The Italian Position Paper on Circular Economy

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Per un cambiamento sostenibile













CIRCULAR ECONOMY FRAMEWORK: PROCESS

«Towards a Model of Circular Economy for Italy Overview and Strategic Framework»

http://consultazione-

<u>economiacircolare.minambiente.it/sites/default/files/TOWARDS%20A%20MODE</u> L%20eng%20COMPLETO.pdf

(Jointly promoted by Ministry of Environment and Ministry of Economic Development, with the support of ENEA and technical experts) => launched on 29/11/2017 (along with the *Manifesto on Circular Economy* promoted by the Alliance for Circular Economy) Circular Economy, Resource Efficiency, Decoupling also crucial for the implementation of the National Strategy on Sustainable Development



CIRCULAR ECONOMY FRAMEWORK: CONTENT

1. Circular Economy: Principles and Objectives

- Efficient and Sustainable Resource Use
- New Production-Distribution-Consumption Integrated model

2. The current situation

- International Context
- European Context
- Italy: state of the art, challenges and opportunities

4. The transition process

- Rethinking the concept of waste
- The Public Sector (GPP)
- Resources and Products
- Indicators

3. The paradigm shift

- Production
- Consumption
- Economic Instruments



UPSTREAM

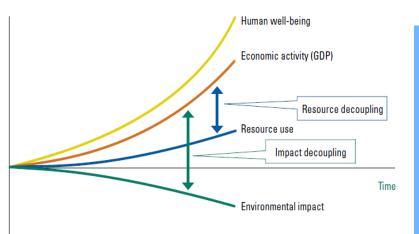
INCREASE RESOURCE EFFICIENCY (DMC/GDP) => **DECOUPLING**IMPROVE PRODUCTION MODELS => **ECO-DESIGN**

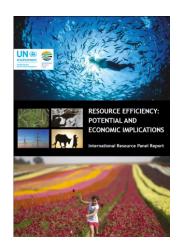
NEW BUSINESS MODELS

DOWNSTREAM

WASTE MANAGEMENT
(REDUCE & REINTRODUCE IN THE SOCIO-ECONOMIC SYSTEM)
PYRAMID HIERARCHY (3R, 4R, SMM)







(G7 ALLIANCE ON RESOURCE EFFICIENCY)

- ❖ Resource Efficiency indicators
- ❖Resource Efficiency and Climate Change
- ❖ Sustainable material management at international level
- **❖**Economic analysis of resource efficiency
- ❖Citizen involvement and raising public awareness
- Private sector actions
- Food waste
- *Plastics
- ❖Green Public Procurement GPP
- **❖**Lifetime extension product policies
- ❖Resource Efficiency and Next Production Revolution - NPR



Recent products (2018)

- EU Strategy for Plastics in the Circular Economy
- Communication on options to address the interface between chemical, product and waste legislation
- Monitoring Framework on progress towards a circular economy
- Report on Critical Raw Materials and the circular economy



Law 221/2015 Green Economy Framework

Decree 26/5/2016 **Guidelines for** computing the share of urban waste collected separately

Law 166/2016 **Food Waste**

Ministerial Decree 266/2016 Bio-waste composting

Ministerial Decree 20/4/2017 criteria for «pay-as-youthrow» tariff

Decree 142/2017 **Deposit Refund** System

1/2016

4/2016

5/2016

6/2016

8/2016

10/2016

2/2017

4/2017

5/2017

6/2017

8/2017 12/2017

Decree 50/2016 New Code of Pubic Contracts (and Minimum Environmental Criteria)

Ministerial Decree 140/2016 ecologic criteria for electronic devices

Decree 264/2016 definition criteria of byproducts

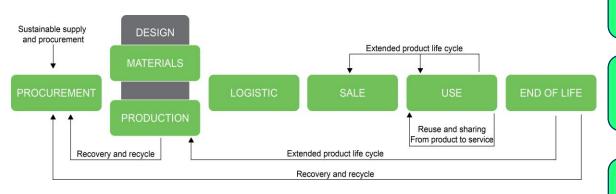
Launch of **National** Strategy for Bioeconomy

G7 Environment (5-year Bologna Roadmap)

Law 123/2017 Biodegradable Shoppers



Ministerial







 3 Product trends and their implications
 16

 3.1 Increasingly complex product design and functionality
 16

 3.2 Increasing use of modular design
 17

 3.3 Local production on demand by additive manufacturing
 17

 3.4 Building services around products
 18

 3.5 Home delivery systems
 19

 3.6 Changing product lifespan
 19

 3.7 Collaborative consumption
 22

 3.8 Markets for recycling
 23

 3.9 Internet of things
 24

 3.10 Implications for circularity
 24

CLOSING RESOURCE LOOPS

SLOWING RESOURCE LOOPS

NARROWING RESOURCE FLOWS

- ✓ ECO-DESIGN
- EXTENDED PRODUCER RESPONSIBILITY
- NEW BUSINESS MODELS
- ✓ PRODUCTS vs SERVICES
- ✓ USERSHIP vs OWNERSHIP
- ✓ LEASING / RENTING ECONOMY
- ✓ MODULARITY, REPAIRABILITY
- ✓ SECOND-HAND MARKETS
- ✓ LABFILING
- ✓ INDUSTRIAL SYMBIOSIS
- ✓ BIOECONOMY

Examples of economic instruments and other measures to provide incentives for the application of the waste hierarchy referred to in Article 4(3)

- 1. Charges and restrictions for the landfilling and incineration of waste
- 2. 'Pay-as-you-throw' schemes
- 3. Fiscal incentives for **donation** of products, in particular food
- 4. Extended producer responsibility schemes
- 5. Deposit-refund schemes
- 6. investments in waste management infrastructure
- 7. Sustainable public procurement
- 8. Phasing out subsidies
- 9. Fiscal measures to promote the uptake of recyclable products and materials
- 10. Support to research and innovation



- ➤ GREEN PUBLIC PROCUREMENT =>
 ENVIRONMENTAL MINIMUM CRITERIA (BASIC &
 ADDITIONAL/REWARDING) COMPULSORY FOR
 17 SECTORS
- > END-OF-WASTE
- Already working (technical check done, sent to European Commission): Milled Asphalt; Tyres Rubber
- Finalising (sent last week to State Council): Nappy Material;
- Still to come (technical check to be done): Lead in Car Batteries; Demolition&Construction Waste; Fiberglass in Watercrafts
- Agreement undersigned between MoE and three "pilot" cities (Bari, Milan & Prato) to pursue joint actions for CIRCULAR ECONOMY AT URBAN SCALE

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COM(2018) 29 final «on a monitoring framework for the circular economy»

Circular economy monitoring framework

1 EU self-sufficiency for raw materials
The share of a selection of key materials (including critical raw materials) used in the EU that are produced within the EU

2 Green public procurement

The share of major public procurements in the EU that include environmental requirements.

3a-c Waste generation Generation of municipal waste per capita; total waste generation (excluding major mineral waste) per GDP unit and in relation to domestic material consumption

4 Food waste Amount of food waste generated

7a-b Contribution of recycled materials to raw materials demand Secondary raw materials' share of overall materials demand - for specific materials and for the whole economy

8 Trade in recyclable raw materials
Imports and exports of selected recyclable raw materials

Sa-b Overall recycling rates

Recycling rate of municipal waste and of all waste except major mineral waste

6a-f Recycling rates for specific was

Recycling rate of overall packaging waste, plastic packaging, wood packaging, waste electrical and electronic equipment, recycled biowaste per capita and recovery rate of construction and demolition waste

9a-c Private investments, jobs and gross value added

Private investments, number of persons employed and gross value added in the circular economy sectors

10 Patents

Number of patents related to waste management and recycling

- 3 categories:
- ✓ Economic
- ✓ Materials
- ✓ Environment (circularity vs sustainability)
- 3 perspectives:
- ✓ Macro (economy-wide)
- ✓ Meso (sectors, districts, regions, urban areas?)
- ✓ Micro (firms)
- 5 Dimensions:
- ✓ Production/design; first & secondary raw materials (markets, flows, tracking);
- ✓ Product as a Service (new business models «business» perspective)
- ✓ Sharing/Pooling/Renting (new business models «consumer» perspective)
- Durability/Repairability/Remanufacturing/Refurbishing
- ✓ Waste management

CIRCULAR ECONOMY FRAMEWORK: PROCESS

APRIL 2017 – NOVEMBER 2017 POSITION PAPER (MINISTRY OF ENVIRONMENT AND MINISTRY OF INDUSTRY)

> DECEMBER 2017 – MAY 2018 WORKING GROUP ON MONITORING FRAMEWORK

> > MISSION FOR THE NEW
> > GOVERNMENT
> > (with the support of ICESP)
> > STRATEGY AND/OR ACTION PLAN

