



WHY

Europe has been producing tar-bearing asphalt in large quantities. What people didn't know before is that tar contains environmentally unfriendly substances that we cannot and may not recycle any longer. However, millions of tonnes of this tar-bearing asphalt will be released in the next 50 years in road maintenance processes throughout Europe. If they are not processed, permanent landfills will have to be created to dispose of those materials. Also, processing tar-bearing asphalt will result in fewer stone quarries being required to provide the Dutch construction industry with sand, gravel and binding agents.

RESULTS

In 2006, REKO took its first thermal cleaning plant into commission. At the time, there weren't any plants worldwide that could create new products out of asphalt and that were able to convert generated energy into electricity. REKO developed this technology on its own initiative. The company started developing a second plant in 2021. Due to the experience gained from the first plant, newly-built plant REKO II is six times more energy-efficient.

LESSONS LEARNED

- convincing finance partners of the technological feasibility and having a presence in a constant market, without any contracts being signed.
- Recycled products must compete with virgin products, which makes introducing recycled products in the market a difficult process. This is because - among other things - these products are not compatible with existing quality systems created by the current industry.

DESCRIPTION

By way of thermal cleaning, REKO converts tar-bearing asphalt into new raw materials for the construction industry, such as sand, gravel and binding agents. These can be recycled directly in the production of new concrete and asphalt. This thermal recycling process also generates heat, which is converted into high-pressure steam for adjacent companies or converted into electricity through a steam generator. Thus REKO converts waste materials into raw materials, while also putting heat to good use in the process, or in other words; 100% recycling.



TECHNOLOGY READINESS LEVEL

1	2	3	4	5	6	7	8	9
Basic principles observed	Technology concept formulated	Experimental proof of concept	Technology validated in lab	Technology validated in relevant environment	Technology demonstrated in relevant environment	System prototype demonstration in operational	System complete and qualified	Actual system proven in operational environment
DISCOVERY			DEVELOPMENT			DEMONSTRATION		

CLEANING PROCESS TAG

