

### THE INFO CENTER FOR RECYCLING OF ASPHALT

#### http://www.asfaltgjenvinning.no

Kontrollordningen For Asfaltgjenvinning - KFA





The Info Center for Recycling of Asphalt (KFA) was established in 2001 on the initiative from the "Norwegian Asphalt Association".

The purpose of KFA is to promote recycling of Reclaimed Asphalt (RA). KFA also monitors the annual amount of collected (RA) as well as the degree of recycling at national level. This is primarily achieved by keeping an updated register of known RA storage sites. KFA has no authority. It is the National environmental authority that sets requirements for the storage sites and approve each individual site.

KFA reports annually on production, storage and recycling of RA. This annual report is published on the website. KFA also gives out guidelines and recommendations on the use of RA on the website.

Members of the Board are contractors, bitumen suppliers and the Norwegian Public Road Authority.

KFA and its activities is financed by a fee on the amount of bitumen used for road purposes in Norway. The current fee is about 1 US dollar per ton bitumen sold on the Norwegian market.

The company 'Veiteknisk Institutt' is given the responsibility of operating and monitoring the KFA agreement.



The KFA has good contact with and is trusted by Norwegian environmental authorities.



Board of KFA per 2019

Report of RA in 2018 at national level:

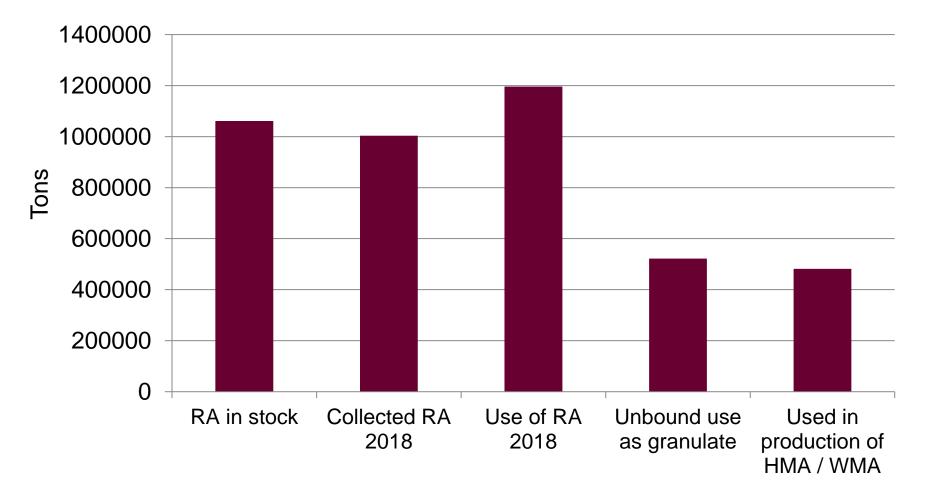
- Asphalt granulate as raw material used in asphalt production: 482.000 tons
- Total asphalt production 2018: 7.534.000 tons
- Total degree of reused asphalt granulate in asphalt production (hot and cold): 6,4 %
- Additional 714.000 tons asphalt granulate was reused, but not in production of asphalt

There are per 2018 total 251 intermediate storage sites registered, of which 190 sites reported to KFA for 2018 (76%).

RA collected in 2018:1.004.000 tonsRA reused in 2018:1.196.000 tons (more than collected volume)RA stored per 31.12.2018:1.061.000 tons

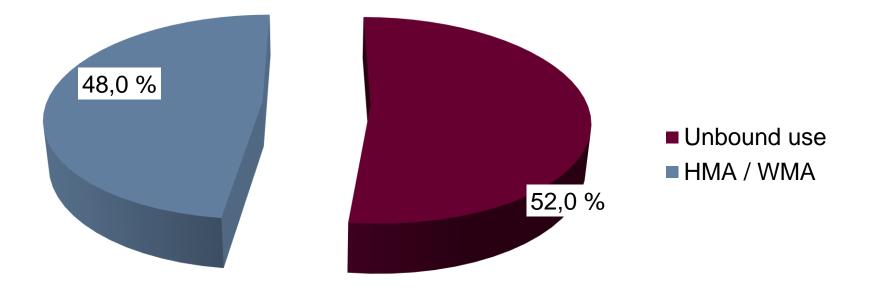


## Collection and use of RA – 2018





## Use of RA in Norway - 2018



KFA has a goal to increase the use of RA in the production of asphalt.

If we manage to add 10% on average in all production of new asphalt, 75% of all RA will go back into asphalt production.



#### ACTION PLAN 2018 - 2023

- A. Continuous tasks
- A 1. Maintenance and updating of the intermediate storage register
  - The purpose is to have a total overview of collected and reused return asphalt
- A 2. Annual Report
  - Preparation of annual report with statistics of collected and reused return asphalt
- A 3. Service and inquiries
  - Be a service office for external inquiries about receiving and reuse of return asphalt.
  - Advice regarding the establishment of new storage sites and assist in application for approval of new sites
- A 4. Website and information materials/ reports
  - Maintain and update of the website of the KFA
  - Collect and updates reports and references that can be downloaded from the website (info sheet, recycling guide, etc.)
- A 5. Information work
  - Lecture on the KFA organization and reuse of return asphalt at meetings and conferences.
  - Visit municipalities, companies and institutions to inform about the KFA
  - Write articles about KFA and reuse of return asphalt

#### ACTION PLAN 2015 - 2023

#### A. Continuous tasks

#### A 6. Experience Collection

- Study and publish reports on reuse of asphalt
- Be up to date on laws and regulations that apply to reuse and waste management
- Attend meetings and seminars to gather experience about reuse of asphalt
- Keep in touch with individuals who work with reuse of asphalt

#### A 7. Follow-up of reuse projects

- Follow up and report from projects where asphalt granulates are used
- Add reports from recycling projects on the website
- Follow-up of road projects with reuse asphalt in low temperature asphalt

#### A 8. Tar analyzes of samples from intermediate storages

- Collect and analyze samples from storages to document extent of tar-contained asphalt Samples are collected from all intermediate storages within a three-year period. The sample results are sent to both owner of storage site as well as the National environmental authority
- Analyse samples from producers and road authorities where there is suspicion of tar content to ensure proper handling and storage of reclaimed asphalt

ACTION PLAN 2018 - 2023

B. Time-limited tasks Here new projects will be created during the planning period

Ongoing projects:

Establish a system for increased sorting of incoming materials. Especially milling of known road surfaces. Use of RA from high-traffic roads in production of asphalt for high-traffic roads to make the best use of resources.

Following up trials of asphalt pavements with high recycling rates.

Establish a test system for rejuvenators.

Reinforcement of low-traffic roads using RA in combination with geogrid

# KFA Kontrollordningen For Asfaltgjenvinning