

THINK 2030

Policy paper

Curbing the multi-planet economic model through a low-carbon circular economy

How can the European Green Deal
address overconsumption?



Institute for
European
Environmental
Policy

THINK 2030

Launched by IEEP and its partners in 2018, Think2030 is an evidence-based, non-partisan platform of leading policy experts from European think tanks, civil society, the private sector, and local authorities.

Think2030's key objective is to identify science-policy solutions for a more sustainable Europe.

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1 SUMMARY

Considering planetary boundaries, the ways that we consume today in Europe are not sustainable. The [first Think2030 conference](#), organised in 2018, identified **overconsumption as the single most important problem** facing the European Union.

The scale of the challenge is immense: each European will have to reduce by 80% the amount of natural resource they currently use for nutrition, housing, mobility and leisure by 2050.

This paper attempts to analyse EU efforts to tackle overconsumption up until today, the main drivers leading to unsustainable levels of consumption and how the EU can more effectively address them.

Whereas our domestic material efficiency is improving, our material footprint is not and remains largely linked with economic growth. Overall, if Europe is to reach the 2050 climate neutrality goal set in the European Green Deal it must pay much more attention to consumption.

In addition, the adverse economic effects derived from COVID-19 also have put pressure on governments to elaborate recovery packages aiming to boost economic growth that might not go in line with the 2050 climate neutrality objective set in the Green Deal.

According to the EEA's 2020 Outlook, Europe has made some progress in relation to resource efficiency and the circular economy. Over the period 2003 to 2018, the EU economy grew (in terms of GDP) by 23.4% while domestic material consumption (DMC), measuring total amount of materials directly used by an economy, fell by 4.8%. In parallel, EU imports grew by 20% over the same period, signalling the risk of carbon leakage.

The EU has placed the responsibility for the transformational shift required on citizens' role as consumers, while market, institutional and societal levers remain set on encouraging increased levels of consumption. The EU legislative efforts have failed so far to push for economic instruments that make unsustainable choices less attractive, such as taxation on unsustainable behaviours.

Addressing over-consumption in Europe and beyond comes down to creating the societal context and levers to reduce consumption where needed and possible, and consuming better. This takes form of complementing efficiency-oriented policies with sufficiency policies, besides enhancing the consistency of the circularity of the economy.

The EU COVID-19 recovery offers a unique opportunity to re-think the economy and steer continued development by human and ecological well-being, rather than by material consumption.

Based on an analysis of the current situation and the main drivers leading to unsustainable levels of consumption, the paper also offers a set of recommendations:

- A comprehensive European policy for sustainable consumption, as a complement to the current circular economy package, aiming at an 80% reduction in per capita material footprint by 2050. This also implies the mainstreaming of sustainable consumption challenges across all relevant communications or legislations.
- Develop clear EU-level targets to reduce the Union's ecological footprint with respect to use of material in absolute terms.
- Initiate an EU-wide green fiscal reform in a wider range of sectors.
- Provide incentives and support – and address remaining barriers – to genuinely circular and “disruptive” business models.
- Elaborate a “basket” of indicators to monitor overconsumption alongside the existing circular economy indicators via Eurostat.

Section 2 sets the context of the paper. Section 3 gives a more concrete overview of overconsumption issues in the EU and the progress done since the 2018's Think2030 paper. Section 4 outlines the key drivers leading to overconsumption and how the EU could tackle them. Finally, section 5 offers a set of recommendations.



2 CONTEXT

Considering planetary boundaries, the ways that we consume today in Europe are not sustainable. In the simplest of terms, we would need almost three earths to support the global economy if European consumption patterns were replicated throughout the planet.

Products and materials are consumed in huge volumes every year, at a high rate, often along a linear trajectory (take-make-dispose), and with significant wastage.

While astonishing disparities remain between affluent overconsumption on the one hand, and high levels of material deprivation¹ (e.g., the inability to pay utility bills or afford a meat, chicken or fish dish every second day) persist, on a per capita-basis, Europeans consume 14 tonnes of raw material each year². This results in an “ecological footprint”³ of 4.3 global hectares (gha) per person in the EU, to compare with the global biocapacity of 1.7 gha per person⁴.

These levels of unsustainable consumption are Europe’s number one barrier to putting a halt to the ongoing dramatic loss of biodiversity and the continued degradation of natural ecosystems⁵. It poses an equally important barrier to achieving the 2050 European Green Deal’s carbon neutrality objective – an estimated 45% of Europe’s total carbon emissions come from how we make and use products, and how we produce food⁶.

This multi-planet, “take-make-use-dispose” economy also comes at a high price for future generations and for other countries. It directly and indirectly drives significant pressures on the ecosystem, such as land-use change, emissions, and release of toxic chemicals to the environment. Notably, **as the European economy is highly import-dependent, a big share of these impacts occurs in other parts of the world**⁷. According to the “European environment state and outlook 2020”, between 30% and 60% of the environmental pressures associated with European consumption occurs outside

¹ Eurostat (2020). *Living conditions in Europe - material deprivation and economic strain*. Accessed 16.09.2020; [URL](#).

² Measured as annual global material footprint, or raw material consumption (RMC); from Eurostat (2019). *Material flow accounts statistics - material footprints*. Accessed on 16.09.2020; [URL](#).

³ The biologically productive area required to provide space for food growing, fibre production, timber regeneration, absorption of carbon dioxide emissions from fossil fuel burning, and accommodating built infrastructure ([Global Footprint Network](#)).

⁴ European Environment Agency (2020). *Ecological footprint of European countries*. Accessed on 21.09.2020; [URL](#).

⁵ Gerritsen, E. and Underwood, E. (2019). *What the Green Deal means for Europe’s biodiversity*. Accessed on 16.09.2020; [URL](#); and Allen, B. and Charveriat, C. (2018). *A meaty challenge*. Accessed on 16.09.2020; [URL](#).

⁶ Ellen MacArthur Foundation (2019). *Completing the Picture: How the Circular Economy Tackles Climate Change*.

⁷ IRP (2019). *Op. cit.*

the Union, while reductions on certain environmental pressures can be seen within Europe⁸.

In other words, **whereas our domestic material efficiency is improving, our material footprint (i.e., the quantity of materials to be mobilised in order to meet the consumption of a country or region) is not, and remains largely linked with economic growth.** This signals a risk of material leakage in Europe's consumption. More generally, it suggests the need to rethink the rules behind our economic model and its relationship to the environment.

Overall, if Europe is to meet its domestic and external targets, both environmental and those related to social justice, such as the 2050 climate neutrality goal set forth in the European Green Deal alongside the goal to decouple growth from material use, and the United Nations Agenda 2030 for Sustainable Development, it must pay much more attention to consumption. "Greening" of products and production processes – although very important – will not suffice. The EU's efforts are particularly important as its shift to a circular economy will have inevitable implications on a global scale. In addition to the global movements of recyclable waste, a shift to circular systems will further result in changes to primary and secondary resource flows, including the demand for and trade in these resources.

Global energy consumption has grown 25 times from 1800 to the present day. The global use of materials (i.e., metals, fossil fuels, minerals and biomass) increased tenfold between 1900 and 2009 (Krausmann et al., 2009). Today, two main dynamics characterise these trends: developing countries are building new infrastructure, and high-income countries are outsourcing the more material and energy intensive stages of production.

The global demand for land is projected to grow, particularly as 25 % to 100 % more food production may be required globally by 2050, depending on socio-economic and technical assumptions (Hunter et al., 2017).⁹ **At the same time, current food production worldwide is enough to feed around 10 billion people¹⁰ (the world population expected in 2050¹¹) while one third of all food produced for human consumption is wasted¹².** Deep changes in the way we produce, distribute and consume towards circularity and efficiency can contribute to reverse this situation. Otherwise,

⁸ European Environment Agency (2020) *SOER*. Copenhagen, Denmark.

⁹ European Environment Agency (2019) *Drivers of change of relevance for Europe's environment and sustainability*. Copenhagen, Denmark

¹⁰ Holt-Giménez, Shattuck, Altieri, Herren, Gliessman, *We already grow enough food for 10 billion people... and still can't end hunger*, *Journal of Sustainable Agriculture*, Journal of Sustainable Agriculture Vol. 36, 2012

¹¹ UN (2019) *World Population Prospects: Highlights*

¹² FAO (2013) *Food Waste Footprint: Impacts on natural resources*

the expansion and intensification of agriculture, coupled with unsustainable trade practices, production and consumption which increase contact between wildlife, livestock, pathogens and people will lead to an increase in the likelihood of other pandemics such as covid-19 to occur.¹³

Coupled with population growth and increased wealth (i.e., over 3 billion people are expected to join the middle class by 2030), mega trends, such as growing digitalisation and clean energy transitions, foresee an increasing need for raw materials, including in developing economies, which are projected to account for more than half of all global consumption by 2030¹⁴.

If increased consumption is met with today's business models, even with the continuation of current patterns of relative resource decoupling, resource use would triple by 2050 compared to the 2000 baseline¹⁵. Research shows that material footprint has increased globally¹⁶. The EU has made a considerable contribution to this trend, with the estimated per capital material footprint from high-income countries – such as the EU Member States – being considerably higher than any of the other income groups.

Against this backdrop, the 2018 Think2030 conference identified overconsumption as the single most important problem facing the European Union. The scale of the challenge is immense: each European will have to reduce by 80% the amount of natural resource they currently use for nutrition, housing, mobility and leisure by 2050. This means a reduction of material footprint per capita by 1 tonne annually during the next 32 years.

This can be achieved through a combination of efficiency, consistency and sufficiency measures. Greater efficiency is required to reduce the material footprint of everyday consumption, greater consistency will ensure circularity by closing the economic and ecologic loops (e.g., through improved recycling) while sufficiency (i.e., reducing overall consumption) will also be needed for those items whose footprint cannot be brought to an acceptable level by efficiency only. Simply increasing the circularity of materials within ever expanding economic systems may not be compatible with the goal of reducing environmental pressures and protecting natural capital.

¹³ IPBES (2020) *Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services*

¹⁴ McKinsey & Co (2019) *Globalization in transition: the future of trade and value chains*

¹⁵ World Resources Institute (2017) *The elephant in the boardroom: Why unchecked consumption is not an option in tomorrow's markets*

¹⁶ Wiedmann, T. (2015) *The material footprint of nations* and International Resource Panel (2019) *Natural resources for the future we want* Factsheet and Summary for Policy-makers

This paper attempts to analyse EU efforts to tackle overconsumption up until today, the main drivers leading to unsustainable levels of consumption and how the EU can more effectively address them.



3 STATE OF PLAY SINCE 2018: WHAT HAS CHANGED?

A lot has changed since the first Think2030 conference in 2018, and yet much remains the same. There is a new European Commission in place committed to implementing a “Green Deal” for Europe and a European Parliament election has passed, seeing record-results for the Greens.

The Commission presented the European Green Deal as the EU’s new “growth strategy”, talking about boosting economic growth decoupled from resource use. However, most businesses’ growth is still based on more people buying more things, and there is no compelling evidence to suggest that decoupling works at the scale necessary¹⁷.

The COVID-19 pandemic has revealed the fragility of modern supply chains, but also illustrate our ability to act with resolution when absolutely necessary. The adverse economic effects derived from COVID-19 also have put pressure on governments to elaborate recovery packages aiming to boost economic growth. The EU and its Member States should develop economic recovery packages in the post COVID-19 era, aimed at an economic growth decoupled from resource use.

3.1 ARE UNSUSTAINABLE OVERCONSUMPTION TRENDS BEING REVERSED?

According to the European Environmental Agency (EEA)’s 2020 Outlook, Europe has made some progress in relation to resource efficiency and the circular economy. Over the period 2003 to 2018, the EU economy grew (in terms of GDP) by 23.4%, while gross available energy (GAE) fell by 6.0% and domestic material consumption (DMC), measuring total amount of materials directly used by an economy, fell by 4.8%. The observed trends, however, need to be interpreted with caution, as they might not be entirely due to the success of environmental policies:

- The drop in DMC from 2008 onwards was strongly influenced by the financial crisis. Since the beginning of the economic recovery in 2013, DMC has increased by 6.8%. However, despite the recent increase, in 2018 total DMC was still 15.1% lower than in 2007, the year before the economic crisis began.

¹⁷ Parrique T., Barth J., Briens F., C. Kerschner, Kraus-Polk A., Kuokkanen A., Spangenberg J.H., (2019). *Decoupling debunked: Evidence and arguments against green growth as a sole strategy for sustainability*. European Environmental Bureau. Brussels, Belgium; and European Environmental Agency (2020). *SOER*. Copenhagen, Denmark.

- This development was mostly caused by ups and downs in construction activities, which account for the lion's share of total material use but contribute, in relative terms, much less to the EU economy.
- In 2018, 220.7 million tonnes of toxic chemicals were consumed in the EU. Since 2004, the total consumption of toxic chemicals has declined by 8.8%. However, this trend has reversed over the past five years and consumption increased by 1.9% between 2013 and 2018.
- In addition, between the years 2000 to 2017, physical imports from outside the EU increased about 20%. Hence, resource leakage must be taken into account.

The slow pace of progress recorded by the EEA implies a need to go beyond incremental efficiency improvements, and address the challenges posed by the many interlinkages between society's use of resources, economic activities, behaviours and lifestyles.

3.2 EU INITIATIVES ADDRESSING OVERCONSUMPTION

Until now, the role of consumption has been partly acknowledged by the Green Deal, and other legislative initiatives. A few examples include:

- The European Commission's President, Ursula von der Leyen, emphasised in her **Agenda for Europe** after taking office that "We need to change the way we produce, consume and trade"¹⁸.
- As part of the implementation of the European Green Deal, the Commission published its **Circular Economy Action Plan in March 2020**. It acknowledges the need to keep the EU's resource consumption within planetary boundaries, transform consumption patterns and reduce consumption footprints. For instance, by suggesting a widening of the EU Ecodesign Directive beyond energy related products. However, the Action Plan lacked a clear commitment to trying to ensure a fair balance of access to resources or to include mandatory targets to reduce absolute use of materials in the EU.¹⁹
- The **Green Deal** mentions making a "greater use of green budgeting tools to help redirect public investment, consumption and taxation to green priorities and away from harmful subsidies".

¹⁸ Von der Leyen, U. (2019) *A Union that strives for more - My agenda for Europe*. Page 7. [URL](#)

¹⁹ Pantzar, M. and Suljada, T. (2020). *Delivering a circular economy within the planet's boundaries: An analysis of the new EU Circular Economy Action Plan*. Institute for European Environmental Policy (IEEP) and Stockholm Environment Institute (SEI): Brussels and Stockholm.

- The Green Deal also mentions the **role of carbon pricing to encourage behaviour changes** and repeats the Commission's earlier proposal to enable EU Member States set more flexible VAT rates. However, the Green Deal's main references to consumption are still for the EU to "ensure that consumers can make informed choices about the products and food they buy", i.e., relying on consumer awareness and assuming that better information will lead to more sustainable consumption.
- The **Farm to Fork Strategy** (2020) acknowledges that "Current food consumption patterns are unsustainable from both health and environmental points of view" and recognises the need for food systems to reduce their environmental and climate footprint. However, specific focus is on production, in contrast to consumption²⁰.
- The Commission's evaluation of the **7th Environment Action Programme (EAP)** in 2019 noted that "the sustainable and circular management of resources in developed countries may need a reduction in consumption"²¹.
- The Council of the EU has invited the Commission to present an "ambitious and focused" **8th EAP proposal** in early 2020 and has highlighted the need to accelerate the transition toward sustainable consumption patterns²². The Commission's proposal of the 8th EAP included as a thematic priority objective, "reducing environmental pressures from production and consumption, in particular in the areas of energy, industrial development, buildings and infrastructure, mobility and the food system" as well as provide an opportunity to the Commission's Joint Research Centre and the European Environment Agency to explore planetary boundaries and the Union consumption footprint.²³
- The **Chemicals Strategy** points to the need for stronger policy and financial support to address the slow progress of harmful chemical substitution. It aims to develop and promote sustainable-by-design criteria for chemicals and increase information on chemical content to help boost the uptake of a market for secondary raw materials.

²⁰ Meredith, S., Allen, B., and Schefer, G. (2020). *Farm to fork strategy: The first step towards an EU sustainable food and farming policy framework?* Accessed on 16.09.2020; [URL](#).

²¹ European Commission (2019) *Commission Staff Working Document - Evaluation of the 7th Environment Action Programme to 2020*. SWD (2019) 181 final. Part 2/2, page 245. Brussels, Belgium. [URL](#)

²² Council of the European Union (2019) *The 8th Environment Action Programme - Turning the Trends Together*. Council conclusions. Page 8. [URL](#)

²³ European Commission (2020) [Proposal for a Decision of The European Parliament and of The Council on a General Union Environment Action Programme to 2030](#) COM (2020) 652 Final 2020/0300 (COD). Brussels, Belgium

While the references above are highly welcomed, they fall far too short of the change in approach which is required. In fact, EU's approach to sustainable consumption remains largely the same. The safety and sustainability of production process and of products and services was an early focus of EU rules and regulations, as well as dealing with materials that become waste, and there is now a relatively well-established supply-oriented policy framework in place. As we identified in our 2018 paper, the **EU has focused less on policies targeting demand**, largely because such interventions are generally Member State matters (notably taxes).

EU-level policies that target demand have focused primarily on citizens' roles as consumers and on using information-based policy tools, such as product eco-labeling, to try to influence consumer behaviour. In fact, there is little evidence to suggest that improved information about products' environmental performance result in real-life changes in purchasing behaviour²⁴, let alone at the scale required.

This has placed the burden of responsibility on people to make more sustainable choices, but it has not necessarily provided them with accessible or affordable alternatives from which to choose²⁵. The EU has also engaged in questionable practices such as promoting meat consumption²⁶. **In other words, the EU has placed the responsibility for the transformational shift required on citizens' role as consumers, while market, institutional and societal levers remain set on encouraging increased levels of consumption.**

Instead, the primary drivers of consumer choices (be them household, private sector or public) are price and convenience²⁷ (as well as producer-driven incentives). **The EU legislative efforts have failed so far to push for economic instruments that make unsustainable choices less attractive**, such as taxation on unsustainable behaviours.

Meanwhile, various rebound effects, subconscious routines, and habits influence and drive citizens' purchasing decisions. Behavioural sciences can help policy makers identify the underlying mechanisms behind these factors and, thus, make policy design more effective. This is especially crucial in a context in which multiple behavioural changes are required.

²⁴ I.e., concrete behavioural changes, as opposed to people's stated willingness to change behaviour (research on the latter has been summarised by LE Europe, VVA Europe, Ipsos, ConPolicy and Trinomics (2018). *Behavioural study on consumers' engagement in the circular economy*. Brussels, Belgium.

²⁵ EESC (2020). *Towards an EU strategy on sustainable consumption (own-initiative opinion)*, Adopted on 18/09/2020, Reference: NAT/789-EESC-2020.

²⁶ Boffey, D. (2020) EU spending tens of millions of euros a year to promote meat eating. *The Guardian*, 14 February

²⁷ LE Europe, VVA Europe, Ipsos, ConPolicy and Trinomics (2018). *Behavioural study on consumers' engagement in the circular economy*. Brussels, Belgium.

3.3 CIRCULAR ECONOMY AND CONSUMPTION INDICATORS

The lack of data and clear widely used indicators to monitor the circular economy has been one of the main barriers for the implementation of policies in the field. The Commission has established ten indicators 10 indicators to monitor the progress of the circular economy through Eurostat. These indicators are divided in four thematic areas and some are broken down in sub-indicators²⁸:

| EU Circular Economy Indicators | | |
|-----------------------------------|--|--|
| Thematic area | Indicator | Explanation |
| Production and Consumption | Self-sufficiency of raw materials for production in the EU | The share of a selection of key materials (including raw materials) used in the EU that are produced within the EU |
| | Green public procurement | The share of major public procurements in the EU that are produced within the EU |
| | Waste generation (as an indicator for consumption aspects) | Generation of municipal waste per capita; total waste generation (excluding major mineral waste) per GDP unit and in relation to domestic material consumption |
| | Food waste | Amount of food waste generated |
| Waste management | Recycling rates | Recycling rate of municipal waste and of all waste except major mineral waste |
| | Specific waste streams | Recycling rate of overall packaging waste, plastic packaging, wood packaging, waste electrical and electronic equipment, recycled biowaste per |

²⁸ Eurostat (2020) *Circular Economy indicators*. Accessed on 23.11.2020. [URL](#)

| | | |
|---------------------------------------|---|---|
| | | capita and recovery rate of construction and demolition waste |
| Secondary raw materials | Contribution of recycled materials to raw materials demand | Secondary raw materials' share of overall materials demand – for specific materials and the whole economy |
| | Trade of recyclable raw materials between the EU Member States and with the rest of the world | Imports and exports of selected recyclable raw materials |
| Competitiveness and innovation | Private investments, jobs and gross value added | Private investments, number of persons employed, and gross value added in the circular economy sectors |
| | Patents related to recycling and secondary raw materials as a proxy for innovation | Number of patents related to waste management and recycling |

However, these indicators focus on increasing consistency of the circular economy, but do not reflect specifically sufficiency factors for instance. In IEEP we have used material consumption per capita as one of the main indicators for overconsumption.

We are aware that this indicator focusses on consumption and it does not capture many other aspects related to circularity, but it does serve as a good illustration of the unsustainable consumption trends of Europeans. Other indicators^{29 30} should be taken into account as well to monitor overconsumption. For example:

| Consumption indicators | |
|-----------------------------------|--|
| Thematic area | Indicator |
| Production and consumption | Domestic material consumption per capita |

²⁹ UNEP (2015) *Sustainable Consumption and Production Indicators for the Future SDGs*

³⁰ Eurostat (2020) *Statistics on Agriculture*. Accessed on 14.10.2020 [URL](#)

| | |
|-----------------|---|
| Water resources | Consumption of chemicals |
| | Water exploitation |
| | Fresh water abstraction per capita |
| Energy | Final energy consumption per capita |
| | Share of renewable energy |
| Agriculture | Animal based protein consumption |
| | Livestock per capita |
| | Agricultural productivity |
| | Deforestation rates |
| Companies | Number of companies publishing sustainability reporting |
| | Market share of goods certified by independently verified labelling schemes |

3.4 MOVING FORWARD

Addressing over-consumption in Europe and beyond comes down to creating the societal context and levers to reduce consumption where needed and possible, and consuming better. This takes form of complementing efficiency-oriented policies with sufficiency policies, besides enhancing the consistency of the circularity of the economy.³¹

The EEA's "2020 State of the Environment Report" mentions that, "Europe needs to rethink not just technologies and production processes but also consumption patterns and ways of living". It emphasizes that "Europe will not achieve its sustainability vision of 'living well, within the limits of our planet' simply by promoting economic growth

³¹ Parrique T., Barth J., Briens F., C. Kerschner, Kraus-Polk A., Kuokkanen A., Spangenberg J.H., (2019). *Op. cit.*

and seeking to manage harmful side-effects with environmental and social policy tools.” Active policy and economic instruments will be key in enabling this behavioural change needed.

The Covid-19 crisis and its associated “lockdown” responses has an impact on our consumption. It has resulted in people abstaining from previous practices or altering and substituting them. For instance, physical retail shopping has probably been outrun by an increase in online shopping; they have also learned and adapted to new practices and ways to coordinate and organize everyday lives within the home. As a second wave of infections hit Europe, different potential recovery scenarios impacting how and what we consume are and will be dependent on the individual and collective choices of citizens, businesses and organisations across sectors and spheres of influence.³² **The EU COVID-19 recovery offers a unique opportunity to re-think the economy and steer continued development by human and ecological well-being, rather than by economic growth and material consumption.**

³² Boons, F.A. et al. (2020). *Covid-19, changing social practices and the transition to sustainable production and consumption*. Version 1.0; (May 2020). Manchester: Sustainable Consumption Institute.



4 HOW CAN THE EUROPEAN GREEN DEAL TACKLE THE MAIN DRIVERS OF OVERCONSUMPTION?

There is no one-size-fits-all solution to support a pathway towards low-impact consumption patterns³³ and **interventions may need to be tailored to different levels of governance, from national down to local contexts**. One of the most important roles of the EU, therefore, is to support Member States in this transition by creating an overall framework and strategic direction for achieving a European geared towards a more balanced and fair distribution of resources, within the boundaries of the planet.

The European Green Deal and the adverse economic effects of the pandemic have opened a window of opportunity to reshape our economy towards fairness and circularity. For instance, for the first time in history, the EU will be able to borrow in the financial markets to finance the historic Next Generation EU recovery package. A more decisive European approach should be extended to tackle the key drivers of over-consumption:

4.1 MOVING BEYOND CONSUMER AWARENESS: PRICE SIGNALS, ALTERNATIVES AND REGULATION OF MARKETING

Consumers base their consumption choices mainly linked to budget constraints and the prices of the goods available. Product labelling or ethical implications can be important, but policy makers cannot continue to expect or place the burden of responsibility on citizens to change the market towards sustainability.

Current price signals are not right. Taxes are traditionally used to address demand and consumption, but fiscal policy is controlled primarily at Member State level or state level and not an EU competence. **Undertaking green fiscal reforms could provide important price signals in the market, adjust artificially low prices for certain resources and encourage alternative business models**, such as sharing and product service systems and the consumption of more durable, low-impact products. Switching taxes from labour towards consumption can contribute to higher levels of employment

³³ IRP (2019). *Global Resources Outlook 2019: Natural Resources for the Future We Want*. Oberle, B., et al. A Report of the International Resource Panel. United Nations Environment Programme. Nairobi, Kenya.

and promote more sustainable consumption behaviours³⁴. Revenue from environmental taxes amounted to just 2.4% of EU-28 GDP in 2017, with significant differences between Member States.

Prices are also not right to support markets for secondary materials. As long as primary raw materials are cheaper than reused goods or secondary raw materials, policy interventions to deliver a more circular economy will have little impact.

There are some things the EU can do on price levels. The on-going revision of the VAT Regulation is an opportunity to provide clear criteria on how Member States can introduce reduced VAT rates for sustainably produced products and for services that can reduce the negative impacts of consumption, such as repair or sharing services and on bio fruits and vegetables.

The 2021 legislative proposal for a sustainable product policy, promised by the Commission in the 2020 Circular Economy Action Plan, also offers an opportunity to better acknowledge the role of producers in addressing unsustainable consumption, including introducing norms and bans to counteract unsustainable consumption.

Policymakers should focus on creating viable sustainable choices, then build on the conditions for their widespread use and then introduce bans on goods that we want to phase out.

The **regulation of advertising** can help curb overconsumption while promoting a more sustainable consumption of goods and services. Examples of such regulations already exist for the tobacco industry, but also in the new frameworks regarding marketing towards children. It is also necessary to tackle the proliferation of the **misleading green claims on the market**.

The combination of consumer awareness through labelling and promotional campaigns on one hand and making sustainable choices viable with appropriate price signals on the other, will allow consumers to make the healthier, safer, and more sustainable choices.

4.2 ECO-EFFICIENCY VERSUS ECO-SUFFICIENCY: DEFINING THE RIGHT BALANCE

On material efficiency, making better use of the materials that already exist in the economy can take EU industry halfway towards net-zero emissions. In the European

³⁴ Pestel N., Sommer E. (2016) *Shifting taxes from labour to consumption: more employment and more inequality?* The Review of Income and Wealth Vol. 63 Issue 3 Pages 542 – 563

Commission's 'Roadmap 2050', one-quarter of the CO₂ emissions remaining mid-century were from industry, especially from heavy industry producing basic materials.

Discussions of industry emissions have focussed on the supply side: reducing the emissions from the production of steel, cement, chemicals, etc. Far less attention has been given to the demand side: how a more circular economy could reduce emissions through better use and reuse of the materials that already exist in the economy. A more circular economy can make deep cuts to emissions from heavy industry: in an ambitious scenario, as much as 296 million tonnes CO₂ per year in the EU by 2050, out of 530 in total – and some 3.6 billion tonnes per year globally.³⁵

However, material efficiency is vulnerable to rebound effects because monetary savings can lead to an increase in consumption—savings from use of peer-to-peer lodging (e.g., AirBnb) can lead to more travel and GHG emissions.

Concerning sufficiency, we need to consider as well that due to the current link between economic growth and consumption, a reduction in the latter will lead to decreases of production, hence to an increase of unemployment levels. This has to be addressed by decoupling growth and consumption.

In addition, sufficiency is also vulnerable to rebounds, especially when people associated a moral value to their action. Rebound effects can also result from shift in moral resources (not only from shift in prices): if one reduces consumption in one domain, she/he might feel entitled to consume more in another domain.

Traditional policy instruments that directly or indirectly raise the cost of production or consumption, e.g., taxes or cap-and-trade systems, can reduce rebound effects. However, it is here where behavioural sciences can help policy makers designing more targeted policy interventions based on different population segment's motivations.

Moving away from efficiency and consistency and embracing sufficiency as a guiding principle could be a fundamental ingredient in reducing environmental pressures. This paradigm shift mentioned in the EESC's opinion, could be best captured by policies promoting shared goods, reusing and repairing products, as well as a shift towards healthier and more sustainable diets and sober lifestyles away from consumerism³⁶.

³⁵ Material Economics (2018) *The Circular Economy – A powerful force for climate mitigation. Transformative Innovation for prosperous and low-carbon industry*

³⁶ EESC (2020). *Op. cit.*

4.3 SPURRING THE CREATION OF NEW BUSINESS MODELS

The World Resource Institute's Elephant in Boardroom publication (2017), argued that companies that wish to thrive in the future will need to embrace fundamentally different ways of meeting consumer needs as current business models, **linking growth to higher levels of consumption, cannot meet the massive demand increase emerging in the 21st century without devastating environmental consequences**. Business can undertake this paradigm shift by looking openly and honestly at their dependency on natural resources and the associated limits on business growth; using their influence to change the conversation with key stakeholders; and, transform the business to one that will thrive in a resource-constrained environment.³⁷

While climate change has gradually been integrated in business strategies, as exemplified by over 1000 companies taking science-based climate action³⁸, reducing consumption has become the new elephant in the room as it challenges traditional business models.³⁹

Alternative business models cannot easily compete with linear ones. In general, alternative business models based on circularity, servicing, etc. are still very much the exception in Europe and are often struggling to compete with linear solutions. The 2021 legislative proposal for a sustainable product policy should aim to achieve a more level playing field for alternative business models with lower environmental and social impacts, to create an economy where product and material longevity and service delivered is premiered instead of the number of items sold. **The EU should also ensure that ground-breaking innovations towards sustainability in the sector are supported by sufficient investments derived from the Next Generation EU.** There is also a need to challenge the notion of private ownership as being the norm. Example of these is energy communities or urban shared horticulture⁴⁰. Further, in order to enable reuse and a repair economy, there is a need for regulation to prevent **premature obsolescence**⁴¹.

It will also be important that the Commission forcefully follows through on the commitment made in the Circular Economy Action Plan to introduce **mandatory Green Public Procurement (GPP) criteria and targets in sectoral legislation and phase in mandatory reporting on GPP**. With public sector spending making up a large share

³⁷ World Resource Institute (2017) *Op. cit.*

³⁸ Science Based Targets (2020) *Companies taking action*. Accessed on 03.11.2020. [URL](#)

³⁹ World Resource Institute (2017) *Op. cit.*

⁴⁰ JCR (2020) *Energy Communities: an overview of energy and social innovation*

⁴¹ EESC (2014). *Towards more sustainable consumption: industrial product lifetimes and restoring trust through consumer information*. Adopted on 13 October 2013, Reference: CCMI/112-EESC-2013-1904.

of the EU economy, procurement rules can be very effective in supporting innovative, less harmful business models.

4.4 EQUITY

Addressing fairness and equity considerations in unsustainable consumption through policy interventions is highly complex. For instance, policymakers must take into account multiple socioeconomic factors. In the European context, there are **three key dimensions to keep in mind: intracountry equity** between citizens and regions, **intercountry equity and intergenerational equity** (equitable burden and benefit-sharing between age groups and between generations).⁴²

As mentioned before, each European will have to reduce by 80% the amount of natural resource they currently use for nutrition, housing, mobility and leisure by 2050. This means a reduction of material footprint per capita by 1 tonne annually during the next 32 years⁴³. However, this is an average.

While large parts of Europe need to reduce their material consumption in absolute terms, some regions need to increase their consumption of certain products and services. For instance, the level of material deprivation (the inability to afford a particular standard of living that is generally considered acceptable) varies from 3% of the Swedish population to 47% of the Bulgarian population⁴⁴. Similarly, large differences of material deprivation within countries can be observed. For instance, in 2018 in Belgium, severe material deprivation ranges from 10.1% of the population in the Brussels-Capital region to 2.1% in Flanders.⁴⁵

Increasing the sustainability of consumption should not come at the expense of other societal objectives such as social justice, health and quality of life. Sometimes there will be a win-win: a greener approach to travel for work might for instance improve work life balance and reduce exposure to air pollution. Sometimes, there might be trade-offs, which needs to be addressed through carefully crafted policies. **Policymakers will have to make sure that making sustainable choices more attractive to consumers does not imply sacrifices to the lowest income segments of the population.** For instance, a tax increase in unsustainable meat production should

⁴²IEEP and FEPS (2020) *A Green Deal for All – How to achieve sustainability and equity between the people, regions, countries and generations of Europe in a post-COVID-19 era*. Brussels, Belgium.

⁴³ The unit used is the material footprint per capita, taking the current footprint of Europeans of 40 tonnes per capita per year as the baseline (upper boundary level, based on literature from Groezinger 2009; SPREAD consortium 2012) and the objective of 8 tonnes per capita by 2050 (based on literature from Lettenmeier et al, 2012; Bringezu, 2009; Kotakorpi et al, 2008).

⁴⁴ Social Situation Monitor (2018) Research findings – Social Situation Monitor – Material deprivation and risk of poverty. [URL](#)

⁴⁵ Indicators.be (2020) *Severe material deprivation*. [URL](#)

not prevent low-income families to afford a healthy protein intake. It is noteworthy to point out that most environmental pressures from consumption result from high income households. According to Oxfam, the world's 2,153 billionaires have more wealth than the 4.6 billion people⁴⁶. Therefore, higher efforts should be targeted for such groups.

The ongoing revisions of the reporting under the EU semester process could be one avenue to take this into account. Country reports are now to include territorial just transition plans, including a roadmap on how and where the EU just transition fund could provide support. Further elements will be added to the reporting in coming semester cycles⁴⁷. Such elements could include further analysis of the transition challenges in relation also to access to resources or material inequalities. Changing the nature of demand away from unsustainable goods and services and intentionally slowing growth, without compensating for the loss of income, could undermine the growth agenda (SDG 8) and impact efforts to reduce inequality (SDG 10). However, all the interventions in this category would have a potent impact on advancing the environmental SDGs (6, 7, 12, 13, 14, and 15).⁴⁸

4.5 REPLACING THE FOSSIL-FUEL ECONOMY

Another key challenge pertains to the composition of consumption. As the world is moving away from fossil fuels, new materials are being used to fuel global consumption. For instance, minerals have played a critical role in the rise of many of the clean energy technologies that are widely used today. In most cases, clean energy technologies require more minerals than fossil fuel-based ones e.g., an electric car uses five times as much minerals as a conventional car. As energy systems worldwide are set to significantly increase their renewable energy shares, unsustainable mineral consumption might lead to significant environmental damages. For example, rare earth processing involves harmful chemicals and produce alarming levels of solid waste and wastewater.⁴⁹

On a related note, the delivery of a wider circular economy is a precondition of a successful and sustainable evolution of the bioeconomy.

⁴⁶ Oxfam (2020) *Time to care – Unpaid and underpaid care work and the global inequality crisis*

⁴⁷ According to Paolo Gentiloni, Commissioner for Economy in ENDS: <https://www.endseurope.com/article/1675270/eu-governments-told-green-economies>.

⁴⁸ Ashford N., Hall P., Arango-Quiroga J., Metaxas K, Showalter A. (2020) *Addressing Inequality: The First step beyond COVID-19 and towards sustainability Sustainability*. Journal Vol. 12 Issue 13

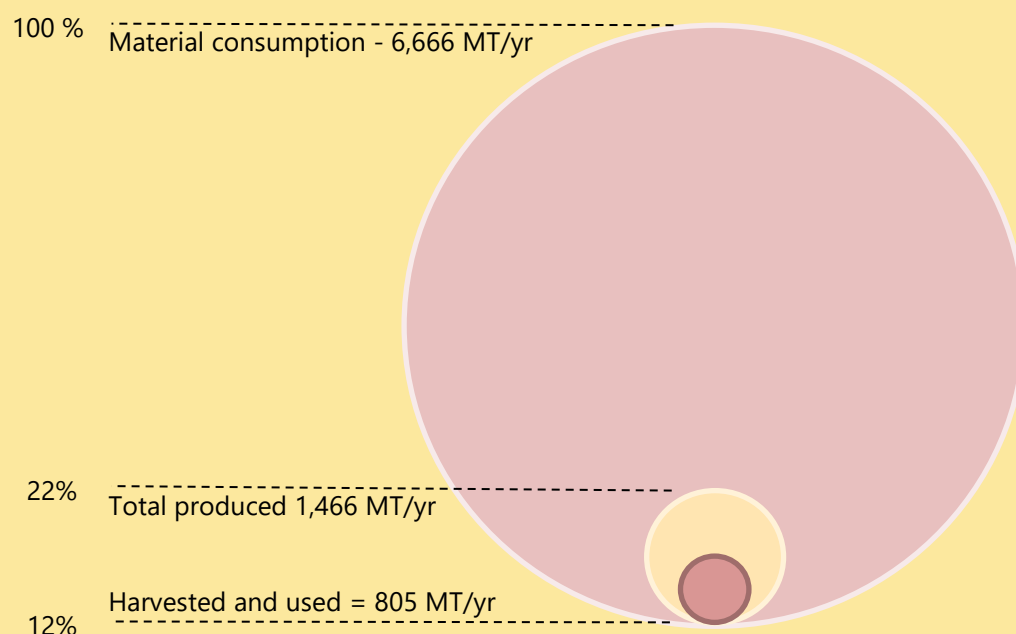
⁴⁹ IEA (2020) *Clean energy progress after the COVID-19 crisis will need reliable supplies of critical minerals*

Box 1. Consumption at the centre of a circular bioeconomy

Replacing Europe's entire bioeconomy 1:1 would require generating roughly 5x (or 500%) more biomass – which is impossible. Additionally, this assumes that all of it would be harvested each year – which is also not possible.

For the bioeconomy to actually work, it is vital to reduce our consumption and ensure that it is circular. It is relevant to mention that the expansion of biofuels and the increased use of biomass as an alternative feedstock to fossil-based chemicals is likely to increase competition for land and rise in food prices.

Consumption vs Production in the Europe's Bioeconomy



Sources: Eurostat (env_ac_mfa) and (demo_gind); JRC (2018) Biomass production, supply, uses and flows in the European Union. First results from an integrated assessment. doi:10.2760/539520

4.6 THE ROLE OF CITIES

Cities are responsible for 75% of emissions and around 72% of Europeans live in cities⁵⁰. This figure will substantially increase following the urbanization trends of global population. Many of the issues concerning climate change and more specifically consumption can be more effectively addressed at the local level. It is essential not only to

⁵⁰ European Environmental Agency (2015) *Urban Sustainability issues – What is a resource efficient city?*

enhance coordination between the different levels of governance, but to emphasise the key role local governments can have in tackling overconsumption⁵¹ since cities manage many aspects of our daily consumption, from water, energy to waste management and urban planning.

⁵¹ UN (2020) *Cities and Climate change*. Accessed on 23.11.2020. [URL](#)



5 POLICY RECOMMENDATIONS

We have outlined a set of policy recommendations targeted to EU policymakers on how to address the key drivers of overconsumption, based on the environmental and policy context mentioned in this report in the following section. Addressing over-consumption will be complex. To achieve the scale of change needed in the limited time available, out-of-the box policy innovations and targeted regulatory intervention will be critical.

- 1- **A comprehensive European policy for sustainable consumption, as a complement to the current circular economy package, aiming at an 80% reduction in per capita material footprint by 2050.** The Commission could start by delivering a Communication on sustainable consumption, to be developed as part of Europe's strategy for promoting a European Way of Life alongside the future Communication on the new Consumer Agenda. The Communication on sustainable consumption should cover all aspects of consumption, including price signals and other economic instruments, and avoid focusing solely on consumer awareness and labelling.
- 2- **Mainstreaming sustainable consumption challenges across relevant communications or legislation.** For the 2021 work programme of the European Commission, this includes:
 - **Resilience and Recovery plans**, which should promote a green recovery, which primarily focuses on investments rather than consumption as a main lever. The Council has agreed to spend at least 37% of the Recovery and Resilience Facility funds on supporting the Green Transition. Institutions should make sure that overconsumption issues are addressed with these funds. (See recommendations 5, 6, 7, 8, 9)
 - **The Sustainable products policy initiative**, including a revision of the **Ecodesign Directive**. Key issues within this file would be to find a way to operationalise the vision according to which all products that are available on the European market by 2030 should be sustainable by speeding up and expanding the product scope of eco-design processes, exploring product bans and using economic instruments to change price **signals** (differential VAT rates, public procurement). (See recommendation 3, 4, 6, 7, 8)
 - **Circular electronics** including improving the collection, reuse and repair of mobile phones, laptops and other devices as well as **new design requirements and consumer rights for electronics**. (See recommendation 3, 4)
 - **The "Fit for 55 Package"** which will cover everything from renewables to energy efficiency first, buildings, as well as land use, energy taxation, effort sharing and emissions trading and a wide range of other pieces of legislation.

- **Zero pollution action plan for water, air and soil** and within it, the consumption of potentially harmful chemical products (See recommendations 3, 9)
 - Measures to reduce the **risk of products associated with deforestation** on the EU market. (See recommendations 6, 7, 8, 10)
 - Follow up to the **EU biodiversity strategy for 2030** and **farm to fork strategy**, notably to **boost organic production**. (See recommendation 6, 7, 8)
- 3- Develop clear EU-level targets to reduce the Union's ecological footprint with respect to use of material in absolute terms.** The European Commission missed the opportunity to do so in the CEAP, so policymakers need to urgently explore such targets in the development of the sustainable product policy legislative initiative. At the sector-level, the EU's global footprint can be calculated using existing reporting by Member States (through the European System of National and Regional Accounts), paired with established accounting tools that track material transactions between countries across global supply chains (environmentally extended multi-regional input-output models).
- 4- Initiate an EU-wide green fiscal reform in a wider range of sectors,** creating the conditions for Member States to gradually shift the tax burden from labour to the use of non-renewable energy and natural resources. This could provide important price signals in the market, adjust artificially low prices for certain resources and encourage alternative business models, such as sharing and product service systems and the consumption of more durable, low-impact products. **More concretely, the EU should promote a VAT reform to reduce or eliminate VAT for sustainable products, including for bio agricultural products and repairs.** In parallel, taxes should progressively tax the most unsustainable products if viable choices for consumers are available in the market.
- 5- The EU should promote the development of environmental literacy** in the education systems in Europe. We are aware of the difficulty to act upon this issue from the EU institutions due to the lack of competences. However, the Commission could start a debate on the issue.
- 6- Improve** consumers awareness campaigns regarding **the impacts of overconsumption on pollution, health and well-being** as part of communication campaigns on the Green Deal directed towards consumers and citizens. These campaigns should tackle both the **volume of consumption, its composition** (promoting low-carbon nutrition, mobility, housing and lifestyles) but also sustainability and equity challenges linked with **luxury consumption**. The EU has to be

consistent in all its actions, hence **unsustainable meat production** should not be promoted with EU funds⁵².

- 7- **The regulation of advertising may create less consumption overall, as well as promote more sustainable consumption of goods and services**⁵³. Advertising needs to be regulated in order to avoid sludging i.e., the unethical exploitation of people's cognitive biases. For instance, by leading consumers to consume a certain product labelled as green when in reality has the same impact as other products non-labelled as green. Examples of such regulations already exist such as the tobacco convention⁵⁴ ⁵⁵ but also other frameworks regarding marketing towards children⁵⁶. An occasion to start this debate might be created by the evaluation of the **"New Legislative Framework for Products"** on a common framework for the marketing of products and the accreditation and CE marking provisions (REFIT). Another approach would be to challenge the marketing and advertising industry to make clear pledges as part of the climate pact.
- 8- **Concrete measures to address overconsumption of food** by rebalancing the cost of food where sustainable products become cheaper and more convenient to consumers whilst unsustainable ones more expensive. Also, additional measures that support an attractive variety of available protein⁵⁷ and aid the further market uptake of existing plant-based alternatives. This can be done by changing price signals (see recommendation 4)
- 9- **Provide incentives and support – and address remaining barriers – to genuinely circular and "disruptive" business models** which are aligned with both ecoefficiency and ecosufficiency through Horizon Europe, Better Regulation (as it applies to ecoinnovation) and public procurement. Funds from the **Next Generation EU** should also target business models that enhance circularity of the economy.
- 10- **Promote a more circular bioeconomy**, by including bioeconomy as a key sector within the Circular Economy Action plan and by ensuring that the bioeconomy action plan is consistent with "Europe's materials budget".

⁵² IEEP (2020) *How to deliver on the EU Farm to Fork's protein transition objectives* Accessed on 25.11.2020. [URL](#)

⁵³ Ashford N., Hall P., Arango-Quiroga J., Metaxas K, Showalter A. (2020) Op. cit.

⁵⁴ WHO (2020) Tobacco Free Initiative (TFI). Accessed on 14.11.2020. [URL](#)

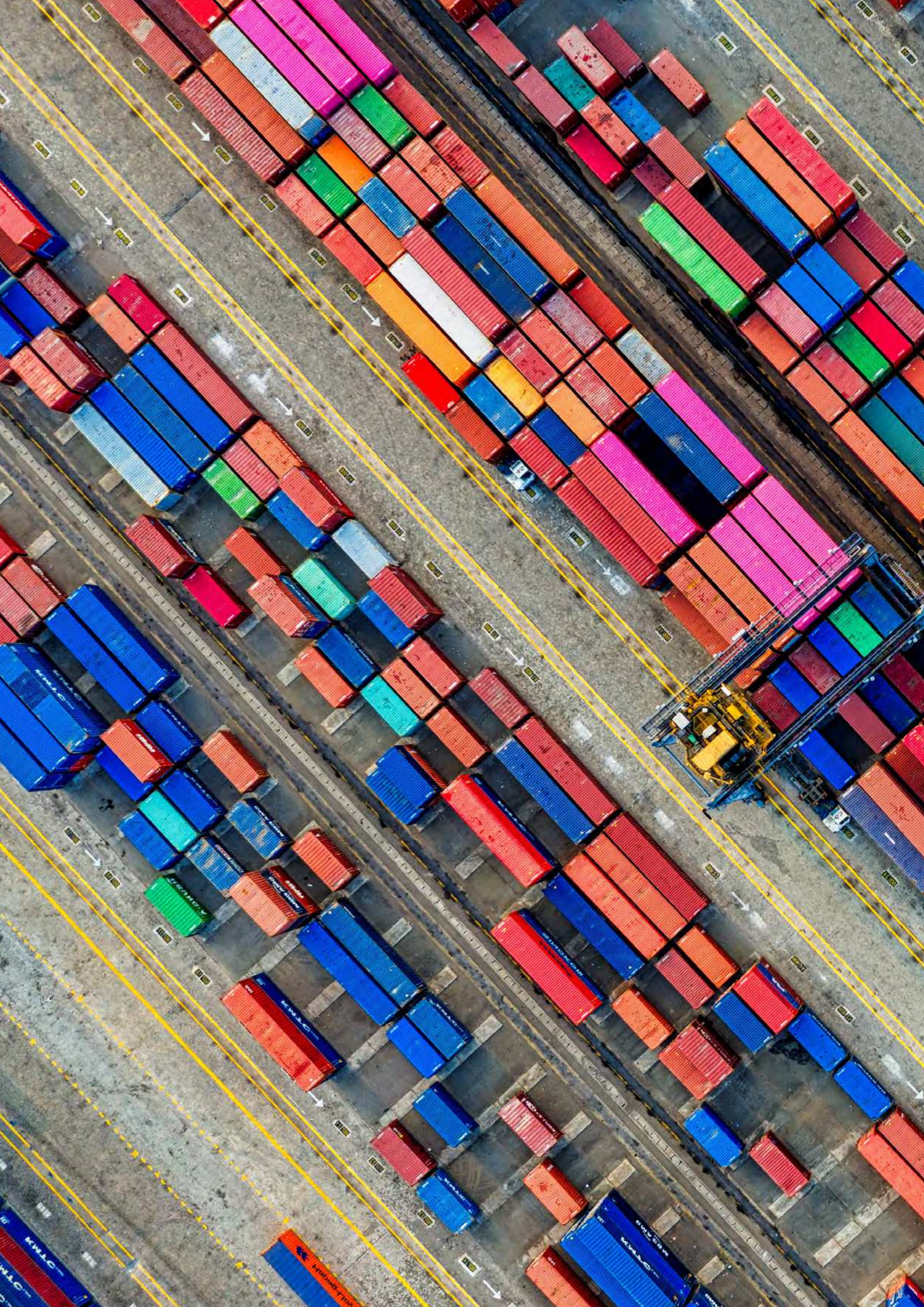
⁵⁵ European Commission (2003) *Ban on cross-border tobacco advertising and sponsorship*. Accessed on 27.11.2020. [URL](#)

⁵⁶ Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) Official Journal L 95/1 15.4.2010

⁵⁷ Huber, E., Aubert, P.-M., Loveluck, W., 2020. *Identifying research needs for a sustainable EU protein transition. Research report submitted to the European Sustainable Agricultural Dialogue platform*. Paris-Bruxelles, Iddri & ESAD.

- 11- Elaborate a “basket” of indicators to monitor overconsumption** alongside the existing circular economy indicators via Eurostat. This “basket” should cover difference aspects and sectors given the cross-sectoral aspects related to overconsumption. Some of the indicators, as mentioned in section 3.3 of this report, that should be considered:

| Consumption indicators | |
|----------------------------|---|
| Thematic area | Indicator |
| Production and consumption | Domestic material consumption per capita |
| | Consumption of chemicals |
| Water resources | Water exploitation |
| | Fresh water abstraction per capita |
| Energy | Final energy consumption per capita |
| | Share of renewable energy |
| Agriculture | Animal based protein consumption |
| | Livestock per capita |
| | Agricultural productivity |
| | Deforestation rates |
| Companies | Number of companies publishing sustainability reporting |
| | Market share of goods certified by independently verified labelling schemes |




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An aerial photograph showing a dense forest of green trees. A large number of cars, mostly white and silver, are parked on the ground, partially obscured by a teal overlay. The cars are arranged in rows, suggesting a parking lot or a car show. The teal overlay is a semi-transparent rectangle that covers the middle portion of the image, containing the text "THINK 2030".

**THINK
2030**