Nudging and Subsidizing for the Adoption of Smart Meters: A Choice Experiment with French Farmers

Laetitia Tuffery*¹, Arnaud Reynaud², Benjamin Ouvrard², and Raphaele Preget³

¹Center for Environnmental Economics - Montpellier (CEE-M), INRAE - CEE-M, Institut national de la recherche agronomique (INRA) : UMRCEE-M - 2 place Pierre Viala 34060 MONTPELLIER CEDEX 2, France

²TSE-R, INRA − TSE INRA − 21 allée de Brienne 31000 Toulouse, France ³CEE-M, Montpellier − Univ. Montpellier, CNRS, Institut national de la recherche agronomique (INRA), Montpellier SupAgro − France

Résumé

In a context of water scarcity, optimizing its use in the agricultural sector is one of the spearheads of current agricultural policies. In this paper, we test several instruments to encourage the voluntary adoption of water smart meters by farmers. Using a choice experiment with randomized treatments on 1,272 French farmers, we consider a conditional subsidy modeled on the collective bonus proposed by Kuhfuss et al. (2016) and two types of nudges (priming and framing vs testimony). The conditional subsidy offered is a certain amount of money given to each farmer who adopts a smart meter provided that enough other farmers adopt the new technology as well. We analyze the impact of two parameters for this policy instrument: the amount of the subsidy offered and the level of the conditional threshold that is chosen. Our results uniquely show that the higher the threshold, the more farmers identify the adoption of smart meters as the social norm they wish to follow. Moreover, the conditional subsidy and nudges are complement; when combined with a high amount of subsidy and a high adoption threshold, nudges perform better in the sense that farmers choose less often the status quo option.

Mots-Clés: Choice experiment, Randomized experiment, Smart water meters, French farmers, Social norms, Nudges.

^{*}Intervenant