



**New testing and screening methods to identify endocrine disrupting chemicals:
Eight project funded under EU Horizon 2020 Topic-SC1-BHC-27-2018
Project period 2019-2023**



These projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 825161 (ATHENA), No. 825762 (EDCMET), No. 825759 (ENDpoiNTs), No. 825753 (ERGO), No. 825100 (FREIA), No. 825489 (GOLIATH), No. 825745 (SCREENED), No. 825712 (OBERON). This output reflects only the author's view and the European Union cannot be held responsible for any use that may be made of the information contained therein.

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EURION Background



In order to optimise synergies and avoid overlaps between the projects selected for funding from the call SC1- BHC-27-2018 ‘New testing and screening methods to identify endocrine disrupting chemicals’, the projects will form a cluster.

Common activities will include the following (not exclusive):

- Common kick-off, annual and final meetings;
- Thematic workshops/training, in cooperation with JRC when relevant, on issues such as AOPs, IATA, (pre)validation of tests, data sharing, selection of chemicals, methodologies;
 - Facilitated by cross-project working groups
- Common International Regulatory Advisory Panel;
- Common dissemination activities such as: Common webportal, visual identity, joint policy briefs and newsletters, cluster leaflet, stakeholder list.



EURION Cluster Projects



ATHENA - Assays for the identification of thyroid hormone axis-disrupting chemicals: elaborating novel assessment strategies. Andreas Kortenkamp, UK (10 partners)

ERGO - Breaking down the wall between human health and environmental testing of endocrine disruptors: Endocrine Guideline Optimisation. Henrik Holbech, DK (15 partners)

SCREENED - A multistage model of thyroid gland function for screening endocrine-disrupting chemicals in a biologically sex-specific manner, Lorenzo Moroni, NL (9 partners)

EDCMET - Metabolic effects of endocrine disrupting chemicals: novel testing methods and adverse outcome pathways, Anna-Liisa Levonen, FIN (11 partners)

GOLIATH - Beating Goliath: Generation of novel, integrated and internationally harmonised approaches for testing metabolism disrupting compounds. Juliette Legler, NL (15 partners)

OBERON - An integrative strategy of testing systems for identification of EDs related to metabolic disorders. Karine Audouze, FR (11 partners)

ENDpoiNTs - Novel testing strategies for endocrine disruptors in the context of developmental neurotoxicity, Joelle Ruegg, SE (16 partners)

FREIA - Female reproductive toxicity of EDCs: a human evidence-based screening and identification approach, Majorie Van Duursen, NL (11 partners)

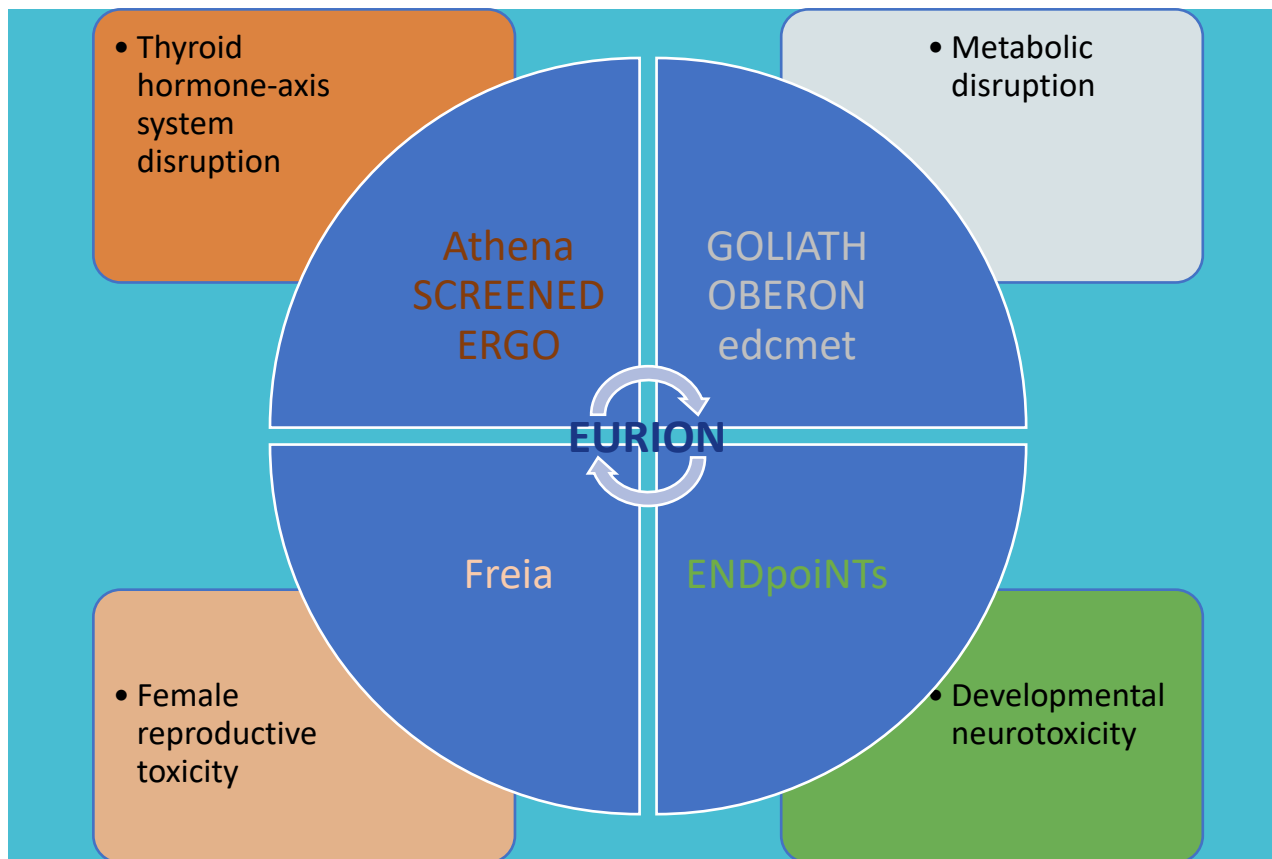


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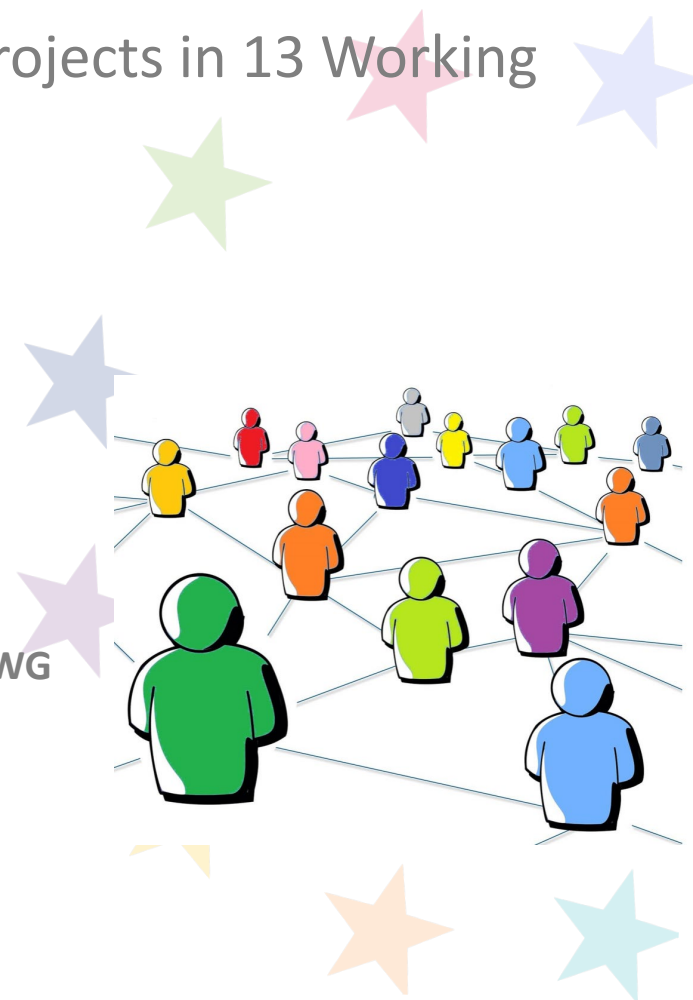
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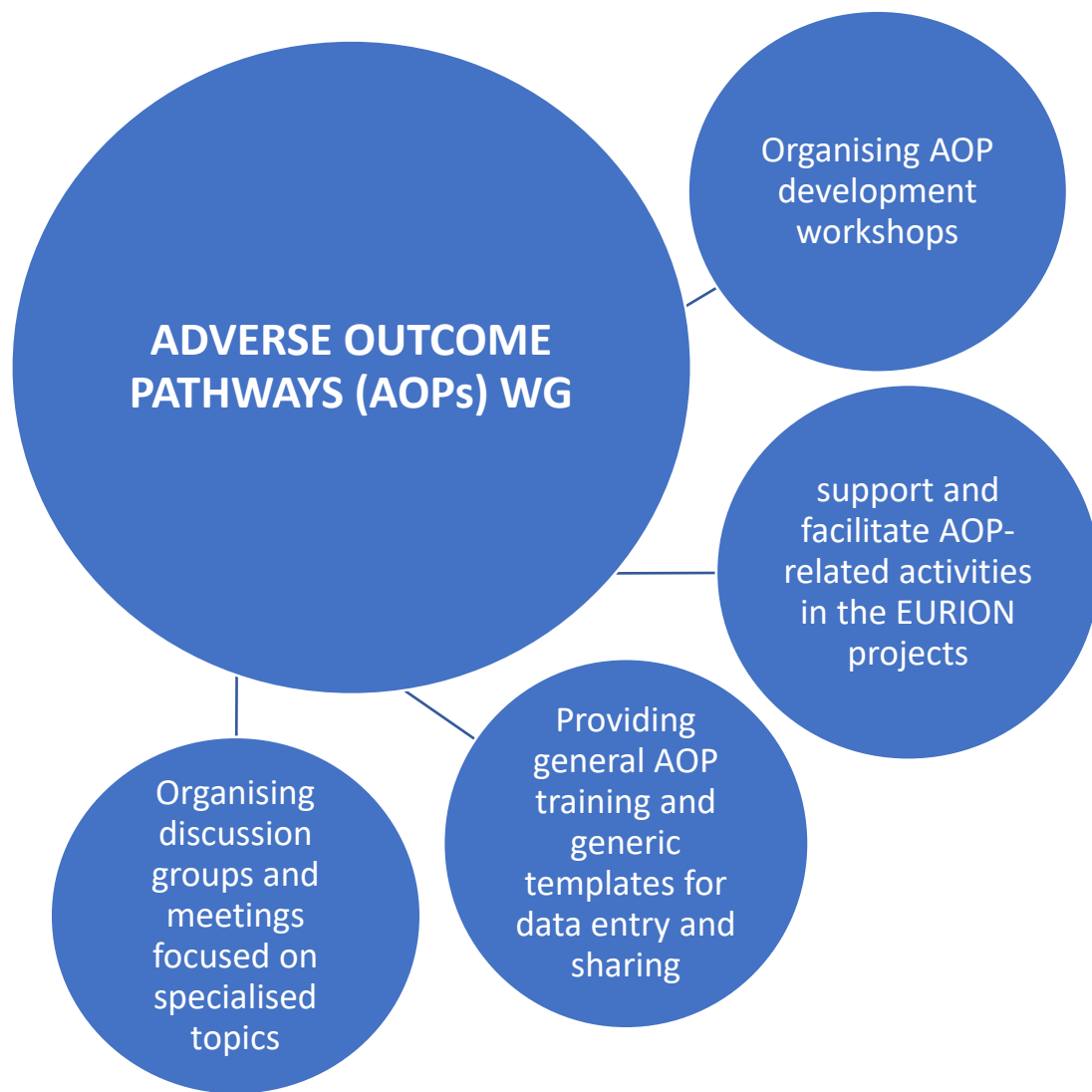
Partners and working groups

+ 90 partners collaborating across EURION projects in 13 Working Groups.

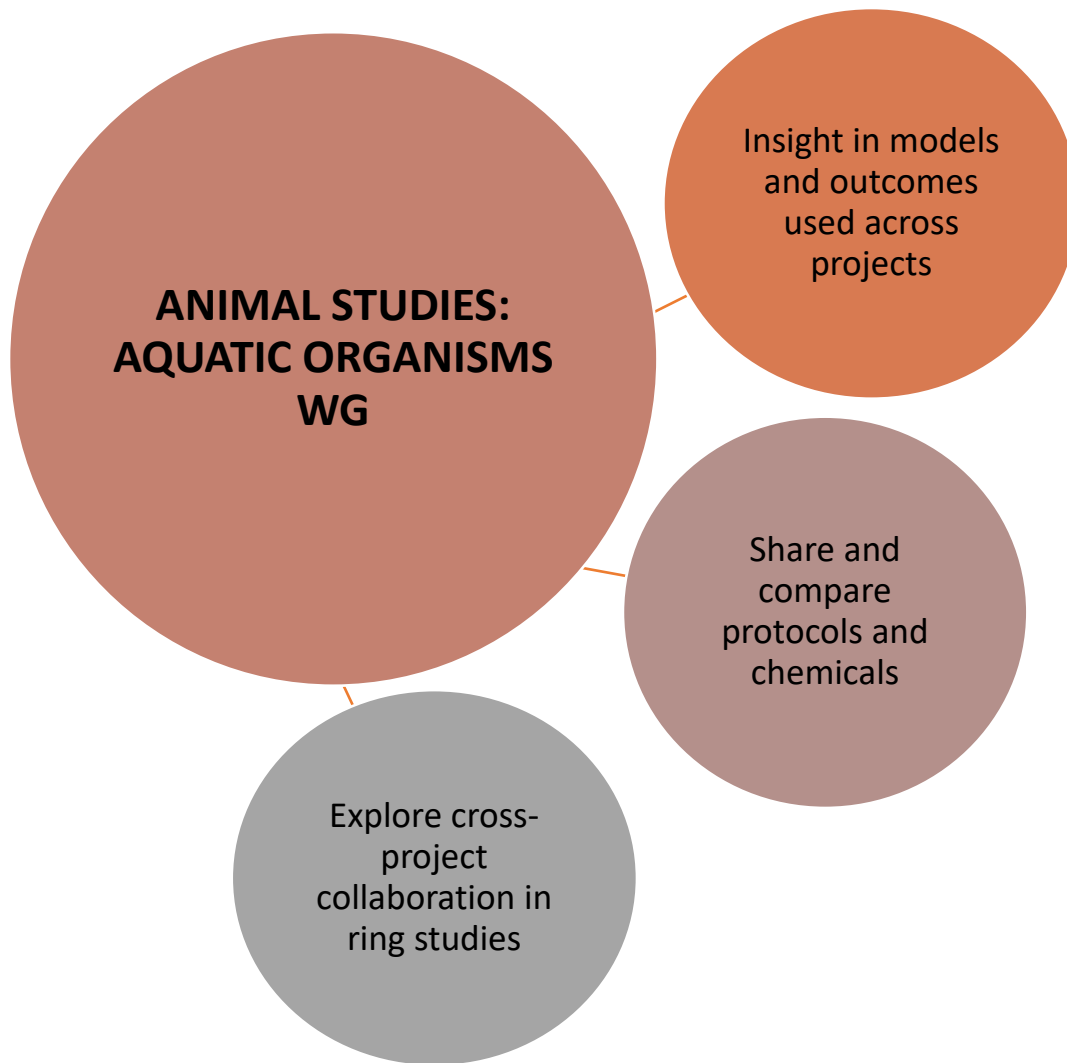
ADVERSE OUTCOME PATHWAYS (AOPS) WG
ANIMAL STUDIES: AQUATIC ORGANISMS WG
ANIMAL STUDIES: RODENTS WG
CHEMICALS WG
DATA MANAGEMENT WG
DISSEMINATION AND COMMUNICATION WG
EPIDEMIOLOGY WG
IN SILICO WG
INTEGRATED APPROACHES TO TESTING AND ASSESSMENT (IATA) WG
IN VITRO MODEL STUDIES WG
OMICS WG
REGULATORY AFFAIRS AND POLICY (RAP) WG
VALIDATION WG



working groups



working groups



working groups

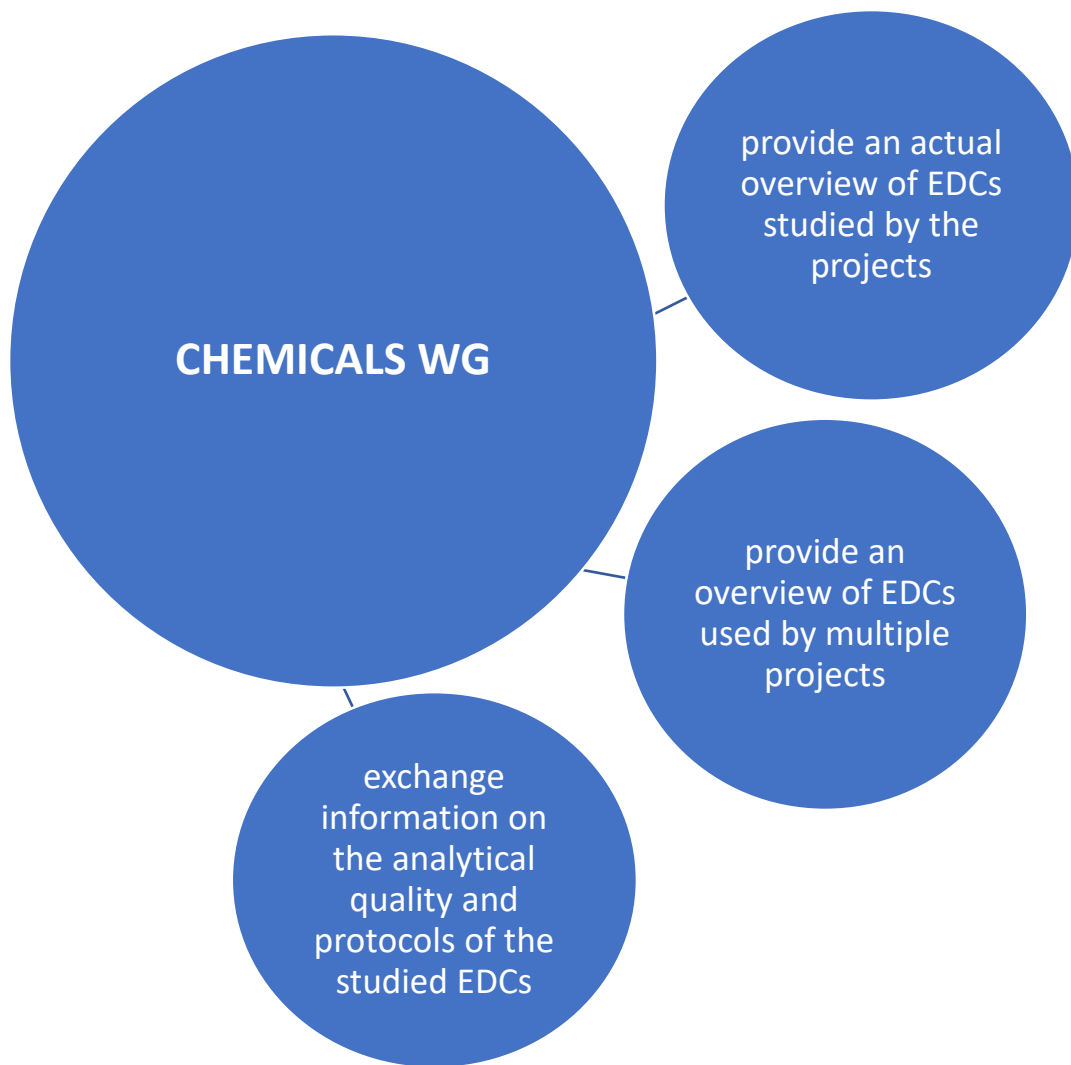
**ANIMAL STUDIES:
RODENTS WG**

Share experience
and expertise on in
vivo rodent studies

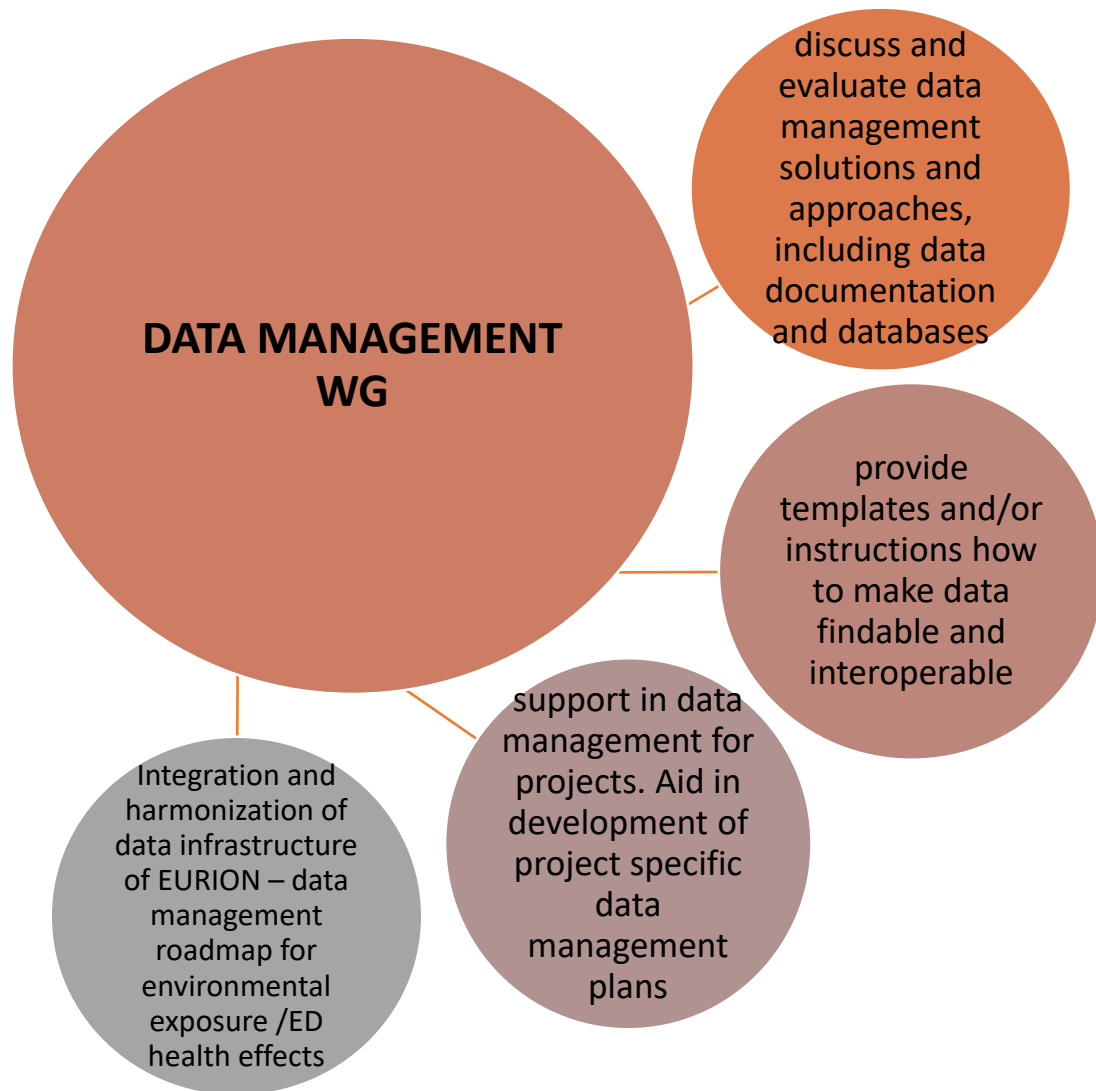
Share tissues among
the EURION projects
and beyond,
whenever possible



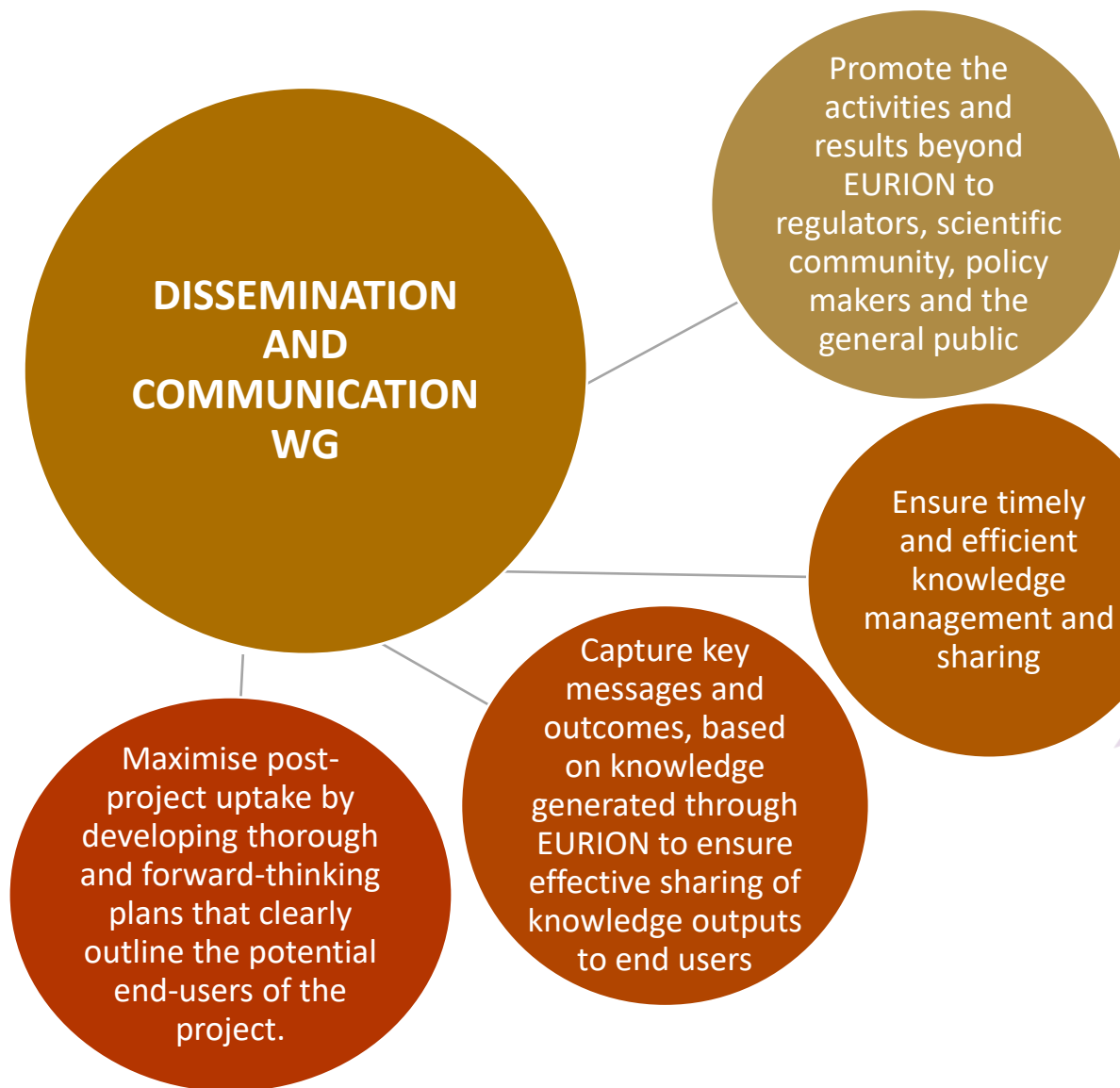
working groups



working groups



working groups



working groups

EPIDEMIOLOGY WG

compile information
on epidemiological
studies in the cluster
and coordinate the
involved
epidemiological
studies within the
cluster

establish a data
management plan
for how to share
information/results
from different
epidemiological
studies

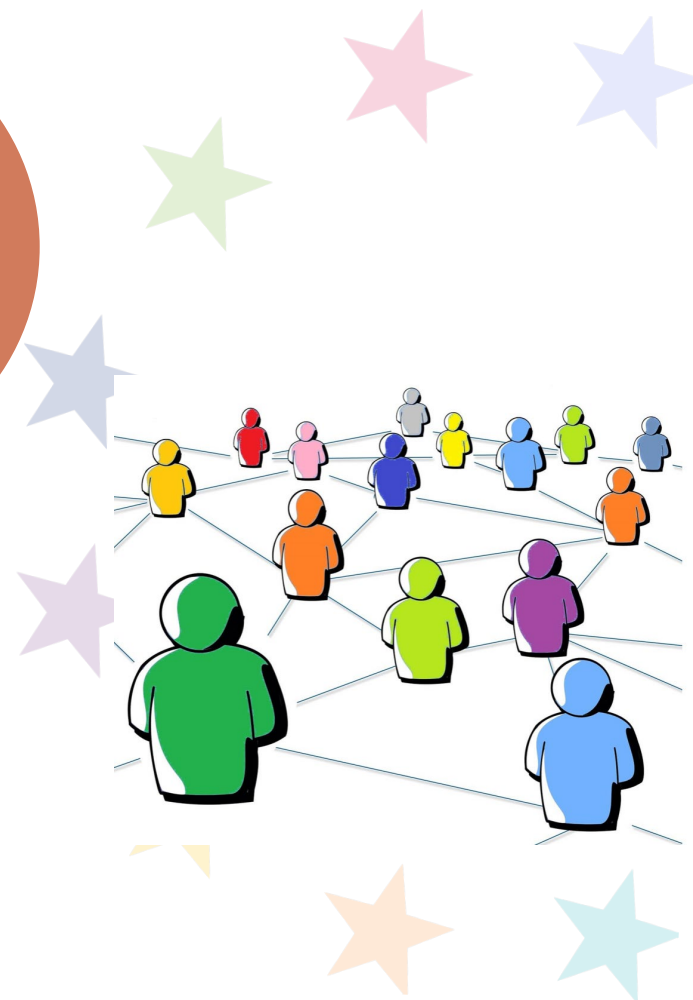


working groups

IN SILICO WG

share analysis approaches, intelligence around test chemicals etc. and to provide a platform for scientific discussion and inter-laboratory validation

generate joint publications exploring the utility of in silico methodologies for risk assessment within the ED space



working groups

INTEGRATED APPROACHES TO TESTING AND ASSESSMENT (IATA) WG

review and
understand
existing IATA
guidance

review and learn from
case studies of
relatively simple IATAs
e.g eye and skin
irritation. Case studies
of more complex
IATAs: Non-Genotoxic
carcinogenicity

build
harmonised
bridges across
the EURION
projects

agree common
understanding
of terminology
and
applications



working groups

**IN VITRO MODEL
STUDIES WG**

generating a
database of cells
used in the different
projects of EURION

individuate possible
synergies and
additional
collaborations in the
context of in vitro
models for ED
screening

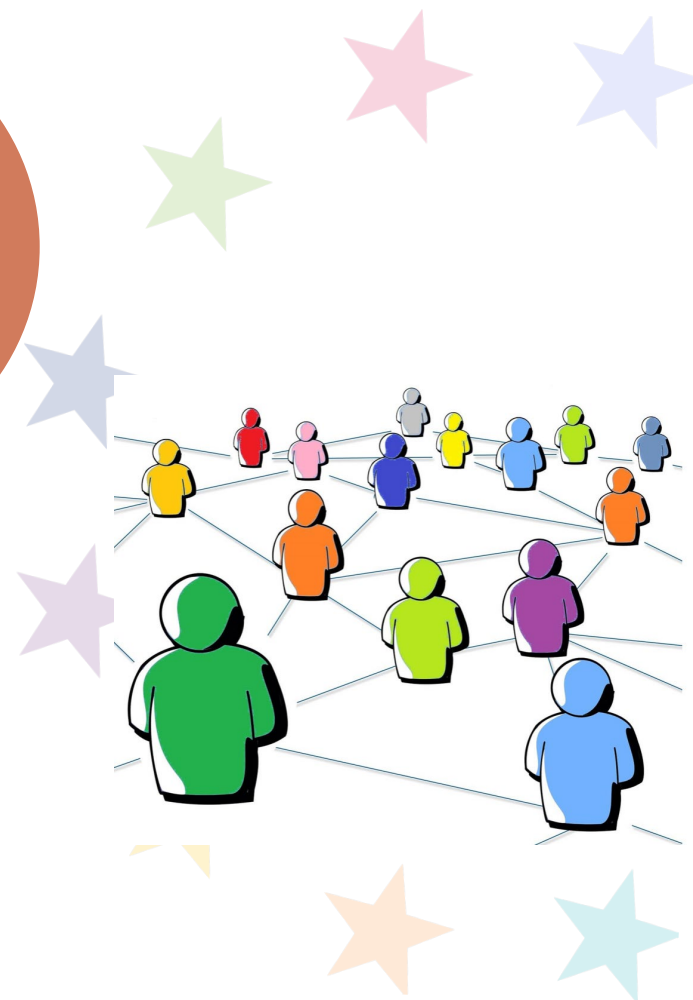


working groups

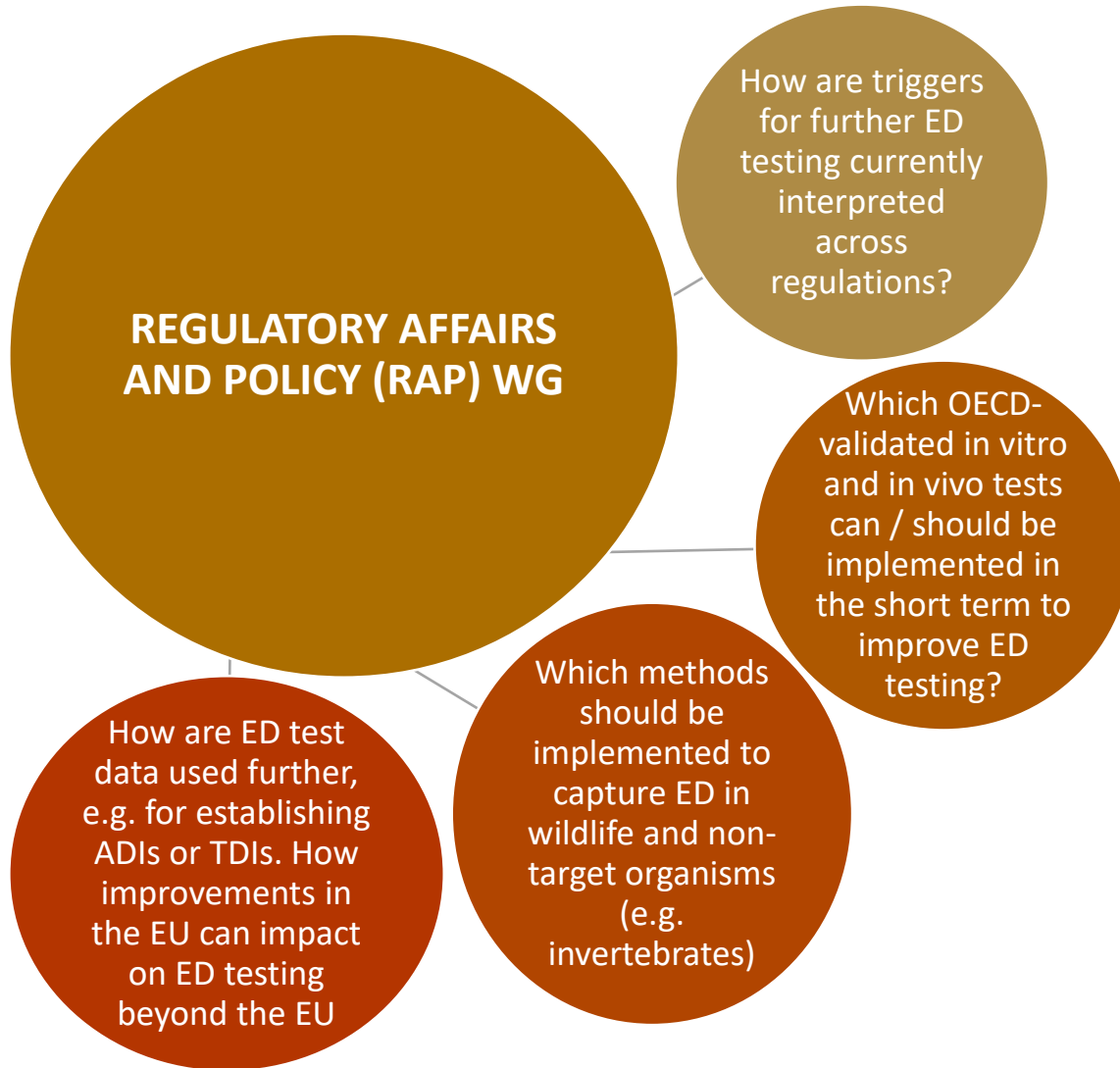
OMICS WG

harmonize the data
in order to be able
to use them across
the different
projects

establish an
'EURIONOMICS
protocol' to have
comparable data



working groups



working groups

VALIDATION WG

provide a platform
for cross-cluster
discussion on issues
relevant to
validation through
identification of
issues and sharing of
best practices

develop and provide
relevant training



Test Methods to be developed

Screening

Thyroid	Neurodevelopment	ATHENA	EDCMET	ENDpoiNTs	ERGO	FREIA	GOLIATH	OBERON	SCREENED
Female	Metabolic								
Screening tests									
Cell-based assays		X	X	X	X	X	X	X	X
Cell membrane transporters assays		X							
3D cell models								X	X
Stem cell assays		X		X			X		X
Reporter gene assays		X	X	X	X	X	X		
Non-cellular assays			X						
In vitro biotransformation					X				
Whole organism embryo			X	X	X	X	X	X	
Computational tools for screening (QSAR or other)		X	X	X	X	X	X	X	
Blood cerebrospinal fluid barrier (BCSFB) assay		X							
Blood brain barrier (BBB) assay		X							
High throughput assays		X	X	X	X	X	X	X	X
Molecular mechanism based assays (omics readouts)			X	X	X		X	X	X



Test Methods to be developed Definitive

Thyroid	Neurodevelopment	ATHENA	EDCMET	ENDpoiNTs	ERGO	FREIA	GOLIATH	OBERON	SCREENED
Female	Metabolic								
Definitive tests									
Addition of:									
Molecular readouts to existing test guidelines				X	X		X		
Endpoints to existing test guidelines		X			X	X	X		
More sensitive endpoints to existing test guidelines		X		X	X	X	X		
Biomarkers to existing test guidelines		X		X	X	X	X		



EURION annual meeting open session



EURION Annual Meeting, 28-29 January 2021

About the event

Join the Virtual EURION Annual meeting for an update on the latest advances in EURION's research to improve the identification of endocrine disruptors and joint activities.

The morning of the first day will be open for all scientists and stakeholders who want to learn more about the advances of the EURION cluster and its project in developing new testing and screening methods for identifying endocrine disruptors.



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European Cluster to
Improve Identification
of Endocrine Disruptors

Thank You!

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