



Food and Agriculture  
Organization of the  
United Nations

# European and Eurasian Soil Laboratory Network EUROSOLAN

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# EUROSOLAN



- Development and strengthening of the integration of the **National Soil Laboratory Networks** (NASOLANs) or **National Reference Laboratories**
  - various forms of experience exchange, trainings, interlaboratory testing, provision of internal reference materials, establish regional reference soil samples archive
  - A systematic harmonization approach needed to use the data available at the European scale
- Presenting GLOSOLAN's SOPs and EUROSOLAN's activities to EU projects
- To position these networks as influential contributors to **European soil health policy and research**
  - soil data are not always comparable across regions and countries and also not easy to integrate at the EU scale
  - need to establish standardized indicators through standardized methods and proven practices
  - improve data quality for AI applications

# The Role of EUROSOLAN in Supporting the European Soil Partnership (ESP)

One of the main objectives of the ESP is

- to support other European soil-related activities through transparent communication and summary of outcomes

**EUROSOLAN contributes to ESP objectives by enhancing soil analysis and capacity building across European and Eurasian soil laboratories.**

**Regional Soil Laboratory Networks (RESOLANs) play a crucial role in downscaling efforts, aligning with the proposed EU Soil Law and soil health monitoring frameworks.'**



# Keeping soil analysis aligned with emerging standards



## Ensuring up-to-date methods

- Collaborate with National Reference Soil Laboratories to integrate the latest soil health indicators.

## Strengthening partnerships

- Work with national and regional soil programs and projects to enhance soil monitoring efforts.

**For example:** prioritize the parameters specified in the EU soil monitoring law and make them comparable with ISO or CEN standards for environmental monitoring in EU

# Key actions for advancing soil analysis and monitoring EUROSOLAN contribution



## **Ensuring accuracy and quality**

- Implement **calibration protocols** and **data quality control** measures.
- Ensure compliance with **environmental regulations**.

## **Capacity building and training**

- Develop **EU-specific** or **region-specific training programs**.
- Organize trainings, meetings, and conferences to share knowledge.

## **Scientific collaboration and adaptation**

- Actively collaborate with **research institutions and networks**.
- Adapt soil analysis methods to **regional soil variability**.
- Publish findings in **research journals** to support scientific advancements.

## **Engagement in policy and standards**

- Participate in **policy discussions** on soil monitoring and regulation.
- Align with **EU and international soil standards**.

# Examples of the NASOLANs activities



## **BESOLAN (Belgium and Luxemburg Soil Laboratory Network)**

- Determination of the clay content of soils | 25 June 2024
- Webinar to present an overview of the various methodologies used to determine clay content of soils, including traditional techniques and the alternative methods
- Over 300 participants



# BESOLAN (Belgium and Luxemburg Soil Laboratory Network)

## Soil health assessment affected by military activities

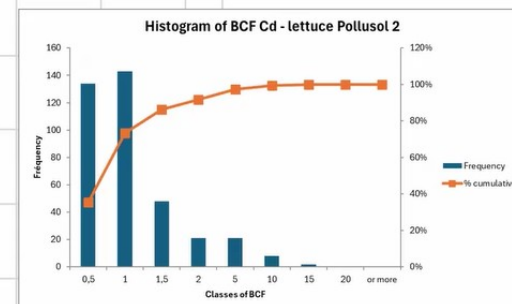
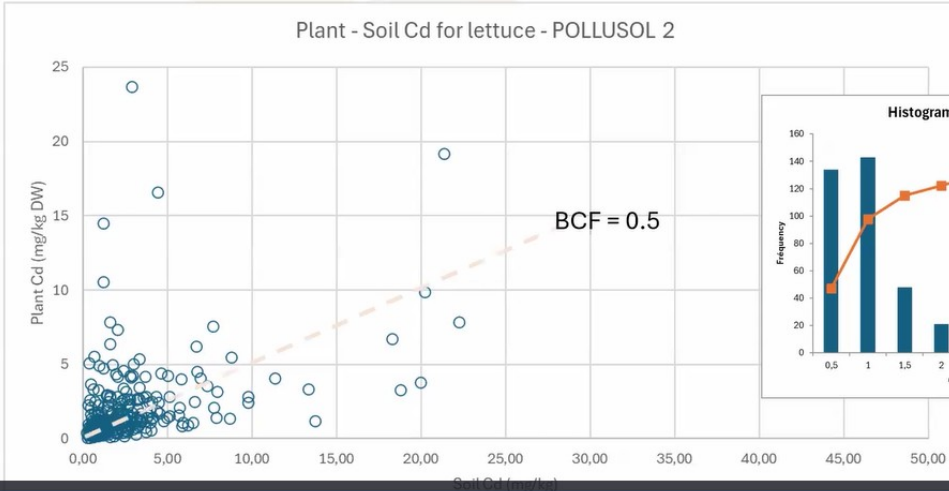
Training of 25 lab technicians from Ukraine in Belgium on the analysis of pollutants derived from military activities (started on October 2024)

Who can see your viewing activity? X

### Models : Case study

Plant – soil relationship : Case of Cd for lettuce

Plant - Soil Cd for lettuce - POLLUSOL 2

$$BCF = [Cd]_{\text{plant}} / [Cd]_{\text{soil}}$$


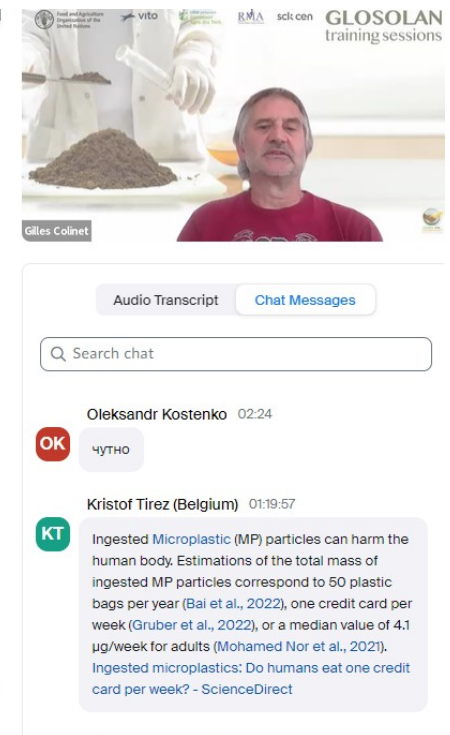
BCF = 0.5

Frequency

% cumulative

Classes of BCF

GLOSOLAN



GLOSOLAN training sessions

Gilles Coinet

Audio Transcript Chat Messages

Search chat

Oleksandr Kostenko 02:24

чутно

Kristof Tirez (Belgium) 01:19:57

Ingested Microplastic (MP) particles can harm the human body. Estimations of the total mass of ingested MP particles correspond to 50 plastic bags per year (Bai et al., 2022), one credit card per week (Gruber et al., 2022), or a median value of 4.1 µg/week for adults (Mohamed Nor et al., 2021). Ingested microplastics: Do humans eat one credit card per week? - ScienceDirect





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# Thank you



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