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- Visegrad Group
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- Visegrad Fund
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ABOUT THE PROJECT



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- Visegrad Fund
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- Visegrad Group
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PROJECT PARTNERS



Partner No.1

VŠB TECHNICKÁ
UNIVERZITA
OSTRAVA



Leader



Wrocław
University
of Science
and Technology



Partner No.2



MISKOLCI
EGYETEM
UNIVERSITY OF MISKOLC



ABOUT THE PROJECT

VŠB TECHNICKÁ
UNIVERZITA
OSTRAVA



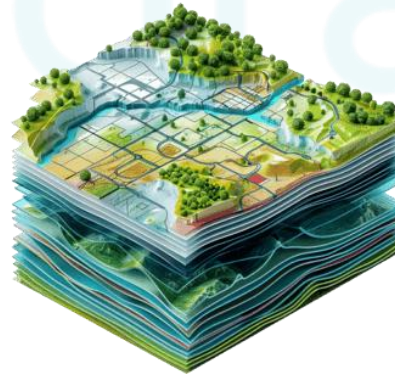
Wrocław University
of Science and Technology



MISKOLCI
EGYETEM
UNIVERSITY OF MISKOLC



Joint database



Map of waste streams in
the V4 region



Cooperation among
companies, local
authorities and research
institutions



TARGET GROUPS



Target Group	Description
TG1	Industry and municipal associations - reaching at least 10 people (only from V4 countries) in order to present the project, share its results, or establish cooperation within the project
TG2	Waste producers (agrifood plants, WWTPs, breweries) - reaching at least 20 people (only from V4 countries) in order to present the project, share its results, or establish cooperation within the project
TG3	Fertiliser companies/biofertiliser startups - reaching at least 15 people (only from V4 countries) in order to present the project, share its results, or establish cooperation within the project
TG4	R&D institutions (universities, institutes) - reaching at least 100 people (only from V4 countries) in order to present the project, share its results, or establish cooperation within the project



SPECIFIC RESULTS



Specific Result	Description
SR1	Open database and GIS map containing screening information on significant waste streams
SR2	A series of nine industry events : 3 conferences, 3 local workshops and 3 online B2B sessions
SR3	2 scientific JCR publications
SR4	Micro-pilot in Poland – preparation of a small batch of trial organo-mineral fertiliser based on selected local waste
SR5	EU roadmap and project proposal (ERA-NET/Horizon Europe)



DISSEMINATION AND FOLLOW-UP



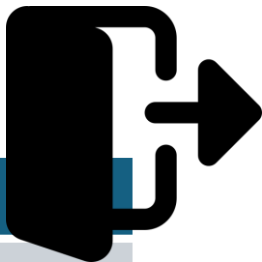
- Promotion of the project on social media
- Promotion of the project at conferences and other events
- Website update
- Joint project (ERA-NET/HORIZON Europe) proposal



<https://sites.google.com/pwr.edu.pl/v4-biowastelink>



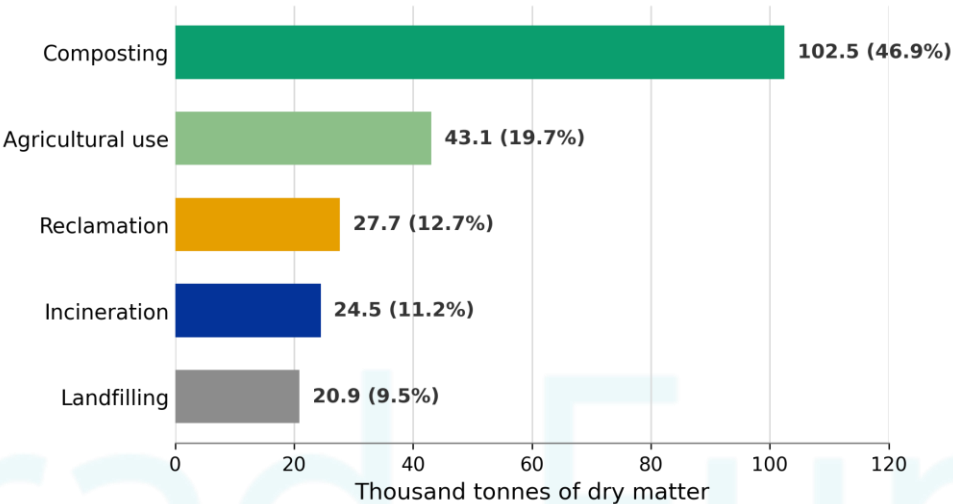
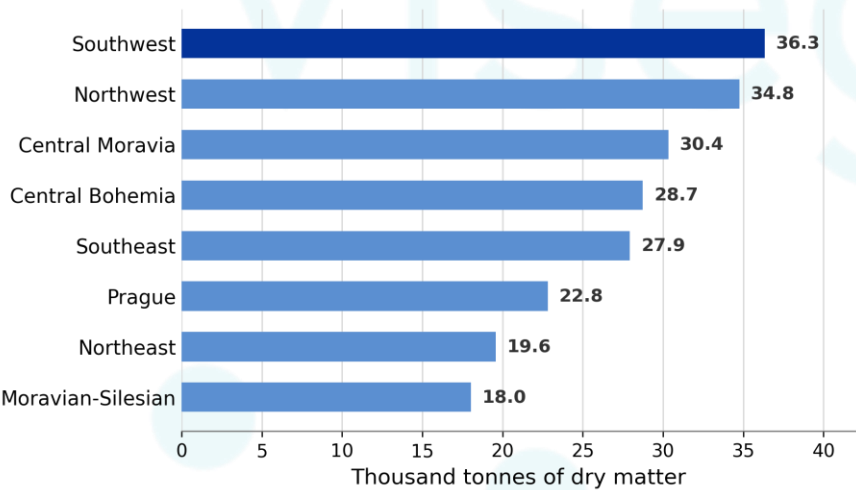
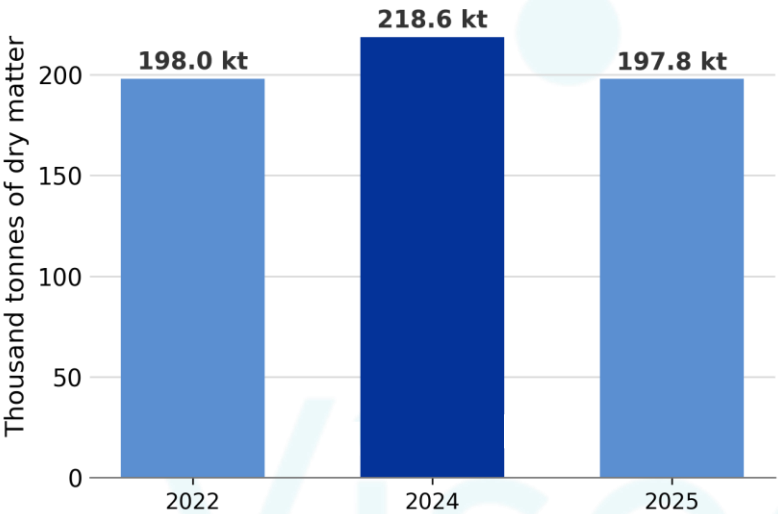
OUTPUTS



Output	Description
O1	Conference in Ostravice (CZ) as a part of the IEEC - EVENT
O2	Conference II in Karpacz (PL) as a part of the „Chemistry for Agriculture and Human Health” - EVENT
O3	Local workshop I in Wrocław (PL) - EVENT
O4	Conference III in Miskolc (HU) as a part of the microCAD Conference - EVENT
O5	Local workshop II in Miskolc (HU) - EVENT
O6	Local workshop III in Ostrava (CZ) - EVENT
O7	2 JCR publications - PRODUCT
O8	Open database and GIS map - PRODUCT



Sewage sludge in Czechia



2024 SUMMARY

Total production: 218.6 kt DM

Composting: 46.9% - the largest route.

Largest regions: Southwest, Northwest and Central Moravia.

The 2025 total returned close to the 2022 level.

Hungary – selected facility inventory

SEWAGE SLUDGE & DIGESTATE

ERV Kazincbarcika - 2.79 kt/y (R, 2022)
Szeged - 16.38 kt/y dewatered (R, 2024)
TETTYE - 190 kt/y sludge input (R)
Del-Pest - 27.3 kt dewatered (R, 2025)
Debrecen - >30,000 m³/y (R, 2021)
Biogas Miskolc - 28.7-35.9 kt/y (E)
Solti Biogaz - 15.656 kt/y digestate (R, 2021)

AGRI-FOOD RESIDUES

Sole-Mizo dairy sludge - 1.48-1.70 kt/y (E, wet)
Hungrana starch sludge - 0.84 kt DM/y (R)
Magyar Cukor lime sludge - 40 kt DM/y (E)
Equivalent product mass: about 61.5 kt/y at max. 35% moisture
These streams differ strongly in composition and legal status.

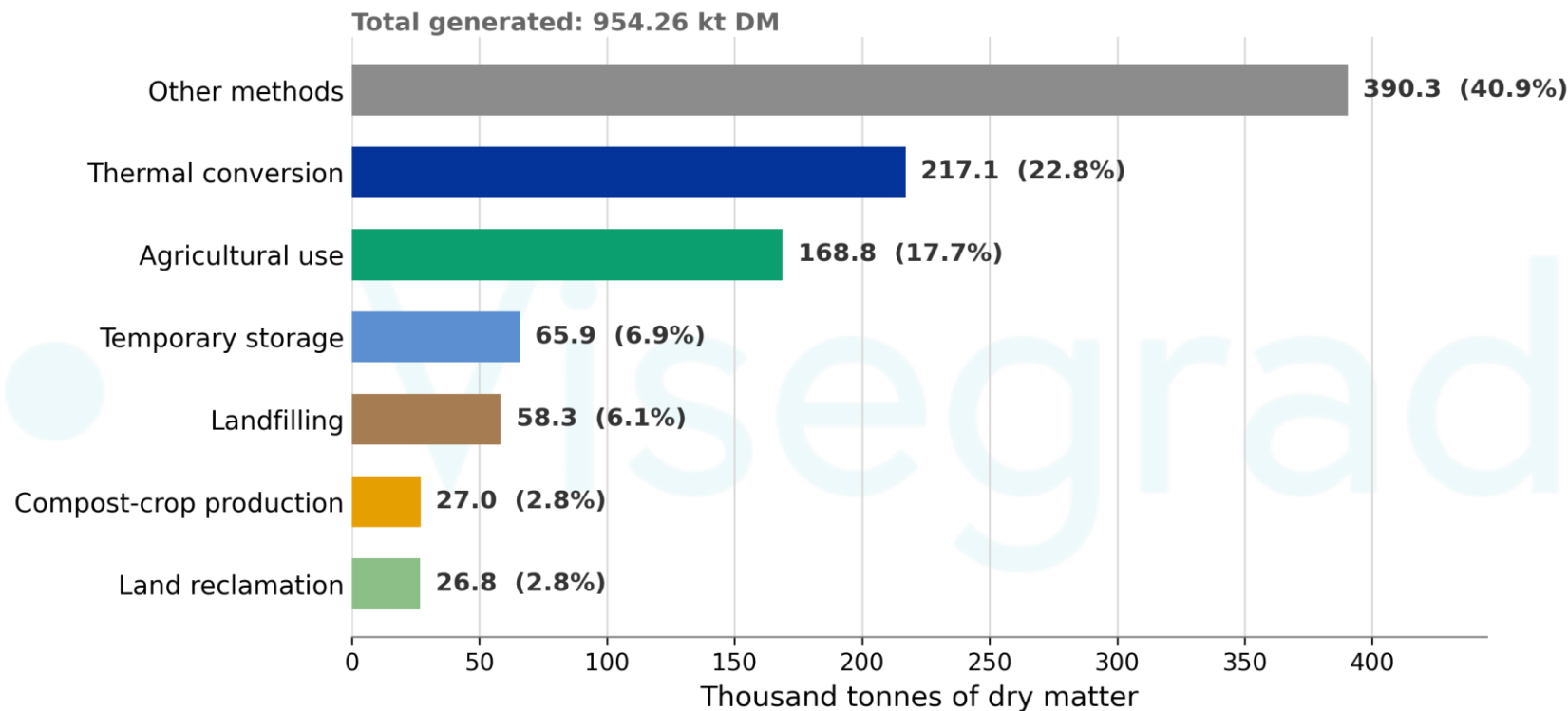
BIOMASS ASH

Ajka Power Plant - 12-18 kt/y ash (E)
MIHO Miskolc - 45-135 t/y ash (E)
*Ash values depend on assumed fuel ash content.
Facility verification is required before ranking.*

R = reported E = estimated



Sewage sludge in Poland



954.26 kt DM

Largest routes

- Other methods: 40.9%
- Thermal conversion: 22.8%
- Agriculture: 17.7%
- Landfilling: 6.1%

The broad “other methods” category needs further disaggregation.



• Visegrad Fund

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O1: CONFERENCE I – OSTRAVICE, CZ



07/09/2026 – 09/09/2026

The conference will be held as part of the **IEEC** – International Energy and Environmental Conference, which is one of the leading platforms for knowledge exchange in the field of environmental engineering and energy in the region. The project will host a **dedicated session** presenting the **V4-BIOWASTELINK objectives, early survey results, and the concept of the joint waste database and GIS map**. The event will link local stakeholders with cross-border partners, advancing the project objective of building a strong V4 cooperation platform for waste-to-fertiliser pathways aligned with EU regulations.



O2: CONFERENCE II – KARPACZ, PL



22/11/2026 – 24/11/2026

The second conference will be embedded in the well-established “**Chemistry for Agriculture and Human Health**” event in Karpacz, Poland, which attracts scientists, fertiliser industry representatives, policymakers, and farmers. The project’s **dedicated session** will showcase **ongoing results, including updates from the joint GIS database, preliminary matchmaking experiences, and insights from the Polish micro-pilot**. The event will also serve as a platform for engaging a wide audience in discussions on fertiliser innovation and for collecting feedback that will inform the upcoming workshops and EU Roadmap activities. **One month before the conference the first online B2B session will take place.**



O3: LOCAL WORKSHOP I – WROCŁAW, PL



25/11/2026 – 27/11/2026

The first local workshop will take place in **Wrocław (PL)**, targeting **regional waste producers, local governments, and fertiliser companies**. The workshop will focus on identifying local waste streams, practical aspects of waste valorization for fertilisers and on feeding data into the joint database and GIS. It directly supports the project's objectives of strengthening local participation and providing SMEs and municipalities with opportunities to connect with science and industry. One month before the Local workshop I the first online B2B meeting will take place. About **four months after the Local workshop I the second B2B meeting will take place.**



O4: CONFERENCE III – MISKOLC, HU



27/05/2027 – 28/05/2027

To be confirmed!

The conference will be embedded in the **annual microCAD Conference** at the University of Miskolc, one of Hungary's leading academic-industry events. The event will allow the **progress of the V4 BIOWASTELINK project to be presented to a wide audience**. A key element will be a session dedicated to the use of waste streams in fertiliser production and the **presentation of data collected in the database and GIS**. The conference will also provide an opportunity to discuss the safety and energy efficiency aspects of the processes.



O5: LOCAL WORKSHOP II – MISKOLC, HU



29/05/2027 – 31/05/2027

To be confirmed!

The second local workshop will be held in **Miskolc (HU)**, with participation from **local governments, waste producers, and R&D institutions**. It will focus on **integrating Hungarian data into the common GIS platform and database**, and on **showcasing thermochemical and biochar-based solutions** for waste valorization. The workshop supports the project's objective of providing a regional, comparable evidence base and fostering cross-border exchange of practices. **One or two months after the Local workshop II the third B2B session will take place.**



O6: LOCAL WORKSHOP III – OSTRAVICE, CZ



06/09/2027 – 08/09/2027

To be confirmed!

The third local workshop will be held in **Ostrava (CZ)**, engaging **municipal representatives, waste producers, SMEs, and academic experts**. The focus will be on **sharing data for the V4 database and GIS map**, and **exploring collaboration opportunities between industry and science**. The workshop provides a direct platform for dialogue at the local level and contributes to the project's objective of building an evidence-based matchmaking channel across the V4 region.



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UPCOMING OUTPUTS



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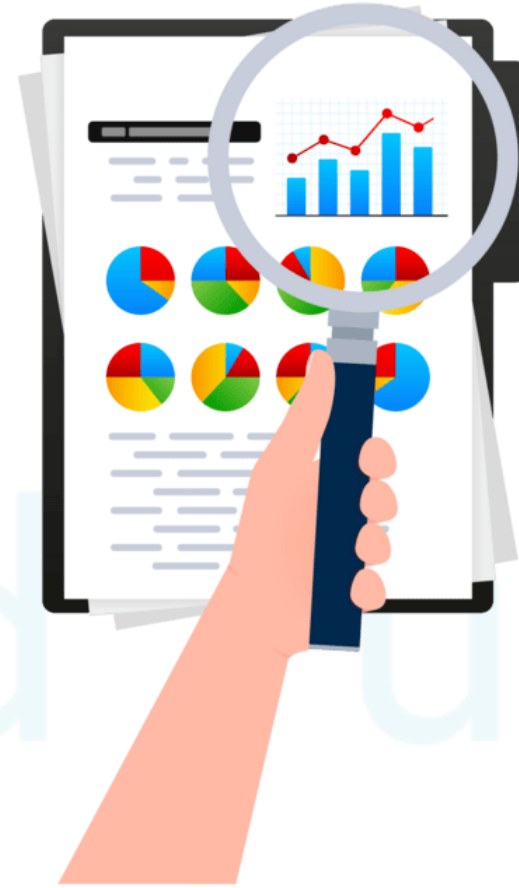
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O7: 2 JCR PUBLICATIONS



1st publication – review paper summarizing the potential of organo-mineral fertiliser based on waste streams in the V4 region



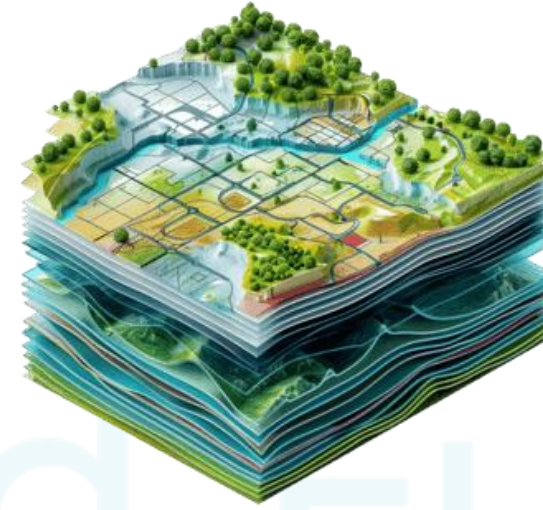
2nd publication – presenting original results from the project, including GIS-based data, matchmaking findings and insights from the Polish micro-pilot



O8: OPEN DATABASE AND GIS MAP



Open-access database



Interactive GIS map

An **open-access database** and interactive **GIS map** will be developed to **collect and present information** on **waste streams and stakeholders** across the **V4 region**. The platform will include **data on plant locations, seasonality, pre-treatment methods, available raw materials, and relevant contacts**, while ensuring GDPR compliance. It will provide a shared evidence base to address fragmented national datasets and support SMEs, local governments, and fertiliser producers in developing EU-compliant fertilisers and new partnerships.



OPEN DISCUSSION



• Visegrad Group

• Visegrad Fund

V4-BIOWASTELINK

From regional feedstock to regionally used,
EU-compliant fertilisers

V4 Grant No. 22530372

Implementation period: 01/04/2026 – 30/09/2027

Participants: Wroclaw University of Science and Technology (Poland),
Technical University of Ostrava (Czechia), University of Miskolc (Hungary)



• Visegrad Fund

• Visegrad Group