



# Circular economy for biodiversity Unlocking the green potential

*Skills for sustainable,  
resilient, and socially  
fair communities*

**EUROPEAN  
YEAR OF  
SKILLS**

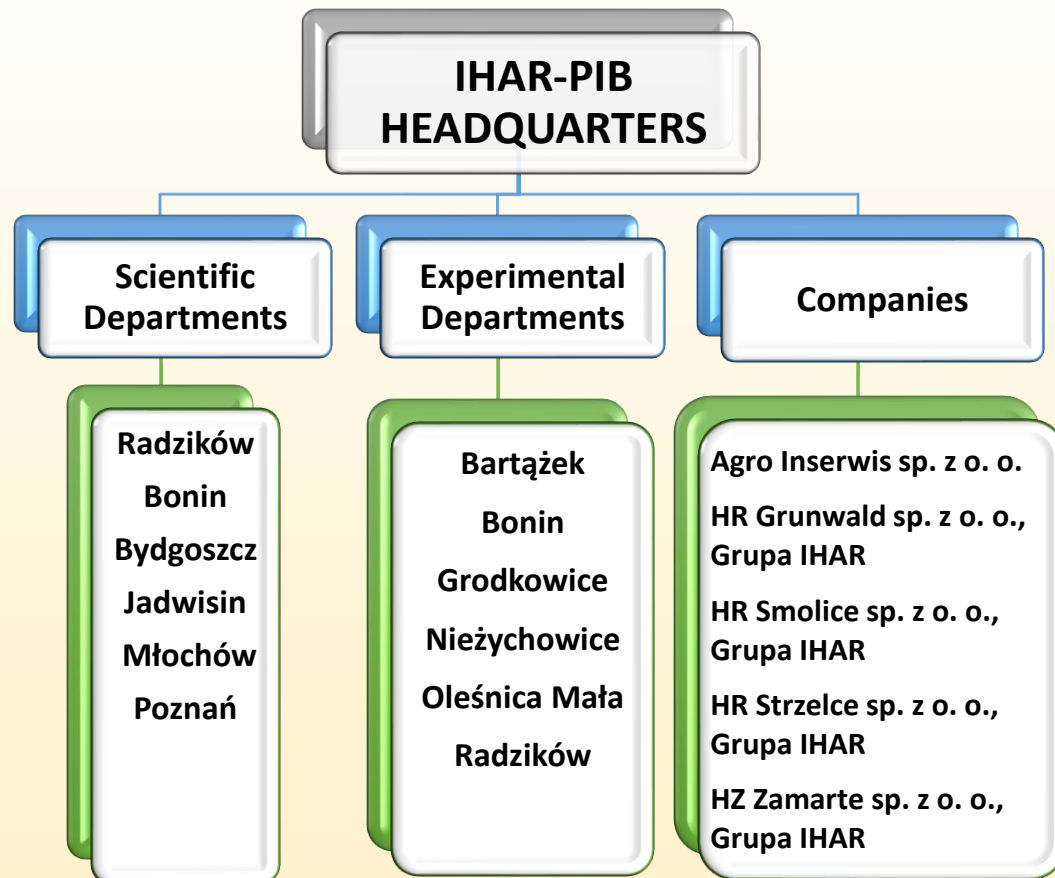


3-11 June 2023

**#EUGreenWeek  
PARTNER EVENT**



# Plant Breeding and Acclimatization Institute National Research Institute (IHAR-PIB)



Total area: **17 000 ha (14 000 ha – harvesting area)**

Number of employees: **365**

Number of scientists: **88**

# Challenges



# IHAR-PIB: research



- Genetics and breeding of crop plants
- Plant resistance to biotic and abiotic stresses;
- National Center for Plant Genetic Resources (KCRZG);
- Accredited GMO Control Laboratory (LKGM0);
- Monitoring the important pathogens and pests of crop plants in the country;
- New technologies and techniques of seed material storage;
- Evaluation of variety progress, economics of breeding and optimization of seed production of cultivated plants.



# Infrastructure

- Fields
- Greenhouses, growth chambers
- Phytopathology labs
- Molecular biology labs
- Biochemistry labs
- Quarantine lab & greenhouse
- Plant pathogens strain collections



# Gene bank: preserving biodiversity

## National Centre for Plant Genetic Resources

### Infrastructure

- Long-term storage (**80 000 accessions**)
- Potato in vitro collection
- Herbarium
- Databases: EGISET (**90 000 accessions**)
- Botanical garden in Bydgoszcz



# Gene bank: preserving biodiversity

**Collections:** crops, vegetables, fruit trees, berries, ornamentals, crop wild relatives, wild plants

Ex-situ and in-situ preservation

Collection expeditions

Evaluation of phenotypes and genotypes

Material distribution

Research & education

## National Centre for Plant Genetic Resources



# IHAR-PIB: Expertise

**Keywords:** crop plants, genetic resources, plant genetics, breeding, biotic & abiotic stresses, agroecology, new materials, biomass/energy,

## Running/completed international projects:

**H2020 AGENT:** Activated GEnebank NeTwork – AGENT

**H2020 ECOBREED:** Organic breeding – Increasing the competitiveness of the organic breeding and farming sectors

**H2020 Increase:** Intelligent Collections of Food Legumes Genetic Resources for European Agrofood Systems

**Norway Grants DivGene:** Diversity analyses of key genes involved in interaction between potato and *Phytophthora infestans* (coordination)

**H2020 G2P-SOL:** Linking genetic resources, genomes and phenotypes of Solanaceous crops

**H2020 RustWatch:** A European early-warning system for wheat rust disease



# Topics and calls of interest



## **Biodiversity and ecosystem services**

(Crop wild relatives for sustainable agriculture 2023)

Invasive alien species

Promoting pollinator friendly farming systems (breeding)

Promoting minor crops in farming systems

## **Fair, healthy and environmentally-friendly food systems from primary production to consumption**

Climate change and food safety: effects of climate change on food safety across food systems

EU-African Union – towards climate-neutral, social just fair trade food systems

Tools to increase the effectiveness of EU import controls for plant health

## **Land, oceans and water for climate action**

Improving irrigation practices and technologies in agriculture

...

# Contact details

Plant Breeding and Acclimatization Institute (IHAR) - National Research Institute

<https://ihar.edu.pl/en>

Director: Dr. Michał Rokicki

Radzików

05-870 Błonie

tel. +48 22 725 36 11, 733 45 00

fax +48 22 725 47 14

Prof. Jadwiga Śliwka [j.sliwka@ihar.edu.pl](mailto:j.sliwka@ihar.edu.pl)

+48 22 729 9248

