

CROSS-REGIONAL ASSESSMENT WORKSHOP

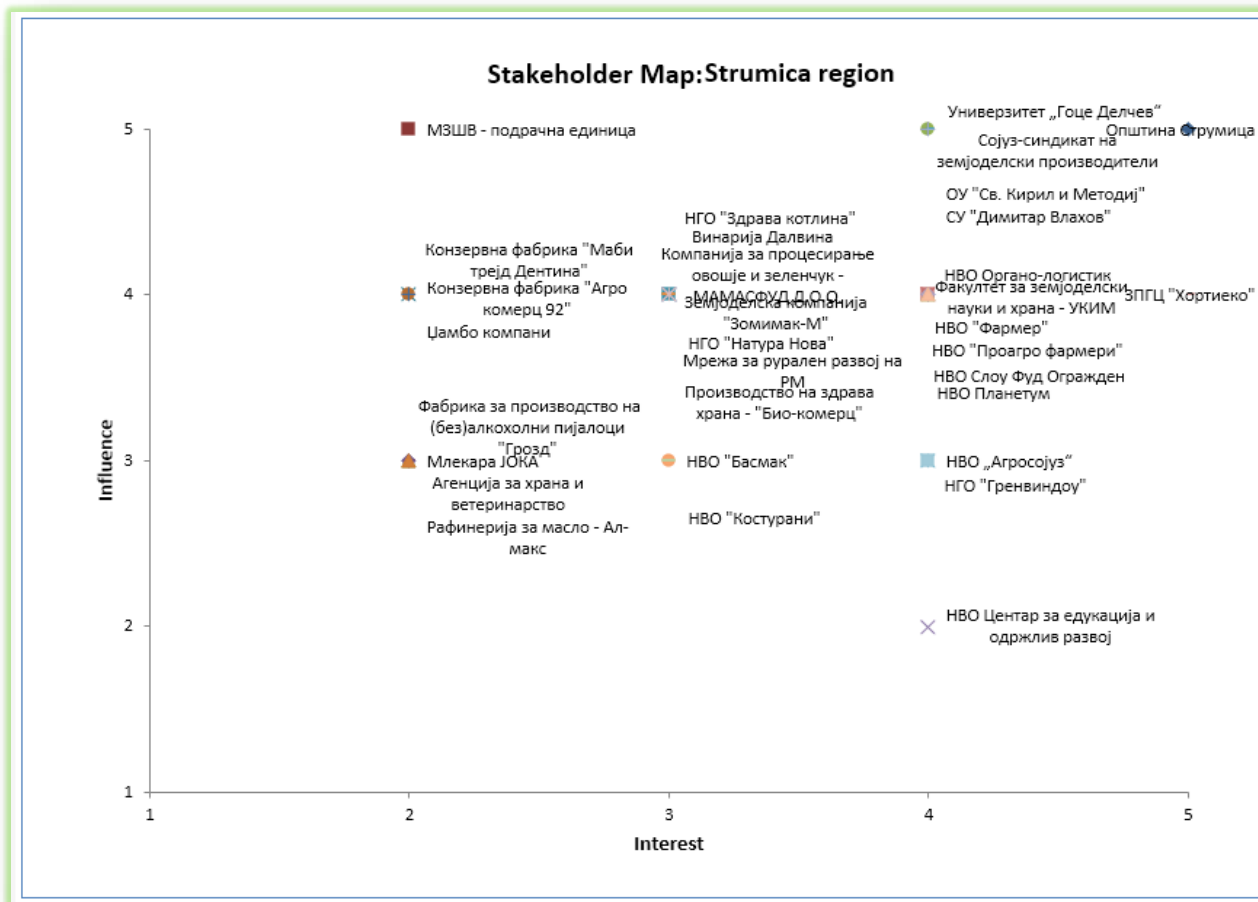
Region: Strumica

SDEWES-Skopje

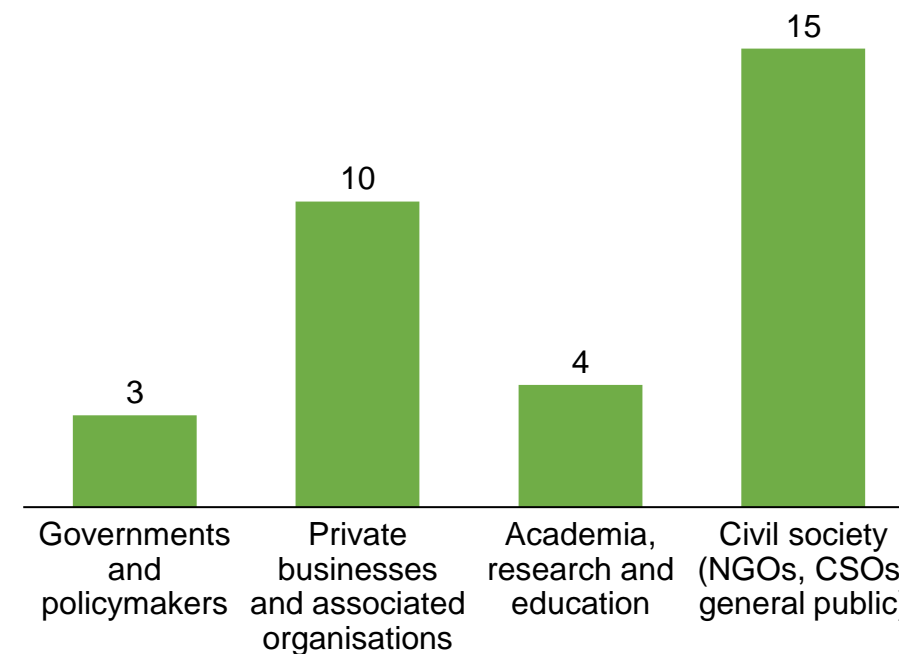
Online, 22&23.11.2022



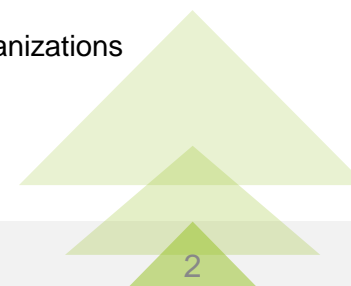
STAKEHOLDER DATABASE



• Total stakeholders → 32



■ Number of organizations



BRIEF OVERVIEW OF THE VALUE CHAIN 1

MYCELIUM-BASED PACKAGING AND INSULATION MATERIALS

- Innovative, biodegradable, sustainable, flame resistant, lightweight and shock absorbent, durable and flexible product, while the production process generates no wastewater and uses lot less energy than traditional solutions
- **Feedstock:** Agricultural residues + mycelium
- **Customer Segments:** Food and drink industry, Local authorities, Forestry and Building sector
- **Current size market vs 2030 vision:** non-existing vs ~30 companies
- **Supporting strategies:** Bioeconomy Development Roadmap for Strumica region
- **Subsidies schemes:** “Diversification of farms and development of small businesses” from IPARD-III Program (measure 7)



BRIEF OVERVIEW OF THE VALUE CHAIN 2

COMPOST PRODUCTION

- **Feedstock:** biodegradable waste (agriculture residues/reeds/branches) - 22.000 t/y in the landfills
- **Current situation vs 2030 vision:** Open burning vs fertilizers
- **Supporting strategies:** partially included in the National strategy for waste management (not fully implemented)
- **Subsidies schemes:** No incentives

AVAILABLE SKILLS AND CAPABILITIES IN THE REGION

- Farmers with experience and agricultural skills
- Sufficient amount of feedstock for small scale bio-based products
- Beneficial climate and soil conditions
- Emerging technological and industry zones
- Well developed network of stakeholders and organizations and already established cooperation
- Developed business environment
- Established academic ground (high school and disperse studies in the field of agriculture)



OPPORTUNITIES & LINKS WITH PREVIOUS IMPLEMENTATIONS, STRATEGIES OR ROADMAPS

Opportunities

- Promoting bioeconomy on local level (students and elderly) – AR&KE&CB
- Introducing bio-based products on local level
- Devising innovative solutions to pressing issues
- Diversifying businesses and possible job creation
- Gathering environmental benefits (lower GHG emissions and plastics / enhanced waste management)

Strategies and Roadmaps

- Bioeconomy Development Roadmap for Strumica region
- National Strategy for Agriculture and Rural Development 2021 – 2027
- Smart Specialization Strategy of North Macedonia
- IPARD ||| Programme 2021-2027
- National strategy for waste management

FORESEEABLE BARRIERS FOR DEPLOYMENT

- Insufficient information and education related to bioeconomy, sustainability, circular economy
- (possible) Lack of interest from the farmers and/or business sector
- Lack of awareness raising and field trainings/workshops/seminars
- (possible) Reluctance to innovative and modern technologies and products
- Lack of financial support schemes / foreign investments
- Non-existing policy frameworks or non-compliance regulations



THANK YOU FOR YOUR ATTENTION

SDEWES-Skopje



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PROJECT PARTNERS



BioFuel Region™



CTA



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