

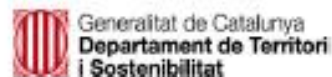


Regional Activity Centre
for Sustainable Consumption
and Production

10th meeting of SCP/RAC National Focal Points
Madrid, Spain, 1-3 June 2015

Roadmap for the implementation of the SCP Action Plan: Goods and Manufacturing

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POPs Environmental Consulting



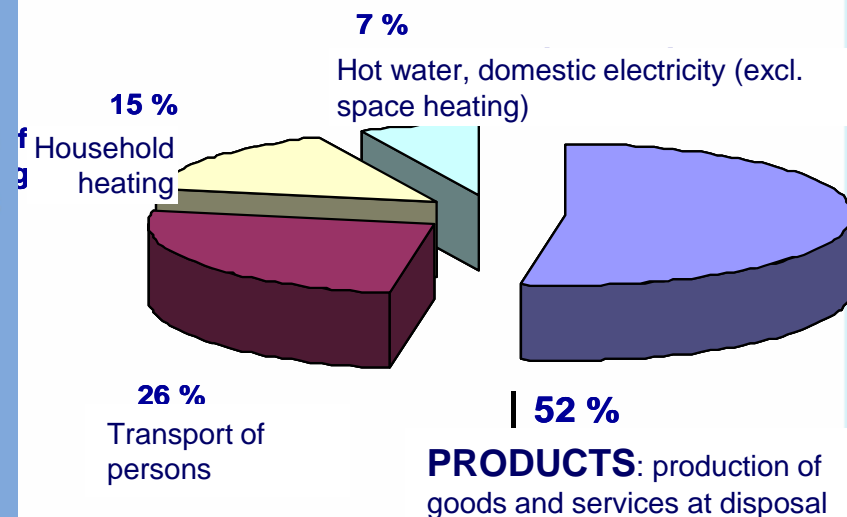
Outline

- Manufactured goods – resource needs !
- Manufactured goods – waste management challenge !
- From linear to a (more) circular economy.
- Road Map for Manufactured Goods: Operational Objectives, Actions and suggested Activities.

Manufacturing Goods and Reason to Consider it in the SCP Action Plan



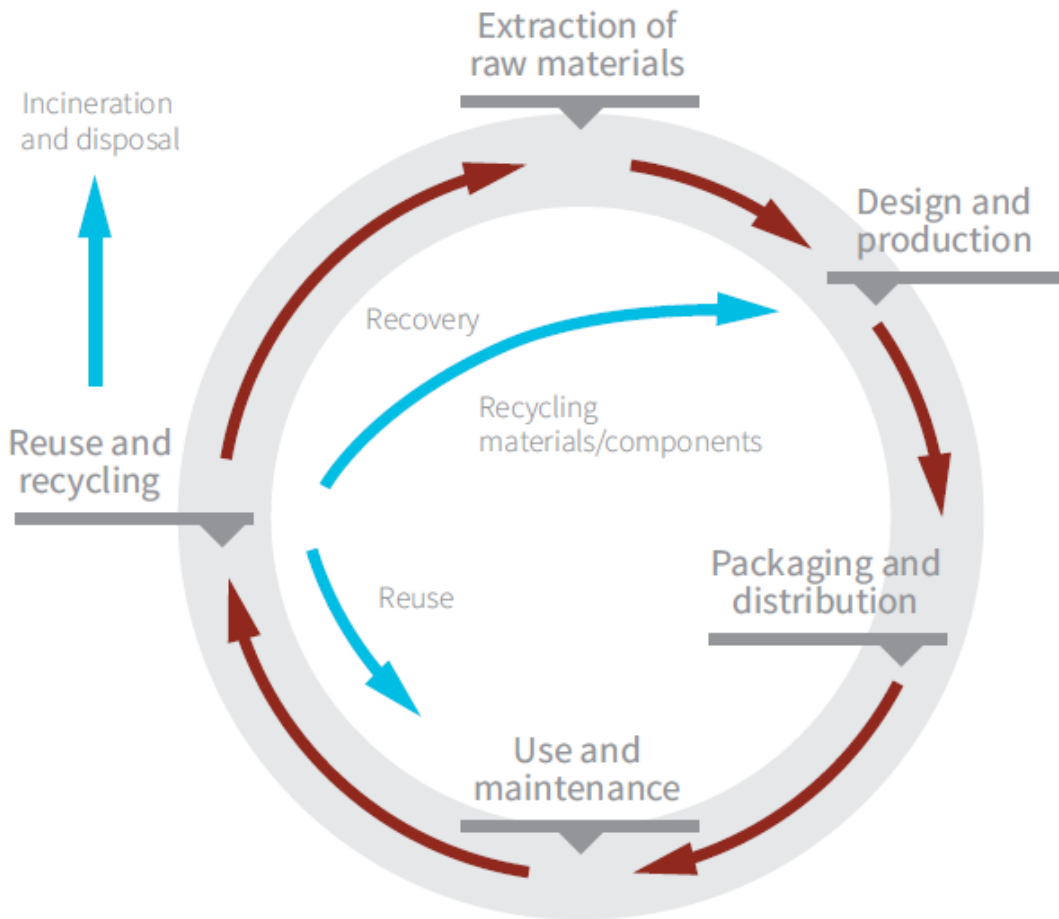
- Consumer goods are key for
- Natural resource consumption.
 - Municipal waste generation.
 - Greenhouse gas emissions



Share greenhouse gases emissions from different economic sectors (France)

Source : ADEME 2003

SCP for improving life cycle of goods

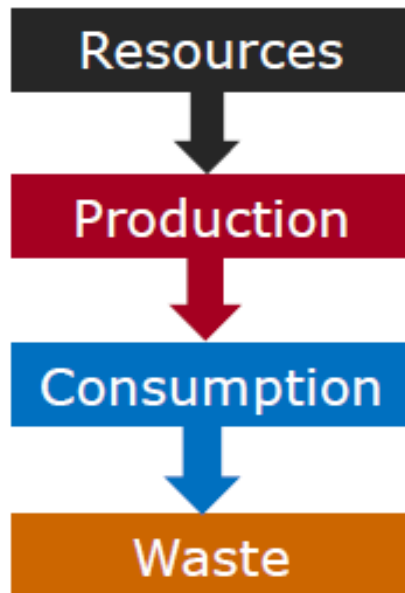


- Consumer goods are main drivers for today's large material and substance flows.
- The different stages in the life cycle of goods need to be improved.
- **Vision:** Sustainably produced goods and sustainable consumption as a driver for improved reuse, recycling, and recovery as a base to move towards (more) circular economies.

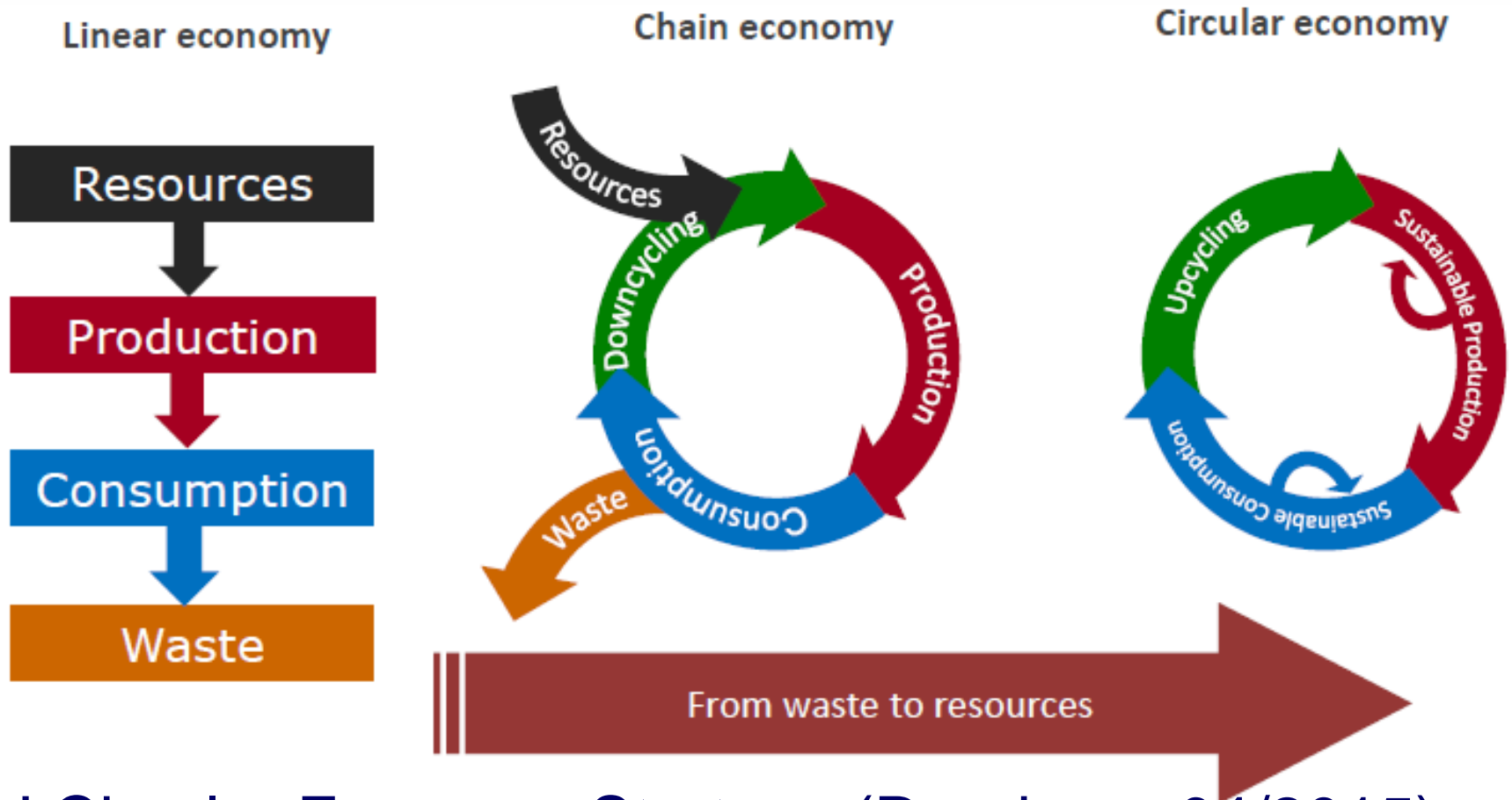
Challenge: Linear material flow & waste burden

- Municipal waste generation & management is a key environmental problem in the MENA (and other) region.
- Large cost factor for municipal budgets (true external cost).
- Waste is expected to double in the MENA by 2025 (Plan Bleu, 2012) !

Linear economy



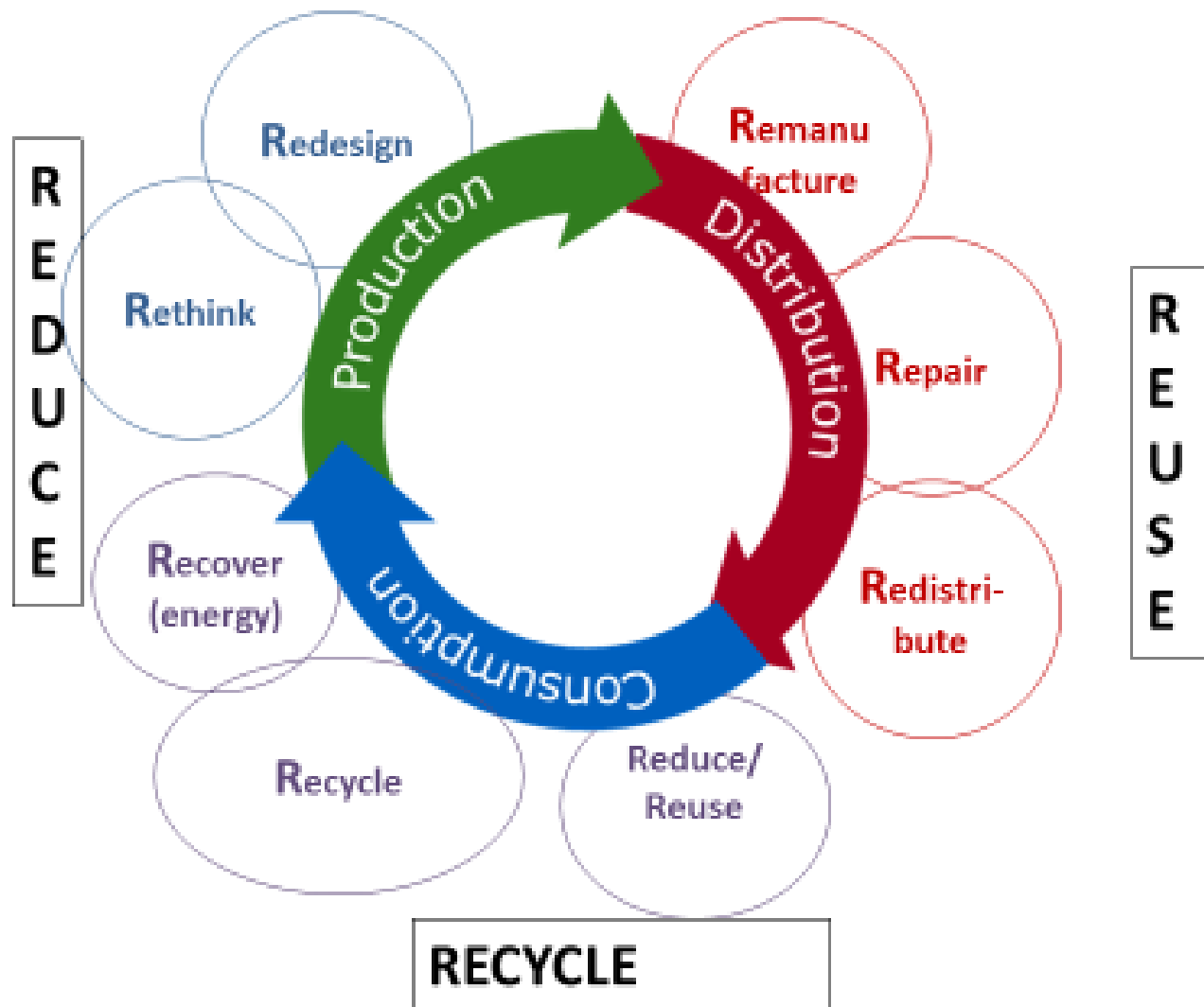
Solution for Manufactured Goods: Towards a Circular Economy



EU Circular Economy Strategy (Roadmap 04/2015)

http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2015_env_065_env+_032_circular_economy_en.pdf

Multi-R approach



Action Plan Manufactured Goods:

OO 2.1 Integrated BAT/BEP & Life Cycle MG

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
GOODS MANUFACTURING						
Operational Objective 2.1: Promote sustainability-driven innovation and knowledge and the integration of Best Available Techniques (BATs) and Best Environmental Practices (BEPs) through the entire value chain of goods production, including the upstream and downstream flows of resources and waste, paying particular attention to the life-cycle of manufactured goods						
13	Promote and use BATs and BEPs including (but not limited to) environmental performance; human protection (toxic free products and manufacturing processes), resource efficiency, renewable energy, in the manufacturing of goods and the provision of alternative services.	<p>Compilation and communication of best practice case studies on sustainable production in goods manufacturing and the provision of alternative services (emphasize on environmental performance; human protection resource efficiency, renewable energy).</p> <p>Dissemination and provision of information of best practice case studies on sustainable production in goods manufacturing and the provision of alternative services through workshops and Webinars.</p> <p>Implementation of pilot projects on sustainable production in goods manufacturing sector (integrating resource efficiency, renewable energy, environmental performance and human protection).</p>	<p>Compilation of best practice case studies 150</p> <p>Pilot projects 500</p>	<p>Number of workshops and webinars conducted to communicate best practice case studies on sustainable production in goods manufacturing and the provision of alternative services BL: 0 /T: 6 Workshops, 12 Webinars)</p> <p>Number of pilot projects on sustainable production in goods manufacturing sector implemented. BL: 0 /T: 5 Pilot projects completed by 12/2021.</p>	Horizon 2020 Initiative SWITCH-Med (Green Entrepreneur) UNEP Green Economy EU BREFs Projects facilitated by IRENA	UNIDO UNEP (DTIE) UNEP (MAP) EU IPPC JRC IRENA – International Renewable Energy Agency (www.irena.org)

Action Plan Manufactured Goods:

OO 2.1 Integrated BAT/BEP & Life Cycle MG

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
14	Promote and use BATs and BEPs to implement the waste management hierarchy and encourage closed loop material cycles. This should consider toxics elimination, product durability, reparability and dematerialization and should include the encouragement of green sector value chains by the establishment of industrial recycling and remanufacturing networks connecting companies generating wastes with those recycling it.	<p>Compilation and dissemination of best practice case studies for improving manufactured goods towards supporting the waste hierarchy (toxics elimination, product durability, reparability and dematerialisation) and promoting green sector value chains.</p> <p>Dissemination and provision of information of best practice cases for improving manufactured goods towards supporting the waste hierarchy through workshops and Webinars.</p> <p>Development of a national/regional networks (and platform) to enhance collaboration between stakeholders along the value chain (connect the companies generating wastes with those recycling it) to create highly efficient reverse logistics.</p>	<p>Compilation of best practice case studies 50</p> <p>Workshops and Webinars 300</p> <p>Development of waste/resource networks (platform) 100</p>	<p>Number of workshops and webinars conducted to communicate best practice case studies BL: 0 / T: 15 workshops and 20 Webinars conducted.</p> <p>Number of countries that have developed National networks (platforms) to enhance collaboration between stakeholders along the value chain for waste/resource recovery. BL: 0 / T: 10.</p>	<p>Horizon 2020 initiative SWEEP-Net UNEP SCP Clearing House EU SUBSPORT project; Implementation of Stockholm/Chemical Conventions</p>	<p>UNEP/MAP SWEEP-Net ACR+ ISWA (Recycling & Recovery) SUPSPORT-Institutions</p>



Action Plan Manufactured Goods:

OO 2.1 Integrated BAT/BEP & Life Cycle MG

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
15	Promote, use and develop tools such as eco-design, Life Cycle Management, risk assessment of chemicals, substitution of hazardous chemicals, and Cradle to Cradle to facilitate the sustainable design and production of manufactured goods. This should include the formulation and promotion of a related research and development agenda and the compilation of best practice cases.	<p>Compilation and dissemination of best practice case studies of SCP tools facilitating sustainable design of manufactured goods.</p> <p>Conducting pilot projects (substitution of hazardous chemicals, Cradle to Cradle; LCA) in selected non-EU Mediterranean countries.</p> <p>Formulation of a regional research and development agenda on sustainable design and promotion of such agenda to be included within the national research and development programmes.</p>	<p>Budget for compilation of best practice case studies 150</p> <p>Pilot projects 750</p> <p>Budget for formulation and dissemination of a R&D agenda 200</p>	<p>Compilation document of Best practice case studies by 12/2017.</p> <p>Number of workshops and webinars conducted to communicate best practice case studies of SCP tools facilitating sustainable design of manufactured goods BL:0/ T: 6 workshops 12 Webinar conducted by 12/2021.</p> <p>Number of pilot projects conducted on selected tools in non-EU Mediterranean countries BL: 0 / T: At least 3 pilot projects conducted by 12/2021, including documentation and communication.</p> <p>R&D Regional Agenda on sustainable designed by 12/2018</p> <p>Number of national universities/institutes that have included sustainable design in their programmes. T: At least 5 Universities or institutes.</p>	SWITCH-Med ReSCP SUBSPORT Implementation of Chemical Conventions	UNIDO UNEP/MAP UfM



MOVING TOWARDS SAFER ALTERNATIVES



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Support for Substitution

Substitution of hazardous chemicals is a fundamental measure to reduce risks to environment, workers, consumers and public health.

Legislation encourages you to substitute, this site will show you how.

[Read more](#)

Latest News

Alternatives Identification and Assessment Training for BSI members

Events & Training |
12.01.2015

As a part of the SUBSPORT Textile project, Kooperationsstelle Hamburg and the Association of the German Sporting Goods Industry (BSI) carried out a training/seminar in Bonn in December 2014. The search for substitutes for hazardous substances and the assessment of alternative substances are key steps of a substitution process and were in the focus of this seminar.

[Read more](#)



Substitution Steps

Substitution may be fast and easy or a more complex process. Generally it includes the following steps:

1. Define the problem
2. Set substitution criteria
3. Search for alternatives
4. Assess and compare alternatives
5. Experiment on pilot
6. Implement and improve

[Read more](#)

Search SUBSPORT

- ☐ Website
- ☐ Restricted and priority substances database [» link](#)
- ☐ Case story database [» link](#)

[» Overview](#)

External substitution websites and databases

Your contribution

[Provide substitution
examples](#)
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Action Plan Manufactured Goods:

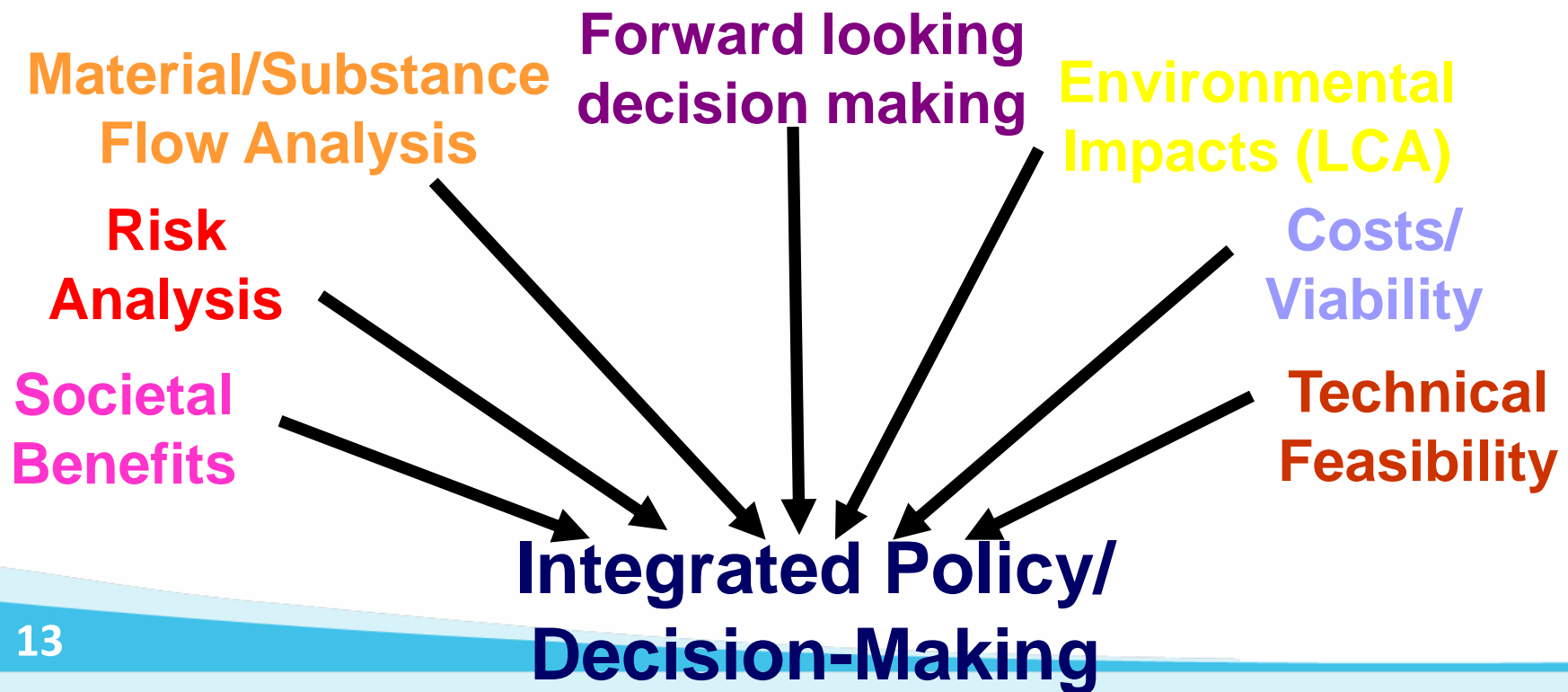
OO 2.1 Integrated BAT/BEP & Life Cycle MG

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
16	Create green businesses and jobs in sustainable goods manufacturing and recycling/refurbishment and alternative services such as switching from a product ownership to a Service Systems and lease based economy ("servicizing") and other innovative business approaches.	<p>Education to generate jobs in refurbishment and recycling of manufactured goods in the region.</p> <p>Creation of awareness and dissemination of information on job creation.</p> <p>Provision of support for implementing servicing businesses models and other innovative business approaches in the regions (e.g. chemical leasing, car sharing, etc).</p>	<p>Education and job creation in refurbishment and recycling of manufactured goods 500</p> <p>Support servicing and other innovative business models 300</p>	<p>Number of jobs created in refurbishment and recycling of manufactured goods generated in the region (by 12/2021). T: 10,000</p> <p>Number of projects in which Servicing business models and other innovative business approaches have been successfully tested. BL:0 / T: at least 2 pilot projects (by 12/2021).</p>	<p>SWITCH-Med (Green Entrepreneur) SWEEP-Net Country initiatives (</p>	<p>UNEP/MAP UNIDO SCP/RAC</p>

Life Cycle Thinking as core of SCP

EU Sustainable Development Strategy: “The **main challenge** is to gradually change the **non-integrated approach to policy-making....**”

Life Cycle Management components are a core of SCP and key for the support of integrated decision making.



Action Plan Manufactured Goods:

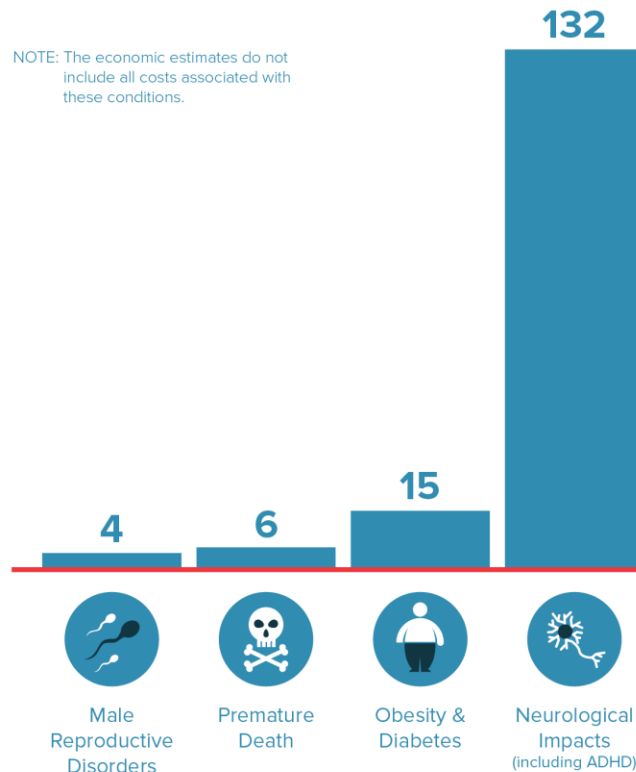
OO 2.2 Integrated Policy & Legal Framework

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
Operational Objective 2.2: Develop integrated policy making and the legal framework to promote sustainable consumption, production and recovery in the goods manufacturing sector with the aim to move towards a circular economy						
17	Develop an institutional framework to encourage integrated national and local decision making through the involvement, collaboration and coordination of relevant stakeholders including governmental bodies, industries and civil society for improved integrated policy making (national and local) using life cycle thinking and forward looking decision making for the sustainable production, consumption and recovery of manufactured goods including an enforcement and assessment system.	<p>Compilation, elaboration and dissemination of individual life cycle thinking tools (e.g. material flow analysis, substance flow analysis, LCM, circular economy concept, external costs, ecosystem services) for policy making demonstrating their practical usefulness for forward looking decision making.</p> <p>Development of models for an inter-ministerial committee/body responsible for consideration of inclusion of life cycle thinking for sustainable production, consumption and recovery in all the relevant sectoral policies. The committee should also incorporate representatives of civil society and business associations.</p>	<p>Compilation and dissemination 250</p> <p>Models for an inter-ministerial committees and introduction to pilot countries 200</p>	<p>Number of workshops and webinars conducted to communicate individual life cycle thinking tools for policy making to responsible governmental bodies in non-EU Mediterranean countries by 12/2017). BL: 0 / T: 20</p> <p>Number of Models for an inter-ministerial committee/body responsible for consideration of inclusion of life cycle thinking tools for sustainable production & consumption developed BL: 0 / T:5</p> <p>Number of countries that have introduced models for an inter-ministerial committee/ body responsible for consideration of inclusion of life cycle thinking tools for sustainable production & consumption BL: 0 / T: at least 3 pilot countries.</p>	EU beyond GDP EU Forward looking decision making	UNEP/MAP SCP/RAC UfM EU institutions

HEALTH EFFECTS FROM ENDOCRINE DISRUPTING CHEMICALS COST THE EU 157 BILLION EUROS EACH YEAR.

This is the tip of the iceberg: Costs may be as high as €270B.

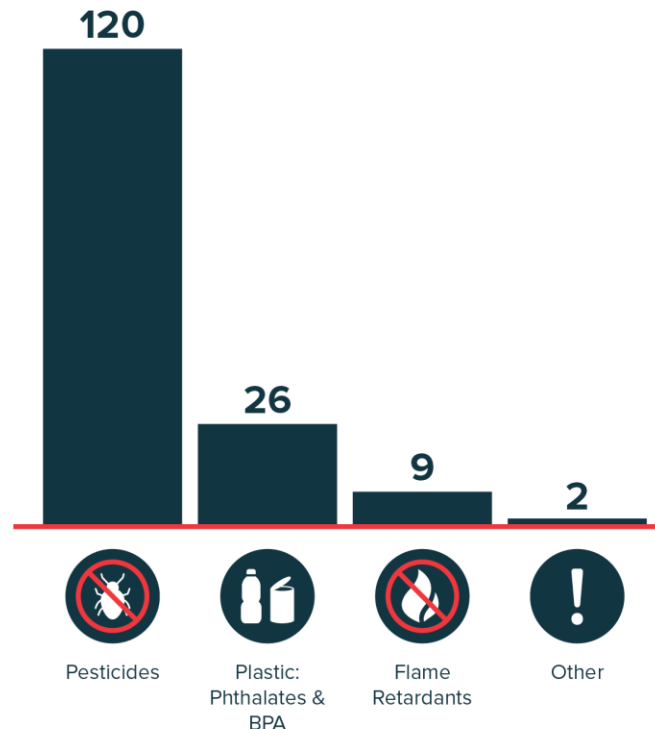
€157B Cost by Health Effect



SOME EDC-RELATED HEALTH OUTCOMES NOT INCLUDED:

- Breast Cancer
- Prostate Cancer
- Immune Disorders
- Female Reproductive Disorders
- Liver Cancer
- Parkinson's Disease
- Osteoporosis
- Endometriosis
- Thyroid Disorders

€157B Cost by EDC Type



SOME EDCs NOT INCLUDED:

- Atrazine
- 2, 4-D
- Styrene
- Triclosan
- Nonylphenol
- Polycyclic Aromatic Hydrocarbons
- Bisphenol S
- Cadmium
- Arsenic
- Ethylene glycol

Endocrine Disrupting Chemicals (EDCs) interfere with hormone action to cause adverse health effects in people.

“THE TIP OF THE ICEBERG”

The data shown to the left are based on fewer than 5% of likely EDCs. Many EDC health conditions were not included in this study because key data are lacking. Other health outcomes will be the focus of future research.

Action Plan Manufactured Goods:

OO 2.2 Integrated Policy & Legal Framework

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
18	Create an effective national and local policy and regulatory framework for the reuse, repair, recycling and recovery of manufactured goods (waste management hierarchy) based on life cycle techniques and the promotion of extended producer responsibility. This should include the set-up of a frame for decent jobs in repair, refurbishment, recycling and waste management considering the role of the formal and informal sectors along with their respective needs for training, health and safety and livelihood.	<p>Outline for a national and local policy and regulatory framework promoting the prevention, reuse, repair, recycling and recovery of manufactured goods (waste management hierarchy) and the promotion of extended producer responsibility.</p> <p>Compilation of best practice case studies and dissemination for a) implementing the waste hierarchy for selected waste categories at city and regional level and b) establishing decent jobs in repair, refurbishment, recycling and waste management considering the role of the formal and informal sectors along with their respective needs for training, health and safety and livelihood.</p> <p>Implementation of pilot projects at city and/or national level for establishing decent jobs in recycling and waste management, considering also the role and necessities of informal sectors.</p>	<p>Outline for a national and local policy and regulatory framework 100</p> <p>Compilation of best practice cases 150</p> <p>Pilot projects 500</p>	<p>Draft proposal for a national and local policy and regulatory framework by (12/2017)</p> <p>Compilation document of best practice case studies by 12/2017</p> <p>Number of workshops and webinars conducted to communicate best practices in implementation of the waste hierarchy for selected waste categories at city and regional level and for establishing decent jobs in repair, refurbishment, recycling and waste management BL: 0 /T: 6 workshops -12 Webinars by 12/2019</p> <p>Number of countries that have implemented pilot projects on developing jobs in recycling and waste management BL: 0 /T: At least 3 pilot projects (12/2021).</p> <p>Number of jobs created. T: 10,000</p>	<p>SWEEP-Net (the regional solid waste exchange of information and expertise Network)</p> <p>Waste management of marine litter (Within the Barcelona Convention Marine Litter action plan)</p> <p>IPLA International Partnership for Expanding Waste Management Services of Local Authorities</p>	<p>UNEP/MAP UfM SWEEP-Net ACR+ IPLA</p>

Action Plan Manufactured Goods:

OO 2.2 Integrated Policy & Legal Framework

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
19	Promote full cost accounting and market base instruments (MBI) which favour sustainable goods and alternative services taking account of renewable energy use; eco-innovation; and support of green entrepreneurs and green jobs. This would also include financial and tax based mechanisms to encourage relative sustainable goods production and practices, and discourage unsustainable goods consumption.	<p>Compilation of tools and success stories of full cost accounting (external costs; LCA), extended producer responsibility models and other market base instruments for supporting sustainable production in goods manufacturing sector.</p> <p>Implementation of Pilot projects in selected countries to prove best practice tools and market based instruments.</p>	<p>Compilation of tools and success stories 150</p> <p>Pilot projects in selected countries to implement the tools and market based instruments 300</p>	<p>Compilation document of tools and success stories of full cost accounting (external costs; LCA), extended producer responsibility models and other market base instruments by 2017.</p> <p>Number of workshops and webinars conducted to disseminate success stories of full cost accounting (external costs; LCA), extended producer responsibility models and other market base instruments for supporting sustainable production in goods manufacturing sector BL: 0 / T: 6 workshops and 10 Webinars by 12/2018.</p> <p>Number of countries that have implemented pilot projects to prove best practice tools and market based instruments. BL: 0 / T: At least 3 pilot projects.</p>	<p>UNEP E-RISC: Environmental Risk Integration in Sovereign Credit Analysis (report) UNEP Valuing Plastic (report) EU ExternE Project European Environmental Agency external cost activities Global Footprint Accounting</p> <p>Beyond GDP</p>	<p>UNEP/MAP UNEP Finance Initiative SCP/RAC Global Footprint Network Plan Bleu</p>

Action Plan Manufactured Goods:

OO 2.2 Integrated Policy & Legal Framework

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
20	Promote and adopt Sustainable Public Procurement (SPP) schemes for manufactured goods based on agreed standards.	<p>Organization of regional workshops and webinars to communicate the experience and best practice studies from UN and EU activities on Sustainable/Green Public Procurement and supporting the implementation of SPP in the region.</p> <p>Implementation of Pilot projects on Sustainable/Green Public Procurement in the Goods Manufacturing sector.</p>	<p>Regional workshops and webinars on SPP 120</p> <p>Pilot projects 500</p>	<p>Number of regional workshops and webinars conducted to disseminate the experience and best practice studies from UN and EU activities on Sustainable/Green Public Procurement and supporting the implementation of SPP in the region. BL: 0 / T: 4 Regional workshops and 15 webinars conducted by 12/2017.</p> <p>Number of countries that have implemented pilot projects on Sustainable/Green Public Procurement in the Goods Manufacturing sector. . BL: 0 / T: At least 3 pilot projects on Sustainable/Green Public Procurement in the Goods Manufacturing sector conducted by 2021.</p>	<p>UNEP current SPP activity in 10 YFP</p> <p>EU Procura+ (http://www.procuraplus.org/)</p>	<p>UNEP/DTIE</p> <p>EU Local Governments for Sustainability (ICLEI) and institutions in Med Region</p> <p>SCP/RAC</p>

Action Plan Manufactured Goods:

OO 2.2 Integrated Policy & Legal Framework

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
21	Support existing institutions or create new ones that can help enterprises to implement Environment Management Systems (EMS) and Ecolabels, facilitate hazardous chemicals substitution, sustainability reports, and support the creation of the necessary accreditation and certification bodies.	<p>Evaluation of the current status and the need to enhance and/or create the necessary education, accreditation and certification bodies in the region and institution which supporting enterprises in the accreditation process.</p> <p>Supporting existing institutions or create new institutions that can help enterprises to facilitate the implementation of EMS, Ecolabels, hazardous chemicals substitution and preparation of sustainability reports.</p> <p>Provision of Training (workshops and webinars) for the different accreditation bodies in the region.</p>	<p>Evaluation of the current status and of needs to enhance and/or create the necessary education, accreditation and certification bodies 100</p> <p>Improvement or establishment of institutions and accreditation bodies 500</p> <p>Training</p>	<p>Evaluation document of the status and need for education, accreditation and certification bodies in the region (by 12/2017).</p> <p>Number of existing institutions supported to help enterprises to facilitate the implementation of EMS, Ecolabels, hazardous chemicals substitution and preparation of sustainability reports BL: 0 / T: 10</p> <p>Number of institutions offering a new service of support for enterprises to facilitate the implement EMS, eco-labels, facilitate hazardous chemicals substitution, preparation of sustainability reports (by 12/2019). T:20</p> <p>Number of workshops and webinars conducted to train on accreditation tools in the region. BL: 0 / T: 10 workshops and 30</p>	CSR initiative AFED Corporate Environmental responsibility (CER)	<p>UNEP/MAP</p> <p>UNEP SCP/RAC</p> <p>Arab Forum for Environment and Development</p> <p>EEB & BEUC</p>

Action Plan Manufactured Goods:

OO 2.3 Education and awareness on SCP MG

EUSustainable Development Strategy: “The main challenge is to gradually change the non-integrated approach to policy-making and our non sustainable consumption & production pattern.”

Action Plan Manufactured Goods:

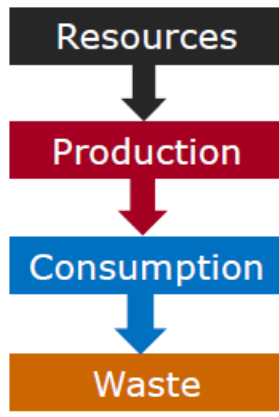
OO 2.3 Education and awareness on SCP MG

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
Operational Objective 2.3: Educate and raise awareness of consumers and other stakeholders and support the development of market structures, increasing the visibility and market share of sustainably manufactured, used and disposed-of goods and alternative services.						
22	Establish and promote eco-label schemes for manufactured goods and alternatives services in the country; promote related activities like voluntary agreements between retailers and public authorities to promote sustainable products.	<p>Development and dissemination of a strategy and guidance for promoting the use and visibility of eco-labels in the non-EU Mediterranean countries.</p> <p>Support companies in the region to get EU Ecolabels awarded.</p> <p>Promotion of sustainable goods (with eco-label, fair labels or being otherwise sustainable) by voluntary agreements between retailers and public authorities.</p>	<p>Strategy and guidance 100</p> <p>Support Ecolabel awarding 500</p> <p>Negotiation and development of voluntary agreements with retailers 50</p>	<p>Strategy and guidance document to promote eco-labels in the region by 12/2017.</p> <p>Number of workshops and webinars conducted to disseminate strategy and guidance document to promote eco-labels in the region. BL: 0 / T: 6 workshops and 10 Webinars.</p> <p>Percentage of increase of awarded (EU/regional) ecolabel manufactured goods from companies of the region in the EU ecolabeled production categories. T : 30%</p> <p>Number of companies supported in the region to get EU Ecolabels awarded. T: 300</p> <p>Percentage of products in retail that are awarded eco-labels. T: 20%</p>	EU Ecolabel Regional labels	<p>UNIDO</p> <p>UfM</p> <p>JRC Seville</p> <p>SCP/RAC</p> <p>EEB & BEUC</p>



Challenges of unsustainable goods

- Cheap price of (unsustainable) goods which quickly become waste and often contain toxic chemicals (wrong economic signal).
- Consumers prefer affordability before sustainability.
- Lack of recognition/Information that waste generation is closely related with consumption of (unsustainable) goods.
- Lack of recognition that chemical pollution (environment & humans) are related with many consumer goods.



<http://www.storyofstuff.org/movies/story-of-stuff/>



Challenge for Manufacturing Goods: Visibility and demand for sustainable products

Business opportunity (!?) Only if consumers are aware and purchase labeled & other sustainable products !

- The most green products will fail in the market if consumer will not take the “right choice” and are only price driven.
- Challenges (even) with “informed” consumers:
 - o 83% of Germans said in a poll that they prefer free range eggs (NFO Infratest 03). Market share of eggs from cages were 60%.
 - o 65% of German consumers stated that they buy organic products. Market share of organic food is 4%.
- Sustainable consumption needs knowledge/awareness and it needs to assure that knowledge leads to sustainable purchase.

Action Plan Manufactured Goods:

OO 2.3 Education and awareness on SCP MG

N°	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
23	Compile best practices for educating and informing stakeholders (consumers, policy and decision makers, producers, retailers, academia) about sustainable production and consumption of manufactured goods and alternative services including information relating to ecolabels, local/regional products, waste hierarchy, ecological footprint accounting, Life Cycle Assessment, external cost, corporate sustainability reporting and other approaches.	<p>Compilation and dissemination of best practice materials for the different stakeholder groups (consumers, policy and decision makers, producers, retailers, academia) compiled.</p> <p>Implementation of Pilot projects for raising awareness on SCP of individual stakeholder groups in different countries (2021).</p>	<p>Best practice case studies 300</p> <p>Pilot projects 500</p>	<p>Compilation document of tailor made best practice information material on SCP of manufactured goods and alternative services for different stakeholder groups in languages of the region by 12/2017.</p> <p>Number of workshops and webinars and film festivals conducted to disseminate compilation of best practice materials for the different stakeholder groups (consumers, policy and decision makers, producers, retailers, academia) T: 6 workshops; 10 Webinars, 3 Film Festivals</p> <p>Number of countries that have implemented pilot projects for raising awareness on SCP of individual stakeholder groups BL: 0 / T: at least 3 pilot projects for testing of awareness materials & approaches in selected countries and modification and adaptation based on experiences gained.</p>	<p>UNEP 10YFP SCP Clearing House http://www.scpclearinghouse.org/ UNESCO – Education for Sustainable Development YouthXchange http://www.youthxchange.net/ Consumpedia The Partnership for Education and Research about Responsible Living www.perlprojects.org</p>	<p>UNEP/DTIE; UNEP/MAP SCP/RAC IUCN, UNESCO Bibliotheca Alexandrina http://www.bibal.org/aboutus/overview_en.aspx</p>

Action Plan Manufactured Goods:

OO 2.3 Education and awareness on SCP MG

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
24	Demonstrate and publicize the economic, environmental and social benefits of sustainably manufactured goods and alternative services using appropriate media outlets. Particular emphasis should be given to promoting the economic and business case for individual categories of manufactured goods (or alternative service provision), emphasizing the benefits to consumers, the private sector and the environment.	<p>Compilation of the economic and business cases for individual categories of manufactured goods, demonstrating the economic, environmental and social benefits of sustainably manufactured goods and alternative services.</p> <p>Dissemination of the economic, environmental and social benefits of sustainably manufactured goods and alternative services through an appropriate mix of media outlets (e.g. national TV, Webpage, Web 2.0).</p>	<p>Compiling business cases 100</p> <p>Communication via media outlets 300</p>	<p>Document compilation of information of the economic and business cases for 20 individual categories of manufactured goods by 12/2017.</p> <p>Number of workshops and webinars conducted to disseminate the economic, environmental and social benefits of sustainably manufactured goods and alternative services. T: 3 workshops; 10 Webinars; possibly TV</p> <p>Number of TV channels that disseminate the economic, environmental and social benefits of sustainably manufactured goods and alternative services. T: 10</p>	<p>UNEP SCP Clearing House</p> <p>Web 2.0 (Smartphone Apps Toxfox)</p> <p>Consumpedia</p>	<p>SCP/RAC</p> <p>UNEP</p> <p>TV Stations</p> <p>NGOs developing APPs & Webinars</p>

Action Plan Manufactured Goods:

OO 2.3 Education and awareness on SCP MG

Nº	Actions	Proposed regional activities (2021)	Estimated cost (thousand €) (2021)	Progress indicators including baseline (BL) and Target (T) by 2021	Related flagship initiatives	Key Partners
25	Improve education on sustainable production and consumption of manufactured goods and alternative services by reviewing and updating primary, secondary and tertiary educational curricula in relation to issues such as engineering processes, design, marketing, advertising, economy (including business schools), chemistry, health, education, social and environmental impacts of products and services.	<p>Compile and develop best practice education modules on sustainable production and consumption of manufactured goods and alternative services for primary, secondary and tertiary educational curricula, with special focus on business school.</p> <p>Support or initiate national efforts to update primary, secondary and tertiary educational curricula in respect to sustainable production and consumption for manufacturing goods in the MENA and Easter countries including e.g. engineering, design, marketing, advertising, economy, chemistry, health, education, social and environmental education curricula.</p>	<p>Compiling and developing education modules on SCP 200</p> <p>Support to integrate SCP education in curricula in non-EU Mediterranean countries 250</p>	<p>Number of education modules on SCP of manufactured goods developed for primary, secondary and tertiary educational curricula by 12/2019</p> <p>Number of countries supported to update primary, secondary and tertiary educational curricula in respect to SCP for manufacturing goods BL: 0 / T: at least 5 countries supported (Manufactured Goods component).</p>	<p>UNEP SCP Clearing House</p> <p>The Partnership for Education and Research about Responsible Living www.perlprojects.org/</p> <p>EU ERASMUS+ Program (Lifelong learning)</p>	<p>UNESCO, The Partnership for Education and Research about Responsible Living www.perlproject.s.org/</p> <p>EU UNEP/DTIE; UNEP/MAP SCP/RAC</p>

**Thank you
for developing Policies with the
perspective of future generations**



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Stockholm Convention POPs free initiative

- A 'POPs-free initiative' has been initiated by the Secretariat of the Stockholm Convention to improve the exchange of information on alternatives/substitutes to POPs.
- As a follow up of the SC 'POPs-free initiative' we (with Basel/Stockholm Convention Regional Centre in China) developed an electronic publication compiling information on alternatives to POPs and phase out
- The publication also contains information on tools for assessment of alternatives and case studies and will be updated – inputs welcome.


<http://poppub.bcrc.cn/>



PUBLICATION


POPs in Articles and Phasing-Out Opportunities

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[Preface, Acknowledgements, Abbreviations and Acronyms](#) [More>](#)

The electronic publication on POPs in Articles and Phasing-Out Opportunities aims at assisting Parties and others in their implementation by providing a compilation of information on alternatives to POPs in current uses.

To support Parties in meeting these obligations, a methodology has been developed to ensure that source inventories and release estimates are complete, transparent, as well as consistent in format and content. It allows Parties to compare results, identify priorities, mark progress and follow changes over time at the national, regional and global levels.

[Part I Introduction](#)

The Stockholm Convention on Persistent Organic Pollutants (POPs) was adopted in 2001 and entered into force in 2004. It is a global environmental treaty that aims to protect human health and the environment from a group of chemicals which persist in the environment for long periods; become widely distributed geogra[More>](#)

[Part II Snapshots of information on each chemical in articles and products](#)

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[Part III POPs-free/POPs alternatives – overview and case studies](#)

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[Part IV How can we add more understanding on the use of POPs and alternatives in products and articles?](#)

The Stockholm Convention on Persistent Organic Pollutants (POPs) was adopted in 2001 and entered into force in 2004. It is a global environmental treaty that aims to protect human health and the environment from a group of[More>](#)

[Part V Conclusions and recommendations](#)

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[Part VI Annexes](#)

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Objective 1 Manufacturing Goods

Increase recycling, reuse and recovery

Increase recycling, reuse and recovery of manufactured goods to reduce the waste volume to be disposed, to reduce primary resource use and to create employment in recycling and repair of manufactured goods.



Objective 1 Manufacturing Goods - **Actions**

Increase recycling, reuse and recovery

- Create appropriate mechanisms to improve recycling, recovery and reuse of manufactured goods.
- Create green and decent jobs in recycling, reuse and waste management of manufactured goods sector, including the formalization of the informal sector and improvement of the technical skills of labour forces;
- Compile best practices and case studies for recycling, recovery and reuse of manufactured goods from the region and disseminate them in view of their replication.

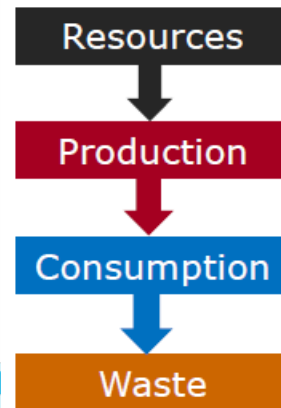
Objective 1 Manufacturing Goods - **Actions**

Increase recycling, reuse and recovery

- Material and substance flow analysis of individual goods (e.g. EEE/WEEE, vehicles, batteries, plastic packaging) and resources (e.g. metals, wood, plastic, glass) as a knowledge base for recycling/recovery and as decision making tool;
- Improve waste management schemes for individual manufactured goods as base for recycling, recovery and reuse;
- Development/extension of green sectors value chains through, among others, the set-up of industrial recycling/ remanufacturing networks with companies generating wastes and those recycling it
- Promote BAT/BEP in goods manufacturing and in related waste management and recycling.

Challenges of unsustainable goods

- Cheap price of (unsustainable) goods which quickly become waste and often contain toxic chemicals (wrong economic signal).
- Consumers prefer affordability before sustainability.
- Lack of recognition/Information that waste generation is closely related with consumption of (unsustainable) goods.
- Lack of recognition that chemical pollution (environment & humans) are related with many consumer goods.



Objective 2 Manufacturing Goods Sustainability of manufactured goods

Improving the sustainability of manufactured goods and increasing their market share in the region and competitiveness on the international market.

Objective 2 Manufacturing Goods - Actions

Sustainability of manufactured goods

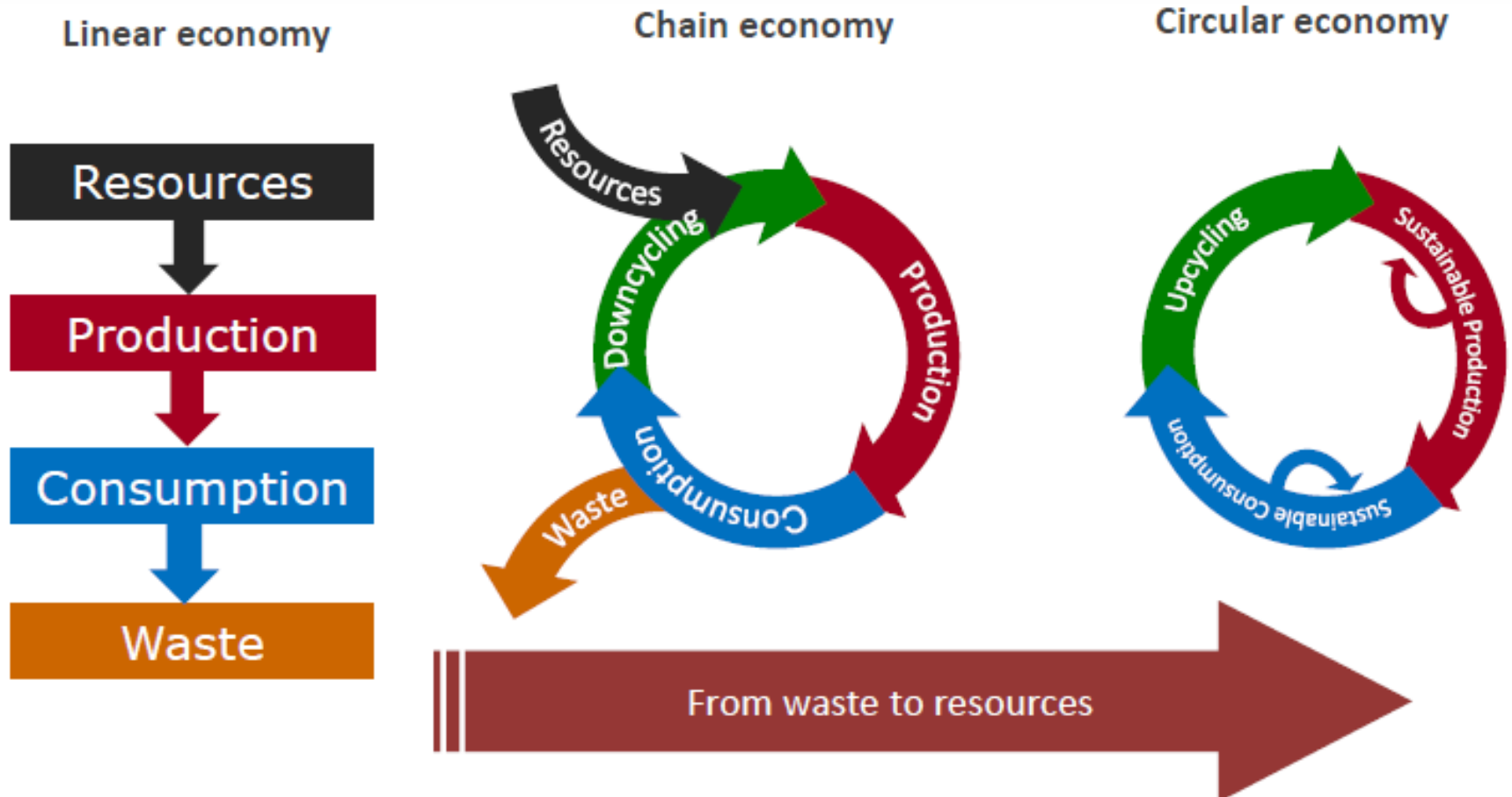
- Support and promote the use of SCP-tools for the sustainable design and production of manufactured goods (Eco-design, Life Cycle Assessment, Cradle to Cradle);
- Support and promote entrepreneurs working on innovative green products and services;
- Support the transformation of jobs and labour skills towards a resource efficient and greener production;
- Enhance the visibility of eco-innovation for manufactured goods on the market;

Objective 2 Manufacturing Goods - **Actions**

Sustainability of manufactured goods

- Foster the substitution of hazardous chemicals in products and production;
- Develop extended producer/product responsibility and accountability schemes;
- Promote the corporate social responsibility approach, which broadly embraces all aspects of environmental (and social) impacts.

Solution for Manufactured Goods: Towards a Circular Economy



Objective 3 Manufacturing Goods: **Visibility and demand for sustainable products**

Increase the visibility and demand for sustainable products by promoting eco-labelling schemes, green public procurement and awareness raising to consumers and education.

Objective 3 Manufacturing Goods - **Actions**

Visibility and demand for sustainable products

- Establish and promote eco-label schemes for manufactured goods in the country/region;
- Promotion and adoption of Sustainable /Green Public Procurement schemes for manufactured goods;
- Support the switch from product owned based economy to service/product use economy and de-materialisation economy.

Challenge Objective 3 Manufacturing Goods: Visibility and demand for sustainable products

Business opportunity (!?) Only if consumers are aware and purchase labeled & other sustainable products !

- The most green products will fail in the market if consumer will not take the “right choice” and are only price driven.
- Challenges (even) with “informed” consumers:
 - o 83% of Germans said in a poll that they prefer free range eggs (NFO Infratest 03). Market share of eggs from cages were 60%.
 - o 65% of German consumers stated that they buy organic products. Market share of organic food is 4%.
- Sustainable consumption needs knowledge/awareness and it needs to assure that knowledge leads to sustainable purchase.

Objective 3 Manufacturing Goods - **Actions**

Visibility and demand for sustainable products

- Education and awareness raising of consumers, producers, policy maker on SCP in the goods manufacturing sector;
- Compilation of best practices on education for sustainable consumption and support for their replication/dissemination;

Extended **Product** Responsibility as a key of SCP and chance for economy

- SCP to become a driver for improving product stewardship!
Product responsibility for producer and consumers!
- For consumers:
 - To make the sustainable choice of products.
 - To consider sustainable (green, fair, regional) products.
 - Responsible long term use and repair.
 - Waste management contribution (e.g. separation at source).
- For producers/green entrepreneurs:
 - Production of resource efficient long lasting goods.
 - Sustainable design/Eco innovation (recyclability; repair; GC)
 - Responsibility for end of life managem. (e.g. EEE; vehicles).
 - Move from products to services (Service economy)

Objective 4 Manufacturing Goods: SCP Policy Support towards circular economy

Developing and improving the policy frame and support for sustainable consumption and production in the goods manufacturing sector in view of progressing towards circular economies.

Objective 4 Manufacturing Goods - Actions

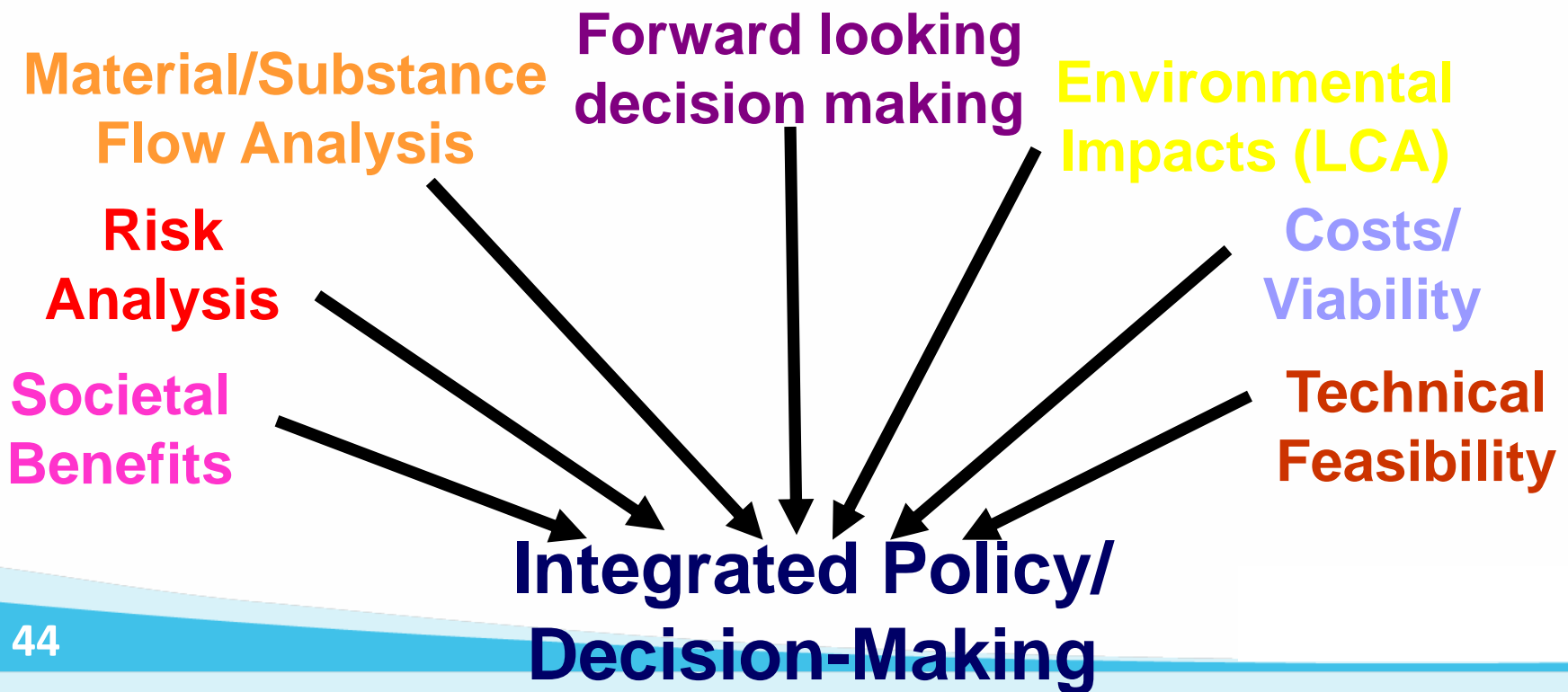
SCP Policy Support towards circular economy

- Promote tax benefits and market base instruments (MBI) to favour sustainable goods on the market;
- Increase financial mechanisms to support sustainable manufacturing/eco-innovation and green entrepreneurs;
- Integrate life cycle thinking, forward looking decision making and life cycle management in policy making;

Life Cycle Thinking as core of SCP

EU Sustainable Development Strategy: “The **main challenge** is to gradually change the **non-integrated approach to policy-making....**”

Life Cycle Management components are a core of SCP and key for the support of integrated decision making.



Objective 4 Manufacturing Goods - **Action**

SCP Policy Support towards circular economy

- Include education on sustainable consumption/lifestyles and sustainable production in national education and curricula.
- Create of support-institutions that can help enterprises to implement environmental management systems, and support for the creation of the necessary accreditation and certification bodies (e.g. for ecolabel; GPP).
- Support for industry through awareness-raising, capacity-building, and the development and transfer of technology.



Thank you



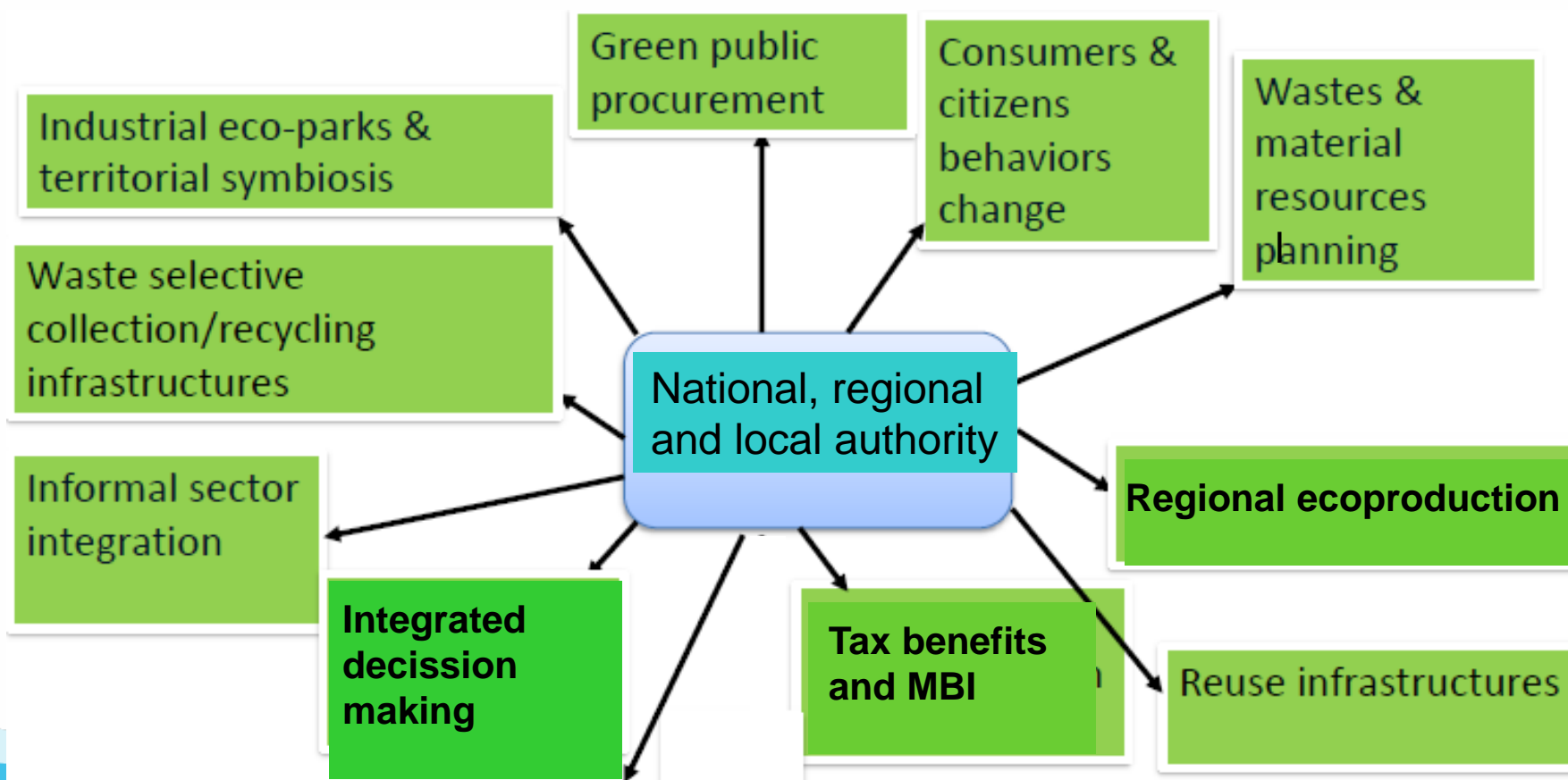
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Vision for Sustainable Goods Manufacturing

Multistakeholder Partnership – Production, Purchase, Waste Management, Resource Recovery.



Objective 1 Manufacturing Goods

Increase recycling, reuse and recovery

Indicators and Measurement tools

- Collection, recycling, recovery and reuse quota for key manufactured goods and materials (e.g. EEE, vehicles, paper, glass, metals, plastic) are increased. Numbers of recycling targets set and reached in countries.
- Amount of workers employed in recycling & repair; amount of informal labour in the sector formalized.
- Amount of best practice case studies on recycling, repair and reuse (from the region) are compiled, disseminated & replicated.
- Amount and quality of SFA/MFA conducted.
- Emission reduction (%) and energy conservation and use of renewable energy(%) in manufacturing goods sector.

Objective 2 Manufacturing Goods

Sustainability of manufactured goods

Indicators and Measurement tools

- Increased amount and share of sustainable goods produced (with e.g. national, EU or other eco-label awarded or received energy star label)
- Amount of jobs created in the manufacturing of sustainable goods.
- Number and volume of toxic and hazardous chemicals substituted in products and production.
- Number of product groups covered by adequate CSR and by extended producer responsibility included in legislative frame.
- Amount of LCA performed for manufactured goods.

Objective 3 Manufacturing Goods: Visibility and demand for sustainable products

Indicators and Measurement tools

- Share of Eco-label products on the market; purchase volume of eco-labeled products
- Purchase volume of manufactured goods by sustainable/green public procurement
- Numbers of best practice cases for education on sustainable consumption on manufactured goods compiled. Numbers of campaigns on SCP of manufactured goods. Numbers of stakeholders reached with these campaigns.
- Best practice cases of service/product use economy compiled and replication supported. Number of new cases of switching from product owned to servicizing approach.

Objective 4 Manufacturing Goods:

SCP Policy Support towards circular economy

Indicators and Measurement tools

- Volume of subsidies redirected from non-sustainable manufacturing to manufacturing of sustainable goods;
- Volume of financial support for sustainable manufacturing/eco-innovation in manufacturing;
- A set of market base instruments (MBI) are selected tailored to support sales of sustainable products. MBI tested/implemented.
- Trainings conducted for policy makers on life cycle thinking, forward looking decision making and life cycle management. (amount of trainings and persons reached)
- Education on sustainable consumption is developed for different age groups (pre-school, school levels) and for sustainable production (University & other curricula related to manufacturing)

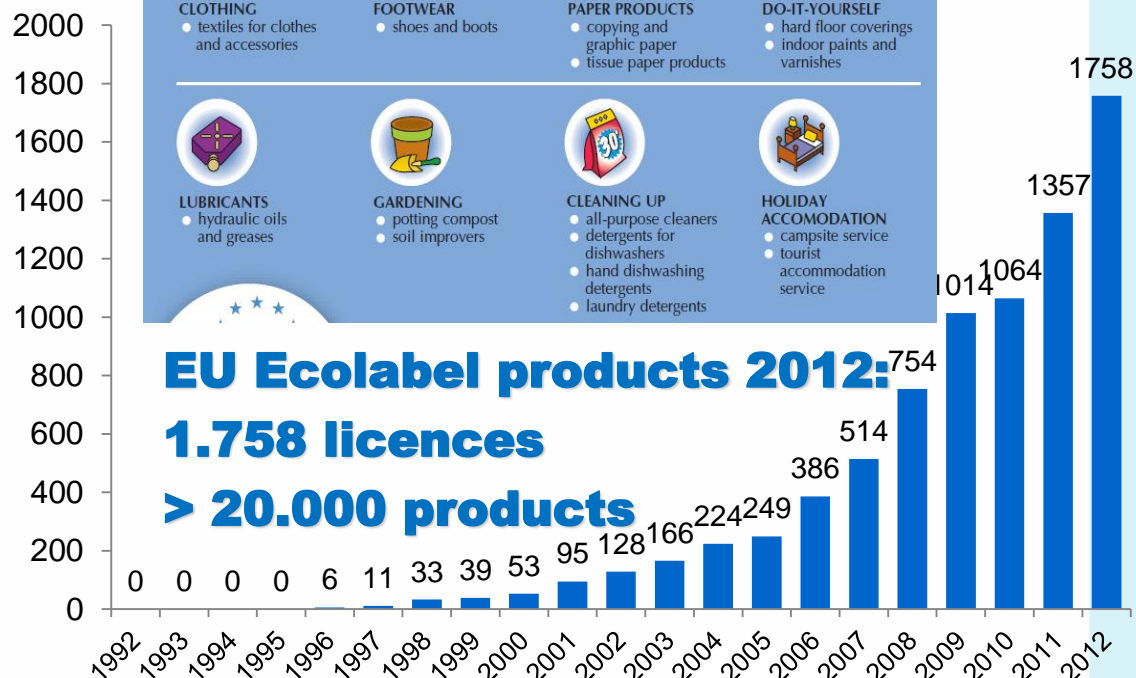
Stakeholder involvement for mainstreaming SCP in the goods manufacturing and consumption sector



Ecolabel products – opportunity for businesses and consumer

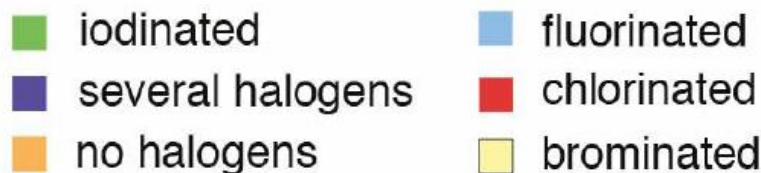
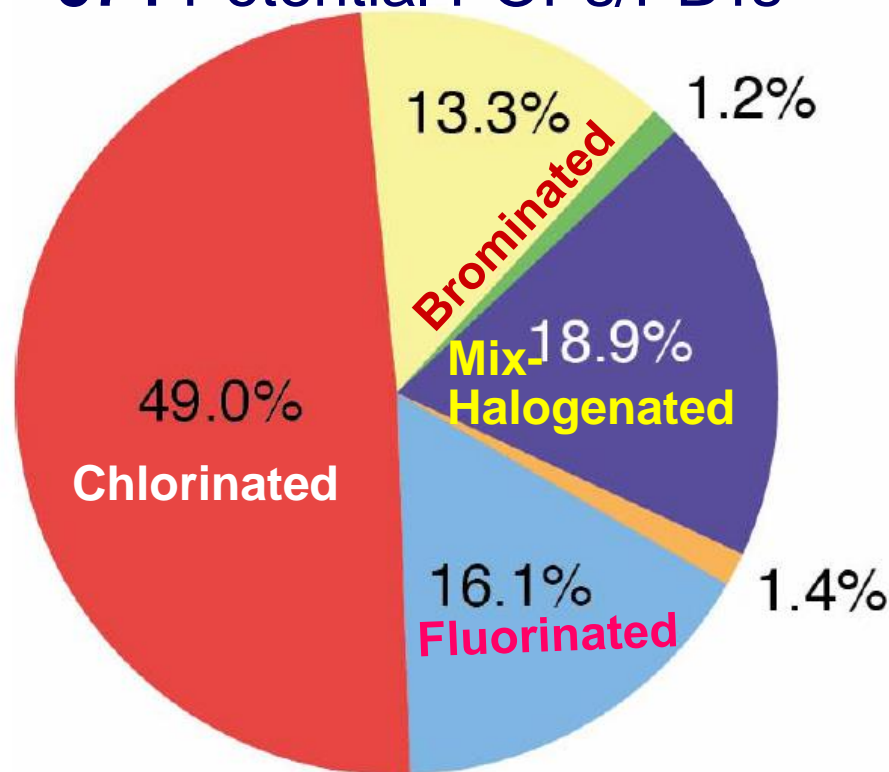


- Ca. 10-20% top runners with superior performance in ~30 product groups.
- Covering most significant environmental impacts (e.g. on climate change, energy and resource consumption, use and release of hazardous substances).
- Improved consumer & environmental protection.
- Business opportunities !



Toxic chemicals in consumer products

574 Potential POPs/PBTs

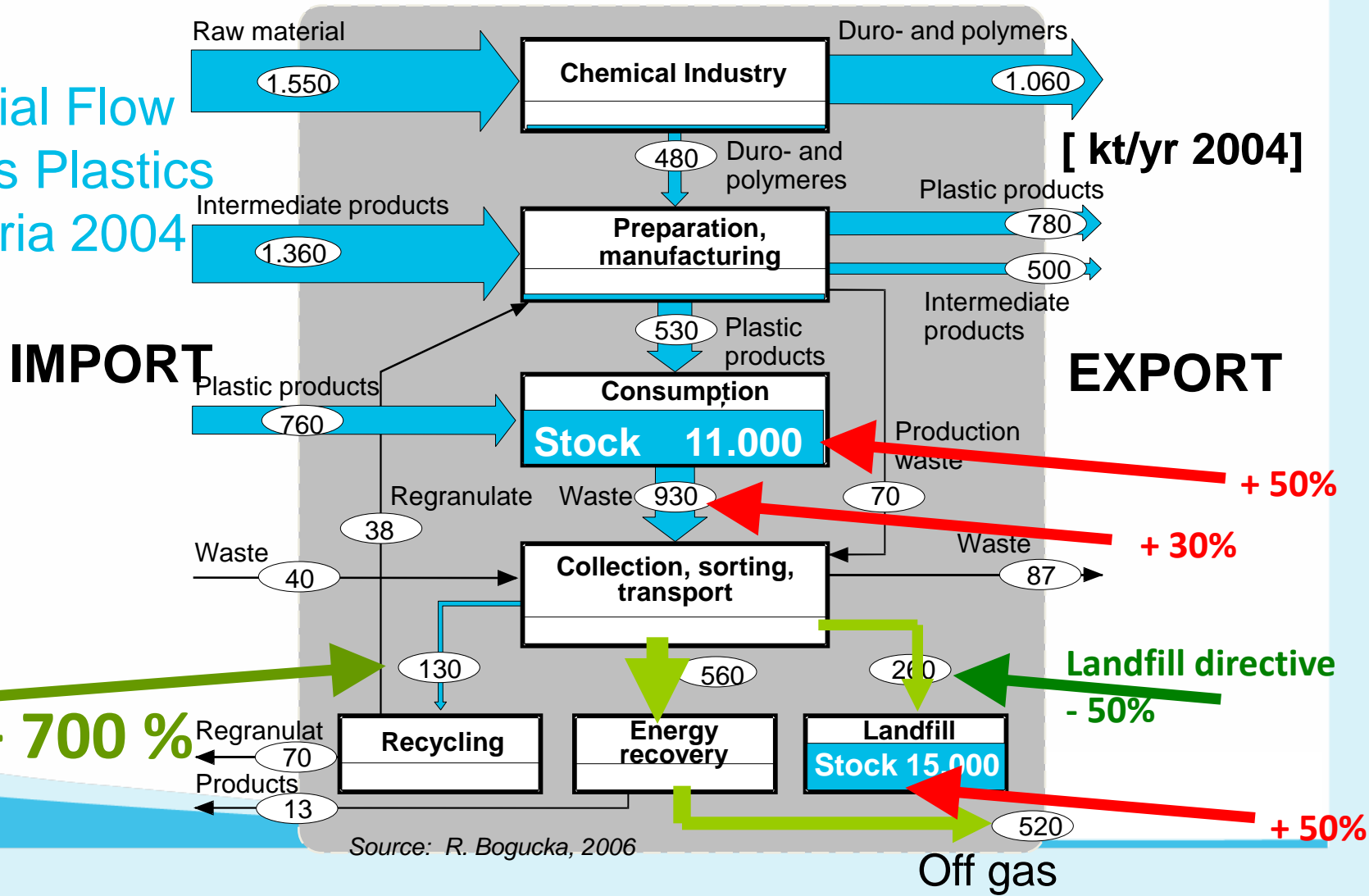


- Today many chemicals in use have POPs-like/PBT properties and many of them are used in consumer goods (EEE, furniture, textiles, synthetic carpets, paper, care products).
- PBTs in consumer goods pose risk for human health, the environment and the recycling/recovery flows.

Inventories/material flows of goods as base for LCA and planning circular economies

Coping with marine litter - utilizing life cycle management tools.

Material Flow Analysis Plastics – Austria 2004



Waste from manufactured goods – the challenge & SCP opportunity

Challenges of waste from manufactured goods

- Large cost factor for municipal budgets in developing countries.
- Core environmental problem in many regions. Waste is expected to double in the MENA by 2025 (Plan Bleu, 2012) !
- A key driver of environmental pollution.

Opportunities of waste of manufactured goods

- Significant employment opportunities (formalize informal sector).
- Large potential to reduce greenhouse gases.
- Key for recovery/recycling resources – base of circular economy.

Sustainable production and consumption is key to move to greener products as a base for better recyclability/reuse.