



science and policy  
for a healthy future

# HBM4EU project

Objectives and research questions

Science and society

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### *1. Objectives*

*Policy oriented*

*Research oriented*

### *2. WP structure*

# *Objectives of HBM4EU Objectives and research questions*

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- Bridge the science-policy gap
- Answer policy relevant questions
- Track the efficacy of existing policies
- Enhance chemical risk assessment
- Generate evidence on human exposure to chemicals
- Understand impacts on health
- Make evidence available through the knowledge hub
- Make human biomonitoring data available via IPCHEM

A. Overall management, communication and sustainability

B. Responding to policy needs

C. Prioritise and harmonise across National Hubs

D. Understand link between exposure and human health

Source: Annex 7 of the HBM4EU project proposal

# Objectives for overall management communication and sustainability

1. Set up the management tools and processes including governance and advisory boards (via WP1);
2. Define the communication, training and IPR strategy as well as the tools to implement these strategies notably the project website and branding material (via WP2);
3. Put in place the procedures for internal calls, pilot a first internal call (via WP3);
4. Identify key actors, requirements and funding models for a sustainable HBM in Europe (via WP6).

# Objectives responding to policy needs

5. Map the needs of **policy makers and stakeholders** and to develop a framework with clear decision criteria to enable transparent decision making for the prioritisation of substances within HBM4EU (via WP4);
6. Establish a strategy for **deriving health-based HBM values** at European level (via WP5);
7. Propose EU adopted health based guidance values for **phthalates** and **bisphenols** (via WP5);
8. Develop a generic action plan for **policy uptake** of EHBM results (via WP5);
9. Define **outcome and impact indicators** for policy uptake of HBM4EU results (via WP5).

# Objectives to prioritise and harmonise across National Hubs

10. Identify **gaps** in terms of **data** for each substance group within the EU and start to develop harmonized strategies for recruitment, sampling and fieldwork (via WP7);
11. Start developing **quality assurance/quality control** procedures across National Hubs (via WP9);
12. Develop a data management plan, standardised operational procedures (SOPs) and associated support system (helpdesk) for **National hubs** (via WP10) and start making existing data available via **IPChEM**;
13. Develop SOPs and guidelines for adding health information to the HBM module and for the use of biological samples from **biobanks** (via WP11).

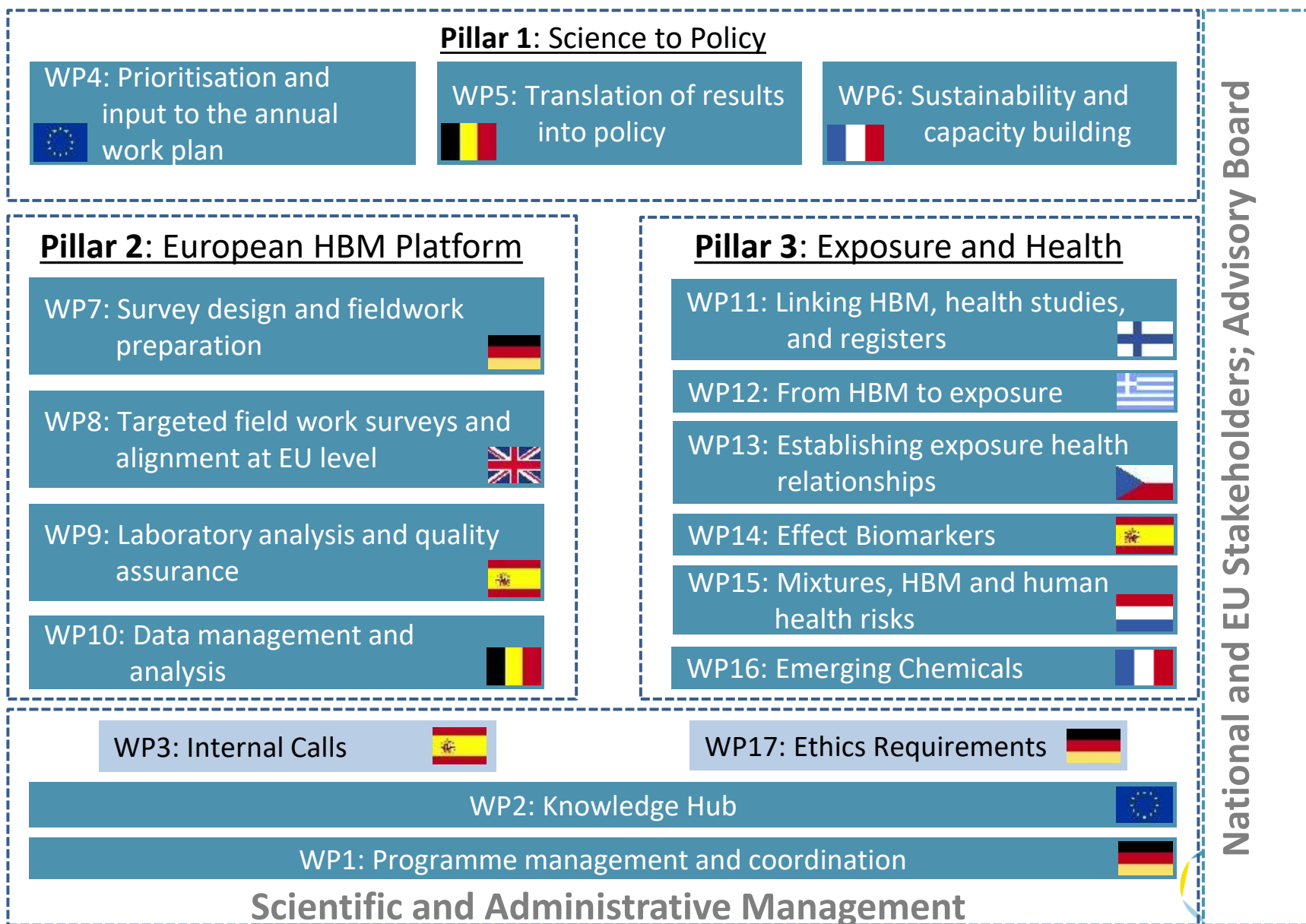
# Research objectives to better understand the link between exposure and human health

14. Apply the exposure reconstruction algorithm to the priority compounds and assess the appropriateness of state-of-the-art PBTK/TK models for **tissue dose assessment** in these compounds (via WP12)
15. Collect, organize and store data on the **effect of exposures on health outcomes** using mechanistic information for priority compounds and assess the exposures health relation using data from human cohorts, occupational studies, hot spots and other epidemiological studies for these compounds (via WP13)
16. Create an inventory of existing **biomarkers of health effect** relevant for the priority substances and linked to known or suspected Adverse Outcome Pathways (AOPs) and define criteria for **new biomarkers of effect** (via WP14);



# Research objectives to better understand the link between exposure and human health

17. Establish a list of relevant chemical mixtures and associated data a protocol for joint-studies to be carried out in the rest of the programme (via WP15);
18. Provide a framework for the identification of emerging chemicals of concern (both known/unknown) – via WP16
19. Collect cutting edge analytical approaches for the identification of new emerging substances (via WP16).



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## Speaker's information

Paul T.J. Scheepers PhD works as associate professor at the Radboudumc, Nijmegen, The Netherlands. He received training in toxicology and occupational hygiene. In HBM4EU he is responsible for training activities as task leader in WP2. He is a member of the ethics board in WP1.



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