

AAIC 2024, Association for the Advancement of Industrial Crops

35th Annual Conference & Meeting

“Constructing a Sustainable Future – The role of industrial crops and products”

DIGITAL TOOLS IN THE BIOECONOMY

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Bioeconomy involves the use of renewable raw materials for production of goods and services for everyday use. A wide range of industrial crops provides a broad selection of biomass for bio-industry development. According to the report ‘Polish countryside and agriculture 2023’ conducted by the Ministry of Agriculture and Rural Development, rural residents increasingly believe that the situation of Polish agriculture is deteriorating, especially when it comes to the low profitability of agricultural production, which depends on several factors: difficult growing conditions, increasingly frequent droughts, or expensive mineral fertilisers. Bioeconomy is needed to gradually replace the fossil fuel-based production, and to function in line with the concept of circular economy. The analyses of stakeholders’ needs, innovative ideas and interests regarding bio-solutions for rural areas conducted in the framework of the BioRural project show that the biggest barriers for their adoption indicated by Polish farmers are the lack of financial resources, clear guidelines or a national bioeconomy strategy, as well as insufficient knowledge. The same survey identified long term economic benefits, growing consumer demand or financial incentives as the driving factors for the implementation of bio-solutions by practitioners. The latest digital tools developed to promote the uptake of bio-solutions in rural areas can improve their economic situation. One of such instruments is the digital toolkit recently developed by the MainstreamBIO project, which creates opportunities, support, and advice tailored for biomass producers, business representatives and technology owners fitting into the concept of circular bioeconomy. The platform supports partnerships aimed at overcoming barriers and bringing bio-innovations to market with practical innovation support, accelerating the development of the already available bio-based products and services. In parallel, a digital toolkit is being created to align biotechnology, social innovation, and good practices in nutrient recycling of available biomass and market trends, as well as to expand knowledge of the bioeconomy through an educational package of resources based on existing research results and tools. The digital toolkit showcases a wide range of small-scale biotechnologies, innovative business models and social solutions. It also includes a set of practices aimed at recycling nutrients and organic matter back into the soil. The toolkit can be found under the link <https://mainstreambio-digital-toolkit.eu>.

The authors gratefully acknowledge the financial support brought by the MainstreamBIO project funded by the Horizon Europe research and innovation programme: Grant agreement n: 101059420 (2023–2025).

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