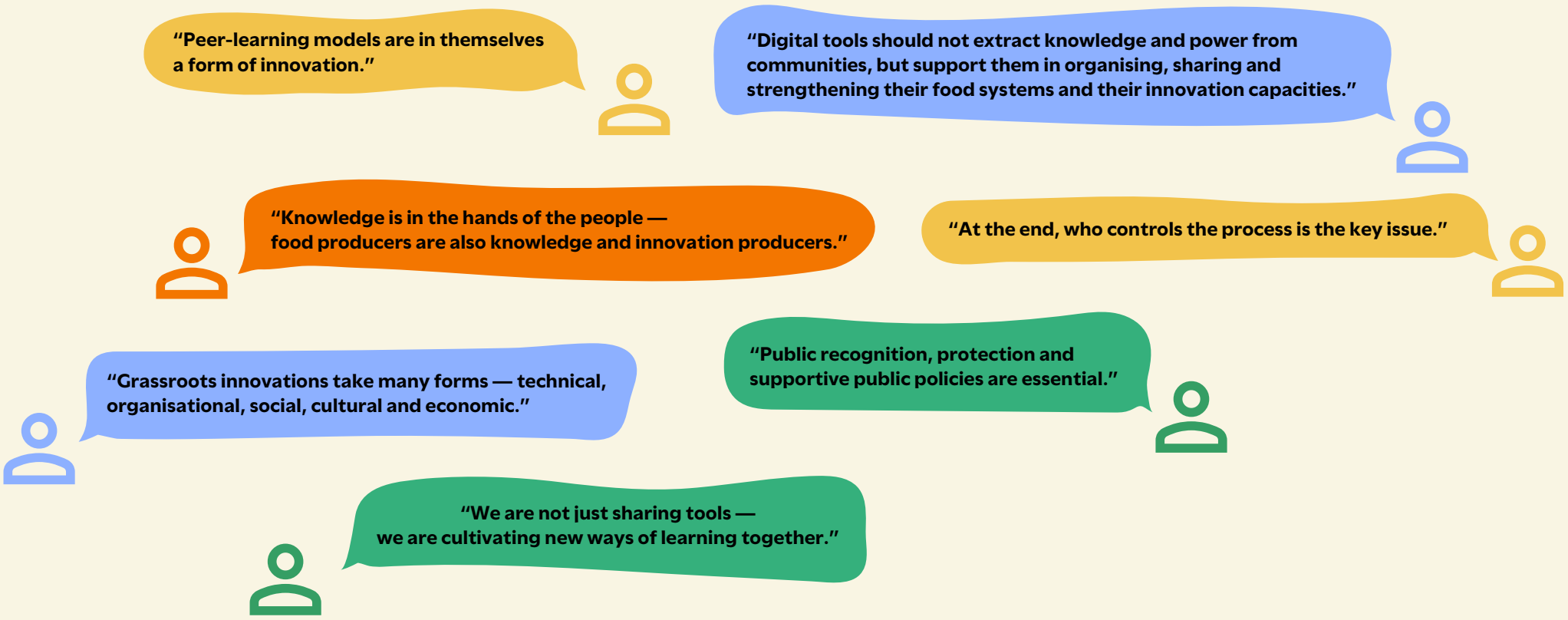
Our Key Messages

Through the 8 Encounters, GIAA members are making visible the diverse realities, practices and forms of knowledge that shape grassroots innovation for agroecology.



From Encounters to Evidence

L'Atelier Paysan and Tzoumakers show that **pedagogy is part of innovation**: farmers, makers and trainers learn by designing, building, testing and adapting tools together.

+ Read more...

Commons need infrastructure. Open databases, peer-sharing spaces, self-governed digital tools, interoperability standards and community-defined protection mechanisms can help grassroots innovations circulate without being captured. Read our GIAA Charter **here** and our most recent Assembly report **here**.

Knowledge is a right: UNDROP Article 26 recognises peasants' right to maintain and develop their knowledge, technologies, seeds and ways of life.

Digital sovereignty. GIAA members are asking how communities can assess digital tools, protect data, preserve knowledge and build their own informed digital toolbox.

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Grassroots innovations are part of an agroecological approach and essential for resilient food systems: Just before the CFS in October 2025, Schola Campesina and GIAA hosted an informal conversation with key actors from FAO, academia and civil society organisations to critically explore and strategize on how to place grassroots innovations at the centre of public policies.

+ Read more...

Click on each box for more information

What infrastructures support the emergence of grassroots innovations for agroecology?

Grassroots innovations need practical tools and learning spaces where communities can experiment, build skills and share knowledge. **Encounter 3** addressed popular education and pedagogies, while other infrastructures such as civic digital databases and registries, digital literacy, tool-building workshops, peer feedback mechanisms, traceability and attribution mechanisms, and legal frameworks such as Creative Commons licences can help make innovations visible, usable and protected.

These practical spaces also need governance and protection. **Encounter 5** focused on community governance, while **Encounter 7** explored technology assessment and how communities can evaluate tools according to their own needs, knowledge and agroecological realities. Self-governed digital support, agreements, standards and guidelines for sharing, and formal–informal research mechanisms help ensure that innovations remain rooted in collective decision-making, local control and agroecological principles. They also create safeguards so that knowledge can circulate without being extracted or disconnected from the people and territories that generate it.

Finally, grassroots innovations need strategy, sustainability and an enabling environment. **Encounter 2** explored farmer-led research and development, while **Encounter 8** addressed financial mechanisms and the conditions needed to sustain grassroots innovation over time. Collective strategies on innovation, sharing mechanisms, peer-learning spaces, documentation mechanisms and local innovation spotlights help organisations connect across territories, make their work visible and strengthen collaboration.

Encounter 6 brought in the wider conditions that support all these infrastructures: an agroecology narrative, civil society emancipation, social movement collaboration, and supportive public funding and policies. Together, these building blocks create the infrastructure that allows grassroots innovations for agroecology to emerge, circulate, adapt and grow.

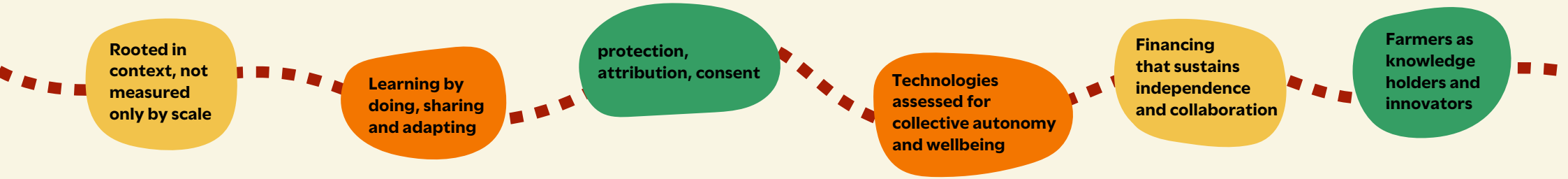
Conclusion

Innovation *at*, *by* and *for* the grassroots

Today, innovation in agriculture is often framed through digitalisation, precision agriculture, AI, climate-smart packages and Ag-Tech investment. This narrative presents external technological solutions as necessary and inevitable. But it can turn local food producers into new markets, deepen dependency, concentrate data and power, and undermine confidence in local knowledge.

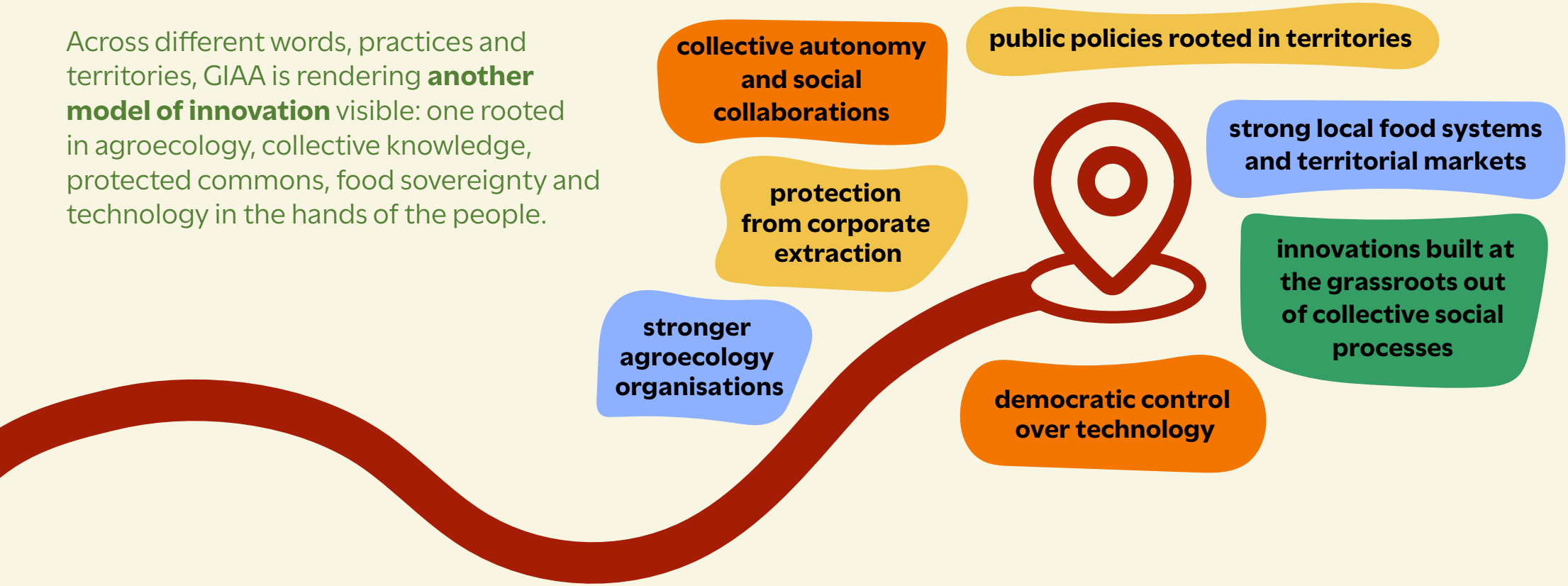
GIAA brings forward another model: innovation rooted in territories, everyday problem-solving, ancestral and situated knowledge, trial and feedback, community governance and protection of local knowledge. Here, farmers and communities are not beneficiaries of innovation, but researchers, educators, designers, decision-makers, innovators and technology assessors.

We say explicitly that grassroots innovations are driven by social objectives and are part of everyday life. They help communities manage risks and solve practical problems. They develop through trial and feedback. Rather than being presented as universal solutions, they respond to the needs and realities of particular places.



The path toward a shared agroecology horizon

Across different words, practices and territories, GIAA is rendering **another model of innovation** visible: one rooted in agroecology, collective knowledge, protected commons, food sovereignty and technology in the hands of the people.



Continue walking

GIAA 2023 and 2025 Gathering Reports

Continue learning

Agroecology & Innovation / Digital Sovereignty course

facilitated by Schola Campesina with GIAA and partners, offered through the University of Vermont Institute for Agroecology.

Continue exploring

GIAA Library

Click on each box for more information

Different territories, realities, languages, and words

Different forms of knowledge, wisdom, practices and innovations

Shared amongst grassroots organizations to build agroecology