EGGA
GALVANIZING EUROPE

Circular Economy Act – Putting Optimal Durability and Reuse at the Core

Position Paper

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Our Position on the EU Circular Economy Acy

EGGA – Galvanizing Europe welcomes the ambition of the Circular Economy Act (CEA) to make circularity a driver of resilience, business competitiveness and decarbonisation in Europe. To achieve these objectives, the CEA should prioritise durability and reuse, in line with the waste hierarchy.

Optimal durability and high reuse potential should be, in particular, further strengthened in construction and infrastructure regulations, notably through public procurement, to maximise the long-term value, sustainability and climate resilience of public assets.

Construction projects must be designed for durability, disassembly and multiple service lives whenever feasible. At the same time, the CEA should address regulatory and market barriers that currently limit the practical reuse of infrastructure components, such as highway guardrails.

Finally, improved circularity measures should go beyond critical raw materials (CRMs), to include important metals such as zinc that make important contributions to circularity, support industrial resilience and resource security objectives.

By supporting industries that are already inherently matched to the circular economy, the CEA can deliver durable, reusable and fully recyclable solutions for construction and net-zero infrastructure, strengthening Europe's resilience, competitiveness and decarbonisation pathway.

Circularity in practice - the batch galvanizing industry

The batch galvanizing industry provides the most durable form of steel protection, by applying a thick, strongly bonded coating of zinc metal to approximately 8 million tonnes of steel products every year.

With a service life that can exceed 100 years, galvanized steel is widely used in infrastructure, including highway guardrails and railway steelwork, construction works, such as bridges and vital net-zero technologies, notably electricity transmission towers and solar structures.

Galvanized steel products are durable, robust and adaptable, avoiding premature replacement, reducing maintenance needs and facilitating reuse. When these reuse cycles end, steel and zinc are recycled together in established steel recycling processes, ensuring high-value material recovery in a closed loop.

Recommendations

EGGA supports a CEA that unlocks the full potential of durable, reusable and recyclable materials. A successful CEA must recognise and reward materials that actively extend product lifespan and enable high-value reuse. Prioritising durability and reuse simultaneously advances the EU's climate neutrality objective, strengthens infrastructure resilience and reduces the use of primary raw materials, therefore supporting industrial autonomy.

1. Prioritise optimal durability and potential for reuse in construction policy and public procurement

Durability is the first condition of circularity. Products and infrastructure should be designed to last longer and to be reused or repurposed over more than one life cycle rather than be discarded or prematurely replaced.

Galvanized steel products can remain in service for several decades, often over 100 years, significantly reducing the need for new raw materials and energy.

"Slowing the loop" delivers long-term carbon reductions through avoided premature replacement of steel products, reduced maintenance needs and facilitating reuse.

The CEA should therefore set ambitious levels of durability and reuse potential as core criteria in construction and infrastructure regulations, notably through public procurement, to encourage more circular practices, maximising the long-term value and sustainability of public assets.

Construction policy

EGGA recommends:

- Strengthen durability and reuse potential as criteria in construction regulations. Construction policy should aim to maximise infrastructure lifespans by promoting ambitious durability expectations, in particular for critical infrastructure, in line with existing and forthcoming EU policy developments on climate resilience, resource efficiency and long-term value for money.
- Align durability requirements in construction policy with climate-resilience objectives. Construction materials should be able to withstand more extreme environmental conditions (including floods, heatwaves and wildfires), contributing to both climate adaptation and resource efficiency.

In particular:

- Ensure that standards in the Construction Products Regulation (CPR) evolve to encourage design for durability, disassembly and reuse, so that infrastructure and buildings contribute further to a circular economy.
- Recognise corrosion protection as core criteria in construction product regulations, at building level, and in public procurement as it determines service life.

Public procurement

EGGA recommends:

- Infrastructure and construction, including critical infrastructure, should always be procured strategically, with ambitious minimum requirements for durability and reusability to ensure long-lasting, circular solutions, taking into account the ability to deliver climate resilient infrastructure and assets that last longer and support multiple service lives.
- Include optimal corrosion resistance as a mandatory criterion in infrastructure and construction procurement, based on the most advanced technical standards when defining minimum requirements.
- Additional award criteria in infrastructure and construction public procurement to products and solutions that meet optimal durability requirements and are designed for multiple service lives.
- Prioritise infrastructure categories with high reuse potential in public procurement, notably road infrastructure (e.g. highway guardrails) and rail infrastructure (e.g. trackside structures) where bureaucratic procedures can hinder implementation of reuse.

For further details please see EGGA position paper on the revision of EU public procurement rules.

2. Facilitate Reuse

Galvanized steel is robust and easily dismantled, making it well suited for reuse or refurbishment over multiple life cycles. Increasing awareness of the high potential for reuse of steel products is vital to achieve circularity objectives.

Policy should prioritise reuse, and other retention options such as refurbishment and regalvanizing, before recycling, in line with the waste hierarchy, while ensuring that safety and performance remain paramount.

Reuse of batch galvanized steel structures from buildings and infrastructure is already feasible but faces inertia and regulatory barriers, such as liability uncertainties and lack of harmonised standards for reused components.

Current standards and certification schemes are largely designed for a linear economy and do not yet adequately reflect circular business models. The CEA should address these regulatory and market barriers that currently constrain reuse.

EGGA recommends:

- Strengthen reuse criteria in construction policy and standards, prioritising durable, climate-resilient materials with high reuse potential in public procurement.
- Develop standards for reused steel components, when needed, ensuring safety and compliance while enabling cost-effective reuse in public infrastructure projects. For example, reuse of infrastructure elements such as highway guardrails should be prioritised to ensure long-term efficiency and sustainability.
- Introduce requirements to support building design for disassembly and adaptability, including modular construction, making it easier to recover and reuse components such as galvanized steel. Introduce, for example, qualitative award criteria in public procurement for construction projects demonstrating potential for future disassembly and reuse potential.
- Encourage pre-demolition audits for metals to help estimate the quantities recoverable at the end-of-life stage of buildings and ensure they remain in the formal economy, thereby promoting optimal reuse or recycling practices.

Circularity in Highway Infrastructure

Galvanized steel highway guardrails represent a practical case for circular infrastructure. A study in the Netherlands showed that 67% of galvanized steel highway guardrails were suitable for reuse either directly or after regalvanizing.

Systems for direct reuse or, if required, regalvanizing of steel products can contribute greater circularity in highway infrastructure

Despite this potential, guardrails are often repurposed only for less demanding applications – such as supermarket trolley bays or within car parks – following road renovation projects. This occurs due to liability uncertainties, questions regarding CE marking, lack of harmonised reuse standards and practices favouring new products. While some progress has been made in some Member States - for example in the Netherlands regarding guardrail reuse and in Belgium through pilot projects for the reuse of sign gantry structures above the road - to facilitate reuse at a larger scale across Member States, while maintaining safety and performance, the CEA should:

- Clarify ownership and responsibility for reuse compliance under the CPR, to provide legal certainty to road authorities and contractors.
- Ensure that reuse is facilitated when inspections and testing confirm compliance with technical criteria and safety specifications (CE conformity).
- Develop guidance within CEN for safe reuse of road restraint systems, aligning circular economy objectives with safety requirements.
- Support reuse in public procurement by allocating sufficient time in contracts for dismantling, inspection and refurbishment.
- Ensure that Declaration of Performance and Environmental Product Declarations properly reflect extended service life and potential for reuse.

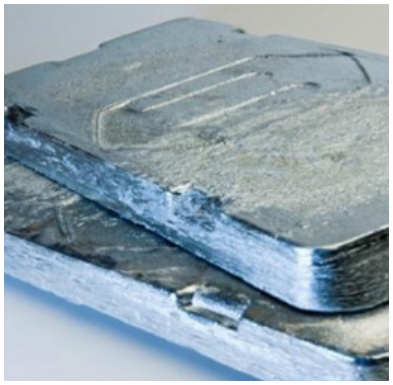
3. Support for circularity must go beyond critical raw materials

Metals such as steel and zinc play a vital role in the circular economy and net-zero transition, but their plentiful supply and high recycling levels correctly do not justify critical raw materials (CRM) status.

An excessive policy focus on CRMs risks diversion of funding and attention away from other important metals, such as zinc, that have proven well-functioning recycling loops but remain vulnerable to excessive regulation and international trade distortions.

Without appropriate EU measures, secondary raw materials for zinc recycling may increasingly flow out of Europe. Recycled zinc has intrinsic value, as a carrier of small quantities of valuable CRM metals such as nickel, bismuth and tin. When zinc residues are exported, Europe not only loses the zinc content but also these valuable alloying elements, some of which are critical raw materials. If zinc circularity is compromised or does not keep pace with the circularity objectives of the EU, future supply vulnerabilities may emerge, possibly becoming critical in the future.

Zinc metal is recovered from the by-products of the galvanizing process and returned to the industry without loss of properties.



The CEA should align with the Steel and Metals Action Plan and support circularity across all strategically and economically important metals. Future circularity measures should also apply to non-CRMs such as zinc, to avoid unintentionally neglecting metals with the highest near-term potential for reuse and recycling.

EGGA recommends in particular that the CEA includes policy measures to:

- Increase demand for EU secondary raw materials, including through favourable public procurement rules and measures to further reduce the landfilling of waste.
- Reduce exports of waste and increase recycling capacity within the EU of strategically important materials, such as zinc, that make important contributions to circularity and support industrial resilience and resource security objectives. If supportive measures are targeted to CRMs, then a list of additional materials that also justify certain parts of that support should be included as an Annex to the CEA.

Conclusion

The CEA should place optimal durability and reuse at the core of construction and infrastructure policy.

Galvanized steel products already demonstrate that extended service life combined with subsequent reuse and refurbishment can be achieved within an economically viable circular system. The EU's circularity will be enhanced when:

- Administrative barriers to reuse are reduced
- Specifications for new infrastructure and construction give preference for durable and reusable products.

By recognising and supporting materials that extend service life, enable reuse and ensure high-value recycling, the CEA can strengthen Europe's resilience, competitiveness and pathway to decarbonisation. This goes beyond a focus on critical raw materials.

Reference: Galvanized Steel and Sustainable Construction: Solutions for a Circular Economy

Galvanizing Europe

The general (batch) galvanizing industry provides the most effective long-term corrosion protection for steel products, through the application of a metallurgically-bonded coating of zinc metal. It is a service that is applied after manufacture of the product and normally on a sub-contract basis. The coating ensuring many decades of maintenance-free durability for vital net-zero technologies, such as solar power installations and wind energy equipment. A galvanized coating is sufficiently durable and robust to provide corrosion protection across more than one product lifecycle. Both zinc and steel are recovered at eventual end-of-life.

The European General Galvanizers Association (EGGA) is the federation of the national galvanizers associations within Europe. The industry comprises about 700 general galvanizing plants (mostly SMEs) employing an estimated 40,000 people in Europe. EGGA monitors and responds to issues affecting the general galvanizing industry in Europe, in particular environmental, technical and regulatory matters. EGGA also provides a platform for coordination of marketing and other initiatives for the industry.

Further Information

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