WORKING GROUP

GUIDELINES FOR THE IMPLEMENTATION OF THE NEW DIRECTIVES REGARDING CIRCULAR ECONOMY - WASTE

EXPLANATORY REPORT

STATES GENERAL OF THE GREEN ECONOMY 2016

The National Council of the Green Economy
in partnership with

MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

Ministero dello Sviluppo Economico

INTRODUCTION

> "(...)is a generic term for an industrial economy that is, by design or intention, restorative and in which materials flows are of two types, biological nutrients, designed to reenter the biosphere safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere."

Ellen MacArthur Foundation, Towards the Circular Economy, vol. 1, 2012

This is the most famous and shared definition of circular economy.

This is also the same definition commonly shared by the members of the Working Group 6 of the Green Economy, involved in the elaboration of recommendations for the definition and implementation of new directives on circular economy- waste.

Circular economy requires changes in the current patterns of production, distribution and consumption, which implies strong actions on both the organizational and production modes and on products design, that should be tailored in order to have a longer lifespan and be reparable. The transition towards a circular economy requires a more and more efficient use of resources and minimization of waste production through ambitious policies of prevention, preparation for reuse, recycling and other forms of waste recovery. In order to trigger such change, targeted initiatives are necessary to promote information, awareness and enhancement of distribution and consumption patterns in the food sector, even based on short supply chain, and the identification of the indicators able to evaluate environmental benefits.
Furthermore, the management of waste that is no longer waste but new material and can re-enter the economic cycle, represents an increasingly significant part of the broader concept of efficient use of resources.

Since 2012, starting from the very first edition of the States General of the Green Economy, the Working Group 6, strongly supports the need to change the paradigm, and to let the supply of resources rely on the exploitation of metropolitan reservoirs. This would allow costs, energy and environment savings, namely "(...)the economic potential of the outputs that are now considered mere negative externality: scraps, waste, unused. Re-enter this resource into the cycle, in a new regenerative and improving way, would lead to a reduction in commodity prices from a market perspective, reduced health costs, reduction of negative externalities related to waste, employment, satisfying of the demand, containment of political instability issues connected to raw materials scarcity." (E. Bompan e I.N. Brambilla, Che cosa è l'economia circolare, Edizioni Ambiente 2016)

The definition of Circular economy also stands for a systemic optimization (from production to distribution until consumption) through a better use of countrywide resources. By this, the shortening of supply and retail chains (agri-food sector) and the creation of sectoral and intra-sectoral eco districts (industry and SMEs) allow considerable scope for improvement in terms of waste and scraps production and reduction. In order to trigger such shift, targeted initiatives are necessary to promote information, awareness and enhancement of distribution and sustainable consumption models, and the identification of indicators that allow the evaluation of the environmental benefits.

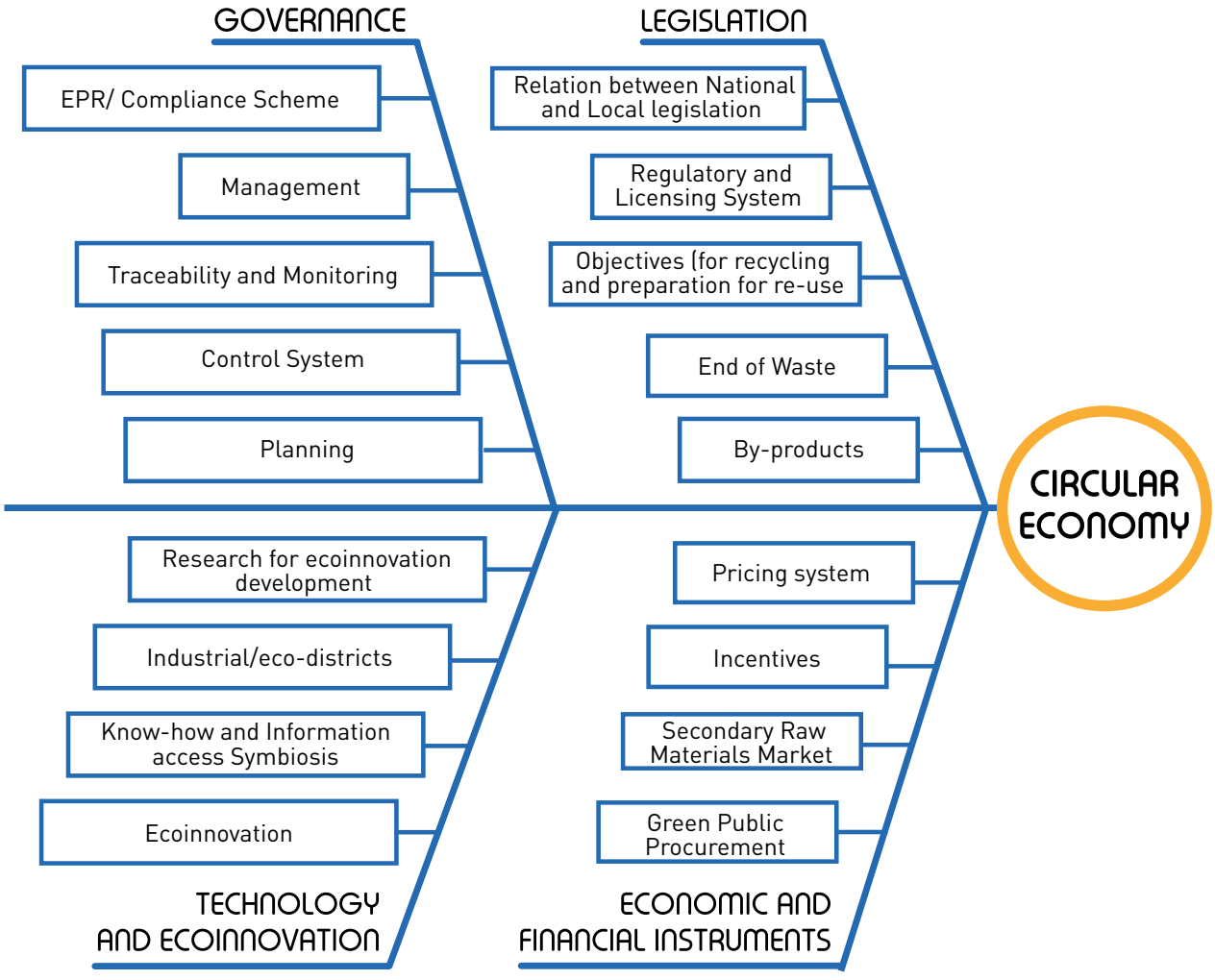
In this scenario, prevention plays a key role. Prevention is intended as all those measures

that are taken before a substance, material or product turns to waste, and that can increase the recyclability, facilitate the re-use or the extension of products lifespan; limit its negative impacts on the environment and human health, with particular attention to the content of dangerous substances.

Prevention therefore has both a qualitative and quantitative value, and depends on the reduction in the use of raw materials, the evolution of technology, the promotion and the dissemination of good practices.

The strategy to follow for its development should be to focus on eco-design requirements, eco innovation through the adoption of new environmental friendly technologies, reviewing of distribution and consumption models. For instance, the prevention of waste production also relies on the complete exploitation of all components of processed raw materials, in order to allow the utmost reuse of waste and the use of residues as byproducts.

The analysis of the main directions to be addressed to the authorities responsible for the implementation of the Circular Economy directives package, led to the identification of four key themes whose declination, with various and complex elements, can cause both success and failure: the complexity of this analysis is represented by Ishikawa's diagram below.



This document aims to be a guideline for the circular economy consolidation in Italy, addressed to institutional actors involved in the implementation of the Circular Economy Package. It is deep conviction of the members of working group 6 that, through direct and decisive interventions on some specific areas, it is possible to remove, even with no costs, the causes that now hinders the full development of the recycling sector.

The four key themes that represent four areas of intervention are:

1. **GOVERNANCE**
2. **LEGISLATION**
3. **TECHNOLOGY AND ECOINNOVATION**
4. **ECONOMIC AND FINANCIAL INSTRUMENTS**

The interventions within each key theme can be declined in many different ways, each one determining success or failure: unfortunately, the factors and characteristics that would lead to failure are dramatically close to the current situation. Some of the identified actions are more specific and can only apply to the given element; others are real guiding principles valid above all topics or sectors, including:

1. In order to have a clear and well-defined legal framework it is important to have uniform definitions of waste and secondary raw materials that are valid through the entire European territory, along with regulatory criteria as uniform as possible in order to avoid subjective interpretations of the same legislation and market distortions.

2. The national legal framework resulting from the adoption of the new directives must rely on the acknowledgement of the central role of primary legislation and the dramatic reduction in the use of secondary sources. The continuous reference to subsequent decrees, issued with uncertain timings and with partial and incomplete content, as well as the frequent intervention of regional legislation, encourage bureaucracy, uncertainty, inconsistency and subjectivity both in the interpretation and in the implementation of industry standards, as well as the already mentioned market distortions. A strong central and definite role is necessary from a legislative point of view, but also as regards the orientation and coordination of all the actors involved, in order to minimize territorial differences.

3. Transparency, homogeneity throughout the territory, completeness, effectiveness and simplicity: these are the guiding principles that facilitate full compliance with the law in force, and allow the economic and entrepreneurial development all along the supply chain.

4. The strengthening of the State-Regions Conference as guardian of an increasing coordination effort, especially between the various Regions, with the aim to reduce differences in interpretation and implementation that affect all actors involved, both public and private, and lead to unlawfulness.

5. A strong and coherent national framework allows both medium and long term planning. The latter, when resulting of an open and continuous participatory process, encourages investments in all sectors (from plant engineering to eco innovation research). Furthermore, it increases the ability for individuals and within public and private partnerships to access fundings, including European ones. An effective "central" planning at national level, clear in its definition of timings, objectives and economic resources, is a crucial element for the success of regional planning, which must comply with the same principles and timelines.

6. Rules must be certain, clear and stable through time, especially with regard to financing schemes, incentives and bureaucratic simplifications. Simplification is certainly an essential ingredient to boost the whole sector: without it, the construction of the infrastructure needed to achieve circular economy (where plants for treatment and recovery of waste is a crucial juncture) would remain excessively difficult and onerous.

FOUR KEY THEMES FOR THE CIRCULAR ECONOMY IN ITALY

1. GOVERNANCE

For the **Governance** theme are enlisted the principal elements and characteristics that, if effective since the implementation of the Directives Package, would lead to success or failure.

EPR / COMPLIANCE SCHEME

FAILURE	SUCCESS
- Inconsistent or even in conflict with the economic, social and territorial context of the country, as well as the domestic market (recycled quotes and convenience of supply with MPS).	- The EPR must be flexible and responsive to environmental and local actor's needs.
- With an unclear and uncertain definition of roles and responsibilities of the actors	- Compliance Schemes must be declined in order to ensure coordination between the different kinds of responsibility of the actors (extended or shared).
-With partial coverage of waste collection costs resulting from the products subjected to EPR (with the result that they partially incurred by the citizens)	- Both the EPR and the Compliance Scheme must meet necessities of the entire supply chain; and be economically and environmentally sustainable.
	- Compliance Schemes must be the result of participatory and consultation processes of all the stakeholders for an effective implementation of the EPR scheme. They must be able to support market development while respecting the role of each actor involved and the principle of subsidiarity.
	- Environmental fees must be suitable, adequate and, whenever possible, they should differ according to the environmental impact of the end of life of the goods and products occurred.

MANAGEMENT

FAILURE

- The supply of secondary raw materials is weak when management is inefficient and lacking of medium / long term planning, and when it is fragmented at local level and have poor infrastructure. As consequence, entrepreneurial economic investments are discouraged.

SUCCESS

- The public functions of direction and coordination must be strengthened for efficient planning of medium / long term, guaranteeing an authoritative coordination between the different actors involved.

- At local level, as regard the award of contracts, the system must be based on competitive mechanisms to ensure transparency, non-discrimination, efficiency and cost-effectiveness of the activities, processes and entrustments.

- The management should have an integrated approach in all its various stages (from collection to treatment), while complying with the role of each operator to ensure the required industrialization of the entire waste management sector and especially the recycling in the various sectors of materials, including through public - private cooperation.

- The management must be harmonized and homogeneous: at basin level as regards infrastructure and facilities and, at flows and costs level as regards involvement of all actors in the sector.

- Management must be guaranteed by firm rules (that should be clear and stable through time) on its own funding.

TRACEABILITY AND MONITORING ACTIVITIES

FAILURE

- The monitoring and traceability activities are weak and ineffective because of the presence of a jumbled and complex system, of an excess of bureaucracy characterized by duplication of practices, uncertain timing that are way too long and costly.

SUCCESS

- The monitoring is more effective through greater cooperation and coordination between competent authorities: the ISPRA - ARPA system must be equipped with the appropriate resources to perform the assigned task at its best.

- Monitoring activities suffer from the heterogeneous collection and analysis of data that differ from region to region.

- For the traceability scheme, the application of guiding principles of transparency, proportionality and simplicity result to be of utmost importance: clear rules, adapted to the case method of transparent action, support and promote an effective control system and the actual prevention of unlawful acts and environmental crimes.

CONTROL SYSTEM

FAILURE

- The excess of models that vary from each territory results in a control system that is weak and ineffective, allowing illegal activities. Duplication of bureaucratic acts and fragmentation of skills fights against the principle of transparency that is the fundamental for an effective control system: excessive costs, uncertain times, lack of coordination and collaboration between different agencies and offices stifle business initiatives.

SUCCESS

- Even through the creation of a specific body designed to give unequivocal answers to doubts on rules interpretation.

- Controls must be uniform: for quantity and quality as regards data collection methodology, on the entire national territory as regards the adopted instruments, and as regards persons or bodies in charge at central and peripheral level.

- It is vital for the interpretation of reference standards made by control authorities to be unequivocal, especially when related to the initiation of waste treatment.

- The ISPRA - ARPA control system must recognize the validity of ISO certifications and / or EMAS registrations also in order, inter alia, to reach a better simplification and reduce administrative burdens.

- It is necessary for the police forces involved to have a strong sectoral specialization and expertise. It would be advisable to have only one direction and centralization (maybe one body) dedicated to environmental controls in order to strengthen homogeneity and uniqueness of the interpretation of rules at national level.

PLANNING	
FAILURE	**SUCCESS**
- Planning results to be weak when poorly incisive, and used as a mere guideline that entrusts subsequent acts to implement the provisions - It is also ineffective when indeterminate in its timing, in the identification of the needed interventions (including the economic ones) and when it is not shared between all the actors involved in its implementation.	- Planning is effective when able to maximize the economic and employment benefits while, at the same time, meet environmental protection requirements. - Planning must be the result of an effective and ongoing participatory process at all levels. - Planning must be integrated and coordinated at different levels: national, regional and local. - Planning is itself a guarantee of the implementation, both as regards times and instruments (economic or others), of the strengthening of the activities and industry development. - Planning must comply with the principles of proximity and self-sufficiency through the provision of an integrated and adequate network of facilities.

2. LEGISLATION

The elements on which the key theme of the **Legislation** relies, and that can lead to its success or failure, are numerous. Unfortunately, the following column "failure" is the capture of the situation that occurred with the current legislation.

RELATION BETWEEN NATIONAL AND LOCAL LEGISLATION	
FAILURE	**SUCCESS**
- A national regulatory system that is incomplete and unclear and that tries to fill the gaps through an excess of regional standardization ends up creating inconsistency, bureaucracy and market distortions.	- National legislation must fulfill and respond in a complete way to its central role, drastically reducing the secondary legislation.

- This system is incoherent and not very sharp when it refers to subsequent implementation decrees, not timely enacted.

-Without a proper coordination between regions and therefore with several different interpretations, there is space for market distortions and unlawfulness.

- In order to overcome national shortages, regional and local legislation is often too restrictive and linked to specific territorial dynamics, causing inhomogeneity (from region to region or from province to province) and encouraging differences in the interpretation and, consequently, unlawfulness.

- The relationship between national and local legislation must be based on a clear-cut definition of the scope, roles and responsibilities of all actors of the supply chain.

- The national and local regulations must be cross-sectoral (environment, industry, agriculture, economy, taxation).

- By establishing a specific body meant to provide unequivocal interpretation of rules, it is possible to overcome subjectivity in the interpretation by orienting the local analysis of the rules, also as regards the aforementioned controlling issues.

- National legislation must also be public and accessible in a more timely and accurate manner, also through a section of the Ministry of the Environment website, always updated on regulations, acts and measures taken by each direction.

REGULATORY AND LICENSING SYSTEM

FAILURE

- Fragmentation and high subjectivity in the interpretation and implementation of regulations and authorization schemes become a source of bureaucracy and cause unnecessary burdens. This leads to an implementation context which is uneven and uncertain both in times and procedures, and become an impediment to the economic and entrepreneurial development for all sectors.

SUCCESS

- The regulatory and authorization schemes must be unique, unequivocal and coordinated at the national level.

- Integration of different disciplines (AIA, REACH, major accidents, hazardous substances, health and safety) strengthens the regulatory framework and simplifies the authorization system.

- Regulations and authorizations needs to attract economic investments and promote the start of increasing and strengthening activities of the sector, creating a level playing field between Italian and European operators (level playing field).

- The authorization system should take into account the presence of process quality and product certifications fostering simplification and incentives.

TARGETS (RECYCLING AND PREPARATION FOR RE-USE)

FAILURE

- Recycling targets are purely quantitative and do not consider the experience level of the business environment, they are unrelated with the economic and territorial context, and are insulated from general economic situation that determine the market trend. Furthermore, the lack of harmonization in the definitions of general objectives, leads to complete misalignment and to an heterogeneous development of the various systems of enhancement and recycling of various waste streams.

SUCCESS

-Recycling targets must be qualitative as well as quantitative, defined according to the local context, the specific strands and BAT, different for each supply chains Targets must evolve over time through research and through the actual use of MPS (also regarding the by-products)

- Targets of preparation for re-use have to be defined according to the specific characteristics of materials and products, taking account of the social and territorial context.

-Both targets must be reached in a progressive process, shared with all supply-chain stakeholders and strengthened by a certain and detailed forecast of tools and incentives that would make both targets achievable and economically sustainable.

- To uniquely determine the achievement of the objectives it is necessary to have a clear definition of the final process of recycling, the End of Waste and uniform methods of calculation.

END OF WASTE

FAILURE

- The End of Waste regulations represent a rigid framework, inconsistent, incomplete and difficult to apply, hindering the market of materials and secondary products development.

- Regulations that are based on too technical and outdated rules that don't include new materials and products already on the market, and ignore new waste treatment technologies, represent a barrier that limits the entire supply chain with serious economic repercussions.

SUCCESS

- The enactment of EOW regulations must necessarily be shared and coordinated with the legislation on recycling of waste and chemicals.

- End of Waste must meet general criteria of circular economy.

- The resulting material of the EOW has to stop being considered and managed as waste. To consolidate and broaden the market, the EOW material must meet the same procedures used for virgin materials management, attributing proper accountability and responsibility to local authorities.

BY-PRODUCTS

FAILURE	SUCCESS
- The regulation on by-products suffers from uneven and incoherent interpretations made by different agencies and authorities. - Regulation, when characterized by poor coordination with the legislation on waste, results weak and limited in application.	- The legislation on by-products must be coordinated and consistent with the entire plant dedicated to the regulation of waste sector. It can be fulfilled through the enactment of a centralized regulation or through guidelines illustrating the use of by-products generated by supply chains and instruments that promote supply chains agreements.

3. TECHNOLOGY AND ECOINNOVATION

As regard the third key theme, another main element which can lead to success or failure has been identified in technology and eco-innovation.

ECOINNOVATION

FAILURE	SUCCESS
- Suffers from the same critical issues of industrial symbiosis and from the lack of a policy strategy at industrial and economic level that is able to identify priority actions for its development.	- To have a policy and regulatory framework able to identify suitable instruments to support business competitiveness: financial instruments, networks for technology transfer, training and continuous update.

KNOW-HOW AND INFORMATION ACCES

FAILURE	SUCCESS
- Closure and lack of exchanges between different industries and sectors.	- Cross-sectoral and easy data and experience exchange in order to promote the strengthening of the sector along the whole chain. - A network that encourages the exchange between major actors and micro and small enterprises.

INDUSTRIAL/ECO-DISTRICTS SYMBIOSIS

FAILURE

- The whole sector even within the same supply-chain is unable to overcome divisions and territorial fragmentation. This makes the interaction between the management of public services, private users demand and industrial supply difficult and complex.

SUCCESS

- In order to work properly it requires a system-wide vision resulting from a careful planning in terms of infrastructure, bureaucratic simplifications and public-private partnership. Symbiosis must also be favoured by medium to long term investments.

RESEARCH FOR ECO INNOVATION DEVELOPMENT

FAILURE

- When supports and funding are insufficient, research remains a privilege intended only for major actors, because of its costs in both economic and human resources terms.

- If the regulatory and legislative system does not take into account the technical and technological progress possible through targeted research activities, it is difficult to fully apply the European hierarchy of waste.

SUCCESS

- The adoption of industrial and economic policies that are integrated and coherent can overcome the weakness of research, creating a support system for economic-innovation development activities, based on the re-use of by-products and MPS.

- Research activities needed to achieve technological progress in the supply chain (from Eco design to recycling), require cooperation at all levels: institutional, inter-sectoral, public and private, universities / research centres and businesses.

- The research system must find strength and support through greater and easier access to EU fundings, increased investment in training and specialization of its staff in order to foster the diffusion of new technologies, and in a proactive link to research inter/national platforms.

- The link between EPR and research in the eco-innovation of processes and products has to be even clearer and structured.

4. ECONOMIC AND FINANCIAL INSTRUMENTS

The fourth key theme is represented by the **economic and financial instruments** that can have a positive or negative effect on the recycling and reuse industry.

GREEN PUBLIC PROCUREMENT

FAILURE

- When there are no regional plans for the implementation of the NAP and economic and fiscal instruments, GPP results to be weak and lacking in its main purpose of creating a market demand for green products and services.

- Environmental Minimum Criteria are difficult to apply and incomplete, with technical specifications that limit the market rather than encourage it, and absent or fragmented monitoring activities. These difficulties prevent the strengthening and dissemination of GPP.

SUCCESS

- The GPP has first to rely on coordination and continuous collaboration between the Ministry, Regions, Regional Agencies, and with purchasing groups focused in information and training, incentives, monitoring, control (including the procedures for the award of public contracts) and sanctioning activities. This would also allow a nationwide homogeneity designed to overcome fragmentation in the application and in the achieved results.

- The necessary training and updating process in public administrations, especially local ones, must rely on the above-mentioned collaborations.

- The GPP should link up with the access to European funds in support of green products and services.

SECONDARY RAW MATERIALS MARKET

FAILURE

- The SRM market, without the support of a strong industrial and economic policy, turns out to be fragmented and overly dependent on the performance of the raw materials market.

- The absence of certain and clear rules encourages the persistence of trade barriers and fuels the mistrust and the lack of knowledge on the SRM.

SUCCESS

- The SRM market requires a clear regulation, certain and simple, also with regard to the origin and destination of materials, their quality and the possible uses. This can be achieved through the adoption of quality standard certifications.

- Born from a new culture and a greater awareness of the need for a solid circular economy, it must be careful improving information and awareness of users, contracting clients and consumers.

- Featuring incentives for the use of SRM.

- Supported by an incentive system appropriately designed as part of an industrial and coherent economic policy, for example through a link with the GPP instrument and any VAT or other concession charges on sales of products that contain recycled material.

INCENTIVES

FAILURE

- Without a consistent incentives program for the medium and long term, and instead with a financial support too often dispersed or restrictive, incentives result ineffective in pursuing the strengthening of circular economy.

- Intended for final disposal instead of recycling (for example, when the contribution given for plants is higher than the start-up costs in landfills).

SUCCESS

- The measures and provisions designed to encourage circular economy should create favourable and stable conditions in a systemic and consistent way throughout the chain and between different sectors. These conditions will foster investments in prevention (primarily in eco-design research), in SRM processing infrastructure and in activities for energy production from renewable sources (biogas) and production of “re-products”.

- Strong incentives for the implementation of the sector, especially for SMEs, can also be represented by the simplification of the access to credit and EU funding, interventions of tax exemption, bureaucracy simplification and awarding mechanisms on recyclable waste start-ups.

PRICING SYSTEM

FAILURE

- Whenever deficient in the application of rules and existing policy instruments, it undermines and weakens the instruments for the implementation of the principle "polluter pays".

SUCCESS

- It must aim at reducing waste production and to encourage virtuous behaviour of citizens and enterprises.

- More specifically the so called "tariffa puntuale", (a quantity based rate proportional to waste quantity and quality produced per floor area unit) must be founded on a defined area of application, must be nationally consistent and coherent, recognizing a certain degree of flexibility to respond to specific local needs. This quantity-based rate must be characterized by a bond of purpose, being able to fully cover the efficient costs (even by relying on a demonstrable correlation between applied cost, quantity and quality of the service provided), counter the phenomenon of non-payment users and rely on certain measurement or corrective criteria of costs allocation.

COMPOSIZIONE DEL GRUPPO DI LAVORO

"Indicazioni per il recepimento delle nuove direttive in materia di circular economy - rifiuti"

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