#EUCircularTalks

Recommendations for European cooperation to achieve circular economy through the maintenance, re-use and recycling of asphalt

EAPA

HOLLAND CIRCULAR HOTSPOT sharing innovation

Rijkswaterstaat
Ministry of Infrastructure and Water Management

DGNB

European Circular Economy Stakeholder Platform

What is asphalt?

More than 90% of European roads are surfaced in asphalt:

The main mission of asphalt is to provide:

- Even profile for the comfort of the user and low rolling resistance,
- Enough texture to ensure minimum and safe skid resistance
- Rapid drainage of surface water
- Noise reduction
- Durability
- **100% Reusability and Recyclability**

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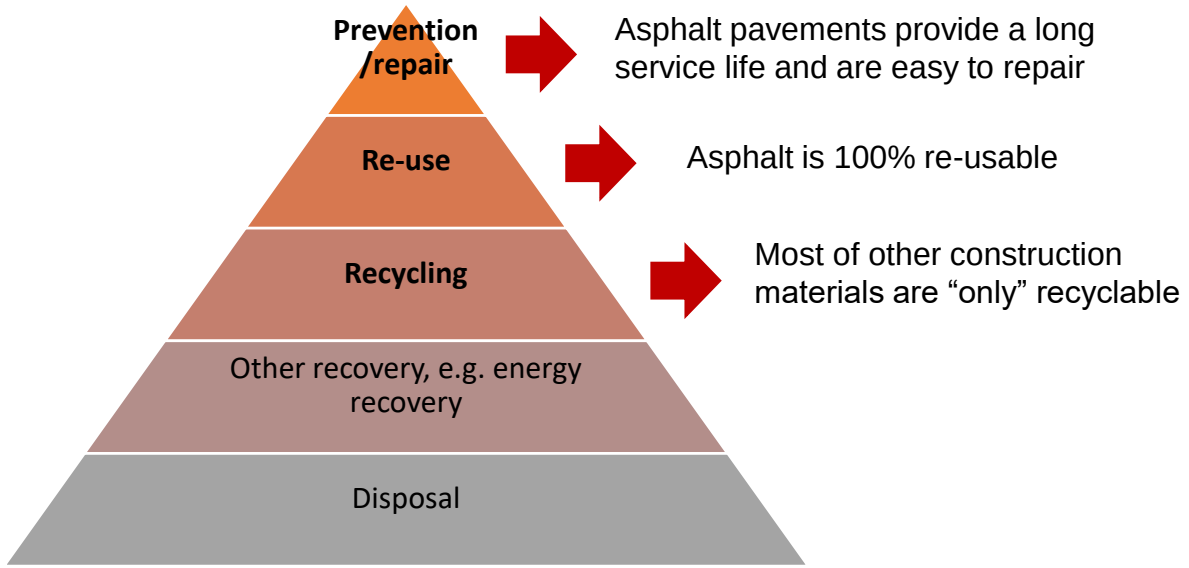
Asphalt re-use: operation by which reclaimed asphalt (RA) is reincorporated into the pavement, with the aggregates and the aged bituminous binder performing the same function as in their original application.

Note: This is independent of manufacturing temperature, road layer, etc. Hence, it would include, for example, the manufacturing of cold mix asphalt from former warm or hot mix asphalt.

Asphalt recycling: operation by which reclaimed asphalt (RA) is used as foundation, fill or road material, with the recovered aggregate and bitumen performing a lesser (or alternative engineering) function than in the original application.

Note: This means that, traditionally, the term "recycling" has been mistakenly used to also refer to "re-use" operations.



Waste hierarchy established by the Directive 2008/98/EC on waste

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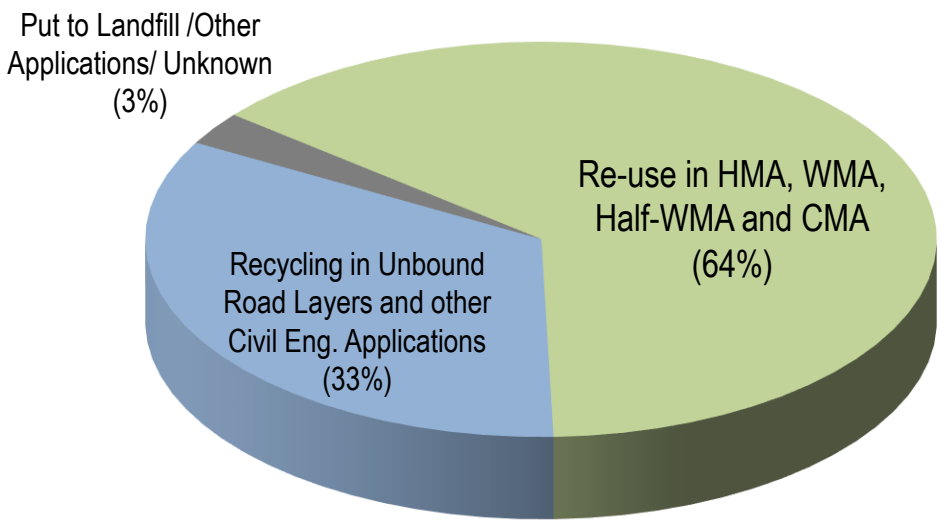

Application of reclaimed asphalt available in European countries providing data in 2020

**Total amount of reclaimed asphalt available for the industry in the European reporting countries in 2020 was 46 Mt*

https://eapa.org/asphalt-in-figures/

Important considerations:

- Asphalt is a construction material easy to repair, allowing a significant extension of its service life, when proper maintenance is done.
- Unfortunately, still nowadays, some Administrations prioritise the funding for new construction before the maintenance of the existing road assets.
- At the end of its service life, asphalt is a material 100% re-usable in the construction and maintenance of new roads and 100% recyclable in other applications.
- Unfortunately, there are still historical misconceptions of “new” being better than “re-used” and the application of regulations (e.g. Waste Framework Directive) has led some countries not to facilitate the transition of site-won asphalt from “waste” category to “secondary raw material”.
- All this is often translated into special operating procedures, which can reduce efficiency and increase costs.
- While some Administrations do promote the circular economy, there is a risk of compromising the exceptional circularity that asphalt has by nature, through the use of by-products and waste materials from other sectors into asphalt.

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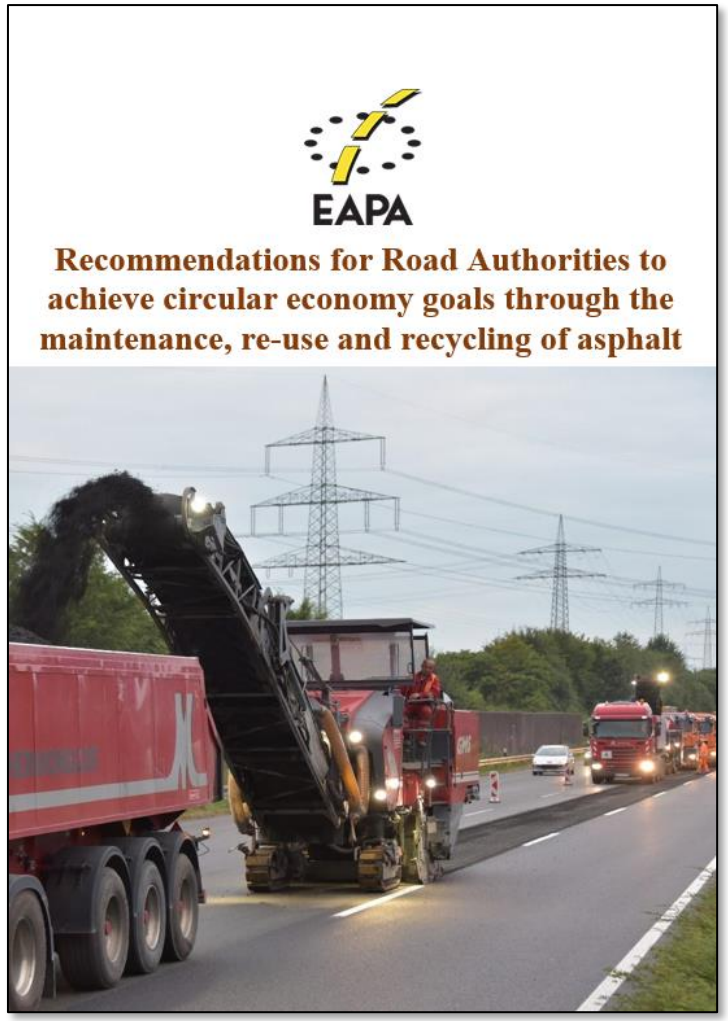

https://eapa.org/eapa-position-papers/

EAPA position:

- As long as it is technically and economically viable, proper road **maintenance** must be carried out to maximise the service life of our road networks, prevent waste generation and minimise the depletion of new resources.
- After that, the **re-use** of existing asphalt shall always be the first option and its **recycling** the second.
- Therefore, there should be no intent (or requirement) to discard this valuable material. In other words, **"asphalt" should never be considered as a "waste".**
- In addition, the asphalt industry must avoid the use of products, **by-products and waste materials from other sectors**, which may endanger asphalt fundamental properties, such as its own circularity.

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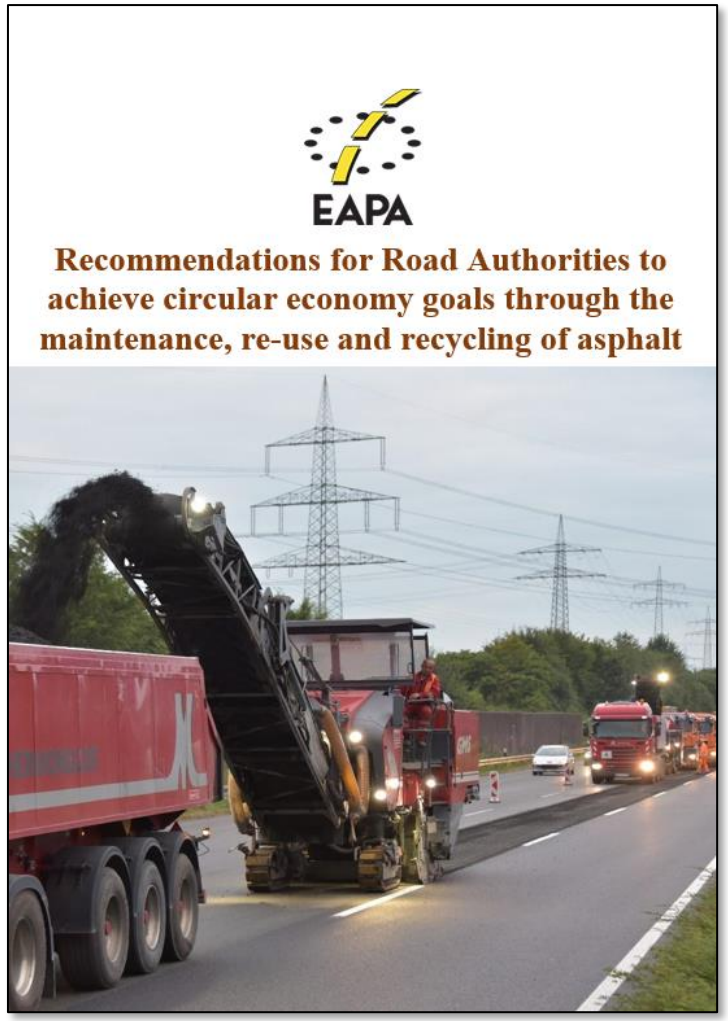

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Recommendations for Road Administrations:

1. To stimulate demand for the use of sustainable solutions in roads construction and maintenance, which optimise the criteria of sustainability, circular economy, eco-design and quality, through effective maintenance strategies and the use of reclaimed asphalt coming from existing pavements.

2. To set up regulatory plans, in which “asphalt” is never considered as a “waste” by establishing reasonable end-of-waste criteria for site-won asphalt.

3. To produce robust specifications designed to maximise circularity in the road sector.

4. To prevent the introduction of waste materials and by-products from other industries, which could compromise fundamental characteristics.

5. To adequately manage asphalt with legacy materials.