



# WG-8 Inclusion & Representation

## 1<sup>st</sup> Annual Report

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# WG-8 / *this year in action*

Focused on:

expanding Action community

enhancing inclusivity

improving collaboration with industry

**3**

Meetings

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**11-16**

Attendees

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**52**

Members

Targeted Efforts In

# Community Expansion

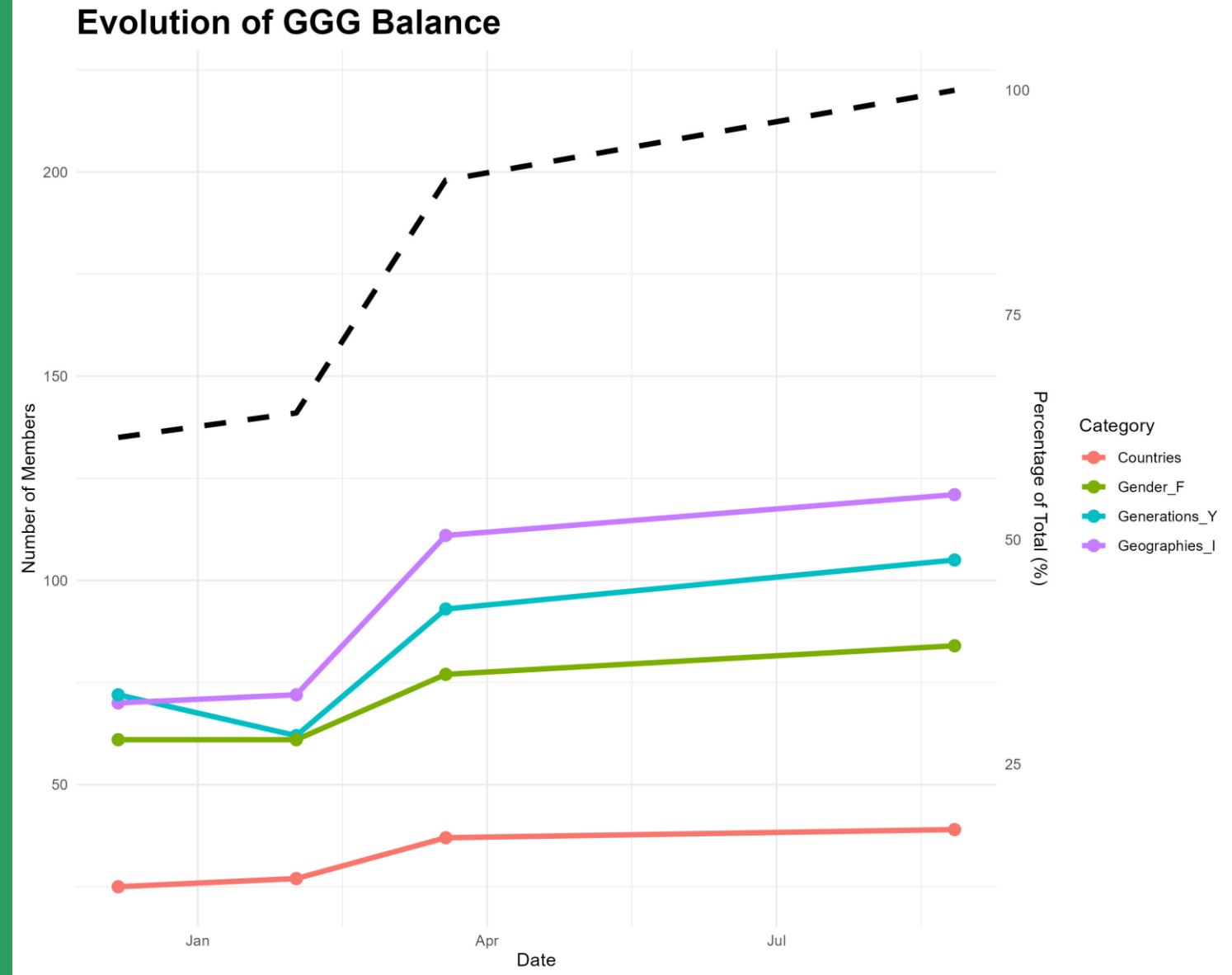


- Underrepresented regions (including those from Asia, Africa, and America where insects are a part of the diet) and stakeholders across different research fields.
- Specialist teams to attract individuals working with Honey Bees, Black Soldier Flies, Yellow Meal Worms, and Super Worms.
- Standard Invitation Letter to be distributed among potential Action members.
- Spreadsheet to track and follow up the individuals we got in contact with.
- ITC Conference Grant announcements communicated with EurBee and COLOSS networks.

# Awareness & Monitoring

Currently (n=220, 39 countries)

- 84 female members (38%)
- 105 young researchers and innovators (48%)
- 121 members from inclusiveness target, near neighbour, or other developing countries (55%)



# Industry Collaboration

- Bridge the gap between academia and industry & ensure knowledge transfer in both ways
- Recommend tandem speeches during workshops and online events
- Introductory material for inclusion in the German Agricultural Society (DLG) International Newsletter, aiming to attract potential industrial partners
- Four meetings with four companies to discuss their potential participation in the Action

## Insect-IMP: New International Initiative for Advancing Insect Breeding and Genetic Improvement



The global population is expected to grow to 10 billion by 2050, increasing demand for food, specifically protein. Insect farming can significantly affect global food security by reducing environmental footprints and improving sustainability. However, it currently relies on insect populations whose genetics are poorly understood and not necessarily bred or fit for purpose. Understanding the genetics of large livestock species has made a big difference in advancing farming systems. Still, little effort has been put into breeding programs that would ensure the genetic improvement of insect species. With the continuous scale-up of insect farming systems, there is a rising need to coordinate research efforts in insect breeding and genetics.

To address this challenge, experts and professionals interested in sustainable insect breeding first met in September 2023 in Brussels to kickstart an interdisciplinary collaboration. The network forms the **Insect-IMP Action** funded by COST. COST Actions are collaborative research networks funded by the European Cooperation in Science and Technology (COST) program for addressing scientific, technological, or societal challenges. A fresh network for innovation, Insect-IMP aims to facilitate communication, collaboration, and **knowledge transfer** within and across insect species. Another goal of the COST Action is **bridging the gap between academia and industry** to advance the field of breeding and genetic improvement of insects.

The Insect-IMP Action seeks to address challenges faced by the growing insect farming industry, where genetic improvement needs to catch up with the rapid pace of industry expansion. Objectives of the Action include:

1. Coordinating research efforts on genotyping and population structure.
2. Understanding mating behaviors and improving mating control in insect species.
3. Identifying the impact of community interactions on insect performance.
4. Defining breeding goals for genetic improvement in insect species.
5. Addressing challenges in phenotyping.
6. Assisting and improving models for genetic and genomic evaluation.

There are eight dedicated Working Groups (WGs) to fulfil these objectives. These eight WGs have already started their online meetings to set standards and provide impulses for progress in the agriculture and food sectors. Apart from online meetings, there will be three **in-person WG meetings** throughout the year: one in Novi Sad (Serbia), the other in Celle (Germany), and the first one in Ljubljana (Slovenia). Furthermore, an **Industry workshop** in May at the Insects Conference and a **thematic workshop** later in the year are being planned, where interested parties can meet the Action community.

As of mid-February, more than 160 representatives of academic institutions and industry partners **from 27 countries** joined the Action. Currently, the industry is represented by around 15 companies from the sector. Insect-IMP invites potential stakeholders besides researchers and innovators – from insect farmers and insect breeding companies to livestock, poultry, and aquaculture industries that might utilize insects as feed – to participate in the Action and its upcoming events to:

- Share their expertise and insights to address challenges in the field.
- Collaborate with researchers working on diverse insect species.
- Contribute to the development of best-practice recommendations for insect breeding.
- Foster communication between academia and industry.
- Participate in workshops, training, and collaborative efforts.

Insect-IMP network encourages participation from individuals at all stages of their careers and from diverse backgrounds, creating an inclusive environment to support the field's growth. Insect farming is a young industry; unsurprisingly, almost half of the Insect-IMP members are younger than 45. Moreover, the Action will support young voices from inclusiveness Target Countries as defined by COST. The four conference grants will **reimburse travel, participation, accommodation, and subsistence costs**. Moreover, the initiative will hold training schools during the next four years and fund short-term scientific missions for staff exchange.



1st Management Committee Meeting, Brussels, 2nd September 2023

### For more information about Insect-IMP contact:

- at DLG Prof. Dr. Nils Borchard (N.Borchard@DLG.org).
- Coordinator of Working Group II: Inclusion and Representation - Dr. Mari Kisker (mari.kisker@gmail.com)
- Action Chair - Dr. Gerje Pijpers (Gerje.Pijpers@wageningenur.nl)
- or visit the initiative's webpage.

Potential participants can use the link to apply for the working groups.

## Next Steps

# Not Yet Achieved



### Members (n=10)

Armenia, Cyprus, Georgia,  
Iceland, Ireland, Latvia,  
Luxemburg, Malta, Norway, and  
Ukraine



### Neighbours (n=9)

Algeria, Azerbaijan, the Faroe  
Islands, Jordan, Lebanon,  
Libya, Palestine, Syria, and  
Tunisia



### Webinar

on inclusiveness and resilience  
in bioeconomy

potential speakers from ***academia***

***Lotte Asveld –Delft Uni.***

***Andre Brasil –Leiden Uni.***

If you know someone from above please get in touch  
with me or them

# What the next?

- Bring all reports and presentations to publish a newsletter immediately after the MC meeting
- General announcements, grants, open positions, important news, upcoming events, project notices, research highlights, collaboration calls
- Introduce the 6 ITC Grantees on website once all the reports are received, Europe/Global grant, year-round open
- Collect potential STSM hosts and visitors
- Did have no face to face meetings in an ITC (Belgium, Germany, Italy), aim for at least one for each year





# Community Mapping

- Interactive World Map: to visualize and display membership (EuroFAANG)
- Simple Text Mining: to understand needs and track how the community evolves (yearly)
- 5 most relevant species/research keywords/publications related to Action (transfer to Knowledge Hub)
- «*How do you plan to use the knowledge generated/assembled via the Action?*» (stakeholders-> insights-> communication)
- SWOT Analysis (strengths, weaknesses, opportunities, threats) -inspired by the Cretan Workshop



# Native Language Science

- Science beyond English, overlooked knowledge generated in native languages

*A survey in 16 languages revealed that 36% of scientific documents on biodiversity conservation published were not in English<sup>1</sup>*

- Species of interest
- Languages/countries of interest (South & East Europe, Asia, Latin America, Africa)
- Topics/keywords of interest (genetic diversity, breeding, mating, phenotyping, gxexc)
- Enrich the Knowledge Hub by local publications

<sup>1</sup>Amano, T., González-Varo, J. P., & Sutherland, W. J. (2016). Languages are still a major barrier to global science. *PLoS biology*, 14(12).



# Knowledge Hub

- *Why?*

get to know and reach each others work

explore collaboration possibilities

contribute community building

pairing early-career researchers with experienced

young/ITC/disadvantaged voices better heard

- *What?*

resources, publications, datasets, relevant tools, protocols,  
best practices, webinars/seminars





# Thank you!

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