

A LARGE DATABASE ON FUNCTIONAL TRAITS FOR SOIL ECOLOGISTS: BETSI

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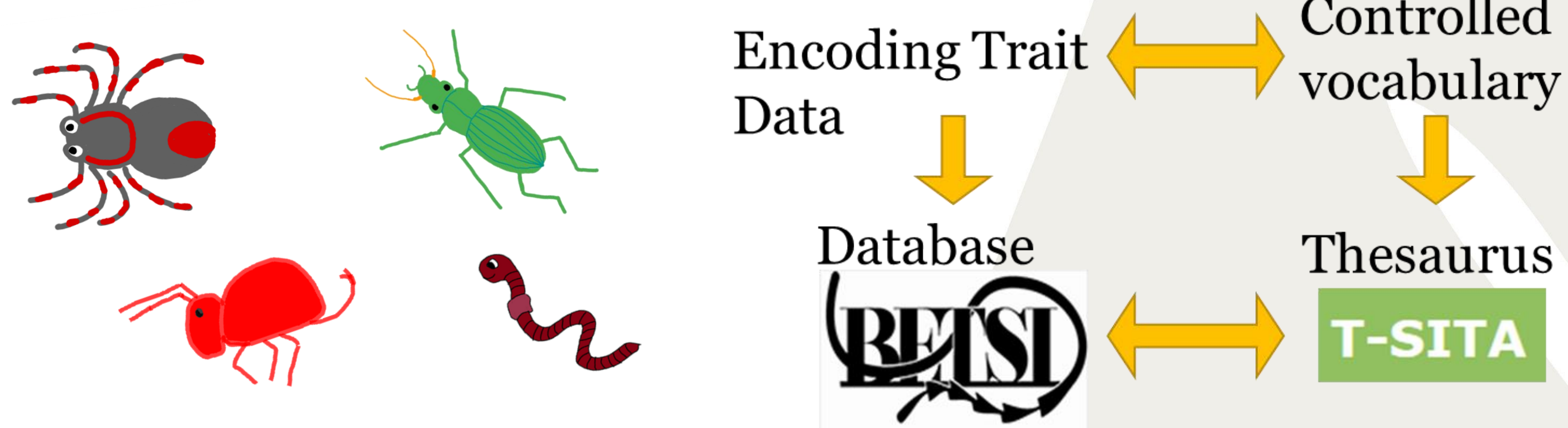
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INTRODUCTION

- **Functional approach** : understand how organisms interact, respond and affect their environment
- Growing interest and **need for data** integration and accessibility
- Many **databases** on various taxa's functional traits were created
- No single database gathered functional **traits of soil invertebrates** across taxonomic groups
- **BETSI**, a database dedicated to soil invertebrates' functional traits in Europe was created to fill this gap (Pey et al. 2014 a,b)

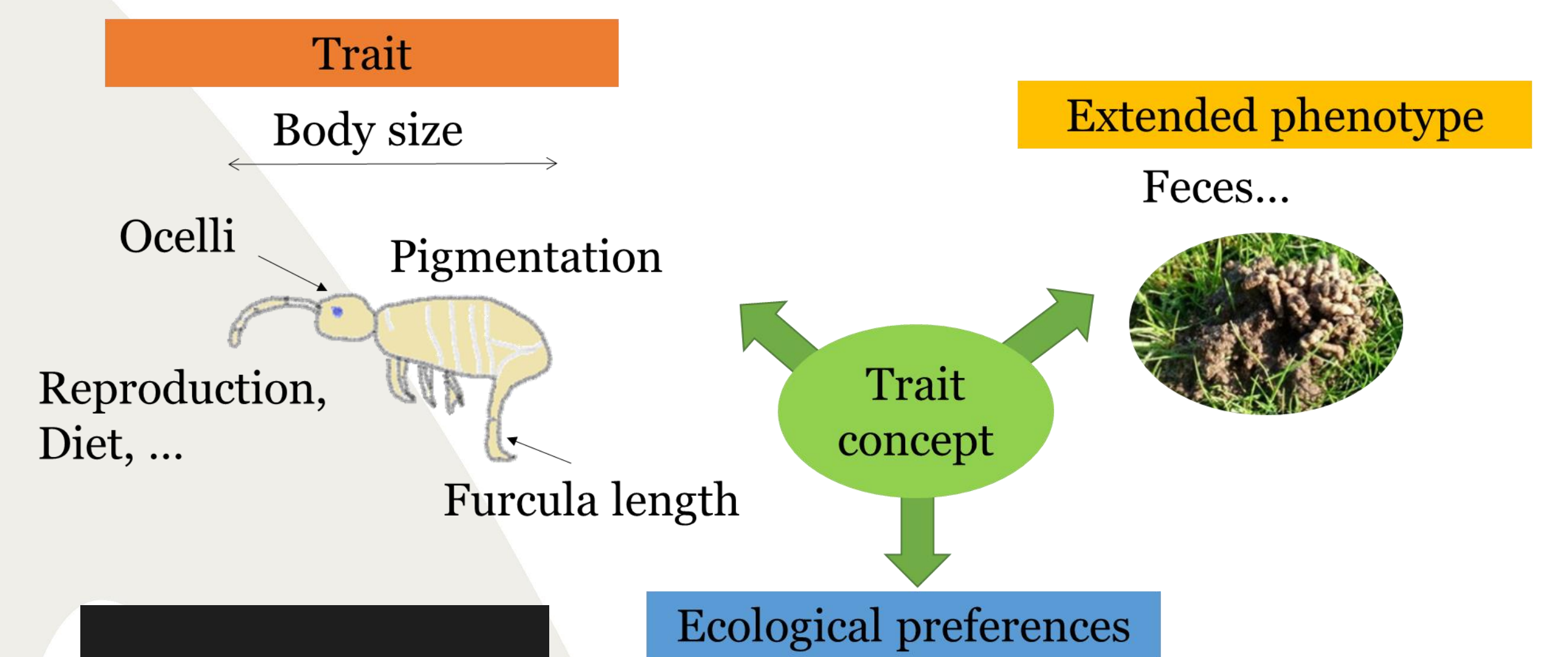
BETSI DATABASE FUNCTIONING

- Designed to host different types of trait data : **Harmonization**
- Open database

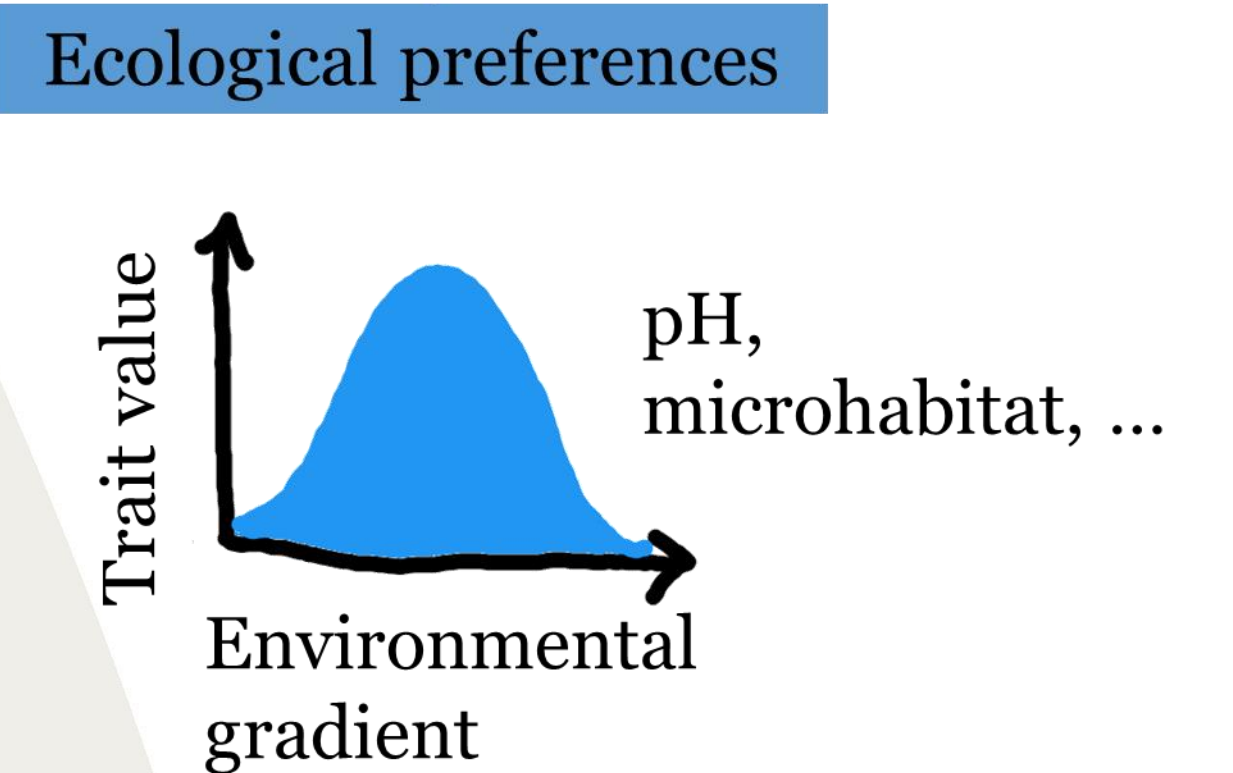


129 185 entries on **44 413 species**
156 traits coming from about **2000 references**
298 definitions for traits and ecological preferences

WHAT ARE « FUNCTIONAL TRAITS » ?



- Presentation
- Data exploration map
- Data request
- Contribute data
- Data template support
- Tutorial
- T-SITA
- Trait information scanning
- Copyright management
- Raw files

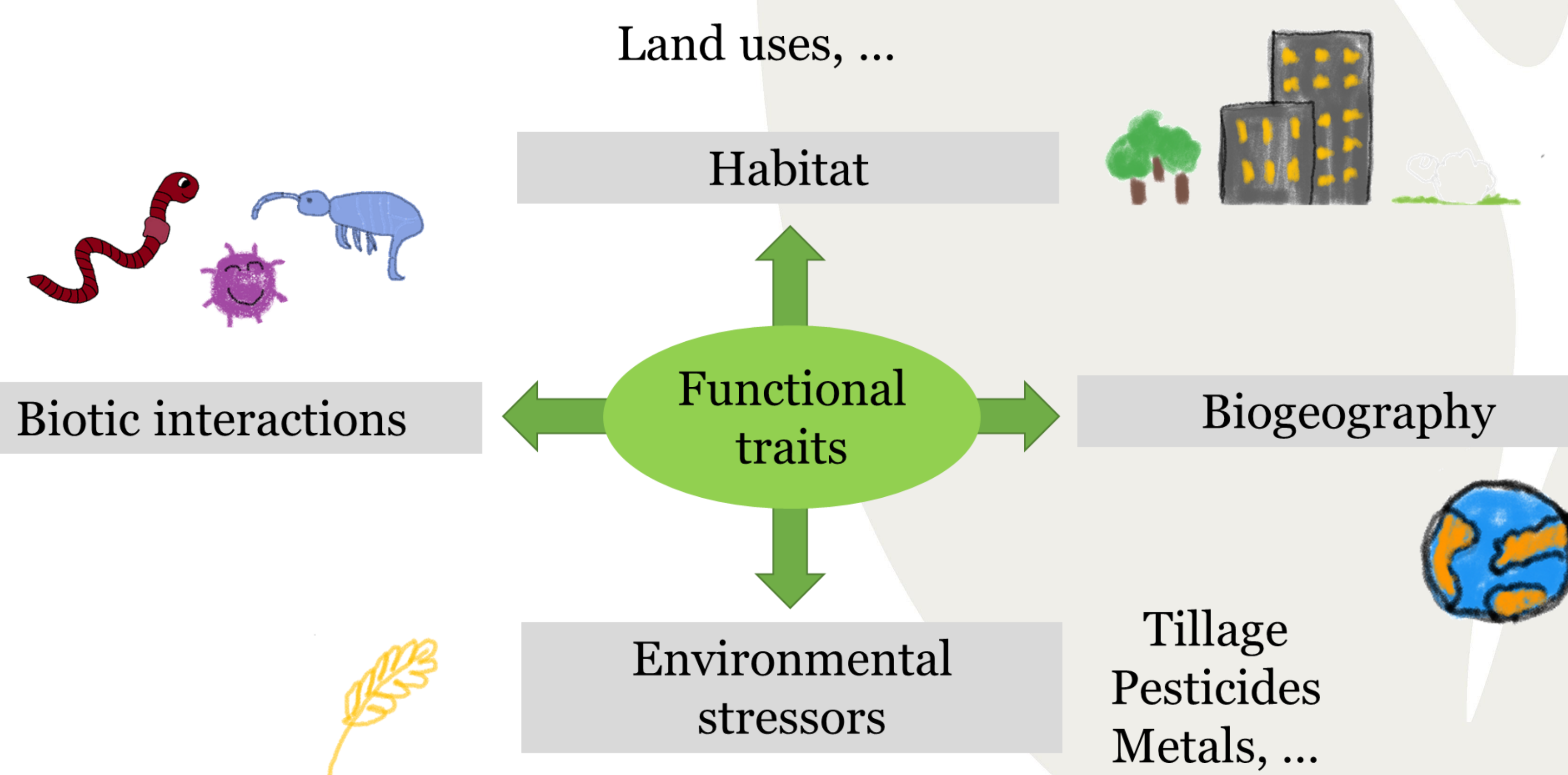
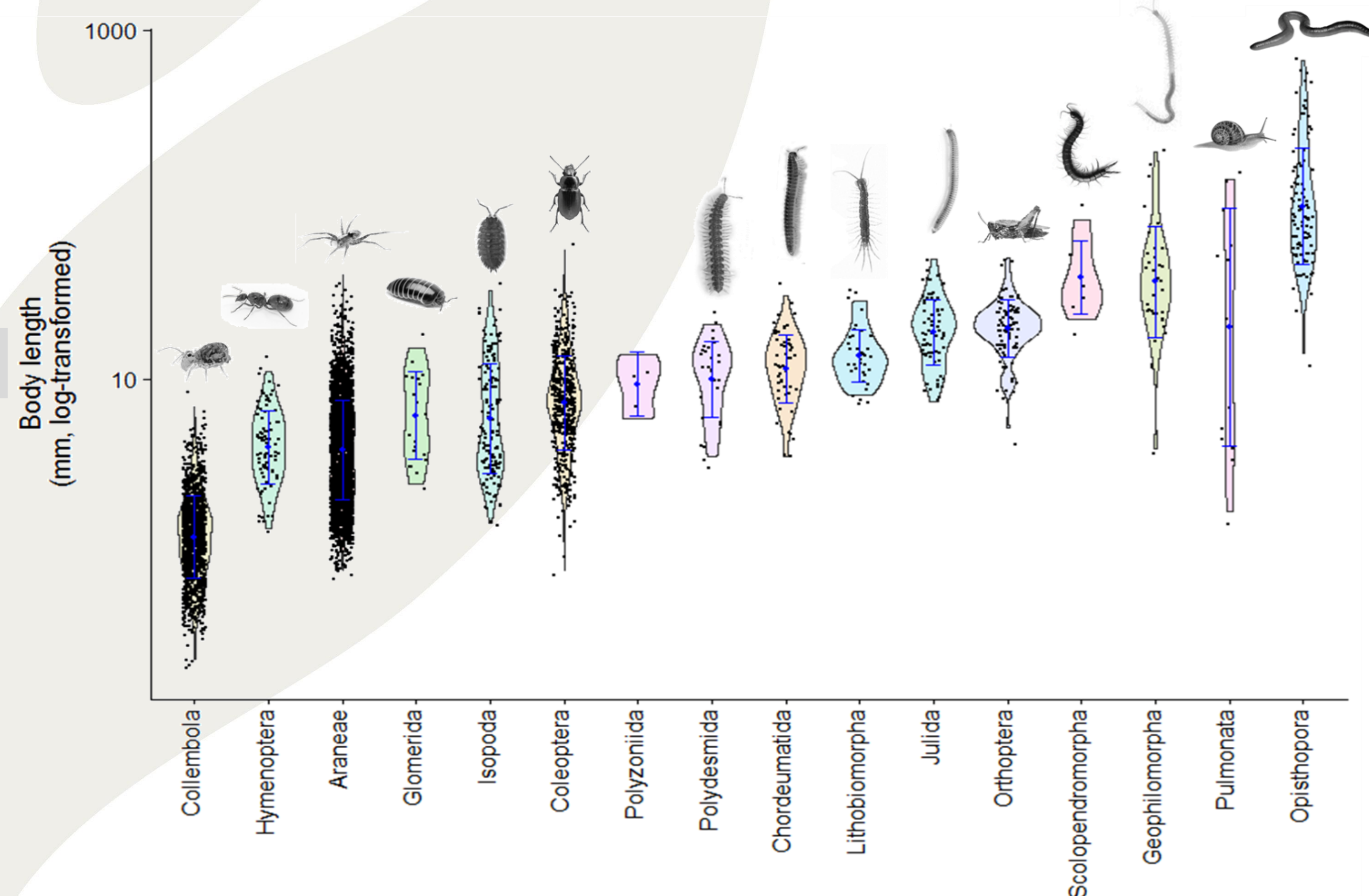


<https://portail.betsi.cnrs.fr>
 All the BETSI database content is public after a quick registration

CURRENT USES AND OPPORTUNITIES

- BETSI is supported by an international, open research network (www.reseau-tebis.fr)
- 20 articles and 4 PhD thesis conducted

Specie body length data in Betsi (Hedde et al. in prep)



(Bonfanti et al. 2018, Hedde et al. 2012, 2015, 2018; Pelosi et al. 2014, 2016; Joimel et al. 2018a,b,2019; Santorufo et al. 2015, Vincent et al. 2018 ...)

CONCLUSIONS & PERSPECTIVES

- BETSI: a collaborative and an interactive database
- Already offers great opportunities for trait-based approach in soil ecology
- Pan-European soil-biology data warehouse (Eudaphobase) will improve the potential of functional trait approaches to assess global soil biodiversity response to global changes

