

# LIFE Platform Meeting on Chemicals

# 27 & 28 November 2019

### Seminar on Indicators to measure Improvement in Chemicals Management 28 & 29 November

Hosted by the LIFE project "LIFE Fit for REACH" LIFE14ENV/LV000174

http://fitreach.eu/article/welcome-lifefit-reach

# Vilnius, Lithuania

Event Guide (Final version)



25 November 2019

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### 1. Background

Chemicals are very important and an integral part of our daily lives. There is no doubt that they provide many benefits without which modern societies would not be able to exist. Unfortunately, a large number of these substances also causes problems when it comes to the health and the environment. The EU policies on chemicals aim to reduce levels of chemicals in the environment to a target, low-risk level where only negligible harmful effects occur to both the human population and the environment.

In 2006, the new regulatory framework for the control of chemical substances in Europe was adopted. Its initial provisions were implemented in a long-term period (over 11 years, until 2018). On 31 May 2018 after the 10-year period for registering existing chemicals under REACH, 13 620 European companies have submitted information to the European Chemicals Agency (ECHA) on 21 551 chemicals manufactured or imported in the EU and EEA at quantities above one tonne a year<sup>1</sup>.

In 2018 the Commission has published the second review of REACH defining a set of actions for further improvement, simplification and burden reduction, including:

- Better knowledge and management of chemicals throughout the supply chain;
- Enhancement of risk assessment and better implementation of risk management;
- Coherence of REACH and other pieces of EU legislation, strengthening the enforcement of the obligations and support compliance by SMEs;
- Review of registration requirements for low tonnage substances and polymers.

Besides REACH the comprehensive chemicals legislation exists in the EU, including CLP, regulations on specific groups of chemicals, such as biocides, pesticides, pharmaceuticals or cosmetics, as well as endocrine disruptors. However, it is more and more visible that reaching a high level of chemical safety depends on multi-sectoral approaches and synergies between different policies, including such sectors as water, marine, waste, industrial emissions etc.

To reduce risks from chemicals in the environment we have to build our actions considering the overall principle that hazardous substances of particular concern should as far as possible be phased out in uses which are not sufficiently well contained /controlled during their life cycle<sup>2</sup>. There is a clear need for updating European chemicals policy and major political choices have to be made in the nearest future regarding various issues, including the non-toxic environment, product policy framework, endocrine disruptors, nanomaterials and circular economy.

<sup>&</sup>lt;sup>1</sup> REACH registration results. Retrieved from https://echa.europa.eu/reach-registrations-since-2008

<sup>&</sup>lt;sup>2</sup> Study for the strategy for a non-toxic environment of the 7th EAP, Final report – April 2017

### 2. Objectives of the Platform Meeting

The main aim of the LIFE programme is the implementation of EU environmental legislation, through the hands-on development and pilot implementation of innovative technologies, best practices, tools and communication activities and the provision of feedback for the further development of policies accordingly.

In this context, the event is structured in such a way as to allow for networking, capitalisation of results (incl. sharing of best practices) and policy feedback from LIFE projects. The sessions of the platform meeting should provide an appropriate balance between policy contributions and experiences "from the field".

The approach taken covers the wider scope of the LIFE projects instead of focusing strictly on the projects falling under the chemicals policy area. This approach showcases the interaction with other policy areas, like waste, agriculture, resource efficiency and environment and health, which very often address issues highly relevant to the chemicals policy, like the reduction of chemicals use and/or release in the environment, the substitution and/or removal of hazardous substances and the achievement of a non-toxic environment.

The main objectives of the LIFE Platform meeting on Chemicals are:

- 1. To promote **networking** including exchanges of best practices and lessons learnt among on-going and closed LIFE & H2020 projects, NGOs, and relevant stakeholders (e.g. cities, SMEs, industry, academia, policy makers);
- 2. To convey strategic **feedback** and provide **input to policy makers** in order to advance the planning, implementation and update of relevant policies; and
- 3. To promote the added value of the LIFE Programme in the field of Chemicals.

The targeted audience of the LIFE Platform Meeting is:

- LIFE Projects including industry professionals, academics/researchers, consultants, policy specialists, etc.;
- European Policy makers (EASME, DG ENV, ECHA, OSHA);
- Member States (administration, public bodies, local decision makers);
- H2020, BBI JU, and INTERREG projects;
- Chemical industry association;
- NGOs;

The LIFE Platform meeting will be held back-to-back with an event organised on 28 & 29 November 2019 (in the same venue by the same host project "LIFE Fit for REACH". This event is an expert seminar on "Indicators to measure improvements in chemicals management". **Participants of the LIFE Platform meeting on Chemicals have been invited to attend the project seminar** (if time allows). The Agenda of the seminar is included in Annex II.

### 3. Topics for discussion

During the Platform meeting many policy-oriented presentations and solution-specific approaches will be discussed both in plenary as well as in-depth discussions (workshops) will be organised. Three Workshops will be held in the afternoon of 27 November and one more Workshop on the morning of 28 November, to discuss the topics indicated below and then report to the plenary in the end of the second day.

On the first day (Wednesday 27 November), the platform meeting participants will be divided among the three workshops described below, according to the preferences that they expressed during the online registration and the relevance of the project or organisation they represent to the workshop topics.

Each workshop will start with a presentation overview of the topic addressed (presented by three selected projects). Then, depending on the number of the workshop participants, the discussion will be organised according to a "World Café" format, based on pre-set questions addressing the topics indicated below in the grey boxes.

On the second day (Thursday 28 November), all participants will attend the fourth workshop that will focus on the presentation of different exposure assessment, chemicals management and communication tools that LIFE projects have developed. All project participants will attend an introductory plenary session and then split into three thematic groups (see below) for a more detailed discussion of the different tools and their applications, based on the topics indicated in the grey boxes.

Project mapping and analysis, has revealed that the boundaries between the different workshops are not always clear. The same project could be relevant and, therefore, involved in several workshops, which may appear confusing, at first, but it actually shows the complexity of and interconnections between the different issues addressed. Therefore, persons from the same project or organisation are encouraged to participate in different workshops.

### 4. Workshop 1: Substitution of chemicals

<u>Aim:</u> Discuss how substitution of substances of concern in the EU could be boosted by increasing the availability and adoption of safer alternative substances and technologies as well as raising awareness in and creating incentives for supply chain changes. According to ECHA's substitution strategy, this would take place through, among others, further improved access to ECHA data, increased capacity of Member States and stakeholders to carry out analysis of alternatives and through support to innovation including the development of (inherently) safe new substances and technologies, as well as networking. This workshop will also address the issue of assessing the environmental impact of the substitutes (LCA) and the issue of regrettable substitution.

### **General discussion topics**

- Main barriers to substitution identified by LIFE projects
- How to overcome substitution barriers: solutions, financial options, etc.
- Success factors of substitution identified in projects
- Funding programmes and policy: division of responsibilities for safe use of chemicals (industry, non-policy makers)
- What policy makers could do to strengthen actors and conditions that promote substitution
- How to promote behavioral change within industry towards sustainable and safer chemicals
- Innovation and business opportunities

# 5. Workshop 2: Eco-innovation for reduced production and use of hazardous chemicals

<u>Aim</u>: Identify how the use and emissions of substances of concern can be reduced in different areas thus contributing to a non-toxic environment and circular economy (e.g. industrial processes, agriculture, waste and waste water management, resource efficiency). In this workshop, the implementation of the "principles of green chemistry" will be covered, as well as approaches to improve emission and exposure reduction in manufacturing and the application of hazardous chemicals, including pesticides and biocides. It also could include new business models like chemical leasing.

### **General discussion topics**

- Circular economy and the reduction in the production and use of substances of concern
- How can eco-innovation contribute to improve environmental and human safety?
- How far do we still need clean-up technologies? How could the costs be shared with industry?
- New approaches to be tackled by the LIFE programme

# 6. Workshop 3: Monitoring and assessment of the impacts of chemicals on the environment and human health

<u>Aim</u>: Discussion and identification of achievements towards understanding the complexity of environmental and health effects from exposures to hazardous substances, including accumulation of exposures, mixture effects, determination of safe exposure thresholds and relevant knowledge related to it. This includes new methodologies for monitoring and exposure assessment of chemicals in the environment and humans as well as approaches to convey this information to consumers and workers.

This workshop would include other relevant projects such as INTERREG NonHazCity.

### **General discussion topics**

- How to improve monitoring and data gathering for exposure and risk assessment
- Cumulative exposure to a chemical from exposure to different articles
- Impacts of low-dose long-term exposure
- Selection of appropriate biomarkers for bio-monitoring

### 7. Workshop 4: The LIFE Toolbox

<u>Aim</u>: The aim of the workshop is to present different tools developed in the framework of the different projects and discuss their applicability. This plenary session will be divided into three smaller groups that will focus on:

(1) Tools supporting hazard assessment and/or exposure models: How could LIFE projects contribute to identifying or closing gaps in hazard and exposure assessment tools; what approaches were used to support chemical safety assessment in the projects; What are remaining gaps and how should LIFE work on these.

(2) Tools for companies that support management of chemicals (e.g. inventory tools, procurement criteria, environmental management standards): Identify issues that LIFE projects contributed to on the side of chemicals management; What are the perceived main needs and how can they be satisfied; What is the output of improved chemicals management; What are barriers to the use of tools.

(3) Tools that support awareness raising (e.g. consumer apps, information materials, training): Identify main gaps that need to be closed with regard to chemicals; How can they be satisfied; How effective is their contribution to sustainable chemicals policy/strategy implementation; Potential barriers in using these tools.

### **General discussion topics**

- How effective are the tools produced and how efficient is their use?
- Are the current dissemination, transfers and replications sufficient?
- How could LIFE project outputs be used wider for policy implementation?

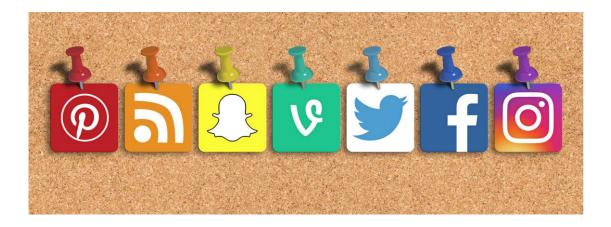
### 8. Social Media

You are encouraged to use social media to inform the public about the LIFE Platform meeting on Chemicals. Please use the following hashtags in your messages (as needed).

### #LIFEPMEnvironment

#ChemicalsinOurLife,

#EU\_REACH



The Platform Meeting Agenda is shown in Annex I.

### 9. ANNEXES

### Annex I: AGENDA OF THE LIFE PLATFORM MEETING ON CHEMICALS

### Day 1: 27 November 2019 (Wednesday)

9.20 0.00	Production of participants		
8:30 - 9:00	Registration of participants		
9:00 – 10:20	<ul> <li>Plenary session:</li> <li>Welcome statements</li> <li>Deputy Environment Minister of Lithuania Mrs Justina Grigaravičienė (10 min)</li> <li>European Commission DG ENV Director Mr Kęsţutis Sadauskas (10 min)</li> <li>BEF Lithuania Mrs Audrone Alijosiute (Hosting project LIFE Fit for Reach) (5min)</li> </ul>		
	<ul> <li>ECHA Mr Peter Van Der Zandt (ECHA risk management and substitution of substances of concern) (10 min)</li> <li>EASME Unit B.3 LIFE &amp; Eco-Innovation Mr Angelo Salsi (The LIFE programme as a driver of the environmental policy implementation &amp; its future) (10 min)</li> <li>EASME Unit B2 H2020 Environment &amp; Resources Mr Arnoldas Milukas (Horizon 2020 – Environment and Resources: Research and Innovation (R&amp;I) activities in the field of Chemicals) (10 min)</li> <li>Q&amp;A</li> </ul>		
10.20 - 11.00	Coffee break		
11:00 - 12:30	OSHA Mr Lothar Lieck (Substitution of dangerous		
	<ul> <li>substances at work places - lessons from the past, current and future EU-OSHA activities) (10 min)</li> <li>CEFIC Mrs Sylvie Lemoine (Molecule managers: views on the chemical policy 2030 in circular economy) (10 min)</li> <li>City of Stockholm Mr Arne Jamtrot (Substitution in practice – challenges, opportunities and needs of municipalities working for a non-toxic environment) (10 min)</li> <li>Q&amp;A</li> <li>EEB Mrs Tatiana Santos (Towards a non-toxic environment – NGO proposals for a way forward) (10 min)</li> <li>EASME Mr Manuel Montero-Ramirez (The LIFE Programme and Chemicals – An overview) (10 min) Overview on the LIFE Programme and its contribution to the implementation of chemicals policy through the implementation of relevant projects (innovation, demonstration, communication)</li> <li>Q&amp;A</li> </ul>		
12.30 - 13.30	<ul> <li>and future EU-OSHA activities) (10 min)</li> <li>CEFIC Mrs Sylvie Lemoine (Molecule managers: views on the chemical policy 2030 in circular economy) (10 min)</li> <li>City of Stockholm Mr Arne Jamtrot (Substitution in practice – challenges, opportunities and needs of municipalities working for a non-toxic environment) (10 min)</li> <li>Q&amp;A</li> <li>EEB Mrs Tatiana Santos (Towards a non-toxic environment – NGO proposals for a way forward) (10 min)</li> <li>EASME Mr Manuel Montero-Ramirez (The LIFE Programme and Chemicals – An overview) (10 min) Overview on the LIFE Programme and its contribution to the implementation of chemicals policy through the implementation of relevant projects (innovation, demonstration, communication)</li> </ul>		

13:30 - 17:00			
	will be provided during the Platform plenary session):		
	Workshop 1: Substitution of chemicals:		
	<ul> <li>Life Cycle Assessments for Flame retardants in</li> </ul>		
	textiles, Maria Rosa Riera (LEITAT, Technological		
	Center) (10min)		
	<ul> <li>Reduction of Hazardous substances to waste water</li> </ul>		
	from tanneries, Massimiliano Silvestri (Conceria		
	Pasubio JSC) (10min)		
	<ul> <li>Reduction of biocides from paints, Solvita</li> </ul>		
	Kostjukova (ALINA TM) (10min)		
	<ul> <li>Reduction of Bisphenol A in food cans, Grazvydas</li> </ul>		
	Jegelevicius (Baltic Environmental Forum Lithuania)		
	(10min)		
	<ul> <li>Presentations followed by moderated discussion</li> </ul>		
	Workshop 2: Eco-innovation for reduced production and use of		
	hazardous chemicals:		
	<ul> <li>Biopesticides in the context of European pesticide</li> </ul>		
	regulations, Ascensión Ciruelos (Centro		
	Tecnológico Agroalimentario Extremadura (CTAEX))		
	(10min)		
	<ul> <li>Renovation in Innovation: a successful route to gain</li> </ul>		
	a sustainable chemical industry from a local to a		
	global perspective, Maria Cristina Pasi (Italmatch		
	Chemicals S.p.A.) (10min)		
	• The silent problem of pesticide residues, Fulgencio		
	Contreras & Isabel Garrido (Instituto Murciano de		
	Investigación y Desarrollo Agrario y Alimentario		
	(IMIDA)) (10min)		
	<ul> <li>Substances of concern and related regulations as</li> </ul>		
	bottlenecks for circular plastics economy in WEEE,		
	ELV & C&DW, Anna Tenhunen (VTT Technical		
	Research Centre of Finland) (10min)		
	<ul> <li>Presentations followed by moderated discussion</li> </ul>		
	<b>Workshop 3:</b> Monitoring and assessing the impacts of chemicals on the environment and human health:		
	<ul> <li>Nanomaterials: Challenges in Exposure and Risk Assossment Athena Program (ALCON CONSULTANT</li> </ul>		
	Assessment, <b>Athena Progiou</b> (ALCON CONSULTANT ENGINEERS Ltd. (ALCON)) (10min)		
	<ul> <li>Introduction of the EU LIFE APEX Project – Improving</li> </ul>		
	the systematic use of contaminant data from apex		
	predators and their prey in chemicals management,		
	Wiebke Drost (German Environment Agency (UBA))		
	(10min)		
	(10)		

	<ul> <li>We move on phthalates, we move in phthalates, phthalates move in us - findings from the project NonHazCity substance screening and source tracking results (water, dust, materials and human urine) Arne Jamtrot (City of Stockholm, Environment and Health Administration) (10min)</li> <li>Presentations followed by moderated discussion</li> </ul>		
15:00 - 15:30	Coffee break		
	<ul> <li>Parallel thematic workshops (cont.):</li> <li>Workshop 1: Substitution of chemicals</li> <li>Workshop 2: Eco-innovation for reduced production and use of hazardous chemicals</li> <li>Workshop 3: Monitoring and assessing the impacts of chemicals on the environment and human health</li> </ul>		
17:00 – 17:30	Launch of App called " <b>Scan4Chem</b> " for consumer information about SVHCs in articles (REACH Art. 33 (2))" by the LIFE AskREACH project team and invited experts (Plenary hall)		
17:30 – 19:30	Networking village with poster presentations, communication to users (e.g. project videos) & catering		

### Day 2: 28 November 2019 (Thursday morning)

9:00-11:00	:00-11:00 Workshop 4: The LIFE Toolbox	
<ul> <li>Plenary session:         <ul> <li>The VERMEER tools for risk assessment: current and picture, Anna Lombardo (Istituto di ricerche farmacol Mario Negri IRCCS) (10 min)</li> <li>THE LIFE MATHER PLATFORM: a new tool for mon chemical data, Melina Psycha (The National Teo University of Athens) (10 min)</li> <li>LIFE AskREACH: Scan4Chem app raises awareness of in consumer articles, Eva Becker (German Enviro Agency (UBA)) (10 min)</li> <li>Q&amp;A</li> <li>Discussions in parallel thematic groups:                  <ul></ul></li></ul></li></ul>		
11:00 - 11:20	• Group 3: Tools that support awareness raising Coffee break (on the way to the Plenary – Closing session)	
11:20 - 12:00	Plenary – Closing session:	
	Conclusions of the four workshops	
	<ul> <li>Presentation of the main conclusions of the platform</li> </ul>	
	meeting and bridge to the project seminar.	
12:00	End of the LIFE Platform Meeting on Chemicals	

# Annex II: SEMINAR ON INDICATORS TO MEASURE IMPROVEMENT IN CHEMICALS MANAGEMENT

This event (seminar) is organised by the "LIFE Fit for REACH" project. The event is focused on "Indicators to measure improvements in chemicals management". Participants of the LIFE Platform meeting on Chemicals are welcome to attend the project seminar if they wish.

### Aim of the Seminar

- Overarching goal of the event is to contribute to the further development of guidance for (LIFE) projects to optimise their performance indicators.
- Furthermore, the workshop shall initiate discussions on how member states could expand and/or harmonise their data collection to support monitoring the implementation of chemicals-related policies at national and EU level
- Specific objectives of the workshop are to present ideas and exchange experience on measuring success of chemicals risk management in terms of changes in:
  - Behaviour and awareness;
  - The implementation of environmental emission reduction measures;
  - The application and design of governance tools;
  - The socio-economic aspects affected by the use and emission of hazardous chemicals.
- The workshop shall identify and discuss potential indicators for the four areas as well as types of "change initiators" (e.g. (LIFE) projects, NGO campaigns, chemical action plans etc.)
- It also is expected to come up with a set of conclusions and development of recommendation on the learnings from discussion (as well as potentially other outputs, such as scientific articles, discussion papers etc.).

### **Character of the Seminar**

The event will be a workshop rather than a mere conference, i.e. less presentation and extensive discussion time. At the beginning of the workshop, focussed inputs are given that should

- Outline the needs for indicators from specific and various perspectives and
- Existing indicators used by the organisation(s) of the presenter(s) including their
- Usefulness, data problems and any other experience gathered.

Discussions in working groups or other formats (to be determined) should deepen the discussion and lead to specific conclusions on how indicators could be used to, among others, measure the impact of LIFE projects, but also other activities that would stimulate a better chemicals risk management.

### Day 2: 28 November 2019 (Thursday - afternoon)

### Agenda

### Moderation: Heidrun Fammler, Baltic Environmental Forum

Time	Setting	Thematic Focus	
14:00	Plenary	Introduction to the meeting (Heidrun Fammler, Baltic Environmental Forum) Introduction to measuring chemicals risk management success (Antonia Reihlen, Oekopol, Germany – consultant to Fit for REACH)	
14:20	Plenary Presentations	<ul> <li>Introduction to different types of indicators</li> <li>Policy success indicators of REACH (Indicators used by ECHA)         <ul> <li>→ Andreas Ahrens, ECHA</li> </ul> </li> <li>Governance tools: Chemicals Action Plan of the city of Stockholm → Arne Jamtrott, Stockholm, NonHazCity INTERREG</li> <li>Environmental impacts from emission reduction measures: Jolita Kruopiene, Kaunas technical University, LIFE-FitForREACH,</li> <li>Socio-economic impacts: Daiva Semeniene, Env. Policy Centre, Lithuania, Fit for REACH</li> <li>Changes in Awareness and Behaviour of consumers and companies: Susana Fonseca, ZERO-Portugal, LIFE-AskREACH, LIFE Fit for REACH</li> </ul>	
15:30	Discussion	Reflection on presentations	
15:50		Introduction to the group work (Antonia Reihlen)	
16:00	Coffee break		
16:30	Working groups 1.5 hrs 5 groups Facilitators: 1. Jolita Kruopiene 2. Jana Simanovska 3. Antonia Reihlen 4. Ingrida Bremere 5. Audrone Alijosiute	<ul> <li>Discussion on the "cause-effect chains" of chemicals risk management activities and their goals. Identification of possibilities to measure the activities' success and elaboration of data needs, time scales and meaning of these indicators.</li> <li>Each group will be based on a specific example from the following LIFE projects: <ol> <li>LIFE GOAST – Massimiliano Silvestri</li> <li>LIFE Green Grapes – Laura Mugnai</li> <li>LIFE MILCH – Paola Palanza</li> <li>LIFE VERMEER – Anna Lombardo</li> <li>LIFE AskREACH – Julian Schenten</li> </ol> </li> </ul>	
18:00	Plenary	Reporting by the facilitation team, link to next day	
18:30	End of the day		

Day 3:	29	Noveml	oer 201	L9 (Friday)
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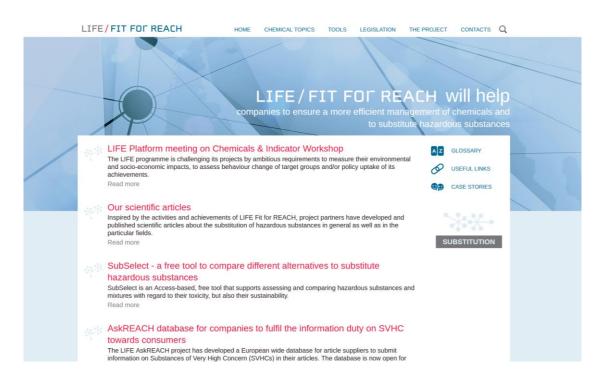
Time	Setting	Thematic Focus
9:00	Plenary	Summary and interim findings from day 1, including review of discussed indicators, data needs and timing of success measurements and focussing of further discussions (Antonia Reihlen)
1.5 hrs regard to their us their links to part involvement of d measurement ou activities.		Reflection on indicators assessed as during the first day with regard to their use in the LIFE programme, e.g. with a view to their links to particular project goals and deliverables, the involvement of different stakeholder groups, interpretation of measurement outcomes and their links to the project activities. The working groups will be structured according to indicator
	<ol> <li>Facilitators:</li> <li>Jolita Kruopiene</li> <li>Ingrida Bremere</li> <li>Audrone         <ul> <li>Alijosiute</li> <li>Jana Simanovska</li> </ul> </li> </ol>	<ol> <li>types, i.e. indicators to measure</li> <li>Reduction of ((eco-)toxicological) risks and (other) adverse environmental impacts</li> <li>Use and effects of governance tools and policy uptake of recommendations and tools</li> <li>Socio-Economic changes</li> <li>Changes in awareness and behaviour of different actors</li> </ol>
11:00	Coffee break	
11:30	Plenary	Reporting from second work session
12:00	Plenary	Feedback from Stakeholders
	Summary and conclusions	EU COM, EASME LIFE Programme officer and N.N. are invited to give a feedback to the meeting results
		It is expected to pin-point conclusions towards two results of the event:
		<ul> <li>A contribution of the workshop to the further development of guidance for LIFE projects to develop their indicators according to the four areas (Manuel Montero-Ramirez, EASME LIFE Unit, tbc)</li> <li>A contribution to the discussion on data generation to form indicators for policy success measuring (Andreas Ahrens, ECHA)</li> <li>Other stakeholders</li> </ul>
13:00		The end

#### Annex III: SUMMARY PRESENTATION OF THE HOST PROJECT

LIFE Fit for Reach aims to offer user SMEs a full 'chemicals management package', including capacity building in line with the CLP regulation (Classification, labelling and packaging of substances and mixtures) and MSDS (material safety data sheet) guidelines, information on chemical inventories and general management practices, guidance on how to follow legal obligations on specific substances (SVHC), and proposals on how to implement substitution as a core action to reduce environmental impacts from the use of chemicals in their own products and processes, possibly also realising resource efficiency gains.

Substitution will be used as an entry point to companies and as pilot cases to illustrate all elements of a chemicals' management at SME level, including the assessment of alternatives, socio-economic evaluation, and an analysis of the social motivation for substitution. The aim is to prepare user SMEs to face the future challenges for chemicals' management. This means understanding today, any future restrictions i.e. making Baltic SMEs 'Fit for REACH'.

# LIFE/FIT FOR REACH



### Annex IV: LIST OF PARTICIPATING PROJECTS & PROJECT SUMMARIES

- 1. LIFE14 ENV/LV/000174 LIFE Fit for REACH Baltic pilot cases on reduction of emissions by substitution of hazardous chemicals and resource efficiency
- 2. LIFE14 CAP/LT/000008 LIFE LT Building LIFE capacities in Lithuania
- 3. LIFE14 ENV/IT/000346 LIFE TRIALKYL An innovative and sustainable continuous process for the development of high quality trimethyl phosphite
- 4. LIFE14/IPE/DE/000022 LiLa Living Lahn River one river, many interests
- 5. LIFE15 ENV/IT/000697 LIFE M3P Material Match Making Platform for promoting the use of industrial waste in local networks
- 6. LIFE15 ENV/FR/000512 LIFE AGROMINE Cropping hyperaccumulator plants on nickel-rich soils and wastes for the green synthesis of pure nickel compounds
- 7. LIFE15 ENV/IT/000303 LIFE CRAL Industrial pilot plant for semisolid process route with eco-compatible feedstock materials
- 8. LIFE15 GIE/GR/000943 LIFE CHEREE Chemicals Regulations Enforcement & Inspections -Building Authority Capacity for REACH/CLP and SEVESO III Compliance
- 9. LIFE16 ENV/ES/000374 LIFE-FLAREX Mitigation of environmental impact caused by Flame Retardant textile finishing chemicals
- 10. LIFE16 GIE/DE/000738 AskREACH Enabling REACH consumer information rights on chemicals in articles by IT-tools
- 11. LIFE16 ENV/IT/000416 LIFE GOAST Green Organic Agents for Sustainable Tanneries (GOAST)
- 12. LIFE16 ENV/IT/000211 LIFE MATHER Full material and chemical monitoring data and disclosure for the protection of the human health and environment
- 13. LIFE16 ENT/IT/000566 LIFE GREEN GRAPES New approaches for protection in a modern sustainable viticulture: from nursery to harvesting
- 14. LIFE16 ENV/IT/000167 LIFE VERMEER Integrating VEGA, toxRead, MERLIN-Expo, and ERICA in a platform for risk assessment and substitution of risky substance
- 15. LIFE16 ENV/ES/000410 LIFE DIME Demonstration of an Innovative technology for the Minimization of the Environmental impact of metal finishing processes
- 16. LIFE16 ENV/ES/000232 LIFE SENSEEI Formaldehyde Sensor System for Safe Environments in Industry
- 17. LIFE16 IPE/MT/000008 LIFE-IP RBMP-MALTA Optimising the Implementation of the 2nd RBMP in the Malta River Basin District
- 18. LIFE16 CCM/IT/00027 LIFE IREPRO An innovative industrial process for production of low-GWP refrigerants for industrial refrigeration and air conditioning
- 19. LIFE17 ENV/ES/000192 LIFE WASTE4GREEN Sustainable and green agri-waste based biopesticides
- 20. LIFE17 ENV/IT/000164 LIFE BIOPAINT An innovative and sustainable continuous process for the development of novel bio based paints
- 21. LIFE17 ENV/LV/000318 LIFE-ALFIO Alina Life Formulations in Open-Source Platform
- 22. LIFE17 ENV/ES/000260 LIFE SURFING SURFactant enhanced chemical oxidation for remediatING DNAPL

- 23. LIFE17 ENV/ES/000205 PERFECT LIFE Pesticide reduction using friendly and environmentally controlled technologies
- 24. LIFE17 ENV/GR/000387 PureAgroH2O Pollutant Photo-NF remediation of Agro-Water
- 25. LIFE17 ENV/ES/000203 LIFE AgRemSO3il Agrochemical remediation of farm soils by combining solarization and ozonation techniques
- 26. LIFE17 ENV/GR/000285 NanoEXPLORE Integrated approach for exposure and health effects monitoring of engineered nanomaterials in workplaces in urban areas
- 27. LIFE17/GIE/HU/000622 Green and Safe LIFE-styles Complex awareness raising and behaviour change program for the sustainable & safe use of chemicals in consumer products
- 28. LIFE17 ENV/SK/000355 LIFE APEX Systematic use of contaminant data from apex predators and their prey in chemicals management
- 29. LIFE17 GIE/IT/000461 LIFE CONCERT REACH Concerting experimental data and in silico models for REACH
- 30. LIFE18 ENV/FR/000360 LIFE MACLEAN Towards to zero chemicals approach for aircraft engines
- 31. Interreg Project "NonHazCity"
- 32. NONTOX H2020 Removing hazardous substances to increase recycling rates of WEEE, ELV and CDW plastics.
- 33. PureNano H2020 A purification/regeneration process of spent plating baths base on functionalized magnetic nanoparticles
- 34. REACT H2020 REcycling of waste ACrylic Textiles
- 35. RESOLVE H2020 REnewable SOLVEnts with high performance in applications and improved toxicity profiles
- 36. VIPRISCAR H2020- Validation of an industrial process to manufacture isosorbide bis(methyl carbonate) at pilot level (Project funded by BBI JU, <u>www.bbi-europe.eu</u>)
- 37. LIFE18 ENV/IT/000460 Life MILCH Mother and Infant dyads: Lowering the impact of endocrine disrupting chemicals in milk for a Healthy Life

Project Summaries

# 1. LIFE14 ENV/LV/000174 LIFE Fit for REACH - Baltic pilot cases on reduction of emissions by substitution of hazardous chemicals and resource efficiency

The project aims to help small and medium enterprises (SMEs) in the Baltic States become compliant with EU REACH legislation. It offers downstream user SMEs a full 'chemicals management package', building capacity to meet classification, labelling, packaging and material safety guidelines, providing information on chemical inventories and general management practices, and guidance on how to follow legal obligations on specific substances (SVHC). It proposes ways to implement substitution to reduce environmental impacts from the use of chemicals in products and processes. To support its goals, the project developed a web platform and online management tools for user SMEs. It published substitution case studies from Latvia, Lithuania and Estonia on the SUBSPORT database.

Project website: <u>http://www.fitreach.eu/</u>

#### 2. LIFE14 CAP/LT/000008 LIFE LT - Building LIFE capacities in Lithuania

The LIFE LT project aims to raise awareness among Lithuanian NGOs and SMEs about the opportunities offered by the LIFE Programme, to improve their knowledge and skills in preparing applications and implementing LIFE projects. This will be achieved by actions to raise Lithuania's capacity to submit quality applications and provide support for on-going and closed projects to ensure the sustainability of their outcomes.

Project website: <u>http://lifeprojektai.lt/en</u>

# 3. LIFE14 ENV/IT/000346 LIFE TRIALKYL - An innovative and sustainable continuous process for the development of high quality trimethyl phosphite

The project aims to demonstrate a more sustainable and efficient process for the production of trimethylphosphite (TMPi), a compound used in a wide range of applications, including pesticides, flame retardants, plastics, childcare products and pharmaceuticals. The new process will avoid use of toxic chemicals, using instead phosphorus trichloride, methanol and anhydrous ammonia as precursors. The new process will not produce contaminated wastewater because water use is largely avoided. It will also use less energy and generate ammonium chloride (NH<sub>4</sub>Cl) as a by-product, which is useful for other sectors such as agriculture.

Project website: http://www.life-trialkyl.eu/en/

#### 4. LIFE14/IPE/DE/000022 – LiLa - Living Lahn River –one river, many interests

The main objective of the Living River Lahn project is to achieve a good ecological status/potential of surface waters in the catchment area of the Lahn through a comprehensive, synergistic, multi-level and multi-stakeholder approach. Another overall objective for the catchment area of the Lahn is to elaborate a Lahn-Concept, covering different thematic studies and an intensive dialogue with all stakeholders on how to manage the river as an inland waterway of minor importance for waterborne transport in combination with water-ecological and nature protection purposes.

Project website: https://www.lila-livinglahn.de/en/

### 5. LIFE15 ENV/IT/000697 LIFE M3P - Material Match Making Platform for promoting the use of industrial waste in local networks

The project aims to promote and develop industrial symbiosis by connecting SMEs in different sectors to foster alternative uses for their wastes. An online 'Material Match-Making Platform' (M3P) will promote knowledge about the industrial waste produced in an area, the life-cycles of products and the materials needed to make them. This platform will enable waste from one industry to become a secondary raw material for another industry. The project will also demonstrate the feasibility of a more efficient use of raw materials through the systematic application of eco-design techniques.

Project website: <u>http://www.lifem3p.eu/en/</u>

#### 6. LIFE15 ENV/FR/000512 LIFE AGROMINE - Cropping hyperaccumulator plants on nickel-rich soils and wastes for the green synthesis of pure nickel compounds

LIFE - AGROMINE aims to demonstrate a non-destructive phytomining approach for the recovery of high-value metals (e.g. Ni) from sub-economic ores. The project's approach will use plants to accumulate trace metals from soils and transport them to their shoots, which can then be harvested. Phytomining or agromining therefore offers an eco-efficient alternative to classical pyro- or hydro-metallurgical processes. The project is in line with the circular economy concept and creates a new business aimed at recovering high-value metals, ensuring the use of secondary resources that can then be reused in other production processes.

Project website: https://www.alchemia-nova.net/en/projects/agromine/

### 7. LIFE15 ENV/IT/000303 LIFE CRAL - Industrial pilot plant for semisolid process route with eco-compatible feedstock materials

The LIFE CRAL project has the objective to implement a breakthrough Pilot Semi-Solid Metal (SSM) line capable of producing high-quality and light-weight automotive cast components from both recycled low-purity aluminium alloys and new ECO-magnesium alloys in a safe and clean manner.

Project website: http://www.cralproject.eu/en

### 8. LIFE15 GIE/GR/000943 LIFE CHEREE - Chemicals Regulations Enforcement & Inspections - Building Authority Capacity for REACH/CLP and SEVESO III Compliance

The project aims to help enforce EU regulations on the sustainable use of chemicals in Greece and Cyprus and to increase the added value of environmental prevention in handling hazardous chemicals. It will provide guidance, training and support for inspectors and duty-holders in Greece and Cyprus. This will help ensure that relevant authorities are more efficient and have a greater capacity to act, as well as creating a culture of compliance with the REACH and CLP regulations and the SEVESO-III Directive.

Project website: <a href="https://www.reach-cheree.gr/">https://www.reach-cheree.gr/</a>

# 9. LIFE16 ENV/ES/000374 LIFE-FLAREX - Mitigation of environmental impact caused by Flame Retardant textile finishing chemicals

This project supports the substitution of flame retardants containing bromine, formaldehyde and antimony used in textile finishing products with safer alternatives. It will identify potential substitutes and test and evaluate them at pre-industrial and industrial scale. It will thus encourage the implementation and update of the REACH legislation.

Project website: https://www.life-flarex.eu/

# 10. LIFE16 GIE/DE/000738 AskREACH - Enabling REACH consumer information rights on chemicals in articles by IT-tools

This project aims to increase incentives for manufacturers, importers, users and retailers to replace hazardous substances by less harmful alternatives. AskREACH is programming a smartphone app for consumers (nearly 3m downloads) to launch requests (REACH Art. 33 ""Right to know"" about whether a product contains substances of very high concern=SVHC) to the suppliers and tap on a SVHC database. On the company-side AskREACH provides a corresponding supply chain communication tool.

Project website: <a href="https://www.askreach.eu/about-project/">https://www.askreach.eu/about-project/</a>

#### 11. LIFE16 ENV/IT/000416 LIFE GOAST - Green Organic Agents for Sustainable Tanneries

LIFE GOAST is demonstrating a new tanning technology on a semi-industrial scale in Arzignano (Veneto). The technology is expected to have reduced environmental impacts compared with the traditional chrome tanning process, while producing comparable or better-quality leather. In particular, the project will produce chrome-free high-quality leather articles and improve the quality of tannery effluents by eliminating the use of chromium salts and other harmful substances. The process is also expected to reduce water consumption (by about 20%) and enable the recycling/reuse of 10% of tanning agents.

Project website: http://www.lifegoast.eu/en/

# 12. LIFE16 ENV/IT/000211 LIFE MATHER - Full material and chemical monitoring data and disclosure for the protection of the human health and environment

This project aims at developing a data collection and management tool about the chemicals used in the production of mass market products (like home appliances) and the links of these chemicals with health and environment risks and the relevant EU legislation. It also aims at pilot implementing the tool on 15-20 products and achieving the substitution of lead with silicon where appropriate.

Project website: <a href="http://www.matherproject.eu/">http://www.matherproject.eu/</a>

# 13. LIFE16 ENT IT 000566 LIFE GREEN GRAPES - New approaches for protection in a modern sustainable viticulture: from nursery to harvesting

LIFE GREEN GRAPES seeks to improve the anti-parasitic response of vineyards through innovative natural products. It will demonstrate the effectiveness of predictive crop protection models, coupled with agronomic techniques and foliar interventions on vine plants, based on the use of products to increase plant resistance and biocontrol agents. This will also help reduce the amount of chemical fertilisers and pesticides used, as well as improving the harvest and product quality.

Project website: http://www.lifegreengrapes.eu/

#### 14. LIFE16 ENV/IT/000167 LIFE VERMEER - Integrating VEGA, toxRead, MERLIN-Expo, and ERICA in a platform for risk assessment and substitution of risky substance

LIFE VERMEER is an advanced project for the substitution of risky substances, which integrates hazard evaluation with exposure assessment for human and environment. LIFE VERMEER is developing two new tools that will have broad application and will help implement the REACH Regulation. Both tools will be validated within six case studies (food contact materials, biocides, petroleum and oil fraction, greener solvents, dispersants, and cosmetics), so that they can become part of the VEGA (Virtual models for property Evaluation of chemicals within a Global Architecture) platform.

Project website: https://www.life-vermeer.eu/

# 15. LIFE16 ENV/ES/000410 – LIFE DIME - Demonstration of an Innovative technology for the Minimization of the Environmental impact of metal finishing processes

The project is validating a solution for treating wastewater from metal finishing activities. The system will integrate three technologies (extraction, crystallisation and membrane distillation), and as a result more than 99% of the Hydrogen Chloride used in pickling operations will be regenerated. Furthermore, more than 99% of metal salts in the spent pickling liquor and in the spent strip liquor will be recovered. Ferrous Sulphate Heptahydrate crystals will be commercialised as a fertiliser, and Zinc Chloride will be fully reused in the galvanising process.

Project website: https://lifedime.eu/en/

#### 16. LIFE16 ENV/ES/000232 – LIFE SENSEEI - Formaldehyde Sensor System for Safe Environments in Industry

The objective of the LIFE SENSSEI project is to reduce its impact on the environment and, especially, on the health of workers resulting from the presence of formaldehyde in industry. For this, a new formaldehyde in air detection and determination system is going to be developed based on fibre optics. The system will allow the characteristics and performance of the current formaldehyde in air measurement methods to be improved and to give results continuously in real time. LIFE SENSSEI is developing a realtime formaldehyde monitoring and alarm system that will reduce workers' exposure to formaldehyde by 20% and reduce the concentration of formaldehyde in air at facilities where it is used by 80%.

Project website: http://www.lifesenssei.com/senssei/en

# 17. LIFE16 IPE/MT/000008 - LIFE-IP RBMP-MALTA - Optimising the Implementation of the 2nd RBMP in the Malta River Basin District

The main aim of the LIFE-IP RBMP-MALTA project is to support the implementation of the second RBMP through the establishment of an integrated framework for the optimised management of all water resources on the Maltese islands. To achieve this, it will seek to address the key horizontal challenges identified during a gap analysis undertaken as part of the development process for the second RBMP. The challenges will be addressed through the implementation of best practice, demonstration, pilot study, and capacity building actions.

Project website: https://www.rbmplife.org.mt

# 18. LIFE16 CCM/IT/00027 LIFE IREPRO An innovative industrial process for production of low-GWP refrigerants for industrial refrigeration and air conditioning

The project aims at the development, demonstration, validation and promotion of a novel technology for the production of non-chlorinated hydrocarbons (mixtures of gases), so that these may be used as substitutes for the environmentally friendly hydrofluorocarbons (HFCs).

Project website: http://www.life-irepro.eu/index.htm

# 19. LIFE17 ENV/ES/000192 LIFE WASTE4GREEN - Sustainable and green agri-waste based biopesticides

The main objective of WASTE4GREEN is to mitigate adverse effects on Environment and Human Health of chemical origin pesticides, currently used in stone fruit crops' protection. It will prove the effectiveness of two pesticide formulates form natural origin, safe and sustainable, whose active ingredients will be obtained from agro industrial by-products that will allow us to replace chemical pesticides used at present in stone fruit crops. Formulates will be open to be commercialised in EU.

Project website: <a href="https://www.waste4green.eu/">https://www.waste4green.eu/</a>

# 20. LIFE17 ENV/IT/000164 LIFE BIOPAINT - An innovative and sustainable continuous process for the development of novel bio based paints

LIFE-BIOPAINT is going to demonstrate a safe, sustainable and innovative continuous process for producing novel bio-based paints manufactured without petrochemicals at a site in Parona, Lombardy. This will avoid emissions of volatile organic compounds and greenhouse gases, eliminate waste, reduce energy consumption and deliver improvements in product quality in the wood coating sector. The project will also prove that the new closed-loop process is ready to be scaled up to commercial levels of production.

#### Project website: https://www.waste4green.eu/

#### 21. LIFE17 ENV/LV/000318 LIFE-ALFIO - Alina Life Formulations in Open-Source Platform

The overall objective of the project is to reduce the impact of toxic chemicals on the environment and human health by reducing toxic biocides and VOCs in paint and coating formulations with a safe, sustainable and novel organoclay-based material. The 16 biocide-free paint and coating formulas will be manufactured on a pilot line that can be scaled up to full industrial capacity as soon as the market requires. It will also develop an online platform for the paints and coating industry to share information about formulas, the transparency and traceability of paint and coating components in product value chains.

Project website: https://alina-premium.com/life-alfio/

#### 22. LIFE17 ENV/ES/000260 - LIFE SURFING - SURFactant enhanced chemical oxidation for remediatING DNAPL

The LIFE SURFING project aims to fully eradicate pervasive pollutants in sites contaminated by Lindane. Regional authorities in Aragon, Spain, will demonstrate the benefits of combining techniques from surfactant enhanced aquifer remediation and surfactant-enhanced in situ chemical oxidation to extract Lindane residues from even the smallest fractures in rocks and remove it from natural environments completely. Project partners will field-test the combined technique in the Bailin ravine in Aragon. Better tools for decontaminating the aquifer would support the EU Water Framework Directive and Regulation No 850/2004 on persistent organic pollutants.

Project website: http://lifesurfing.eu/

# 23. LIFE17 ENV/ES/000205 - PERFECT LIFE - Pesticide reduction using friendly and environmentally controlled technologies

The objective of the project is to reduce the consumption of pesticides using Optimal VolumeRate Adjustment tools (OVRA) and drift reducing tools (SDRT), leading to a decrease of the pesticide risk for fauna, flora and humans. A new ultra-fast, sensitive and time-resolved technology for the analysis of pesticides will be developed to assess the application of pesticides from a health standpoint, in real agricultural conditions.

Project website: <a href="https://perfectlifeproject.eu/">https://perfectlifeproject.eu/</a>

#### 24. LIFE17 ENV/GR/000387 - PureAgroH2O - Pollutant Photo-NF remediation of Agro-Water

The LIFE PureAgroH2O project aims to build a new water purifier to clean effluents from the fruit industry. The so-called Photo-Nanofiltration Reactor will extract contaminants from up to 15 cubic metres of wastewater a day by combining state-of-the-art technologies including nanofiltration and photocatalysis. As part of the project, the water purifier will be deployed in an agricultural cooperative in Zagora, Greece.

#### Project website: https://www.lifepureagroh2o.com/

# 25. LIFE17 ENV/ES/000203 - LIFE AgRemSO3il - Agrochemical remediation of farm soils by combining solarization and ozonation techniques

The pilot project LIFE AgRemSO3il aims at developing and tuning at farm scale a new technology and its associated techniques for the agrochemical remediation of farm soils by combining solarization and ozonation in situ. A new technique for remediating soils combines on-site decontamination with sunlight and ozone. Tests will take place on experimental plots and at full-scale on two commercial farms with drip irrigation systems. The new technique is expected to reduce the presence of pesticides in soils by 75%.

#### Project website: <a href="http://agremso3il.eu/">http://agremso3il.eu/</a>

#### 26. LIFE17 ENV/GR/000285 – NanoEXPLORE - Integrated approach for exposure and health effects monitoring of engineered nanomaterials in workplaces in urban areas

LIFE NanoEXPLORE will develop technology and online tools to monitor exposure to engineered nanomaterials in indoor workplaces and urban areas. The technology will be used to bio-monitor people to identify possible health impacts, including from inhalation. This new approach to nanomaterial risk assessment will be validated through a pilot study in Greece, Italy, Spain and the UK. The long-term goal is a harmonised health surveillance system and new EU policies on the safer use of engineered nanomaterials.

#### Project website: https://www.lifenanoexplore.eu/

#### 27. LIFE17/GIE/HU/000622 - Green and Safe LIFE-styles - Complex awareness raising and behaviour change program for the sustainable & safe use of chemicals in consumer product

Green & Safe LIFE-styles is targeting 3 million Hungarian citizens with an awareness campaign about the sustainable and safe use of chemical products. It will work closely with 15 000 households to change their behaviour, leading to an increase in demand for certified sustainable products. The behaviour change programme is designed to be replicated elsewhere and project results will be shared with consumer and environmental groups, businesses and policymakers.

#### **Project summary**

# 28. LIFE17 ENV/SK/000355 - LIFE APEX - Systematic use of contaminant data from apex predators and their prey in chemicals management

LIFE APEX is a demonstration project that demonstrates an approach to the use of chemical monitoring data that is new Union wide. The Union-wide novelty of LIFE APEX's approach centers around the use of chemical monitoring data from apex predators and their prey (AP&P) for the purposes of REACH and BPR. LIFE APEX will set up a European database and guidelines to help regulators and industry make more systematic use of chemical monitoring data from apex predators and their prey in risk assessments of chemicals and in assessing the success of pan-European mitigation actions.

#### Project website: <a href="https://lifeapex.eu/">https://lifeapex.eu/</a>

# 29. LIFE17 GIE/IT/000461 LIFE CONCERT REACH - Concerting experimental data and in silico models for REACH

The project aims to establish an integrated network of systems offering freely available non-testing methods (NTMs) for REACH. The network will bring together three tools widely used and supported by authorities and industry: the Danish (Q)SAR database for in silico models, the VEGA platform, and the AMBIT database for the read-across workflow and data from the registered substances. These will be integrated into a large network of in silico tools to assist in evaluating chemical substances.

Project website: https://www.life-concertreach.eu/

#### 30. LIFE18 ENV/FR/000360 LIFE MACLEAN - Towards to zero chemicals approach for aircraft engines

LIFE MACLEAN is the first commercial project which will develop a new cleaning process, focusing on helicopter engines, which uses laser and ice blasting. Team members from the project lead SAFRAN GROUP will seek to qualify the process for the ISO 14001 certification, reduce overall chemical mixtures by at least 85% and cut water and energy use by 80% and 30%, respectively. Its demonstrator line will manage 700 engines per year.

#### website:

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search. dspPage&n\_proj\_id=7167

#### 31. Interreg Project "NonHazCity"

The Interreg Project "NonHazCity" (3/2016 - 2/2019) aimed to demonstrate possibilities to reduce emissions of hazardous substances to the Baltic Sea. The main focus was on emissions from small scale emitters in urban areas that cannot be controlled by traditional water treatment and enforcement techniques: private households, municipal entities, and businesses that are connected to the urban wastewater plants.

Project website: <a href="http://nonhazcity.eu/">http://nonhazcity.eu/</a>

# 32. HORIZON 2020 NONTOX: Removing hazardous substances to increase recycling rates of WEEE, ELV and CDW plastics

The NONTOX project intends to identify innovative solutions that could increase the purity as well as the quality of the plastic fraction, to improve recycling rate in order to reduce landfill and incineration and to decrease the risk of retaining hazardous substances in recycled materials. Specifically, NONTOX aims to enhance the recycling rate of plastic from WEEE (Waste Electrical and Electronic Equipment), ELV (End of Life Vehicles) and C&DW (Construction and Demolition Waste) streams by removing hazardous additives and upgrading the recycled streams into compounds and plastic components designed for the Circular Economy. With these actions NONTOX aims to

improve the overall recyclability and valorization of these nowadays burnt or landfilled toxic residues. NONTOX is a three-year project funded by European Union's Horizon2020 research and innovation program and its Consortium is made up of 12 partners lead by the project coordinator VTT. NONTOX is one out of six new projects that are addressing innovation to boost circular economy solutions for plastics.

#### Project website: https://www.linkedin.com/showcase/nontox-project

# *33.* HORIZON 2020 PureNano: A purification/regeneration process of spent plating baths base on functionalized magnetic nanoparticles

PureNano is a research-intensive innovation project involving 12 entities from 6 European countries. The project develops a fast and low-cost method for purification of spent plating baths, promoting aspects of circular economy and reuse of secondary raw materials, as plating solutions and metal ions.

#### Project website: <a href="https://www.purenano-h2020.eu/">https://www.purenano-h2020.eu/</a>

#### 34. HORIZON 2020 REACT - REcycling of waste ACrylic Textiles

The REACT project addresses the management of waste acrylic textiles coming from outdoor awnings and furnishing. A crucial issue is the analysis and removal of finishing substances that affect the secondary raw material purity and their management. Then a mechanical recycling process will be implemented to obtain second life fibre and fabrics, which performance will be tested for the best application. A full process to remove hazardous materials on finishing of waste acrylic textile will be investigated and developed, together with a safe utilisation and disposal of removed substances.

#### Project website: <u>https://www.react-project.net/</u>

# 35. HORIZON 2020 (BBI JU) ReSolve - REnewable SOLVEnts with high performance in application and improved toxicity profile

ReSolve sets out to replace two hazardous solvents – toluene and NMP (N-methyl-2pyrrolidone) – with safer alternatives derived from non-food carbohydrates. These new solvents will omit parts of the molecular structure that cause toxicity – namely aromatic rings (toluene) and amide groups (NMP). The new, safer solvents will have a wide range of applications; project ReSolve will bring them to Technology Readiness Level. It will also demonstrate their sustainability, low health impact and high application performance of the bio-based solvents.

Project website: <a href="http://resolve-bbi.eu/">http://resolve-bbi.eu/</a>

#### 36. HORIZON 2020 (BBI JU) - VIPRISCAR - Validation of an industrial process to manufacture isosorbide bis(methyl carbonate) at pilot level

VIPRISCAR aims to validate a highly-efficient IBMC production process in an industrially relevant environment able to be up-scaled and produce, under suitable market conditions, IBMC at a similar price to that of current oil-based monomers used in polycarbonates and polyurethanes. The project will show also a proof of principle for the added value IBMC brings to the market by demonstrating the usefulness of

polymers derived thereof in three high-volume market sectors: industrial coatings, hotmelt adhesives, and biomedicine (antithrombotic-antimicrobial catheters).

#### Project website: https://vipriscar.eu/

# 37. LIFE18 ENV/IT/000460 - Life MILCH - Mother and Infant dyads: Lowering the impact of endocrine disrupting chemicals in milk for a Healthy Life

Under LIFE MILCH, researchers from the neuroscience unit at the University of Parma will improve knowledge about the correlation between levels of maternal exposure to EDCs or milk contamination and the health status of infants. They will study the extent of EDC contamination of mothers and children in rural and urban areas in Italy, and make recommendations to companies and policymakers on ways of reducing exposure.

#### website:

http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search. dspPage&n\_proj\_id=7211

### Annex V: LOCATION AND VENUE: LOGISTICS

The LIFE Platform meeting venue is the Radisson Blu Hotel Lietuva which stands on the banks of the River Neris in Vilnius. The hotel is in the heart of Lithuania's capital, near rich historic sites such as the Old Town and Vilnius Cathedral.



Hotel address: Konstitucijos pr. 20, Vilnius 09308, Lithuania

For more information please click on:

https://www.radissonblu.com/en/lietuvahotelvilnius?facilitatorId=CSOSEO&csref=org\_gmb\_sk\_en\_sn\_ho\_VNOZL

#### A Green Event

Hotels and event facilities are end-users of a multitude of chemicals products and articles. They are a target group for chemicals risk management communication for Baltic Environmental Forum (BEF). Event management means also attention on food quality and waste management - sustainable events are the goal.

We selected the Radisson Blue hotel for the LIFE Platform on Chemicals because it has a **Green Key** certificate - and we examined if this is an appropriate tool for chemicals and sustainability management - in the guest rooms, lobby and kitchen: cleaning agents, body care products, scents, one-way packaging, food contact materials and the ecological footprint of the food.

Well, we found what to change and tried to initiate it. What you see is the result of many weeks of negotiation.

In any case we urge you all to give feedback to the hotel. Clients feedback is one of the most important motivation for hotels to change.

#### How to get to the venue?

#### Airports:

1. In Vilnius – Vilnius airport (http://www.vilnius-airport.lt/en/)

2. In Kaunas – Kaunas airport (https://www.kaunas-airport.lt/index.php?lang=en)

There is possibility to land in Kaunas and continue the trip to Vilnius by train (Train tickets) or bus (Bus tickets) or special airport express from Kaunas (and Riga) airport (<u>https://www.ollex.lt/en/express</u>) to Vilnius.

#### Public transport in Vilnius

You can use bus or trolleybus in Vilnius. Vilnius trolley buses and buses start running at 5 in the morning and stop at midnight. For bus timetables visit <u>here</u>.

Tickets that are valid both for buses and trolleybuses:

There is an option to buy a single-fare ticket from the driver of public vehicle. It costs 1 €. This one-way ticket is valid till the last stop of the route without changing vehicle. You must buy and mark your ticket with a special machine at once you got in a public vehicle.

#### Taxi in Vilnius

- Option 1:
- You can use a mobile app called **"Bolt"** (download it for free on App Store or Google play.) Bolt is a transport app for requesting a fast and cheapest ride.
- 1. Sign up by registering your information, payment details;
- 2. Open the app and set your destination;
- 3. Request a driver to pick you up;
- 4. See your driver arrive in real-time;
- 5. Select payment in-app or in cash;
- 6. You will get a notification that driver has arrived.
- The average price is about 5 € (from airport to the meeting place).
- You can also use the other taxies (phone numbers: +370 5 231 0310, +370 5 240 0500, +370 5 275 7272, +370 5 233 3888), but the price varies a lot.



#### Connections from Vilnius Airport to:

#### 1. Central bus station



• The company *"Toks"* transports passengers from Vilnius airport to the bus station and back by microbuses. Single ticket costs 2 €, you can buy it from the driver. Bus stop is next to the airport terminal, near arrival hall C. You can find timetables <u>here</u>.

- Public bus No. 1 (Airport -Vikingų St.- Station).
- Public bus No. 2 (Airport Liepkalnio St.-Vikingų St.- Station).

A bus stop will be just a few steps away from the arrival exit on your left.

#### 2. Central railway station

• There is a special train "Airport-Vilnius" running regularly to Vilnius railway station. The train shuttles 16 times a day, it takes 7 minutes to arrive to the railway station from the airport. The ticket costs 0,70 €. It can be purchased on-line or in the train. There is a railway stop, stairs and an elevator for passengers as well as lighting and passenger safety surveillance camera next to the airport passenger terminal. There is a footway leading from the airport terminal for passengers to the railway stop.

A train stop will be two minutes away on foot from the arrival exit.

#### 3. Vilnius City center

Buses that run to Vilnius city from Vilnius airport:

- No. 3G (Airport Centre Fabijoniškės),
- No. 88 (Airport Station Old Town Nepriklausomybės Square)

Single ticket costs 1 €.

#### 4. Meeting place

#### Option 1 (the recommended):

1. Take a bus no. **3G** (journey takes about 25 minutes) or no. **88** (journey takes about 42 minutes).

- 2. Get off at "Europos aikštė" stop.
- 3. Then walk to the other side of street using underground passage.
- 4. Turn right, go straight and turn right again down the stairs (see a map below).



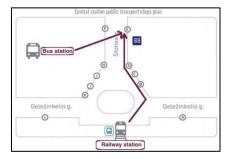
Option 2:

1. Take a train or a bus to the central bus station (journey takes about 10 minutes).

2. Go to the bus stop "Stotis" (E) and take bus no. 88 (journey takes about 24 minutes).

3. Get off at "Europos aikštė" stop. Further use the 3-4 points instruction

from Option 1.

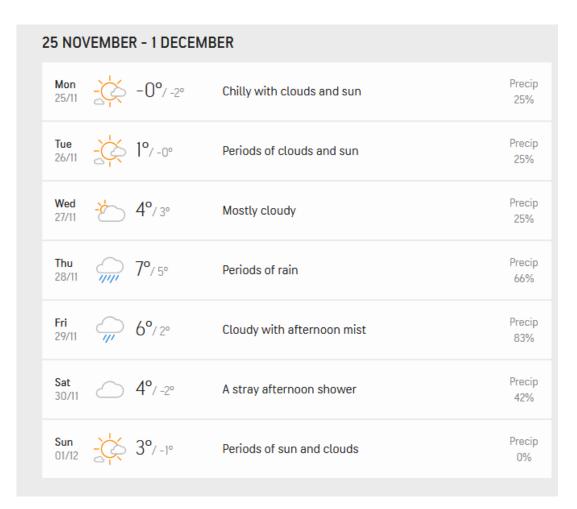


Venue nearby attractions?

Please click on:

https://www.radissonblu.com/en/lietuvahotel-vilnius/location/nearby

#### Weather forecast (Vilnius)



https://www.accuweather.com/en/lt/vilnius/231459/daily-weather-forecast/231459