Partnership for the Assessment of Risks from Chemicals

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3rd Annual CL/ML reports' coordination and submission

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Abstract

This report provides an overview of the coordination, nomination processes, and activities of the Chemical Leaders (CLs) and Methodology Leaders (MLs) within the Partnership for the Assessment of Risks from Chemicals (PARC) during the year 2025. Task 2.2 oversees the appointment and coordination of the work of the CLs and MLs, who play a pivotal role in monitoring scientific progress on priority chemicals and methodologies, fostering collaboration across PARC work packages, and strengthening the connection between scientific research, regulatory needs, and policy engagement.

Throughout 2025, significant progress was achieved in filling remaining CL positions. Three new Chemical Leaders were formally nominated by the Management Board, and two additional candidates were identified for nomination in early 2026. These efforts helped consolidate the structure needed to ensure comprehensive scientific oversight across all priority areas.

CLs and MLs continued to advance work across multiple domains, including endocrine-disrupting chemicals, PFAS, nanomaterials, microplastics, omics, PBK modelling, New Approach Methodologies, and Next-Generation Environmental Risk Assessment (NG-ERA). Their activities ranged from refining scoping documents and providing expert input to PARC projects, to contributing to publications, delivering presentations at international conferences, and engaging with EU-level regulatory initiatives. These contributions supported knowledge integration, promoted methodological harmonisation, and improved the visibility and accessibility of PARC outputs.

A key milestone in 2025 was the strengthened cross-WP collaboration facilitated by CLs and MLs, enabling better coordination of ongoing research, improved alignment with regulatory priorities, and the preparation of new project proposals—most notably within the area of nanomaterials. In addition, dissemination activities such as interviews published on the PARC website contributed to enhancing understanding of CL/ML roles and raising awareness of the scientific developments achieved within PARC.

Looking ahead, efforts will continue in 2026 to complete remaining nominations, finalise scoping documents, strengthen interactions between CLs/MLs and PARC work packages, and enhance dissemination activities—including further development of PARCopedia as a central tool for knowledge translation within the partnership.

Key Words

Chemical Leader, Methodology Leader, Human Health, Environmental Health, Definition of priorities, Knowledge translation, Dissemination activities.

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Authors and Acknowledgements

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Abbreviations and acronyms

AOPs	Adverse Outcome Pathways
CL(s)	Chemical Leader(s)
CRA	Chemical Risk Assessment
EDCs	Endocrine Disrupting Chemicals
GB	Governing Board
IATAs	Integrated Approaches to Testing and Assessment
MB	Management Board
ML(s)	Methodology Leader(s)
MNPs	Microplastics
NAMs	New Approach Methodologies
NMs	Nanomaterials
NG-ERA	Next Generation Environmental Risk Assessment
PARC	Partnership for the Assessment of Risks from Chemicals
PBK	Physiologically based kinetic (modelling)
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
RPFs	Relative Potency Factors

1. Background

As stated in PARC's proposal, one of the objectives of Task 2.2 is to coordinate the nomination of the Chemical Leaders (CLs) and Methodology Leaders (MLs) on chemical substances (or groups of chemicals) and methodologies addressed in PARC. As such, Task 2.2 developed a procedure for members of the PARC consortium who are experts in the relevant fields to apply to these roles, including criteria for the selection of the experts before nomination by the Management Board (MB). Task 2.2 is also responsible for the coordination of the work developed by the CLs and MLs throughout PARC.

2. Role of Chemical Leaders and Methodology Leaders

CLs and MLs have a crucial role in channelling the work related to priority chemicals and methodologies in PARC, having a helicopter view of the work done related to these chemicals and methodologies, helping to connect PARC's activities with policy makers and to disseminate PARC results and activities (Figure 1).



Figure 1 - Diagram summarising the role and responsibilities of CLs and MLs.

Responsibilities associated to the role of CL/ML are the following:

- To be informed about and support collaboration on work developed on the chemical substance or methodology across the different WPs within PARC;
- To support WP2 in the evaluation of projects related to the specific chemical/methodology (as far as the CL/ML is not personally involved in the respective project), and contribute to the production of knowledge and content for PARCopedia and in the development of PARCroute;
- When necessary, to support WP3 in the development of targeted communication products and dissemination activities related to the respective chemical/methodology and in the establishment of synergies with external activities/projects;
- To elaborate and update a scoping document on the chemical substance or methodology;

- To keep updated on and follow current and new EU regulations concerning the chemical substance or methodology;
- When necessary, to provide advice in relevant deliverables or documents produced by PARC related to the chemical substance or methodology;
- To contribute to the preparation of scientific publications on the chemical substance or methodology, if requested by the main authors or if significant work has been developed that contributed to the publication;
- To support the definition of the regulatory questions on priority substances and methods and the ranking procedures;
- When necessary, answer questions from policy makers at national and EU-level;
- To be available to present PARC results on the specific chemical/methodology at project meetings and at external scientific meetings;
- To report yearly on activities on the specific chemical/methodology by participating in a CL and ML online annual meeting and producing a short report with the updates with support of the task and project leaders involved in the work related to the chemical/methodology.

3. Current list of Chemicals and Methodologies

3.1. Chemicals

The chemicals addressed in PARC and selected to have CLs are the following:

- Bisphenols and alternatives
- Endocrine Disrupting Chemicals (EDCs)
- Metals
- Microplastics
- Nanomaterials
- Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
- Pesticides and biocides
- Phthalates and substitutes

3.2. Methodologies

The methodologies addressed in PARC and selected to have MLs are the following:

- New Generation Environmental Risk Assessment (NG-ERA)
- Omics
- Physiologically Based Kinetic (PBK) modelling
- Pre-validation of new methods

4. Resources for CLs and MLs

A total of 15 CLs and MLs were foreseen. For them, a budget of 30 PMs/year (1 PM per leader per year in a total of 210 PMs) and 1 386 000 € was estimated and temporarily allocated to ANSES. PMs for the roles of CLs and MLs will be reported under Task 2.2, clearly stating the activities (WPs, Tasks, projects) where they worked.

5. Chemical and Methodology Leaders' nominations

At the beginning of 2025 a total of 6 Chemical Leaders (CLs) and 8 Methodology Leaders (MLs) were nominated. Due to the lack of candidates for the some roles , WP2 co-leaders and Task 2.2 co-leaders, together with the Coordination Team, have proposed to the Management Board the possibility to directly invite potential candidates to apply to these roles, after identifying experts within specific PARC projects with relevant scientific activity on the selected chemicals or methodologies. As such, during 2025, a search on potential candidates to fill the missing roles was carried out.

After the identified potential candidates were presented to the MB on the meeting of September 2025, invitations for them to fill the roles were sent out and a vote for the three candidates that have applied to the role of CL was launched on the MB meeting of October 2025. Results of the vote were presented to the MB at the meeting of November 3rd 2025 with the formal nomination of Albert Braeuning (BfR) as CL for bisphenols and alternatives and of Carsten Kneuer (BfR) and Alexandra Kroll (EAWAG) as CLs for pesticides.

The work of identification of more potential candidates has continued and during December 2025, Simone Mühlegger (EAA) has agreed to apply for the role of CL for EDCs (Human health and Environment) and Patrice Carpentier (ANSES) for the role of CL for pesticides (Environment). The vote has been launched at the MB of January 2026.

The work of identification of possible candidates and sending of invitations to apply for the roles without nominated chemical leaders will be continued during 2026. Efforts to identify possible candidates to fill the roles of CLs for Bisphenols and alternatives (Environment), metals and phthalates and substitutes are currently ongoing and will be continued in 2026.

Table 1 - CLs nominated by the MB by the end of 2025

Chemical	Co-leader for human health	Co-leader for environment
Bisphenols and alternatives	Albert Braeuning[c] (BfR, Germany)	-
EDCs	-	Nikiforos Alygizakis[a] (NKUA, Greece)
PFAS	Thorhallur Ingi Halldorsson[a] (UI, Iceland)	Lutz Ahrens[b] (SLU, Sweden)
Nanomaterials	Iseult Lynch[b] (UOB, UK)	Susana Loureiro[b] (UAVR, Portugal)
Microplastics	Dorte Herzke[b] (NILO, Norway)	-
Pesticides	Carsten Kneuer[c] (BfR, Germany)	Alexandra Kroll[c] (EAWAG)

[a]Nominated in May 2023. [b]Nominated in April 2024. [c]Nominated in November 2025.

Table 2 - MLs nominated by the MB by the end of 2025

Methodology	Co-leader for human health	Co-leader for environment
Omics	Martin von Bergen[b] (UFZ, Germany)	Josef Daniel Rasinger[a] (EFSA)
Pre-validation of new methods	Miriam Jacobs* (UKHSA, UK)	
PBK modelling	Spyros Karakitsios[a] (AUTH, Greece) Sylvia Escher[a] (Fraunhofer ITEM, Germany)	Vikas Kumar[a] (IISPV, Spain)
NG-ERA	-	Johan Axelman[b] (KEMI, Sweden) Romana Hornek-Gausterer[b] (FHTW, Austria)

[a]Nominated in May 2023. [b]Nominated in April 2024.

6. Activities

6.1. Meetings

A meeting with the CLs and MLs was organized on July 23rd 2025 to discuss the next steps as CLs and MLs. In the meeting the roles and responsibilities of CLs and MLs were again presented (overviewed in Figure 1). The foreseen activities were presented and discussed, including the scoping documents that the CLs and MLs will have to prepare and the proposed structure for this scoping documents was presented and agreed upon. The timeline for the preparation of the scoping documents was also agreed upon.

6.2. Activities conducted by CLs and MLs (as of January 2025)

Below is a summary of activities undertaken by CLs and MLs in 2025.

6.2.1. Endocrine Disrupting Chemicals (EDCs)

Nikiforos Alygizakis focused primarily on the production and interpretation of chemical monitoring results for endocrine-disrupting chemicals (EDCs) in environmental matrices within PARC in 2025. His work concentrated on the analysis of air, soil, biota, and water samples applying both target analysis for known endocrine disruptors and wide-scope suspect screening to investigate potential and emerging EDCs. The generated chemical occurrence data contributed to strengthening the evidence base on the presence and distribution of EDCs across different environmental compartments. In addition, he worked on integrating chemical monitoring results with bioanalytical data generated by many PARC partners, supporting the interpretation of observed endocrine activities and helping to link chemical occurrence with biological effects. This combined chemical-bioanalytical approach contributed to a more holistic assessment of EDC-related risks in the environment. Moreover, he reviewed and followed ongoing PARC projects related to endocrine-disrupting chemicals, providing scientific input on monitoring strategies and the interpretation of chemical and bioanalytical results. This activity supported coherence across EDC-related work in environmental monitoring, hazard identification, and risk assessment. These activities supported PARC objectives on environmental monitoring, mixture assessment, and early identification of endocrine-related hazards, providing data directly relevant for subsequent risk assessment and regulatory considerations.

He has given an interview that was published in the PARC website at https://www.eu-parc.eu/news/general/meet-chemical-leaders-nikiforos-alygizakis

6.2.2. Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Since his nomination, Thorhallur Ingi Halldorsson has been advancing work on relative potency factors on PFAS under WP5 and WP6, while Lutz Ahrens has contributed to the development of new early-warning system tools (Task 8.2) aimed at identifying emerging hazardous substances, including PFAS, at an early stage to support improved risk assessment and regulatory measures. Both have provided feedback and

detailed responses on the supporting document for the PFAS follow-up meeting. Additionally, they have finalized a comprehensive overview of PFAS, which has been published on PARCopedia.

They have given interviews that were published in the PARC website at https://www.eu-parc.eu/news/general/meet-chemical-leaders-thorhallur-ingi-halldorsson and https://www.eu-parc.eu/news/general/meet-chemical-leaders-lutz-ahrens

6.2.3. Nanomaterials

Following on from the PARC Governing Board (GB) workshop on nanomaterials on 29th October 2024, the CLs for nanomaterials (NMs) continued to refine the scoping report on nanomaterials "Nanomaterials Landscape and Roadmap for PARC", and the final report was shared with the PARC GB.

The CLs were invited to present the summary of the report to the PARC Management Board (MB) at the meeting on 2-3 June 2025 at ANSES, at which it was agreed that there is sufficient interest across PARC WPs to proceed to develop a dedicated PARC project on nanomaterials, focussing on (i) development of a Guidance Document on Adaption of PARC's New Approach Methodologies (NAMs) for use with nanomaterials, and (ii) compilation of existing literature regarding deviations from baseline toxicology by nanomaterials and development of functional assays for detection of deviations from baseline toxicity. This will support EU REACH for example to provide justifications for grouping/ read-across and/or set-building for sets of nanoforms.

There has also been a suggestion from the Austrian ministry that the project could also consider undertaking some inter-laboratory comparison tests / SOP harmonization for "tox screening methods" such as assays for "cytotoxicity", "reactivity/ oxidative stress", "(pre)inflammatory potential", "barrier crossing / barrier impairment" although these are not established "regulatory toxicology endpoints" (in contrast to genotoxicity for example), hence in most cases no existing OECD TGs are available that can be adapted, but these assays are important according to EFSA's guidance on risk assessment of NMs in the food and feed sector and the SCCS guidance for risk assessment of NMs in cosmetics.

Based on the green light from the PARC Management Board, the Cls for nanomaterials proceeded to develop a PARC project on nanomaterials to start in Year 5: P7.2.2.c_Y5_NanoTox-NAMs_UoB.docx. The project is based in WP7 given the focus on re-use of existing data, but it is a cross-WP project with contributions from WPs4-8. It will start in May 2026 and run for 33 months. All partners with an interest in nanomaterials are welcomed to join.

Another highlight from 2025 was from PARC WP6.3 Case Study 11 entitled "Analysis and evaluation of genotoxicity and carcinogenicity assessment across legislations, with a special focus on (Q)SAR based approaches", which produced a publication "Regulatory practices on the genotoxicity testing of nanomaterials and outlook for the future" by Cristina Andreoli, Maria Dusinska, Cecilia Bossa, Chiara Laura Battistelli, Maria João Silva and Henriqueta Louro in Regulatory Toxicology and Pharmacology, https://doi.org/10.1016/j.yrtph.2025.105881.

As part of the 2nd Training Needs Survey, nanomaterials were one of the 19 areas identified from the respondents declared needs. Thus, as part of the 2nd Training Plan, covering 2026 and 2027, a set of online materials on Nanotoxicology is being prepared by partner University of Coruña (UDC) in Spain. The CLs for nanomaterials will support this effort and ensure that the outcomes of the PARC nanomaterials project (P7.2.2c_Y5) are also included in due course. This resource will be aimed at professionals and early-career researchers in toxicology, environmental health, occupational hygiene, and risk assessment who work with or evaluate nanomaterials, and will be made available by March 2027.

The CLs for nanomaterials have given interviews that were published in the PARC website at https://www.eu-parc.eu/news/general/meet-chemical-leaders-iseult-lynch and https://www.eu-parc.eu/news/general/meet-chemical-leaders-susana-loureiro

6.2.4. Microplastics

During 2025, Dorte Herzke has continued to develop her activities as CL for Microplastics (MNPs). She has revised and finalized the landscape report on MNPs and Human Health and has presented this landscape report. She has participated in the PARC Management Board meeting of June 2025 on the discussion on future work on nanomaterials and microplastics based on the state-of-the-art reports and feedback from GB. She is co- leading the PARC WP5 project on Plastic Leach and has initiated a new working group on harmonizing reporting of MNP data from environmental and human samples within task 9.3.

She has drafted a proposal on harmonisation of MP analyses in human samples (under WP4), but after a number of discussions within WP4 and other labs analysing MP in human samples, that initiative was not further advanced due to lack of additionally participating labs within PARC.

She has given an interview that was published in the PARC website at https://www.eu-parc.eu/news/general/meet-chemical-leaders-dorte-herzke

She has participated at the EFSA-PARC meeting on phthalates in November 2025 with the presentation of PARC projects on Phthalates and Plasticizers: data availability, research questions, HBM, challenges, future plans.

She has participated in the Indicator Proposal for Countdown on Health and Plastics Initiative for LANCET, applying the PARC dashboard on plastic chemicals.

6.2.5. Physiologically based kinetic (PBK) modelling

Within PARC, Task 5.3.4, coordinated by Sylvia Escher, addresses knowledge and data gaps in bottom-up PBK modelling. In the first four project years, the team evaluated the impact of in silico and in vitro ADME data on bottom-up PBK models performance.

The case studies covered: (1) the development of in vitro tools and in silico methods to capture gut microbial metabolism in gut-competent PBK models; (2) a refinement of PFAS PBK models incorporating enterohepatic recirculation and hepatic and renal transporters; (3) an integration of isoform-specific metabolism and key transporters to improve internal dose predictions across population groups; and (4) a tiered testing strategy for inhalation PBK models, focusing on permeability data from different in vitro barrier models.

Spyros Karakitsios contributes substantively to PARC's work on physiologically based kinetic (PBK) modelling for human health, with a particular focus on its application across the life course, its integration with New Approach Methodologies (NAMs), and its translation into Safe and Sustainable by Design (SSbD) decision-making frameworks. He is co-leading Activity 6.2.2 ("Human exposure through life") and Task 8.3 ("Integrative Modelling"), and also contributes to Task 8.1 (SSbD), where PBK/PBPK and PBPP-type modelling approaches are leveraged to support early-stage safety assessment during innovation.

Within Activity 6.2.2, Spyros supported the development of aggregated exposure groups that capture all relevant exposure routes (oral, inhalation, and dermal), enabling a holistic characterization of real-world human exposure. This work included an extensive literature review to identify models capable of translating external exposure metrics into internal dose descriptors suitable for physiologically based pharmacokinetic (PBPK) modelling. The overarching objective was to compile, annotate, and harmonize available PBPK models for PARC chemicals of concern, delivering a robust, interoperable, and FAIR-compliant PBPK sub-module. FAIRification and compliance checks were conducted using the FAIR PBK Inspector, ensuring that models are transparent, reusable, and suitable for regulatory and innovation contexts. In parallel, the inorganic arsenic (iAs) PBPK model within the INTEGRA platform was refined to support WP4 case studies, strengthening its applicability for mixture and life-course exposure assessments. A dedicated manuscript describing this activity is currently in preparation.

Importantly, within Task 8.1 (SSbD), Spyros contributes to the use of PBK/PBPK and PBPP-style modelling approaches as quantitative bridges between NAM outputs and safety assessment needs at early stages of innovation. By translating NAM-derived effect concentrations into human-relevant internal exposure metrics, these models enable rapid screening of design alternatives, prioritization of safer candidates, and early identification of potential safety concerns, before large-scale production or market entry. This integration directly supports the operationalization of SSbD principles by embedding mechanistic, non-animal evidence into design-phase decision-making.

Under Task 8.3, Spyros contributes to an innovative case study aimed at linking PBPK models to real-world health impacts by integrating systems biology models and NAM-derived data within the INTEGRA PBPK framework. This work advances the coupling of toxicokinetics with mechanistic toxicity information, enabling biologically informed extrapolation from in vitro and in silico evidence to population-relevant internal doses. A PFOA PBPK modelling case study is currently underway, with additional applications planned for other PFAS and phthalates, thereby supporting cumulative and comparative assessments across chemical classes.

Finally, a dedicated case study on FAIR PBK models is currently ongoing, focusing on the FAIRification of the triclosan PBPK model. This includes comprehensive parameter annotation using the PBPK ontology, as well as the implementation of machine-actionable formats such as SBML and related modular templates, further enhancing interoperability, automation, and reuse across regulatory, research, and innovation-oriented workflows.

In 2025, Vikas Kumar activities under the PBPK methodology stream primarily focused on advancing the FAIRification of PBPK models and strengthening cross-WP methodological integration within PARC.

Vikas led the development of the Physiologically Based Pharmacokinetic Ontology (PBPKO), a formal ontology designed to enhance the modeling and semantic representation of pharmacokinetics in biological systems (InSilicoVida-Research-Lab/pbpko). PBPKO has been accepted and published by the OBO Foundry at https://obofoundry.org/ontology/pbpko.html. To ensure harmonization and broader adoption, the PBPK Modeler Group was initiated, comprising experts from WP5, WP6, WP7, and WP8. This group meets monthly to align terminology and enrich ontology terms used across PBPK modeling activities, supporting future regulatory integration.

Within Task 6.2.2, Vikas contributed to refining exposure route modeling methods across oral, inhalation, and dermal pathways. Collaborative work also focused on developing QSAR-based predictive models for absorption parameters, facilitating input generation for PBPK models. All models are now shared through the PARC SharePoint platform, enabling seamless collaboration with WP6 for integration with human biomonitoring data in risk assessment.

In WP5.3.4, Vikas collaborated closely with the PFAS group and WR partners to advance PFAS PBPK methodologies, addressing limitations in existing models. Ongoing efforts include modeling PFAS exposure through drinking water across Europe and performing QIVIVE analyses linking in vitro data with systems biology models of the mTOR signaling pathway. These activities aim to mechanistically bridge experimental observations with complex biological responses relevant for risk characterization.

Vikas has also contributed to Task 8.3 (Integrative Modelling) and Task 8.1 (SSbD), where PBK/PBPK and PBPP-type modelling approaches were applied to support early-stage safety assessment during innovation processes.

Key results and methodological advances were presented by Vikas at major international conferences, including Eurotox 2025, the German Toxicology Conference 2025, and as an invited talk at the ICT Conference in Beijing.

6.2.6. Omics

Josef Daniel Rasinger contributed to the mapping and cross-linking of omics activities within PARC by co-leading the development of the PARC WP2 T2.2 Scoping Document for Omics Methodologies. He coordinated inputs from consortium partners, managed a survey-based project mapping, and produced the first consolidated draft for review and dissemination. He strengthened the methodological foundation for omics in regulatory science, acting as a bridge between EFSA and PARC, and placing the omics work in PARC into the broader context of other European initiatives and EFSA's 2024 omics roadmap. Parallel to his PARC efforts, he continued to disseminate the latest omics knowledge and information on PARC activities to colleagues, collaborators, and EFSA EU-FORA Fellows.

6.2.7. Pre-validation of new methods

During 2025, in her role as ML for the pre-validation of new methods for the human health area, Miriam Jacobs has continued to follow the work being done in PARC, namely the work on NAMs validation, being involved in several WP6 activities.

6.2.8. New Generation Environmental Risk Assessment

As Methodology Leads (MLs) for NG-ERA and biodiversity, Johan Axelman and Romana Hornek-Gausterer have obtained a comprehensive overview of PARC and related initiatives relevant for environmental risk assessment (ERA) and biodiversity protection. They have mapped substantial work within PARC, covering key regulatory needs from New Approach Methodologies (NAMs) to enhanced ecological realism, and identified major opportunities to better integrate data and knowledge to address the systemic drivers of biodiversity loss. By bringing together scientific excellence and key EU regulatory actors, PARC offers a unique opportunity to co-shape and drive the transition to next-generation ERA (NG-ERA). As MLs they are currently organising high-level initiatives and platforms for transdisciplinary dialogue in concert with proof-of-concept research providing innovative solutions as well as new insights from cross-disciplinary integration of data.

Romana Hornek-Gausterer was co-organiser and session chair of the SETAC Europe 2025 Annual Meeting Special session "Biodiversity and Chemical Hazard/Risk Assessment: Regulatory Frameworks, Integrative Approaches and Research for a Sustainable Future" (Vienna, 11–15 May 2025), which convenes authorities, industry and academia to advance integration of biodiversity into chemical risk assessment. She is also guest editor of the Environment International (Impact Factor 10.3) Special Issue "Bridging Science and Risk Assessment to Protect Biodiversity from Chemical Pollution", which aims to bridge science and policy, showcase innovative methodologies and address knowledge gaps on chemical pollution and biodiversity, with submissions open until the 20 February 2026.

Together with Peter von der Ohe, and with Johan Axelman as alternate, Romana Hornek-Gausterer contributes to the European Commission ESA Working Group on Environment, supporting the roadmap to phase out animal testing for chemical safety assessment. Their work includes mapping ongoing projects on non-animal approaches, informing and providing feedback to the Commission, as well as commenting on non-animal test methods for bioaccumulation for the Staff Working Document, thereby feeding NG-ERA perspectives directly into regulatory processes. As PARC NG-ERA Methodology Leaders, Johan and Romana have presented updates and status from the European Commission ESA Working Group for the EC roadmap for phasing out animal testing in chemical safety assessments at the PARC WP2 T2.2 NGRAroute meeting that took place on March 31st 2025.

In parallel, preparatory work on the MIND Platform (MIND—Mapping, Integrating, Networking, Driving), has led to a concrete high-level project starting this year and a publication outlining how the project maps and bring together existing initiatives, integrate data and tools, network stakeholders and drive evidence-based governance for systems-based NG-ERA.

6.3. Conclusions and future plans

This annual report summarises the nomination process of new CLs, as well as activities carried out related to the roles of Chemical and Methodology Leaders concerning the period being reported.

During 2025, PARC Chemical Leaders (CLs) and Methodology Leaders (MLs) continued to play a central role in advancing work on priority chemicals and methodologies across the Partnership. Their contributions strengthened scientific coordination, enhanced the visibility of PARC's activities, and supported stronger connections between scientific work, regulatory needs, and broader policy initiatives.

Significant progress was achieved in:

- Monitoring and assessment activities across chemicals such as EDCs, PFAS, nanomaterials, microplastics, and phthalates.
- Methodological development, notably in PBK modelling, omics integration, NG-ERA conceptualization, and NAMs pre-validation.
- Cross-WP collaboration, with CLs/MLs helping reduce fragmentation, promote knowledge exchange, and support harmonisation efforts.
- External engagement, through presentations, interviews, participation in international conferences, and involvement in EU-level working groups.

The year also marked important steps in consolidating the CL/ML network as three new Chemical Leaders were nominated, two additional candidates were identified, and efforts to address remaining gaps advanced considerably.

Looking ahead to 2026, several priorities will guide the work of Task 2.2 and the coordinated activities of CLs and MLs:

1. Finalisation and dissemination of the scoping documents: CLs and MLs will complete the development of the scoping documents for their chemicals and methodologies. These documents will:

- map ongoing activities,
- identify gaps and priorities,
- support alignment with regulatory needs, and
- provide reference points for future PARC planning.

2. Strengthening coordination across WPs: Task 2.2 will further reinforce mechanisms for structured interaction between CLs/MLs and relevant Work Packages, ensuring:

- more efficient knowledge flow,
- better identification of synergies,
- alignment with policy and regulatory timelines, and
- improved integration of outputs (e.g., for PARCopedia, PARCroute, training materials).

3. Continued identification and nomination of missing CLs and MLs: efforts will continue to fill the remaining open positions. The process will include:

- targeted identification of qualified experts,
- direct invitations to experts, and
- coordination with the Management Board for validation and nomination.

4. Continued dissemination of the work done as CLs and MLs: Task 2.2 help to disseminate the word developed by:

1. encourage the CLs and MLs to create/manage a group in PARCopedia for their chemicals or methodologies;
- encourage the preparation of targeted communication materials in collaboration with WP3, namely the section on chemicals in the PARC website,
- promoting the publication of interviews, short articles, and scientific insights related to the work of CLs and MLs,
- enhance the use of PARC's website and social media channels to showcase progress,
- support the organization of webinars, workshops, and training sessions highlighting achievements and methodological advances across chemicals, and
- support the systematic integration of CL/ML contributions into communication campaigns linked to major PARC milestones.

Overall, the work carried out in 2025 has laid a strong foundation for a more coordinated, policy-relevant, and strategically aligned work of the CLs/MLs. The activities planned for 2026 will consolidate these achievements, strengthen scientific integration across WPs, and further enhance the contribution of CLs and MLs to European chemical risk assessment and management.