

CIRCULAR ECONOMY AND ENVIRONMENTAL SUSTAINABILITY^{1*}

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1. Towards a new development paradigm

The paper deals with a central issue in the ongoing redefinition of the European model of development and the European identity itself, namely the role of national and European administrative environmental law to ensure sustainability in face of global challenges related to global warming, the limitation of natural resources and the growth of poverty².

A large group of renowned scientists has recently relaunched a plea about the unsustainability of our current model of economic development and the risks it poses for the future³.

The theme is not new: economists began to question the relationship between economy

¹ One of my writings on the same subject is being published on *Dir. dell'economia*, No. 3/2019. See G. Caia, F. A. Roversi Monaco, *Aspects of the simplification of administrative procedures and the coordination of public interests; energy sediments and environmental protection needs*, in Aa.Vv., *Studies in honor of Enzo Capaccioli*, Milano, 1988; F. A. Roversi Monaco (a cura di), *The new environmental legislation*, Rimini, Maggioli, 1989.

² The present model, moreover, is widely recognized also the strong instability, In fact, it has a higher intensity and speed than in the past because the greater interactions existing between the different components of the system cause an increasing acceleration of its changes. For a scientific approach aimed at enhancing the systemic aspect in the study of the environment see M. Cafagno, *Principles and instruments of environmental protection as complex, adaptive, common*, Giappichelli, Turin, 2007.

³ See the Worlds scientists' appeal warning to humanity: *A Second notice*, on *BioScienze*, November 2017. On the theme there is, recently, E. Giovannini, *The sustainable utopia*, Turin, Laterza, 2018.

and environment even before the 1970s, yet a more systematic political debate on the dynamics of sustainable growth followed the 1972 Stockholm Conference, the launching of the United Nations Environment Programme (UNEP), the establishment of the Brundtland World Environment Commission in 1983⁴ and the international acts that followed⁵.

However, the legislator's effort to provide a more complete framework for a new economic paradigm, that of the circular economy, appears innovative, as will be highlighted, since it is able to combine an effective response to environmental challenges without compromising the competitiveness of the economic system and its employment levels.

There may be different strategies, national and European, to restore sustainability to the current model of development.

The risk could be first of all that, as highlighted by Zygmunt Bauman in his book *Retrotopia*⁶, to react to change by looking at the past.

The temptation is, first and foremost, a return to the past, with a restoration of trade protectionism and a strengthening of national sovereignties; and therefore, with a significant regression of the European integration process.

In the opposite direction is oriented the attempt to design a new path of fully integrated development, which is able to address in a transversal way the issues of sustainability and social inclusion⁷.

The move towards a more resource⁸-efficient, low-carbon and hence climate-resilient model is the main international challenge, to achieve sustainable and, at the same time, inclusive economic growth.

In fact, it is not only a reform of the current model but a real change of paradigm that requires significant changes in the use of natural resources, in waste management, in the design and life cycle of goods.

The new paradigm is described, at national and European level, as a circular economy⁹;

⁴ This Commission published the famous Brundtland Report in 1987.

⁵ The first measures were adopted at the 1992 United Nations Framework Convention on Climate Change (the Framework Convention is an international agreement produced by the Conference on the Environment and Development of the United Nations (UNED) held in Rio in 1992, which entered into force on 21 March 1994), followed by the Kyoto Protocol of December 1997 and, most recently, the Paris Agreement of December 2015.

⁶ See Z. Bauman, *Retrotopia*, Laterza, Bari-Roma, 2017.

⁷ This is the method behind the ASVIS, the Italian Alliance for Sustainable Development, promoted by Enrico Giovannini in February 2016 and which today brings together more than 170 subjects including employers' associations, trade unions, volunteers, Foundations and universities. The aim is to put in place new ideas to make development fair and sustainable and to support and promote those who can contribute to achieving the 17 objectives of the UN: first of all the Italian Government, but also businesses and other actors in economic and social life, right down to the individual citizen.

⁸ The concept of resource efficiency has been extensively developed globally in a number of initiatives by stakeholders such as the OECD and the UN (International Resource Panel) and the G7/G8/G20.

⁹ In juridical science, see F. De Leonardis, *Circular economics: essay on its different legal aspects. Towards a Circular State*, in *Dir. amm.*, 2017, 163; V. Cavanna, *Green Economy, Resource efficiency and circular economy: The Signals report 2014 of the European*

its most authoritative definition is that of the Ellen MacArthur Foundation¹⁰: «*the circular economy is an industrial economy conceptually regenerative and reproduces nature in improving and optimizing actively the systems through which it operates*».

It is therefore a paradigm that derives precisely from the observation of non-linear and complex systems, especially living ones.

Such systems in fact, like the new economic paradigm, are regenerative, evolutionary and thermodynamically far from the equilibrium, that is they absorb and value the contributions of negative entropy available in nature.

This new paradigm is placed in the wake of sustainable development but, at the same time, it goes beyond its boundaries, because it emphasizes essentially the limits to development, as already highlighted in the Report «*Limits to growth*» Massachusetts Institute of Technology and Club di Roma 1972.

These relationships had revealed the unsustainability of an economic model based on unlimited growth through the progressive consumption of available resources and natural capital and the risks of compromise, through its preservation, minimum ecological¹¹ levels.

The same limits impose, today, an economic growth that takes place within the paradigm of sustainability and regeneration, that is, in which the goods of today are the resources of tomorrow.¹²

The challenge is, in short, to combine an adequate and effective response to current environmental and social dynamics while increasing, at the same time, the competitiveness of the economic system and its employment levels. Within this new paradigm, therefore, the emphasis is not solely on environmental¹³ protection and whether it can still qualify as a limit or, rather, as a factor of convergence with regard to economic development.

The emphasis, in fact, in the new model, is all internal to the dynamics of redefining a sustainable and regenerated industrial development, where environmental protection can also be a factor of competitiveness and not a threat to the economic efficiency of the

Environment Agency, in *Rev. Giur. Amb.*, 2014, 821; C. Bovino, *Toward a circular economy: the revision of the directives on waste*, in *Environment* 2014, 682; finally see also T. Federico, *The foundations of the circular economy*. Foundation for Sustainable Development, 2015.

¹⁰ This Foundation, from its historical headquarters in the Isle of Wight, promotes the circular economy all over the world.

¹¹ The limits to the current model of economic development are no longer identified in the fear for the depletion of resources – as prefigured by D. H. Meadows, D. L. Meadows, J. Randers, W. W. Behrens III, *The limits of development*, Milan, 1972 -, but in the increase of their costs and in their actual availability for the geographical position of raw materials and the risk of their use as a weapon of political pressure; see, on the subject, A. Clò, *The energy rebus*, Bologna 2008.

¹² On the recognition in the circular economy of a new development paradigm that surpasses and does not integrate that of sustainable development, see F. De Leonardis, *Circular economy. Essay on its different legal aspects. Towards a circular state*, cit. 163.

¹³ For further information see, first of all, the two main treaties of environmental law: R. Ferrara, M. A. Sandulli, *Treatise on the Law of the Environment*, Milan, June, 2014; E. Picozza, P. Dell'Anno, *Treatise on the Law of the Environment*, Padova, Cedam, 2012. Among the manuals see, G. Rossi (edited by), *Environmental Law*, Fourth edition, Torino, Giappichelli, 2017; B. Caravita di Toritto (edited by), *Environmental Law*, Bologna, il Mulino, 2016.

system.

The development in a more sustainable direction of the economic and social system entails new modes of action of enterprises and public authorities, not fractionated but integrated and systemic.

This new way of acting will inevitably have to be regulated by administrative law and implemented by a national and European governance, similar to the phenomenon to be regulated; they will have to be encouraged, in fact, the institutional links and coordination of the action of the different administrations involved in its implementation.

The paradigm shift will also have to be accompanied by a legislative framework for transposition and implementation which simplifies its implementation and promotes its coherence; therefore, it will have to make the collaboration between all the actors of the circular economy structure public administrations, enterprises, research institutes, and, at the same time, promote innovation, technology transfer and the competitiveness of industrial sectors.

The instruments and forms of regulation will also have to adapt to the characteristics of the new development paradigm.

The public authorities must act not only through the traditional system of regulation (direct regulation) but also through economic regulation - for example through taxes, incentives and emission rights trading.

In fact, the conviction of the limits and the several failures to which the public intervention in the field of environmental protection and regeneration¹⁴ is exposed is consolidated.

The redefinition of the mode of design and production of goods in the direction of sustainability, in fact, requires a flexibility that the provision of public incentives is better able to satisfy than the use of authoritative instruments.

The rigidity of environmental limits and standards, in addition to the administrative cost burden, can contribute to lower the same production, discouraging companies to introduce more efficient and less polluting production techniques. As in the governance of the environment; therefore, the redefinition of the European economic model towards sustainability will also result in a different balance of authoritative instruments and economic incentives.

The adoption of direct regulatory measures, therefore, will have to be supplemented by

¹⁴ In this respect, see the Green Paper «on market-based instruments used for environmental and related policy purposes» of 28 March 2007, COM (2007). In the same direction as designing incentive and disincentive-based policy instruments as essential factors for public action to protect the environment, see M. Bresso, *For an ecological economy*, Roma, 2002; R. Costanza - J. Cumberland - H. Daly - R. Goodland - R. Norgaard, *An introduction to ecological Economics*, Boca Raton, Florida, 1997, 69.

the use of economic and financial instruments that condition the willingness of enterprises to carry out production processes with less environmental impact.

The approach to the topic must become necessarily interdisciplinary, in the sense that it will have to take advantage of the contribution of more disciplinary competences.

In addition to the legal and economic sciences, in fact, the use of ethics and the philosophy of law (for the centrality of the intergenerational dimension), engineering, agriculture and biology will be essential (for the design and production of durable and regenerable goods).

These contributions represent an indispensable enrichment of the legal method in which the so-called separation of legal science from other social or technical sciences is strongly called into question, from the epistemological point of view.

Particularly with regard to issues such as those addressed in this essay, characterized by the deep connection and interdependence of social phenomena, the sterility of a sectoral approach to each of them emerges.

More generally, the development of administrations and the need to overcome their detachment from civil society and the economic system renders ineffective investigations marked by a clear distinction between the administrative system and the economic system and social.

It is therefore increasingly necessary to adopt an investigative approach to the administrative phenomenon, not distinguished by disciplinary areas but by problems¹⁵, necessary to gain in depth the administrative legal experience and to solve the problems inherent in it, enter from within and with equal dignity into the legal proceedings for which, therefore, «*It is no longer a time for loneliness*»¹⁶.

It is, however, responsible for assessing its relevance and consistency from time to time with the concrete solution of the case under investigation.

The premise of this approach, from the epistemological point of view, is therefore the demand to each science, in its own autonomy, of the legitimacy to define its own object and the conditions and criteria of its own action.

While agreeing with this logical premise, however, the legal analysis will preserve its autonomy and its *raison d'être* which is to identify the values and legal interests in force in each concrete administrative matter and the qualifications that are connected with it and to set up and resolve, through their reconnaissance, the legal problems from this

¹⁵ Precisely the epistemology of K. R. Popper is based on the assumption that there is no certainty in science and that rational scientific action is not oriented to the search for absolute truth but is concerned solely with offering answers to concrete problems, however. In this sense there is a v. ID., *Truth, rationality and growth of scientific knowledge*, in *Science and Philosophy. Problems and aims of science*, trad. it. by M. Trinchero, Turin, Einaudi, 1991, 184.

¹⁶ In this sense, P. Grossi, *History of law and positive law in the formation of today's jurist*, in *Riv. Storia Dir. It.*, LXX, 1997, 5.

mail¹⁷.

In the following analysis, therefore, after having reconstructed the scientific genesis and characteristics of the new economic model (§2), the logic and purpose of the European discipline that introduced (§3) will be investigated.

Finally, the reflections that it produces and could generate, on the same European identity and on the relative modalities of action, the progressive affirmation of the model of the circular economy (§ 4 e 5).

2. Origin and characters of the circular economy model¹⁸

The scientific base of the economic system undergoing such new economic paradigm is that of Ecological Economics, oriented towards an evolutionary vision of the economic system, in which economic activity constitutes an extension of the biological activity, that invests the Such model transposes also the contained forecasts in the "*Economy of the static state*" of Herman Daly¹⁹, that didn't implicate a total absence of growth of the economic system in reality but, rather, a state of symbiosis between individual and nature, founded upon renewable natural flows of energy and resources without an exhaustion of natural resources.

The final objective was that of an economic system that maintained him within a band of sustainability and it didn't overcome the least ecological limits.

The economic model of the circular economy is based on that of the natural ecosystem in which everything is reused and nothing is lost and imitates its dynamics²⁰.

¹⁷ On the subject, M. Cocconi, *The science of administrative law and the use of other social sciences*, in L. Torchia, E. Chiti, R. Perez, A. Sandulli, *The science of administrative law in the second half of the 20th century*, Turin, 2008, 269. It will then analyse the limited implementation it has received so far in the national legislation.

¹⁸ The real origin of the circular economy, under the conceptual profile, is owed to W. R. Stahel that, together with Geneviève Reday Mulvey it outlined, in a relationship for the 1976 ("Potential for Substitution Manpower for Energy") European Committee, the features of the circular economy in modern key, showing of it the potentialities under the profile of the occupation and the economic competitiveness, well over the profiles of environmental guardianship and diminution of the refusals. The idea of the Swiss architect was that to extend the vital cycle of the buildings and other goods as the automobiles to eliminate the wastes of resources. The Relationship was turned into a monographic writing in 1992, with the title *Jobs for Tomorrow - The Potential for Substituting Manpower for Energy*. In the text an economic model appeared distinguished by that linear, qualified as economy "cyclical." In opposition to the linear structure, Stahel prefigures a model stam to the imitation of the natural systems as the cycle of the water, and it hypothesizes a productive system autogenerante where the enterprises become responsible of the goods also produced after the immission in the market. In the same years Orio Giarini, economist triestino, member of the Club in Rome and Secretary of the international association for the study of the economy of the insurance in Genoa, analyze the opportunities made by the economy of the services available. In the writing "Dialogue on the wealth and the comfort" of 1981, after having shown the difficulties to preserve the paradigm of the linear economy, gives the limits of the available resources, Giarini proposed a necessary synthesis among economy and ecology. Besides it sustained that the strategies for the production of the wealth had to found upon the natural resources, as that he qualified "endowment" and "patrimony".

¹⁹ See H. Daly, *Steady-State Economics*, 2 ed., Island Press, Washington, D.C., 1991, 17.

²⁰ In May 2015 in the Encyclical *Laudato Si'* Papa Francesco evoked the need, in redefining the economic model, for the imitation of nature with these words: 'We find it difficult to recognise that the functioning of natural ecosystems is exemplary: plants synthesize nutrients that feed herbivores; these in turn feed carnivores, which provide large quantities of bio-waste, giving rise to a new generation of plants. On the contrary, the industrial system, at the end of the production and consumption cycle, has not developed the capacity to absorb and reuse waste and slag. It has not yet been possible to adopt a circular production model that ensures resources for all and for

It deals with a model founded upon an innovative conception of comfort and wealth, not anymore based on the continuous expansion of GDP and consumptions, but on the increase of stock of human, natural and social capital, over financial one.

This development model includes a completely regenerative industrial system on the design side that manages resources more efficiently upstream, increases productivity in production processes and preserves the value of products and materials as long as possible.

Downstream, the same model tries to prevent goods with a residual utility from being disposed of in landfills, thus favouring their recovery and reintroduction into the economic system.

It is also a model which should benefit mainly from the use of renewable energy.

The essential juridical characters of the new model of development are partly analogous to those recognized to the sustainable development; they apply you, in fact, a meaningful projection toward the inter-generational dimension and formality of realization decidedly systemic and integrated.

Their recurrence is a symptom of as the new paradigm includes but at the same time, as it will show, remains the precedent model of development. One essential characteristic of his must be of it, indeed, the inter-generational dimension that keeps in mind of the necessity to satisfy, besides the rights of the present generation, also those of the future generations, according to the native definition of the Relationship 1987 Brundtland, from the title the "future of all of us"²¹.

For sustainable development he intended, in such context, a "*development which meets the needs of the present generation without compromising the ability of future the generation to meet theirs*"²².

The same dimension returns, more recently, in art. 3-quarter of the d.lgs. April 3 rd 2006, n. 152, as integrated by the d.lgs. January 16th 2008, n. 4 whereas he affirms that "every remarkable human activity legally to the senses of the present Code must conform to the principle of the sustainable development, with the purpose to guarantee that "*the satisfaction of the needs of the actual generations cannot jeopardize the quality of the life and the possibilities of the future generations*"²³.

future generations, which requires the maximum use of non-renewable resources, moderate consumption, maximize exploitation efficiency, reuse, recycle». On the Encyclical see M. Serio, *Laudato Sii. The Encyclical of the Crisis for a Different Model of Growth in New Economy and History*, 2015, 99.

²¹ World Commission on Environment and Development, 1987, «Our Common Future», UN Report A/42/427.

²² On the principle of sustainable development see F. Fracchia, *Sustainable Development. The feeble voice of the other between protection of the environment and protection of the human species*, Naples, 2010; ID., *Sustainable development and rights of future generations*, in *www.rqda.eu*; M. Montini, *Profili di diritto internazionale*, in *Trattato di diritto dell'ambiente*, (a cura di) E. Picozza, P. Dell'Anno, Padova, Cedam, 2012, 37; G. Cartei, *Cambiamento climatico e sviluppo sostenibile*, quaderni Cesifin, Firenze 2013; P. Sands, *Principles of International Environmental Law*, II ed., Cambridge, Cambridge University Press, 2003, 252.

²³ On the strong intergenerational dimension of sustainable development see R. Bifulco, A. D'Aloia (edited by), *A right for the future*.

Also the new paradigms of development ricompresi or comprehensive of the circular economy as that of the green economy²⁴ and of the bioeconomy²⁵, they include a meaningful attention to the inter-generational dimension.

This profile is very explicit, for instance, in one of the most qualified definitions of the green economy that shapes as: "A system of tied up economic activity to the production, distribution and consumption of goods and services that it is translated in a good human comfort in the long period, not to expose the future generations to meaningful environmental risks and the ecological shortage."²⁶

The same Declaration of September 25th 2015, on the occasion of the approval of the Agenda 2030²⁷, concluded him with the following words, that expressly evoked the theme of the inter-generational inheritance: "The future of the humanity and our Planet is in our hands. It is also found in the hands of the new generations, that will pass the witness to the future generations."

The other recurrent dimension both in the sustainable development and in the new model of economic development it is strongly that of integrated method of realization.

Already in the text of the Conference held in Rio de Janeiro in 1992, concluded with the Declaration on the environment and the development (what it took back the definition given by the Relationship Brutland), was specified as the matter of the realization of the sustainable development it was integrated in comparison to the other dimensions of the political and social order.

It put on in relief, in fact what: "*in order to achieve sustainable development environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it*" (principle 4)²⁸.

Also in the art. 3 of the Treaty of Lisbon of December 13th 2007 the sustainable development is founded and in partnership to other dimensions of the economic model what "*a balanced economic growth and the stability of the prices, a social economy of market strongly competitive, that contemplate to the full occupation and the social*

Theories and models of sustainable development and intergenerational diversity, Naples, 2008, 177.

²⁴ On the fact that the green economy is a more comprehensive development model of the circular economy see Martens P., Grey, *Green or blue economy? It's sustainability, Stupid?* University of Maastricht, Sustainable learning, 2013.

²⁵ Bio-economy means all economic activities related to the discovery, development, production and use of organic products and processes within certain macro-sectors: agro-food industry and marine bioeconomy. For an essential bibliography on the subject see Clever Consult Bvba, *The knowledge Based bioeconomy (Kbbe) in Europe: Achievements and Challenges*, Brussels, 2010; R. Esposti, Knowledge, 2012, 231-264; ID., *Knowledge, technology and innovation for sustainable agriculture: lessons from the past, paradoxes of the present and challenges for the future*, in *Agriregionieuropa*, 2013, 32.

²⁶ See UNEP, 2012, «The Business Case for the Green Economy. Sunstable Return of Investment» Globescan.

²⁷ On September 25, 2015, the United Nations General Assembly set 17 sustainable development goals for the whole world, to be achieved by 2030. concrete objectives relating to the eradication of poverty and hunger, quality education and gender equality, health at all ages, water, energy, employment, economic growth and inequalities, infrastructure and cities, consumption and production, the fight against climate change, flora and fauna, peace and institutions.

²⁸ On the relationship of mutual interdependence between economic and social development and the environment, see M. Monteduro, *Right of the environment and food diversity*, in *Riv. Quadr. Dir. Amb.*, 2015, 1, 92.

progress and an elevated level of guardianship and improvement of the quality of the environment."

One of the specificities of the Agenda 2030 for the sustainable development, in effects, it is really the integrated vision of the actions to undertake and of the objectives to be achieved for redefining our model of development.

The global challenges that impose it, in fact, demand, also for the European Committee²⁹, to drop politics and sectorial mechanisms of government, to advantage of a more integrated and systemic approach.

Inside this systemic approach it reenters, what further dimension, the forced consideration and priority of the connected appeals to the guardianship of the environmental sustainability in the decisional trial of the public administrations.

This perspective does not imply that the principle of sustainable development should be given an ontological priority and that conflicting interests should be sacrificed as a result; rather, it implies an obligation on the part of the authorities to give reasons for giving priority to the interests linked to this principle in the discretionary choice of comparison and in the balancing of public and private interests.

The same principle of integration, contemplated by art. 11 TFEU and'art. Article 37 of the Charter of Nice, on the basis of which «requirements relating to the protection of the environment must be integrated into the definition and implementation of Union policies and actions» was explicitly aimed at realising the sustainability of the economic mode³⁰.

Moreover, in d.lgs. n. 4 of 2008, paragraph 2 of art. 3-quater, sustainable development is recognised, in the light of the principle of integration, as a principle applicable not only to the environment but to the entire activity of public administration of a discretionary nature. With this in mind, it is expected that *«In the context of the comparative choice of public and private interests which is characterised by discretion, the interests in the protection of the environment and the cultural heritage must be given priority»*.

Moreover, the same characterization of the environment as a constitutional value excludes that the good which it is the subject of can be qualified a priori but requires, rather, that this is necessarily the result of a balance between different interests³¹.

²⁹ European Commission, A strategy for a sustainable bioeconomy for Europe, 13 February 2012. Innovation for sustainable growth: a bioeconomy for Europe.

³⁰ On the principle of integration see L. Kramer, *Manual of Community Law for the Environment*, Milan, June, 2002, 91; P. Dell'Anno, *Principles of European and national environmental law*, Milan, Giuffrè, 2004, 75-79; M. Wasmeier, *The integration of environmental protection and a general rule for Interpreting community law*, in *Common Market Law Review*, 2001, 159.

³¹ On the method of balancing as a technique of composition of primary constitutional interests see B. Caravita, A. Morrone, *Balancing values as a technique of conflict resolution between primary constitutional values*, in B. Caravita, L. Cassetti, A. Morrone, *Right of the environment*, Bologna, il Mulino, 2016, 36. On the point also B. Caravita, *The balance between economic costs and environmental costs in an interpretative judgment of the Constitutional Court*, in *Le regioni*, 1991, 525: «the protection of the integrity of the landscape and the environment is not, however, absolute, but is likely to be compared in the legal system, since other constitutional

On the basis of this methodological approach, the conceptual categories of attribution and competence of public administrations should be reduced, or however, the way in which this is done will necessarily have to be done in a way that is integrated with that of other public entities, mainly through coordination between the public authorities involved in waste³².

Finally, to address these complex problems, it is useful to use an integrated and profoundly innovative thinking that addresses the issues not by segment but by interconnection.

3. The European framework on the new economic paradigm.

As far as the regulation of the new economic model is concerned, the path towards systemic discipline at European level has been gradual and has made a significant contribution to outlining its essential features.

On the constitutional side, the legal bases of the new economic model can be found, first of all, in art. 3, the first and fifth paragraphs of the Lisbon Treaty of 2007, first on the European and then on the international side. In the first paragraph it is pointed out that the Union shall establish an internal market.

It strives for the sustainable development of Europe, based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment».

In the following fifth paragraph it is stated, in a much wider perspective, that «*In relations with the rest of the world the Union affirms and promotes its values and interests, contributing to the protection of its citizens.*

It contributes to peace, security, sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade...».

As is evident, the explanation of this principle occurs twice in the Constitutional Treaty, the first in relation to the European Union, the second in relation to the Earth as a whole.

It is therefore not the principles that are lacking, in the European constitutional

values exist that can legitimize the balancing of protections». An emblematic sentence on the necessary balance of the primary interests is Court cost., n. 85 of 2013 on the so-called Ilva case.

³² The fact that the principle of competence, within the new context of rethinking the European model of development, must necessarily be combined with that of integration in order to favour a non-fractional approach but as much as possible sistemi, see F. De Leonardi, *Circular economy*, cit. , § 8. On the explicit need for a system of coordination between public authorities intervening on waste, see All IV-bis of Directive 30 May 2018 n. 851/EU.

dimension, but the actions and policies that are adequate to implement them in an integrated and accomplished way, in a logic consistent with a strategic vision of the future of the European Union.

Further remarkable juridical bases for the strategy of the sustainable development are relative to more specific circles of action or rather those related to the interaction among environmental and energetic politics³³.

These dispositions, jointly interpreted, underline the narrow existing connection, to European level, among the diversification of the sources of energetic provisioning for the promotion of the renewable sources and the to affirm him some dimension of sustainability of the European model³⁴.

Such connection is present, as it will be put subsequently in evidence, respect to the matter of the availability of first subjects, but it also produces effects on the slope of the strengthening of the energetic efficiency.

These are individuabile, indeed, in the art. 192 of the Treaty in Lisbon that attributes the direct finalities to the European environmental politics to assure "*the sustainable use of the renewable resources in the picture of the sustainable development*" and "*the promotion, on the international plan.. of measures destined to fight the climatic heatings*".

Such juridical base must be read and jointly interpreted with that represented by the art. 194, contained in the same Title XXI, regarding the European energetic politics.

Such disposition in effects, to the double goal to guarantee the operation of the inside market and to improve the environment, confers to the European union the power to deliberate, with ordinary legislative procedure, for "*to promote the energetic saving, the energetic efficiency and the development of new and renewable energies*".

As for the European sources by law derived, the initiative to regulate the new economic model had already been assumed by the European Committee, in 2014, with an entitled Communication "*Toward a circular economy: program for Europe to zero refusals*"³⁵, accompanied by a proposal of change of some directives in subject of refusals³⁶.

The Communication already aimed to favor the transition from the model of the linear economy toward that of a circular economy; this same was mainly based on the logic under which a more efficient use of the resources would have produced more favorable conditions for the growth of the competitiveness and the occupation.

³³ On the topic see G. F. Cartei, *Protection of the environment and European energy market in the discipline of renewable energies*, in *Dir. dell'economia*, 2013, n. 3.

³⁴ On the ways of combining the relationship between environment and energy, see P. Thieffry, *Le politiques européennes de l'énergie et de l'environnement: rivales ou alliées*, in *Revue des affaires européennes*, 2009-2010, 783. 35 See COM, 2014, 398.

³⁵ See COM, 2014, 398.

³⁶ See COM, 2014, 397

It tried to set, therefore, a favorable context to the take-off of the paradigm of the circular economy through a more integrated administrative activity between the different institutions and the public incentive to activity of search and innovation.

The Communication noted, in fact, that the introduction of 'circular economy' was functional to a logic mainly of industrial policy, not only of environmental protection, descending from the progressive depletion of natural resources and from the geopolitical insecurity in order to find them. It was pointed out that: “*The adoption of models more oriented towards circular economy gives a glimpse of a much brighter future for the economy of Europe, which could thus adequately meet the challenges, current and future, pressure on resources and increasing insecurity of supplies*”³⁷.

The proposal provided, in short, for 70% of municipal waste to be recycled and 80% of packaging waste to be recycled by 2030; it also prohibited the landfill of recyclable waste from 2025. In view of the obstacles raised by some Member States and some political parties, however, the Commission headed by President Juncker withdrew the proposal and indicated its intention to replace it by the end of 2015, with a new one concerning the same subject³⁸.

3.1 The new Package of Directives on the circular economy: the missing link to a completed pattern of circularity.

The presentation of the new package then took place on 2 December 2015, during a plenary session of the European Parliament by Vice-President Katainen. The new Package consisted of the Communication *The missing link - Action Plan in the European Union for circular economy* and accompanied by legislative proposals for the revision of EU directives³⁹. The context of this second Package of Union Directives on the Circular Economy is that of the «*Road map towards an efficient Europe in the use of resources*”⁴⁰ and of the initiative on the effective use of resources of the EU 2020 Strategy⁴¹.

³⁷ Accordingly, the administrative actions to be taken to achieve the new circular economy model were identified: «to enhance resilience and competitiveness, it is undoubtedly necessary to redeploy used and still usable materials for production purposes, reduce waste and limit dependence on uncertain sources of supply». The initiatives and actions to be taken, therefore, were the expected goal and the effects on the European economy: «By helping to decouple economic growth from the use of resources and their impact, the circular economy offers prospects for sustainable and lasting growth».

³⁸ In the process of approving the second Circular Economy Package, the Commission organised a twelve-week public consultation between 28 May and 20 August 2015, during which more than 1200 contributions were made.

³⁹ Reference is made to the Waste Framework Directive 2008/98/EC; the Packaging and Packaging Waste Directive 1994/62/EC; the Waste Directive 2000/53/EC and 2012/19/EU; the Landfill Directive 1999/31/EC.

⁴⁰ EU EC, 2011, *Roadmap towards a resource-efficient Europe*, COM, 2011, 571.

⁴¹ See F. Petrucci, *Europe changes policy on the circular economy*, in *Renewable Matter*, n. 2, 26-29, 2015.

Together with the Seventh Environment Action Programme⁴², these European initiatives include the full implementation of the waste hierarchy in all Member States, the reduction in total but also per capita of the waste produced by the waste, ensuring high-quality regeneration of secondary raw materials and the use of recycled waste as an important source of raw materials for the European Union.

The very option of the Package of Directives highlights the intention of offering a systematic set-up to regulate the new economic paradigm.

It was not by chance that the same choice had already been made in 2009, with regard to the strong European initiative developed in the sustainable energy sector, in the two related packages of measures, the construction of the internal energy market⁴³ and the promotion of the use of renewable energy sources, within the so-called «*Climate Package*» for 2020⁴⁴, which closely joins the circular economy model.

This new structure currently incorporates the waste hierarchy principle in art. 179 of d.lgs. n. 152 of 2006 which is designed as a priority in waste management policy and activity, which identifies as a priority option: a) prevention and, subsequently, b) preparation for re-use; c) recycling and d) recovery of other type; and finally, as a last ratio, c) disposal.

In reality, the basic logic of the circular economy is nothing more than a more positive and upstream aspect of the CD. *'the principle of prevention'*⁴⁵ referred to in art. 178 d.lgs. n. 152 of 2006 (and art. 1, par. 1, point 10 Dir. 2018/851), which is mainly involved in the design and production of products that do not become waste or become waste only in the long term⁴⁶.

Effective prevention makes it possible to reduce the amount of waste upstream in order to better manage its management mechanisms and to limit its environmental impact accordingly.

In reality, the subject of the new Directive concerns but surpasses the issue of waste

⁴² Decision 1386/2013/UE.

⁴³ The Third Package consists of two Directives (2009/72/EC on common rules for the internal market in electricity and 2009/73/EC on common rules for the internal market in gas) and three Regulations (No. 713/2009 establishing the Agency for the Cooperation of Energy Regulators and No. 714/2009 on the conditions of access to the grid for cross-border exchanges in electricity and No. 715/2009, *On conditions for access to gas transmission networks. Also on the subject are the contributions of P. Ranci, O. Torrani, E. Bruti Liberati contained in the Quaderno dell'Osservatorio on Administrative regulation, The regulation of energy markets in the third Community Package*, Milan, 2010.

⁴⁴ The 2009 Climate and Energy Package contains Directive 2009/28/EC on the promotion of the use of energy from renewable sources, Directive 2009/29/EC on the Community scheme for greenhouse gas emission allowance trading, Decision No. 406/2009/EC on Member States' efforts to reduce greenhouse gas emissions by 2020, Directive 2009/31/EC on the geological storage of carbon dioxide. More recently, on climate and environment policies, see the Green Paper on the new 2030 framework for EU climate change and energy policies, published in March 2013.

⁴⁵ On this principle see F. De Leonardis, *Principle of prevention and normative novelties in the matter of waste*, in *Studies in honor of A. Romano*, vol. III, Naples, Ed. Scientifica, 2011. On the principles governing the waste hierarchy see also M. Collevicchio, *Waste management*, in B. Caravita, L. Cassetti, A. Morrone, cit. 203.

⁴⁶ More specifically, there is now an obligation on Member States to take measures to prevent the generation of waste which at least: a) promote and support sustainable production and consumption patterns; b) encourage design, manufacture and use of resource-efficient products; c) concern products containing critical raw materials to prevent them from becoming waste, etc.

management through a look at the whole life cycle of goods; the new regulation regulates, in fact, additional profiles with regard to environmental protection and the progressive reduction of landfill, the predominant and essentially exclusive purpose of the previous regulation of waste, to outline the role of the circular economy as an instrument of real industrial economy⁴⁷.

The extension of the focus has been very marked since the inception of the Directive, whereas, in the first recital, the improvement and transformation of waste management into a “*sustainable materials management to safeguard, protect and improve the quality of the environment, protect human health, ensure careful, efficient and rational use of natural resources, promote the principles of the circular economy*».

A real qualitative leap that expressly reconnects the response to environmental challenges to that of «providing new economic opportunities and contributing to long-term competitiveness».

Always about the object, the art. Article 1 of Directive 2008/98/EC is amended: the new framework is intended to introduce “*measures to protect the environment and human health by avoiding or reducing the generation of waste, the negative effects of waste generation and management, reducing the overall effects of resource use and improving its efficiency, which are key elements for the transition to a 'circular economy' and for ensuring the Union's long-term competitiveness*”.

The Union's internal action, in this new context, is linked to external action and responsibility for the implementation of its international commitments, particularly in the context of the United Nations Agenda 2030 for sustainable development and the G7 Alliance for resource efficiency.

3.2 The take-off of the circular economy by supplying new raw materials

In the new regulatory framework, the advent of a circular economy responds to an explicit economic and industrial logic (and no longer only of environmental protection) which covers the entire life cycle of the product from the design and production⁴⁸ stage in the belief that these affect the supply of resources, on their use and on the final generation of waste with a view to making the European economy more competitive.

First of all, the new legislation incorporates the trend towards reducing the category of

⁴⁷ For a deepening of waste discipline see F. De Leonardis, Waste, in G. Rossi (edited by), *Environmental law*, Milan, 2017, 296.

⁴⁸ In this more global perspective, it is therefore specified how “If well designed, products can last longer or be easier to repair, refurbish or regenerate; disassembly is easier and recycling companies can thus recover valuable materials and components; in general, the saving of precious resources depends on the design». See also the Ecodesign Directive 2009/125/EC, which regulates all energy-related products with the aim of improving their efficiency and environmental performance.

waste through the construction of contiguous sub-assemblies of by-products and the end-of-waste status (end of waste) on secondary raw materials.

It was, as is well known, a logical process that countered that which aimed to extend to the maximum the notion of refusal (the *cd.* party totally rejected); the same was directed, to the opposite, to exclude from such notion, under certain conditions, certain substances and articles (*cd.* by-products) and, on the other hand, substances previously qualified as such (end of waste or secondary raw materials) are excluded from the concept of waste.

If, however, the aim underlying the introduction of these conceptual sub-assemblies was initially to limit the scope of the concept of refusal, more recently, within the new Package of Directives, the same notions appear to be directly useful for taking off and, therefore, for promoting the new model of circular economy, although they do not exhaust its scope of application.

First of all, with regard to the distinction of by-products from waste, it refers to a conceptual parable which, under the initial impulse of the European judge⁴⁹, first referred to the European legislator with art. 5 of Directive 98/2008 (as amended by art. 5, point 5 of Directive 2018/851/EU⁵⁰) and then national⁵¹ law, to be extended by case law⁵².

More specifically, if secondary products were always initially brought back by the European judge to waste⁵³, *Palin Granit* was pronounced in 2002⁵⁴, then these are conceptually separated from the «*production residues*».

Derivatives are identified in the case of substances which, although they are not the primary purpose of production, are still exploited or marketed under favourable conditions by the undertaking in a subsequent process, without being subjected to preliminary transformations.

This concept has subsequently been extended to the case in which the company uses the

⁴⁹ A favorable attitude towards the by-products was made explicit in *Corte giust.*, September 11, 2003, C-114/01, *avesta Polaris Chrome*, in *Rev. Dir. Amb.*, 2003, 995 excluding from the category of waste those goods, materials or raw materials (the *cd.* by-products) which, although obtained incidentally during processing, that is as a different result from the one for which it is intended, the production process is actually reused without prior processing during the production process. In a similar direction, see *Corte giust.* 11 November 2004, C-457/02, *Niselli*, in *Rev. Dir. Amb.*, 2005, 275.

⁵⁰ The novelty introduced, on the issue, by the 2018 Directive is that the conditions set out in art. Amendment No 5 on the status of by-products must be made compulsory for these substances to be considered as by-products, whereas the previous text only provides for the possibility of such substances. In addition, provision has been made for the Commission to adopt implementing acts laying down detailed criteria on the uniform application of conditions to specific substances or objects.

⁵¹ For effect of art. 12 of d.lgs. n. 205 of 2010, which inserted the art. 184-bis in d.lgs. n. 152 of 2006, our legislator qualifies as a by-product any substance or object that originates in a secondary way from a production process or that can be used, without any particular treatment, during the same or other production process. It is worth noting the entry into force, on March 2, 2017, of D.M. n. 264 of 2016, provided by art. 184-bis d.lgs. n. 152 of 2006, «Regulation on indicative criteria to facilitate the demonstration of the existence of requirements for the qualification of production residues as by-products and not as waste».

⁵² See TAR Campania Napoli, sez. VII, January 7, 2015, n. 22; Cass. Pen. sez. III, February 5, 2013, n. 28764, in *Foro it.* 2014, 7-8, 426.

⁵³ For this identification see Court of Justice, 15 June 2000, C-418/97 *Arco*.

⁵⁴ *Corte giust.* 18 April 2002, C 9/00.

substance in another production process or even when it is used by other companies in further processes⁵⁵.

One might even say, therefore, reusable waste should necessarily be qualified as a product rather than as waste, as it would result in a much less problematic reintegration into the production cycle.

Particularly with a view to affirming the new economic paradigm, this concept should refer more extensively not only to production residues but also to consumption residues, if they are likely to be further exploited, such as bottled in Pet⁵⁶.

A further notion – distinct, but contiguous to that of by-product – and functional, in the new Package of Directives, to a more complete statement of the model of the circular economy, is that of end of waste⁵⁷, contained in art. 6 of Directive 2008/98 (as amended by art. 1, par. 1, point 6 of Dir. 2018/851⁵⁸); this refers specifically to the process through which a waste is subjected to a recycling or recovery of material (compost, digestate) such as to turn it into a secondary raw material, reusable in a production process.

Here, too, the Member States must in primis, to take appropriate measures to ensure that waste which is subject to a recycling or recovery operation ceases to be considered as such if it fulfils the conditions already in the 2008 framework Directive.

In addition, the paragraph 4 is replaced in its entirety, concerning the E.o.W. «case by case» criteria, through a new provision which to date establishes: “member States may decide on a case-by-case basis or take appropriate measures to verify that certain waste has ceased to be waste on the basis of the conditions set out in paragraph 1».

With a view to greater resource efficiency, the transformation of waste into new raw materials and, therefore, resources is certainly an essential part of the new model of European development.

⁵⁵ On the subject see E. Pomini, *The point on by-products: the certainty of re-use*, in *Riv. Giur. Amb.*, 2012, 6, 753; D. Franzin, *The Constitutional Court and the definition of refusal: a new chapter in a complex story of Community illegitimacy*, in *Cass. Pen.*, 2011, 1, 117 ff. L. Prati, *The new by-product definition and treatment according to «normal industrial practice»*, in www.ambientediritto.it; G. Lageard, M. Gebbia, *Solution «by-product»: disputed risk choice for the residue producer*, in *Ambiente e sviluppo*, 2011; S. Anile, *Waste, by-products and Mps: commentary on new articles 184 bis and 185b*, in *Rifiuti*, 2011, 38; L. Ranacci, *The by-products under consideration of the Constitutional Court*, in *Giur. Merito*, 2007, 1088

⁵⁶ In this sense we see the interesting reflections of F. De Leonardis, *Circular Economy*, cit. above all § 3.

⁵⁷ The concept refers to waste subjected to recovery operations, including recycling and preparation for re-use, which meet certain specific criteria, such as those covered by art. 184-ter, d.lgs. n. 152 of 2006, introduced by d.lgs. 3 December 2010, n. 205: 1) the substance or object is commonly used for specific purposes; 2) there is a demand or a market for that substance or object; 3) the substance or object satisfies the technical requirements for the specific purposes and complies with the existing legislation and standards applicable to the products; d) the further use of the substance or object does not have an overall negative impact on the environment and human health. At European level, some regulations identify the conditions under which an EOW is present for certain specific substances. This is Regulation No. 333/2011/EU on metal scrap, Regulation N. 1179/2012 on glass scrap and Regulation N. 715/2013 on copper scrap.

⁵⁸ The only amendment introduced by the 2018 Directive on this issue refers to the criterion contained in art. 6, lett. a) of the Framework Directive, which is amended from «the substance or object is commonly used for specific purposes» to «the substance or object is intended to be used for specific purposes». This is the par. 2 is also fully replaced and to date provides for the Commission to monitor the evolution of national criteria for the cessation of refusal in the Member States and to assess the need to develop at Union level criteria on this basis.

The Community legislature itself, in the preamble to the text of the Framework Directive 2008/98/EC, stated that “*waste policy should: encourage the recovery of waste and the use of recovery materials to preserve natural resources*”⁵⁹».

The actual potential of this process to promote the take-off of the circular economy depends on the progressive acquisition of a dual certainty; as regards, first of all, the procedures for defining the criteria in which a refusal, as a result of certain recovery operations, can be defined as reusable⁶⁰ material, only state or even regional, which can be granted a right of declassification on a case-by-case basis in the authorisation⁶¹.

As is known, the administrative judge, in sent. n. 1229 of 2018, depriving regional authorities of the power to define, when authorising specific installations, the criteria for the cessation of waste status, poses a very important obstacle to the acquisition of one of the decisive factors for the take-off of the new economic model.

In fact, the new Waste Directive of 2018 provides for the possibility for States to proceed with the «case-by-case» procedure also on the basis of the specific criteria listed in the most recent European legislation, thus attenuating the paralysing effects of the decision of the administrative court.

In the same direction, the draft law delegating to the Government to receive the Package on Circular Economy, approved by the Council of Ministers on September 6, 2018, includes to the letter. e), among the most decisive criteria, to clarify which recycling and recovery operations are likely to generate EoW and, above all, to standardise this discipline with respect to the regions.

Data on the potential for recycling or recovery of waste are emblematic of the economic scope of acquiring new raw materials. Europe is currently losing some 600 million tonnes of waste materials per year which could potentially be recycled or reused. Only about 40% of household waste in the EU is recycled, with recycling rates ranging from 5% to 80%, depending on the area. Moreover, the Union is largely dependent on imports to emerging economies for essential raw materials, leading to a vulnerability in

⁵⁹ In Guide to the interpretation of the Framework Directive, the Commission also made it clear that the concept of recovery also includes processes whereby waste no longer entails the risks associated with its nature and is ready to be used as a raw material in other processes. More generally, the same Guide identifies the end of the recovery process when the waste becomes a useful resource for further operations and treatments, not harmful to human health and the environment. See guidance on the interpretation of key provisions of directive 2008/98/EC on waste, prepared by the EU Commission in June 2012.

⁶⁰ With regard to this decisive question, see the Circular of the Ministry of the Environment No. 10045 of 1 July 2016 entitled: «Discipline on the termination of the qualification of waste. Application of art. 184-ter, d.lgs. 3 April 2006, n. 152» literally states that the above mentioned article provided for the following alternative methods of defining criteria: 1) by means of a Community regulation, where issued; 2) by one or more ministerial decrees, where issued; pending the adoption of the measures referred to in paragraphs 2. a) and b) the legislator has also established that, with regard to the recovery facility, the criteria defined by the dm continue to apply. 5 February 1998, from Dm 12 June 2002, n. 161, from Dm. 17 November 2005, n. 269. It should also be noted that the Regions or bodies identified by them can, when granting the authorization provided for in art. 208, 209 and 211 d.lgs. 3 April 2006, n. 152, define EoW criteria after confirmation of the fulfilment of the conditions set out in comma 1 of art. 184-ter.

⁶¹ With sent. n. In fact, Article 1229 of 28 February 2018 of the Fourth Section of the Council denied that authorities and organisations within the State could be granted a right of declassification on a case-by-case basis in the context of authorisation. See S. Maglia, S. Suardi, *The recovery of waste after the ruling n. 1229 of 2018 of the Council of State: end of the “EoW” or the proper management of waste?*, in www.tuttoambiente.it.

terms of prices and market volatility, geopolitical factors in third countries that undermine their independence and economic autonomy.

Access to resources has therefore become a decisive challenge on the economic and industrial side, even before the environment.

Greater availability of raw materials generated by waste would allow national companies to obtain savings on material expenditure and increase employment.

In fact, within the most recent Directive of 2018 on the Circular Economy, there is a strong belief that the transformation of waste into new resources is a decisive element of the new development model⁶².

The reduction in disposal is mainly directed at the production of secondary raw materials rather than the phasing-out of waste; environmental protection, previously prevalent, is added, therefore, another interest with a European dimension, namely that related to the increased availability of raw materials to be reintroduced in the same or other production process.

3.3 The contribution to the circular economy of the use of biological resources and the instruments of market regulation.

The last decisive step of the new model is the contribution to the construction of the circular economy by the bioeconomy strategy⁶³.

In the 2015 Communication, in fact, the use of biological materials and the cascading use of renewable resources are conceived as a competitive advantage not only for their renewability, biodegradability and compostability.

The use of materials based on biological resources – such as wood, crops or fibres – can be useful both for use in a range of products and for energy use.

On this side, the bioeconomy offers an alternative strategy to the production of goods and the use of energy from fossil fuels and therefore offers a significant contribution to the take-off of the circular economy.

It reduces the environmental impact of industrial production and promotes sustainable supply.

From this point of view, therefore, the parable aimed at the construction of the new economic model is closely linked to that directed to the construction of the integrated

⁶² See, in this respect, the Communication, the missing link, cited. to§ 4: «From waste to resources: stimulating the market of secondary raw materials and the reuse of water».

⁶³ See the National Bioeconomy Strategy, promoted by the Presidency of the Council of Ministers and presented in Rome on 20 April 2017

market of the energy.

Finally, with regard to the tools needed to implement the new economic model in the 2015 Communication, the need for public regulation of the market to achieve that need is highlighted, in preserving competitive dynamics, prevents bankruptcies.

It is asserted that “current market signals appear insufficient to improve this aspect, in particular because the interests of producers, users and recycling companies do not coincide.

It is therefore essential to offer incentives while preserving the single market and competition and fostering *innovation*».

Additional tools are identified, within the above-mentioned⁶⁴ Communication, in the reputational leverage resulting from the experimentation of the «*environmental footprint of the product*⁶⁵» means a method for measuring the environmental performance of goods and communicating environmental information.

Similarly, the Commission aims to increase the effectiveness and contribution to the circular economy of the EU Ecolabel, which identifies products with a reduced environmental impact on the whole life cycle.

On the first side, therefore, we are placed among the instruments of direct market, that is able to influence the mechanism of formation of the prices on the market; in the second case we refer to mechanisms consistent with the logic of the market⁶⁶.

More specifically, the All. IV bis, to which refer art. 1, par. 1, point 4 of Directive 2018/851, contains numerous examples of economic instruments and other measures to encourage the application of the waste hierarchy⁶⁷.

With the vote of the European Parliament on 14 March 2017, the new Circular Economy Package was approved by a large majority.

The adopted report significantly improves the proposal of 2015 made by the European Commission, in particular with regard to recycling percentages to 2030, Increased to 70% for municipal solid waste and 80% for packaging.

4. The challenges posed to the European Union by the emergence of the new economic model.

⁶⁴ See § 3, Consume.

⁶⁵ On the testing of this methodology see COM/2013/196 final.

⁶⁶ For the difference between these instruments see E. Raffiotta, cit. 350.

⁶⁷ These instruments include charges for landfilling, point-by-point charging schemes for waste producers on the basis of the actual amount of waste produced and incentives for the separation at source of recyclable waste and the reduction of undifferentiated waste, tax incentives for product donation, extended producer liability schemes for different types of waste and measures to increase their effectiveness, cost efficiency and governance, public awareness campaign, integration of these issues into education and training, coordination systems between all competent public authorities involved in waste.

The European Union had played a key role both in the negotiation of the Paris Agreements in 2015⁶⁸ and in the process leading to the adoption of the Agenda 2030; with the adoption of the new Package of Guidelines on Circular Economy and the Juncker Investment Plan of 26 November 2014⁶⁹, it could also play a decisive role in the redefinition of its development model in order to adapt it to meet the objectives set by these international acts.

Like our country, in fact, the European Union is committed to transposing and defining the principles of the 2030 Agenda for sustainable development and their modalities of decline⁷⁰.

These, in turn, will be a decisive indication for member countries in the final definition of their strategic objectives.

To acquire such role, the union could benefit him, also, of the strengthening of the relief assigned to the Committee inside the Strategy "Europe 2020"⁷¹ with a consequent rebalancing for the European governance and the advent of a system more and more "community."⁷²

In the same Strategy, besides, he entirely offers not dimensions importance economic of the growth, subsuming the human capital and the innovation, the environmental sustainability and the redefinition of the European social model.

In reality, nevertheless, the same Union, in the following years to the emanation of these international Actions, has not realized that necessary action of impulse to include the Objectives related to the sustainable development in its own political action⁷³.

Some proposals to adjust the future European politics to the new model of development of the circular economy have been formulated from the Committee with some meaningful Communications.

⁶⁸ See S. Nespors, *The Long Path to a Global Climate Agreement: from the Kyoto Protocol to the Paris Agreement*, in *Riv. Trim. Dir. pubbl.*, 2016, 1, 81; M. Montini, *The Paris agreement on climate change*, in *Riv. Giur. Amb.*, 2015, 4, 517 ss.

⁶⁹ Draft of a Plan in order to throw again the increase and to produce investments without producing new public debt.

⁷⁰ See COM(2016) 390 final- Communication from the Commission to the European parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: «Next step for a Sustainable European Future»; SWD(2016) 390 final-Commission Staff Working Document «Key European action supporting the 2030 Agenda and the Sustainable Development goals», COM(2016)740 final.

⁷¹ For an analysis of the strengthening of European governance in the context of the Europe 2020 Strategy, see F. Ferri, *The law of the European Union after «Europe 2020»: alterations in the legal relationships between legal systems and possible effects*, in *Riv. Trim. Dir. pubbl.*, 2018, 723. See, also, European Commission, *Europe 2020 Strategy Budget for smart, sustainable and inclusive growth*, COM(2014) 130 final.

⁷² See also A. Crescenzi, *The Strategy 2020 and new European governance*, in *The Lisbon Strategy to Europe 2020*, by M. Decaro, Olivetti Foundation, 2011, *Regarding the relationship between institutions in the phase of the Lisbon Strategy* see P. Sestito, R. Torrini, *Europe 2020 and national reforms: economic governance and structural reforms*, Rome, Banca d'Italia, 2012, 18. For an effective analysis of the contribution of the dynamics of sustainable development to the organisation of the Union see A. Azamanova, M. Pallemarts, *The European Union and Sustainable Development: Internal and external dimensions*, Brussels, Vubpress, 2006; M. Torre-schaub, *L'Apport du principe de Développement durable au droit communautaire: governance et citoyenneté écologique*, in *RMC UE*, 2012, 89.

⁷³ For an effective analysis of the contribution of the dynamics of sustainable development to the organisation dimensions, Brussels, Vubpress, 2006; M. Torre-schaub, *L'Apport du principe de Développement durable au droit communautaire: governance et citoyenneté écologique*, cit.

The first one, on the "Next footsteps for a sustainable European future"⁷⁴, asks to the European union to see the Strategy to adopt after 2020 to redefine its own approach to the theme of the sustainable development and the advent of the circular economy again. Above all, the goal is to pursue objective 12 of the Agenda 2030: "*Guarantee a sustainable model of production and consumption*". The actions to promote an efficient use of the resources and the circular economy mainly contemplate, in such context, to separate the economic growth from the use of the resources and from the environmental degrade.

The relative approach, must be systemic besides, and to necessarily understand the social, environmental and economic dimension. As already affirmed by the Committee in 2014, the same objectives of the Strategy of Europe 2020 are "*tightly interdependent and complementary, for which the progress in a sense feed those in the other*"⁷⁵.

In addition, a subsequent Communication on the "*New European Consensus on Development*"⁷⁶ also represents a paradigm shift in the Union's approach to development cooperation in favour of non-European countries; this will have to refocus its action on key development vectors such as renewable energy, the issue of climate change and migration.

The approach adopted by the Commission to steer the Union towards policies more conducive to the new development model, however, both the General Affairs Council and the European Parliament did not consider it sufficiently incisive.

These bodies have recently intervened, the first with a document of Replica, on 20 June 2017⁷⁷, the second with a Resolution, on 6 July 2017, to give the Commission a more decisive impetus towards the sustainability of the European industrial system.

The European Parliament called on the Commission to make a greater effort to integrate the dimension of sustainable development into the various European policies, setting out more specifically a timetable and constant monitoring, in addition to making the necessary financial resources available.

It also asked the Commission to ensure that the contribution of all new policies to the achievement of the Agenda 2030 objectives is constantly monitored so as to ensure consistency in their implementation. Parliament also called on the Commission to consider sustainability as an integral part of the overall European policy impact assessment framework.

⁷⁴ COM(2016)739 Next steps for a sustainable european future. European action for sunstaibility.

⁷⁵ See COM (2014) 130, 15.

⁷⁶ COM(2016)740.

⁷⁷ More specifically, the first document called on the Commission to identify timetables, objectives and measures to include Agenda 2030 in all European policies. It also called on the Commission to identify the remaining gaps in the implementation of the Agenda and to assess its impact on European policies.

The same effort of greater adaptation on the part of the Commission, both to the Paris Agreement of 2015, and to the objectives of the Agenda 2030, was also requested by the European Council of 22-23 June 2017 so that the European Union can respond to the environmental challenges of climate change while increasing competitiveness and employment.

In short, the Council asked the Commission to make its action more effective by setting specific time limits for the incorporation of Agenda 2030 into its political priorities, to complement the current Europe 2020 Strategy.

On the financial side, the adoption of the proposal for a regulation on the establishment of the European Sustainable Development Fund should make available⁷⁸ the financial resources to support the greater effort required of the Union to implement the commitments made under the Paris Agreement.

The post-2020 Multiannual Financial Framework should direct the EU budget towards the achievement of the 2030 Agenda, by integrating the sustainability dimension more closely into the individual financing mechanisms.

The Juncker Plan on investment should be directed in this direction, together with cohesion policy, with the relevant Structural Funds, the European Agricultural Guidance and Guarantee Fund, the European Social Fund and the European Regional Development Fund⁷⁹; this policy, moreover, is particularly suited to achieving these objectives, since it is oriented by the objective of achieving systemic policies, articulated on the basis of their aims⁸⁰.

Cohesion policy could indeed play a key role in the construction of the new development model because it would make it possible to make available the financial resources needed to improve waste management and support the application of the hierarchy principle.

The current funding programme (2014-2020) makes new investments conditional on certain criteria to bring the waste management plans introduced by the Member States into line with the recycling targets established at European level⁸¹.

European policies to change the current development paradigm should also be supported by a mobilisation of European civil society, called for at a specific conference on 22 and 23 May 2017, the European Economic and Social Committee, the consultative body of

⁷⁸ Regulation (EU) 2017/1601 of the European Parliament and of the Council of 26 September 2017.

⁷⁹ Recently, for an important contribution on cohesion policy, see S. Cassese, *From development to cohesion. Current history and discipline of public intervention for underdeveloped areas*, in *Riv. Trim. Dir. pubbl.* 2018, 579, 2.

⁸⁰ For an analysis of the new Structural Funds see M. D'Amico, *Design in Europe: techniques and tools for access and management of EU funding*, Trento, Erickson, 2014, 58 ff.; P. Minardi, N. Cusumano, *Cohesion policy and the Structural Funds*, in *Community funding, 2014-2020: strategy, management and reporting*, edited by V. Vecchi, N. Cusumano, P. Minardi, Milano, Egea, 2015, 17 ss.

⁸¹ For example, funding for new landfills will only be offered in exceptional cases and funding for new waste treatment plants, such as incineration, will be made available only in limited and fully justified cases.

the Union.

The action approach suggested by the Committee is necessarily cross-cutting and systemic and identifies sustainable development as the most consistent vision with the European democratic tradition, of universal rights and the pursuit of social equity.

Progress achieved by European policies to this end, Moreover, they must be constantly communicated to European citizens and civil society must be involved in the *governance* and implementation of the objectives of the 2030 Agenda⁸².

In order for the EU to be able to give greater sustainability to its development model, it will be essential to review other financial mechanisms, such as the Fiscal Compact⁸³.

In this regard, the suggestions made by the Final Report on the State and Perspectives of the European Union⁸⁴, drawn up by the Committee established by the Presidency of the Chamber of Deputies and presented there in February 2017, are valuable, to effectively combine an adequate response to environmental challenges with economic competitiveness and social inclusion⁸⁵.

In this context, it was suggested that the Juncker Plan should be extended to cover long-term social investments, in particular those in human capital, in order to increase the resilience of people and European civil society to the profound changes in working conditions, such as those stemming from technological innovation and the automation of production processes⁸⁶

In addition, the rationale of the so-called budgetary «flexibility»⁸⁷ should be reviewed in order to give a key role to investment expenditure, qualified as such under the European System of National Accounts (Sec), which calculates the statistical aggregates necessary for the application of tax rules to those in social and human capital, in order to facilitate the transition to sustainable development.

At present, the Sec does not include expenditure on education and training as an

⁸² The Sixth Framework Programme begins by highlighting the need for «greater accountability of citizens and stakeholders to the environment» and it foresees, contextually, that “a strategic approach is needed to induce the necessary changes in production and consumption patterns that affect the state of the environment and trends; to this end, it will be necessary to introduce new ways of interacting with the market, giving greater power to citizens» (recital 10).

⁸³ This is how the European budgetary pact, formally the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, is described in non-technical language. This is an agreement approved by an international treaty on 2 March 2012 by 28 Member States.

⁸⁴ This report was presented to the Chamber of Deputies on 27 February 2017 by a Committee of Wise Men set up by the President of the Camera.

⁸⁵ This Report proposed overcoming the separation between economic and social policies and the establishment of a Social Pact for 21st century Europe, aimed at strengthening the social market economy and, at the same time, promote its sustainability.

⁸⁶ Finally, it was hoped that common policies would be consolidated with regard to the transition to renewable energy sources and the redevelopment of urban centres and production facilities.

⁸⁷ On the flexibility needed in the Stability and Growth Pact, see the Commission Communication of 13 January 2015: «Making best of the flexibility within the existing rules of the Stability and Growth pact», Commission interpretative communication on the existing budgetary flexibility spaces within the rules of the Stability and Growth Pact. The Commission’s interpretation had a threefold objective: a) to take better account of the economic cycle; 2) to promote investment; 3) the implementation of structural Reforms.

investment. The Union's own decision-making procedures should be redirected towards achieving a more sustainable European model.

The same «*European Semester*» or the fiscal and economic policy coordination cycle aimed at «*contributing to ensuring sound public finances, promoting economic growth, preventing excessive economic imbalances*» should be reorganized, in its internal scans, according to this objective⁸⁸.

Among other things, this Semester currently confers on the Commission significant powers of direction and control to be exercised against Member States which could be used to guide them towards the introduction of reforms offering full implementation of the objectives of the Europe 2020 Strategy.

In this cycle, structural policies have, as a rule, become central, aimed at achieving greater economic growth and a lower deficit, while policies aimed at achieving the additional objectives of the 2030 Agenda have undoubtedly received less attention, in other words, those necessary to promote the sustainability of the European model.

This marginality could be rebalanced by refocusing the same modus pro of the European institutions during the Semester⁸⁹.

First of all, the Commission's Initiation Document for the Semester should cover all the different dimensions of sustainable development, including public investment and social policies.

In addition, the involvement of different strands of the European Council would be necessary to formulate the Recommendations concluding the process and to allow an integrated vision of individual policies and a valuation ex ante and ex post of their impacts on sustainable development.

The second half of each year should also be used to analyse policy profiles not directly related to the budget each year, through the involvement of civil society on the policies necessary to promote the future sustainability of the European model; these preferential options, then, they should be placed as a necessary premise for the analysis with which the new programming cycle is introduced.

5. Some conclusive observations

⁸⁸ On the role assigned to the *European Semester within the Europe 2020 Strategy* see the *European Commission, Europe 2020 strategy's budget for smart, sustainable and inclusive growth*, Com (2014) 130 final, in particular 18 ss. See also *European Commission, Annual Growth Survey 2016. consolidating the recovery and promoting convergence*, Com (2015) 690 final, 6.

⁸⁹ The process takes place in the first half of each year and is marked by the following stages: in January-February the Commission publishes the document «Annual Growth Survey» and makes a proposal on the economic policy of the euro area; of this the Countries will have to take into account in drawing up their economic policies of the following year; in March, the Council will discuss the proposal and formulate its conclusions, and so will Parliament. In April, the countries prepare their national stability programmes and national reform programmes, which outline the fiscal and development policies of growth and competitiveness. In May, the Commission evaluates the national programmes and presents draft country-specific recommendations. They are then discussed and approved by the Council so as to provide a guide for drawing up national budgets for the follow.

Finally, the new paradigm of the circular economy transcends the boundaries of the administrative action of mere waste management for the protection of the environment to include: in a holistic way, the whole industrial process of designing and producing goods and the associated social and training profiles; it is, therefore, an instrument of industrial policy, capable of guiding and attracting investment, generating value; it is therefore a model which cannot be confined to the shadow of environmental protection but which necessarily includes social profiles.

This is why we have tabled an amendment to this effect. The efficient use of resources must indeed be seen not only as an environmental objective but also as an objective of industrial competitiveness.

The conceptual centre of gravity within the new model is therefore no longer about environmental protection and whether it can be defined as a limit or, better still, as a factor of convergence with respect to economic growth, as it was in the prevailing scientific reflection on sustainable development.

The attention is, in this case, entirely internal to the dynamics of redefining a regenerated sustainable growth, where also action to protect the environment can be a factor of competitiveness, rather than compromise, of the economic efficiency.

The new model implies an integrated approach on different sides, both for the different sectors it invests, both for the multiplicity of instruments of action and policies it requires, and for the redefinition of, National and European, governance, which it imposes both, finally, in the objectives to be achieved.

In fact, the multifaceted structure of the economic, social and political dimensions involved in the implementation of sustainable development has been very evident since the Brutland Report 1987 and persists in the Lisbon Treaty of 2007 (art. 3) and in the Agenda 2030.

It can be said, however, that in the new model the principle of integration takes on a more stringent and accentuated character, involving more of the means of action and organizational arrangements to put them into practice.

On the side of the instruments, the adoption of direct regulatory measures is accompanied by the use of economic and financial instruments (grants, certifications, tax incentives, Green Public procurement) aimed at influencing the willingness of companies to carry out production processes with a lower environmental impact in a differently calibrated balance of command and control and market instruments.

The same systemic and, at the same time, multidimensional approach will have to invest, within the national administrative system, the different public policies aimed at

guiding the economic system in the direction of sustainability, covering both environmental, structural and budgetary policies.

In addition, effective coordination should be established between the public authorities involved in the design and implementation of these policies in order to promote the systemic structure of the various policies. The criterion contained in lett. l) of art. 15 of the Bill Delegate to the Government that contemplates the simplification of the administrative procedures, comprised those authorizing and normative.

To take on this role, the Union will have recourse to the strengthening of the emphasis given to the Commission in the «Europe 2020» Strategy through a rebalancing of the decision-making dynamics between States and the Union in favour of European *governance* and the evolution towards an increasingly «*community*» system.

Within the same Strategy, the different actions envisaged are, according to the Commission itself, marked by a close «interconnection and complementarity» So the results obtained in one area affect those of other sectors.

This will be possible if the Union can demonstrate a genuine political will to continue in the direction indicated by the Paris Agreement of 2015 and Agenda 2030, giving the times and processes of its policies the necessary impetus to face the historic environmental challenges that mark the present millennium without renouncing the growth of competitiveness and employment.

Abstract

The new paradigm of the circular economy surpasses the boundaries of the administrative action of mere waste management to protect the environment to include, in a holistic way, the whole industrial process of designing and producing goods and the associated social and training profiles; it is, therefore, an instrument of industrial policy, capable of guiding and attracting investment, generating value; it is therefore a model which cannot be confined to the shadow of environmental protection but which necessarily includes social profiles, This is why we have tabled an amendment to this effect. The efficient use of resources must indeed be seen not only as an environmental objective but also as an objective of industrial competitiveness. On the side of the instruments, the adoption of direct regulatory measures is accompanied by the use of economic and financial instruments (grants, certifications, tax incentives, Green Public procurement) aimed at influencing the willingness of companies to carry out production processes with a lower environmental impact in a differently calibrated balance of command and control and market instruments.