Searching for a Coordinator/Partner	**The Green Deal – Farm to Fork**
Topic	**LC-GD-6-1-2020:** **Testing and demonstrating systemic innovations in support of the Farm-to-Fork Strategy**
Subtopic	Subtopic A. Achieving climate neutral farms by reducing GHG emissions and by increasing farm-based carbon sequestration and storage.
Organisation Details	School of Chemical Science, Dublin City University, Glasnevin, D09 Y5N0 Ireland.
How we can contribute to this topic	• We have made important contributions to knowledge of the chemical and microbial characteristic of soil organic matter (1,2,3), • Breakthrough research on soil carbon sequestration through chemosynthesis (4,5), • The use of agricultural biomass as a source of heat/electricity, **References.** 1. Kelleher, B.P. & Simpson, A.J. Humic Substances in soils: are they really chemically distinct? *Environmental science & Technology* 40 (15), 4605-4611, 2006. 2. AJ Simpson, MJ Simpson, E Smith, BP Kelleher. Microbially derived inputs to soil organic matter: are current estimates too low? *Environmental Science & Technology* 41 (23), 8070-8076, 2007. 3. H Masoom et al,. Soil organic matter in its native state: unravelling the most complex biomaterial on earth. *Environmental science & Technology* 50 (4), 1670-1680, 2016, 4. KM Hart, B.P. Kelleher et al, Tracking the fate of microbially sequestered carbon dioxide in soil organic matter. *Environmental science & Technology* 47 (10), 5128-5137, 2013. 5. BP Kelleher, et al, Large perturbations in CO 2 flux and subsequent chemosynthesis are induced in agricultural soil by the addition of elemental sulphur. *Scientific Reports* 7 (1), 1-11, 2017. 6. P Abelha, I et al, Combustion of poultry litter in a fluidised bed combustor. *Fuel* 82 (6), 687-692
Other information	Analytical techniques employed: • GC/LC-MS, • Multidimensional NMR, • Compound Specific Stable Isotope Mass Spectrometry.
Previous Horizon 2020 projects	"REMEDIATE" Marie Skłodowska-Curie Action (MSCA) funded Innovative Training Network (ITN): *Improved decision-making in contaminated land site investigation and risk assessment*.
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