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WATERPROTECT: Innovative tools enabling drinking water protection in rural and urban environments

Piet Seuntjens (1,2,3), Paul Campling (1), Ingeborg Joris (1), Erwin Wauters (4), Miren Lopez de Alda (5), Anna Kuczynska (6), Anker Lajer Hojberg (7), Ettore Capri (8), Cristina Brabyn (9), Charlotte Boeckaert (10), Per Erik Mellander (11), Ellen Pauwelyn (12), and Edit Pop (13)

(1) VITO, MOL, Belgium (piet.seuntjens@vito.be), (2) University of Antwerp, Antwerp, Belgium, (3) Ghent University, Ghent, Belgium, (4) ILVO, Ghent, Belgium, (5) CSIC, Madrid, Spain, (6) PGI, Warsaw, Poland, (7) GEUS, Copenhagen, Denmark, (8) UNICATT, Piacenza, Italy, (9) EWP, Brussels, Belgium, (10) Vlakwa, Kortrijk, Belgium, (11) TEAGASC, Carlow, Ireland, (12) Inagro, Rumbeke, Belgium, (13) Ecologic Association, Baia Mare, Romania

High-quality, safe, and sufficient drinking water is essential for life: we use it for drinking, food preparation and cleaning. Agriculture is the biggest source of pesticides and nitrate pollution in European fresh waters. The overarching objective of the recently approved H2020 project WATERPROTECT is to contribute to effective uptake and realisation of management practices and mitigation measures to protect drinking water resources. Therefore WATERPROTECT will create an integrative multi-actor participatory framework including innovative instruments that enable actors to monitor, to finance and to effectively implement management practices and measures for the protection of water sources. We propose seven case studies involving multiple actors in implementing good practices (land management, farming, product stewardship, point source pollution prevention) to ensure safe drinking water supply. The seven case studies cover different pedo-climatic conditions, different types of farming systems, different legal frameworks, larger and smaller water collection areas across the EU. In close cooperation with actors in the field in the case studies (farmers associations, local authorities, water producing companies, private water companies, consumer organisations) and other stakeholders (fertilizer and plant protection industry, environment agencies, nature conservation agencies, agricultural administrations) at local and EU level, WATERPROTECT will develop innovative water governance models investigating alternative pathways from focusing on the 'costs of water treatment' to 'rewarding water quality delivering farming systems'. Water governance structures will be built upon cost-efficiency analysis related to mitigation and cost-benefit analysis for society, and will be supported by spatially explicit GIS analyses and predictive models that account for temporal and spatial scaling issues. The outcome will be improved participatory methods and public policy instruments to protect drinking water resources.