

8th International Farming System Design Conference

"FARMING SYSTEM DESIGN FOR SUSTAINABLE AGRIFOOD SYSTEMS: THEORIES AND PRACTICES"

25 - 29 August 2025

Palaiseau (France) Campus Agro Paris-Saclay





PROGRAM

	Tuesday 26	Wednesday 27			Thursday 28			Friday 29					
8.30		Plenary 2			Plenary 3 Three Keynote			Parallel Sessions 5					
10.00		Two Keynote presentations						A5	B6	C4	D2b		
10.00 10.30			Break				presentations			A6a	ВО	07	T DED
10.30 11.00		Parallel Sessions 2				Break			Break				
	Registration	АЗ		C2	D1b D2a	Parallel Sessions 3			Parallel Sessions 6				
11.00 12.30			B1b B2			A4a	B3a B4a B5a	-	D3	A6b A7 A8	-	C3b	D4
12.30 13.30	Lunch	Lunch						1 L					
13.30 14.00	Plenary 1 Introduction	Field Trip				Lunch				Lunch			
14.00	Plenary 1					Parallel Sessions 4							
14.00 15.30	Two Keynote presentations					A4b	B3b B4b B5b	СЗа	-	Plenary 4 Conclusive session			
15.30 16.00	Break				Break								
16.00 18.00	Parallel Sessions 1					Guided Tour and Gala Diner							
	A1 B1a C1 D1a												
18.00 onwards	Welcome cocktail					(Versailles)							

Plenary 1

KEYNOTE SPEAKERS

- Agroecological food system design across Global North and South contexts: challenges and methods Rachel Bezner Kerr, Professor of Global Development, Cornell University (USA)
- Accelerating the transition: a multi-scale approach Philippe Baret, Professor at UCLouvain (Belgium)

Plenary 2

- Transitioning to sustainable agri-food systems: going beyond the systems rhetoric
 Katrien Descheemaker, Professor, Wageningen University & Research (The Netherlands), Jean-Marc Meynard,
 Research Director, INRAE (France) & Jacques Wéry, Professor, Institut Agro (France)
- Agriculture by design : how to address differently agriculture challenges Chloé Lecomte, Researcher, CIRAD (France) & Elsa Berthet, Researcher, INRAE (France)

Plenary 3

- Farming systems design for agroecological transitions: which methods?

 Santiago Dogliotti, Professor, Faculty of Agronomy (Uruguay) & Walter Rossing, Professor, Wageningen University & Research (The Netherlands)
- From concept to practice: exploring the promise and pitfalls of resilience in farming systems design Roos de Adelhart Toorop, Researcher, Wageningen University & Research (The Netherlands) & Laure Hossard, Research Director, INRAE (France)
- Breaking silos: integrating food science and agronomy for systemic change Caroline Pénicaud, Research Director, INRAE (France)







TOPICS & SESSIONS

TOPIC A - DESIGN AND CO-DESIGN AT PLOT & FARM SCALE		room	p.		C B - MULTI-ACTOR INNOVATION CESSES	room	p.
A1	Designing Cropping Systems: Insights from system experiments and targeted innovations	C1.0.06	4	B1a	Transformation to agroecology through transdisciplinary projects: prospects and warnings	C1.4.08	5
A2	Cropping System Design by Modeling	C1.3.01	4	B1b	Transformation to agroecology through transdisciplinary projects: approaches and tools	& C1.4.11	7
А3	Learning to diversify: building the value of minor crops in agroecosystems	C1.3.01	7	B2	Systems Science for sustainable agrifood futures	C2.0.37	8
	Design by On-Farm Experimentation (OFE): Insights from OFE at Field and Farm Scale			ВЗа	Co-designing agrifood systems across	C1.4.08 & C1.4.11	10
A4a			10	B3b	scales: methods and tools for multi- actor approaches		13
A4b (r	Design by On-Farm Experimentation (OFE): Diverse Collaborative research approaches: From implementation to reflection	C1.4.02	13	B4a	Lock-In and Levers Analysis Beyond	C2.0.37	11
				B4b	the Farm Level		14
	Methods and Tools to Support			B5a	Design of Coupled Innovations	C1.3.01	11
A5	Scaling Out of Innovations	C1.3.05	16	B5b	Josephon minoranono		14
A6a	Co-Design Methods and Tools at plot		16	В6	From design to scale of agriculture and food innovations: frameworks for	C1.3.01	17
A6b	and farm scale		19		capacity building		
A7	From vision to action: Structuring the agroecological transitions using ideotyping approaches	C1.3.01	19	TOPI ASSI	room	p.	
A8	Design of mixed crop-livestock system by Modeling	C2.0.37	20	D1a	Modelling Farm and Landscape Transitions: Linking Decisions, Ecosystem Services, and Scales.		6
TRA	TOPIC C - PRACTICES & TRAJECTORIES ANALYSIS AT FARM LEVEL		p.	D1b	Modelling Transitions in Agri-Food Systems: Integrating Scales, Systems, and Stakeholders	C1.3.05	9
C1	Barriers and levers analysis at farm level	C2.0.37	5	D2a	Multicriteria assessement of farming systems: case studies		9
C2	Practices and trajectories analysis for diversification	C1.4.18	8	D2b	Implementation of multicriteria assessment in livestock systems	C1.4.02	18
C3a	Practices and trajectories analysis for	C1.0.06	15	D3	Methodological advances in multicriteria assessment: from new	C1.3.05	12
C3b	Crop-Livestock systems		20	DS	frameworks to implementation		12
C4	Farming practice diversity in agroecological transitions: from typologies to analytical tools	C2.0.37	17	D4	Multicriteria assessment in system design: from cropping system to territory	C1.3.05	21







Tuesday, August 26

Session A1 - Designing Cropping Systems: Insights from system experiments and targeted innovations

- m Room C1.0.06
- ▼ Convenors: Diana ORTIZ-VALLEJO (INRAE, France), Sala LAMEGA (University of Göttigen, Germany)

Part 1 – Long-term and/or Multi-site System Experiments

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- 1. Marie ESTIENNE (ARVALIS) Can diversification and technical innovations improve the sustainability of farming systems? Syppre, a french network of 5 system experiments
- 2. Diana ORTIZ-VALLEJO (INRAE) Insights from a 10-year trial network of pesticide-free cropping systems in France (Rés0Pest)
- 3. Corentin CLEMENT (INRAE) Test of the step-by-step design approach to study the transition of an organic farm located in a marshland area (France)
- 4. Séverine LAGNEAUX (CRA-W) Testing and accompanying agroecological transition through systemic experimentation in a research station

Part 2 – Targeted Systems Innovations

- 12-minute short presentations + 12-minute joint discussion
- 5. Sala LAMEGA (University of Göttingen) Plantain undersowing in maize
- 6. Emile ROGISSART (Corteva Agriscience) Real-time spot-spraying for weed control
- 7. Wendy Carolina VERNAZA CARTAGENA (University of Padua) Soybean-buckwheat strip intercropping
- 8. Weijian ZHANG (CAAS) Innovating water management for rice cropping system to reduce CH4 emissions from fields and Cd level in grains

Part 3 - Open Debate with the Audience - ©20 min

Session A2 - Cropping System Design by Modeling

- **Room** C1.3.01
- 🕵 Convenors: Nathalie COLBACH (INRAE, France), Amarachi Jacinta AGU (ZALF, Germany)
- (1) 10-minute presentation + 5-minute Q&A per talk, followed by a 12-minute general discussion
- 1. Nathalie COLBACH (INRAE) Florsys: a mechanistic model bridging scientists, advisors and farmers in order to design agroecological weed management strategies
- 2. Folorunso AKINSEYE (ICRISAT) Simulating farm-level yield for sorghum cultivars in a low-input West African semi-arid system under climate change
- 3. Rémi OZANAM (Agro-Transfert R&T) Assessment of climate risks on industrial crops of northern France using ecoclimatic indicators
- 4. Amarachi Jacinta AGU (ZALF) Greenhouse gas mitigation: impacts of low-emission manure management practices in the Münsterland, Germany
- 5. Jeroen GROOT (WUR) Towards climate-robust farming systems with agronomic measures
- 6. Mohammad Ibrahim KHALIL (University College Dublin) Integrated agricultural system modelling for farm-level carbon, soil, and economic analysis

Tuesday, August 26

Session B1a - Transformation to agroecology through transdisciplinary projects: prospects and warnings

- **Rooms** C1.4.08 & C1.4.11
- **Convenors**: Walter Rossing (WUR, The Netherlands), Santiago Dogliotti (Faculty of Agronomy, Uruguay)
- Short pitches (3 minutes with 2 slides), followed by 5-minute presentations on how each speaker's research supports agroecological transformation and transdisciplinarity, ending with a group discussion.
- 1. Remy BALLOT (INRAE) Toward a pesticide-free territory: how different methods could be combined to achieve this goal?
- 2. Marilena REINHARD-KOLEMPAS (WUR) Developing agroecological transition strategies insights from a mountainous living lab in Morocco
- 3. Walter ROSSING (WUR) Structuring transdisciplinary research on agroecology: comparing 10+ years of co-innovation in uruguay and the eu
- 4. Veronica AGUERRE (INIA) Challenges for rural extension to promote a sustainability transition in family livestock farming: lessons from a sequence of projects in Uruguay
- 5. Margot LECLERE (INRAE) Design of intercropping-oriented value chains: monitoring and cross-analysis of 13 multi-actor case studies
- 6. Pauline CASSART (CRA-W) Portraying agroecological initiatives to support transformative change
- 7. Stephen LEITHEISER (WUR) How can transdisciplinary projects contribute to agroecological transformation?

Session C1 – Barriers and levers analysis at farm level

- m Room C2.0.37
- Convenors: Antoine COUEDEL (CIRAD, France), Fatma ARIBI (IRA Médenine, Tunisia)

Introduction - @5 min

Part 1 - 10-minute presentations, followed by a 20-minute general discussion

- 1. Adi NUGRAHA (University of Padjadjaran) Motekar: resilience of paddy farmers in west Java, Indonesia
- 2. Emma LE MERLUS (INRAE) A systemic analysis of barriers to pesticide reduction at the farm level
- 3. Shuhao TAN (Renmin University of China) Optimizing sustainability in rice-crayfish co-culture : evaluating input inefficiencies and pathways for improved environmental performance
- 4. Fatma ARIBI (IRA) Toward sustainable development of family farming: insights from the oases of Ghannouch in southeast Tunisia

Part 2 - 10-minute presentations, followed by a 20-minute general discussion

- 5. Antoine COUEDEL (CIRAD) Labor constraints limit adoption of innovative intercropping in smallholder farms in Rwanda
- 6. Million GEBREYES (ILRI) Understanding farmers' motivation for mixed farming system re-design: a case from Ethiopia
- 7. Antonio BRUNO (University of Udine) Drivers for double cropping adoption in north-eastern italy

Conclusion - @5 min

Tuesday, August 26

Session D1a - Modelling Farm and Landscape Transitions: Linking Decisions, Ecosystem Services, and Scales.

- in Room C1.3.05
- **Convenors**: Jiali CHENG (WUR, The Netherlands), Ugo JAVOUREZ (INRAE, France)
- ©5-minute introduction, 10-minute presentation + 5-minute Q&A per talk, followed by 20-minute general discussion
- 1. Alok K. SIKKA (IWMI) Watershed-Based Climate Resilience Strategies: Enhancing Water Security For Sustainable Agrifood Systems
- 2. Estelle DOMINATI (AgResearch) Applying Ecosystem-Based Geodesign Approach To Support Sustainable Agricultural Landscapes Management
- 3. Jiali CHENG (WUR) Trade-Offs Among Ecosystem Services In Diversified Agricultural Landscape Designs For The North China Plain
- 4. Linda JRIDI (IRD) Mapping agricultural land use dynamics through integrated biophysical analysis for Mediterranean farming systems
- 5. Ugo JAVOUREZ (INRAE) MAELIA For Large-Scale Farming Systems Design: Methodological Approach
- 6. Rihab Ait Haji (CIHEAM) Synergizing Agroecological Transition And The WEFE Nexus: A Farm-Level Modeling Approach For Sustainable Agri-Food Systems In Morocco

Wednesday, August 27

Session A3 - Learning to diversify: building the value of minor crops in agroecosystems

- m Room C1.3.01
- Convenors: Quentin TOFFOLINI (INRAE, France), Christelle GINOT (ISARA, France)
- (b) Two sub-sessions, each featuring 4 presentations (7 min/presentation), followed by a 25 min joint discussion

Part 1 - Identifying tradeoffs and balances between various (and sometimes contrasting) factors or objectives

- 1. Malick OUATTARA (INRAE) Despecialization through diversification: trade-off needed to strike a balance between benefits and farm management
- 2. Daniel MARUSIG (University of Udine) Expanding chickpea cultivation area towards northern Italy: effects on yield and yield stability
- 3. Ferdaous REZGUI (ZALF) Participatory assessment of cereal-based systems in the Mediterranean: Stakeholders perceive the diversified rotations they designed as not economically viable
- 4. Hélène MARROU (Institut Agro Montpellier) Using a serious game to engage agrifood system actors for unlocking the production of local neglected legume crops: a case study in South Eastern Senega

Part 2 - Scientific approaches and methods to assess and integrate crop value and suitability within farming systems

- 5. Quentin TOFFOLINI (INRAE) Knowledge generation routes for diversification
- 6. João NUVUNGA (UEM-FAEF) Ecological intensification of cereal-legume intercropping in sub–Saharan Africa. A systemic approach
- 7. Greg TOUTOUNTZIAN (WUR) Establishing plant species compatibility rules based on plant-traits for complex agroforestry systems
- 8. Christelle GINOT (ISARA) Growing an early-domesticated perennial grass as a grain crop (thinopyrum intermedium): from usages to stand dynamics

Session B1b- Transformation to agroecology through transdisciplinary projects: approaches and tools

- m Rooms C1.4.08 & C1.4.11
- (Legion Procedure 1) Short pitches (3 minutes with 2 slides), followed by 5-minute presentations on how each speaker's research supports agroecological transformation and transdisciplinarity, ending with a group discussion.
- 1. Ignacio PAPARAMBORDA (University of the Republic, Uruguay) How to make livestock systems on native grasslands sustainable? Results and lessons from a change-oriented research project
- 2. Anna HIRSON-SAGALYN (INRAE) Empowering systemic change at a territory scale: a collective learning experiment with stakeholders along the agrifood chain in the pilat, France
- 3. Louise BELLET (INRAE) Co-designing multi-performance result-based strategies for water quality restoration with farmers
- 4. Mariana SCARLATO (University of the Republic, Uruguay) The MEDITAE framework: enhancing agroecological diagnosis in co-innovation platformrm
- 5. Caroline BATTHEU-NOIRFALISE (CRA-W) Improving sustainable contribution to food security of Uruguayan cow-calf systems through ecological intensification
- 6. Apolline DZIERZYNSKI (VetAgro Sup) How future breeders and advisers express their attitudes in relation to society's expectations

Wednesday, August 27

<u>-</u>10:30-12:30

Session B2 - Systems Science for sustainable agri-food futures

- in Rooms C2.0.32

Part 1 - Systems Science : the why and how

- 6-10-minute presentations, followed by a 10-minute guided discussion
- 1. Katrien DESCHEEMAEKER (WUR) Introducing Systems Science and the Value Proposition of the CopSyS community of practice (https://system-s.org/)
- 2. Marcos LANA (SLU) Systemic design of agricultural systems in the Anthropocene: a systematic review
- 3. Davide RIZZO (IRD) Bridging two communities in farming system research: IFSA Europe Group and Farming System Design
- Part 2 Exploring transformative pathways of farming systems
- 6-10-minute presentations, followed by a 10-minute guided discussion
- 4. Shalander KUMAR (ICRISAT) Enhancing farming systems in vulnerable regions of Maharashtra, India: evaluating innovation bundles for sustainable intensification
- 5. Hatem BELHOUCHETTE (CIHEAM) Enhancing the resilience of north african farming systems through agroecology: a bio-economic modeling approach
- 6. Deborah MONG'INA ONYANCHA (University of Nairobi) Threats of environmental pollution to biodiversity and ecosystem functions in foodscapes
- Part 3 System science to design digital services
- 6-minute presentations + 3 pitches (3 minutes each), followed by a 10-minute guided discussion
- 7. Jens ANDERSSON (WUR) Digital advisory for African smallholder farming systems: towards design principles
- Part 4 Teaching System Analysis and Design
- 8. Gerrie VAN DE VEN (WUR) System science: the power of system diagrams in design processes Three Pitches from the CopSyS community to share experiences in teaching
- Part 5 Strengtening System Science : Wrap up discussion and way forward
- (15-minute discussion)

Session C2 - Practices and trajectories analysis for diversification

- in Rooms C1.4.18
- **Convenors**: Esther FOUILLET (INRAE, France), Gaëtan SEIMANDI-CORDA (INRAE, France)
- (b) 15-minute presentation + 8-minute Q&A per talk
- 1. Ugo JAVOUREZ (INRAE) Flexible crop rotation identification and classification: new tool and application to France
- 2. Thomas DELAUNE (WUR) Legume-based crop diversification in smallholder farming systems: insights from a farm-level analysis of crop allocation practices
- 3. Gaëtan SEIMANDI-CORDA (INRAE) Intercropping and crop diversity: how farmers integrate species into arable systems
- 4. Esther FOUILLET (INRAE) Exploring machinery management logics for implementing species mixtures : insights from agronomy
- 5. Reva VIAUD (CIRAD) Agroforestry market gardening: lessons from farmers' practices in south-eastern France

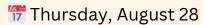
Wednesday, August 27

Session D1b - Modelling Transitions in Agri-Food Systems: Integrating Scales, Systems, and Stakeholders

- in Room C1.3.05
- ⊕5-minute introduction, 12-minute presentation + 5-minute Q&A per talk, and 25-minute general discussion
- 1. Wenjiao SHI (Chinese Academy of Sciences) Wheat redistribution in Huang-Huai-Hai, China, could reduce groundwater depletion and environmental footprints without compromising production
- 2. Sadeeka JAYASINGHE (CSIRO) Satellite-derived yield estimation for multispecies cropping in a regenerative agriculture system
- 3. Albert BESANCENOT (INRAE) Designing cropping systems to supply anaerobic digesters at the territorial scale
- 4. Elodie MERLOT (INRAE) The future of livestock farming in Europe: major scenario families derived from European foresights
- 5. Wytse VONK (WUR) Agricultural context determines environmental effects of co-product use alternatives in four European regions

Session D2a - Multicriteria assessement of farming systems: case studies

- in Room C1.4.02
- **Convenors**: Christian BOCKSTALLER (INRAE, France), Alice JOSSERAND (INRAE, France)
- (Lagrange of talk) 13-minute presentation + 5-minute Q&A per talk, followed by a 30-minute general discussion
- 1. Fabre DEHON (University of Liège) Fab4farming: assessing the impact of disturbance gradients on agrobiodiversity for sustainable farming systems design
- 2. Cyprien DROMMI (University of Paris Cité) Power demand of cropping operations: an indicator to plan ahead the need for renewable power to fuel tractors
- 3. Lise PARESYS (INRAE) The controversial role of plastics in agricultural systems
- 4. Morgane TOPART (AgroTransfert R&T) Assessing the environmental variability of miscanthus cultivation for the bioeconomy: insights from ex-ante and ex-post LCA approaches
- 5. Ines GHARBI (INRAT) Assessment of the agroecological transition on family farms in central Tunisia using the tape framework



Session A4a - Design by On-Farm Experimentation (OFE) : Insights from On-Farm Experimentation at Field and Farm Scale

- **Room** C1.4.02
- **Convenors**: Alison LAING (CIMMYT, India), Mukoma KILAKILA (WUR, The Netherlands)
- ©10-minute presentation + 5-minute Q&A per talk, followed by a 30-minute general discussion
- 1. Santiago LOPEZ-RIDAURA (CIMMYT) Small grains for small farms? Food and nutrition security from maize, sorghum, and millet cropping systems in Southern Africa
- 2. Mukoma KILAKILA (WUR) Positive interactions between legume intensification technologies and agronomic management: evidence from participatory on-farm experiments
- 3. Anne PERINELLE (CIRAD) Improving rice-fish farming systems: complexity, heterogeneity, and the promise of co-design solutions
- 4. Alison LAING (CIMMYT) Scaling agronomic interventions: the value of support for smallholder farmers

Session B3a - Co-designing agrifood systems across scales: methods and tools for multi-actor approaches

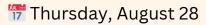
- m Rooms C1.4.08 & C1.4.11
- **Convenors**: Myrto PARMANTIER (INRAE, France), Monique MUL (WUR, The Netherlands)
- 65-minute introduction, 10-minute presentations or 15-minute demo, followed by a 15 minute discussion

Part 1 - Consensus

- 1. Gwenola YANNOU-LE BRIS (AgroParisTech) Food sustainability: which overlaps with the desirable unknowns of collective catering stakeholders?
- 2. Sophie PLASSIN (INRAE) Co-designing regional scenarios for the transition of agrifood systems and diets by 2050: a methodological contribution

Part 2 - Empowerment

- 3. Paola CLERINO (AgroParisTech) From conceptual to operational: steps and obstacles in the participatory design of Urbanaa, a tool to assess the sustainability of urban farms
- 4. Elsa BERTHET (INRAE) Innovative design workshops to empower young consumers to transform their food systems
- 5. Aliénor MORVAN (ENSCI) Figurative representation tools to support the participatory design process of an agrifood system

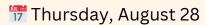


Session B4a - Lock-In and Levers Analysis Beyond the Farm Level

- m Rooms C2.0.37
- ✓ Convenors: Audrey FANCHONE (INRAE, France), Mireille NAVARRETE (INRAE, France), Intissar FERCHICHI (IRD, France), Céline CHEVALIER (UCLouvain, Belgium)
- 10-minute presentation per talk, followed by a 30-minute general discussion
- 1. Delphine NOTELET (INRAE) A review of the regulation of plastics used in agriculture and for food to inform public policies and support the transition towards sustainable agrifood systems
- 2. Clémentine MEUNIER (INRAE) Barriers and levers for reintegrating livestock in crop farms and regions a transversal analysis in three countries
- 3. Louise PERRISSEAU (INRAE) Role of agrifood sectors in the development of crop-livestock interactions at territory level
- 4. Céline CHEVALIER (UCLouvain) A conceptual and analytical framework to understand lock-ins in the agrifood systems transition
- 5. Audrey FANCHONE (INRAE) Barriers and levers to implementation of crop-livestock integration practices: a case study in Guadeloupe
- 6. Intissar FERCHICHI (IRD) Exploring the role of agricultural landscape objects for socio-technical system visualization

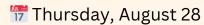
Session B5a - Design of Coupled Innovations

- **Rooms** C1.3.01
- Convenors: Justine GIROUD-ARGOUD (INRAE, France), Raphaël PAUT (INRAE, France), Claire LESUR-DUMOULIN (INRAE, France)
- (£)10-minute presentation + 5-minute Q&A per talk, followed by a 15-minute general discussion
- 1. Oene ONEMA (WUR) Experimental Integrated Crop-Livestock Systems In China Novel Cooperation Mechanisms
- 2. Justine GIROUD-ARGOUD (INRAE) A mathematical approach to manage fruit diversity and align stakeholder strategies towards diversified orchards
- 3. Elise DAGORRET-BONETTO (INRAE) Insights on the supply of organic and local dairy and beef products to institutional catering by french cattle farms
- 4. Juliette MIGAIROU-LEPRINCE (INRAE) The coupled design of innovations between farmers and public catering operators, a lever for agroecological transition
- 5. Margot LECLERE (INRAE) Using design theory to build cross-disciplinary research agendas for sustainability transition: learnings from four experiences



Session D3 - Methodological advances in multicriteria assessment: from new frameworks to implementation

- m Room C1.3.05
- **Convenors**: Christian BOCKSTALLER (INRAE, France), Frédérique ANGEVIN (INRAE, France)
- ●10-minute presentation + 5-minute Q&A per talk, followed by a 15-minute general discussion
- 1. Alice JOSSERAND (INRAE) A new framework for agroecological energy assessment: demonstration on 34 French agroecosystems
- 2. Marie-Hélène DELHOVE (CRA-W) Co-created multi-criteria assessement framework to evaluate the potential of agroecological initiatives in Europe
- 3. Solèmne SKORUPINSKI (INRAE) A new indicator framework for multicriteria assessment of co-designed agroecological crop rotations
- 4. Clotilde ROUILLON (ARVALIS) Upscaling sustainability indicators: calculation bias due to the use of generic data
- 5. Aude ALAPHILIPPE (INRAE) Facilitating assessment of the sustainability of cropping systems by understanding use situations



Session A4b - Design by On-Farm Experimentation (OFE) : diverse collaborative research approaches, from implementation to reflection

- **Room** C1.4.02
- **Convenors**: Santiago LOPEZ-RIDAURA (CIMMYT, Mexico), Maïté DE SAINTE AGATHE (INRAE, France) □10-minute presentation + 5-minute Q&A per talk, followed by a 15-minute general discussion
- 1. Lionel ALLETTO (INRAE) Grazing cover crops: a strategy for enhancing forage autonomy and mitigating soil erosion?
- 2. Raùl SAN JUAN HERAS (INIA-CSIC) Reducing tillage and inputs through cover crops and extensive livestock
- 3. Juliette BANS (INRAE) Preparing the design of a collective plan for adapting farming practices and protect the drinking water quality in a small district in eastern France
- 4. Maïté DE SAINTE AGATHE (INRAE) Characterizing farmers' group experimentation strategies to address orphan topics in agroecology
- 5. Léa COLLIN (INRAE) Searching for innovative experimental practices for sustainable agriculture: a scoping review

Session B3b - Co-designing agrifood systems across scales: methods and tools for multi-actor approaches

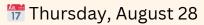
- **Rooms** C1.4.08 & C1.4.11
- Convenors: Aliénor MORVAN (ENSCI, France), Sophie PLASSIN (INRAE, France)
- ⑤5-minute introduction, 10-minute presentations or 15-minute demo, followed by a 15 minute discussion

Part 1 – Positionality

- 1. Marie CHAVE (INRAE) Combining technical and organisational innovations to enhance biosolutions
- 2. Muriel VALANTIN-MORISON (INRAE) Designing pesticide-free agriculture: a territorial research framework for moving from theory to practice

Part 2 - Impact

- 3. Marianne CERF (INRAE) Conducting a diagnosis of use situations to design tools aiming to support change in agricultural systems
- 4. Myrto PARMANTIER (INRAE) Understanding and supporting a territory's transition towards zero pesticide use: the case of the western plain of Montpellier
- 5. Monique MUL (WUR) T4E design approach enabling design of sustainable farming systems

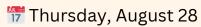


Session B4b - Lock-In and Levers Analysis Beyond the Farm Level

- m Rooms C2.0.37
- ✓ Convenors: Audrey FANCHONE (INRAE, France), Mireille NAVARRETE (INRAE, France), Intissar FERCHICHI (IRD, France), Céline CHEVALIER (UCLouvain, Belgium)
- ©10-minute presentation per talk, followed by a 30-minute discussion on the individual presentations, and concluded with a 30-minute general discussion (covering B4a and B4b)
- 1. Tilahun Kenea TIBA (ZALF) Comparative prioritization of sustainable agriculture policy targets: a multi-country analytic hierarchy process in North African living labs
- 2. Blandine ROSIES (INRAE) Lock-in to orchard diversification as seen by farmers and downstream stakeholders, case study of the mid-Rhône valley, France
- 3. Charles MOTTES (CIRAD) When politics interfere with co-design approach: the case study of herbicide reduction in la Reunion Island
- 4. Mireille NAVARRETE (INRAE) Coupling innovations between on-farm crop diversification and downstream marketing strategies in fruit and vegetable systems

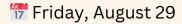
Session B5b - Design of Coupled Innovations

- **Rooms** C1.3.01
- ✓ Convenors: Justine GIROUD-ARGOUD (INRAE, France), Raphaël PAUT (INRAE, France), Claire LESUR-DUMOULIN (INRAE, France)
- ① 10-minute presentation + 5-minute Q&A per talk, followed by a 15-minute general discussion
- 1. Claire LESUR-DUMOULIN (INRAE) Designing coupled innovations to reduce pesticide use in vegetable production: a case study in the south of France
- 2. Tamiru Amenu ABETU (WUR) Co-design of socio-technical innovation bundles: lessons for sustainable intensification of smallholder farming systems in Malawi
- 3. Anita DOSSOUHOUI (CIRAD) A serious game to explore the compromise needed between stakeholders to implement sustainable soil fertility management practices
- 4. Logan PENVERN (University of Liège) Strengthening systemic innovation in Walloon's food systems through coupled innovation coconstruction
- 5. Daniel PUENTE-RODRÍGUEZ (WUR) A regional interactive design approach for developing and implementing future perspectives in peat meadow areas



Session C3a - Practices and trajectories analysis for Crop-Livestock systems

- **Rooms** C1.0.06
- **Convenors**: Ignacio PAPARAMBORDA (Faculty of Agronomy, Uruguay), Romane METTAUER (Insitut Agro Montpellier)
- 10-minute presentation + 6-minute Q&A per talk
- 1. Clémence BENEZET (IFCE) Analysing the activities of farmers in transition at different spatio-temporal scales to design training courses
- 2. Antonin PEPIN (INRAE) Combining technical and social localized knowledge to support the co-design of integrated crop-livestock systems between farms
- 3. Elsa ROBELOT (INRAE) Integrating sheep into vineyards: diversity of farmers' agronomic logics and trajectories
- 4. Marine CURTIL DIT GALIN (INRAE) Trajectory of a dairy farm transformation to agroecology
- 5. Anne FARRUGGIA (INRAE) Mobilising agroecological principles to analyse the transition pathway of a mixed crop-livestock system



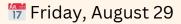
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Session A5 - Methods and Tools to Support Scaling Out of Innovations

- **Room** C1.3.05
- **Convenors**: Esther RONNER (WUR, The Netherlands), Eva GUICHET (INRAE, France)
- 10-minute presentation + 5-minute Q&A per talk, followed by a 20-minute general discussion
- 1. Florence KAMWANA-NGWIRA (Department of agriculture research services of Malawi) Tailored interventions for legume integration in smallholder farms: a farm typology study from Malawi
- 2. Chloé SALEMBIER (INRAE) Ethical issues in scaling out farmers' innovations studies
- 3. Eva GUICHET (INRAE) Methods and tools used to support farmers' agroecological transition in irrigated systems: a systematic review
- 4. Morgane TOPART (Agro-Transfert R&T) Adaptive and practical resources to empower agricultural advisors and support project transitions
- 5. Esther RONNER (WUR) Exploring the feasibility and usefulness of a digital twin in the valorization of organic waste streams in Uganda
- 6. Lisa Marijke VAN DEN BERG (WUR) Learning from lead users: technological needs for diversified cropping systems

Session A6a - Co-Design Methods and Tools at plot and farm scale

- **Room** C1.4.08
- Convenors: Teatske Bakker (CIRAD, Benin), Juliette Rose (ESA, France)
- (b) Two parts, each featuring 3 presentations (10-minute presentation + 5-minute Q&A per talk), followed by a 15-minute general discussion
- 1. Teatske BAKKER (CIRAD) Handling farming system diversity in co-design approaches at farm level: comparing eight case studies
- 2. Estelle DOMINATI (AgResearch NZ) Farm system design principles based on indigenous knowledge: the case of Maori farmland in New-Zealand
- 3. Martin DAMIAN (Agro-Transfert R&T) Soil structure preservation: an approach to support the farmer's decisions on cultural intervention at the cropping system scale
- 4. Aude ALAPHILIPPE (INRAE) Supporting the agroecological transition of farmers' collectives: an online survey on the current practices and needs of French winegrowing and fruit advisors
- 5. Juliette ROSE (ESA) Co-design enables farmers to conceive ways of managing grassland diversity for animal health despite a lack of technical references
- 6. Daniel PUENTE-RODRÍGUEZ (WUR) Designing with animals and other stakeholders first steps towards redesigning sustainable dairy goat barns



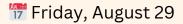
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Session B6 - From design to scale of agriculture and food innovations: frameworks for capacity building

- m Rooms C1.3.01
- ✓ Convenors: Million GEBREYES (ILRI, Kenya), Juliette MIGAIROU-LEPRINCE (INRAE, France)
- ©5-minute introduction, followed by 10-minute presentation + 5-minute Q&A per talk, then a 15-minute general discussion
- 1. Chloé LECOMTE (CIRAD) Roles, forms, and functions of intermediary objects for co-design and scaling: application to small agrifood equipments in West Africa
- 2. Jacques-Eric BERGEZ (INRAE) Occitanum, an archipelago living-lab to evaluate and co-design digital technologies as enablers of the agroecological transition
- 3. Shady HAMADEH (American University of Beirut) Sustainability framework for local food systems solution design: the ESDU case study
- 4. Marie-Hélène JEUFFROY (INRAE) Methods for systemic design in agrifood systems
- 5. Juliette MIGAIROU-LEPRINCE (INRAE) Scaling coupled innovation design between public catering and farming sectors: analysis of a support program
- 6. Million GEBREYES (ILRI) Transformative scaling: setting a new agenda for scaling of agricultural innovations

Session C4 - Farming practice diversity in agroecological transitions: from typologies to analytical tools

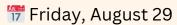
- m Rooms C2.0.37
- Convenors: Marco CAROZZI (INRAE, France), Salma AMSAGUINE (UniLaSalle, France)
- (1) 12-minute presentation + 3-minute Q&A per talk
- 1. Agnes FARGUE-LELIEVRE (AgroParisTech) Urban agriculture as a stepping-stone to rural farming: trajectories of new farmers
- 2. Salma AMSAGUINE (UniLaSalle) Unveiling on-farm anaerobic digestion systems diversity: a typology analysis of nothern french farms
- 3. Harry Quaye AMANKWAH (ZALF) Drivers, barriers, and typologies of adoption of agroecological practices in northern Ghana
- 4. Hugo BOURGEZ (INRAE) Uncovering the diversity of farmers' practices to organise the redesign of a crisis-stricken sector: the case of French cherries
- 5. Emma CROUZET (INRAE) How can winegrowers' decision-making lead to a fungicide-saving management?
- 6. Marco CAROZZI (INRAE) Phytos-explorer: supporting data-driven decision-making to reduce pesticide use at the territorial scale
- 7. Christian BOCKSTALLER (INRAE) Impacts of agriculture on biodiversity: beyond a simple list of management effects



<u>0</u>08:30-10:30

Session D2b - Implementation of multicriteria assessment in livestock systems

- m Room C1.4.02
- ▼ Convenors: Frédérique ANGEVIN (INRAE, France), Marie-Hélene DELHOVE (CRA-W, Belgium)
- 10-minute presentation + 5-minute Q&A per talk, followed by a 30-minute general discussion
- 1. Vinciane GOTTI (INRAE) Assessment and enhancement of cattle farming services in northwestern France landscape
- 2. Horacio MEDINA-SÁNCHEZ (Universidad Autónoma Metropolitana Xochimilco) Proposals to recover agricultural activity in Mexico City
- 3. Claire MOSNIER (INRAE) Livestock farm strategies to cope with a hot and arid climate: the case of Qatar
- 4. Olivier GODINOT (Institut Agro Rennes) Comparative analysis of energy and nutrient flows in two agrifood systems in Brittany
- 5. Nicholas DAVISON (University of Reading) Trade-offs between farm profitability and GHG emissions
- 6. Amboarasoa RAZAFINDRATSIMA (University of Antananarivo) Multicriteria assessment of cropping systems performances in Madagascar highlands reveals trade-offs between agroecology principles

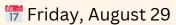


Session A6b - Co-Design Methods and Tools at plot and farm scale

- **Room** C1.4.08
- **Convenors**: Estelle Dominati (AgResearch, New Zealand), Valentin Clerget (INRAE, France)
- □10-minute presentation + 5-minute Q&A per talk
- 1. Stéphane DE TOURDONNET (Institut Agro Montpellier) Comparison of two participatory approaches for agroecological design: consultative vs collaborative
- 2. Valentin CLERGET (INRAE) Facilitating crop-livestock integration with ovi'plaine serious game workshops: insights from case studies
- 3. Michelle CARKNER (University of Manitoba) Accelerating Canadian net-zero through co-design research with farmers and indigenous communities
- 4. Jacques-Eric BERGEZ (INRAE) Clienfarms-I3S: a network structure to codesign climate neutral farms
- 5. Heidi WEBBER (ZALF) Climate risk assessment in arable farming through participatory crop modelling

Session A7 - From vision to action: Structuring the agroecological transitions using ideotyping approaches

- **Room** C1.3.01
- **Convenor**: Raphaël Belmin (CIRAD, Sénégal)
- (£)10 minutes presentation + 5 minutes Q&A per talk, followed by a 30-minute general discussion
- 1. Raphaël BELMIN (CIRAD) Ideotyping agroecological systems: a framework for the design of system innovations
- 2. Eric SCOPEL (CIRAD) Sustainable intensification of rain-fed mixed farming systems in Senegal: from diagnosis to co-construction of ideotypes
- 3. Emilie DELETRE (CIRAD) Co-design of agroecological pathway to an optimal agroecological market gardening system focused on pesticide use reduction in Gbeke region, Ivory Coast
- 4. Geneviève DIONE (ISRA) From ideotyping to setting up a multi-stakeholder territorial platform to promote Products of Territorial Interest (PIT): the case of Fatick in Senegal

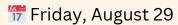


Session A8 - Design of mixed crop-livestock system by Modeling

- **Room** C2.0.37
- **Convenors**: Gatien FALCONNIER (CIRAD, Zimbabwe), Valentina MARTINEZ RAMON (WUR, The Netherlands)
- (1) 10 minutes presentation + 5 minutes Q&A per talk
- 1. Gatien FALCONNIER (CIRAD) Economic attractiveness of agro-ecological intensification for mixed crop-livestock smallholders: a farm modelling approach in contrasted environments
- 2. Apolline DZIERZYNSKI (VetAgro Sup) Design and evaluation of diversification of a wine-growing system through the introduction of pastoral herd
- 3. Audrey FANCHONE (INRAE) Modeling the impacts of crop-livestock integration practices on the sustainability of farming systems: review and perspectives for tropical areas
- 4. Anatol THÖS (ZALF) Modelling Feed Concentrate Reduction in Brandenburg Dairy Farms with High Quality Alfalfa
- 5. Valentina MARTINEZ RAMON (WUR) Ex-ante analysis of sustainable innovation in smallholder mixed farming systems in Changamire, Malawi
- 6. Thais DEVINCENZI (INIA) INIA Glencoe: long-term experiment on natural grassland year one insights

Session C3b - Practices and trajectories analysis for Crop-Livestock systems

- **Rooms** C1.0.06
- Convenors: Antonin PEPIN (INRAE, France), Marine CURTIL DIT GALIN (INRAE, France)
- (b) 10-minute presentation + 6-minute Q&A per talk
- 1. Diego MENESES BUITRAGO (CIRAD) Comparing agricultural typologies and nitrogen networks in Colombian agroecosystems: an agroecological and bioeconomic perspective
- 2. Ignacio PAPARAMBORDA (Faculty of Agronomy of Uruguay) Functional classification and technical performance of cow-calf systems on campos grasslands
- 3. Christophe JAEGER (INRAE) Tracking on-farm innovations related to agroecological principles in French trout farming
- 4. Juliette ROSE (ESA) Tracking breeders' innovations to benefit from health service of grassland diversity
- 5. Romane METTAUER (Institut Agro Montpellier) Trees for dairy farms' resilience to extreme weather events: first insights using a subjective approach



Session D4 - Multicriteria assessment in system design: from cropping system to territory

- m Room C1.3.05
- ✓ Convenors: Solèmne SKORUPINSKI (INRAE, France), Aude ALAPHILIPPE (INRAE, France)
- 10-minute presentation + 5-minute Q&A per talk, followed by a 30-minute general discussion
- 1. Zoé FAVARO (INRAE) Experimentating with farmers : understanding perceptions and assessing agroenvironmental performance of occitan cereal systems through modelling
- 2. Léa PHILIPPE (INRAE) When farmers commit to supporting their organic farming system: how to talk about positive externalities from sustainability diagnosis?
- 3. Wilfried QUEYREL (Institut Agro Dijon) Impact and use's condition of assessment tools mobilized during the co-design of innovative cropping systems for sustainable weed management in groups of farmers
- 4. Rosan DE LANGE (INRAE) How assessment methods support the design of pesticide free territories
- 5. Margot LECLERE (INRAE) A tool to assess the territorial sustainability impact of collective catering and support its transition