HBM4EU NEWSLETTER

Newsletter n°4 - April 2019

HORIZON2020 Programme
Contract No. 733032 HBM4EU

What does it mean to be an ambassador for HBM4EU?

The task of the HBM4EU ambassador is described as follows:

'The Ambassador will strategically target key stakeholders, promote the impacts of the HBM4EU and work to secure commitment and resources for the development of a sustainable framework that can deliver a long-term initiative at European level.'

The HBM4EU initiative has succeeded in developing and establishing a broad collaboration between Commission services, European Union (EU) agencies and partner countries. It is building bridges across the science and policy domains, in order to inform the development of effective policy measures to reduce human exposure to harmful chemicals.

This ambitious task cannot be fulfilled within the five years the initiative is running. There is a need for sustained human biomonitoring activities to detect time trends in human exposure to chemicals. These can then be used to evaluate the effectiveness of political decisions to ban or restrict chemicals.

That is how I see my task as HBM4EU ambassador – to ensure that the human biomonitoring network established under HBM4EU becomes a long-term European programme. To achieve this, political commitment and strong engagement is needed from the partner countries, as well as effective collaboration with the EU institutions and agencies and access to the necessary funding.

A first step towards securing political commitment was taken during the Austrian Presidency of the Council of the EU. At the international conference "HBM in Europe – science and policy for healthy citizens" held in Vienna, Austria in September 2018, high-level attendees from the EU institutions and partner countries expressed strong and unanimous support for a long-term European human biomonitoring programme.

> To ensure sustainability, participants highlighted the need for a regulatory requirement for human biomonitoring under EU legislation.

Conference participants agreed that EU institutions should play a role implementing a sustainable programme, to ensure inclusive and transparent procedures and a swift uptake of human biomonitoring data in EU policy processes.

In this issue:

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At a Ministerial lunch debate on future priorities for REACH and the greening of the EU's chemicals policy organised under the Austrian Presidency on 20 December 2019, there was consensus regarding the need for a sustained continuation of the HBM4EU Initiative beyond 2021. All ministers who took the floor underlined the paramount importance of this instrument in evaluating the effectiveness of EU chemicals policy, as well as its valuable role as an early warning instrument. While emphasising their commitment as Member States, Ministers favoured embedding a future initiative in the EU institutional context, with sound financial support from the EU research budget.

To achieve this goal, many stakeholders need to be convinced that investment in and collaboration around human biomonitoring in Europe is essential to first understand and secondly reduce the exposure of citizens to harmful chemicals. It is one of my roles as ambassador to engage with a broad range of stakeholders and spread the message that human biomonitoring helps to protect human health in Europe.

Dr. Thomas Jakl, Deputy Director General, Federal Ministry Republic of Austria, Sustainability and Tourism

Federal Ministry
Republic of Austria
Sustainability and Tourism

The added value of human biomonitoring for exposure analysis and risk analysis at work

Human biomonitoring is a versatile and powerful means by which to assess individual exposure to chemicals. Since the early 1970s, it forms part of health examinations in occupational medicine, and is a well-established tool in occupational and environmental risk assessment. Furthermore, human biomonitoring is applied in industrial hygiene practice to assess the efficiency of health protection measures, in particular for substances that are readily absorbed across the skin or where oral uptake can be relevant, such as via hand-to-mouth contact or in dusty environments. Human biomonitoring is increasingly applied in population monitoring programmes such as the US National Health and Nutrition Examination Survey (NHANES), the German Environmental Surveys (GerES) and the Flemish Environment and Health Survey (FLEHS).

A number of concepts, limit values and assessment values have been derived in the last decades to facilitate interpretation of human biomonitoring data on the exposure of workers in industry. These include the biological tolerance values (BAT) of the German Research Foundation (DFG) and the biological limit values of the European Commission's Scientific Committee on Occupational Exposure Limits (SCOEL). One overarching principle is that these assessment values are derived for 8-hour exposure periods and 5-day working weeks, and aim (with some exceptions) at protecting against the adverse effects of chronic exposure to chemicals.

Human biomonitoring is particularly recommended for monitoring exposure to carcinogens and mutagens, chemicals with a skin notation, and substances with a long biological half-life (i.e. with the potential for bioaccumulation).

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Frequent examples of successful exposure reduction in response to alerts from human biomonitoring of workers have been presented in recent years, with human biomonitoring constituting a core tool for protecting workers' health.

The concepts and assessment values for occupational medicine and toxicology target 'the healthy worker', expected to be under periodic medical examination. They are not designed for the general population. In order to assess the exposure of the general population, toxicologically based assessment values or statistically derived reference values are set for the general population. The Human Biomonitoring Commission of the German Environment Agency (UBA) is active in this regard.

In implementing the REACH Regulation, the European Chemicals Agency (ECHA) recognizes human biomonitoring as an appropriate and useful tool for chemical safety assessment equivalent to other exposure data (e.g. air monitoring results), provided that certain prerequisites are met (ECHA, 2008)[1]. These include a comprehensive understanding of the human metabolism of a substance and of its toxicokinetics, in particular of the conversion factors between the absorbed dose and the concentrations of biomarkers in the target matrices.

In addition, the validity of human biomonitoring for exposure estimation strongly depends on sampling conditions (sampling time, transport/storage duration and temperatures, etc.) and the influence of individual factors (which, depending on the substance of interest, may include smoking behaviour, age, gender, country or residential area, potential for non-occupational exposures, etc.).

Another essential aspect of state-of-the-art human biomonitoring is the analytical quality control, ensured through the use of validated methods and standard operating procedures, as well as by quality control measures internal to the laboratory and (successful) participation in external quality assessment programmes.

Provided that the aforementioned information is available and that the quality requirements are met, human biomonitoring results can be linked to toxicologically derived assessment values, including limit values in air, derived no-effect levels (DNEL) or no observed adverse effect levels (NOAEL). Human biomonitoring results can thereby provide a powerful tool for health risk assessment.

Prof. Dr. Michael Bader, Vice President
Human Biomonitoring and Industrial Hygiene,
Corporate Health Management, BASF SE

BASF
We create chemistry

1 ECHA (2008) Guidance on information requirements and chemical safety assessment. Chapter R.8: characterisation of dose [concentration]-response for human health, European Chemicals Agency (ECHA), Helsinki

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Creating impact: using human biomonitoring results for policy making

In order for HBM4EU to deliver impact, we need policy makers, NGOs and industry to use our results in their efforts to deliver chemical safety.

To this end, a workshop held in Brussels in November 2019 created the space for a dialogue on available evidence on phthalates and bisphenols, how it might serve today's policy agenda and current knowledge gaps. Organised by the University of Antwerp and the European Environment Agency, the workshop brought together HBM4EU scientists and representatives of the European Commission, the European Chemicals Agency (ECHA) and the European Food Safety Authority (EFSA), and well as representatives of industry, business, environmental and health NGOs and national authorities.

While the debate on both phthalates and bisphenols has been ongoing for decades and regulatory actions have been taken on specific substances in both groups, important knowledge gaps persist. These include exposure levels in the European population, trends over time and differences between countries, needed for an evaluation of the effectiveness of EU and national regulations. Other gaps include sources of exposure and the impact of shifts to substitutes for both phthalates (i.e. Hexamoll® DINCH) and bisphenols (i.e. BPS and BPS) on exposure. The health implications of exposure should be better understood, including identification of effect biomarkers and adverse outcome pathways (AOPs). For phthalates, we need to understand the impact of combined exposure to mixtures of phthalates and other anti-androgenic compounds.

HBM4EU is tackling these knowledge gaps through a range of actions. The project has high scientific ambitions in terms of harmonising approaches, implementing consistent quality control and developing new methods to investigate exposure pathways and health impacts. At the same time, partners are eager to work with risk assessors and managers to produce data and develop tools that can advance their work, such as Human Biomonitoring Guidance Values and European Reference Values. The objective is to provide tools that can effectively serve regulators operating in the context of complexity, uncertainty and controversy that characterises chemicals policy making.

Workshop participants concluded that good practices should be developed and actively promoted to demonstrate the added value of human biomonitoring. The HBM4EU report on human biomonitoring in risk assessment is a good example of this. HBM4EU is working to ensure that outputs are aligned with regulatory needs in terms of who needs what knowledge when.

Looking forward, a clear role should be assigned to human biomonitoring in the regulatory process, as a tool for understanding human exposure to chemicals in Europe.

Dr. Ann Crabbé

Dries Coertjens

Centre for Research on Environmental and Social Change, University of Antwerp

Universiteit Antwerpen

A detailed report of the meeting will be published on the HBM4EU website (Deliverable 5.4). For more information, please contact ann.crabbe@uantwerpen.be and dries.coertjens@uantwerpen.be

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FOCUS ON MERCURY

Mercury in Europe's environment

In September 2018, the European Environment Agency published a report on 'Mercury in Europe's environment'. The report provides an overview of the environmental and human health risks presented by mercury. It identifies main uses and sources, outlines measures taken to protect citizens from the effects of mercury pollution, and highlights future challenges.

The persistence of mercury in the environment means that mercury released through human activities over thousands of years has continued to impact on our environment today.

Current levels of mercury in the atmosphere are up to 500 % above natural levels. In the oceans, the concentrations of mercury are about 200% above natural levels.

Mercury in our water bodies, including rivers, seas and lakes, presents the greatest risk as the highly toxic methylmercury is formed in this environment. Methylmercury finds its way into fish and other marine animals, from where it can then enter the human food chain.

The human health risks presented by mercury are also very well documented, with the most significant risk posed to foetuses and young children. The principal exposure route is consumption of fish that have taken up mercury over the course of their lifetime. Figure 1 provides an insight into mercury concentrations in fish caught in the Western Mediterranean.

Within Europe, the use of mercury has been banned in all major applications. The burning of solid fuels (coal, lignite and wood, all of which contain mercury and other metals) is the biggest current and expected future source of mercury releases into the environment.

Ongoing and increasing uses and releases of mercury outside of Europe also substantially influence mercury levels in Europe, with around 50 % of deposited mercury originating from outside Europe. Whilst European policy measures have been successful in substantially reducing mercury emissions within Europe, mercury will remain a priority pollutant for many decades to come.

In order to bring about substantial further improvements, it is likely that Europe will need to continue to take actions to support and influence worldwide reductions in mercury usage and emissions through, for example, the global Minamata Convention on Mercury.

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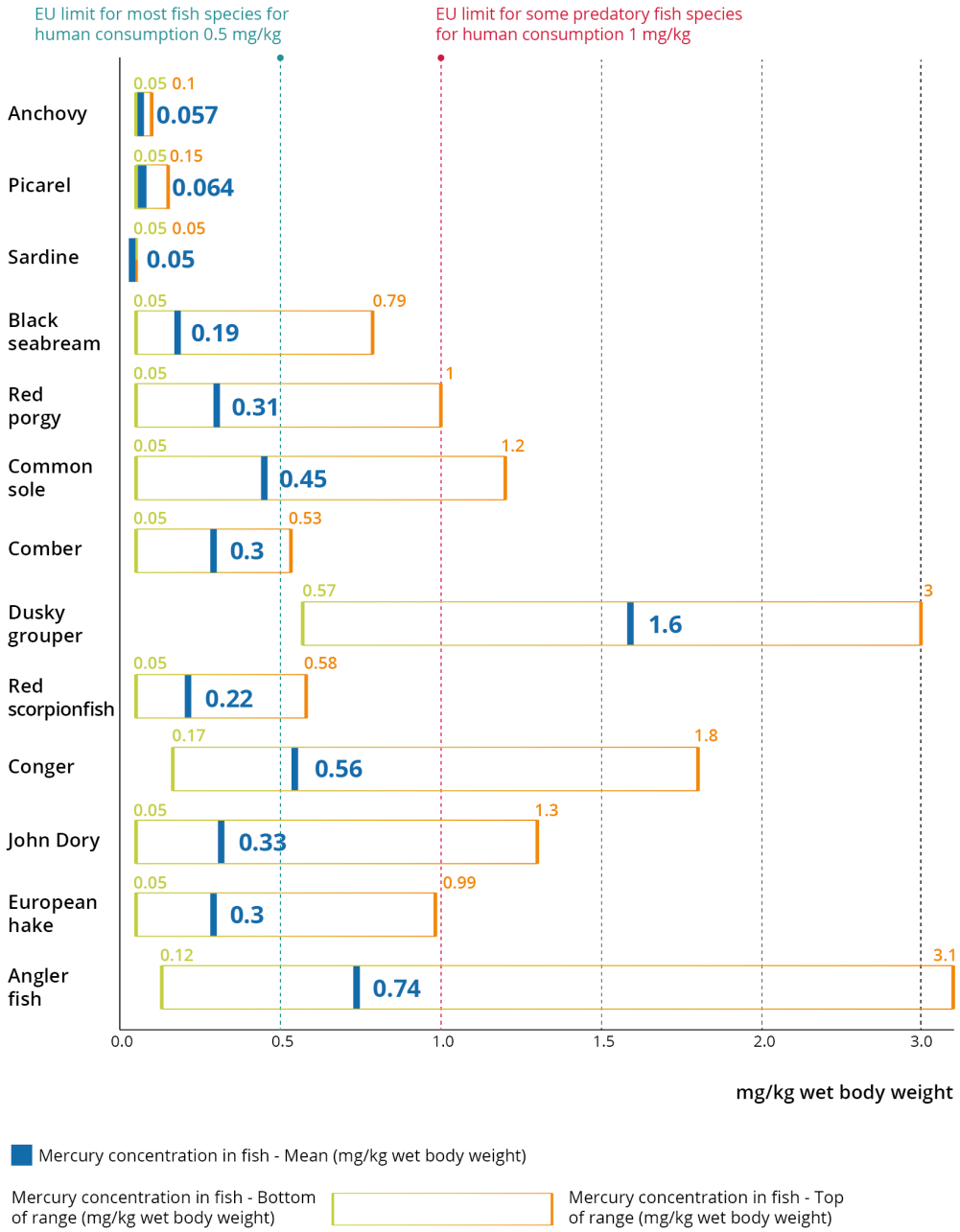
Figure 1: Mercury concentrations range in fish caught in the western Mediterranean



Note: For the fish species presented above, the higher European limit of 1mg/kg applies only to Angler fish.

Source: Llull, R. M., et al., 2017, 'Mercury concentrations in lean fish from the Western Mediterranean Sea: dietary exposure and risk assessment in the population of the Balearic Islands', Environmental Research 158, pp. 16-23.

Dr. Ian Marnane, Industry and Environment Expert, Health and Sustainable Resource Use Programme, European Environment Agency

25 1994-2019 European Environment Agency

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Human exposure to mercury and HBM4EU action

In 2018, mercury and its most toxic organic compound, methylmercury, were prioritized for monitoring and research under HBM4EU.

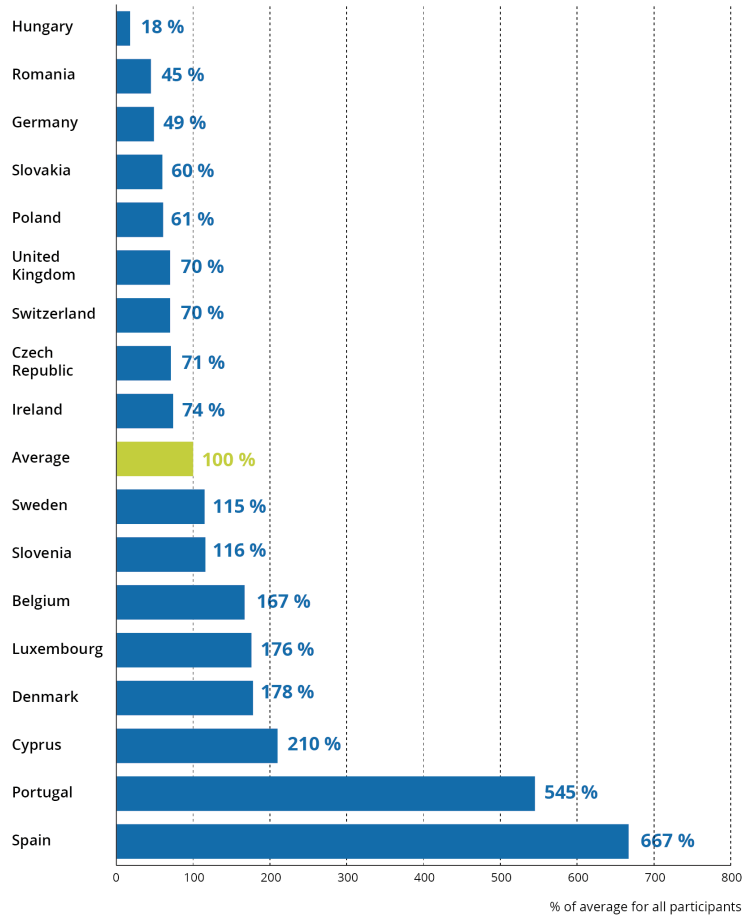
Societal concern regarding mercury is very high, with mercury featuring among the top chemical risks causing concern to European citizens[1]. Many international non-governmental organizations identify mercury as a priority pollutant that requires international action. Mercury is among the top ten chemicals of major public health concern according to the World Health Organization (WHO), while both mercury and methylmercury are in the Substance Priority List of the US Agency for Toxic Substances and Disease Registry.

While populations worldwide are exposed to some amount of mercury, there is great variability in exposure within and across countries and regions. Human exposure to mercury was measured in 17 European countries under the DEMOCOPHES project, by analysing hair samples from mothers. The results, presented in figure 2, indicate that women in countries with a higher average fish intake have higher mercury levels in their bodies. Spanish and Portuguese mothers had by far the highest levels, typically five to seven times above the average.

Although this dataset is valuable, only limited information is available for many geographic regions and subpopulations, hindering evidence-based decision-making. The sources and routes of human exposure also vary geographically.

1 European Commission, Special Eurobarometer 238: Risk issues; European Commission, Special Eurobarometer 354: Food-related risks

Figure 2: Mercury levels in the hair of mothers as a percentage of the Europe-wide average



Source: Based on data from the DEMOCOPHES project, as described in Den Hond, E., et al., 2015, 'First steps toward harmonized human biomonitoring in Europe: demonstration project to perform human biomonitoring on a European scale', Environmental Health Perspectives 123(3), pp. 255-263.

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HBM4EU will provide a better understanding of the actual exposure of European citizens to support the evaluation of current policies. The HBM4EU scoping document on mercury reviews current knowledge and policies, identifies knowledge gaps and outlines key policy questions. It also proposes future research activities that can address these gaps and questions.

A first step will be to collate existing human biomonitoring data on mercury in Europe and make them accessible via the Information Platform for Chemical Monitoring (IPCHEM).

Regarding exposure, HBM4EU aims to assess the current exposure of Europeans, including geographic variation, and identify determinants of exposure. An assessment of temporal trends is necessary to support an evaluation of the effectiveness of policies in reducing exposure.

In terms of methodological approaches, HBM4EU can promote harmonised methods and approaches for quality-assured human biomonitoring of mercury and refine available toxicokinetic modelling for risk assessment.

In terms of communication activities, HBM4EU will develop non-technical materials to communicate the risks of mercury exposure to lay people, as well as dietary recommendations for consumers, policy makers and health practitioners.

At a strategic level, HBM4EU will promote the use of human biomonitoring data on mercury to inform risk management actions at multiple administrative levels. At global level, the Minamata Convention on Mercury, which entered into force in 2017, demonstrates the global commitment to addressing mercury pollution. In the European Union, the Minamata Convention requirements were largely addressed by existing legislation. However, further measures were introduced in 2017 to strengthen the EU's mercury laws, going beyond the requirements of the Convention[1].

In order to explore how HBM4EU might contribute at international level, our Chemical Substance Group Leader for mercury, Dr Andromachi Katsonouri, presented HBM4EU activities on mercury to participants at the 2nd Conference of the Parties to the Minamata Convention, held in November 2018 in Geneva, Switzerland.

She also highlighted efforts to harmonize mercury biomonitoring in Europe under the COPHES and DEMOCOPHES projects, as an example of how human biomonitoring data can be used to assess spatial and temporal trends in mercury exposure. HBM4EU is now exploring possibilities for future collaboration with the Minamata Secretariat and WHO.

Dr. Andromachi Katsonouri – Sazeides, HBM4EU Chemical Group Leader for Mercury, State General Laboratory, Ministry of Health, Republic of Cyprus

REPUBLIC OF CYPRUS
MINISTRY OF HEALTH

ΓΕΝΙΚΟ ΧΗΜΕΙΟ ΤΟΥ ΚΡΑΤΟΥΣ
ΚΥΠΡΙΑΚΗ ΔΗΜΟΚΡΑΤΙΑ
STATE GENERAL LABORATORY
REPUBLIC OF CYPRUS

Dr. Ian Marnane and Dr. Andromachi Katsonouri at the United Nations Minamata Convention on Mercury.

1 EU, 2017, Regulation (EU) 2017/852 on mercury.

The road to harmonized mercury monitoring at the global level

Mercury circulates through water, air and land under the global mercury cycle. Given the transboundary nature of mercury pollution, no country can tackle the problem alone, rather international cooperation is necessary. The Minamata Convention on Mercury is a global treaty protecting human health and the environment from the adverse effects of mercury. The Convention was agreed in January 2013 and entered into force on 16 August 2017.

Under the Convention, the Conference of the Parties (COP) is tasked with establishing arrangements for providing itself with comparable monitoring data on the presence and movement of mercury in the environment, as well as trends in levels of mercury observed in biotic media and vulnerable populations.

At its first meeting in September 2017, the COP decided to establish an ad hoc group of experts to prepare a proposal including an outline, plan and elements of arrangements for providing the COP with comparable monitoring data[1]. The experts met in Ottawa, Canada in March 2018 and elected Ms. Kateřina Šebková of the Czech Republic and Mr. Mohammed Khashashneh of Jordan as co-chairs.

The group reviewed existing mercury monitoring activities in various matrices and identified three key matrices as comparable, relevant, cost effective and practical for global monitoring arrangements, including ambient air, biota (fish) and human samples (scalp hair). Data collection is not yet harmonized. For air, geographical gaps in monitoring exist. For human samples, data is both scattered and limited, while for biota the extent of existing networks depends on the particular species, be they marine or freshwater species.

At its second meeting in November 2018, the COP requested a further refinement of the proposals for monitoring arrangements[1]. With the aim of creating a framework to harmonize global activities on monitoring, the experts will examine which categories of data are most effective in providing information on global trends. They will also develop terms of reference for a mercury monitoring expert group and start preparing a guidance document on mercury monitoring. The work will take place in spring 2019, with a report expected to be open for comments in summer. The report will be considered by COP3, to be held in November 2019.

Kateřina Šebková, Co-chair of the ad-hoc expert group on effectiveness evaluation and monitoring arrangements under the Minamata Convention on Mercury, RECETOX, Masaryk University, Czech Republic

1 UNEP/MC/COP.1/12 Establishment of arrangements in regard to effectiveness evaluation as referred to in paragraph 2 of article 22

2 UNEP/MC/COP.2/13* Report on the outline, plan and elements of the effectiveness evaluation framework

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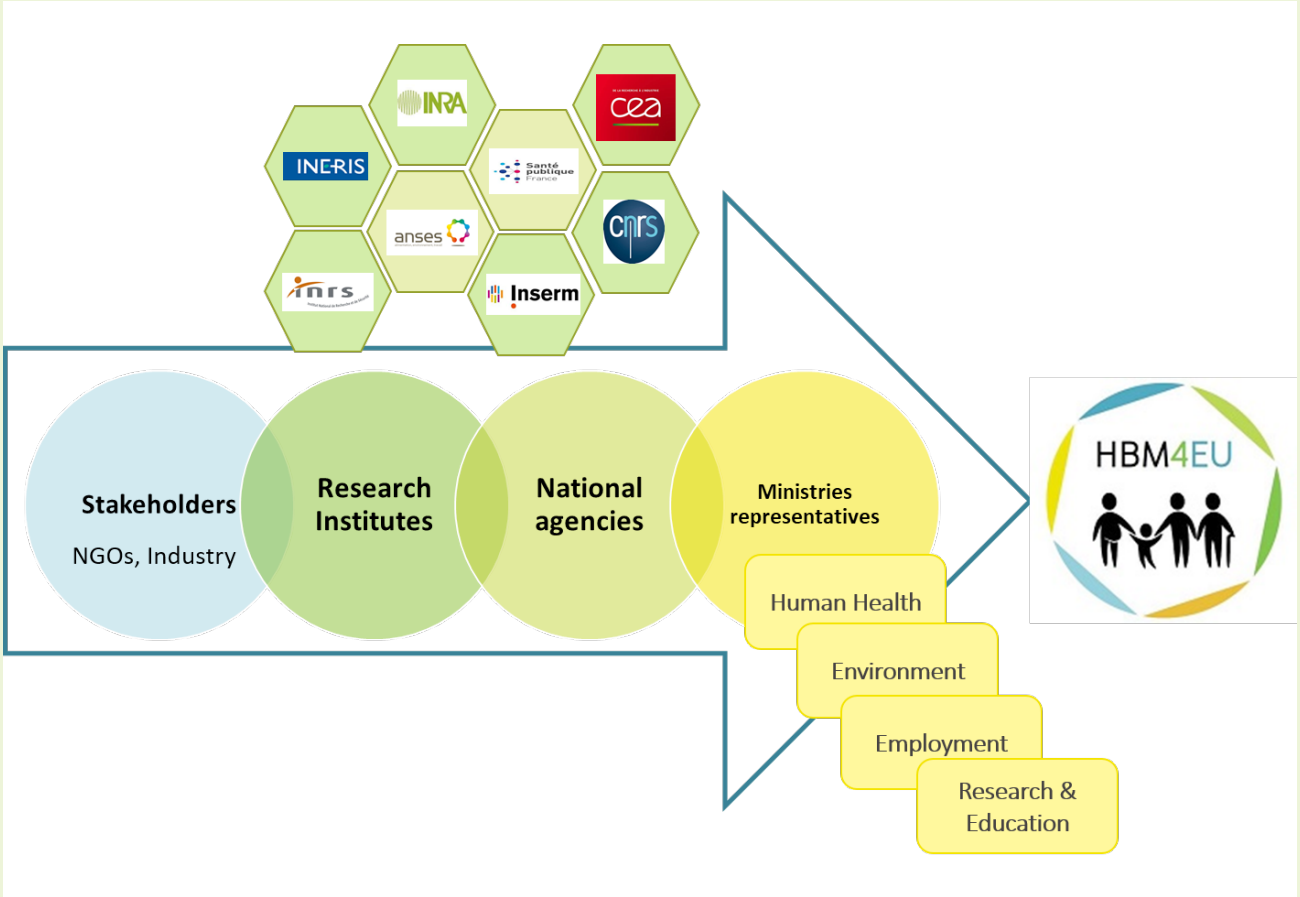
Meeting of the French National Hub

The HBM4EU French National Hub met in Paris on 3 December 2018, bringing together representatives of the French national ministries of health, environment, research and education, as well as more than 50 scientists and representatives of industry and other stakeholders.

Robert Barouki of INSERM, HBM4EU Pillar 3 leader and National Hub Contact Point for France presented the options for a long-term human biomonitoring activity in Europe. An overview of the French National Hub (Figure 3) was provided by Elena Tarroja, INSERM. The French HBM4EU partners presented ongoing HBM4EU activities and emerging results under a range of work packages, with a particular focus on work on bisphenols and chromium from the 1st list of HBM4EU priority substances.

- Christophe Rousselle of ANSES, introduced the strategy for the prioritisation of substances under HBM4EU.
- Loïc Rambaud, Santé Publique France, explained how the French National Hub contributes to the European Human Biomonitoring platform.
- Jean-Philippe Antignac, INRA, outlined work on quality assurance and the network of European Laboratories, as well as the strategies for screening for emerging substances in human matrices.
- Sophie Ndaw of INRS described progress towards implementing the occupational human biomonitoring study on chromium in France.

Figure 3 : Overview of the French National Hub



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- Céline Brochot, INERIS, presented the physiologically based pharmacokinetic (PBPK) models used to understand the exposure of foetuses to bisphenol A.
- Karine Audouze, INSERM, presented a computational approach to linking environmental stressors to adverse outcome pathways (AOPs), while Sheeren D'Cruz of INSERM and Stephan Couderq of CNRS presented on effect biomarkers. Both presentations illustrated how approaches with human biomonitoring can contribute to understanding causality.
- Lydiane Agier, INSERM, considered how to best tackle the challenge posed by exposure misclassification in observational mixtures studies.
- Eva Ougier of ANSES reflected on how the development of HBM guidance values can contribute to the interpretation of the impacts of chemical exposure on health.

In the afternoon session, Ovnair Sepai from PHE, UK, HBM4EU National Hub Coordinator, provided an overview of the current landscape of HBM4EU National Hubs across Europe. Sirii Latvala, National Hub Contact Point from SEPA, Sweden, and Laura Komarovska from RSU, a partner in the Latvian National Hub, described the structure of their National Hubs and outlined some of the challenges they face.

The meeting ended with an open discussion, during which participants debated the needs and challenges for sustaining the National Hubs as the architecture for supporting a long-term human biomonitoring initiative in Europe.

Meeting participants left with an improved understanding of HBM4EU and our progress to date in building new knowledge on the effects of chemical exposure on human health. The meeting provided a valuable opportunity for exchange in good practice amongst HBM4EU National Hubs.

Elena Tarroja Aulina

Dr. Robert Barouki

The French National Institute of Health and Medical Research, INSERM

Instituts thématiques
Inserm
Institut national de la santé et de la recherche médicale

HBM4EU National Hubs:

Austria	Belgium	Croatia	Cyprus	Czech Republic	Denmark
Finland	France	Germany	Greece	Hungary	Iceland
Ireland	Israel	Italy	Latvia	Lithuania	Luxembourg
Netherlands	Norway	Poland	Portugal	Slovakia	Slovenia
Spain	Sweden	Switzerland	United Kingdom		

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HBM4EU training schools in 2018

HBM4EU training activities kicked-off in 2018, with two training events made available to HBM4EU partners. The 1st HBM4EU Training School took place in Slovenia in June and welcomed 36 participants from 21 countries. The 2nd HBM4EU Training School was held in the Netherlands in November, and included 79 participants from 32 countries.

Both events were delivered by a team of more than 20 instructors, representing a broad range of the work packages under HBM4EU. In terms of the level of education of the participants, approximately half had a PhD, while one third had a master's degree. On both occasions, participants with a background in laboratory work were particularly well represented.

Each training school started with a two-day basic training on the principles and concepts of biomonitoring.

At the end of the second day, participants selected a topic for in-depth discussion in breakout groups. The results were reported back in the plenary by the participants. On days three and four, advanced courses on ethics and data management were offered to larger groups. On the final day, participants could choose between three advanced courses on specific topics delivered to smaller groups.

In order to allow participants to mix and match courses to suit their needs, they could choose to participate for one, two or three days, or for the whole week. In June, nearly 40% of participants attended the full week, while in November 65% of participants attended the full week.

Basic training in Nijmegen

The HBM4EU project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733032.

Feedback on both training content and format has been very positive. Course content corresponded with training needs, the technical level was spot on, and facilities were deemed excellent.

On a scale of 10, most courses received an 8 or higher, with the three advance courses scoring 9 overall. Importantly, participants said their knowledge and enthusiasm for human biomonitoring increased during the course.

In terms of tips for improvement, participants requested more interaction and discussion, and asked for course materials to be provided well in advance. Looking forward, the HBM4EU training team will implement these suggestions under our 2019 training programme.

The training schools provide for professional exchange and personal interaction, foster a sense of community and build a common understanding of our joint endeavours under HBM4EU.

We look forward to welcoming HBM4EU partners at our 2019 training events!

The 3rd HBM4EU training school will be held on 17 – 21 June 2019 at Masaryk University in Brno, Czech Republic. Please click here to find further information and the preliminary programme. You can submit your registration here.

Dr. Paul T.J. Scheepers,
The Radboud University Medical Center - RUMC

Radboudumc

Never the twain shall meet: human and environmental perspectives in biomonitoring

The word "biomonitoring" means different things in different fields of expertise – we know what we mean by the term, but do we understand each other?

The Interdepartmental Group on Hazards and Risks of Chemicals (IGHRC), which was until very recently the Interdepartmental Group on Health Risks from Chemicals, changed its name when the remit expanded from human health to include environmental health. Well, what a revolution!

On the 22nd of January 2019, the IGHRC teamed up with the Royal Society of Chemistry in the UK to deliver an "awareness" day on biomonitoring, encompassing both human and environmental perspectives. The day brought together scientists, risk assessors from both industry and government, risk managers and policy makers to debate the use of biomonitoring in both human- and eco-toxicology. We met at the Chemicals Centre of the Royal Society of Chemistry in Piccadilly, London.

The day started with an overview of UK activities on human biomonitoring presented by Dr Ovnair Sepai from Public Health England.

Ovnair described the UK results generated under the projects COPHES and DEMOCOPHES, which were funded by the European Union. By piecing together results on lead in blood from a number of human biomonitoring studies, it was possible to show the dramatic drop in exposure to lead in the UK following the removal of lead from petrol and from consumer products, such as domestic paint.

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Data on exposure to arsenic from private water supplies in Cornwall was used in public health protection. Challenges in communicating the health implications of chemical exposure to members of the public remain underestimated.

The use of biomonitoring to assess chemicals threats to the environment was presented by Dr Lee Walker from the UK's Centre for Ecology and Hydrology. It became evident that there are many similarities across the environment and health disciplines, and that practitioners often face the same challenges. Of course, from an environmental perspective the transfer of chemicals up the food chain culminates in the top predator being exposed - man. Thus, the chain is closed.

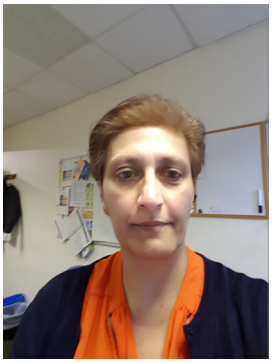
Dr Marike Kolossa-Gehring of the German Environment Agency described the advances with biomonitoring made in Germany over past decades. She presented some of the strategies used by the German Environment Agency to integrate human biomonitoring data into population surveys.

This was met with great interest, since this represents the standard the UK would like to achieve.

Marike introduced HBM4EU and Ovnair explained how, as an HBM4EU partner country, the UK has been able to bring together government departments and academic partners in the UK to take human biomonitoring forward in a strategic way.

Subsequent talks provided additional examples from both disciplines. The audience left with a better understand of current challenges in chemical regulation and how human biomonitoring might be used to address them. A summary of the talks can be found on the website of the Royal Society of Chemistry.

Ovnair Sepai, Centre for Radiation, Chemicals and Environmental Hazards, Public Health England



Public Health England

science and policy
for a healthy future

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HBM4EU HELP DESKS

Four help desks are open to HBM4EU partners on the internal webpages. Partners can send questions to teams of experts who can provide support and updates regarding ongoing activities under their work package.

Help desk for funding mechanisms & resources for national capacity building under work package 6

Led by the Faculty of Medicine, University of Lisbon, this helpdesk provides support and advice to National Hubs in identifying financing mechanisms.

It can answer questions about available funding mechanisms and provide advice on how to apply.

Help desk for dargeted fieldwork under work package 8

Led by Public Health England, this helpdesk provides support and advice during the implementation of field studies – from study design to sample collection.

It can provide guidance on:

- study design;
- recruitment procedures; and
- logistics for sampling including sample collection, sample storage and communication materials.

Help desk for the analytical phase under work package 9

Led by the University of Chemistry and Technology Prague, this help desk supports and advises National Hubs and laboratories in tasks related to analysis and quality assurance.

It can answer questions on the:

- chemical analysis of human samples;
- development of new analytical methods in biological samples; and
- organization of ICIs/EQUAS with biological samples

Help desk for data management under work package 10

Led by the Flemish Institute for Technological Research, VITO, the helpdesk on data management has been established and is available to guide Data Controllers, Data Owners, Data Processors (Data Users) through the process of:

- data preparation and harmonization including advice on pseudonymisation;
- completion of templates for the provision on metadata and data to IPCHEM and to the JRC repository;
- data transfer to the HBM4EU repository; and
- making formal data requests and administering the necessary processor agreements.

Project contact & coordination

HBM4EU is coordinated by the German Environment Agency,
Section II 1.2 Toxicology, Health Related Environmental Monitoring. Email: HBM4EU@uba.de

VITO is the co-coordinator of HBM4EU.
Email: HBM4EU@vito.be

The Austrian Environment Agency is responsible for maintaining the dialogue with stakeholders under HBM4EU.
Email: stake-hbm4eu@umweltbundesamt.at

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The European Environment Agency is managing the Knowledge Hub. For questions regarding this publication and for media enquiries please contact the European Environment Agency at HBM4EU@eea.europa.eu

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