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Book of Abstracts

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Digitalization and technology are reshaping contemporary realities at an unprecedented pace and are generating new opportunities for innovation at the intersection of multiple fields. The algorithmic logic of these innovations produces novel social phenomena and nurtures a range of anxieties, fears, and retreat of particular categories of population into conservative values for obtaining the needed psychological comfort. In this context of social change, we propose an integrated approach from the perspective of the social sciences to understand how communities can be made part of these processes so that change is comprehended and social solidarity reinforced. Therefore, this presentation outlines the working logic of the Community Development Laboratory piloted in Romania and examines how new forms of digital governance can contribute to the development of a resilient innovation system. On the one hand, the core themes addressed relate to the potential of innovation systems to support democratization and to foster the participation of younger generations in social processes that previously held little interest for them, as well as multi-actor frameworks required for this process. On the other hand, the response to these new trends within society is documented in the case of Romania's younger generation and interpreted through an analysis of their uncertainties regarding the society of the future. This perspective enables us to introduce the community dimension into systems dominated by digital and global patterns of technological transformation. In this framework, the Community Development Laboratory operates within emerging innovation ecosystems shaped by technological convergence and digitally mediated governance. Its role is to strengthen inclusive participation and institutional resilience in contexts marked by rapid socio-technological transformation.

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Examples of waste raw materials: representatives of the genus *Rosa* as sources of biologically active substances for the development and creation of medicines and dietary supplements

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Introduction. Nowadays, humanity is facing many problems in the field of ecology, the purity of air, soil and water is deteriorating. Due to the overuse of natural resources, many plant species are becoming endangered and are eventually lost forever. The key role in solving such problems can be played by the popularization of waste recycling.

This work is devoted to the recycling of waste from the production of plants of the genus *Rosa*: *Rosa canina* L. and *Rosa* × *damascena* Mill. grown in Ukraine.

From the fruits of *R. canina*, using a special apparatus with a directed air stream, the nut fruits are separated for further production of fatty oil. Waste in the form of trichomes, pericarp and other parts are usually not used in production in Ukraine.

Petals of *R. × damascena* are usually used to obtain essential oil and hydrolate. Waste in the form of moistened raw materials (after hydrodistillation, steam distillation) remain unused.

The use of waste from fruits and petals of plants of the genus *Rosa* will allow to offer their waste-free processing.

Aim. The aim of our work was to study the phytochemical properties of *R. canina* fruit waste and *R. × damascena* petals.

Materials and methods. *R. canina* raw material was obtained from the manufacturer LLC "Shans Vik". For *R. canina* fruit waste, which consisted mainly of pericarp (24.8%) and trichomes (75.2%), the quantitative content of the sum of polyphenolic compounds was determined by the Folin-Ciocalteu method (calculated in terms of gallic acid, mgEGA/g), the quantitative content of carotenoids (µg/g) and procyanidins (calculated in terms of cyanidin chloride, %) by spectrophotometry.

R. × damascena petals were collected during flowering in Perechyn, Mukachevo district, Transcarpathian region, Ukraine (48.74335°N, 22.47417°E). For the petals of *R. × damascena*, which remained after obtaining the ether, the quantitative content of water-soluble polysaccharides and pectin substances was determined by the method of precipitation in ethanol (in terms of dry raw material, %).

Results. The obtained results indicate that the content of polyphenolic compounds in the waste of *R. canina* fruits was 110.01 ± 2.10 mgEGC/g; the content of carotenoids was $2547.10 \mu\text{g/g}$; the content of procyanidins was $0.05 \pm 0.01\%$.

For the petals of *R. × damascena*, the quantitative content of water-soluble polysaccharides was $8.04 \pm 0.15\%$ and of pectin substances was $6.25 \pm 0.12\%$.

Conclusions. Products of processing raw materials of plants of the genus *Rosa*, collected in Ukraine, are rich in various groups of biologically active substances and can be a promising source for the development and creation of medicines and dietary supplements.

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Measuring export competitiveness of wood products: Latvia vs other European countries

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Wood is an important natural resource in several Northern and Central European countries. This study aims to assess the export competitiveness of wood products in the European Union (EU), with a particular focus on Latvia.

Methodology and data. This research is based on data from the Atlas of Economic Complexity. Wood product groups are defined according to the HS92 product classification at the 4-digit level of disaggregation. For each wood product group, we calculate the revealed comparative advantage (RCA) index and compute the average export complexity of wood products for each EU country. In addition, we analyse the share of wood products in total exports and examine developments in global market shares.

Empirical results. Latvia ranks first among EU countries in terms of export competitiveness in wood products. The volume of Latvia's wood product exports even exceeds the level that would be expected given the country's forest area. However, despite notable improvements, the average complexity of Latvian wood product exports remains relatively low. This suggests that wood resources could be utilised more efficiently to enhance national welfare. Latvia demonstrates strong export capacity in primary wood processing products (e.g., fuel wood, packing boxes, particle board), but comparatively weaker performance in secondary processing industries (e.g., pulp, paper, furniture, musical instruments). Further expansion limited to primary wood processing is unlikely to raise the complexity of Latvia's wood exports to the level observed in Scandinavian countries. The development of secondary wood processing industries is therefore crucial for increasing the export complexity of wood products in Latvia.

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PLANT BY-PRODUCTS AS POTENTIAL SOURCES OF VALUABLE BIOLOGICALLY ACTIVE COMPOUNDS

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