



Circular Economy 2.0 – a world without waste ?

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European Commission
DG Environment
Sustainable Production, Products & Consumption

68. BHT - Freiburger Universitätsforum
"Future Materials - Safe Resources Supply - Circular Economy"
6th June 2018

Policy Development

From

Nature Protection

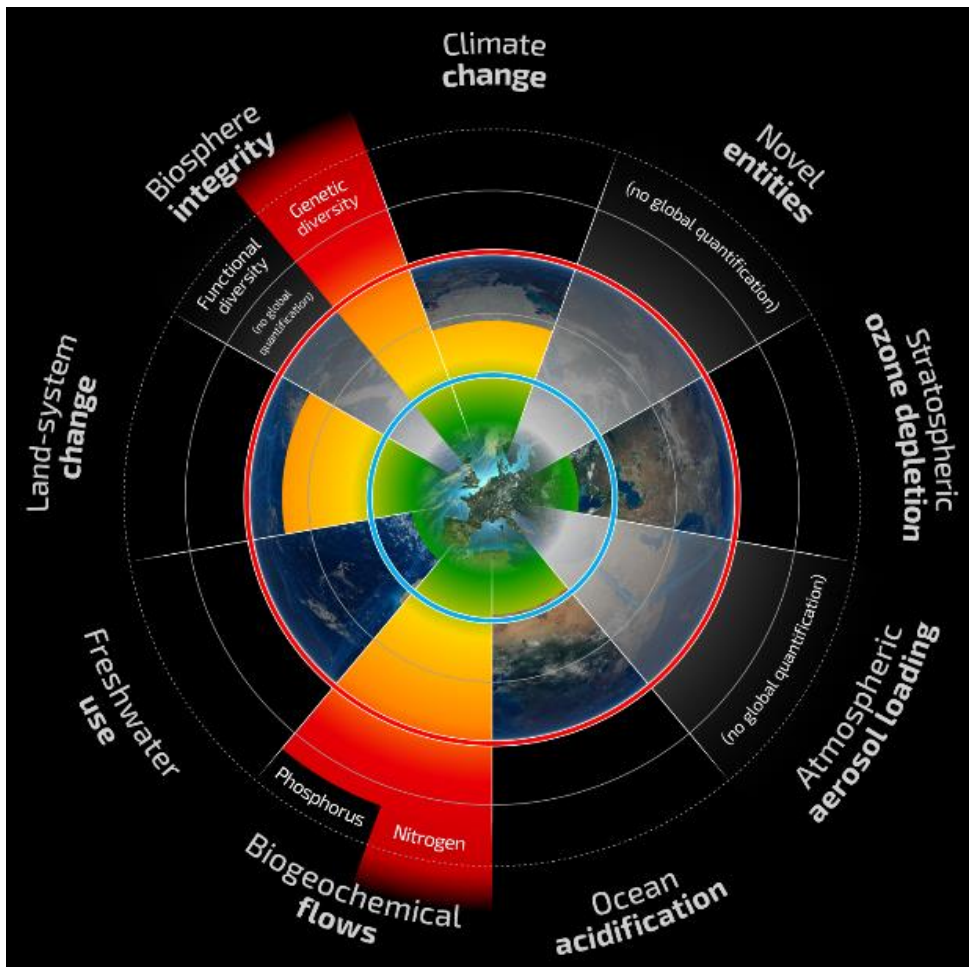
to

Protection of the Environment

to

Sustainable Development

Planetary Boundaries- a safe operating space for humanity



4 out of 9 crossed:

- climate change
- loss of biosphere integrity
- land-system change
- altered biogeochemical cycles

- Beyond zone of uncertainty (high risk)
- In zone of uncertainty (increasing risk)
- Below boundary (safe)
- Boundary not yet quantified

Potential of resource efficiency

- ✓ **Protecting resources**
- ✓ **Tackling climate change**
- ✓ **Reducing our environmental footprint**

...while...

- ✓ **cutting the use of natural resources up to 28%**
- ✓ **cutting GHG emissions by around 74%**
- ✓ **increasing economic activity by 1%**

What are the limitations of a Linear Economy?

lost value of materials and products

scarcity of resources

volatile prices of resources

waste generated

unstable supply of raw materials

environmental degradation & climate change

EU imports more materials and natural resources than it exports

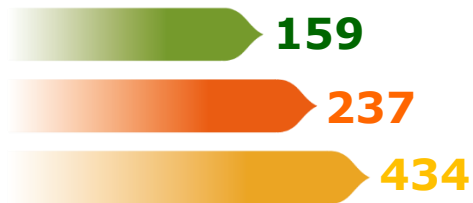
European Union (EU-28) Rest of the world (ROW)



Total trade EU-28 to ROW

In 2004: 455 million tonnes
In 2014: 640 million tonnes

EU-28 exports (2014)



EU-28 imports (2014)



- Biomass
- Manufactures
- Fuel/mining products



Total trade ROW to EU-28

In 2004: 1664 million tonnes
In 2014: 1534 million tonnes

Therefore from a Linear Economy...

NATURAL
RESOURCES

TAKE

MAKE

DISPOSE



WASTE
WASTE
WASTE

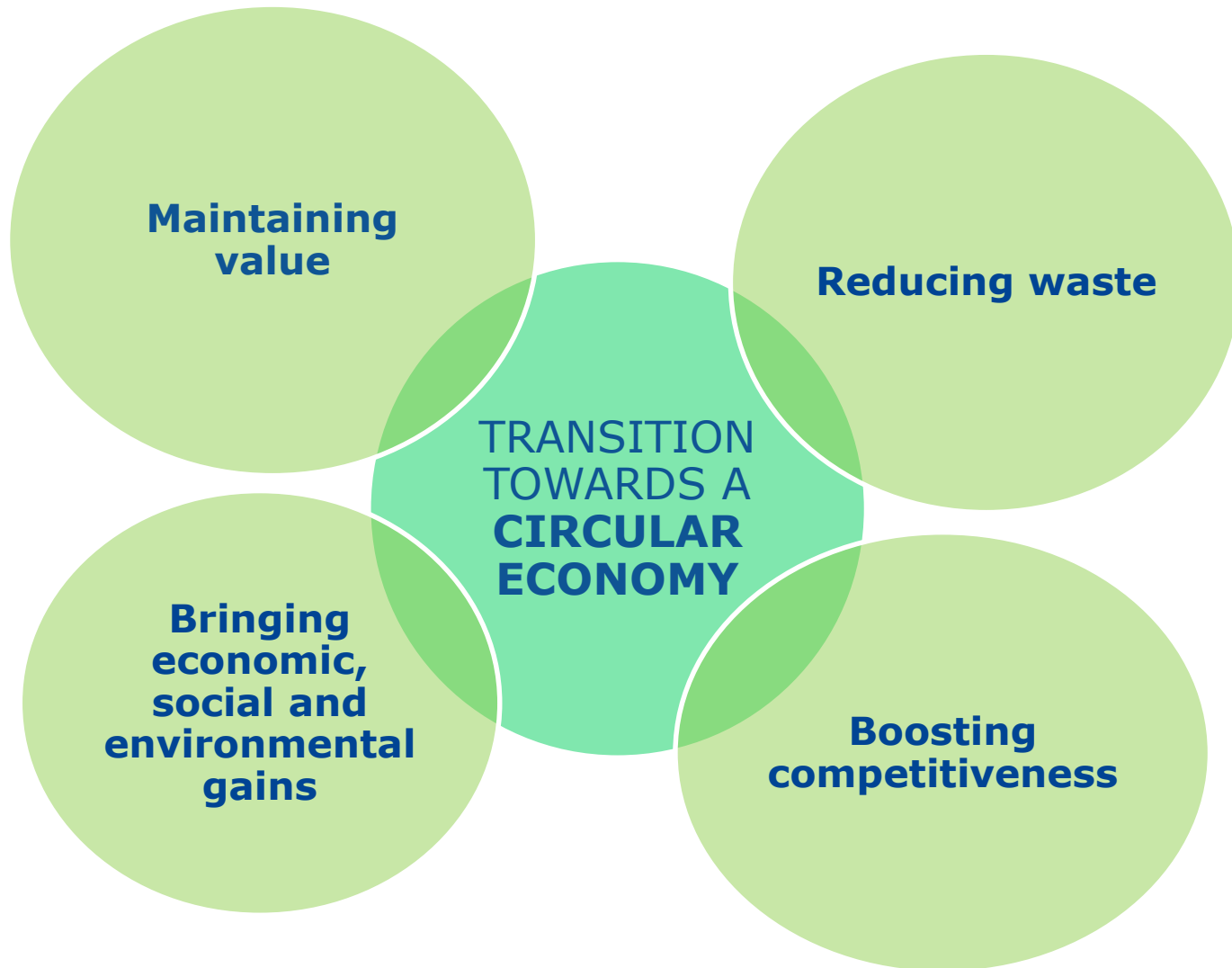
To a Circular Economy



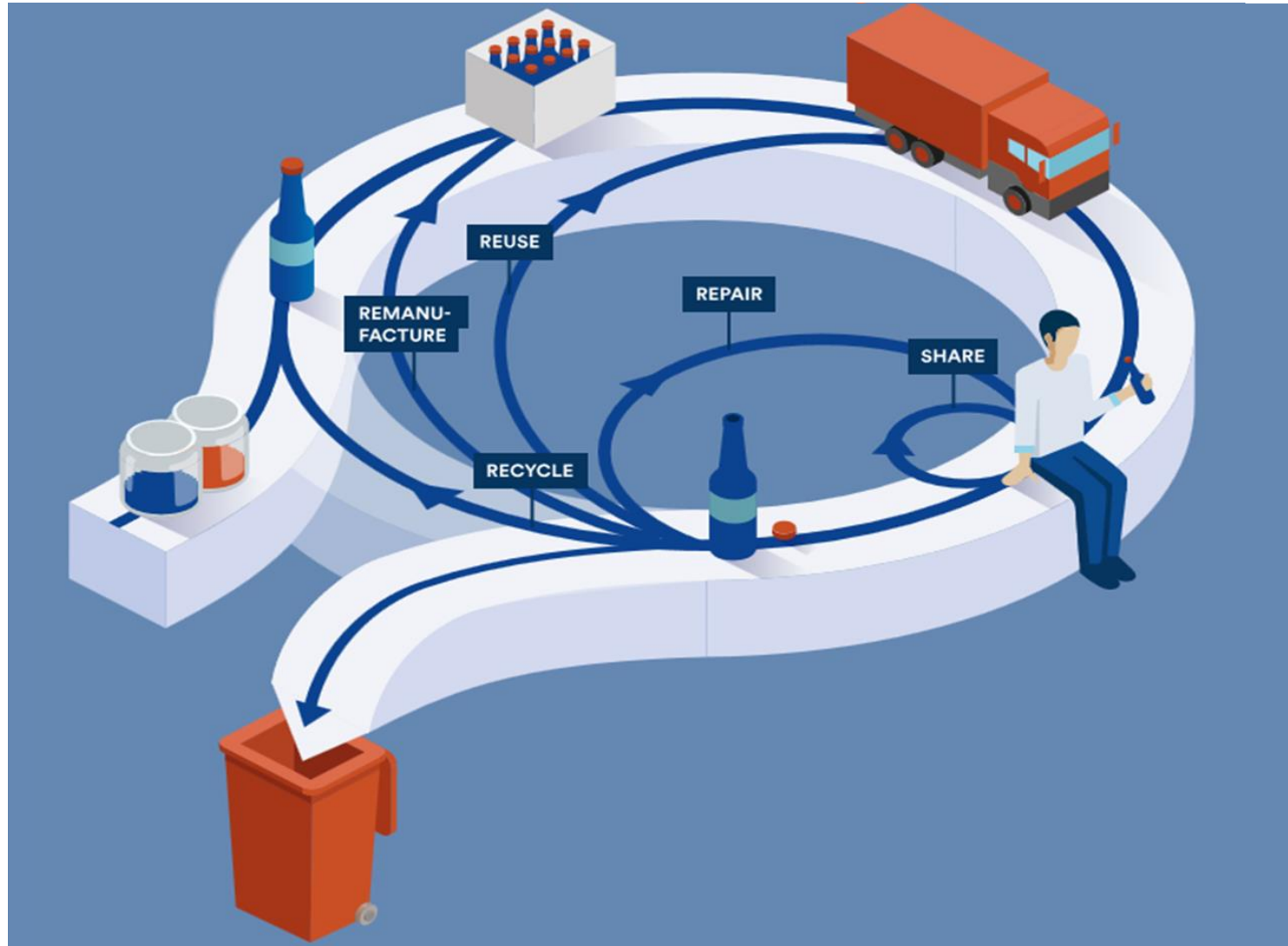


European
Commission

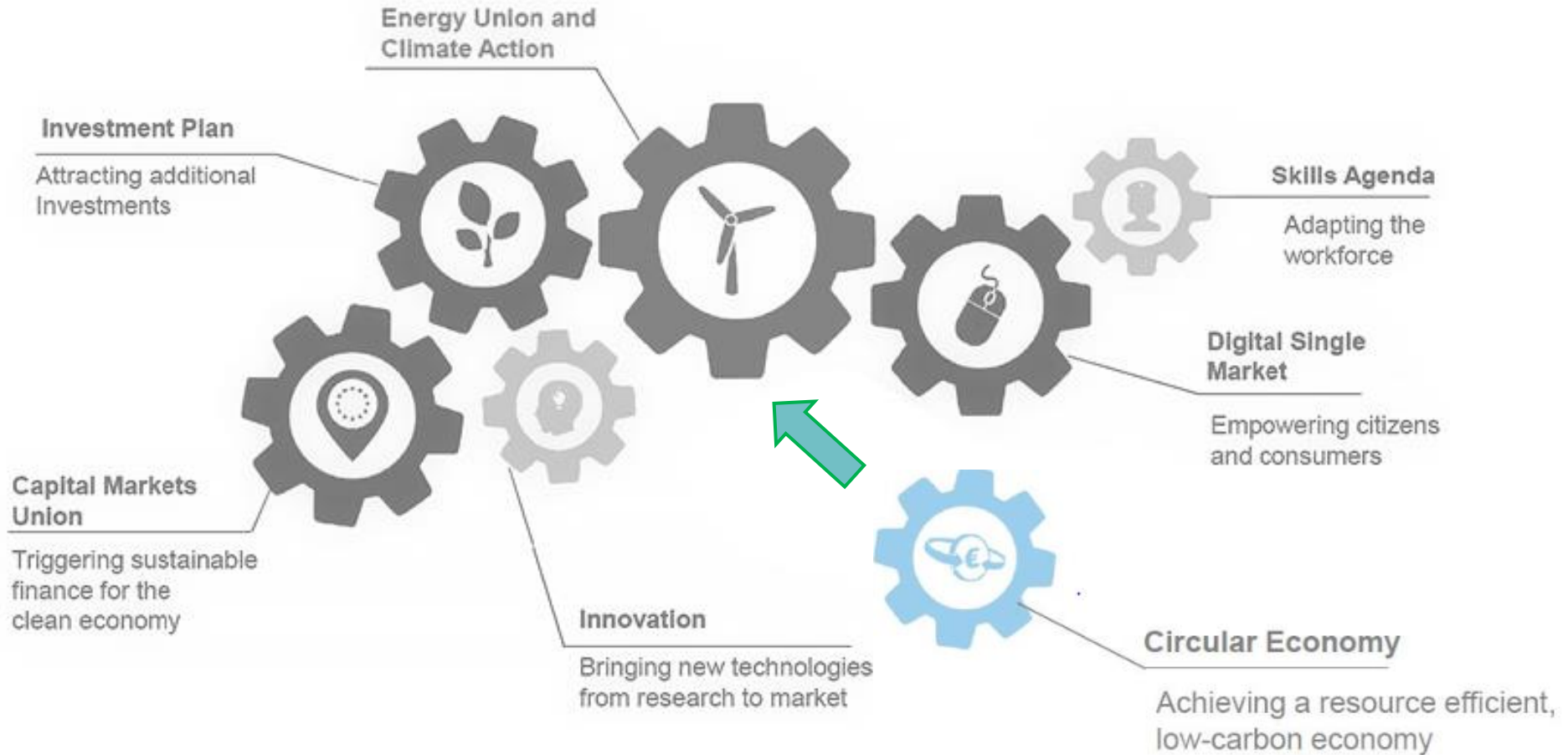
1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES 	 THE GLOBAL GOALS For Sustainable Development			12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 				14 LIFE BELOW WATER



Our vision



Modernising Europe's Economy



Circular Economy Action Plan



European Commission

Actions	Timetable
Production	
Emphasis on circular economy aspects in future product requirements under the Eco-design directive	2016 onwards
Eco-design work plan 2015-2017 and request to European standardisation organisations to develop standards on material efficiency for setting future Eco-design requirements on durability, reparability and recyclability of products	December 2015
Proposal for an implementing regulation on televisions and displays	End 2015 or beginning 2016
Examine options and actions for a more coherent policy framework of the different strands of work of EU product policy in their contribution to the circular economy	2016
Include guidance on circular economy into Best Available Techniques reference documents (BREFs) for several industrial sectors	2016 onwards
Guidance and promotion of best practices in the mining waste management plans	2016
Establishing an open, pan-European network of technological infrastructures for SMEs to integrate advanced manufacturing technologies into their production processes	2016
Examine how to improve the efficiency and uptake of the EU Eco-Management and Audit Scheme (EMAS) and the pilot programme on environmental technology verification (ETV)	2017
Develop an improved knowledge base and support to SMEs for the substitution of hazardous substances of very high concern	2016

Actions	Timetable
Consumption	
Better enforcement of existing guarantees on tangible products, accompanied by a reflection on improvements (upcoming Commission proposal for online sales of goods, and Fitness Check of consumer legislation)	2015-2017
Action on false green claims, including updated guidance on unfair commercial practices	2016
Analysis of the possibility to propose horizontal requirements on repair information provision in the context of Eco-design	2016
REPAIR (Ecolabel) to be followed by actions to enhance its effectiveness	2016
Assessment of the possibility of an independent testing programme on planned obsolescence	2016
Subject to evaluation of the current ongoing pilots, explore the possible uses of the Product Environmental Footprint to measure and communicate environmental information	2016 onwards
Action on Green Public Procurement: enhanced integration of circular economy requirements, support to higher uptake including through training schemes, reinforcing its use in Commission procurement and EU funds	2016 onwards

Actions	Timetable
Waste management	
Revised legislative proposal on waste	Dec 2015
Improved cooperation with Member States for better implementation of EU waste legislation, and combat illicit shipment of end of life vehicles	2015 onwards
Stepping up enforcement of revised Waste Shipment regulation	2016 onwards
Promotion of industry-led voluntary certification of treatment facilities for key waste/recyclate streams	2015 onwards
Initiative on waste to energy in the framework of the Energy Union	2016
Identification and dissemination of good practices in waste collection systems	2016 onwards

Actions	Timetable
Market for secondary raw materials	
Development of quality standards for secondary raw materials (in particular for plastics)	2016 onwards
Proposal for a revised fertilisers regulation	Early 2016
Proposed legislation setting minimum requirements for reused water for irrigation and groundwater recharge	2017
Promotion of safe and cost-effective water reuse, including guidance on the integration of water reuse in water planning and management, inclusion of best practices in relevant BREFs, and support to innovation (through the European Innovation Partnership and Horizon 2020) and investments	2016-2017

Analysis and policy options to address the interface between chemicals, products and waste legislation, including how to reduce the presence and improve the tracking of chemicals of concern in products	2017
Measures to facilitate waste shipment across the EU, including electronic data exchange (and possibly other measures)	2016 onwards
Further development of the EU raw materials information system	2016 onwards

Sectorial action	
Plastics	
Strategy on plastics in the circular economy	2017
Specific action to reduce marine litter implementing the 2030 Sustainable Development Goals	2015 onwards

Food waste	
Development of common methodology and indicators to measure food waste	2016
Stakeholders platform to examine how to achieve SDGs goals on food waste, share best practice and evaluate progress	2016
Clarify relevant EU legislation related to waste, food and feed in order to facilitate food donation and utilisation of former foodstuffs for animal feed	2016
Explore options for more effective use and understanding of date marking on food	2017

Critical raw materials	
Report on critical raw materials and the circular economy	2017
Improve exchange of information between manufacturers and recyclers on electronic products	2016 onwards
European standards for materials-efficient recycling of electronic waste, waste batteries and other relevant complex end-of-life products	2016 onwards
Sharing of best practice for the recovery of critical raw materials from mining waste and landfills	2017

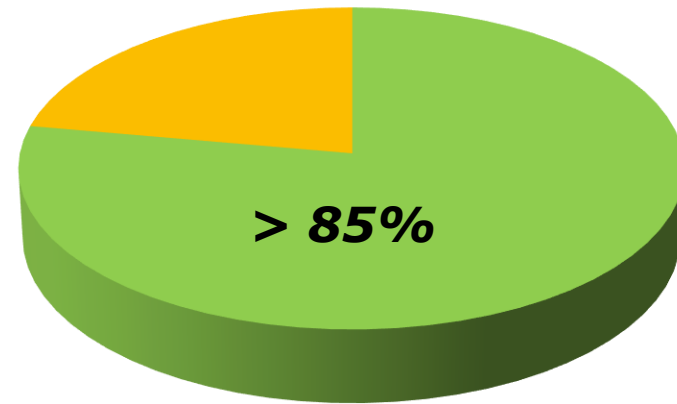
Construction and demolition	
Pre-demolition assessment guidelines for the construction sector	2017
Voluntary industry-wide recycling protocol for construction and demolition waste	2016
Core indicators for the assessment of the lifecycle environmental performance of a building, and incentives for their use	2017 onwards

Biomass and bio-based materials	
Guidance and dissemination of best practice on the cascading use of biomass and support to innovation in this domain through Horizon 2020	2016-2019
Ensuring coherence and synergies with the circular economy when examining the sustainability of bioenergy under the Energy Union	2016
Assessment of the contribution of the 2012 Bio-economy Strategy to the circular economy and possible review	2016

Innovation and investments	
Initiative 'Industry 2020 and the circular economy' under Horizon 2020	October 2015
Pilot project for 'innovation deals' to address possible regulatory obstacles for innovators	2016
Targeted outreach to encourage applications for funding under EFSI, and support the development of projects and investment platforms relevant to the circular economy	2016 onwards
Targeted outreach and communication activities to assist Member States and regions for the uptake of Cohesion Policy funds for the circular economy	2016 onwards
Support to Member States and regions to strengthen innovation for the circular economy through smart specialisation	2016 onwards
Assessment of the possibility of launching a platform together with the EIB and national banks to support the financing of the circular economy	2016
Engagement with stakeholders in the implementation of this action plan through existing fora in key sectors	2016 onwards
Support to a range of stakeholders through actions on public/private partnerships, cooperation platforms, support to voluntary business approaches, and exchanges of best practices	2015 onwards
Monitoring	
Development of a monitoring framework for the circular economy	2017



54 actions covering the whole cycle



■ Actions delivered

■ Work started

4 key areas of Action



Production	
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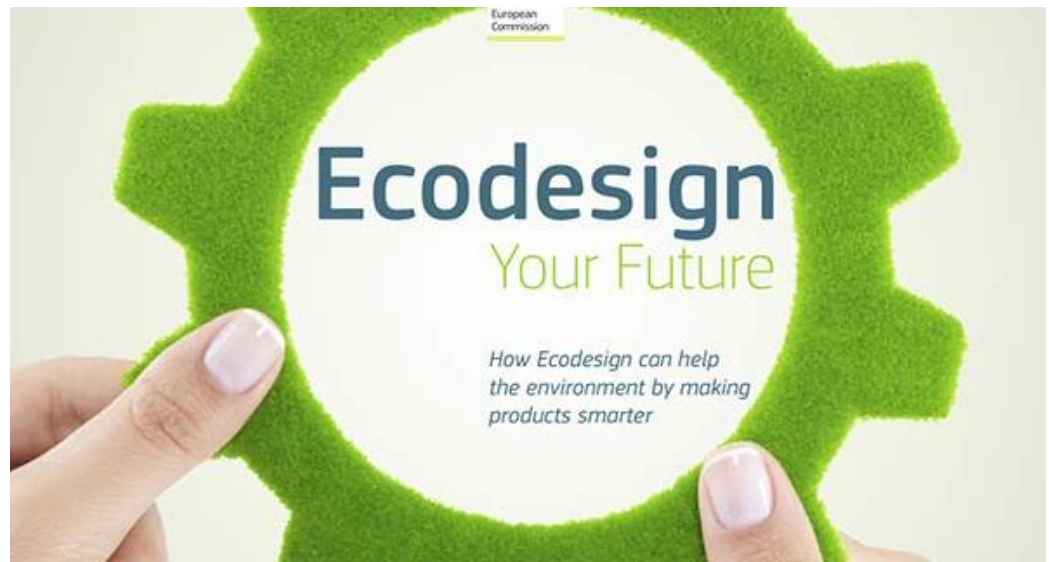
Eco-design Working Plan 2016-2019

Embed circularity in the design of new products and the materials they are made of

Deal with current and future materials which are not circular

Ecodesign Working Plan 2016-2019

- **Durability**
- **Reparability**
- **Recyclability**



BREFs & Circular Economy

- *BAT Conclusions for:*
 - *non-ferrous metals*
 - *Common Waste Water and waste Gas Treatment / Management Systems in the Chemical Sector*
 - *Intensive Rearing of Poultry and Pigs*
 - *Large Volume Organic Chemicals*
 - *Large Combustion Plants*
- *Implementing Decision establishing BAT Conclusions for Waste Treatment voted April 2018*

Upcoming: key environmental issues to be addressed in other BREFs



4 key areas of Action



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Empowering consumers to make thoughtful choices



Helping public authorities to choose sustainable products and services

**PUBLIC PROCUREMENT
FOR A CIRCULAR ECONOMY**

Good practice and guidance



Product Environmental Footprint

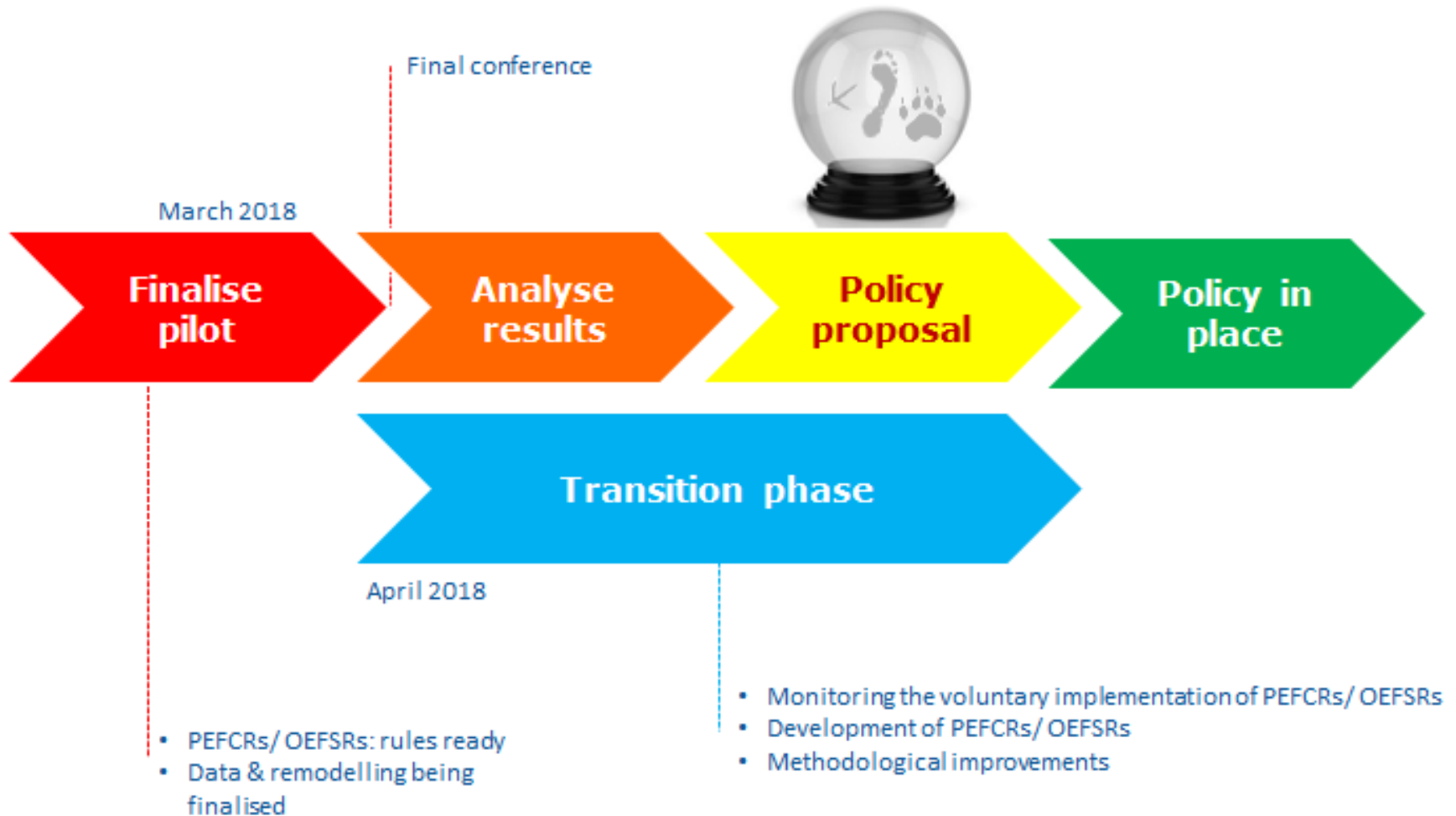
20+ pilots

From 27 -> 23 final pilots

	Batteries and accumulators		Leather
	Decorative paints		Thermal insulatio
	Hot & cold water pipe systems		Beer
	Liquid household detergents		Coffee
	IT equipment		Fish
	Metal sheets		Dairy products
	Non-leather shoes		Feed
	Photovoltaic electricity generation		Meat
	Stationary		Pet food
	Intermediate paper products		Olive oil
	T-shirts		Pasta
	Uninterrupted power supplies		Wine
	Retailer sector		Packed water
	Copper sector		

Final Conference organised on 23-25 April 2018

Status & next steps



New Deal for Consumers



Proposed 11 April 2018



Objective:

To ensure that all European consumers fully benefit from their rights under Union law



Complementing the EU Circular Economy Action Plan

Stronger enforcement and better opportunities for individual redress against unfair commercial practices



Deterring **misleading** environmental claims or planned obsolescence practices

4 key areas of Action



Waste management	
Revised legislative proposal on waste	Dec 2015
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The Waste Package



The new rules will make the EU a global leader in recycling:

- By 2030, at least **70 % of all packaging waste** in each EU country should be recycled
- By 2035, all EU countries should **recycle at least 65 % and landfill less than 10 % of municipal waste**



There are also **recycling targets** for specific packaging materials:

- Paper and cardboard: 85 %
- Ferrous metals: 80 %
- Aluminium: 60 %
- Glass: 75 %
- Plastic: 55 %
- Wood: 30 %



A comprehensive approach

- Forward-looking calculation rules
- Landfilling restrictions for separately collected and recyclable waste
- Measures on prevention & encouraging the reuse of packaging
- Minimum requirements for producer responsibility schemes: producers to bear the cost of waste management
- Continuously improving separate collection

4 key areas of Action



Market for secondary raw materials	
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- *Removing existing barriers to the trade of SRM*
- *Improving waste management practices*
- *Guaranteeing high quality standards*



- Quality standard for secondary raw materials (ie plastics)- **ongoing**



- Revised fertilisers regulation- **undergoing the legislative process**



- Proposal to set minimum quality requirements for reused water for irrigation- **up-coming**



Analysis interface between Chemicals, Products and Waste legislation

Obstacles



Insufficient information



Presence of substances of concern



***Difficulties in application of waste classification rules-
impact on recycling***



Uncertainties about how materials cease to be waste

Examples of proposed actions

Consider REACH restrictions

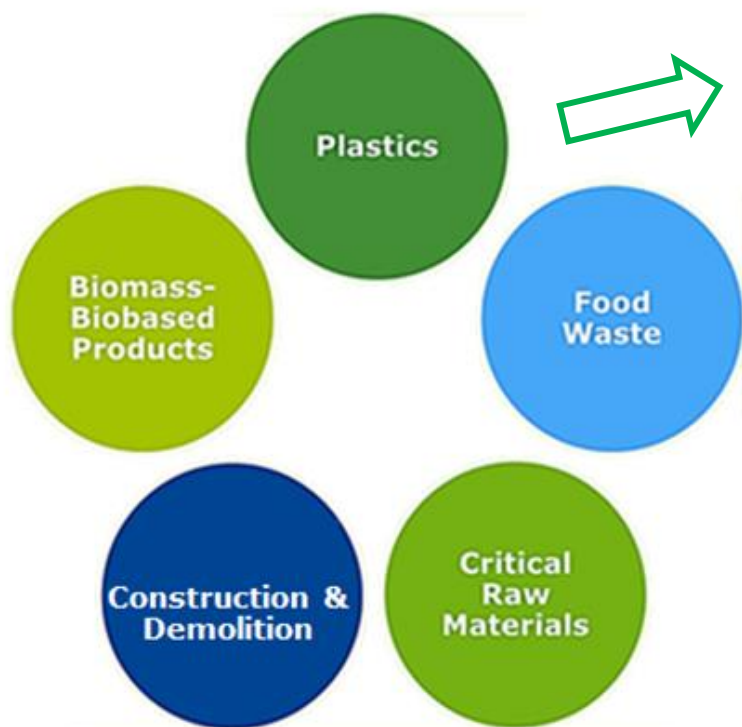
Take steps to **develop a specific decision-making framework**

Publish **guidance on waste classification**

Study on Member States' implementation of end-of-waste provisions

Adopted January 2018

5 Key sectors



Plastics

Strategy on plastics in the circular economy

Specific action to reduce marine litter implementing the 2030 Sustainable Development Goals

Plastics Strategy



All plastic packaging will be **reusable or recyclable** (by 2030)



Boost the market for recycled plastics



Actions on **single-use plastics and microplastics**



Strategic Research Innovation Agenda for Plastics (2018)



Support to **multilateral initiatives** on plastics



EU-wise pledging campaign



Industry has a crucial role to play!



Objective: by 2025 **10 million tonnes** of recycled plastics find their way into new products



Submit **ambitious pledges** at
GROW-ENV-RPLASTICS-PLEDGE@ec.europa.eu



Deadline for submissions is **30 June 2018**

Action on single-use plastics and fishing gear



Proposal for a
Directive



Different measures for **each item**
taking into account:

- **consumer behaviour/needs**
- **opportunities for businesses**



28/05

10 most common plastic objects found on European beaches



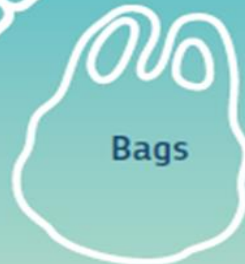
Cigarette
butts



Food
containers



Drink
bottles



Bags



Crisp
packets/
sweet
wrappers



Cups & lids



Cutlery,
straws &
stirrers

Sanitary
applications



Balloons
and balloon
sticks



Cotton
buds



Single-use
plastic items
represent
50%
of marine
litter

Other key sectors



Development of a **common methodology and indicators** to measure food waste

Stakeholders platform to examine how to achieve SDGs goals on food waste, share best practice and evaluate progress

Clarify relevant EU legislation related to waste, food and feed in order to facilitate food donation and utilisation of former foodstuffs for animal feed

Explore options for more effective use and understanding of date marking on food



Report on critical raw materials and the circular economy

Improve **exchange of information** between manufacturers and recyclers on electronic products

European standards for material-efficient recycling of electronic waste, waste batteries and other relevant complex end-of-life products

Sharing of best practice for the recovery of critical raw materials from mining waste and landfills

Other key sectors



Pre-demolition assessment **guidelines** for the construction sector

Voluntary industry-wide **recycling protocol** for construction and demolition waste

Core indicators for the assessment of the lifecycle environmental performance of a building, and incentives for their use



Guidance and dissemination of best practice on the cascading use of biomass and support to innovation in this domain through Horizon 2020

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Financing the circular transition



- **Horizon 2020 (2018-2020)** Focus area "Connecting economic and environmental gains - the Circular Economy": € 941 million
- **European Structural and Investment Funds**, implementing Cohesion Policy
- **European Fund for Strategic Investments (EFSI)**, focusing more on investments to meet the Paris Agreement targets and help the transition to a circular and low carbon economy
- **LIFE programme**

Action Plan on "Financing sustainable growth"



- Reorient capital flows towards a more sustainable economy
- Mainstream sustainability in risk management
- Foster transparency and long-termism

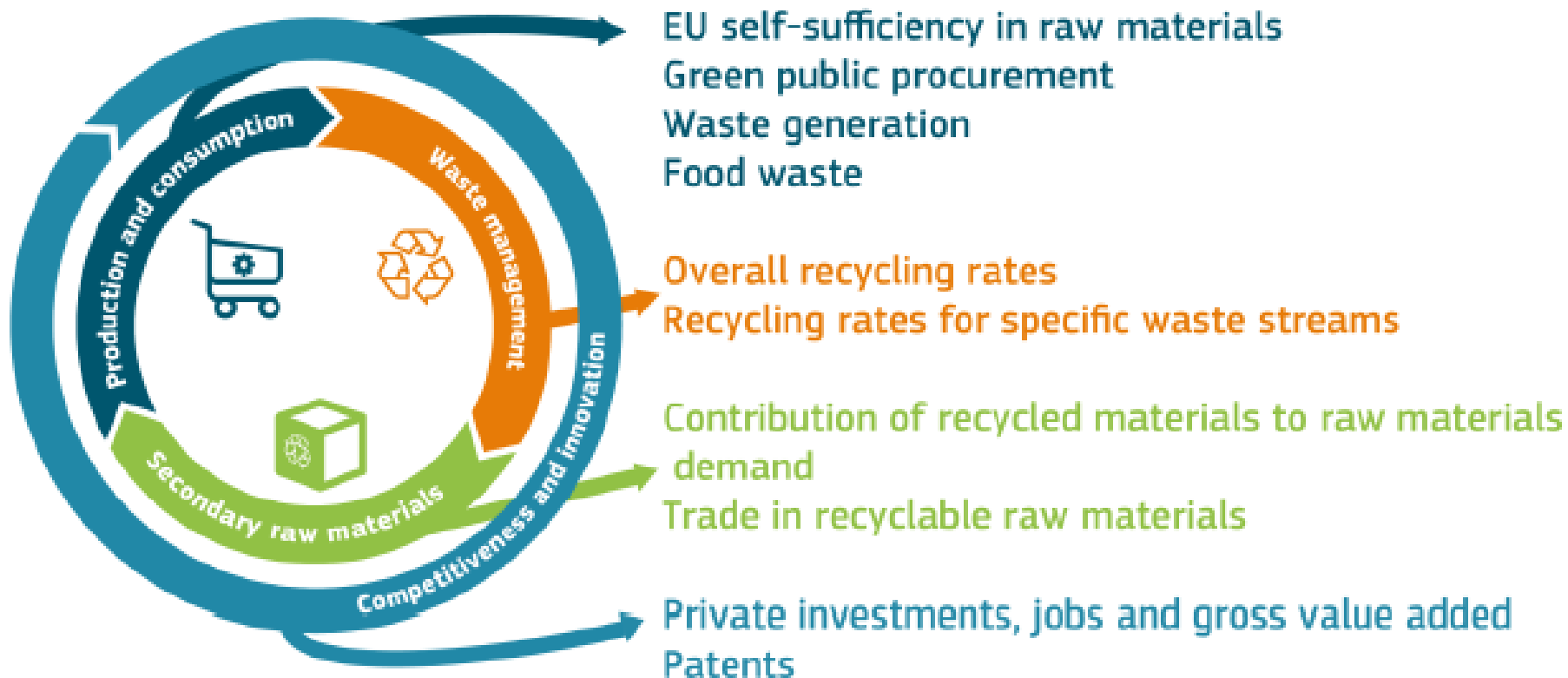
Actions

- **Establish an EU classification system for sustainable activities**
- **Create standards and labels for green financial products**
- **Foster investment in sustainable projects**
- **Incorporate sustainability in providing investment advice**
- **Develop sustainability (low-carbon) benchmarks**

- **Better integrate sustainability in ratings and market research**
- **Clarify institutional investors' and asset managers' duties**
- **Incorporate sustainability in prudential requirements**
- **Strengthen sustainability disclosure and accounting rule-making**
- **Foster sustainable corporate governance and attenuate short-termism in capital markets**

Circular Economy Monitoring Framework

Measuring progress at EU and national level in the transition to a circular economy



More to come in 2018 and beyond

- *Options for a more coherent Product Policy Framework*
- *Follow up to the Product/Organisational Environmental Footprint (PEF/OEF)*
- *ETV: Staff Working Document with conclusions by end 2018*



A long term commitment



Jyrki Katainen  @jyrkikatainen · 18 mag

I believe that #CircularEconomy is one of the biggest global megatrends. You can compare it e.g. to digitalisation & globalisation. The more we can create new business models and recycle raw materials, the more added value stays in Europe.



Retweeted 16 times



Frans Timmermans  @TimmermansEU · Jun 15

We need to mainstream the #CircularEconomy in everything we do - energy, internal market, infrastructure, #EFSI, structural funds...

→ Circular Economy 2.0





#CEstakeholderEU

European Circular Economy Stakeholder Platform

A joint initiative by the European Commission and the European Economic and Social Committee



Home Good Practices Strategies Knowledge Policy & Commitments Dialogue Contribute! News & Events About

- **Advancing the circular economy concept on the ground**
- **Strengthening cooperation among stakeholders' networks**



Coordination Group:

representatives of networks of businesses, civil society and local, regional and national public authorities



Submit your own good practices, knowledge, strategies and voluntary commitments!

Link to website: <http://circulareconomy.europa.eu/platform/>



Learn more about the circular economy

http://ec.europa.eu/environment/circular-economy/index_en.htm