Working for a Sustainable Mediterranean, Caring for our Future

Regional Training:

Fostering a SWITCH to GREEN Economy in the Mediterranean (WP3 REG 9)

11-13 December 2018, Barcelona, Spain

























Working for a Sustainable Mediterranean, Caring for our Future

Welcome and opening remarks

Anis Ismail, SWIM H2020 SM Key Environmental Expert Magali Outters, SCPRAC Team Leader Policy Area

























SWIM-H2020 SM in a Snapshot

Profile

The SWIM-H2020 SM Project, funded by the European Union, aims to contribute to reduced marine pollution and a sustainable use of scarce water resources in the Mediterranean Region with emphasis on the countries of North Africa and the Middle East (Algeria, Egypt, Israel, Jordan, Lebanon, [Libya], Morocco, Palestine, [Syria] and Tunisia).

Components of the Project

The Project is the continuation and merging of two successful previous EU-funded service contracts, Horizon 2020 Capacity Building/Mediterranean Environment Programme (H2020 CB/MEP) (2009-2014) and the Sustainable Water Integrated Management Support Mechanism (SWIM SM) (2010-2015).





SWIM-H2020 SM

The Project is to:

Provide tailored and targeted technical assistance at national level based on partners' requests through an Expert Facility;

Organize regional (or sub-regional) peer-to-peer seminars and webinars;

Conduct on-site training courses and study tours;

Capitalize on the lessons learnt, good practices and success stories;

Support logistically and technically the Horizon 2020 Initiative's Steering Group & Sub Groups and the Meetings of the Union for the Mediterranean's Water Experts Group.





SWIM-H2020 SM Expected Results

In order to Achieve:

Positive changes in the design and implementation of the relevant national institutional, policy and regulatory frameworks;

Enhancement of partner countries' capacity to promote investment and business opportunities for properly managing municipal waste, industrial emissions and waste water;

Facilitation of access to finance for selected sustainable investment projects;

Strengthening of regional coherence and cooperation in approaches to marine pollution prevention and control, and sustainable water management;

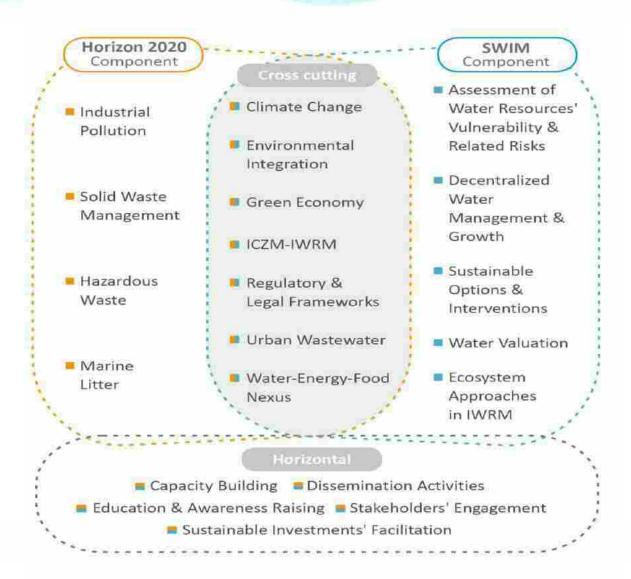
Identification, testing and sharing of best practices and success stories;

Use of research results in policy making – enhancement of more sustainable practices.





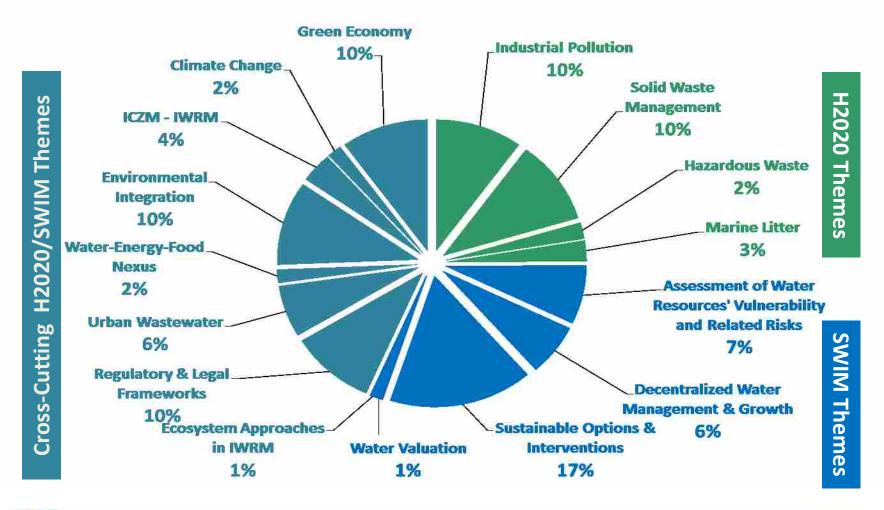
SWIM-H2020 SM Themes







Project themes







SWIM-H2020 SM Cooperation

Framework of Cooperation

The project is based on synergies, which are further developed and supported through:

- The SWIM-H2020 SM Focal Points (FPs) in the Ministries in charge of Water and Environment of the Partner Countries, which also constitute the SWIM-H2020 SM Steering Committee.
- Regional bodies forming the Institutional Partners of the Project, namely:
 - the **Union for the Mediterranean (UfM)**, assisting on issues linked with the draft Strategy for Water in the Mediterranean, the Water Strategy in the Western Mediterranean (5+5), projects and investments related with Mediterranean pollution Hot Spots.
 - the Mediterranean Action Plan of UNEP (UNEP/MAP), supporting activities related to the Land Based Sources (LBS), the Hazardous Wastes and Integrated Coastal Zone Management (ICZM) Protocols of the Barcelona Convention as well as the revised National Action Plans (NAPs).
- Relevant EU Institutions (including DG ENV, NEAR, Research, MARE, etc.) such as the European Investment Bank (EIB) which coordinates the Mediterranean Hot Spots Investment Programme II (MeHSIP II) and Agencies such as the European Environment Agency (EEA), which coordinates the Shared Environmental Information System (SEIS) South.
- Other Regional Initiatives and Projects (SwitchMed, CLIMA South, etc.).





SWIM-H2020 SM Identity

Partner countries:

Algeria, Egypt, Israel, Jordan, Lebanon, [Libya], Morocco, Palestine, [Syria], Tunisia Participation of Albania, Bosnia Herzegovina, Mauritania, Montenegro and Turkey in regional activities will be considered.

Contracting Authority:

Directorate-General for Neighborhood and Enlargement Negotiations (DG NEAR)

SWIM-H2020 SM Team:

Mr. Stavros Damianidis, Project Director

Prof. Michael Scoullos, Team Leader

Mrs. Suzan Taha, Water Expert

Mr. Ismail Anis, Environment Expert

Duration:

36 months (2016-2019)

Budget:

6.286.000 Euros





SWIM-H2020 SM Consortium



LDK Consultants S.A. (Leader) LDK Consultants Europe S.A.



Haskoning DHV Nederland B.V.



Arab Countries Water Utilities Association (ACWUA)



Mediterranean Information Office for Environment, Culture and Sustainable Development (MIO - ECSDE)



Arab Network for Environment and Development "RAED"



Milieu Ltd



Association of Cities & Regions for Recycling and Sustainable Resource Management (ACR+)



National and Kapodistrian University of Athens (UoA)



Catalan Waste Agency (hosting institution of Regional Activity Centre for Sustainable Umweltbundesamt GmbH Consumption and Production (SCP/RAC))





EEIG UT – SEMIDE



WS Atkins International Ltd



GLOBE ONE LTD





SWIM-H2020 SM in Numbers

The Project in Numbers

- 1 Support Mechanism
- 2 Components (SWIM and Horizon 2020)
- 8 Partner Countries
- 19 Major Synergies
- **14** Consortium Partners
- 15 Members of SWIM-H2020 SM Core Team
- 36 Months (2016-2019)
- **6.286.000** Euros Budget
 - 21 Themes
 - **100** Activities
 - 23 Annual Meetings
 - 11 Categories of Stakeholders involved
 - 1 Internet Site
 - Social Media Pages (LinkedIn, Facebook)

1 GOAL: TO SUCCEED!





Photos to be placed within the frames of the footer

Sustainable Water Integrated Management and Horizon 2020 Support Mechanism SWIM-H2020 SM



Working for a Sustainable Mediterranean, Caring for our Future.





Mediturraneso bases and Challenges

The environmental prichasis of the Medicertaneau are thinky complete and interlineau Unconvolunt caused the empression population growth, according to the first party and environmental pollution temperature than the above and firm party consequent of municipal water, unless mathematic and substitution environmental first respective pressures to the quantitative and qualitative characteristics of surface and growth white respective pressures on its manifest and qualitative characteristics of surface and growth white respective and growth white respective and growth white respective and qualitative characteristics of surface and growth white respective and growth and actions and produced in the land one evertice, the construction with a section and actions of the surface and actions free conditions at more difficult to deal with the accomplished problems, free location at authorises, the challenges are characteristic than the part of the propert (horsements the challenges are characteristics). Support Manhanism 2015–2019 [point, by the Madillerration countries and the European Union.

The SWINS H2020 SM Project

the SWIBS-HOUSE SM Project, funded by the turtipeas throm, and to contribute to reduced feature pollution and a containable use of scarce costs containable to the Mediterranean Region with emphasis on the townsies of theret Anica and the Milithe East (Rigera, Egypt, Israel, Iordan, Labanen, 1859, Morocca, Palentina, Dyria) and Tamora). The Project is the pollutionaries and integing of two packacids) previous 10 funded service treatment of the pollution of the p





SWIM-H2020 SM

For further information

Website

www.swim-h2020.eu E: info@swim-h2020.eu

LinkedIn Page

https:// (TBC)

Facebook Page

https://www.facebook.com/Swim-H2020-SM-Project-517590438434444/





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Thank you for your attention.

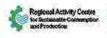




























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Setting the scene: Objectives and structures of the training

Presented by:

Marta Junquera, SWIM H2020 SM Project Manager





























DAY 1

10.00-11.00	S03 – Understanding the issue	 Marine Litter and plastics in the Mediterranean Magali Outters, Team Leader Policy Area, SCP/RAC Food and beverages: Why we have to change, introduction circular economy Nicola Cerantola, SCP/RAC and SWIM-H2020 SM Expert Q&A 	
11.00-11.30	Coffee break		environmental, health
11.30-13.00	S04 - Identifying challenges in the Food and Beverages Sector	 Working group session on the identification of needs and challenges for circular economy strategies in the food and beverage sector SCP/RAC and SWIM-H2020 SM Experts 	visual? Where is the issue: at
13.00-14.00	Lunch break		production level,
14.00-15.30	S05 – Learning from existing experiences, collaboration along the value chain	 Implementation of the Extended Producer Responsibility approach for packaging in Spain <i>Gemma Arroyo, Waste Management Specialist, Ecoemb</i> Rewarding and promoting Eco designed products and strategies – Experience of the Catalan Eco Design Award <i>Mireia Padrós, Prevention&Resource Efficiency Dept, Circular Economy section, Waste Agency of Catalonia</i> Q&A 	Who and how are (me/we/them)
15.30-16.00	Coffee break		responsible?
16.00-16.30	S05 – Learning from existing experiences, collaboration along the value chain	The packaging cluster, gathering companies, knowledge centers and entities representing the entire packaging value chain Mireia Andreu, Project Manager, Packaging Cluster	





DAY 2

Policy Track

Time	Session	Description
09.00-09.20	PM1 – Introduction	Introduction to the Policy Track Magali Outters, Team Leader Policy Area, SCP/RAC
09.20-10.00	PM2- Understanding the issue	How and where do plastics leak out of the material loop? Identifying key issues and priority areas for action Mervyn Jones, SWIM H2020 SM Expert
10.00-11.15	PM3 – Exploring policy options	Policy options to implement circular economy in the food and beverage packaging sector and related activities developed by SCP/RAC Pedro Fernandez, Marine Litter Project Manager, SCP/RAC Introduction to the EU plastic strategy and policy framework for packaging Mervyn Jones, SWIM H2020 SM Expert Q&A Q&A
11.15-11.45	Coffee break	
11.45-13.00	PM4 –Learning from relevant initiatives	UK Plastics Pact - Waste and Resources Action Programme (WRAP) Mervyn Jones, SWIM H2020 SM Expert Circular economy instruments to support the switch of businesses Alfred Vara, Head of Prevention and Resource Efficiency Department, Circular Economy section, Waste Agency of Catalonia Q&A
13.00-14.00	Lunch break	
14.00-15.30	PM5 - Sharing Mediterranean experiences	Extended Producer Responsibility for packaging — exploring different schemes Ignasi Puig Ventosa, ENT Environment & Management, Fundació ENT) ECO-Left: Experience from the National System for the recovery and recycling of post-consumer packaging in Tunisia — Mounir Ferchichi, SWIM H2020 SM Expert Interventions from the participants on the current situation related to the prevention and management of packaging waste (Round table 1)
15.30-15.45	Coffee break	
15.45-16.30	PM6 – Discussing on the way forward	Interventions from the participants on the current situation related to the prevention and management of packaging waste (Round table1) Discussion on the feasibility of key measures SWIM-H2020 SM Experts
16.30-16.45	Closing of the second da	ay

Rep. Ministries, Public intitutions, National agencies, Unions, associations

SMEs Track

Time	Session	Description
09.00-10:00	SME1 – Understanding eco- design in the circular economy	 What is eco-design? The need and benefits Strategies of eco-design in the circular economy Nicola Cerantola, H2020 SWIM SM and SCP/RAC Expert
10:00-11:00	SME2 – Identifying the challenges of SMEs	Working groups session: Identification of needs and challenges PESTEL Analysis Hichem Salem and Anna Ibañez, Green Entrepreneurship Project Managers, SCP/RAC
11.00-11.30	Coffee break	
11.30-13.00	SME3 – Training session on the EdTool	 Learning to eco-design through the EdTool Practical case study, Hichem Salem and Anna Ibañez, Green Entrepreneurship Project Managers, SCP/RAC
13.00-14.00	Lunch break	
14.00-15.00	SME3 – Case studies with the EdTool	Case studies on Food and Beverage packaging: Perspective of the manufacturer Perspective of the packer/filler Perspective of the distributor Nicola Cerantola and Andrés Gallardo, H2020 SWIM SM and SCP/RAC Experts
15.00-15.15	Coffee break	
15.15-17.45	SME4 – Eco- designing your own products	Hands-on individual exercise with edTOOL Hichem Salem and Anna Ibañez, Green Entrepreneurship Project Managers, SCP/RAC

Private sector, SMEs, BSOs, training officers (laptops)

DAY 3

Coming back together to work on common solutions... sharing, collaborating, looking beyond...

Time	Session	Description
09.00-11.00	S07 – Feedback from the parallel session	 Gathering results of the parallel sessions Guided discussion and exchange between the 2 tracks Identification of next steps SWIM-H2020 SM, SCP/RAC Experts and Participants
11.00-11.30	Coffee break	
11.30-12.30	S08 – Training wrap up and final conclusions	Learnings from the training Anis Ismail, SWIM H2020 SM Key Environmental Expert and Marta Junquera, SWIM-H2020 SM Project Manager, SCP/RAC
12.30-13.00	Closing of the regional training	
13.00-14.00	Lunch	





The Team:

Lotfia Harbi

Anna Ibañez

Mervyn Jones

Mounir Ferchichi

Nicola Cerantola

Hichem Salem

Pedro Fernández

Danai Amplianiti







Describe in a word what you would like to take back home with you from the training?

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We hope you enjoy and participate. Thank you!



























Working for a Sustainable Mediterranean, Caring for our Future

Marine Litter and plastics in the Mediterranean

Presented by:

Magali Outters, SCPRAC Team Leader Policy Area

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

11 December, Barcelona, Spain

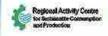




























→ What is the % of Marine Litter coming from land sources and the one coming from marine sources?

80% from land-based sources/20% from marine sources

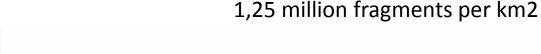
→ What are the most frequent marine litter items?

Plastic bags, cigarette filters, balloons, bottles, caps, straws

→ Out of the waste found in the open sea, on the seabed and on beaches accrross the Mediterranean, what is the % of plastics?

95%

→ What is the concentration of microplastics in the Mediterranean (nb of fragments /km2)?







→ When was the first real synthetic plastic produced?

1907 (Bakelite)

→ Which proportion of European plastics produced is used for packaging?

40%

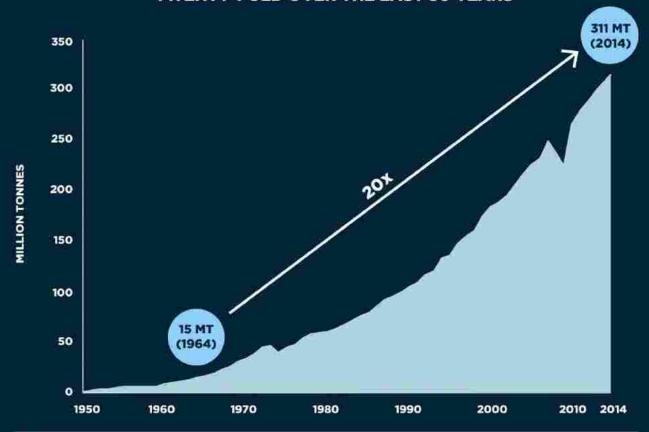
→ Out of the 27 million tonnes of plastic waste produced each year in Europe, which proportion is recycled?

31% sent for recycling



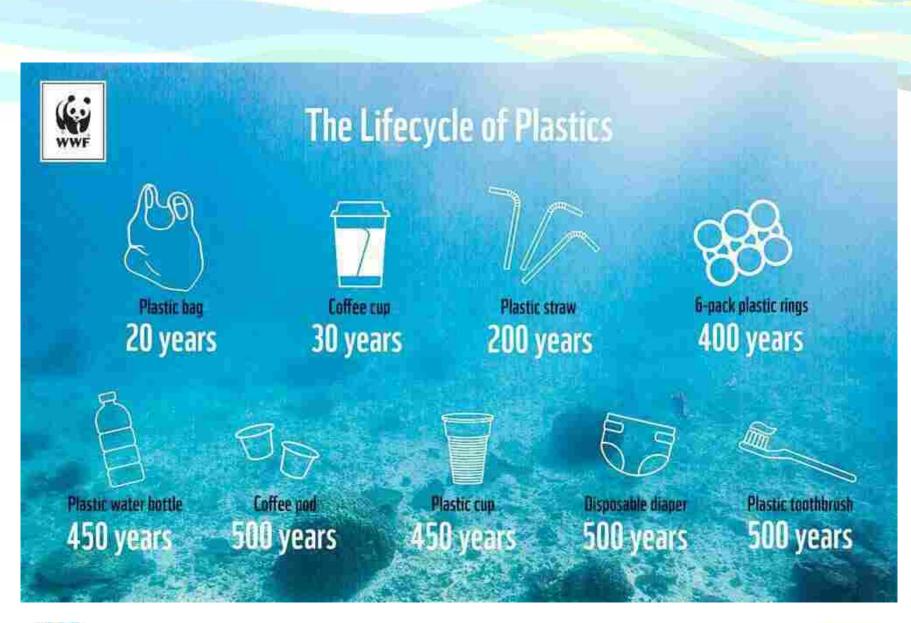


PLASTICS PRODUCTION INCREASED TWENTY-FOLD OVER THE LAST 50 YEARS



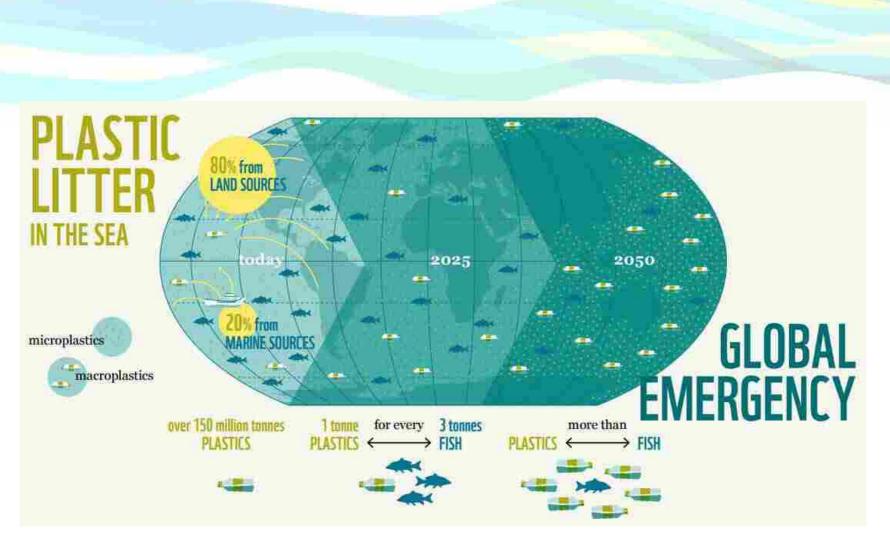
word economic forth, ellen hacarthus foundation, horinsey a comman, a new plastics economy: Bethinking the future of plastics (2010) ellenmacarthusfoundation.org/fuelications











Source: WWF report 2018 - Out of the plastic trap - Saving the Mediterranean from Plastic Pollution

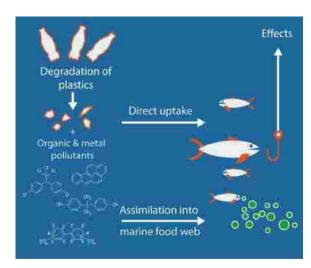




Impacts of Marine Litter



- → In the Meditterranean main species trapped in plastics are: birds, fish, invertebrates, marine mammals and sea turtles
- → Marine species also ingest plastics intentionally, accidentally, or indirectly by feeding on prey that has already eating plastics.
- → Microplastics are taken up, transferred and accumulated in the tissues of key marine organisms.
- → The "plasti-sphere", new communities of micro organisms hosted by plastics.





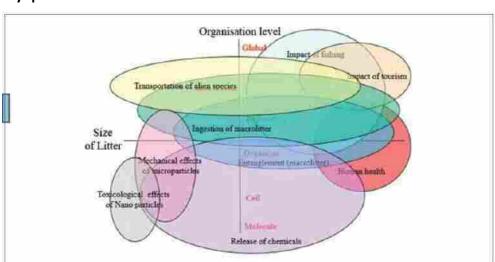


Figure 3. Schematic representation of different types of impacts to relation with size of marine litter and biological organization level.

Source: UNEP/MAP – Marine Litter Assessment in the Mediterranean





DENSELY POPULATED AREA WITH INTENSE HUMAN ACTIVITY



Marine Litter in the Mediterranean: Regional Response

UNEP(DEPI)/MED IG.21/9 Annex II – Thematic Decisions Page 143

Decision IG.21/7

Regional Plan on Marine Litter Management in the Mediterranean in the Framework of Article 15 of the Land Based Sources Protocol

The 18th Meeting of the Contracting Parties,

Recalling Article 5 of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources and Activities adopted in 1996, hereinafter referred to as the LBS Protocol, concerning elaboration and implementation of national and regional action plans and programmes for elimination of pollution deriving from land-based sources,

Recalling Article 15 of the LBS Protocol concerning regional action plans and programmes containing measures and timetables for their implementation, as well as the Annex 1 section C, point 14 of the same Protocol,

Taking into account Decision IG.20/10 of the 17th Meeting of the Contracting Parties (Paris, France, February 2012) entitled "Adoption of the Strategic Framework for Marine Litter management", as well as the measures on Control of pollution by persistent synthetic materials in the Mediterranean Sea adopted by the 7th Meeting of the Contracting Parties (Cairo, October 1991),

Regional Plan on Marine Litter: Objectives

- ✓ Prevent and Reduce marine litter pollution in the Mediterranean and its impact on ecosystem services, habitats, species, public health and safety;
- ✓ Remove already existent marine litter by using environmentally respectful methods;
- Enhance knowledge on marine litter; and
- Management of marine litter in the Mediterranean is performed in accordance with international standards and approaches and in harmony with programmes and measures applied in other seas.

Regional Plan on Marine Litter: Prevention measures (art.9)

- ✓ Promote Extended Producer Responsibility with measures prioritizing the hierarchy of waste management.
- ✓ Establishment of **Deposit-Refund Systems** for beverage packaging producers.
- ✓ **Fiscal, economical and voluntary agreements** to promote reduction of plastic bags consumption.
- ✓ **Sustainable Procurement** policies for the promotion of consumption of recycled plastic-made products.
- ✓ Establishment of **Deposit-Refund Systems** for expandable polystyrene (EPS) boxes in the fishing sector.
- ✓ R&D on plastics in the marine environment to reduce microplastics.

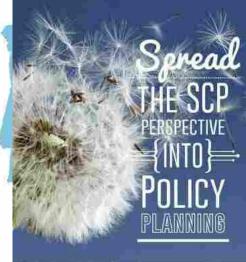
SCP/RAC activities supporting implementation of Article 9 of the ML Regional Plan

SCP/RAC Publications: 25 solutions to marine litter / 20 case studies to prevent toxic chemicals (includes chemicals used in plastics) / Practical guide on alternatives to SUPB - SwitchMed Programme Mediterranean Edition of the New Plastics Economy – Catalysing Action Report of the Ellen McArthur Foundation - SwitchMed Programme Identification of 150 potential measures to tackle ML in MPAs and development of a Decision Making Tool to select the most effective and feasible ones - ACT4LITTER project 3 pilot projects on ML prevention in Morocco Technical advice to the **Tunisian** government in drafting a decree on plastic bags and for socioeconomic study on plastic bags production and possible adaptation of the industry -Marine

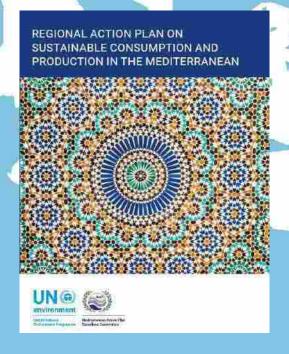
Support to green entrepreneurs supporting ML reduction/prevention e.g. reducing agricultural waste, reusing and recycling plastic bags, etc. (www.theswitchers.eu) – SwitchMed Programme

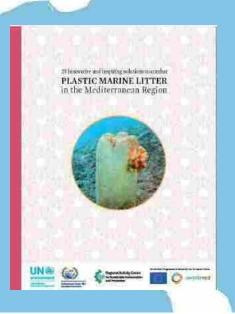
Litter Med

SCP and circular economy as key approaches to prevent Marine Litter

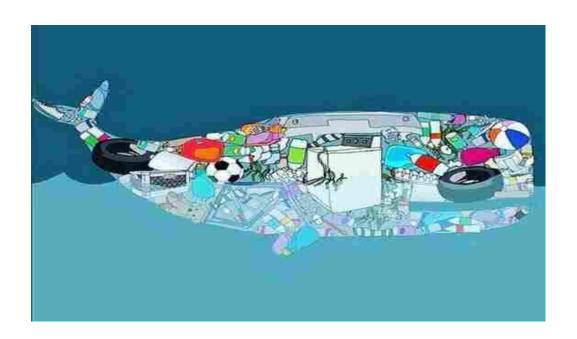








Marine Litter has no border, it is a global issue that needs international, regional, national and local responses led by governments, industries, universities and citizens!



Working for a Sustainable Mediterranean, Caring for our Future

Thank you

Magali Outters

SCP/RAC

moutters@scprac.org

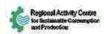


























SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Food and beverages and why we have to change

Presented by:

Nicola Cerantola, SWIM H2020 SM Expert ecologing

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

11 December, Barcelona, Spain

This Project is funded by the European Union



























Since the beginning of our history

- We have been looking to satisfy our needs from the basic to highest
- We transform nature at our will
- We did it since ever but suddenly something changed





Maslow's human needs pyramid

Self-actualization

desire to become the most that one can be

Esteem

respect, self-esteem, status, recognition, strength, freedom

Love and belonging

friendship, intimacy, family, sense of connection

Safety needs

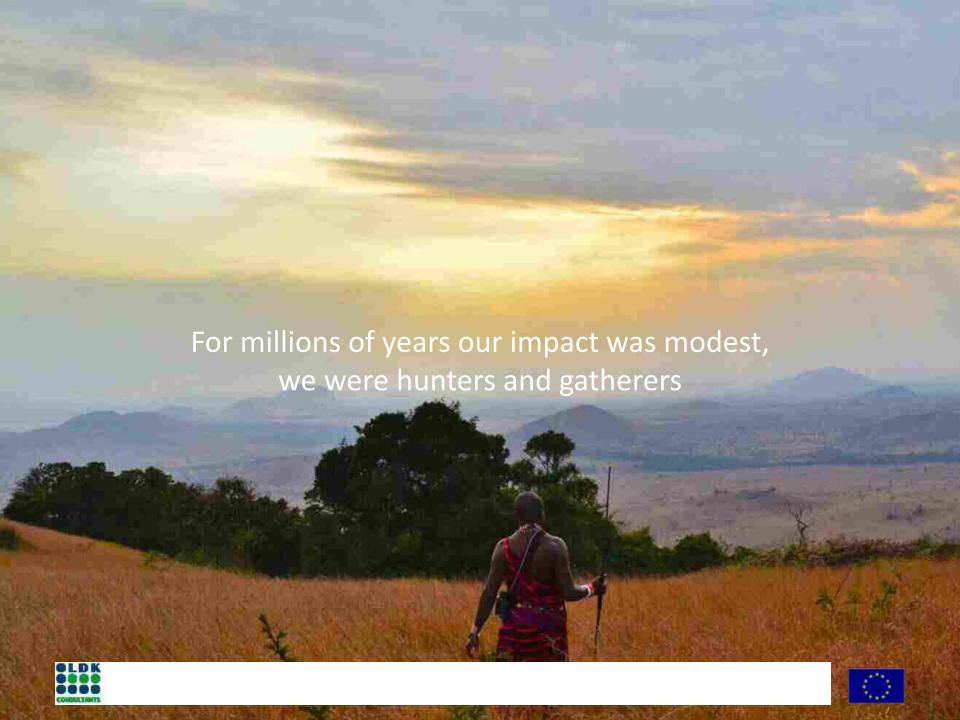
personal security, employment, resources, health, property

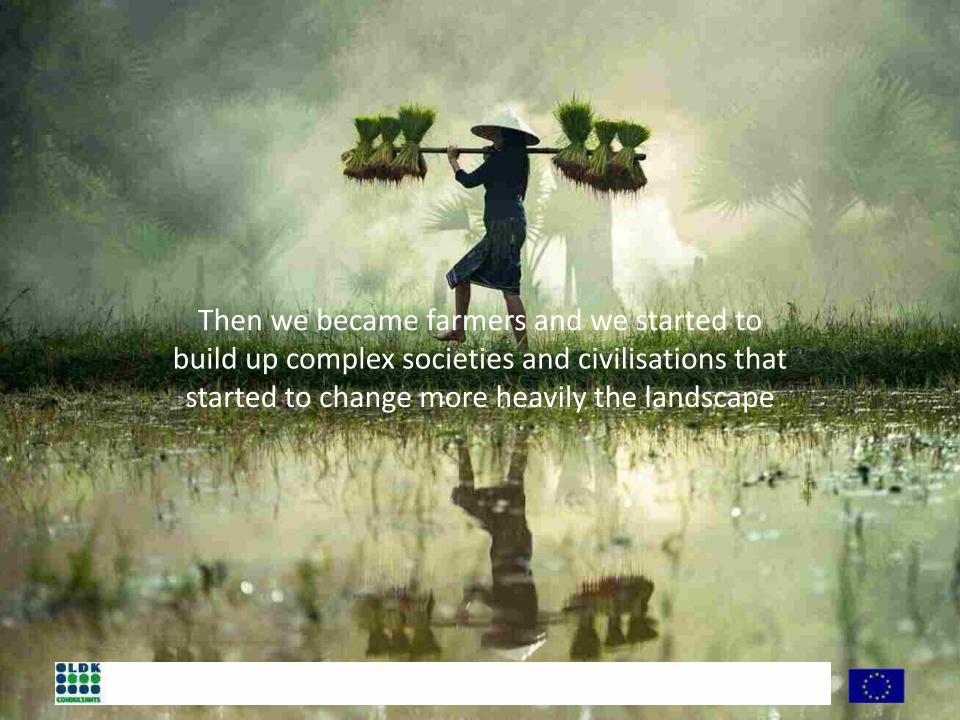
Physiological needs

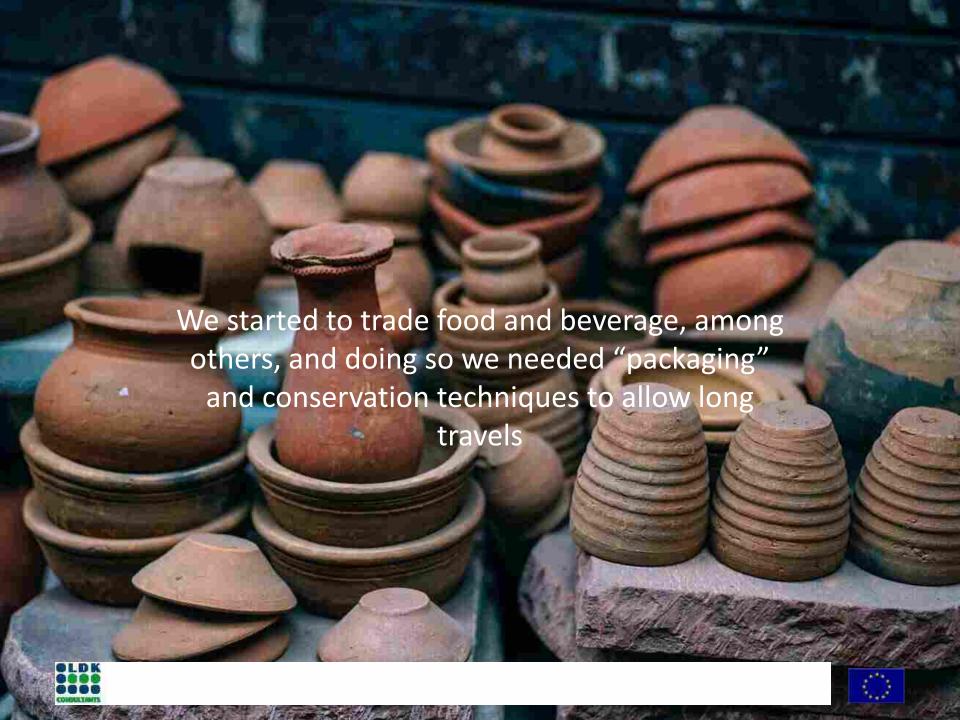
air, water, food, shelter, sleep, clothing, reproduction

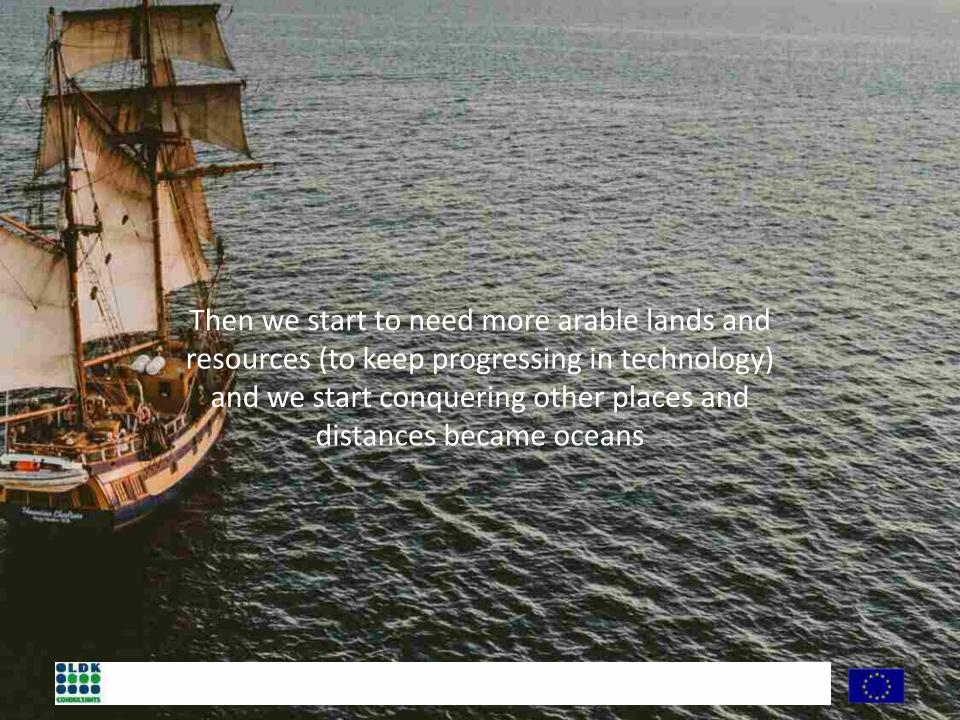
Source: Maslow, A.H. (1943). "A theory of human motivation". Psychological Review.







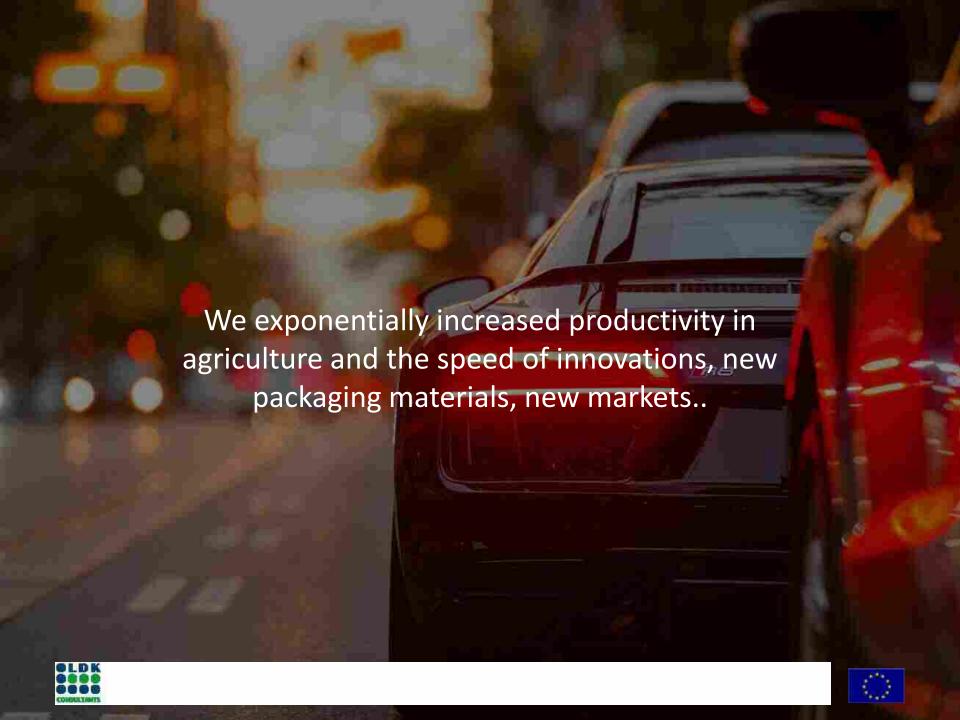


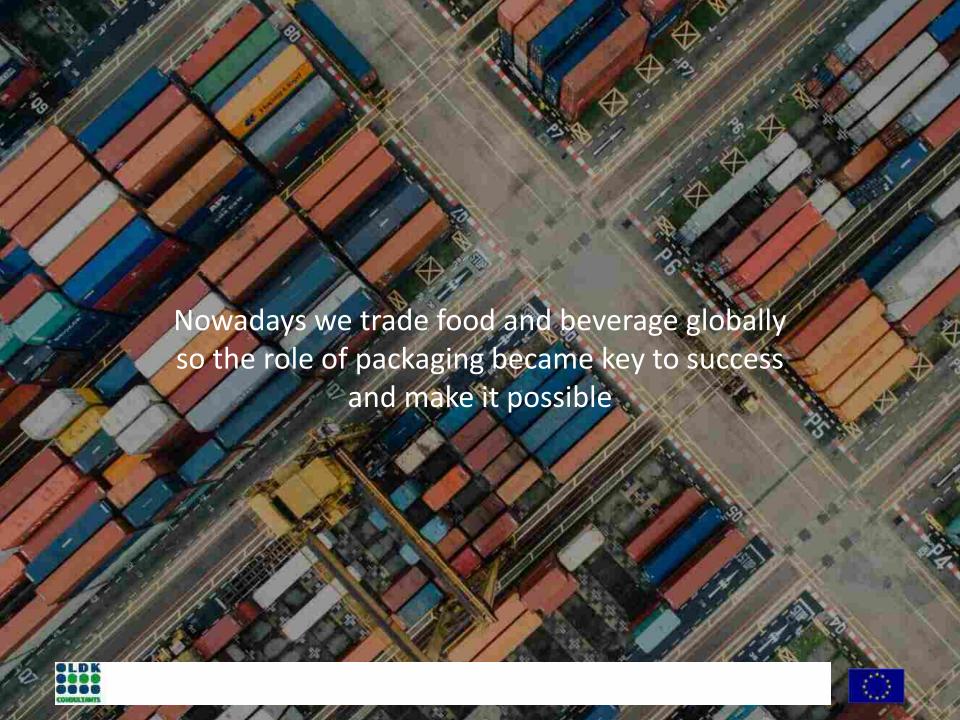


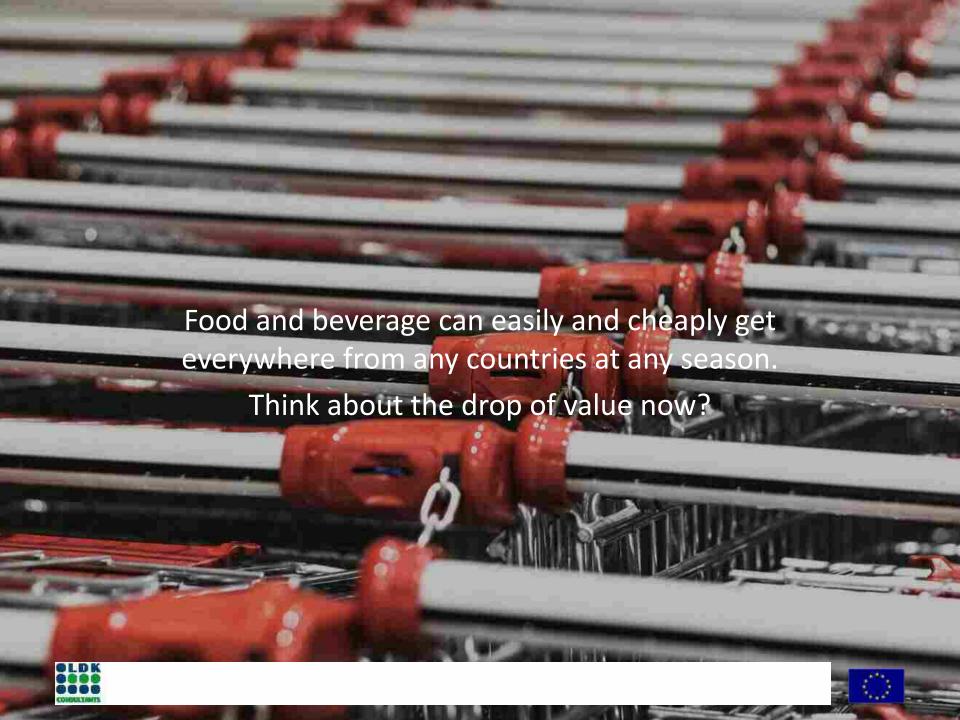
Suddenly around 18 century we discover how to access to the hidden power of fossil fuels and everything changed

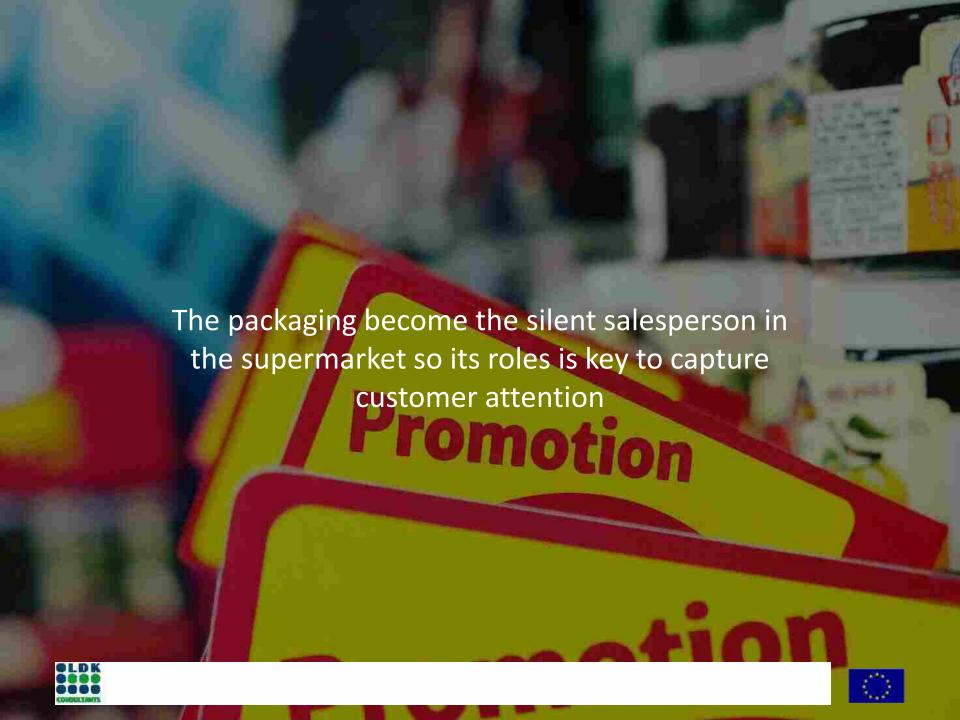


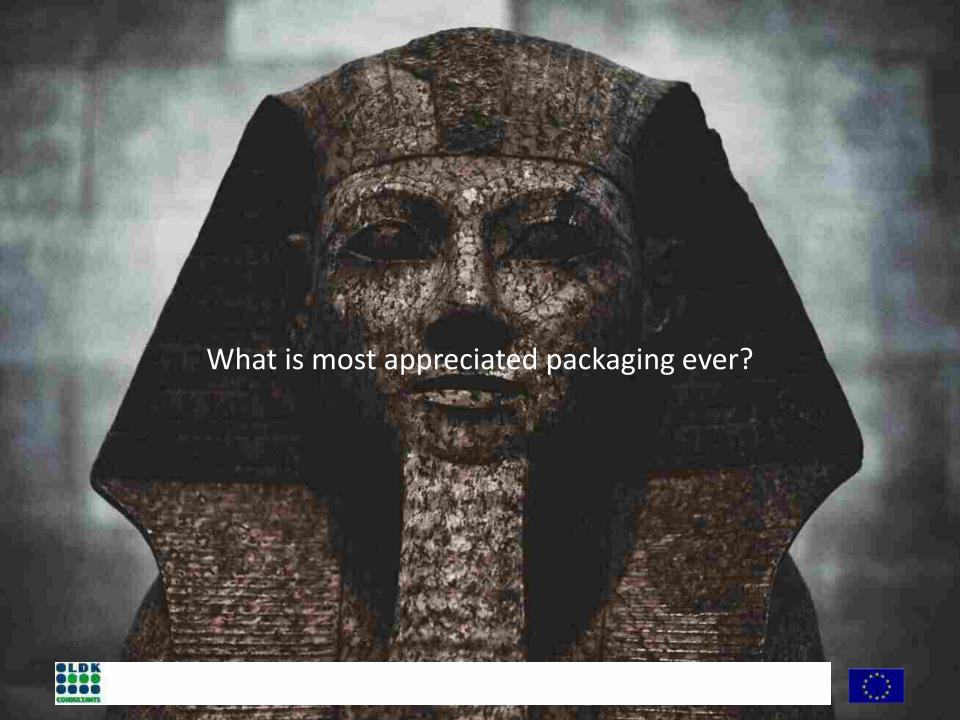












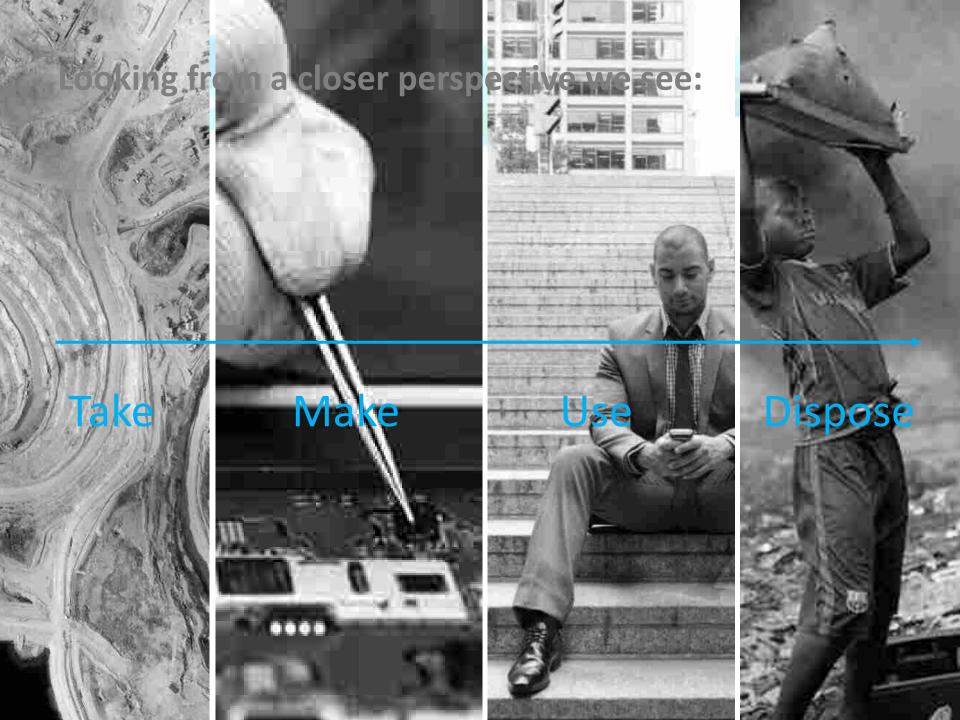
To resume

Human kind changing its relationship with the environment

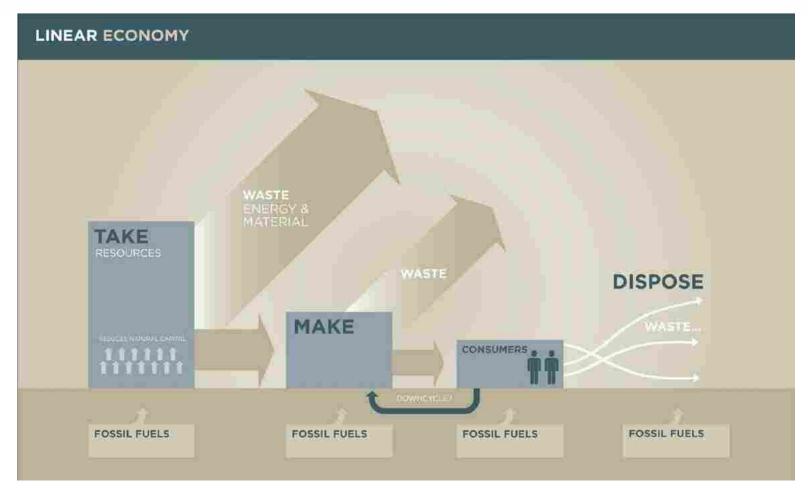
- From local supply to a global supply
- From scarce and expensive food and beverage to a collapse in prices and perceived value
- The reincarnation of the packaging in a new and meaningful life as "seller" for the organisation
- Are there limits to this evolution process?







Linear economy powered by fossil fuels and generating waste of energy and resources



Infographic from Ellen MacArthur Foundation. Towards Circular Economy Vol.3





Breaking down linearity







What is going to happen? Bad news...

by 2030..

- 8 billion people
- up to 3 billion middle class consumers
- 70% living in urban environment
- up to +30-50% energy, water
 and food demand









Some data.. by 2025

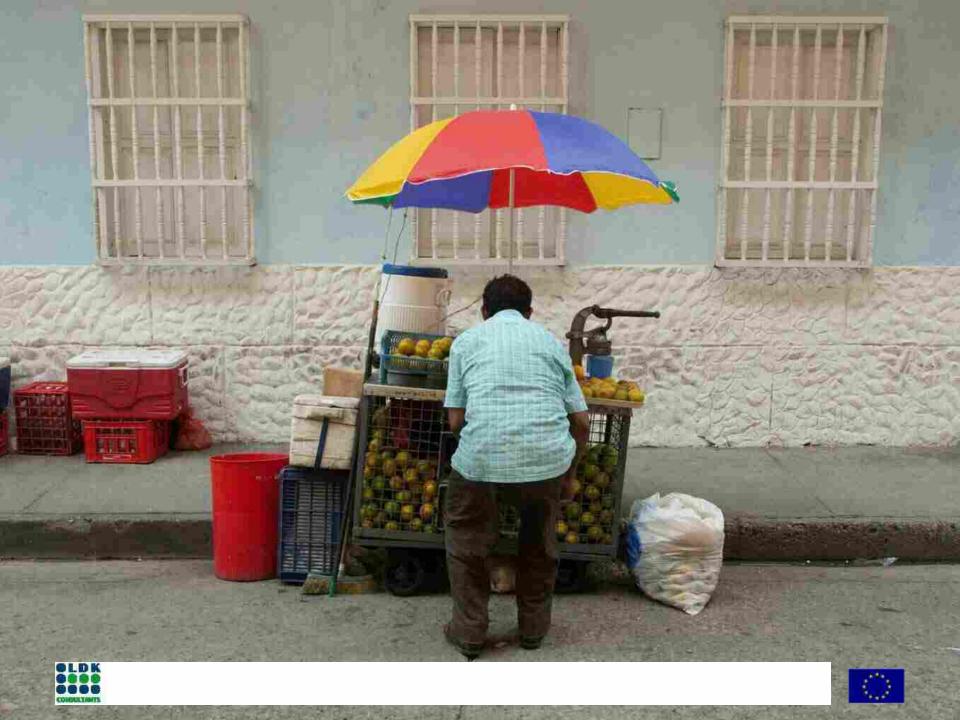


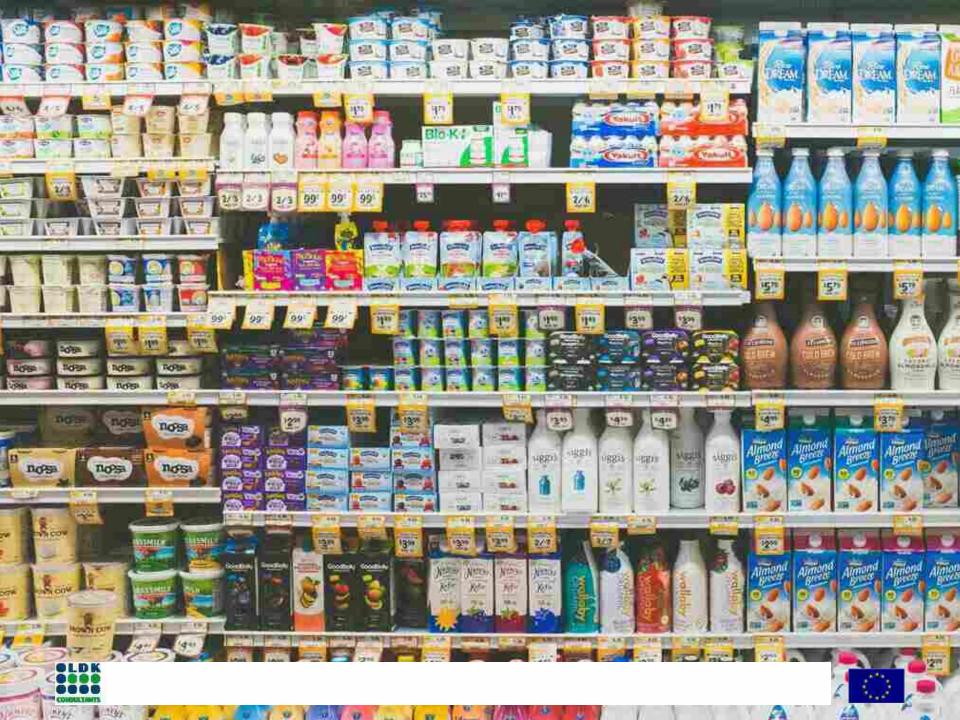
Estimate based on the comparison of low-income countries or population segment (e.g., India) and middle/high income countries and segments (e.g., US)

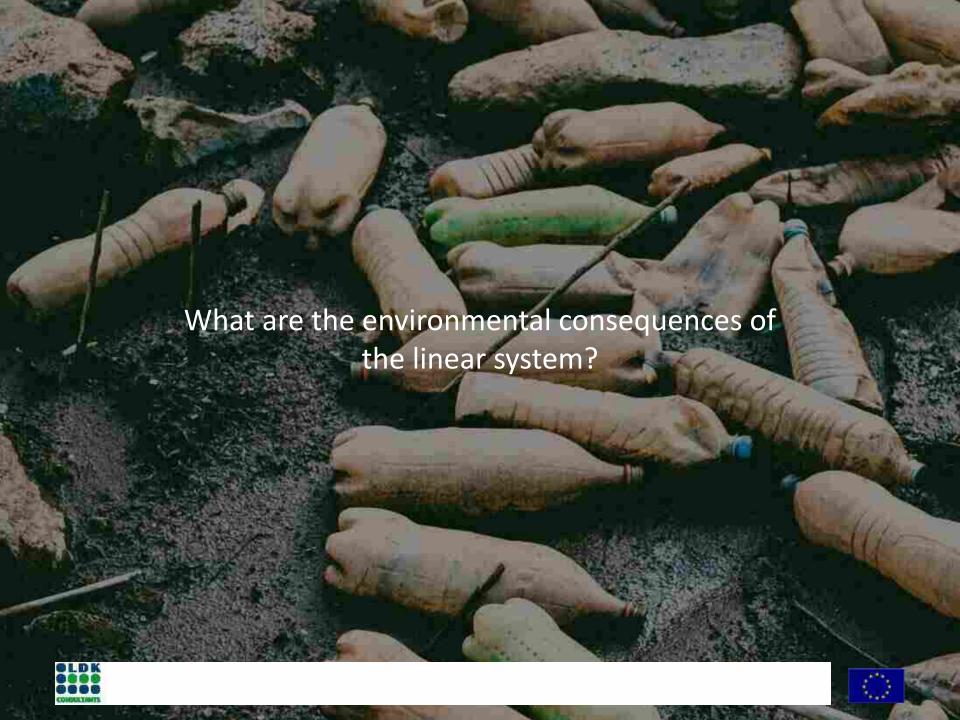
Infographic & source: World Bank. Ellen MacArthur Foundation circular economy team



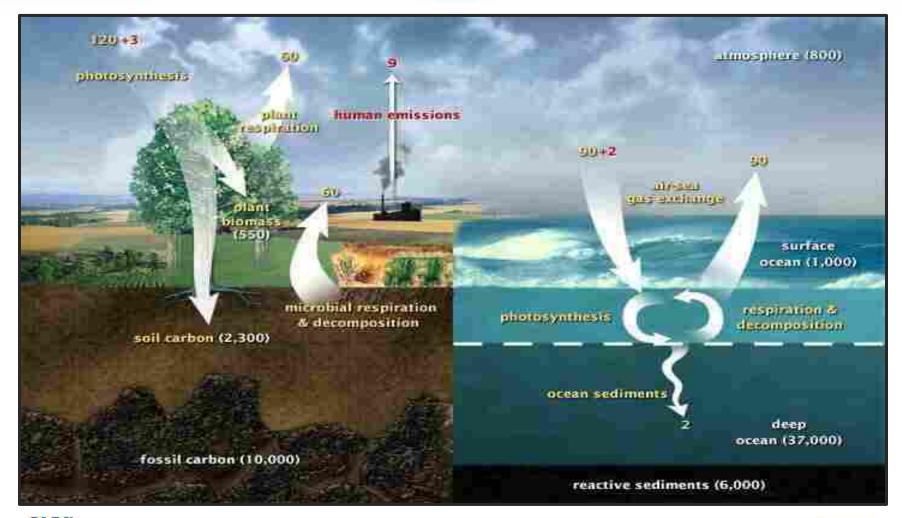






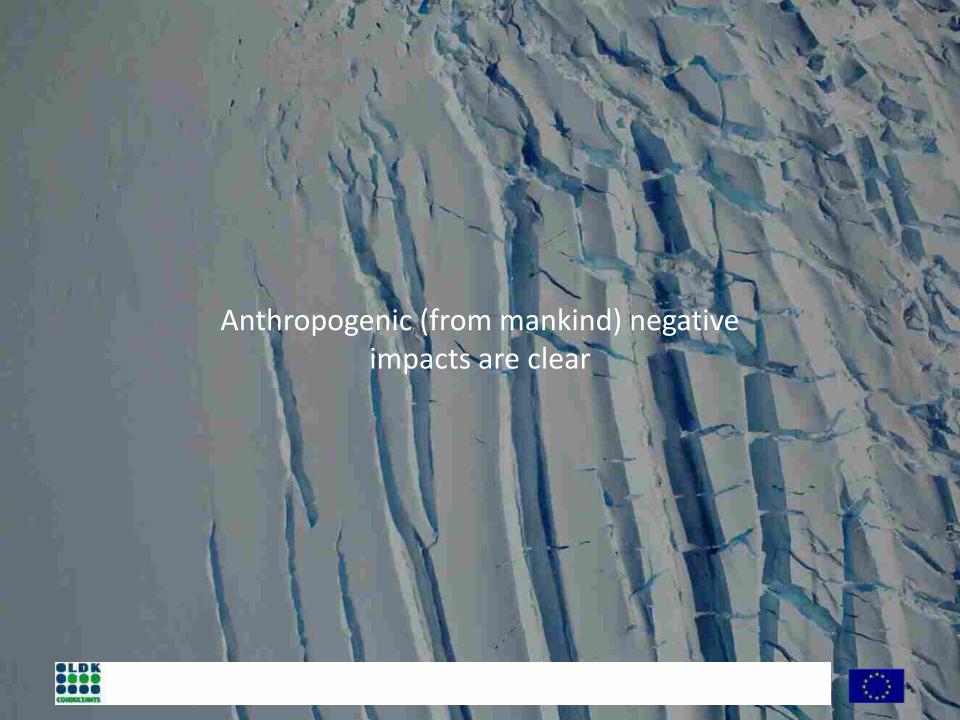


Consequences? We can start from the global warning

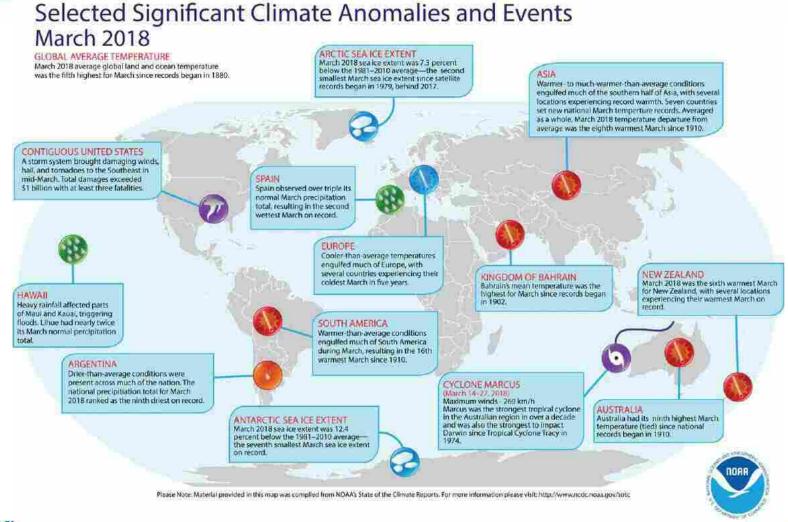








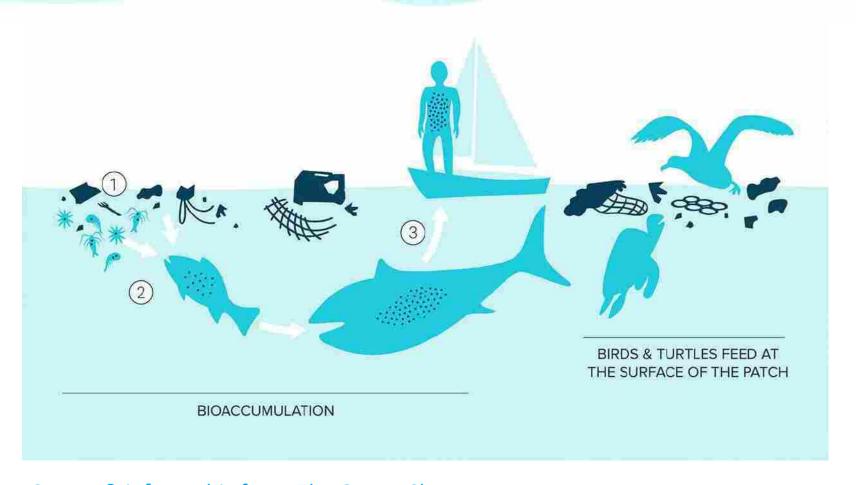
Observing the change







Problem of littering



Source & infographic from The Ocean Cleanup https://www.theoceancleanup.com/



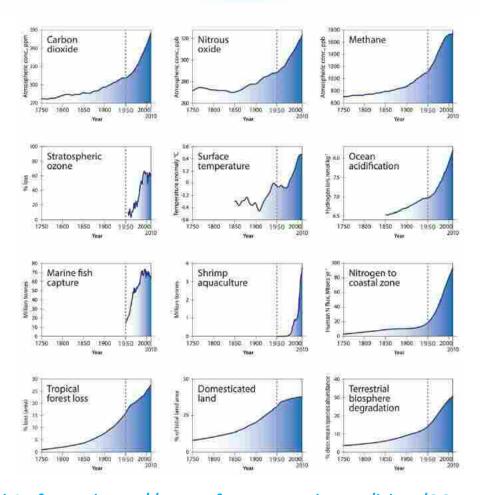
Other problems:

- Deforestation to free space for cattle and farming
- Pesticides and weed killer getting in the watershed and polluting the water flows and rivers
- Excess of fertilizers is leaking to the watershed accelerating eutrophisation
- Water scarcity and geopolitical conflicts





The great acceleration



Source & infographic from http://www.futureearth.org/blog/2015-jan-great-acceleration





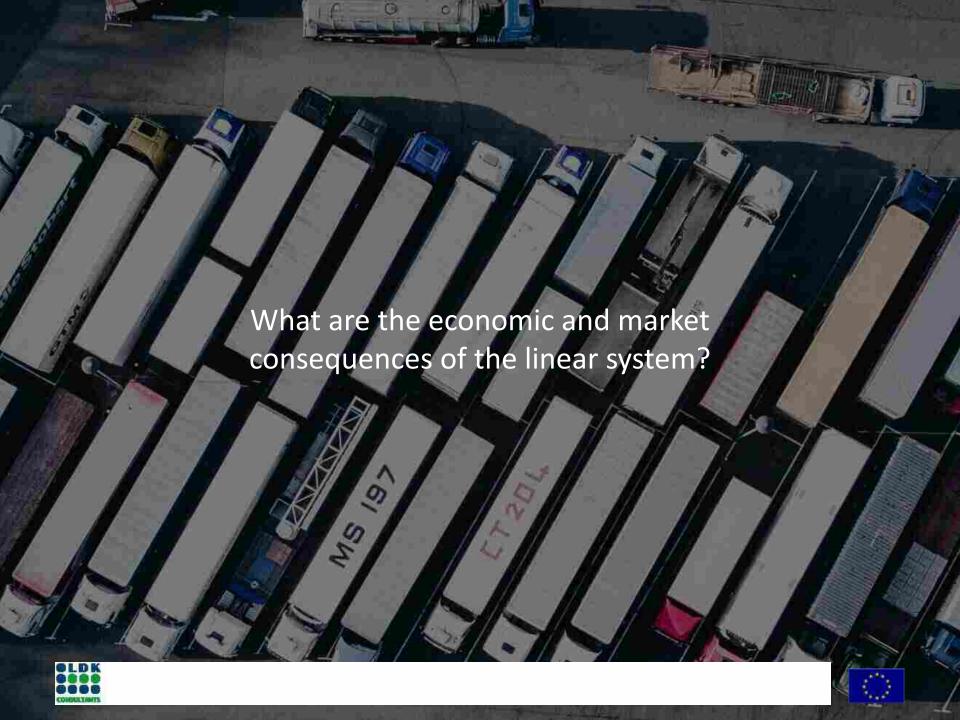
There are many issues related with linearity and its social negative impacts:

- Mono Cultivation is taking from local the chance to keep their own means of food production (lands) and they are at the mercy of the system
- Health problems for farmers due to pesticides and weed killers
- Poor labor conditions and injustices

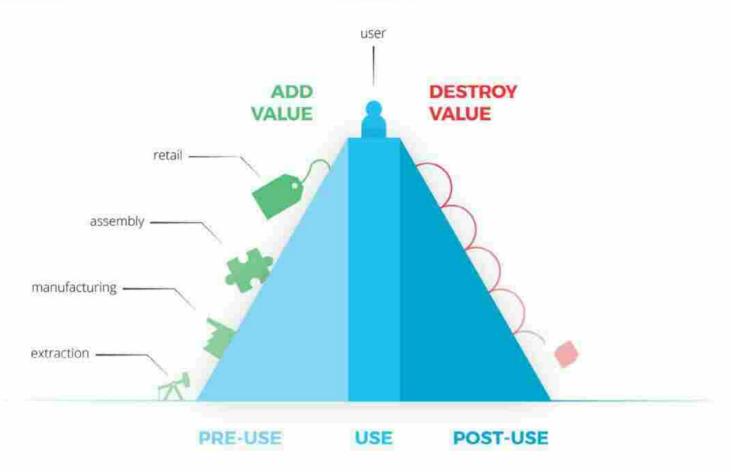








Linearity: losing a lot of value



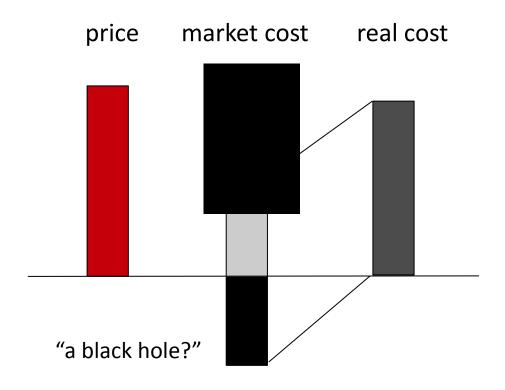
Source: http://www.circle-economy.com/financing-circular-business





Who is paying the real costs?

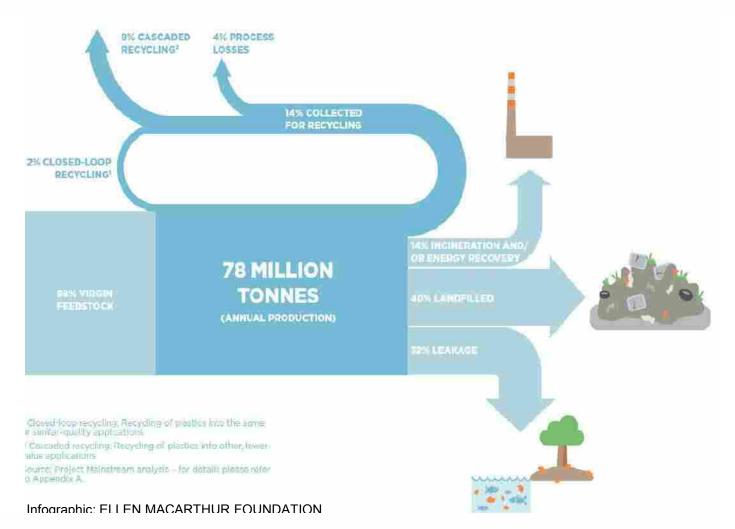
There is a "black hole" full of externalities to be considered while looking at the cost and value







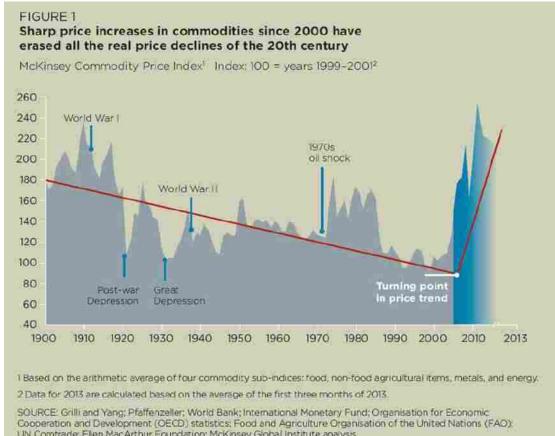
A wasteful process







Food, non-food agricultural items, metals & energy prices..



1900-2004 -60% decrease

2004-2014 +147% increase

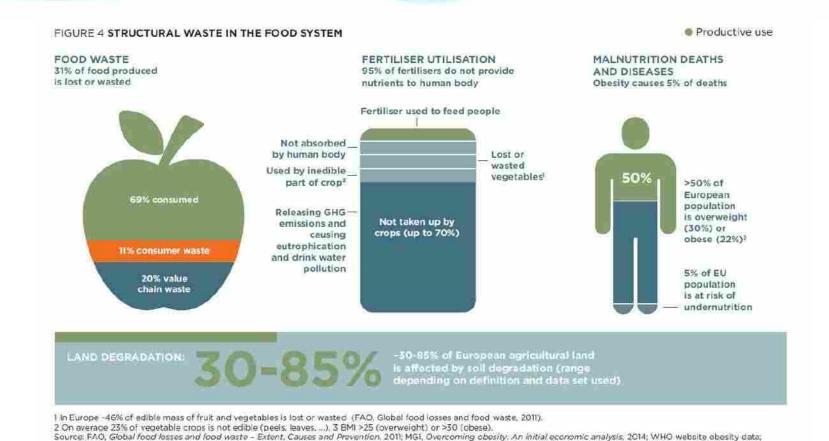
UN Comtrade: Ellen MacArthur Foundation: McKinsey Global Institute analysis

Infographic from Ellen MacArthur Foundation. Towards Circular Economy Vol.3





Food waste



Infographic from Ellen MacArthur Foundation. Towards Circular Economy Vol.3

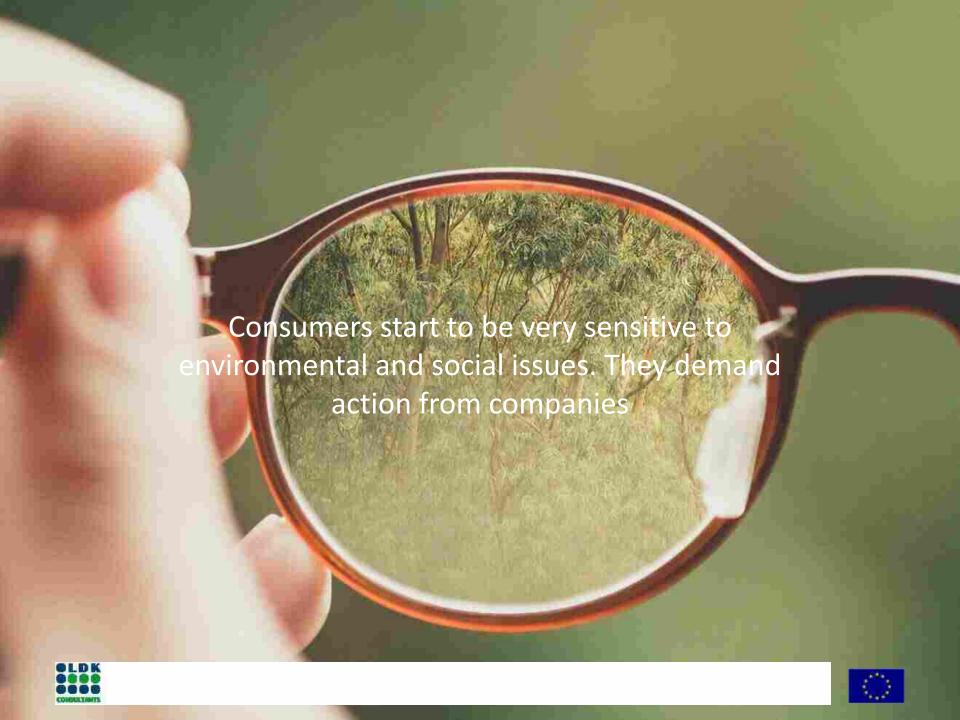
EEA, Towards efficient use of water resources in Europe, 2012, IFDC; Otle Ljungqvist and Frank de Man, Under-nutrition - a major health problem in Europe, 2019, Holly Gibbs

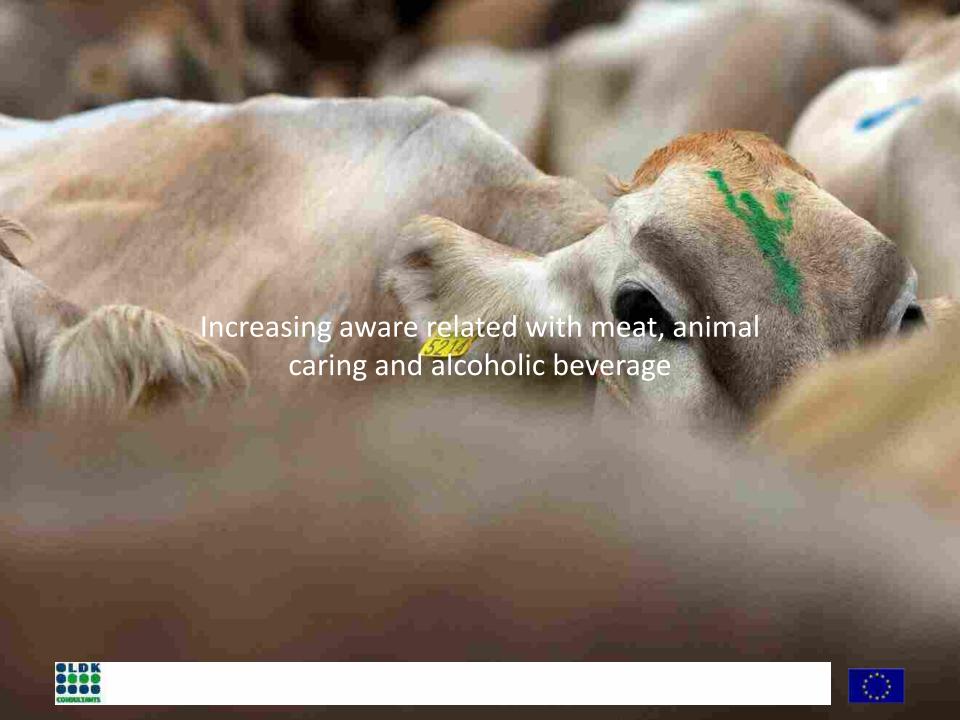


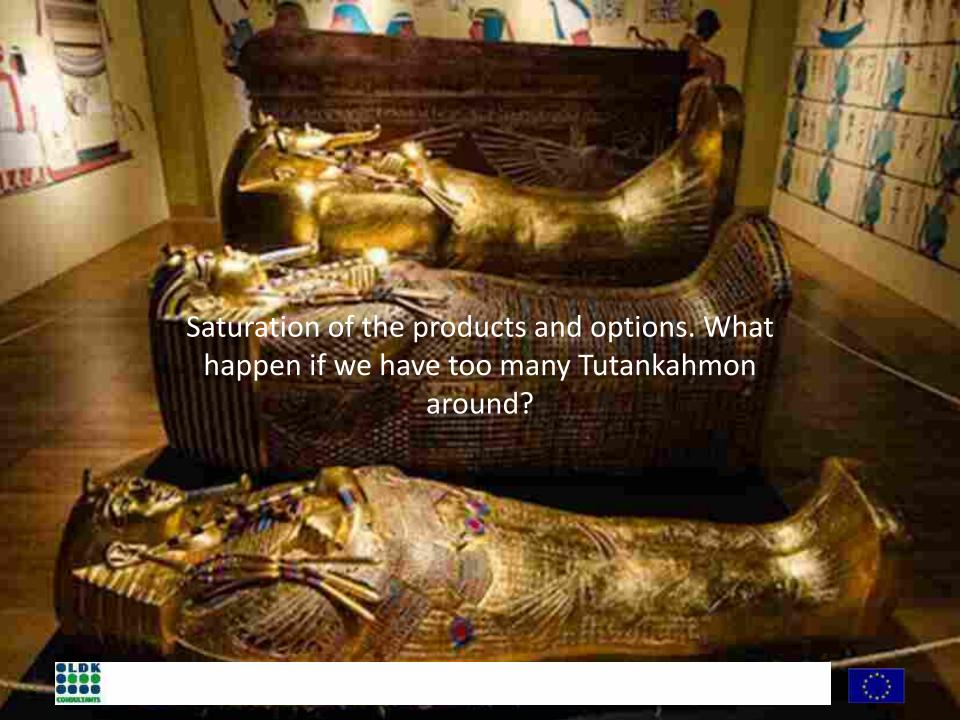
and Meghan Salmon, Mapping the world's degraded lands, 2015

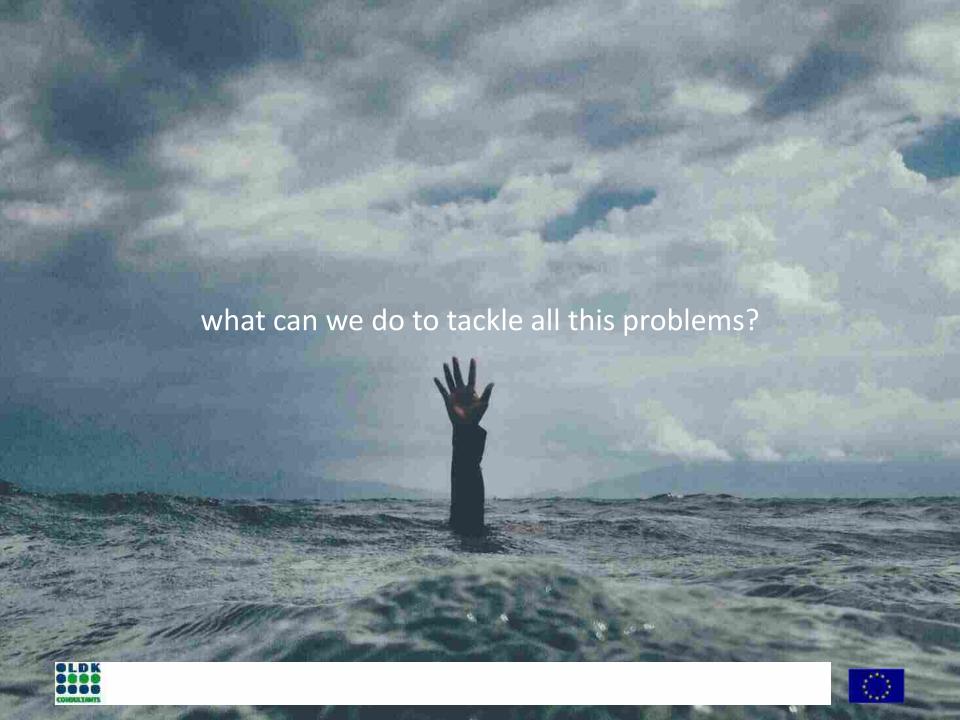




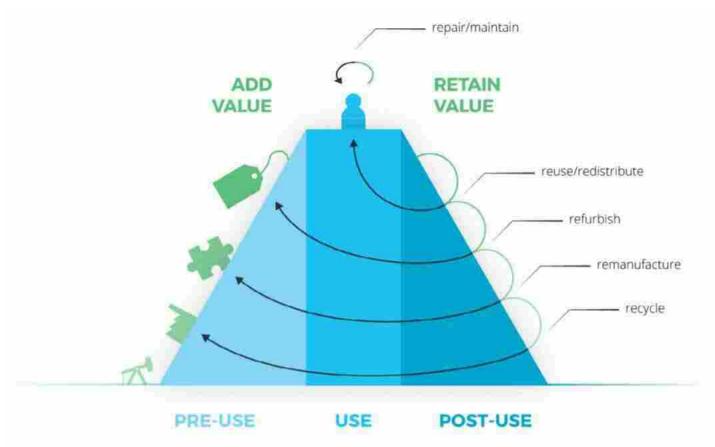








Circularity: retaining the value

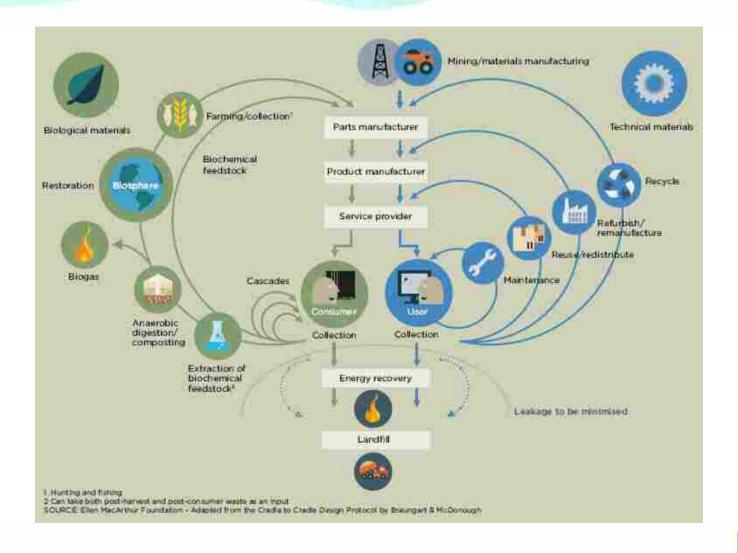


Source: http://www.circle-economy.com/financing-circular-business





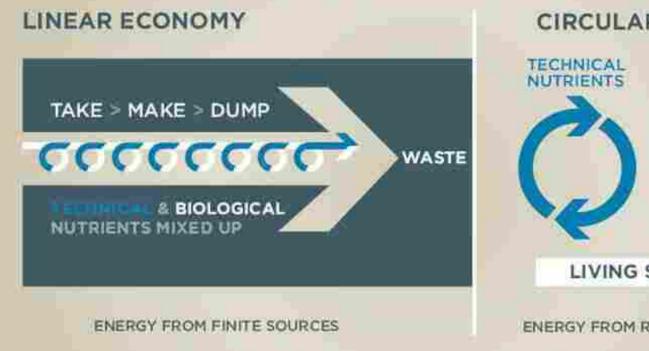
Butterfly diagram

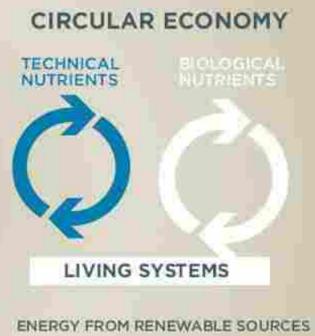






Powered by renewable energies





Infographic from Ellen MacArthur Foundation. Towards Circular Economy Vol.3





Circular Economy definition

The circular economy is restorative and regenerative by design. Relying on system-wide innovation, it aims to redefine products and services to design waste out, while minimising negative impacts. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural and social capital.

From Ellen MacArthur Foundation





Circular Economy definition (merged)

An economic system that replaces the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes. It operates at the micro level (products, companies, consumers), meso level (ecoindustrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, thus simultaneously creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations. It is enabled by novel business models and responsible consumers.

onceptualizing the circular economy: An analysis of 114 definitions. Julian Kirchherr, Denise Reike, Marko Hekkert https://www.sciencedirect.com/science/article/pii/S0921344917302835





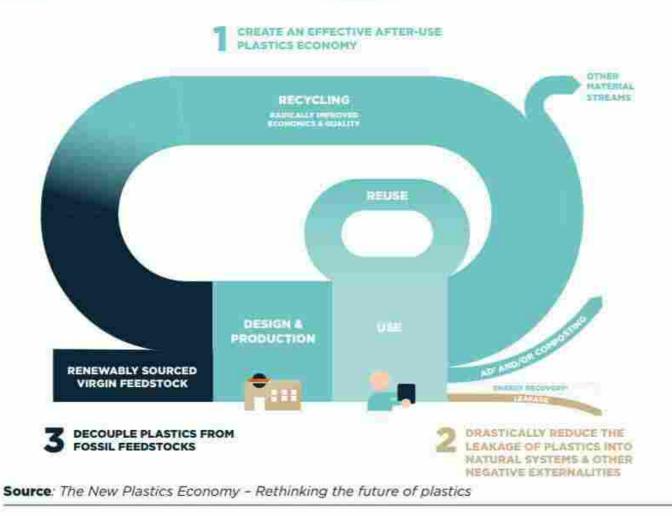
Schools of thoughts..

- Cradle to Cradle
- Biomimicry
- Blue Economy
- Performance Economy
- Industrial Ecology
- Natural capitalism
- Regenerative Design





Towards a new plastic economy







SWIM and Horizon 2020 Support Mechanism

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Questions?





COFFEE BREAK





SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

IDENTIFICATION OF NEEDS AND CHALLENGES FOR CIRCULAR ECONOMY IN THE F&B SECTOR

DAY 1: S04 11H30 to 13H00 SCPRAC and SWIM H2020 SM Experts

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

11 December, Barcelona, Spain

This Project is funded by the European Union

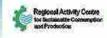


























13h00 14h00





SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Accelerating collaboration between companies along the plastic value chain to prevent pollution in the Mediterranean

Presented by:

Marie Le Texier, Co-founder and Principal consultant,

@ConsultantSeas

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

12 December, Barcelona, Spain

This Project is funded by the European Union































SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Implementation of the Extended Producer Responsibility approach for packaging in Spain

Presented by:

Gemma Arroyo, Waste Management Specialist, ECOEMBES

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector 11 December, Barcelona, Spain

This Project is funded by the European Union

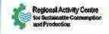




























What is Ecoembes?

EXPRA MEMBERS

Fost Plus

WALIPAC

Ekopak

ЕСОРАСК Видока

Eco-Entreprises Québec

Gleen Dot Cyprus

EKO-KOM

ETO

RINKI

HERRED

Oka Rominion

SAMIR

CONAL

vistorius

akomak

GreenPox

Ned yong

Grønt Punkt

ECO-DOM Ambaldje

Envipak

Slapak

EcoEmbes

Ecquidrio

EID

CEVKO

Ecoembes is a packaging recovery organization.

- We are a non profit organization that coordinates a collective system for household packaging waste to be collected, sorted and recycled.
- Member of EXPRA (Extended Producer Responsability Alliance) and PRO EUROPE (Defense Green Dot Symbol)
- 95% of the packaging waste in Europe is managed through this EPR model.













What is Ecoembes?

- Non-profit Company founded in 1996 in anticipation of Law 11/97 on packaging and Packaging
 Waste.
- **Equal responsibility shareholders** (member companies and corporate organizations represent every sector involved in the packaging value chain)

•	Packagers	60%
•	Commerce and distribution	20%
•	Raw materials	20%

- Corporate Purpose: To design and manage a SIG to comply, in cooperation with regional and local governments, with the recycling and recovery targets specified in applicable laws at an efficient environmental and financial cost.
- Authorized in Spain by every regional government
- Ecoembes provides to local authorities (responsable for the selective collection of houseold packaging waste):
 - Technical support



Financial suport: Finances the overruns associated with selective pick-up



What is Ecoembes? - Scope

Household packaging as a percentage of MSW (21 million tons)



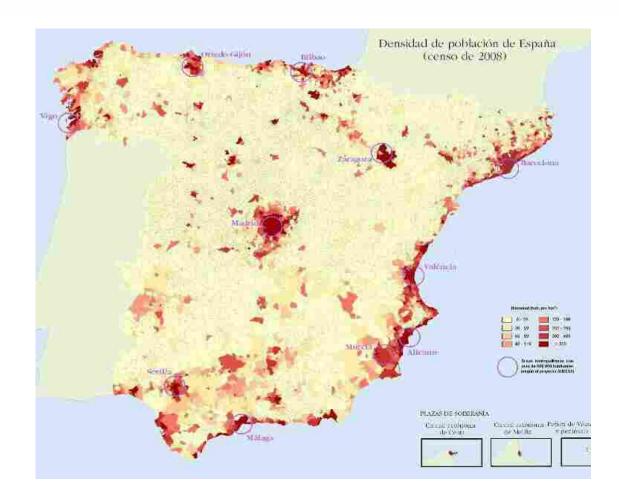




Background information

- + 47 million inhabitants
- 505,962 square kilometres
- More than 8000 local authorities and more tan 70,000 population centers
- 17 regional authoritiescomplexity
- Average height: 650m in a complex and varied orography
- Low density population:

93.51 inh/Km2







Bakcground information

Pillars of the EPR system in Spain:

- Shared responsibility- cooperation among Public Administration and producers
- Non-for-profit and owned by obliged industryinvolvement of industry
- Universal service to society
- Achieving environmental targets at an efficienct cost minimise the cost beared by citizens





Packaging cycle







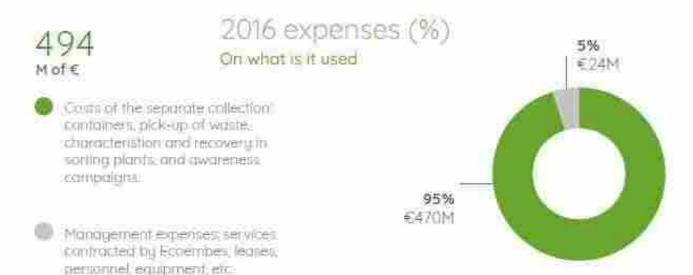
How is the model financed? **EXPENSES**

Ecoembes is a non-profit organization.

The cost of recycling household packaging determines

Ecoembes's revenue.

Eccembes bears the costs associated with the collection and sorting of household packaging waste for subsequent recycling.







How is the model financed? INCOMES

Through the Greed Dot fees, the companies involved in the system supply the funds needed to cover the costs of financing the collection and sorting. The amount paid is reduced by the revenue obtained from the sale of recovered materials.







Key Figures

Companies:

11.947 member
companies accounting for
1,7 million tons of
packaging

Contribute over **450** million euros a year

European **Leaders** in ecodesging





The public:

99% of the public has access to selective pick-up

83,5% claims to recycle all or almost all of their



There are
384 certified
recyclers
in Spain



There are

96 sorting plants
scattered throughout
Spain, 54 of them using
the latest technology



Administration:

115 agreements signed with regional and local governments.
Ecoembes finances the excess costs of selective pickup for city halls
Communication/Information
Infrastructures





The Role of Ecoembes



WITH PRODUCERS, RETAILERS AND PACKAGING MANUFACTURERS

We manage the funds paid by producers to make packaging waste recycling possible, as required by Law 1977

We promise the ecosesign of more systamable packaging to reduce its impact on the environment.

We audit the tons of household packaging declared by componers, 94% of the tons in 2016.



WITH THE PUBLIC

We ruse awareness on the importance of sorting packaging waste at home and out of home so it can be recycled.

> We educate people on carrig for the environment.



WITH THE RECYCLING

We lightly the suit of recovered materials.

We ensure that the worte is recycled and furned into new row materials.

We configurecyclers and improve the recycling processes.

We guarantee the traceability of 100% of the moterials



WITH LOCAL AGENCIES

We finance the collection of packaging waste in the yellow and blue bins and provide advice for constant improvement of the process.

We innovate to make processes more efficient.

We train municipal staff and surfing plant operators

We carry out 14,000 waste characterizations, and quality checks.





Ecoembes & Producers

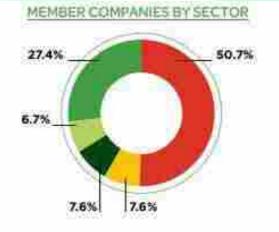
We help companies comply with their environmental resposability under the Law on Packaging and Packaging Waste.

- Green dot fees available & public. Calculated to cover the cost involved in the selective pick-up
- Packaging Declaration (calculation of the financial contribution to the Integrated Management System –SIG-):
 - Ordinary declaration
 - Simplified Declaration (<12 tons)</p>

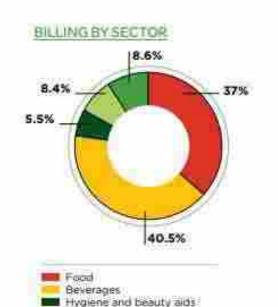




Ecoembes & Producers



By joining Ecoembes **the companies** have reflected their commitment to recycling and to preserving the environment.



Cleaning and maintenance

THE MORE THAN 12,000 COMPANIES IN THE ECOEMBES SIG ARE RESPONSIBLE FOR MARKETING OVER 17 MILLION TONS OF HOUSEHOLD PACKAGING, AND THE 400+ MILLION EUROS THEY INVEST MAKE IT POSSIBLE TO RECYCLE IT.





Ecoembes & Producers

THE **BEST WASTE**IS THAT WHICH IS **NOT PRODUCED**



INNOVATION
THROUGH
ECODESING TO
REDUCE

36,000 prevention measures (lighter packaging, more recyclable components, reuse of packaging,...)

Reductions in packaging weight

Weight Weight Change 2000 2000-2013 2013 (gr.) (gr.) **Bottled** water 31.8 26.05 -181% PET bottle 1,5 1. Olive oil 223.6 219.19 Glass bottle 250ml. Soft drinks Aluminum cans 15.8 13.43 -15% 330 ml. Soft drinks 26.03 29 -10.2% Steel cans 330 ml.

450,000 tons of raw materials saved

		Weight 2000 (gr.)	Weight 2013 (gr.)	Change 2000-2013 (%)
9	Canned fish Steel can 125 g.	34.3	30.94	-9.8%
	Liquid yogur HDPE bottle 100 ml.	6.9	5.68	-17.7%
	Detergent Cardboard box 2.5 kg.	234.7	210.6	-10.3%
Ō	Cereal Cardboard box 500 g.	78.5	67.39	-142%





Ecoembes & Public Administration

- LEGAL BASIS: Packaging Law 11/1997 & Different EU Directives
- Compliance scheme must be authorized by the Regional Authorities.
- Compliance scheme and Regional and/or Local Entities have to sign Cooperation agreements between, in order to:
 - Implement packaging waste selective collection.
 - Pay the additional cost to Local Entities.
- + 110 Cooperation agreements with Public Administration
 - •99% of the Spanish Population has Access to lightweight packaging and paper-cardboard selective collection
 - 96 sorting plants. 70% of sorted material through automatic plants





Ecoembes & Public Administration

MAIN CONTENTS OF COOPERATION AGREEMENTS

- Agreement body
- Autonomous Government Authorization
- Payment
- •Invocing and documentations
- **Control Procedures** (Service Quality, characterizations –non targeted materials-, Traceability, etc)
- •Main characteristics of the Comunication campaigns





Ecoembes & Public Administration

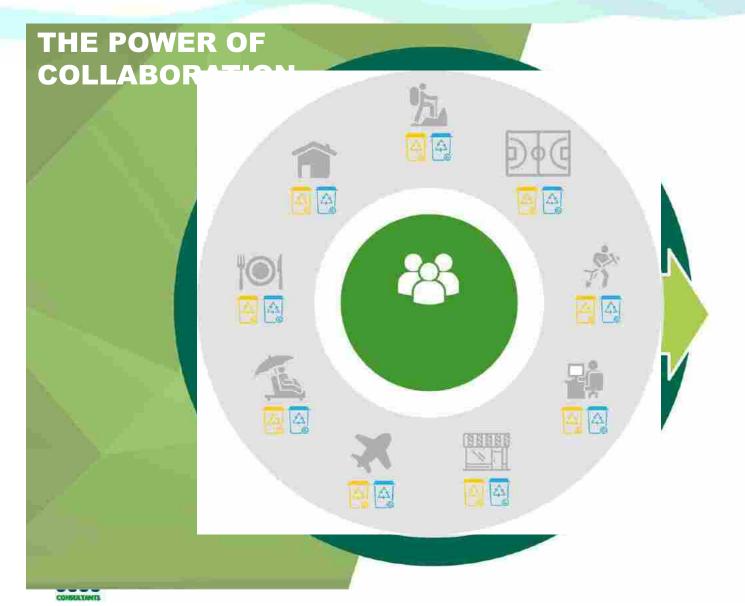
RESPONSABILITY OF THE MUNICIPALITIES

- Obliged by law to provide the collecting and sorting service for all the household waste streams (the management of the waste is competence of the municipalities)
- Collect the material in different streams (lightweight packaging, papercardboard, glass, etc)
- They can do it directly or through private companies after a tender
- Selective packaging collection and sorting is a saving for them:
 - Avoid landfill / incineration management
 - Extra-cost payment is asumed by the EPR





Ecoembes & Citizens



WE ADAPT TO CITIZEN HABITS

1.4 M (TONS OF

RECYCLED PACKAGING IN 2017) +3,5% than in 2016





Ecoembes & Citizens

Commitment of people

- Every person deposited an average of 14,0 kilos of plastic, cans and cartons in yellow containers
- 378,272 <u>yellow containers</u> were made available for this purpose

- Every person deposited 16,1 kilos of paper and cardboard packaging in blue containers
- 212,852 blue containers were made available for this purpose



14,0 kg/hab



15,1 kg/hab



Ecoembes & Citizens





Ecoembes carries out 370 campaigns a year to make people aware of how important their contribution is to caring for the environment.

Education programs (EducaEnEco)











Results





86,9%

METAL CANS Vs 75% PEC



81,1%

PAPER AND CARDBOARD

Vs 75% PEC



69,7%

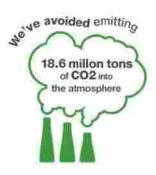
PLASTIC BOTTLES & CONTAINERS

vs 55% PEC



Balance of 20 years

Recycling since 1998



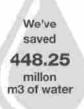
18,000,000 t







The energy needed to supply all households in Cataluña, Aragon and Navarre for 1 year.







The water consumption of all Spaniards for 2 months.





Roles and responsibilities of Ecoembes: Non-profit, industry owned

- Set up and <u>monitor efficient collection and recovery system at optimised cost</u>, in cooperation with other stakeholders. (95% incomes are used to pay local authorities)
- Monitor clients/members levels of compliance with their contractual obligations. Avoid fraud.
- Collate and <u>report</u> complete, accurate and reliable packaging data as required.
- Support obliged industry's efforts in <u>ecodesign</u> in view of packaging reduction and recyclability.
- Contribute to <u>awareness campaigns</u> for consumers to promote sorting in order to achieve the national targets.
- Strive to continually <u>improve the quality of recycled material</u> within the boundaries of the cost-benefit principle.





Added value of Ecoembes

- Industry owned. Involvement of industry:
 - Avoid conflict of interest of waste management companies and recyclers
 - Commitment of producers with the fulfillment of recycling target
 - Efficiency oriented system

Transparency:

- No fees discrimination for clients (public access)
- Transparency in costs paid to local authorities (public payment formulas)
- Reporting of data. Audited.

Holistic and long term approach:

- Investments on infrastructures in the whole country
- All the citizens have access to selective collection (not only in profitable areas)
- Investment on awareness campaigns





• Strengths:

- Efficient Model
- Flexibility of selective pick-up model
- Model inspired by the Circular Economy
- Operational rigor and oversight
- Public-private collaboration
- Technical benchmark
- Active commitment to open innovation
- Eco-design
- Environmental awareness beyond recycling





A full scale local & regional lab Logroño, La Rioja, Spain









BOOSTING INNOVATION IN PACKAGING DESIGN, PRODUCTION, COLLECTION, SELECTION & RECYCLING



Pioneering project in Europe



Package of the future



All stages of the packaging process - Life Cycle Analysis



Entrepreneurism



Big Data







Conclusions

The IMS works and has established itself as the most effective and efficient model for the recycling of packaging

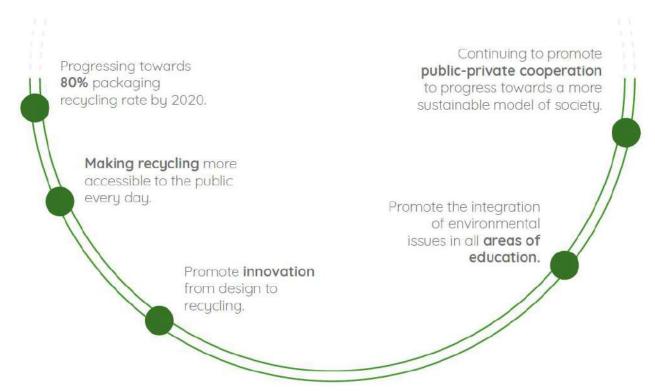


- It is the only system capable of handling 100% of packaging
- It is a standard in Europe, with 95% of packaging in the EU being handled through Integrated Management Systems (IMS)
- 99% of people can recycle their packaging in one of the 591,124containers available to them 24 hours a day, 365 days a year
- In 2017 the amount of material recycled underwent a traceability audit
- Local and regional governments provide information to Ecoembes, which is then audited and sent to the regional governments and to the Ministry of Energy and Environment as part of its annual report.





Closing the loop is a collaborative task of all







Ecoembes – more information

For further information

Website www.ecoembes.com

E-mail g.arroyo@ecoembes.com

Twitter @ecoembes @ecoembes_com





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SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Rewarding and promoting Eco designed products and strategies The experience of the Catalan Eco Design Awards

Presented by:

Mireia Padrós, Prevention&Resource Efficiency Dept, Circular Economy Unit,
Catalan Waste Agency, ARC

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector

11 December, Barcelona, Spain

This Project is funded by the European Union



























Europe 2020 Strategy

A Resource Efficient Europe

Sustainable consumption and production



Circular Economy



Green Economy



Smart, sustainable and inclusive Europe

Catalan Ecodesign Strategy, Ecodiscat

DESIGN DRIVEN INNOVATION



Ecodiscat: Towards a circular and ecoinnovative economy

Government Agreement GOV/80/2015, 2 June 2015.

Coordination among ministries: Sustainability + Economy + Enterprise + etc.

Objectives:

- To promote the production of ecodesigned products and services
- To promote the consumption of ecodesigned products and services
- To facilitate synergies with all stakeholders (companies, universities, research centers, designers, consultants, consumers, etc.)

Ecodesign is a good design



DIETER RAMS.

GOOD DESIGN

GOOD DESIGN IS INNOVATIVE

The possibilities for introductor are not, by any means, extinuited. Technological devisionment to shways offering new opportunities for throwathre design. But innovative design shways develops in tandem with inneventre technological and make the second in facilities.

BOOD DESIGN MAKES
A PRODUCT

UNDERSTANDABLE

GOOD DESIGN IS LONG LASTING

t avoide being stemoriable and therefore revie poeere antiquated. Unlike hermoneble deeligh, t likita many yeera — avan in today's infowsway ODD DESIGN MAKES A PRODUCT L-

A procleat is bought to be used. If has to satisfy cartain criteria, not only functional, but size psychological and sanitatio. Glood design emphasism the usefulness of a product while disregarding anything that social possibly

OCOD DESIGN IS UNOBTRUSIVE

Products fulfilling a purpose are like toole. The are neither decorative objects nor works of a Thair design should therefore he both near and realizated, to leave room for the user

THOROUGH DOWN TO THE LAST DETAIL

Nothing must be arbitrary or left to chance. Care and accuracy in the design process show 8 0 0 D D E S | 9

AESTHETIC

The neethertic quality of a product is integral to its ventuinume hunguse products we use every day effect our person and our well-being. But

BOOD DESIGN IS
HONEST

if does not make a product more innevetive powerful or valuable than it really is. It does no attempt to manipulate the consumer with promises that period be kept.

GOOD DESIGN IS ENVIRONMENTALLY • FRIENDLY •

Medica Medica en important controllica to tr reservation of the savironment, in conserva scources and manifesse physical and visus colluteen throughout the lifecycle or in restant.

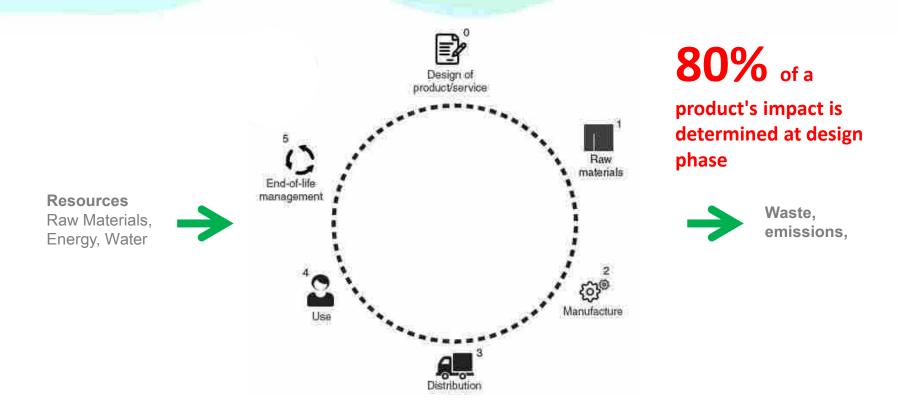
O O O D DESION IS

AS LITTLE DESIGN AS POSSIBLE

Countries by MANAY EASTER

Lace, but better - because it connectrates of the expected separate, and the products are no turdened with non-negaritate.

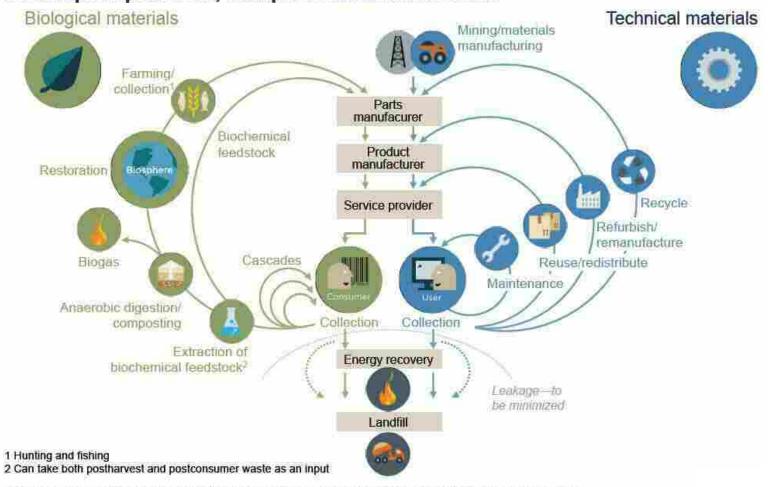
Ecodesign and life cycle of products



ECODESIGN: Taking into account all the **environmental impacts** of a product during all the phases of life-cycle, to minimise its environmental impact right from the earliest stage of design.

Ecodesign and circular economy

The circular economy framework provides many opportunities for closing the loop on products, components and materials



SOURCE: Ellen MacArthur Foundation circular economy team drawing from Braungart & McDonough and Cradle to Cradle (C2C)

Positive impacts of Ecodesign

96%

of companies that have implemented ecodesign say that it had a positive or neutral effect on profits.

12%

The profit margin of ecodesigned products is, on average, 12% higher than that of conventional products.



● TABLE 29 OTHER POSITIVE IMPACTS OF ECODESIGN APPROACH

European Total Quebes Francis e Union [W] CHARLE Improved recognition and reputation 雠 me. Greater employee motivation or pride 21 Better customer relations 23 32 Greater capacity to develop new products 33 Easier to recruit staff 23 15 Improved relations with funding agencies, 12 regulatory authorities, or NGOs 17 2 19 12 Better interdepartmental cooperation

Respondents could select multiple choices

117 out of 119 companies answered the quartier

Source: "Profitability of Ecodesign: an Economic Analysis" European Network of Ecodesign Centers Institut de dévéloppement de produits Pôle Éco-conception et Management du Cycle de Vie

Why is not Ecodesign widespread?

Actions to do:

- Promote Knowledge (designers, manufacturers, consumers)
- Promote wide enough products and services supply
- Eliminate prejudices from consumers (Lower quality, more expensive)

Ecodesign projects

Ecodesign in the electric and electronic toy sector (2006-2008)



Practical approach: 4 study cases (4 toys)



Winnie Cuentos y Canciones®

Mickey canta y baila

Conector

Comptavoltes DS-200

Digital kit

Ecodesign packaging project for the fast-food sector in Catalonia (2014-2016)

This project consists of coming up with eco-design packaging solutions for the fast-food sector in Catalonia that fulfil eco-design criteria while at the same time being economically and technically competitive, with Ecoembes and 4 packaging businesses.

4 packaging selected Carbon footprint calculated











reWINE

Glass bottles reuse in southern Europe wine sector

 Project to promote the reuse of bottles in the wine industry to reduce the production of waste, greenhouse effect gases, and cost savings for wine producers.





History of this Award



- The Award is part of the Catalan Ecodesign Strategy
- In 2015 counted on the support of SWITCH-Med for Category Euro-Mediterranean

Catalonia Ecodesign Award 2019

Let's design a better world!



3 Categories of the 3rd Edition 2019:

A: Product (products already on the market)

B: Products under development

D: Young design

- Participants: designers, manufacturers or promoters from Catalonia
- Opportunity for innovative products and services:
 - 6,000€ (A & B) and 3,000€ (D category) award
 - + Diploma,
 - + Participation in Award travelling exhibition
 - + Included in the Award catalogue
 - + Included in the dissemination activities



Evaluation criteria

Basic criteria:

- Inclusion of ecodesign strategies and contribution to the circular economy
- Quality of the design
- Innovation
- Degree of development of the entry (for products under development)

Additional criteria:

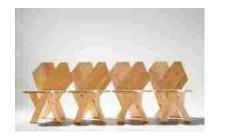
- Application of environmental evaluation methodologies
- Possession of labels that accredit the environmental benefits of the product
- Implementation of the environmental management system in the design and development process (Ecodesign, ISO 14006).
- Social and economic impact
- Impact on the everyday culture and behaviour of consumer

Winners 2015



COOL DOWNLIGHT Simon Design (comercialitzada per Fluvia)





CADIRA BIENNALE
Figueras International
Seating i
Josep Ferrando Bramona



ANTIVOLABOSSA Urbaser, Estudi Salva Fàbregas i Xarxa Ambiental



KIGALI CHAIR PROJECT Clara Romaní i Josep Mora



PEP LEMON Lemon Factory, Fundació Amadip, Esment, Agroilla, la Paduana i Comercial Bordoy



INVENTO. Disseny d'un mini aerogenerador Andrea Artero, Albert Bercero i Joel Plana (EPSEVG – UPC)

Winners 2017





Càpsules compostables Cafès Novell SA



POWERPAD
Juan Pablo Esquivel
Institut de Microelectrònica
de Barcelona



Col·lecció Remix Vol.1 i 2 BD Barcelona Design 1972 SL Ramón Úbeda i Curro Claret



PINE HELPER
Laura Perdomo Caso
ESDAP Seu La Llotja

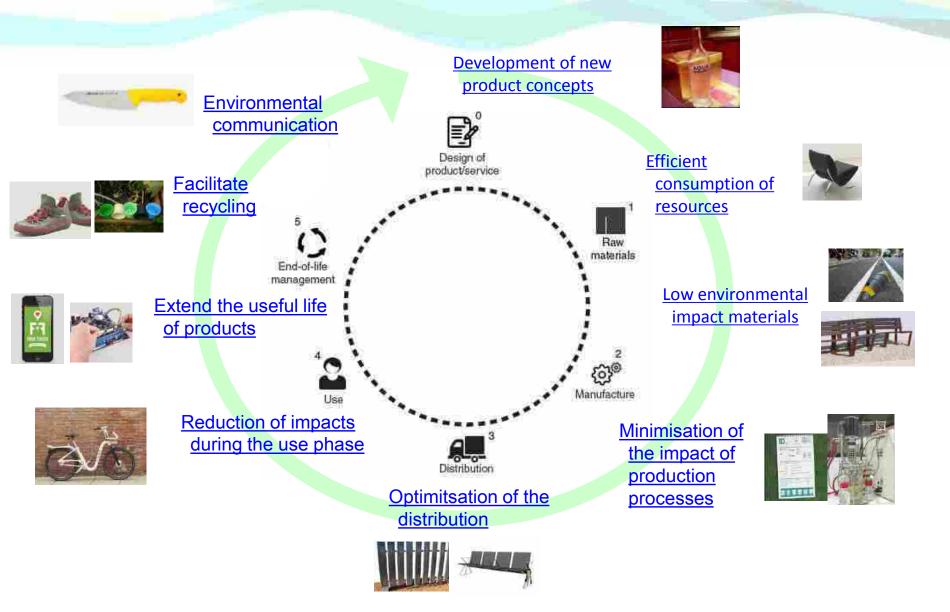


CHUKUDU 2.0
Alessandro Asnaghi
IED Barcelona



BLAU ORGÀSMIC Ioanna Crasovan IED Barcelona

Examples of eco-designed products



Related activities

Results of 2 Edition 2017:

115 entries

40 finalists (entries 2nd stage)

6 award winners + 7 special mentions

+ 11 special mentions of the Jury

Award ceremony: 19th October 2017

- Travelling exhibition
- Catalogue
- Seminars and workshops addressed to students and professionals
- Carbon footprint of award-winner products
- Promotional video



SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Thank you for your attention

Mireia Padrós mpadrost@gencat.cat

This Project is funded by the European Union



























COFFEE BREAK





SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

The Packaging Cluster: gathering companies, knowledge centers and entities representing the entire packaging value chain

Presented by:

Mireia Andreu, Project Manager, Packaging Cluster

WP3 Regional 9: Fostering a Switch to Green Economy in the Mediterranean

Designing circular economy strategies in the food and beverage packaging sector 11 December, Barcelona, Spain

This Project is funded by the European Union



























1. The Packaging sector, key to the economy







Source: The sector of Packaging in Catalonia, ACCIÓ 2017



144 144

2. Packaging Cluster as a dynamic tool

- Work team to provide service to the ecosystem
 - 1 Cluster Manager
 - 2 Project Manager
 - 1 External Counselor
- Board directors (look <u>members</u>):12 companies and 1 Techological Center



Kao Chimigraf















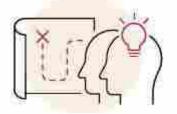




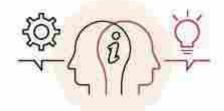




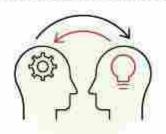
Strategic reflection



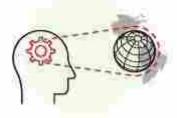
Technical and innovation seminars



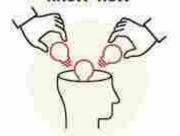
Inter-cluster workshops



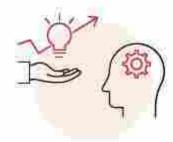
International connections



Training and spreading know-how

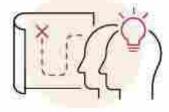


R+D+I Projects





Strategic reflection





VI Strategic dive. 18-19 octubre 2018.









VI Inmersión estratégica del Cluster del Packagii

La Inmersión Estratégica es la jornada anual de referencia del Packaging Cluster que reúne a empresas y entidades de toda la cadena de valor para reflexionar estratégicamente y hacer networking entre las empresas que forman el sector industrial del packaging, que en Cataluña comprende a más de 750 empresas y su facturación representa un 3,4% del PIB.

Anyalmente, se debaten diferentes temáticas de interés para la industria, que en la presente edición de 2018 serán las nuevas oportunidades de negocio; la economía circular: la gestión y métodologías de impovación; y estrategia y tendencias de mercado.

La inmersion sirve también para compartir casos de éxito y establecer nuevos proyectos estratégicos del cluster, donde se trabajará con la innovadora metodología de Gamestorming para promover la visión de future innovadora.



Fechas: 18 y 19 Octubre 2018 Lugar AC Hotel Marriot Sant Cus Dirigido a: Todos los agentes del secto



Objetivos

- · Reflexionar estratégicamente sobre · Economia Circular los retos del sector
- · Hacer networking identificando posibles oportunidades de negocio
- · Compartir casos de éxito empresarial y tratar temas de interés
- · Debatir los retos de futuro del sector y establecer nuevos proyectos estratégicos del cluster

Tematicas

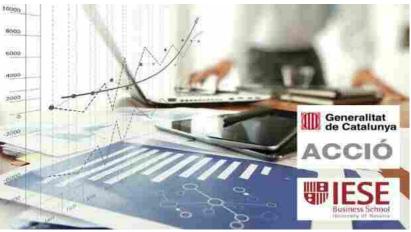
- · Nuevas oportunidades de negocio
- · Estratégia y tendencias de mercado
- · Gertion y metadologia de innavación



148 148

Improving business strategies











Sustainability work group













150 150

Open sessions to share value

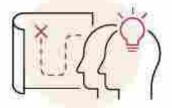








Strategic reflection



Technical and innovation seminars





The consumer leads the digital change in the food and beverage sector





















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Certifications food Packaging main course

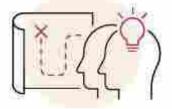




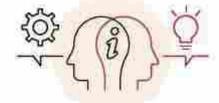




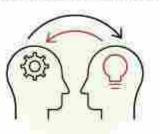
Strategic reflection



Technical and innovation seminars



Inter-cluster workshops





Market view point (Beauty)







What is the goal of the viewpoint?

- Encourage networking between key companies of companies with different value chains
- Understand and debate trends that will allow you to identify the evolution of the market
- Work on innovation through a game and dynamic creation
- Design new products collaboratively



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AINS, Food Network – 2017/2018





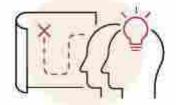






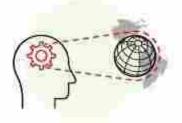


Strategic reflection

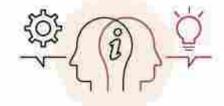


International

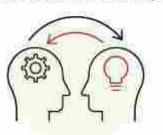
connections



Technical and innovation seminars



Inter-cluster workshops





"Photonics-Packaging Partnership for Food Innovation"

- Budget:

Total 266.458 €

Packaging Cluster: 42.435 € (75% = 31.826 €)

Duration

01/01/2018 - 01/01/2020 (24 mesos)

Consorcium

Secpho - Catalunya

FoodRegio – Alemanya

Food Processing Initiative - Alemanya

Optics Valley – França

Packaging Cluster – Catalunya

Objectives

- 1. Bost the synergie sbetwwn the photonics industriy, Packaging and food to today's global challenges: food processin, hygene and reduction of food waste and circular Economy in Packaging procedures.
- 2. Positioning Europe as a benchmark in the food industry outside the content, developing new methodologies, of the food value chain and exportin to third countries that face new challenges





Hispack stand with 15 companies and 3 clusters



















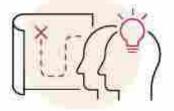






Training and spreading know-how

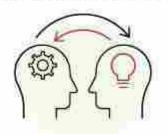
Strategic reflection



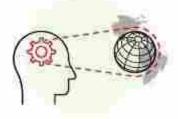
Technical and innovation seminars



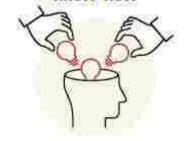
Inter-cluster workshops



International connections



Training and spreading know-how



- Postgrau de Packaging Engineering UPC
- PEA Packaging Expert Accreditation.



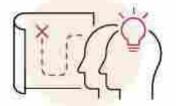




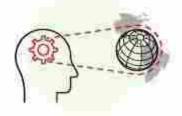




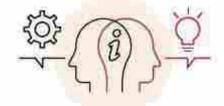
Strategic reflection



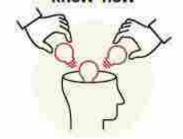
International connections



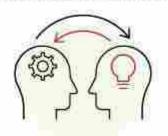
Technical and innovation seminars



Training and spreading know-how



Inter-cluster workshops



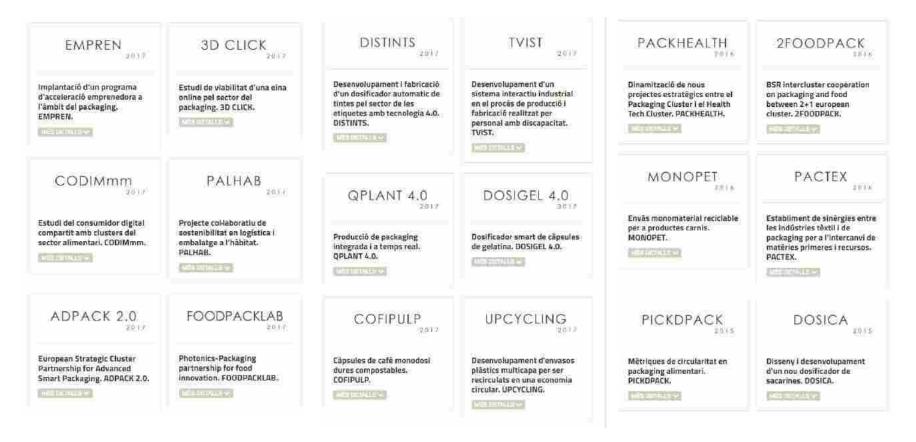
R+D+I Projects







http://www.packagingcluster.com/que-fem/projectes-de-r-d-i/





164 164

Sustainable packaging for the meat industry

- Project with Innovacc (pig meat industry).
- Change multi-material structures to monomaterial.
- More sustainable solution with similar cost.
- Tests on recycling plants (Ecoembes involved in the project)



Promoting circular economy between textile & packaging PACTEX

- Project with Technical Textiles Cluster, other value chain
- Industrial symbiosis: turn a waste into a resource
- More than 20 companies participating
- Technological Center:
 - analyse industrial waste
 - propose 12 new ideas
- Companies prove this new solutions
- Clusters disseminate it to the value chain





ACCUSED NO

Hamer Packaging participa en un proyecto patrocinado por la Agencia de Residus de Catalunya.



















- Collaboration Universities and Companies
 -Companies present Packaging challenges to solve
 - -Students from all over the State presents solutions (more than 200 projects had presented)
 - -Companies participating in the 2018 Edition:



















































































































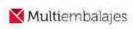






















































75 companies and entities from all value change of packaging

Mireia Andreu Project Manager mandreui@packagingcluster.com Tel. +34 689 915 043





SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Fostering a SWITCH to GREEN Economy in the Mediterranean 11-13 December 2018, Barcelona, Spain

WRAP UP & CLOSING Chukran, thank you, merci, gracias...

This Project is funded by the European Union











