



PRO CARTON
PACKAGING FOR
A BETTER WORLD

Insights into the EU Directives for Packaging and Packaging Waste Regulation (PPWR)

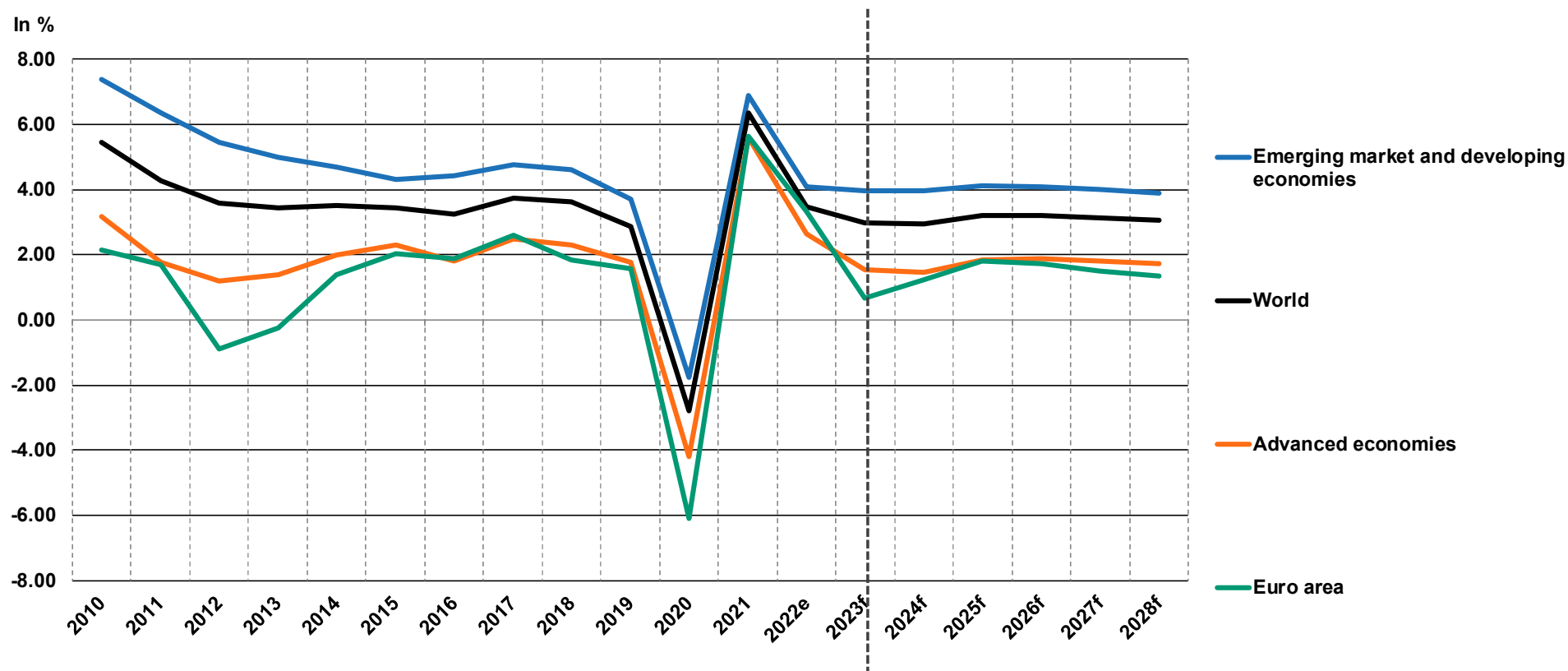
Agenda, Forum 2nd November 2023

1. Business Environment
2. Pulp & paper industry developments
3. Input Price Developments
4. Update PPWR
 - a. Ordinary Legislative Procedure and Timeline
 - b. Overall Principles
 - c. Most harmful Articles for the Paper Industry

Business environment

GDP growth development

(percent, year over year)



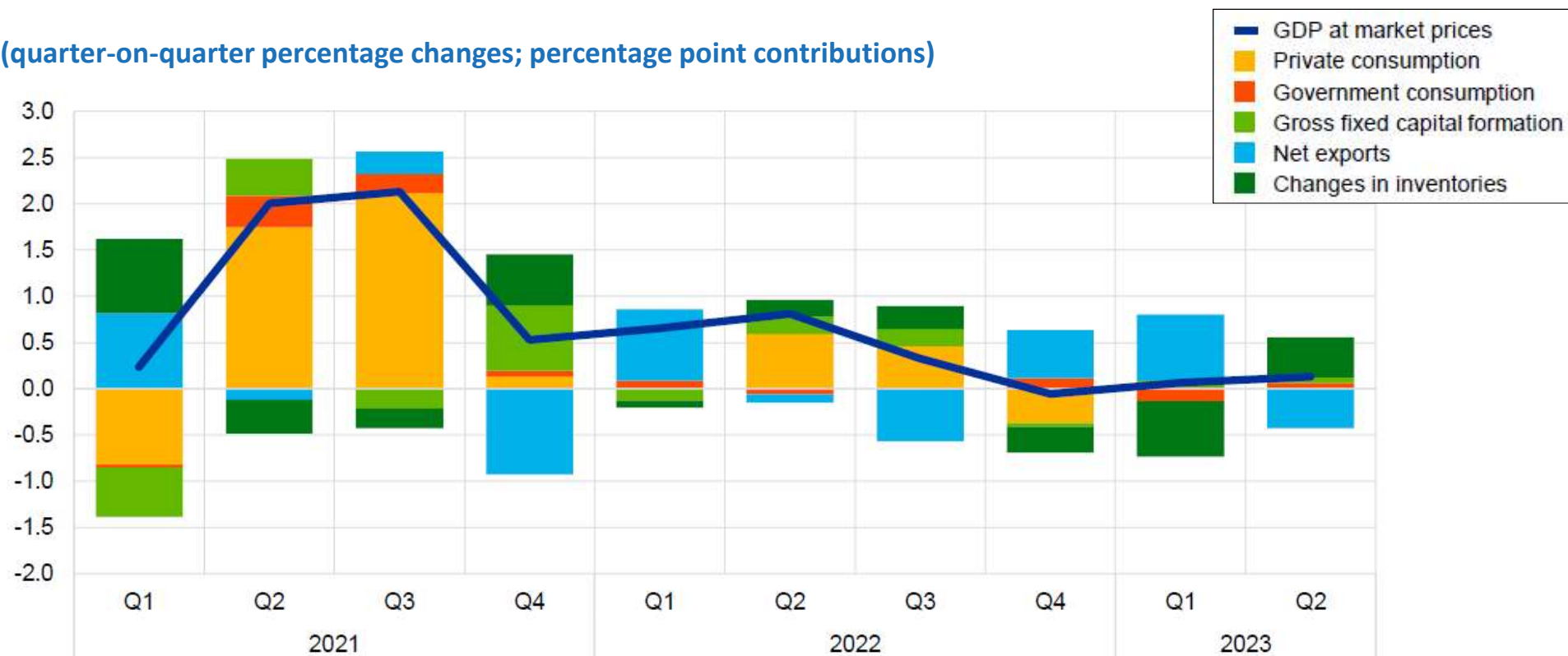
e: estimates, f: forecasts

Source: IMF, World Economic Outlook update October 2023

Business environment

Euro area real GDP and its components

(quarter-on-quarter percentage changes; percentage point contributions)



Source: Eurostat and ECB calculations

Note: The latest observations are for the second quarter of 2023.

Source: ECB, Economic Bulletin, Issue 6 – October 2023

Pulp & paper industry developments

Cepi and other countries - % changes of production by grade

6 months 2023 / 6 months 2022

Paper & Board	Cepi	Canada	Japan	South Korea	Brazil	China	USA
Newsprint	-24.0	-0.7	-7.8	-4.7	4.0	-	-9.1
Uncoated Mechanical	-31.2	-	0.2	-1.9	-	-	-37.2
Uncoated Woodfree	-26.3	-	-3.6	-21.7	-	-	-8.7
Coated Papers	-36.8	-	-8.6	-15.6	-	-	-30.2
Other Graphic Papers	-31.6	-24.1	-6.1	-16.7	-3.3	-	-18.1
Total Graphic Papers	-30.4	-14.4	-6.5	-14.2	-3.0	-	-17.8
Sanitary and Household	-4.3	-12.8	-2.9	-5.3	2.0	-	-0.3
Wrappings	-17.2	n.a.*	-6.0	-4.6	-2.7	-	-3.7
Case Materials	-11.1	-1.9	-7.1	-5.6	-	-	-10.8
Other P&B for Packaging	-19.0	-7.4	-3.9	-6.5	-6.2	-	-8.3
Total Packaging Papers	-13.9	-3.3	-6.6	-5.8	-3.1	-	-9.9
Other Paper & Board	-15.2	-	-12.9	-10.4	-2.6	-	-15.9
Total Paper & Board	-17.4	-10.5	-6.6	-7.8	-2.4	0.7	-10.0

* included in Sanitary and Household

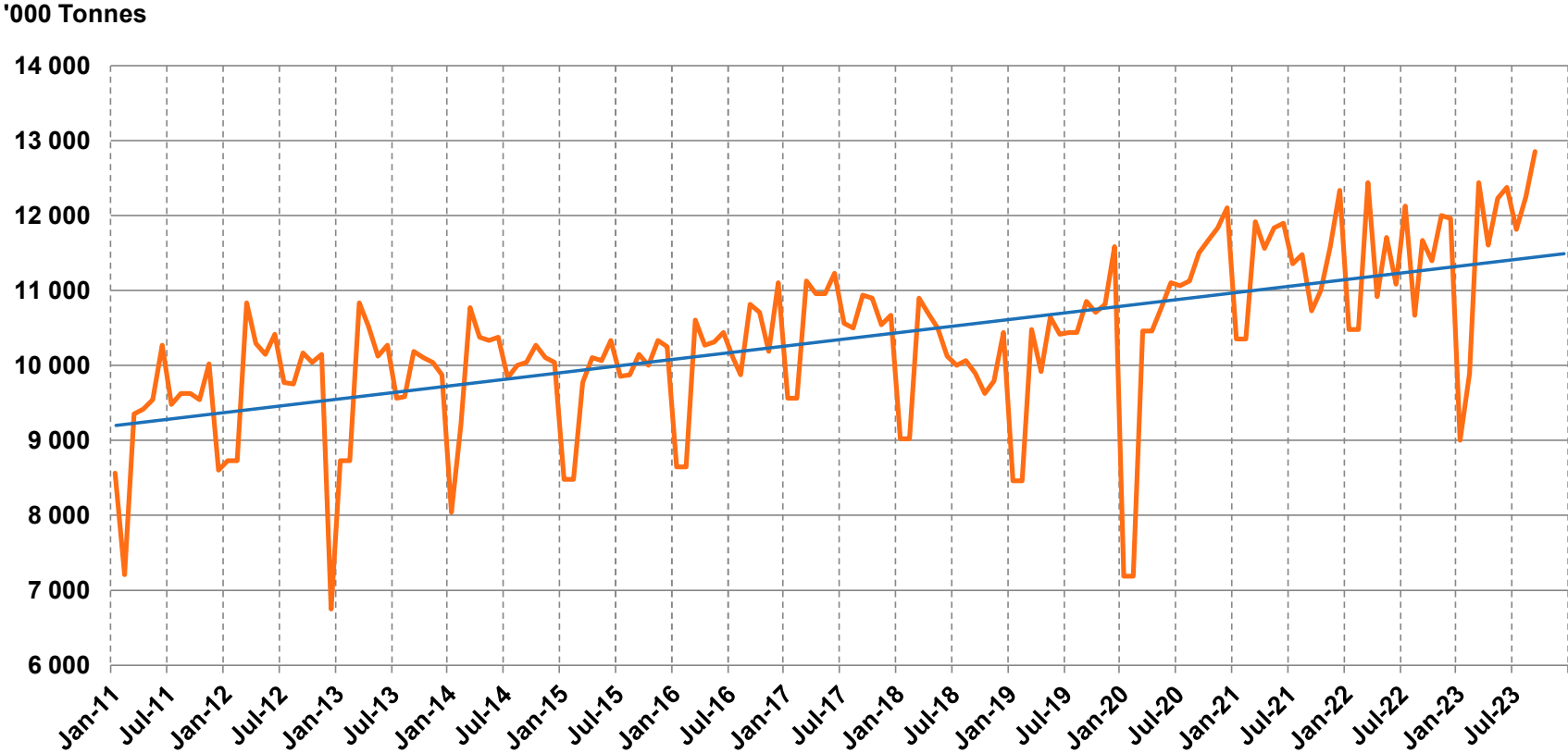
China: official statistics

Source: Cepi, National Associations, October 2023

Pulp & paper industry developments

Paper & Board production development in China

January – September 2023 / 2022: + 4.3% (OFFICIAL STATISTICS)

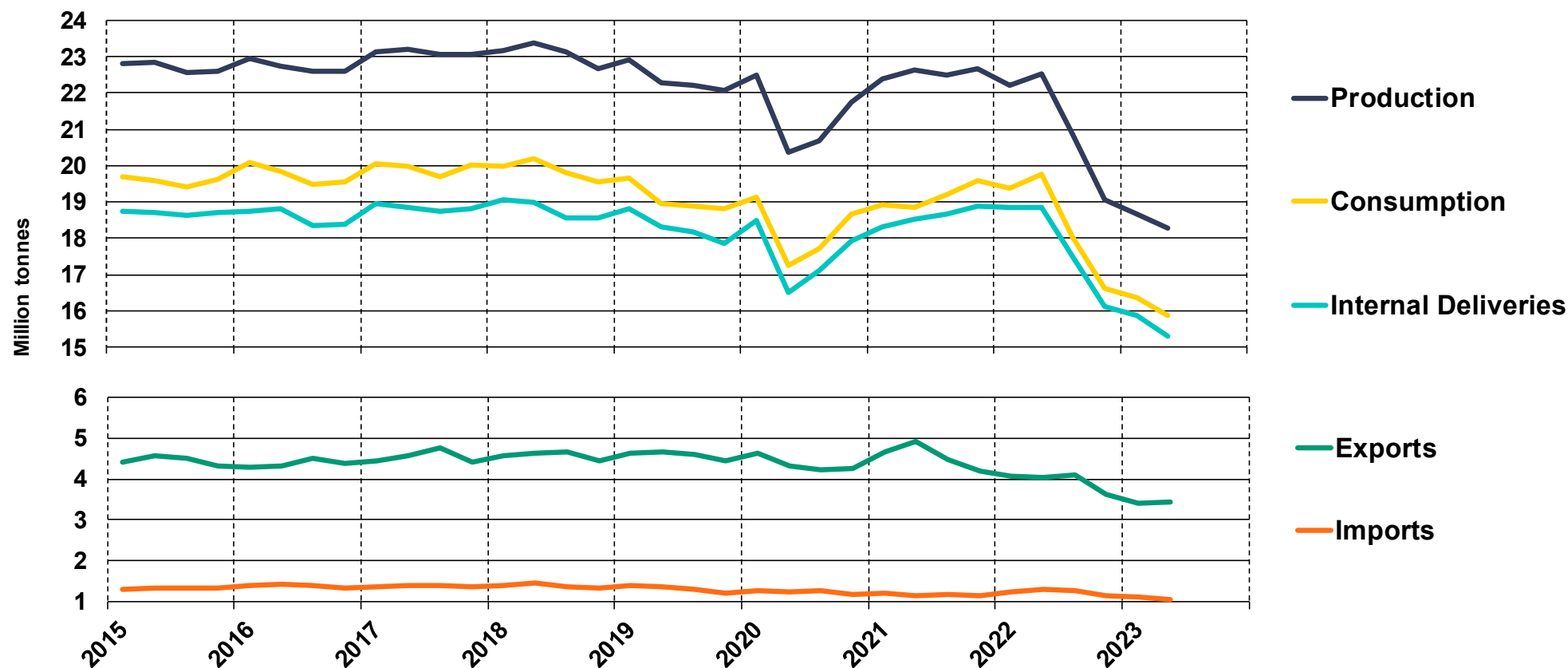


Source: China National Bureau of Statistics, October 2023

Pulp & paper industry developments

Cepi total paper & board quarterly production and consumption

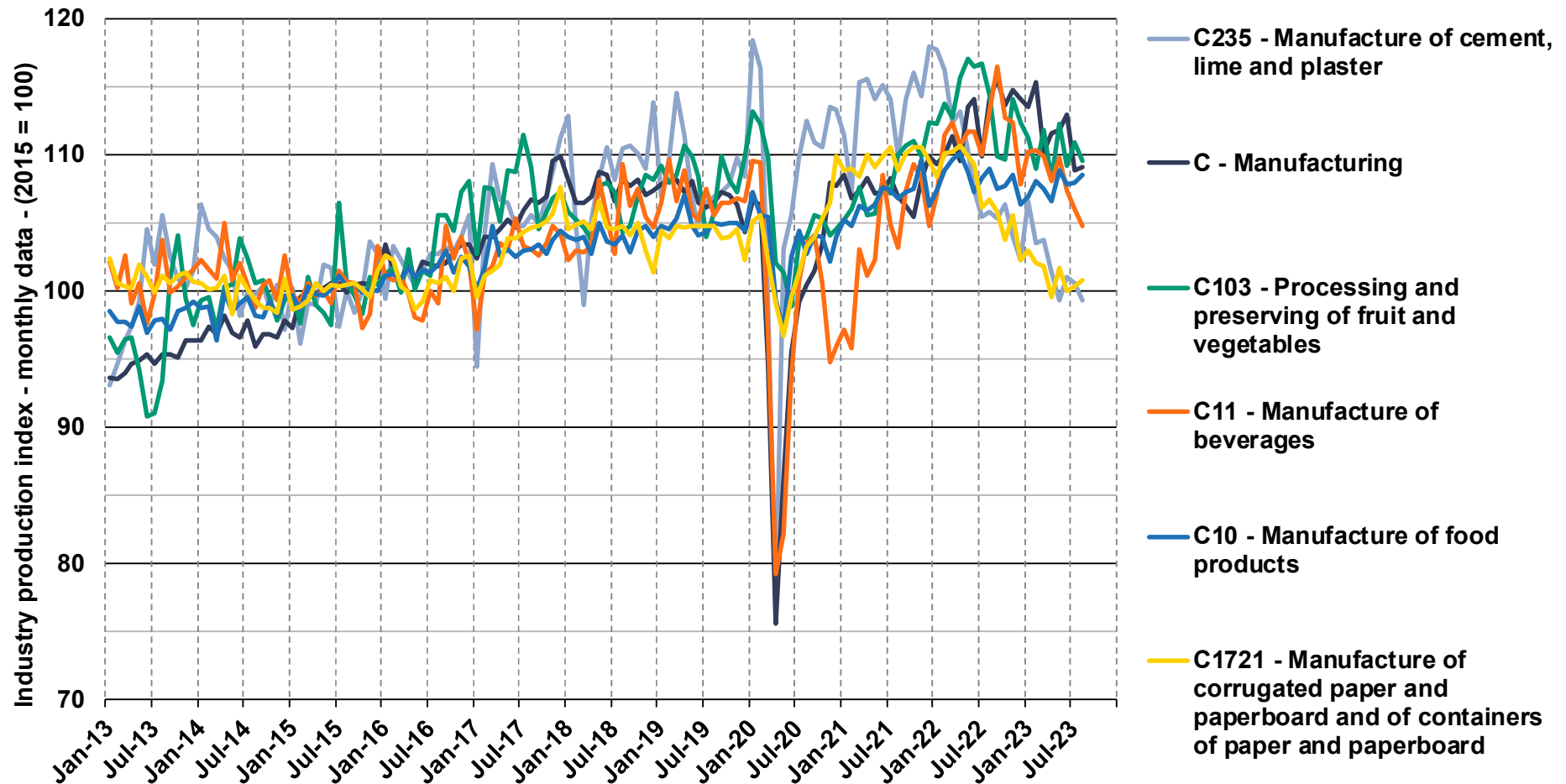
2nd Quarter 2023



Source: Cepi, October 2023

Related Industry Sectors' developments

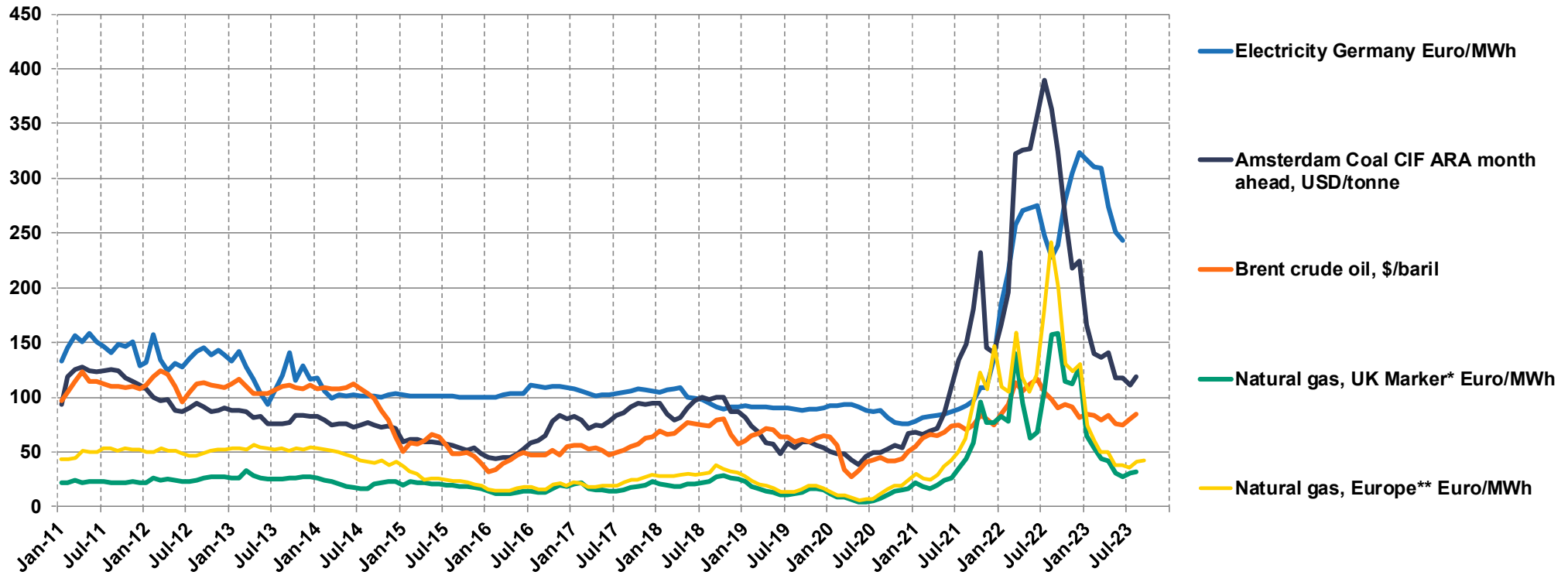
EU industry production – main packaging paper & board consuming sectors



Source: Eurostat, October 2023

Input prices developments

Energy in Europe

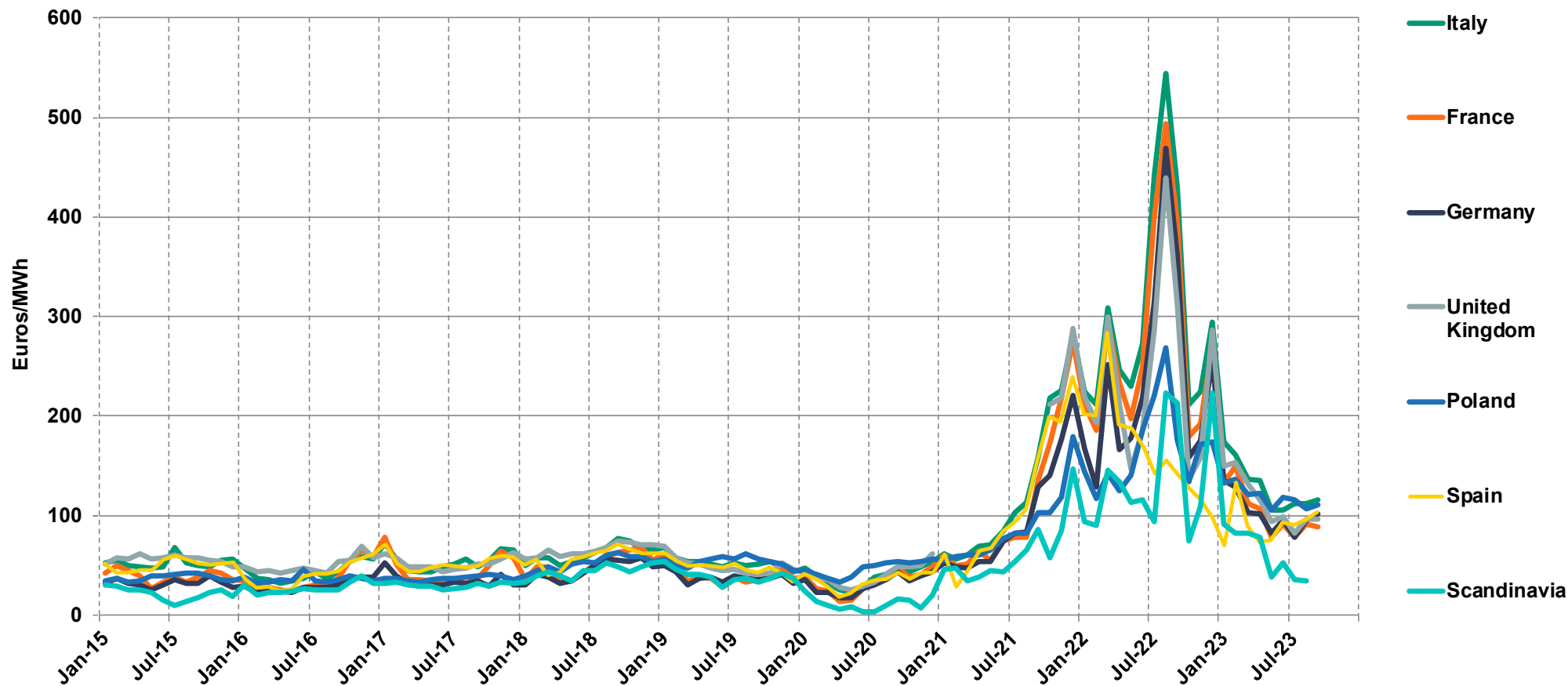


Electricity price for a large industrial consumer in Germany

Source: ICE, EEX, Hawkins Wright, Worldbank Pink Sheet, October 2023

Input prices developments

Average monthly wholesale electricity prices in Europe

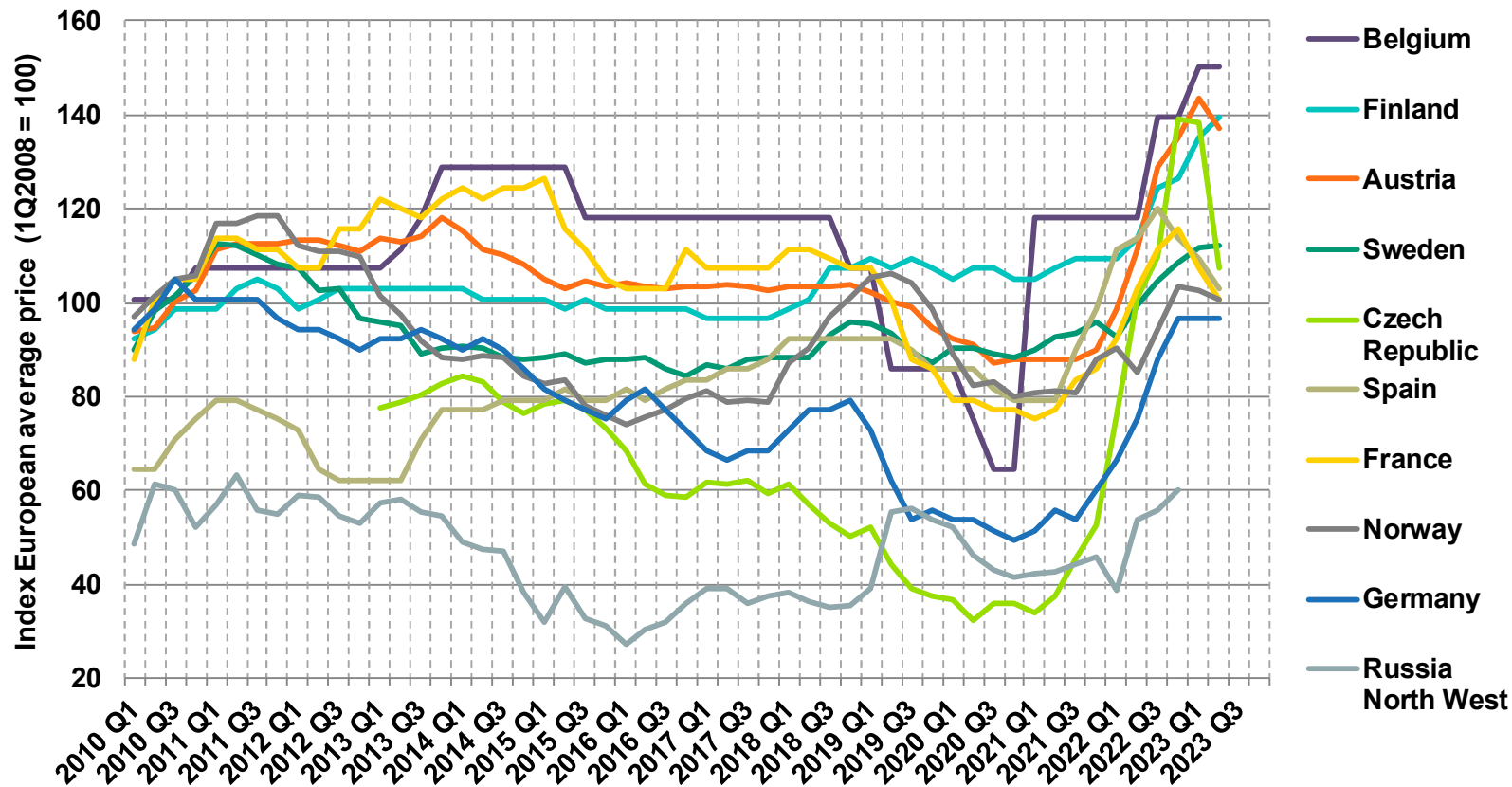


Source: EMBER-Climate, ENTSO-E, Nordpool, Pap'Argus, October 2023

Input prices developments

Pulpwood

Roundwood coniferous (delivered prices, domestic prices, average)



Source: WRI, Cepi, National Associations, October 2023

The prices represent wood fibre traded in the open market and do not include internal transfer pricing.

Input prices developments

Paper for recycling: European domestic prices

1.04: Corrugated Paper for Packaging (includes 1.04.00, 1.04.01 and 1.04.02)

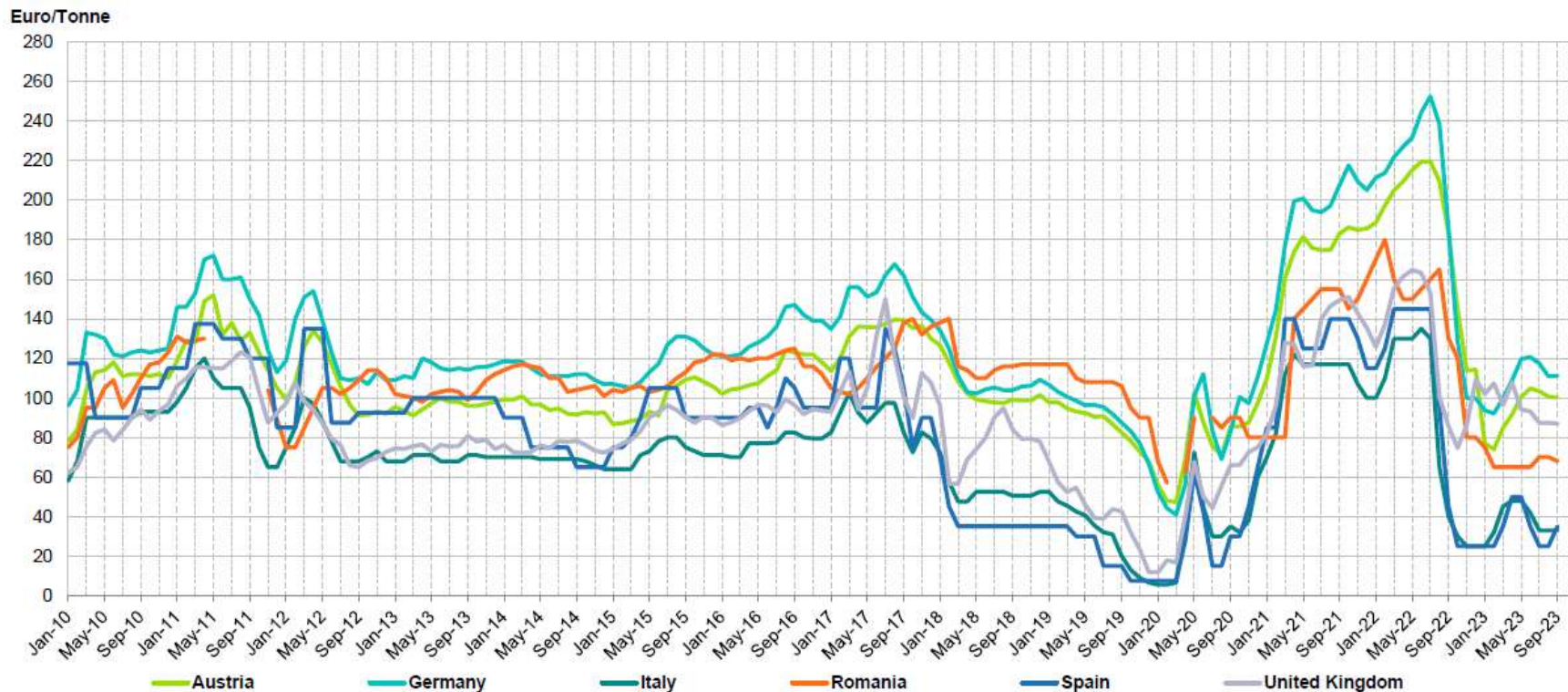
Financial futures

(based on FOEX indexes)

All contracts are financially settled

Contract	Recycled Paper OCC 1.04 EUR/MT
Q4-2023	97
Q1-2024	101
Q2-2024	102
2024	102
2025	104

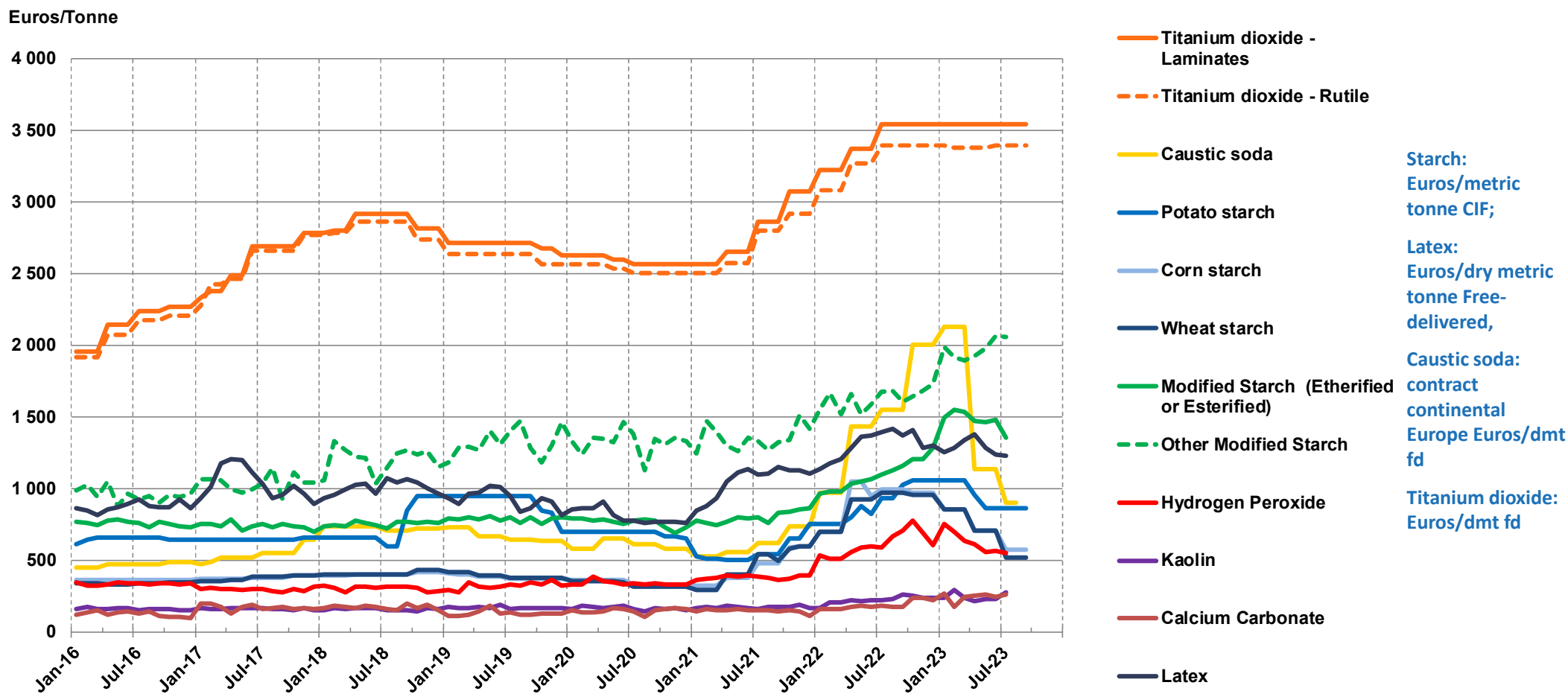
More information available here:
<https://www.norexco.com/recycled/>



Source: Cepi, Norexco, October 2023

Input prices developments

Chemicals and non-fibrous raw materials in Europe

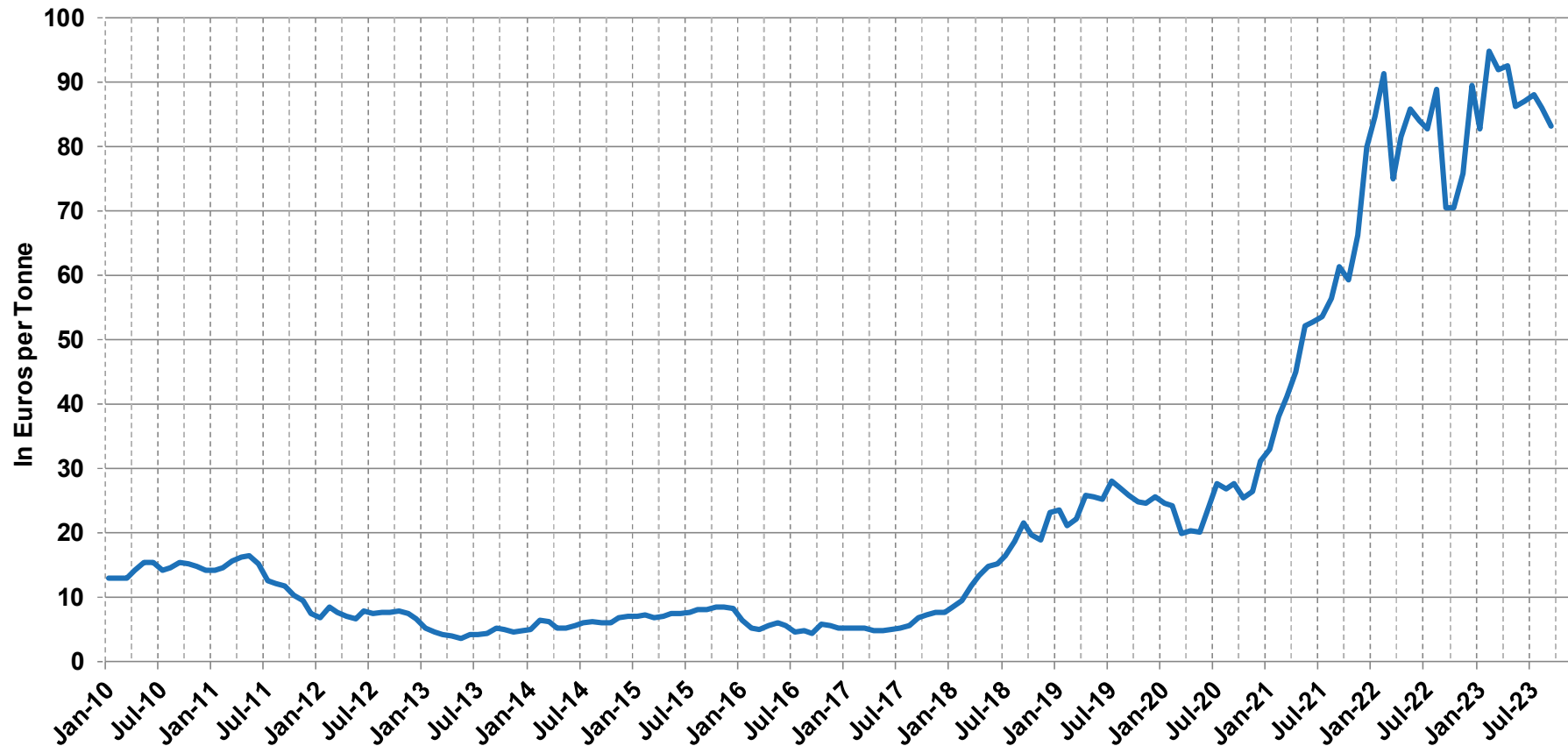


Source: PaperChem, Eurostat (customs), Hawkins Wright, October 2023

Input prices developments

CO2 emission in Europe

September 2023: 83.21 euros



Source: I4CE Futures Europe (spot market), Hawkins Wright, October 2023

Business environment

EU - largest economies

GDP forecasts

e: estimates, f: forecasts (previous forecasts)

	GDP (% quarter on previous quarter)								Annual GDP (% year on previous year)					
	2023	2023	2023	2023	2024	2024	2024	2024	2019	2020	2021	2022e	2023f	2024f
	Q1f	Q2f	Q3f	Q4f	Q1f	Q2f	Q3f	Q4f						
Germany	0.0	0.3	0.3	0.3	0.4	0.4	0.4	0.4	1.1	-3.7	2.6	1.8 (=)	-0.5 (-0.3)	0.9 (1.3)
Spain	0.5	0.2	0.4	0.4	0.5	0.6	0.6	0.5	2.0	-11.3	5.5	5.8 (5.5)	2.5 (=)	1.7 (2.0)
France	0.2	0.1	0.3	0.4	0.2	0.4	0.4	0.5	1.8	-7.8	6.4	2.5 (=)	1.0 (0.8)	1.3 (=)
Italy	0.5	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.5	-9.0	7.0	3.7 (=)	0.7 (1.1)	0.7 (0.9)
<i>Euro area (20)</i>	<i>0.1</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>0.4</i>	<i>1.6</i>	<i>-6.1</i>	<i>5.3</i>	<i>3.3 (3.5)</i>	<i>0.7 (0.9)</i>	<i>1.2 (1.5)</i>
Poland	0.2	0.4	0.5	0.6	0.8	0.8	0.8	0.8	4.5	-2.0	6.8	5.1 (4.9)	0.6 (0.3)	2.3 (2.4)
<i>EU-27</i>	<i>0.3</i>	<i>0.2</i>	<i>0.3</i>	<i>0.3</i>	<i>0.4</i>	<i>0.4</i>	<i>0.5</i>	<i>0.5</i>	<i>1.8</i>	<i>-5.7</i>	<i>5.5</i>	<i>3.4 (3.5)</i>	<i>0.8 (1.0)</i>	<i>1.4 (1.7)</i>
U.K. *	0.5	0.1	-0.1	0.1	0.1	-0.5	0.0	0.3	1.4	-9.3	7.6	4.1 (=)	0.5 (0.4)	0.6 (1.0)

Unemployment rate

In %	Jan-21	Jul-21	Jan-22	Jul-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	2022e	2023f	2024f
EU-27	7.5	6.9	6.3	6.1	6.1	6.1	6.0	6.0	5.9	5.9	6.0	5.9	6.2	6.2	6.1

Sources: Quarterly Data: EU Commission Forecasts Spring 2023

Annual Data: IMF, World Economic Outlook October 2023

Unemployment Rate: Eurostat, October 2023



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Update PPWR

Insights in Articles are based on ENVI Committee voting 24.10. this is the opinion of 1 out of 3 legislative bodies and therefore not the final legislation – changes are still expected !

PPWR proposal from 30th November 2022

contributes to the transition to a circular economy and achieving climate neutrality by 2050
Focus on three main dimensions to decrease avoidable environmental impact of packaging



Reduce the generation of packaging waste per capita



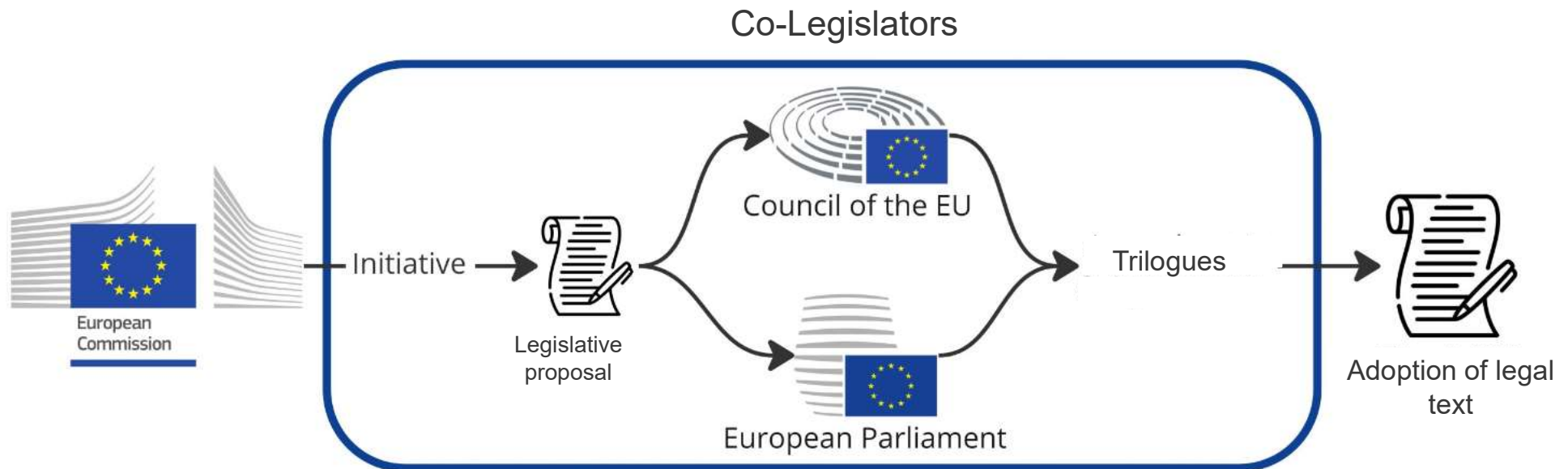
Promote a circular economy for packaging in a cost-efficient way



Promote the uptake of recycled content in (plastic) packaging

EU harmonised labels: based on packaging material and waste receptacles, for deposit and return systems, for reusable packaging

PPWR - Ordinary Legislative Procedure



- DG ENVI has the lead in the PPWR
- DG IMCO has shared competence on Article 3; 11; 13-20; 30-34; 40; 52-56; 60; 63;
- DG ITRE has shared competence on Article 3; **6**; 11; **22**; **26**;

PPWR - Legislative Timeline

30/11/2022:

Publication of proposal by the **European Commission**

2023

16 /03
Environment
Council
Policy debate

11/04
ENVI
Committee
Finalisation of
draft report

04/05
ENVI Committee
Debate

10/05
ENVI Committee
Deadline for
amendments

15/09
Environment Council

29/09
Environment Council

18 /12
Environment Council

Q4-2023 (TBC)
Trilogue

20/09 23-24/10
ENVI Committee
Vote on draft report

02/10 20/11
EP Plenary
Vote on EP
mandate

today

1 January 2023 – 31 June 2023
Swedish Presidency of the Council of the EU

1 July 2023 – 31 December 2023
Spanish Presidency of the Council of the EU

2024

Q4-2023 – Q1 2024
Trilogue

Q1 (TBC)
Council and EP
reach an
agreement
(TBC)

06-09/06
European elections

Q2 – Q3 (TBC)
Publication in the Official Journal
of the EU – entry into force 20th
day following publication

1 January 2024 – 31 June 2024
Belgian Presidency of the Council of the EU

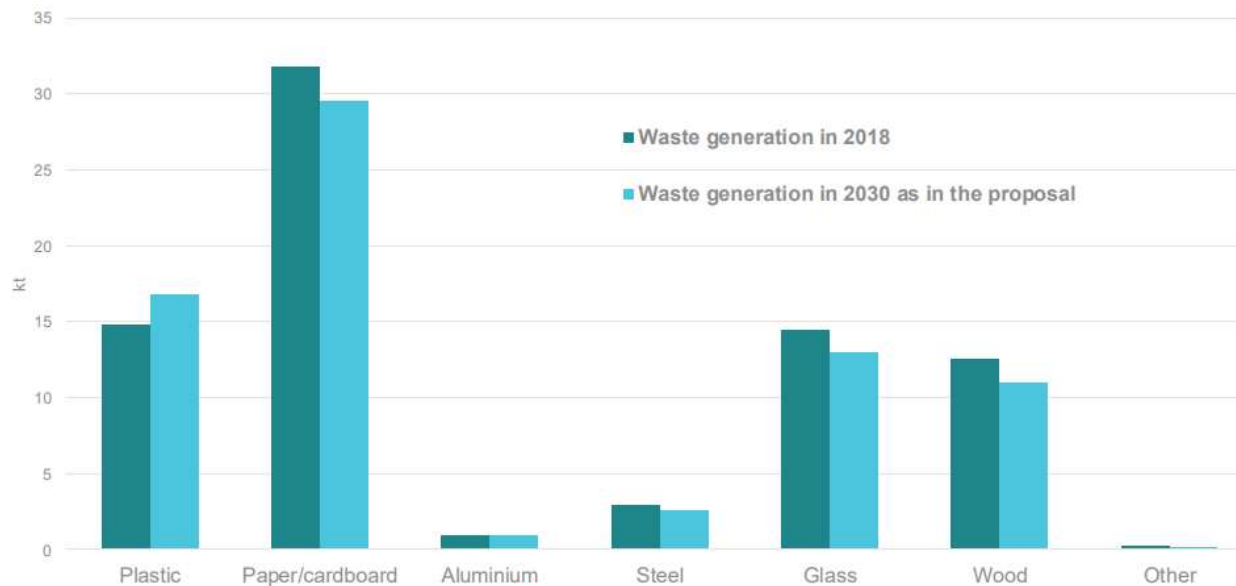
2025

12 months after entry into force
Application of Regulation

PPWR proposal and consequences for packaging materials

Proposal 30th November 2022 – estimate from EU Commission – DG Environment

Waste volumes per packaging material in 2018 compared to the proposal in 2030



+ 17% for plastic packaging from basis 2018 to 2030

– 7,5 % in weight for paper/board packaging

> -10% for other packaging materials



European Parliament – ENVI Committee

PACKAGING REDUCTION

ARTICLE 38 – EACH MEMBER STATE SHALL REDUCE THE PACKAGING WASTE GENERATED PER CAPITA, AS COMPARED TO THE PACKAGING WASTE GENERATED PER CAPITA IN 2018

Reduction of packaging waste generated per capita

- a) 5% by 2030
- b) 10% by 2035
- c) 15% by 2040

Reduction of plastic packaging waste generated per capita

- a) 10% by 2030
- b) 15% by 2035
- c) 20% by 2040

European Parliament – ENVI Committee

ALL PACKAGING PLACED ON THE MARKET SHALL BE RECYCLABLE BY 2030

ARTICLE 3 & 6 – RECYCLABLE PACKAGING

Article 3 – definitions:

- (1, 32a) High quality recycling is defined as “... *so that it can be subsequently recycled and used in the same way or for a similar application, with minimal loss of quantity, quality or function;...*”
- (1, 31a) Recyclability is limited in replacing primary raw materials only “... *use of recycled materials to replace primary raw materials in new packaging...* ”, therefore interpreting recyclability of packaging in a close packaging loop.

Article 6 (2.1.d) - “... *it can be recycled so that the resulting secondary raw materials are of sufficient quality to substitute the primary raw materials;*”

Delegated acts on design for recycling criteria by 2027 and shall take into account CEN standards - compliance 36 months after the publication of the delegated acts.

Delegated acts on “recycled at scale methodology by 2032 – compliance 36 months after the publication of the delegated acts.
= the existence of a sufficient capacity for the collected packaging waste to be directed to defined and recognized waste streams through established industrial processes for reprocessing in actual systems proven in operational environment

EPR fees based in packaging recycling performance grade

European Parliament – ENVI Committee

ALL PACKAGING PLACED ON THE MARKET SHALL BE RECYCLABLE BY 2030

ARTICLE 6 – PACKAGING NOT RECYCLABLE NOT ALLOWED TO BE PLACED ON THE MARKET
36 MONTHS AFTER THE PUBLICATION OF THE DELEGATED ACTS = PERFORMANCE GRADE E
96 MONTHS AFTER THE PUBLICATION OF THE DELEGATED ACTS = PERFORMANCE GRADE D

Table 2: Recyclability performance grades

Recyclability Performance Grade	Assessment of recyclability per unit, in weight
Grade A	higher or equal to 95 %
Grade B	higher or equal to 90 %
Grade C	higher or equal to 80 %
Grade D	higher or equal to 70 %
Grade E	lower than 70 %

European Parliament – ENVI Committee

ARTICLE 7– MINIMUM RECYCLED CONTENT IN PLASTIC PACKAGING

Article 7 – definitions:

(1) the plastic part in packaging placed on the market shall, contain the following minimum percentage of recycled content PCPW:

- a) 30 % for contact sensitive packaging made from (PET) as the major component by 2030 and 50% by 2040
- b) 7,5 % for contact sensitive packaging made from plastic materials other than PET; (25%)
- c) 30 % for single use plastic beverage bottles; (65%)
- d) 35 % for other plastic packaging; (65%)

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 22 – 1. By 31 December 2027 / 2030 at the latest, economic operators shall not place on the market packaging in the formats and for the purposes listed in Annex V.

2.	Single use plastic packaging <u>single use composite packaging</u> for fresh fruit and vegetables	Single use <i>plastic</i> packaging for less than 1.5-kg fresh fruit and vegetables, unless there is a demonstrated need to avoid water loss or turgidity loss, microbiological hazards or physical shocks. <i>The list of products concerned shall be established by the European Food Safety Agency six months after the entry into force of this</i>	Nets, bags, trays, containers
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The previously proposed ENVI draft compromise with the inclusion of “plastic” should be retained. In order to provide clarity and ensure feasibility. The definition of plastic packaging adopted in the ITRE Opinion should be retained.

European Parliament – ENVI Committee

ENVI COMMITTEE – By 31 December 2027

3.	Single use plastic, <u>single use composite packaging or other single use</u> packaging	Single use plastic packaging for foods and beverages filled and consumed within the premises in <u>activities of restaurants and fast-food restaurant , as well as sport and creative sector</u> , which include all eating area inside and outside a place of business, covered with tables and stools, standing areas, and eating areas offered to the end users jointly by several economic operators or third party for the purpose of food and drinks consumption, <u>unless there is a demonstrated need to use single packaging given specific local conditions or inability of access to infrastructures that are necessary for the proper operation of a reuse system.</u>	Trays, disposable plates and cups, bags, foil, boxes
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The previously proposed ENVI draft compromise with the inclusion of “plastic” should be retained. In order to provide clarity and ensure feasibility. The definition of plastic packaging adopted in the ITRE Opinion should be retained.

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

<i>(5a)</i>	<i>Single use plastic packaging in airports</i>	<i>For suitcases and bags</i>	<i>Shrink wrap</i>
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<i>(5b)</i>	<i>Secondary packaging not necessary to comply with the performance criteria in Annex IV</i>	<i>For cosmetics, except perfumes, hygiene and toiletry products</i>	<i>Boxes for toothpaste and creams</i>
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This proposal should be deleted and cardboard used for cosmetics and personal care can be bounded to Annex IV. Cartons protect primary product packaging during transport, helps to combat counterfeiting (**€ 7bill loss p.a. in EU**), convey tamper evident features and deliver essential product info.

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 26 – REUSE TARGETS FOR 2030 AND 2040

+24 months - the Commission shall adopt delegated act setting a minimum number of rotations for reusable packaging in different and relevant material and packaging categories.

Amendment

1. Economic operators, **including online platforms**, making large household appliances listed in point 1 of Annex II to Directive 2012/19/EU available on the market for the first time within the territory of a Member State:

(a) shall ensure that from 1 January 2030, 50% of those products are made available in reusable transport packaging within a system for re-use;

(b) shall aim to ensure that from 1 January 2040, 90% of those products are made available in reusable transport packaging within a system for reuse

Amendment

3a. **Where a final distributor makes non-alcoholic beverages in sales packaging available on the market, it:**

(a) shall ensure that, within the territory of a Member State, from 1 January 2030, at least 20 % of those products are made available in reusable packaging within a system for re-use;

(b) shall aim to ensure that from 1 January 2040, at least 35 % of those products are made available in reusable packaging within a system for re-use.

~~3. **A final distributor that is conducting its business activity in the HORECA sector and that is making available on the market within the territory of a Member State in sales packaging take-away ready-prepared food, intended for immediate consumption without the need of any further preparation, and typically consumed from the receptacle, shall ensure that:**~~

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 26 – REUSE TARGETS FOR 2030 AND 2040

Amendment

7. Economic operators using transport packaging *or sales packaging only used for transportation within the territory of the Union* in the form of pallets, plastic crates, foldable plastic boxes, pails *or* drums for the conveyance or packaging of products in conditions other than provided for under paragraphs 5 and 6:

(a) *shall ensure that* from 1 January 2030, *at least* 30 % of such packaging used is reusable packaging within a system for re-use;

(b) *shall aim to ensure that* from 1 January 2040, *at least* 90 % of such packaging used is reusable packaging within a system for re-use.

Amendment

8. Economic operators using transport packaging *within the territory of the Union* for the transport and delivery of non-food items made available on the market for the first time via e-commerce- ~~*shall ensure that:*~~

(a) *shall ensure that* from 1 January 2030, *at least* 10 % of such packaging used is reusable packaging within a system for re-use

(b) *shall aim to ensure that* from 1 January 2040, *at least* 50 % of such packaging used is reusable packaging within a system for re-use.

Reuse in e-commerce means complex logistics, increased transport and environmental impact (e.g.CO2 emissions, water use), additional storage space and infrastructure.

Re-use also requires standardisation of packaging, which will inevitably lead to overpackaging.

REUSE only for e-commerce, that means over 700 million new plastic boxes (10% reuse by 2030). To meet the 2040 target, this number would reach 3.5 billion new plastic boxes.

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 26 – REUSE TARGETS FOR 2030 AND 2040 - CARDBORD EXEMPTIONS – ARTICLE 10, 12, 13

Amendment

10. Economic operators, **including online platforms**, using grouped packaging **within the territory of the Union** in the form of boxes, **excluding cardboard**, used outside of sales packaging to group a certain number of products to create a stock-keeping **or distribution** unit:

(a) shall ensure that from 1 January 2030, **at least** 10 % of such packaging used is reusable packaging within a system for re-use;

(b) **shall aim to ensure that** from 1 January 2040, **at least** 25 % of such packaging they used is reusable packaging within a system for re-use.

From 1 January 2030, 95% of the transport packaging used by an economic operator shall be reusable where it is used for transporting products:

This obligation applies to pallets, boxes, **excluding cardboard**, trays, plastic crates, intermediate bulk containers, drums and canisters, of all sizes and materials, including flexible formats.

From 1 January 2030, economic operators, **including online platforms**, delivering products to another economic operator within the same Member State shall use only reusable transport packaging for the purpose of the transportation of such products.

This obligation applies to pallets, boxes, **excluding cardboard**, plastic crates intermediate bulk containers, and drums, of all sizes and materials, including flexible formats.



European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 21 – EMPTY SPACE RATIO

Amendment

1. Economic operators who supply products to a final distributor or an end user in grouped packaging, transport packaging or e-commerce packaging, shall ensure that the empty space ratio is maximum 40 % ***in line with the provisions laid down by Parts 1 and 2 of Annex IV.***

Amendment

3a. Economic operators using reusable packaging within a system of reuse shall be exempted from the obligation laid down in paragraph 1.

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 26 – REUSE TARGETS FOR 2030 AND 2040 - CARDBORD EXEMPTIONS – ARTICLE 7, 10, 12, 13

17. By [OP: Please insert the date = 8 years after the date of entry into force of this Regulation] the Commission shall review the situation regarding reuse of packaging. When assessing the impact of the packaging reuse targets, the Commission shall at least evaluate the packaging waste reduction obtained by the reuse 2030 targets, CO₂ emission reduction, food waste reduction, reduction of the volumes of virgin raw material used, water and energy use, water contamination and the use of detergents and disinfectants. The Commission shall also assess the development of cardboard packaging waste and its environmental impacts and material substitution effects that may occur due to material exemptions in Article 22 in combination with Annex V, and Article 26, paragraphs 7, 10, 12 and 13. On the basis of that review, the Commission shall, where appropriate, present a legislative proposal :

(a) modifying or confirming the 2040 targets laid down in this Article (b) if necessary, setting new targets for the reuse in other sectors and for other packaging formats and materials.

European Parliament – ENVI Committee

ENVI COMMITTEE – main competence on PPWR adopted

ARTICLE 5 – FOOD SAFETY

Amendment

2a. Food contact packaging containing intentionally added per- and polyfluorinated alkyl substances (PFASs) shall not be placed on the market from [OP: Please insert the date = 18 months after the date of entry into force of this Regulation].

Amendment

2b. Food contact packaging containing intentionally added Bisphenol A (BPA, CAS 80-05-7) shall not be placed on the market from [OP: Please insert the date = 18 months after the date of entry into force of this Regulation].

KEY FOCUS AREAS for ADVOCACY – PPWR

RECYCLING AND REUSE ARE COMPLEMENTARY TO CREATE A CIRCULAR ECONOMY – ARTICLE 26

Policy decisions should be evidence-based on the life-cycle impact of packaging.

Evaluate economic & technological implications, consequences for human health, food security/hygiene and water scarcity.

Packaging solutions compliant with Article 4(2) of the Waste Framework Directive (WFD) should be encouraged.

Except packaging materials collected > 85% of weight in MS.

NO RESTRICTIONS FOR SINGLE-USE CARDBOARD PACKS - ANNEX V

Delete restrictions for single use cardboard packaging for

- fruits & vegetables
- HORECA eat-in-sector
- Secondary packaging for toothpaste and creams

Bans counter the Waste Framework Directive's objective of waste prevention Article 9

MANDATORY 90% COLLECTION TARGET BY 2030

Mandatory 90% collection target for all packaging formats by 2030 to reach the recycled at scale obligation in 2035.

Separate waste collection to further increase recycling and enhance the quality of the secondary raw materials.

HIGH QUALITY RECYCLING DEFINITION

Material and not closed product loop recycling.

'high quality recycling' means recycled materials are of sufficient quality to substitute primary raw materials.

CEN-European Committee should lead Design for Recycling (DfR) process to ensure a systematic and transparent industry contribution.

