

Group 1 National Hub Template (HBM data for Awareness)

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<p>Introduction:</p> <ul style="list-style-type: none"> Background information on the evolution and status of HBM in your country e.g COPHES/DEMOCOPHES and EU programs. 	<p>In Finland, use of HBM is now well developed except in the occupational settings. Finland was not part of the COPHES/DEMOCOHES projects nor related previous projects but has been involved in some recent mixture projects such as EDC-MixRisk funded by H2020</p>
<p>Main text - Results and Discussion ENSURE YOUR NARRATIVES ARE REFERENCED AS FAR AS POSSIBLE</p>	
<ul style="list-style-type: none"> Description of issue(s) which have resulted in the raising of awareness. Include brief description of sample population, substances of concern and whether local/regional/national. Give example of cases and specific studies 	<p>Example how HBM data has been used for policy: Baltic sea fish has levels of dioxins and PCB:s over the allowed EU limits but for Finnish fisherman fishing on Baltic sea was very import. Data from Fisherman study (http://urn.fi/URN:ISBN:978-952-245-636-6), including both HBM biomarkes and health information was used to demonstrate that eating Baltic sea fish had more positive effects that harmful effects due to these chemicals. These research results were used to convince EU to provide exception for Finland to allow fishing and selling of fish from Baltic sea in Finland.</p> <p>Following the EFSA 2018 dioxin risk assessment (Risk for animal and human health related to the presence of dioxins and dioxin-like PCBs in feed and food) THL conducted a human biomonitoring study on the levels of dioxins and PCB in the critical population of 7-10 year old children (https://pubmed.ncbi.nlm.nih.gov/32480086/). Low levels observed together with the declining levels of dioxins and PCBs in fish monitoring projects, have in part motivated the ongoing governmental program on the promotion of use of domestic fish.</p>
<ul style="list-style-type: none"> Description of HBM programme if it exists e.g. implementation of a HBM module into HES or relevant other activities funded by the government. 	<p>Finland doesn't have an HBM programme but HBM is actively used in occupational health monitoring/research activities by FIOH.</p> <p>For general population, Finland has along tradition of health examination surveys. These don't include a specific HBM module but in previous surveys, some aliquots of blood/urine have been used/or stored for future use for analysis of environmental contaminants. Next HES for 2023 is currently under preparation and possibility to collect biological samples and include some relevant questions is been evaluated.</p>

<ul style="list-style-type: none"> • Describe which ministries (Environment, Health etc.)/policy makers and stakeholders involved/steering/financing the HBM programme. • Give examples - specific chemicals or outcomes. 	<p>Ministry of Social Affairs and Health (STM) has main responsibility of HBM activities in Finland.</p> <p>STM has no fixed annual budget for the HBM even though a small annual budget is reserved for varying topics of environmental health. However, funding for each HBM project have to be applied separately from this budget and it competes with other environmental health topics. Outside of this STM budget, funding from different foundations and e.g. Academy of Finland are extremely competed and only highly innovative HBM applications have the change of getting funded.</p>
<ul style="list-style-type: none"> • Steps/processes needed or used to get the attention of policy makers. 	<p>Finland has relatively weak culture of HBM and no big scandals have emerged that would have caught the attention of policy makers.</p>
<ul style="list-style-type: none"> • Describe barriers e.g. funding; challenges e.g. participant recruitment; opportunities e.g. enhancing cross government working and linking of env data with exposure measurements currently at play in your country with regards to HBM. • Have any of these barriers been addressed by HBM4EU? If yes - describe. 	<p>Lack of sustainable funding</p>
<ul style="list-style-type: none"> • Other players who would be beneficial in raising awareness and working together to promote HBM 	
<p>Future plans -</p> <ul style="list-style-type: none"> • Are there plans to use HBM data in the future for policy or awareness - give clear examples. Will the data from HBM4EU be used? 	<p>If levels of PFAS in fish increase as they have during the last 10 years (monitoring needs to be continued), this together with the governmental program to promote the use of domestic fish certainly call for human biomonitoring in vulnerable subpopulations (women of childbearing age, 1 year old children).</p>