



# EURION Newsletter

European Cluster to  
Improve Identification  
of Endocrine Disruptors

## EURION's vision

A world without the harmful effects of endocrine disrupting chemicals

### *Welcome to the first EURION newsletter!*

The EURION cluster is made up of 8 European Commission funded projects that focus on the development of novel methods for testing and assessment of endocrine disrupting chemicals (EDCs). These research projects responded to the Call SC1-BHC-27-2018 – New testing and screening methods to identify endocrine disrupting chemicals (EDCs), and they receive about €50 million from the European Commission's Horizon 2020 Research and Innovation Programme, the largest public funding of this type of research in Europe.

By building on synergies between the 8 projects, the overall objective of EURION is to produce new and optimize current methodologies to increase the quality, the efficiency and the effectiveness of testing methods to meet demanding and evolving regulatory requirements worldwide. The projects within EURION are focused on different endocrine-related systems: Thyroid disruption (Athena, ERGO and SCREENED), metabolism and metabolic disorders (EDCMET, GOLIATH and OBERON), neurological development (ENDPoINTs), and female reproduction (FREIA).

In this issue, you can read about the cluster's first 15 months, an interview with Sharon Munn (JRC) as well as current coordinatorship and its activities.

## EURION's first 15 months

The EURION cluster is now considered as one of the major and most visible research efforts in Europe on EDCs. The first 15 months of EURION were coordinated by Karine Audouze (OBERON) and Juliette Legler (GOLIATH).

In this period, we set up thirteen cross-cutting working groups on subjects ranging from chemical selection and data management to AOP and processes like regulatory challenges and test validation. Led by representatives from the various projects, the working groups facilitate dialogue between participants and harmonization of methods and approaches. Highlights of the first 15 months include simultaneous publications outlining our goals and ambitions within a [special issue on Endocrine Disruptors](#) in the International Journal of Molecular Sciences as well as a successful first annual meeting of all projects in Paris in February 2020.

See [here](#) for more information



Juliette Legler,  
GOLIATH coordinator



Karine Audouze,  
OBERON coordinator

## Interview with Sharon Munn from the Joint Research Centre ( JRC)

As JRC representative and member of the international advisory panel in EURION, we asked Dr Sharon Munn about the vision of JRC on the current status of EDC legislation in the EC.



Sharon Munn,  
Joint Research Centre

### *Q: Why is there need for a cluster such as EURION?*

The current toolbox of methods and approaches to identify endocrine disruptors is not complete. We hope that the eight projects, which constitute the EURION cluster, will go a long way to filling that gap. For example, a number of the projects focus on the thyroid system, which we know can be disrupted in many different ways and for which it is expected we will need a suite of reliable methods to support regulatory decision making.

Other projects cover different aspects of the endocrine system but nevertheless all the projects have a lot of challenges in common, such as how to best capture and interpret omics data, approaches to validation, selecting common chemicals to better compare or combine data across projects and developing AOP networks, to name but a few. Working together through activities at the cluster level will allow ideas to be shared, synergies to be found and solutions to emerge.

The full interview is available on the [EURION](#) website.

## Current cluster coordination



Joëlle Rüegg,  
ENDpoiNTs Coordinator

Our ambition is that EURION will be a game changer to improve identification, hazard assessment and regulation of endocrine disrupting chemicals.

By delivering new and harmonized methods and testing strategies for endocrine disruptors, the cluster aims to leave permanent impact on European and international regulation and policy for better protection of humans and the environment.

This will be achieved by synergizing the strengths and potentiating the results of the EURION projects in the development of novel tools and endpoints to be implemented into regulatory frameworks.



Henrik Holbech,  
ERGO Coordinator

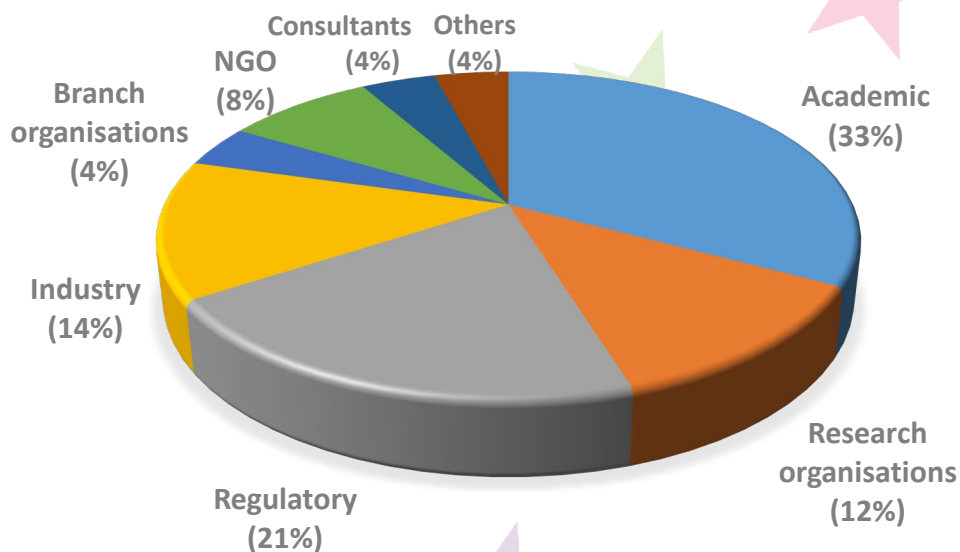
The first coordinators have done an excellent job in building the foundation of the EURION cluster and introducing it to the European and international arenas. As second coordinators, it is now our aim and duty to continue the work and consolidate collaboration and knowledge exchange both within the cluster and with external stakeholders.

Within EURION, this means to connect emerging results, material and data from the eight projects. The cross-project working groups (WGs) are the engines of the cluster, and we are thus supporting them in the development and implementation of the joint activities.

To increase interaction and raise awareness of EURION, we have worked on a stakeholder survey and stakeholder workshop as well as other dissemination activities about which you can read more on the following pages.

## EURION Stakeholder Workshop 2020

The EURION Coordination team organised a Virtual Stakeholder Workshop on 11 December 2020 to discuss stakeholder views, needs and expectations related to EDC test method development, international strategies and guidelines. The workshop gathered around 60 representatives from research, regulatory authorities, industry, civil society and contract research organisations, policymakers as well as other experts working in the field of EDs. Participants were welcomed and given an overview of the EURION Cluster by the current EURION co-coordinators, Joëlle Rüegg and Henrik Holbech, whereas Pim Leonards summarised main results from a first stakeholder survey on ED test method development. The survey was carried out in autumn 2020.



Stakeholder groups participating in the first EURION stakeholder survey (n=73)

Invited stakeholder perspectives at the workshop were presented by Cristina de Avila (DG Environment), Niklas Andersson (ECHA), Andrea Terron (EFSA), Pia Juul Nielsen (CHEM Trust) and Helen Tinwell (CEFIC). The main feedback from breakout groups and workshop discussions encouraged developing test batteries (not single tests) and reporting results using harmonised templates and with clear guidance for test performance, including uncertainty analysis. It was also highlighted that the in vitro endpoints need clear linkage to in vivo effects. Stronger involvement of stakeholders was desired as well as frequent communication and dissemination activities. Hence continued stakeholder interaction, surveys and workshops are expected in near future.

The presentations and a workshop summary report are available on the [EURION](#) website.

## ED Forum, 17-18 December 2020



Juliette Legler,  
GOLIATH

The Second Annual Forum on Endocrine Disruptors was organised by the European Commission, Directorate-General for Environment on 17-18 December 2020, bringing together policy makers and stakeholders to discuss topical developments in the ED field. The meeting discussed the new Chemicals Strategy for Sustainability and conclusions and recommendations from the Joint Research Centre (JRC) led Fitness Check as well as follow-up actions.



Andreas Kortenkamp,  
ATHENA

The EURION cluster had a one-hour session on 17 December 2020, entitled 'EURION Cluster: Testing and Screening Methods to Identify Endocrine Disruptors'. The cluster was presented by ATHENA coordinator Andreas Kortenkamp (Brunel University, United Kingdom), GOLIATH coordinator Juliette Legler (Utrecht University, the Netherlands) and FREIA coordinator Majorie van Duursen (Vrije Universiteit Amsterdam, the Netherlands). The session highlighted some of the gaps between scientific knowledge and current regulations in place, and how EURION projects are working to close these gaps through the development of novel test methods. The three presentations by the project coordinators exemplified the challenges and progress in relation to thyroid hormone system, metabolism and metabolic disruption and female reproduction.



Majorie van Duursen,  
FREIA

More information about the Forum is available [here](#).

## Virtual Annual Cluster Meeting 2020



The EURION Annual Cluster Meeting was organised virtually on 28-29 January 2021. An open session for stakeholders took place in the morning of 28 January, providing highlights of the joint cluster activities and the eight projects. The meeting continued with EURION-members-only with scientific posters and spotlight presentations as well as discussions on collaboration and cross-project activities. This year's discussion topics included adverse outcome pathways, validation activities, *in silico* work, stakeholder interaction, text mining tools and potential update on the state of the science report.

Editorial team: Karine Audouze, Elina Drakvik, Elin Engdahl, Henrik Holbech, Jorke Kamstra, Juliette Legler, Pim Leonards, Helle Lyngborg, Joëlle Rüegg

