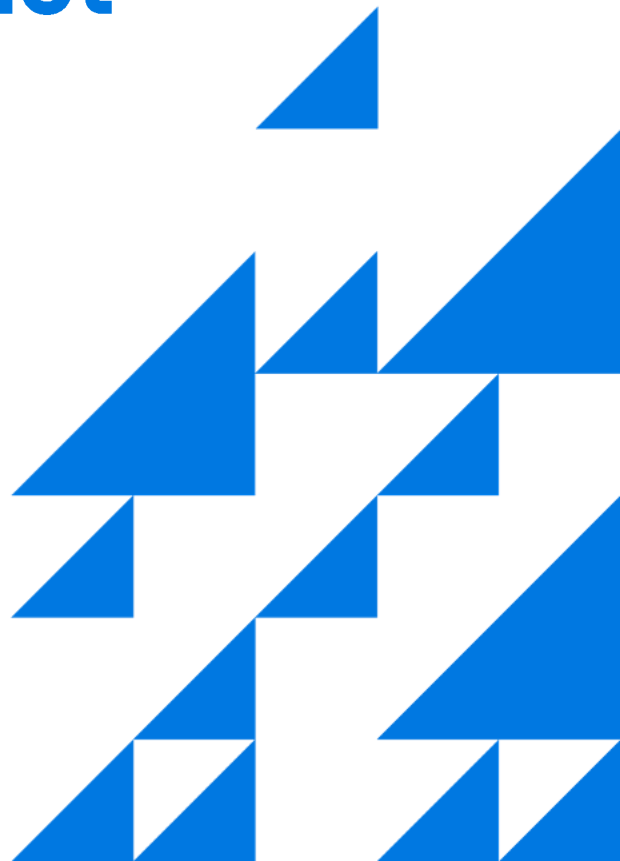


Towards specific EU product requirements for recycled content

Jan Viegand, Partner, Viegand Maagøe
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Viegand Maagøe

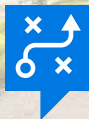
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- Carbon accounting
- ESG Due Diligence
- ESG report
- SBTi and goals
- Dual Assessment Analysis

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- Financial models for sustainability assessment
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- Energy optimisation
- Green transition of the industrial and supply sector
- Electrification of energy use
- Development advice
- Circular economy

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- Sustainable products
- Sensitivity analysis
- Life Cycle Assessment (LCA)
- Environmental Product Declarations (EPD)
- Energy and resource mapping

Versatile selection of experts

Engineers, technical experts, economists, business strategists, political scientists, physicists, designers, journalists, sociologists, and communication specialists

Can we save resources and speed up the circular economy by using EU product requirement for recycled content in new products?

BUY A BRACELET CLEAN THE OCEAN

Each bracelet pulls 5 pounds of trash from the oceans, rivers, and coastlines.

[Shop Now](#)

By purchasing this bracelet, you will remove 5 pounds of trash from the world's oceans, rivers, and coastlines



Removes 5 pounds of trash from the ocean

Employs full-time Captains and Crew

Made from recovered Ocean Plastic

Handcrafted by local artisans on the tropical island of Bali

Unisex, waterproof, adjustable from 7-13"

Recycled material verified by GreenCircle Certified

4ocean Signature Beaded Bracelet

Like this or?

Let's rewind a little ...

How far have we got with circular economy product requirements in the Ecodesign Regulations?

Actually, quite a lot

From Green Deal and CE action plans to ecodesign implementing measures for products
Example from ecodesign requirements on phones and tablets (June 2025)



Resource efficiency requirements

- Availability of spare parts
- Repair and maintenance information
- Maximum delivery time of spare parts
- Information on the price of spare parts
- Disassembly requirements
- Requirements for preparation for reuse (data)
- Design for reliability (drops, scratches, dust & water, battery endurance & OS updates)

Expected next

European Commission studies underway



Start of life

End of life



**xx % recycled content
in new products**

**xx % of the product
can be recycled
(recyclability index)**



DG GROW study on 5
ED product-materials
(Viegand Maagøe, VHK,
Fraunhofer)

CINEA study on PV
systems
(Viegand Maagøe, Murcia
University, CENER)

Now to the details on the study on recycled content in new products

The study: Ecodesign preparatory study for product specific measures on scarce, environmentally relevant and critical raw materials and on recycled content

Basic information about the study



The purpose is to conduct an **Ecodesign preparatory study (5 mini Ecodesign studies)** on potential product-specific requirements on recycled content and on scarce, environmentally relevant and critical raw materials, and to propose possible **implementing measures** under the Ecodesign and Energy Labelling Regulatory Framework. Expected to be via **amendments of existing regulations.**

August 2023 to end 2024 / start 2025



The study: What is recycled content?

Post-consumer recycled content

- Used & disposed of by consumers
- Collected, sorted, cleaned & processed
- Repurposed into new products
- Closing the loop
- Main focus of the study

Pre-consumer (or post-industrial) recycled content

- Discarded materials during manufacturing
- Recovered scraps, trimmings, & other by-products
- Prevents waste & reduce demand for virgin materials

Recycled content

- Amount of recycled material in manufacturing of a new product, expressed either as
- Fraction of the total material input (in %)
- Or in absolute numbers (e.g. kg per unit)

The study: Recycling loops



Recycled content from recycling of the **same product type** or even of the manufacturer's own products via take-back schemes

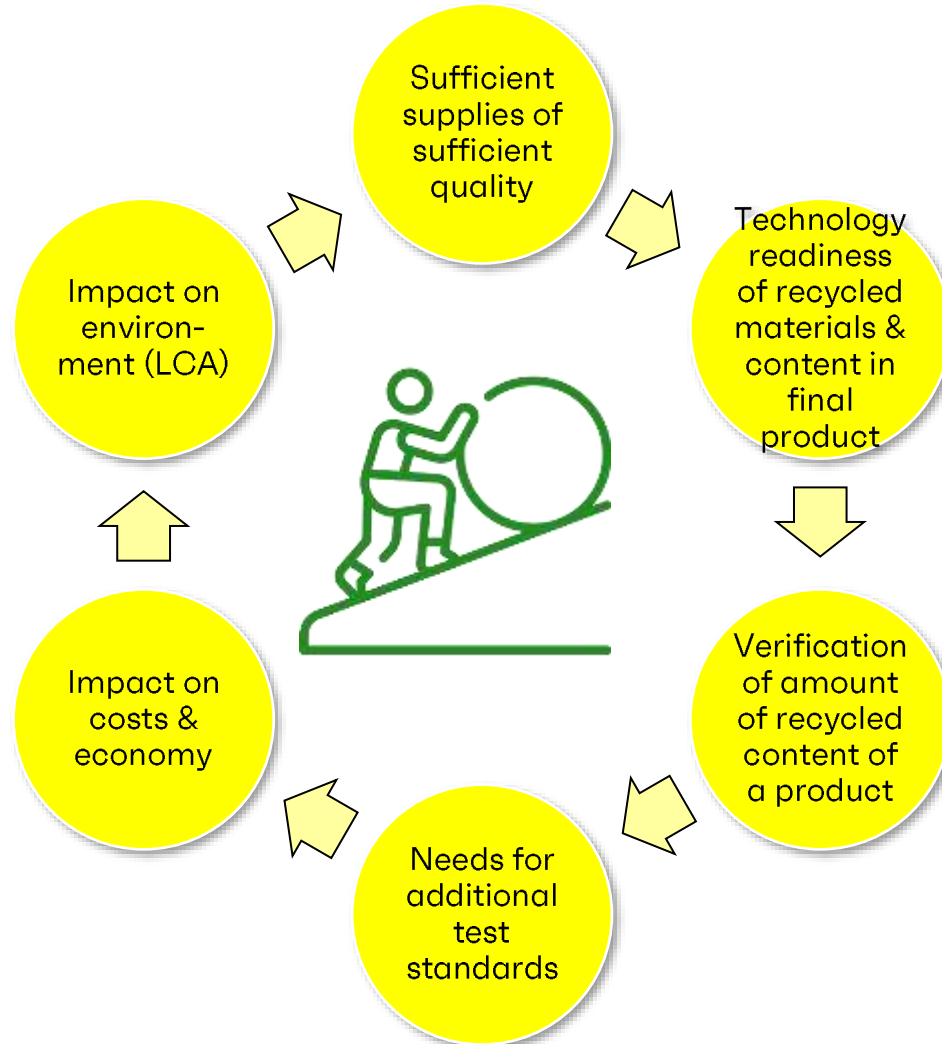
Recycled content from **generic sources** via recycled materials suppliers

Avoid using high quality recycled material for low quality products (e.g. food grade plastic for non-food products)

Chemically recycled content via reworking the recycled materials chemically in a as-good-as-new material, which is still in its infancy, also via recycled materials suppliers

**So, just set a number, 30%
recycled content, or?**

The study: Challenges





The study: Materials

Critical raw materials (CRMs)

- Supply risks & scarcity for EU
- 34 CRMs (2023 proposal)
- Copper & nickel (strategic raw materials)

Environmentally relevant materials

- Gold, lead etc.
- Mining & processing of materials, local environmental impact
- Social impact

Possible measures

- Recyclability of components with material
- Durability of products
- Minimum share of recycled raw materials
- Labelling on the applied share
- Enhance the recovery rate from the waste flows
- Increase collection & take back rate

The study: Expected outcome

Deliverables

- 5 mini-preparatory studies focusing on recycled content and on scarce, environmentally relevant and critical raw materials
- Draft working documents (if the Commission finds it appropriate to develop an implementing measure)
- Stakeholder consultations

Examples of requirements

- Information requirements (on material weight, weight range, recycled raw material content)
- Requirements setting a minimum share of recycled raw materials
- Requirements on the ease of dismantling
- Requirements based on the definition of product specific indexes on product recyclability
- Other requirement² on recyclability and product reusability

Textile as an example for recycled content

Example: Reuse and recycling of textile products

From study: “Analysis of green public procurement of textile products” Viegand Maagøe for Danish EPA

Reuse (2nd hand)

Perfect solution – use the lab coat again

Repurpose

Make kitchen towels from lab coats

Mechanical recycling

For new lab coats – but lower durability due to fibre length reduced with 30-40%

Chemical recycling

> 5 yrs: Polymers: New material
> 10 yrs: Monomers: Give original raw material

What will be different in ESPR for recycled content and materials?

ESPR and recycled content

- Both ED & ESPR cover recycled content
- ESPR covers all products apart from a few exemptions
- ESPR includes more supporting measures such as product passport & mandatory green public procurement

Key takeaways – what to remember if you have forgotten what I said

Already **circular economy requirements** in ED regulation, mainly repair & lifetime extension

Recycled content requirements expected to come into regulations

- 5 pilot products via amendments
- Materials requirements on CRMs (supply risk) & environmentally relevant materials
- Challenges to overcome (supplies, technology, verification etc.)

Recyclability index also expected to come into regulations

ESPR will take over from ED after a transitional period

More information

- [Commission Regulation \(EU\) 2023/1670 of 16 June 2023 laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation \(EU\) 2023/826](#)
- Ecodesign preparatory study for product specific measures on scarce, environmentally relevant and critical raw materials and on recycled content: www.ecodesignmaterials.eu
- Preparatory study for the Ecodesign and Energy Labelling Working Plan 2020-2024: www.ecodesignworkingplan20-24.eu

Thank you

Jan Viegand

Phone: +45 20 85 80 94

jv@viegandmaagoe.dk

