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Socio-technical system transitions research describes and categorizes transitions and explains and identifies their driving causes. In the literature, transition research frameworks have received some critique on whether they can facilitate the search for transition causes. As a response, and in order to cater for the complexity and contextuality of multi system transitions, this paper proposes a retroductive systems-based methodology. The methodology relies on qualitative case study development and quantitative simulation modelling. Retroduction along with modelling and simulation can contribute to the shift from researching single system/technology transitions to multi system/technology transitions. Thus the paper offers a step towards coping methodologically with sustainability transitions that often concern multi system interactions. We demonstrate the use of the methodology by adopting the Multi-Level Perspective on transitions to explain the emergence of the functional foods as a niche in the food/nutrition socio-technical system.

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