

MARKET OF RECYCLED PRODUCTS

Ph. D. Gabriela Piciu⁷²

Ph. D. Student Mihai-Cristian Trandafir⁷³

Abstract:

The purpose of this paper is to provide a comprehensive market analysis of recycled products, to help identify future R&D opportunities and to overcome market challenges and to support economic growth.

In this sense, we will define functional and behavioral particularities in the case of recycled products, peculiarities that form the characteristics of the market for recycled products.

With these characteristics in mind, the need to approach the market for products recirculated by vertical integration (in chain) is emphasized, so that each link, from production to final consumption, must adapt, size and structure so as to ensure the flow of products recycled to the consumer.

Keywords: *circular economy, market, recycled products, particularities, development*

JEL Classification: Q21, Q29

Introduction

The market for recirculated products represents an essential component of the economic markets, a component of financing the economy, capitalization of material resources under favorable conditions of yield and opportunities, which should be a main objective of the economic activity in the EU.

The knowledge and prospecting of the markets for recirculated products, the elaboration of development strategies adapted to the prospects of the evolution of the circular economy, the application of economic policies, especially at the microeconomic level, of the companies oriented towards the efficient, cost-effective promotion of the products on the market will have to constitute central objectives of the economic activities. circular.

Description of the Problem

The market for recycled products can be defined physically and symbolically. The physical definition highlights the substantial characteristics of the market, materialized by the direct transfer of the product against a cash flow (cash or payment instrument) from the bidder to the consumer in arranged spaces, within which, regardless of the size of the space, the market partners meet directly.

The symbolic definition emphasizes the formal characteristics of the product transfer, in the sense that the product flow and the money flow are realized concurrently or offset, without the concrete existence of the product, being only necessary to present the characteristics (commercial parameters of the product), assumed by the seller or the bidder at delivery of the goods. Regardless of definition, the market for recycled products is ultimately the space where the production and consumption of these products meet.

⁵⁸ *Victor Slăvescu" Centre for Financial and Monetary Research, Romanian Academy, Bucharest, Romania, email: gabriela_piciu@yahoo.*

⁵⁹ *The School of Advanced Studies, Romanian Academy, Romania.*

The offer on the market is generated by the production of recirculated products, determined three-dimensionally: by technologies (yields), management and prices, organized production differentiated according to the structural and behavioral characteristics of the market economy.

The market demand is generated by the final solvable consumption of the recirculated products, determined three-dimensionally by:

- size and demographic structure,
- the substantial needs of components (depending on the cultural specificity of the population)
- income, consumption influenced by the economic, organizational and political potential of the national or territorial community.

The price of recirculated products (Figure 1), generated by the confrontation between supply and demand, is influenced by three-dimensional:

- the length of the productive chain of the circulated product,
- the degree of priority of the consumption of the recycled product (abundance of the offer),
- relative prices of products in the economy.

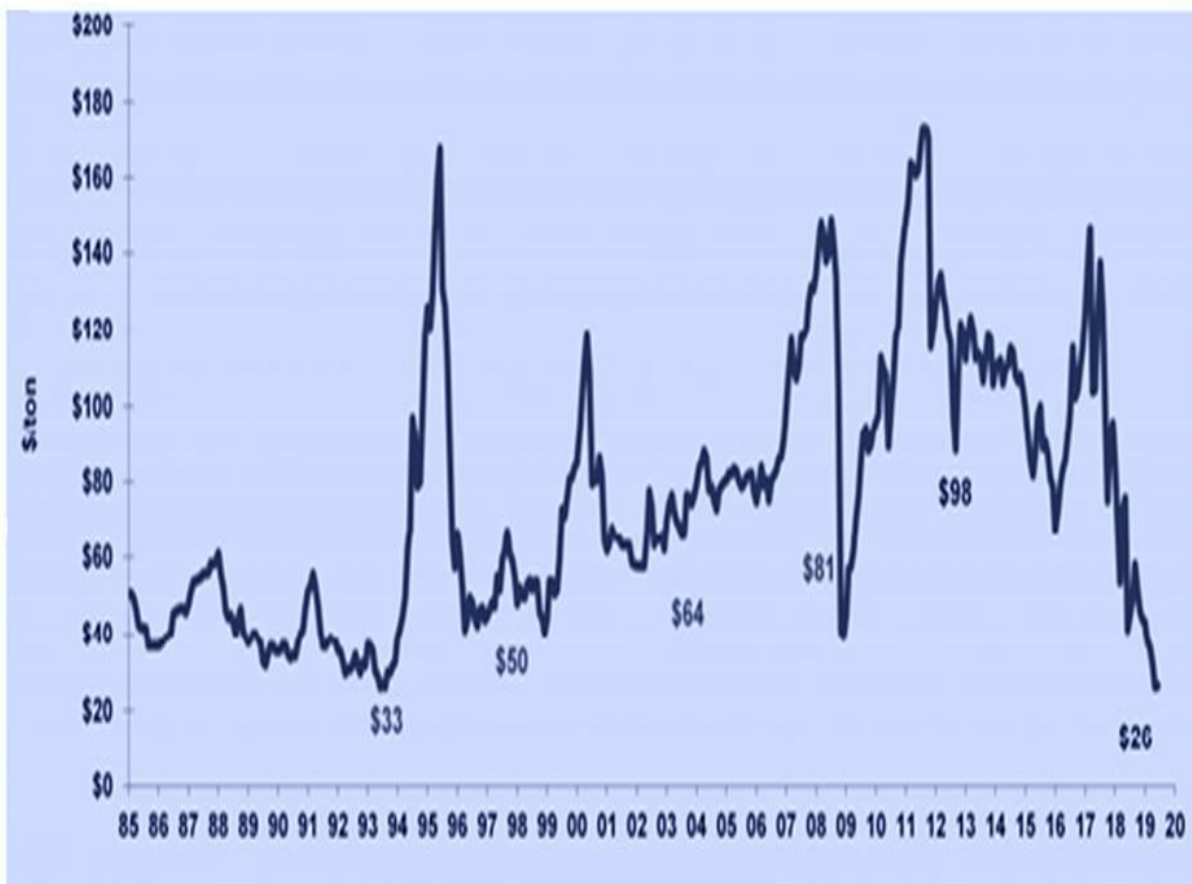


Figure 1: Average Price Curbside Recyclables, 1985- 2019

Source: Sound Resource Management Group, 2019

The three determinants of the market - the demand, the supply and the price - acquire functional and behavioral particularities in the case of recirculated products, particularities that form the characteristics of the market of the recirculated products, namely:

- Diversity of recycled products;
- Continuity of consumption which involves adapting the conditions for maintaining the offer throughout the year (temporary outsourcing of the offer);
- Availability throughout the year, supply adapting to the continuity of consumption;
- Differentiation of the destinations of the recirculated products, differentiation realized on the chain of their processing;
- Atomicity of the market of circulated products, integrable atomicity by aggregating the offer on distribution channels.

With these characteristics in mind, the need to approach the market for products recirculated by vertical integration (in chain) is emphasized, so that each link, from production to final consumption, must adapt, size and structure so as to ensure the flow of products recycled to the consumer, taking into account the characteristics of continuity and availability of these products.

Marketing of recycled products

As a member state of the European Union, Romania has the following objectives to be achieved by 2020: minimum 50% reuse and recycling rate of the total mass of the waste, at least 70% preparedness for re-use, recycling and other operations of material recovery of at least 70% of the mass of non-hazardous waste from construction and demolition activities, 60% recovery of the packaging waste from the total packaging placed on the national market.

The marketing of recycled products is constituted as an adequate, creative and operational application of marketing concepts, methods, tools and techniques.

The concept underlying the marketing activity is that of human need, materialized by human desires and preferences, modeled by the personality and culture of the individual.

People have few needs, but almost unlimited desires, in this sense they want products that offer them the greatest satisfaction for the money spent, the desires sustained by the ability to pay are converted into demand, into solvable demand.

The request is covered by products and services of a material and non-material nature.

The essential concepts of marketing are: needs, wants, preferences, demands, products, exchange, transactions and markets. Marketing activities can have a considerable impact on the company through its objectives, namely: maximizing consumption, consumer satisfaction, choice, quality of life.

The evolution of the market approaches from the marketing perspective has gone through several stages, each stage being characterized by the specific focus on the market:

- the production-centered approach is oriented primarily on price, saying that lowering costs, increasing production and distribution efficiency is the main approach to the market;
- the product-centered approach is oriented on the utility characteristics of the product, on its quality, on the product's performance, aiming at improving them and conquering the market by brand, by favoring differentiation of the products on the market;
- the sales-focused approach is focused on the promotion and distribution of products so that the product image is sold, creating a favorable perception of it by consumers;
- the customer-centered approach, addresses the needs, preferences and wishes of the customer or the consumer, aiming at satisfying them both by adapting the utilities of the product to the requirements of the client, and by the services that accompany the sale of the product;
- approaching the social marketing, tries to integrate, through marketing, the product in the general societal requirements, aiming both at reducing the negative externalities of the product, as well as its production, externalities of ecological, educational, cultural nature, etc., and also ensuring the temporal perspective of product consumption (sustainable consumption).

Marketing still in its early stages in the U.E. it is confined to the first two approaches, and this in an inconsistent and inadequate way to the requirements of production and marketing.

Obviously, the customer-centered approach, and especially the corporate marketing, represents the way to achieve a positive integrability of the recycled product, from the following points of view:

- production and profit;
- consumption and utility;
- of diminishing the impact and negative externalities of the product;
- of harmonizing short and long term perspective (ensuring sustainable consumption),
- of placing the product in a cyclic chain of reproduction of its substantial content.

In carrying out the marketing process, to satisfy the needs of the consumers, the marketing operators can sometimes act in a way that affects the quality of this satisfaction, by creating false needs, by promoting the exaggerated consumerism, by the cultural pollution etc.

In this sense, evolving the human marketing, oriented towards the consumer, innovation, the creation of authentic values, the culturalization of the needs, promoting the defining principles of the marketing policy, namely:

- the freedom of the consumer and the producer;
- avoiding potential harmful effects;
- meeting basic needs;
- economic efficiency;
- innovation,
- consumer education and information;
- consumer protection.

The promotion of these principles at the company level, under the conditions of entering the market, maintaining and expanding the market, requires the integration of marketing, marketing objectives, tools and techniques into the strategic vision of the companies, a vision that implies the achievement of the company's profitability and survival wishes.

It is therefore necessary to develop a long-term survival and development strategy, marketing being an essential element of strategy building, strategy embodied in marketing plans, programs and policies, having specific objectives for the company's activity, its mission.

The strategic plan represents the fundamental instrument for promoting the marketing vision, which allows the expansion of the product on the market materialized in:

- entering other markets,
- expanding the market,
- product development,
- diversification.

This plan constitutes a coherent set of decisions that allow the creation and maintenance of the long-term balance between the possibilities and objectives of the company, on the one hand, and the opportunities created on the dynamic market specific to the company, having the following components:

- the mission of the company (the general objective of the company);
- the long-term, strategic requirements of the company;
- adaptive reconstruction of the plan according to the new conditions of evolution;
- analysis of the external and internal environment of the company;
- analysis of the company's portfolio of activities;
- goals and ways to achieve them.

The implementation of the strategy within the company involves the proper development of the marketing process, in the center of which the consumer is, the company focusing on differentiated market segments, and developing marketing policies (marketing mix) that will allow to adapt the offer and position the company within market segments.

The marketing mix is the key component of marketing practices, representing a set of tactical controllable tools that the company uses in order to generate the desired reactions on target markets.

This includes the set of elements that a company can use to influence the demand in a favorable way to the product or, the elements being grouped into four categories of variables namely: the product, the price, the placement (distribution) and the promotion

Conquering, maintaining and developing the market by the company involves identifying the opportunities that the environment offers, these being made up of all the factors that influence the potential of the company to make profitable transactions with its customers.

The company environment is composed of:

- internal environment (functional, organizational, decision-making);
- the market of supply and demand consisting of distribution companies, customers, competitors, etc.;

-the macromedia, consisting of demographic, economic, technological, cultural, etc. factors.

An important component of the company environment is represented by the external, global market, which is characterized both by favorable opportunities and opportunities, as well as by risks and dangers that can affect the performance and parameters of the company activity.

Global marketing, as a way to promote the company's products internationally, takes into account the characteristics of the international commercial system, of the national markets that the company wants to penetrate, establishing the appropriate ways to enter these markets. In the conditions of expansion of companies on foreign markets, the competitive aspects, in terms of quality, operability, services, facilities etc. they become decisive in the construction of marketing policies.

Currently, the promotion of an active, conquering marketing strategy requires the availability of a large volume of information to ensure knowledge of all the aspects involved in the elaboration and implementation of this strategy and in this sense marketing research becomes the vanguard of marketing policies, creating relevant information and differentiated to the specific aspects and objectives, assuming the information sequencing.

On the other hand, Romania recycles only 5% of the municipal waste annually, occupying, at a great distance from the next ranked, the last place in the European Union (Figure 2).

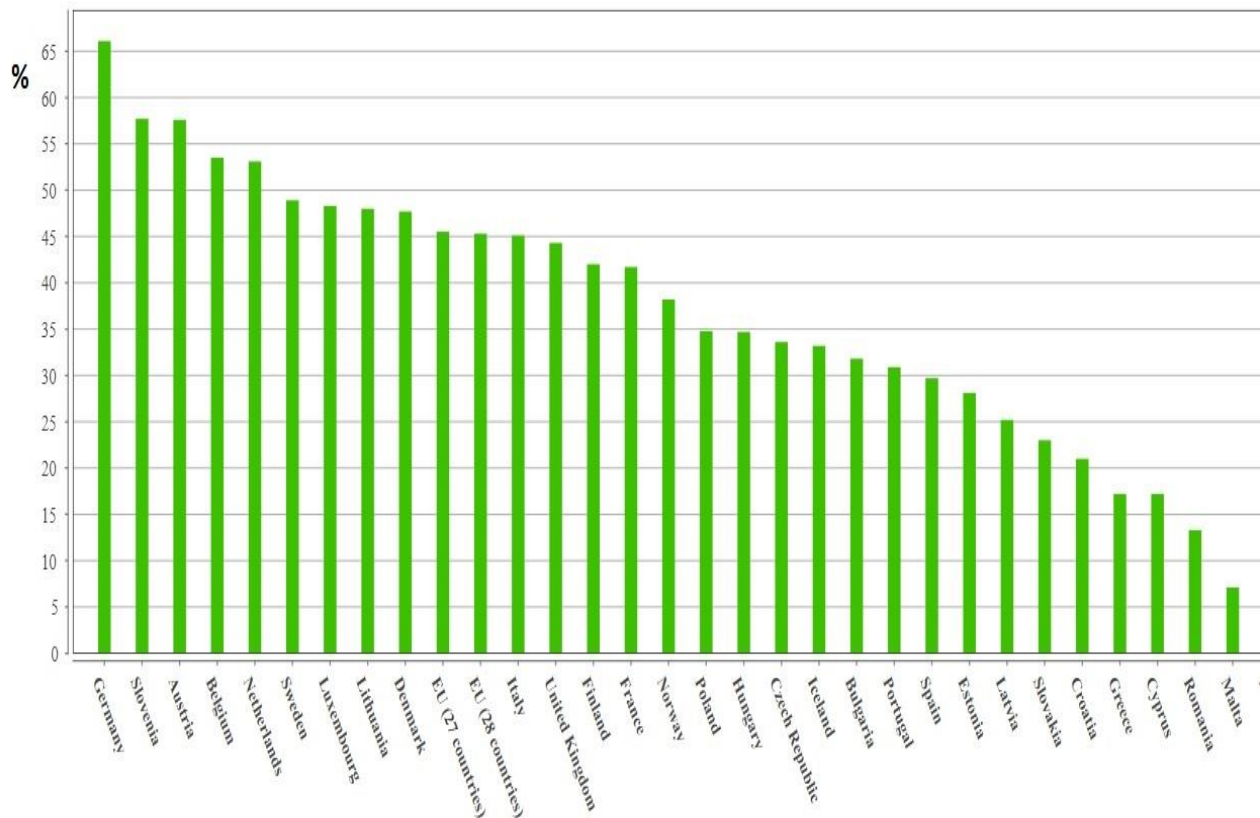


Figure 2: EU Municipal Waste Recycling Rate 2017

Source: Eurostat data, 2017

Thus, with regard to the general recycling rate of municipal waste, Romania recorded the largest increase over the period 2008 - 2014, which was over 14.5 times. With all this spectacular growth, in 2014, Romania places a 13.1% recycling rate on the forefront of the European Union, outpacing only Malta and Slovakia. Also noteworthy is the average 43.9% recycling rate of municipal waste, registered at the level of the European Union. At the opposite pole of Romania, over 50% are: Germany, the Netherlands, Austria and Switzerland (non-U.E.).

Taking the last place in the EU Member States' classification on packaging waste involves the possibility of applying the infringement procedure. In Europe, especially in countries with a functioning system, recycling is supported by various economic measures and instruments.

By 2020, Romania will have to recycle 50% of the total mass of municipal waste. According to estimates, the targets for packaging waste will be achieved this year by producers, accounting for only about 13% of the 50% demand.

Throughout the waste management chain, each actor must bear the responsibility of costing: producer, citizen and local authorities. At present, those who fulfill all their obligations in this chain are only producers, those who place packaging waste on the market.

Thus, if public authorities would ensure the financing and infrastructure of the value and recycling system, the recycling rate will increase. Moreover, the authorities are responsible for implementing economic instruments to boost the value-added business environment, one of the controversial measures being the so-called "pitfall" (postponed to take effect in 2014).

Legislative changes introduced from 2015 to the present day have regulated the system and have had a positive impact, and as a immediate effect has been the significant increase in the collection and recycling of packaging every year. Thus, the packaging recycling rate increased 1.64 times, at the level of Romania, over the same period of time, from 33.5% to 54.8%. The registered growth places Romania on the second place at the level of the European Union (which recorded a general increase of 5% from 60.5% to 65.5%), being surpassed only by Cyprus.

The 54.8% rate places Romania in the second part of the European ranking, surpassing only Liechtenstein, Malta, Croatia and Greece. It is important to mention that Romania places at the level of 2014 about 29.84% of the EU average rate of municipal waste recycling and at 83.66% of the EU average in terms of the recycling rate of the packaging. At the level of the national economy, the evolution of the sector of the NACE 38 companies had a downward trend over the analyzed period. At the level of 2014, the number of active companies is 2904, which represents only 65.41% of the number of active companies in 2008. The registered decrease caused the sector to decrease its share in the total economy (total number of active companies) from 0.67% to 0.48%.

Benefits improve waste management in Romania

In Romania, 82% of the waste is stored instead of being recycled. It is the highest percentage in the European Union.

The development of waste recycling will create over 20,000 jobs in Romania and over € 3 billion in revenues to the Romanian budget through the full implementation of current legislation on waste.

Just the very small, the smallest percentage of waste recycling in the EU, namely 5%, shows that Romania has huge potential for growth, said Kestutis Sadauskas, director of the European Commission's circular economy.

One way to improve waste management in Romania is to charge garbage dumps, and the amounts to be used to develop recycling infrastructure. Awareness of the population, increased controls by the authorities, the use of European funds can contribute to the development of the circular economy. The transformation of waste into raw materials has a major impact on environmental protection and industrial development in Romania.

In Romania, SMEs have invested in 2015 about 5% of the turnover for efficient use of resources, compared to the 50% average in the EU. and about 35% of them take measures to save energy and materials, compared to the EU average of nearly 60%.

The results of the Ecoinnovation Scoreboard in Romania have been depreciating since 2016 as eco-innovation activities have declined. Romania continues to demonstrate increased use of material, water and energy resources, but low resource productivity.

There are continuous challenges in municipal and industrial waste management, with very low recycling rates of 5% and a very high storage rate of 85%. Illegal waste disposal is frequent. Managers who are willing to make the transition to circular economy is the private sector because companies invest more in resource efficiency than in the past (especially measures to save energy - 30% of companies and measures to minimize waste - 31% of enterprises) (Flash Eurobarometer 456, 2017). In addition, many SMEs in Romania intends to offer green products and services in the

next two years (19%), which is a sign that they are beginning to understand the value of these investments (Flash Eurobarometer 456, 2017).

Entrepreneurs have also identified opportunities in the waste or materials used with a number of increasingly large circular activities and developing new business models around reuse and repair. However, most production companies do not adopt life cycle thinking and actions continue to consider environmental costs as a burden in taking measures to resource efficiency.

While initiatives on the circular economy have begun to develop, more governmental support is needed to reduce them. With the adoption of the General Waste Management Plan in Romania in 2017, a major milestone was achieved, thus meeting one of the conditions for receiving EU funds.

Conclusion

The transition to the circular economy should be a priority for the Government of Romania, as it is a means of sustainable economic development. Appropriate policies and investments are needed to support the transition of economic agents to the green economy. These policies should take into account national, regional and local particularities and be implemented from bottom to top.

To this end, the Romanian government should engage in the following actions: to formulate and implement concrete action plans and policies to increase the competitiveness of economic agents so that they can achieve green growth; encourage companies to produce green goods and products, services for the green market in rapid growth; to develop and implement policies and strategies for eco-innovation; to provide important help in the transition to the green economy; to ensure that efforts remain for the transition to the green economy; to identify the most appropriate measures to promote and accelerate organic growth in Romania.

Government ministries should recognize the need to continue investing in green skills and workforce education towards sustainable development, adopt policy measures to promote environmental education; the existence of an action plan that prioritises the greening of production and consumption; to strengthen cooperation between the public and private sectors; to create tax incentives to invest in the greening efforts of economic agents. An important role will also be the implementation of simplified accounting procedures for economic agents; developing and organizing training programs for home entrepreneurs - and improving the quality of entrepreneurship; to increase opportunity-based entrepreneurship through state funding, educational programs, creating green innovation opportunities and green economic growth initiatives; the development and implementation of legislation on environmental entrepreneurship.

The Green Action Plan (GAP), proposed by the EC in 2014, aims to help economic operators transform environmental challenges into opportunities, focusing on resources, efficiency, entrepreneurship and environmental skills. Making and facilitating SMEs' access to The market also offers tools to internationalize them.

Within the EU, Romania ranks last in terms of economic indicators of innovation and competitiveness. Barriers to the ecological development of Romanian businesses include lack of investment; lack of specialized knowledge; lack of efficient management of available resources, leading to economic growth; poor access to finance; Excessive regulatory burdens.

Positive trends in the eco-innovation initiatives undertaken by the Romanian organic industry include: increasing jobs and turnover; the implementation of energy-improvement measures, efficiency in residential and public transport, and the promotion of the exploitation of renewable energy (biomass, wind, geothermal, solar and hydroelectric power) over the last decade; collaborative platforms and joint funding for eco-innovation initiatives in local companies; the promotion of green public procurement, - strategies and policy programs specifically addressing green innovations, infrastructure development and the improvement of the entrepreneurial environment; the adoption of EU environmental regulations.

Ensuring energy efficiency and renewable energy has received the greatest incentive in terms of fiscal incentives and funding available in 2013, using a generous government sponsorship to support renewable energy investments.

Romanian economic agents need to introduce environmental improvements for their operations in order to reduce costs and comply with regulatory requirements. Many of them are interested in sustainable development actions such as the use of ecological resources, clean production processes and biodegradable materials.

Bibliography

Bleischwitz, R., 2010. International economics of resource productivity - Relevance, measurement, empirical trends, innovation, resource policies, *International Economics and Economic Policy*, Volume 7, Issue 2, pp.227-244.

Bringezu, S., 2009. *Sustainable Resource Management, Trends, Global Trends, Visions and, Greenleaf*, S.S.155-215.

Eurostat, 2016. *Sustainable Consumption and Production*, available at: <http://ec.europa.eu/eurostat/data/database>

Gollop F. and Swinand G., 2001. Total Resource Productivity Accounting for Changing Environmental Quality, Volume Title: *New Developments in Productivity Analysis*, Volume Publisher: University of Chicago Press, Volume ISBN: 0-226-36062-8, pp. 587 – 608.

Hawken P., Lovins H. and Lovins A., 2014. *Natural Capitalism*, Rocky Mountain Institute

McKinsey & Company, *McKinsey on Sustainability & Resource Productivity*, McKinsey & Company.

OECD, *Resource Productivity in the G8 and the OECD*, available at: <http://www.oecd.org/env/waste/resourceproductivityintheg8andtheoecd.htm>

Tanning L. and Tanning T., 2015. Analysis of the Resource Productivity of New Members of the European Union, *Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport*, Volume 3, Issue 1, 2015, pp. 104-115.

Wang P., Lee Y. and Chen C., 2014. Estimation of Resource Productivity and Efficiency: An Extended Evaluation of Sustainability Related to Material Flow, *Sustainability*, Volume 6, Issue 9.

Weiszäcker E. and Ayres R., 2013. Boosting resource productivity: Creating ping-pong dynamics between resource productivity and resource prices, *Environmental Innovation and Societal Transition*, Volume 9.

***, 2017. Flash Eurobarometru 456 E.U., European Commission Service.