



**First common seminar between the  
INRAE REUSE network and  
the COST Action CA23104  
Water4Reuse**



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**Barriers to adopting good hygiene and food safety practices in  
urban irrigated vegetable value chains of Accra, Ghana**

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Loughborough University, UK**

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**Wednesday, 11 June 2025 at 9 am (CET)**

**Connection link:** <https://inrae->

[fr.zoom.us/j/8838174385?pwd=ef7yf4lVdi3Kzlf0OoPEKXTNUiZlEl.1&omn=91597128719](https://inrae-fr.zoom.us/j/8838174385?pwd=ef7yf4lVdi3Kzlf0OoPEKXTNUiZlEl.1&omn=91597128719)

**Password :** !xH7kLR0!k

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**Abstract:** Over 800 million urban dwellers are estimated to live in watersheds where urban and peri-urban farmers practice unplanned reuse of un- or semi-treated wastewater to irrigate vegetables that may be consumed raw. Where relying solely on treatment alone remains a long-term objective, the WHO proposes managing this health risk by encouraging stakeholders of the value chain to adopt safe practices from farm to fork. However, changing practices is challenging. Researchers and practitioners often focus on technical scenarios while neglecting stakeholders' capability, opportunity and motivation to comply. In Accra (Ghana) and Pietermaritzburg (South Africa), the water utility company prevents farmers from adopting safe practices recommended by the Departments of Agriculture. Meanwhile, the Ministries of Food & Agriculture and Health promote international guidelines that are out of vegetable traders' reach. Drawing on the COM-B behavioural model (Capacity + Opportunity + Motivation = Behaviour) and the Companion Modelling participatory approach, we enabled stakeholders to develop a shared understanding by identifying the Actors, Resources, Dynamics and Interactions that shape the value chain. By accounting for their respective capabilities, opportunities and motivations, stakeholders proposed arrangements that make the safe practices they selected easier to adopt. We also identified psycho-social factors that could be leveraged to make these safe practices more attractive. This approach is also useful in planned reuse projects, for identifying and addressing needs that may otherwise be invisible to practitioners.

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[David Galibourg](#) is a PhD researcher at WEDC, Loughborough University (UK). His research focuses on wastewater reuse for irrigation in urban agriculture in low- and middle-income countries, with case studies in Accra, Ghana (in collaboration with the International Water Management Institute) and Pietermaritzburg, South Africa (with the University of KwaZulu-Natal). Following the WHO's "multiple barrier approach," David examines how institutional and psychosocial factors influence the adoption of safe practices to reduce health risks in value chains reliant on contaminated water. He applies mixed methods, drawing on behaviour change and participatory approaches, including [ComMod](#), [COM-B](#) and [RANAS](#). Before his doctoral research, David accumulated 20 years of experience in agriculture, wastewater treatment, and Water, Sanitation, and Hygiene (WASH). He is a member of Working Groups WG1 and WG3 of [Water4Reuse](#) (Cost Action 23104). In this seminar, David will discuss how integrating institutional and psychosocial perspectives can inform the co-design of institutional arrangements and behaviour change interventions, making safe practices easier and more attractive for stakeholders of the value chain.



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