



## **Mobilizing local innovation capacity through a simulation game in a participatory research project on agricultural innovation in El Brahmi irrigation scheme (Tunisia).**

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In the framework of the European Union and African Union cooperative research to increase Food production in irrigated farming systems in Africa (EAU4Food project) we conducted a participatory research on the possible innovative practices to increase production of dairy farms in the irrigation scheme El Brahmi in Tunisia in the face of changing economic, political and environmental conditions. Our aim was to find effective research method to stimulate farmers' participation in the innovation process.

Although the capacities of farmers in producing knowledge and in innovating are recognized and the shift from the linear model of technology transfer towards more participatory approaches to innovation is postulated, in which the role of researchers changes from providing solutions towards supporting farmers in finding their own solutions, in practice, the position of farmers in shaping innovation practice and process remains weak.

After a series of participatory workshops and in-depth interviews with the actors of the local innovation system we developed and tested a simple open simulation game Laitconomie for farmers. The game proved to be effective in increasing our understanding of the system as the farmers were adding new elements and rules while playing, and in mobilizing farmers' knowledge (including tacit knowledge) in the simulated innovation process. The result reported by the participants was learning how to improve farm management, soil fertility management and cow nutrition practices. Some of the participants used the game as a decision support tool. While our game and its scope were modest and mobilized only two types of players (farmers and extension agent), open simulation proved to be a useful tool to analyze a local innovation system. Designing similar type of tools that would mobilize more diverse players and hence have a larger scope can be imagined.