



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 10.00		Plenary 2 Two Keynote presentations	Plenary 3 Three Keynote presentations	Parallel Sessions 5 A5 A6a B6 C4 D2b
10.00 10.30		Break		
10.30 11.00		Parallel Sessions 2	Break	Break
11.00 12.30	Registration	A3 B1b B2 C2 D1b D2a	Parallel Sessions 3 A4a B3a B4a B5a - D3	Parallel Sessions 6 A6b A7 A8 - C3b D4
12.30 13.30	Lunch	Lunch	Lunch	Lunch
13.30 14.00	Plenary 1 Introduction	Field Trip		
14.00 15.30	Plenary 1 Two Keynote presentations		Parallel Sessions 4 A4b B3b B4b B5b C3a -	Plenary 4 Conclusive session
15.30 16.00	Break		Break	
16.00 18.00	Parallel Sessions 1 A1 A2 B1a C1 D1a		Guided Tour and Gala Diner (Versailles)	
18.00 onwards	Welcome cocktail			

KEYNOTE SPEAKERS

Plenary 1

- **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 Pénicaut, Research Director, INRAE (France)





TOPICS & SESSIONS

TOPIC A - DESIGN AND CO-DESIGN AT PLOT & FARM SCALE		room	p.	TOPIC B - MULTI-ACTOR INNOVATION PROCESSES		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 & C1.4.11	5
A2	Cropping System Design by Modeling	C1.3.01	4	B1b	Transformation to agroecology through transdisciplinary projects: approaches and tools		7
A3	Learning to diversify : building the value of minor crops in agroecosystems	C1.3.01	7	B2	Systems Science for sustainable agri-food futures	C2.0.37	8
A4a	Design by On-Farm Experimentation (OFE) : Insights from OFE at Field and Farm Scale	C1.4.02	10	B3a	Co-designing agrifood systems across scales: methods and tools for multi-actor approaches	C1.4.08 & C1.4.11	10
A4b	Design by On-Farm Experimentation (OFE) : Diverse Collaborative research approaches: From implementation to reflection		13	B3b			13
A5	Methods and Tools to Support Scaling Out of Innovations	C1.3.05	16	B4a	Lock-In and Levers Analysis Beyond the Farm Level	C2.0.37	11
A6a	Co-Design Methods and Tools at plot and farm scale	C1.4.08	16	B4b			14
A6b			19	B5a	Design of Coupled Innovations	C1.3.01	11
A7	From vision to action: Structuring the agroecological transitions using ideotyping approaches	C1.3.01	19	B5b			14
A8	Design of mixed crop-livestock system by Modeling	C2.0.37	20	B6	From design to scale of agriculture and food innovations: frameworks for capacity building	C1.3.01	17
TOPIC C - PRACTICES & TRAJECTORIES ANALYSIS AT FARM LEVEL		room	p.	TOPIC D - SIMULATION AND ASSESSMENT AT VARIOUS SCALES		room	p.
C1	Barriers and levers analysis at farm level	C2.0.37	5	D1a	Modelling Farm and Landscape Transitions: Linking Decisions, Ecosystem Services, and Scales.	C1.3.05	6
C2	Practices and trajectories analysis for diversification	C1.4.18	8	D1b	Modelling Transitions in Agri-Food Systems: Integrating Scales, Systems, and Stakeholders		9
C3a	Practices and trajectories analysis for Crop-Livestock systems	C1.0.06	15	D2a	Multicriteria assesement of farming systems: case studies	C1.4.02	9
C3b			20	D2b	Implementation of multicriteria assessment in livestock systems		18
C4	Farming practice diversity in agroecological transitions: from typologies to analytical tools	C2.0.37	17	D3	Methodological advances in multicriteria assessment: from new frameworks to implementation	C1.3.05	12
				D4	Multicriteria assessment in system design: from cropping system to territory	C1.3.05	21




PARALLEL SESSION 1

 Tuesday, August 26


 16:00-18:00

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

 **Room** C1.0.06

 **Convenors:** Diana ORTIZ-VALLEJO (INRAE, France), Sala LAMEGA (University of Göttingen, Germany)

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

 10-minute presentation + 5-minute Q&A per talk

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

 7-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)

 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

PARALLEL SESSION 1



Tuesday, August 26



16:00-18:00

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

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

PARALLEL SESSION 1


 Tuesday, August 26

 16:00-18:00

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


 **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


PARALLEL SESSION 2

 17 Wednesday, August 27

 10:30-12:30

Session B2 - Systems Science for sustainable agri-food futures

 **Rooms** C2.0.32

 **Convenors:** Jacques WERY (Institut Agro Montpellier, France), Katrien DESCHEEMAER (WUR, The Netherlands)

Part 1 - Systems Science : the why and how

 6–10-minute presentations, followed by a 10-minute guided discussion


1. Katrien DESCHEEMAER (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 BELHOUCETTE (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 - Strengthening System Science : Wrap up discussion and way forward

 15-minute discussion

Session C2 - Practices and trajectories analysis for diversification


 **Rooms** C1.4.18


 **Convenors:** Esther FOUILLET (INRAE, France), Gaëtan SEIMANDI-CORDA (INRAE, France)

 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

PARALLEL SESSION 2

 Wednesday, August 27

 10:30-12:30

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

 **Room C1.3.05**

 **Convenors:** Sadeeka JAYASINGHE (CSIRO, Australia), Linda JRIDI (IRD, France)

 *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 assessment of farming systems: case studies

 **Room C1.4.02**


 **Convenors:** Christian BOCKSTALLER (INRAE, France), Alice JOSSERAND (INRAE, France)

 *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

 **Rooms** C1.4.08 & C1.4.11

 **Convenors:** Myrto PARMANTIER (INRAE, France), Monique MUL (WUR, The Netherlands)

 *5-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

 **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

 **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 assessment framework to evaluate the potential of agroecological initiatives in Europe
3. Solègne 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 ALLETO (INRAE) - Grazing cover crops: a strategy for enhancing forage autonomy and mitigating soil erosion?
2. Raül 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)

 *5-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

 **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)

 *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

PARALLEL SESSION 4



Thursday, August 28



14:00-15:30

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

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)


 *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

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

 **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

 **Rooms** C2.0.37

 **Convenors:** Marco CAROZZI (INRAE, France) , Salma AMSAGUINE (UniLaSalle, France)


 *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 northern 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

Session D2b - Implementation of multicriteria assessment in livestock systems

 **Room** C1.4.02


 **Convenors:** Frédérique ANGEVIN (INRAE, France), Marie-Hélène 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 agri-food systems in Brittany
5. Nicholas DAVISON (University of Reading) - Trade-offs between farm profitability and GHG emissions
6. Amboaraso 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) - Cliefarms-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


PARALLEL SESSION 6

 Friday, August 29

 11:00-12:30

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)

 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)


 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

 **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 agro-environmental 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