**Sustainable renewable energy VALUE chains for answering FARMers’ needs (VALUE4FARM)**

**Coordinator/Head of the IUNG-PIB team**: **prof. Mariusz Matyka**

In order to defossilise the agricultural sector in line with the EU Green Deal, the local incorporation of renewable energy technologies matching local farmers’ needs in terms of electricity, heat, mobility, waste and land management is key. In this context, the VALUE4FARM project will gather 14 partners (including 7 research-oriented partners, 3 SMEs and 3 associations) in a 42-month project to demonstrate at TRL6-7 the effectiveness, sustainability and replicability of three renewable-based local value chains based on biogas, and coupling sustainable food and renewable-energy production. In Denmark, add-ons to the traditional biomethane pathway will be brought for answering the local specificities of large-scale farms. In Belgium, a pathway towards better use of alreadyexisting residual streams will be demonstrated for efficient production of electricity/heat and fuel, thus answering mobility needs for small-scale farms. In Italy, hybridisation compatibilities will be investigated towards the creation of an efficient off-grid biomethane plant. Sustainable agricultural crop protocols will be developed, based on at least 200 farmers’ specifications, meeting the challenges of the agricultural sector, while matching renewable energy production. All value chains will promote circularity through nutrient recovery.

The uptake of the demonstrated value chains will be facilitated by a strong involvement of farmers from the very beginning of the project. Three replication sites in Iceland, Italy and Poland have already been selected in the project. The assessment of the economic, environmental and social benefits of the VALUE4FARM value chains will be widely shared and disseminated to relevant stakeholders.

In particular, to encourage the wider farming community across Europe to benefit from producing both food and energy from their land and showcasing the lessons learnt in the demonstration sites, an online decision support tool will be made available in open-access.

The project started on 1 May 2023.

#### Source: Funding and Tenders Portal