PFAS Activities within PARC

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*PARC Chemical leaders for PFAS

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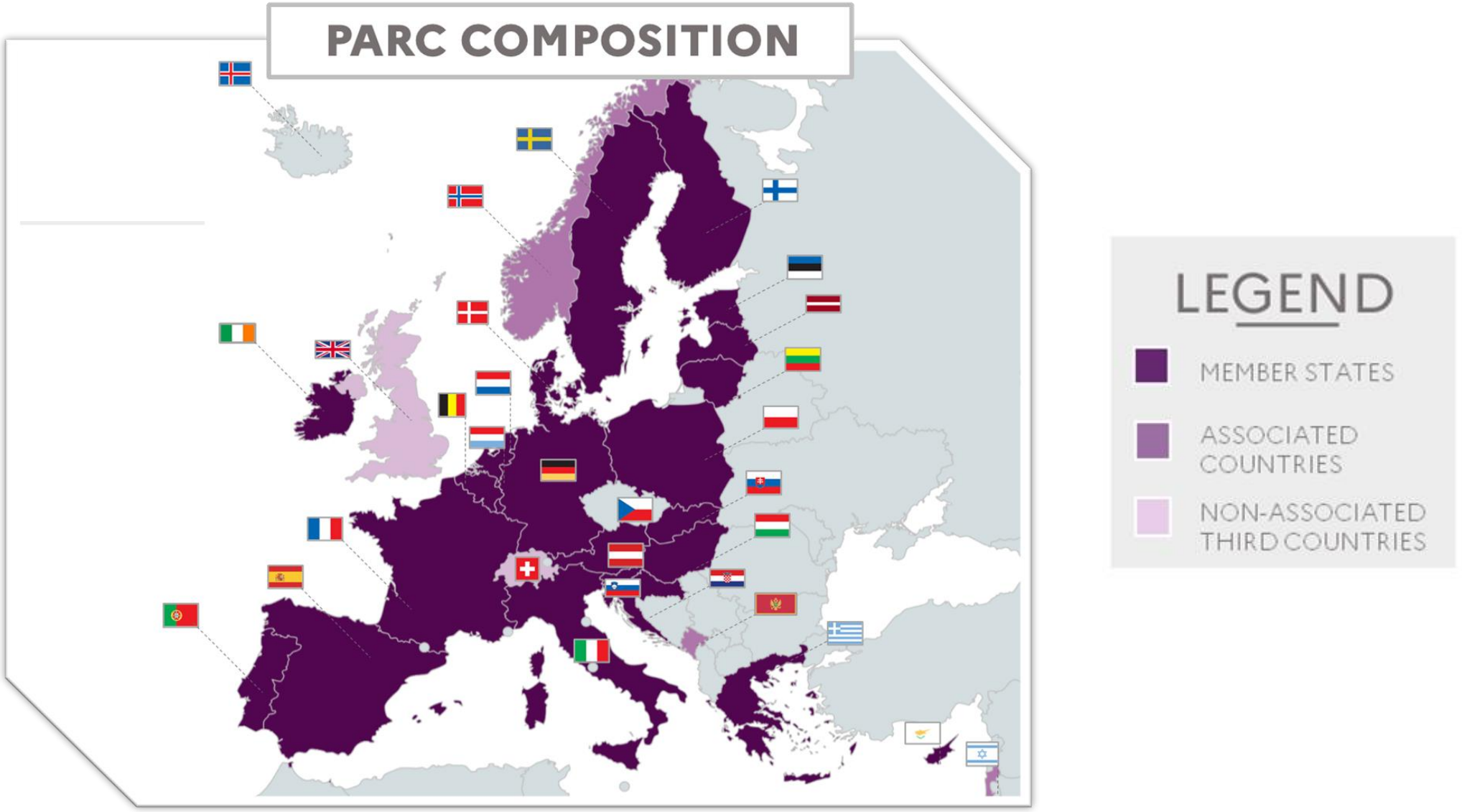
PARC: Partnership for the Assessment of Risks from Chemicals



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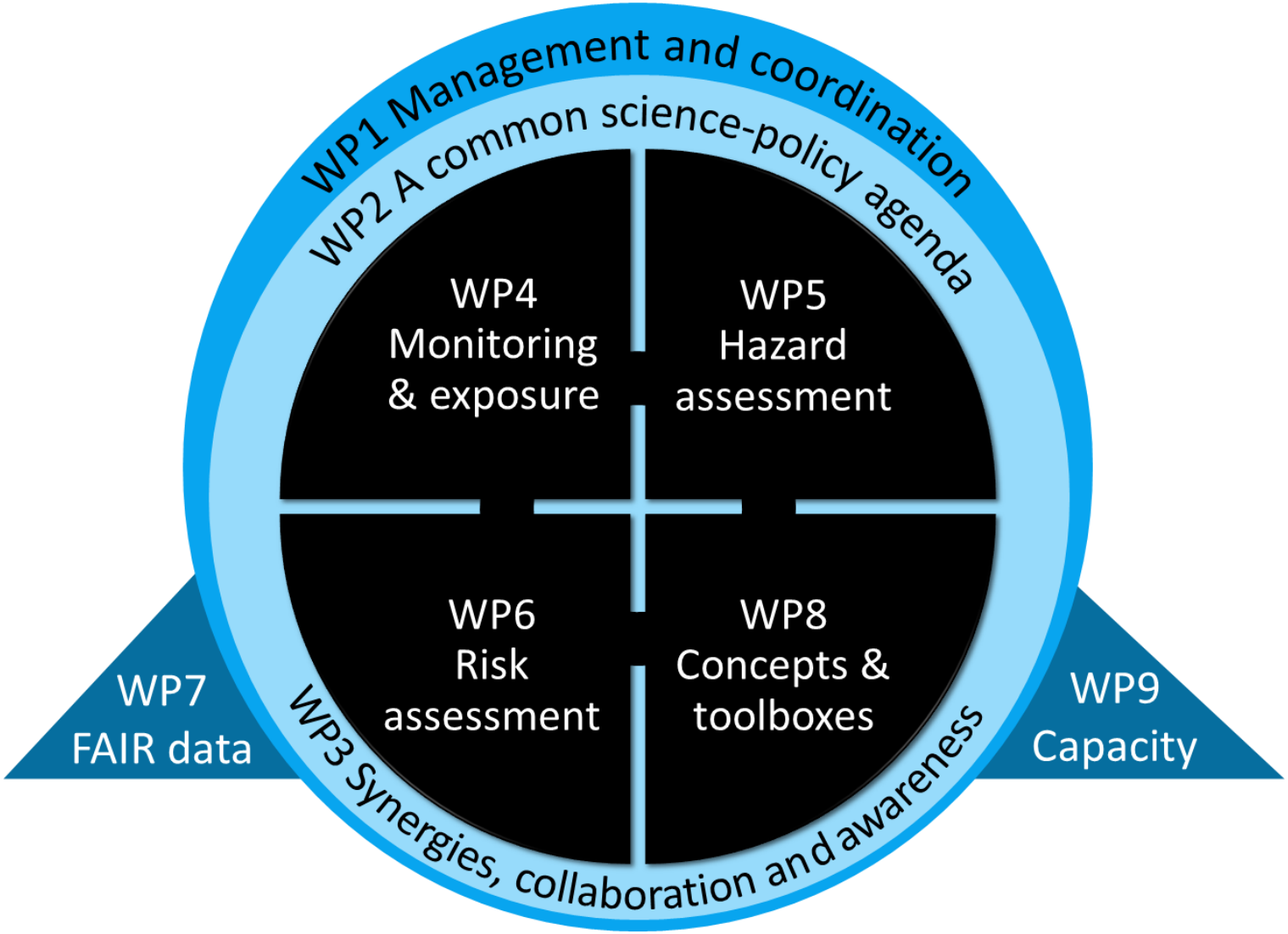
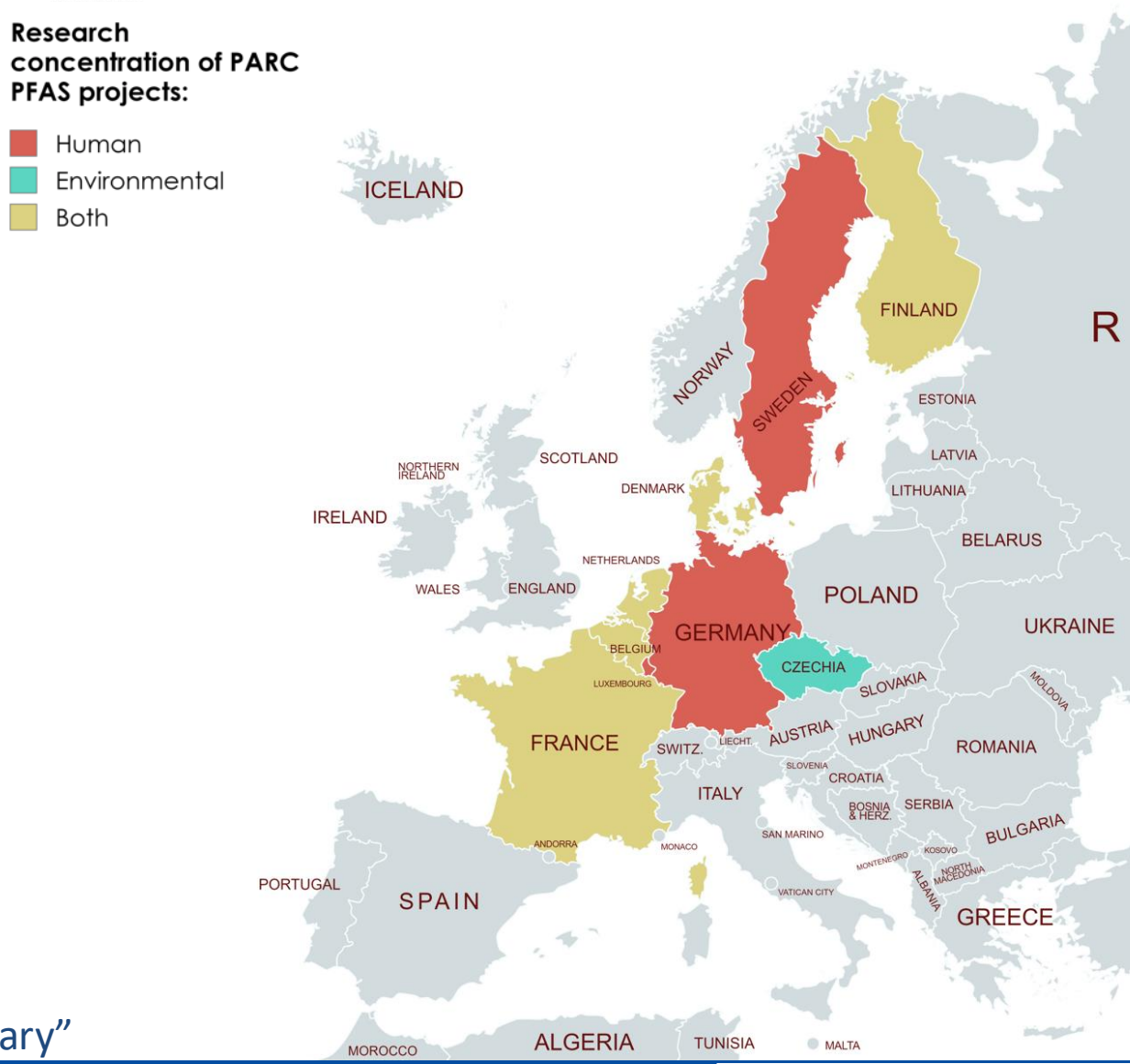


PARC Project overview focussing on PFAS

WP4	P4.1.1.2.a_Y1_GenHBMSurvey_VITO_Y1
	P4.1.1.4.b_Y1_SentinelSystem_KULeuven_Y1
	P4.1.3.1.a_Y1_DerivationofHBM-GVs_Y1
	P4.1.4.2.a_Y1_DataAnalysisHBM4EU_VITO_Y1
	P4.2.a_Y1_ENVMonitoringPilotSurvey_INERIS_AU_Y1
	P4.2.c_Y3_Human exposure_INERIS_AU
	P4.3.1.b_Y1_T02-QAQC_WR_Y1
WP5	P5.2.1.d_Y1_Immunotox_Inserm_Y1
	P5.3.1.a_Y1_SystemsToxicology_UL-LACDR_Y1
	P5.3.4.a_Y1_PBK_Kinetics_Fraunhofer_Y1
WP6	P6.2.1.a_Y1_SourcetoDose_VITO_Y1
	P6.2.1.b_Y1_Aggregate_ANSES_Y1
	P6.2.2.a_Y1_PBPK_INERIS_AUTH_Y1
	P6.2.3.a_Y1_RealLifeMixtures_RIVM_Y1
	P6.2.4.a_Y1_HIADataAvailability_VITO_Y1
	P6.2.4.c_Y1_HIACaseStudies_UU-IRAS_Y1
	P6.3.2.a_Y1_ToolsRA_SU_CS1_CARB_SYKE_Y1
	P6.4.3.b_Y3_ENFORCE_KemI
WP7	P7.2.2.a_Y1_chemicals-in-environment_MU_VITO_Y1



* Search for the word “PFAS” under sharepoint “Projects Library”

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Aims - PFAS Activities within PARC

Environmental Impact

Analysis; transformation; partitioning, in all matrices

Health Concerns

Exposure; human health risks; tools to assess toxicity; modelling

Regulatory Challenges

Regulations; limit values; risk assessment; unknown risks

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Human Exposure

Assessment of exposure through a sentinel surveillance system (2022-2025)

- Strategic and cost-effective monitoring of occupational and environmental health risks
- Early detection of risks

T4.1

Strategy for aggregate exposure from general life and occupational exposures (2022-2026)

- Advance methods to combine occupational and general life exposures

T6.2

Human exposure to organic contaminants from non-food environmental sources (2024-2028)

- Human exposure through dust, indoor air, drinking water, etc.
- Linking external and internal exposure

T4.2

PFAS Analysis

QA/QC requirements for HRMS and EDA-based screening approaches in environmental, food and human matrices (2022-2027)

- Harmonizing QA/QC
- Supporting chemical monitoring

T4.3

Chemicals in the Environment data reuse (2022-2025)

- Mapping and gap analysis of PFAS

T7.2

Hazard characterization of leachable chemicals present in plastics* (2026-?)

- Identification of chemicals present in leachate of plastics

**New proposed PARC project*

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Human biomonitoring projects I

Case studies on health impact and risk assessment (2022-2025)

- Conduct Environmental Burden of Disease (EBD) and Health Impact Assessment (HIA) analyses
- Assessment of immunotoxicity of PFAS mixtures

T6.2

PFAS in children* (2026-?)

- PFAS levels in children
- Exposure pathways

**New proposed PARC project*

PFAS in Mother Milk: pregnancy and postnatal health* (2026-?)

- PFAS exposure and health impact

**New proposed PARC project*

Human biomonitoring projects II

General population human biomonitoring survey (2022-2029)

- Use human biomonitoring (HBM) data to assess the effectiveness of EU chemical policies

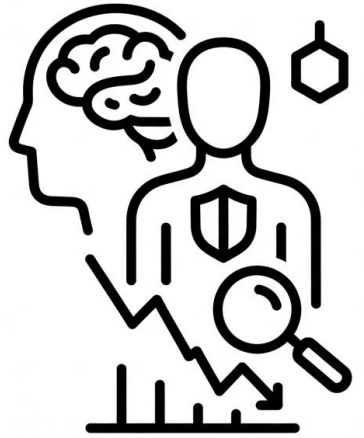
T4.1

Occupational survey in the waste management sector (2022-2025)

- Occupational exposure in circular economy
- Provide data on safe waste processing practices

T4.1

Immunotoxicity and neurotoxicity studies



Immunotoxicity (2022-2026)

- 28-day studies with PFOA, PFOS, PFHxS, PFNA and TFA with TDAR determination and omics analyses to determine relative potency factors

T5.2

In vitro methods to assess RESpiratory UPtake & Toxicity* (2026-?)

- Enhance our understanding of how *in vitro* respiratory models can be applied to study respiratory uptake

**New proposed PARC project*

Tools for PFAS Risk Assessment I

PBK models and quantitative systems toxicology (2022-2026)

- Development of physiologically based kinetic (PBK) models
- Incorporate individual variability, microbiome effects, blood-brain barrier, respiratory uptake

T5.3

Developing, performing and validation of source to dose and aggregate modelling (2022-2025)

- Source-to-dose modelling to estimate human exposure from multiple environmental and indoor sources and routes

T6.2

Refinement and development of PBPK models for human risk assessment (2022-2026)

- Incorporate multiple exposure routes and sources, focusing on sensitive sub-populations

T6.2

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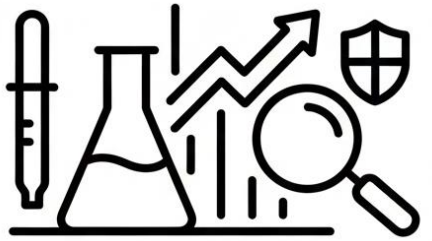
Tools for PFAS Risk Assessment II



New risk assessment and exposome methodologies to reduce exposure and risk of real-life mixtures (2022-2026)

- Mixture risk assessment
- Integration with human biomonitoring

T6.2

Review of tools, criteria, and methods used in risk assessment (2022-2026)

- One substance – one assessment
- Analyze comparative benchmarks, risk reduction effectiveness, uncertainty analysis, data gap-filling approaches etc.

T6.3

Fostering the use of omics for grouping and read-across in risk assessment* (2026-?)

- Propose guidelines on how to integrate structural and physiochemical similarity measurements and mode of action features

**New proposed PARC project*

Guidance values for PFAS exposure I

Propose health-based HBM guidance values (HBM-GVs) (2022-2025 (-2029))

- Derivation of guideline values

T4.1

New methods to support the ENFORCEment of chemicals in consumer articles (2024-2028)

- Evaluate and develop analytical methods for systematic identification of priority substances
- Rapid screening and emerging concerns

T6.4

Derivation of Health-based Indoor Air Guideline Values* (2026-?)

- Provide health-based indoor air guideline values

**New proposed PARC project*

Guidance values for PFAS exposure II

Establishment of the overall process of environmental and multisource monitoring (2022-2025)

- Linking human biomonitoring and environmental exposure data

T4.2

Further analysis of the data generated within HBM4EU (2022-2025)

- Perform further statistical analyses including exposure sources
- Linking biomarkers of exposure and effect to health outcomes

T4.1

Collection and generation of data for HIA of PARC priority chemicals (2022-2027)

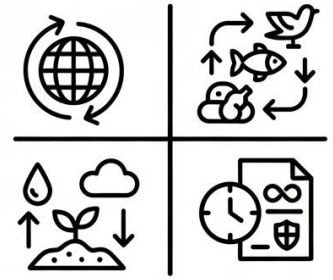
- Evaluate and increase access to external and internal exposure data, health outcomes, demographics, and disease incidence

T6.2

Challenges

Environmental Impact

- Extremely persistent (“forever chemicals)
- Ubiquitous contamination (air, water, soil)
- Bioaccumulation in food chains & wildlife
- Long-range transport



Health Concerns

- Detected in blood of most Europeans
- Endocrine disruption, developmental toxicity, immunotoxicity, cancer risks
- Vulnerable groups: Children, pregnant women

Regulatory Challenges

- Thousands of PFAS with varying properties
- Limited test methods for total PFAS detection
- Fragmented regulations (REACH, water, food, etc.)
- Need for grouping & mixture assessment
- Enforcement gaps

PARC – Science to Policy

PARC supports Science to policy dialogue network	PARCopedia	PARCroute	Rapid Response Mechanism (RRM)
→ EU's chemicals strategy → Zero Pollution	→ Knowledge management and social media platform	→ Strategic roadmaps supporting, e.g. NAMs/ NGRA, into regulatory chemical risk assessment (CRA) practice	→ Swiftly and efficiently address urgent needs → Contact parc@anses.fr

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THANK YOU!

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