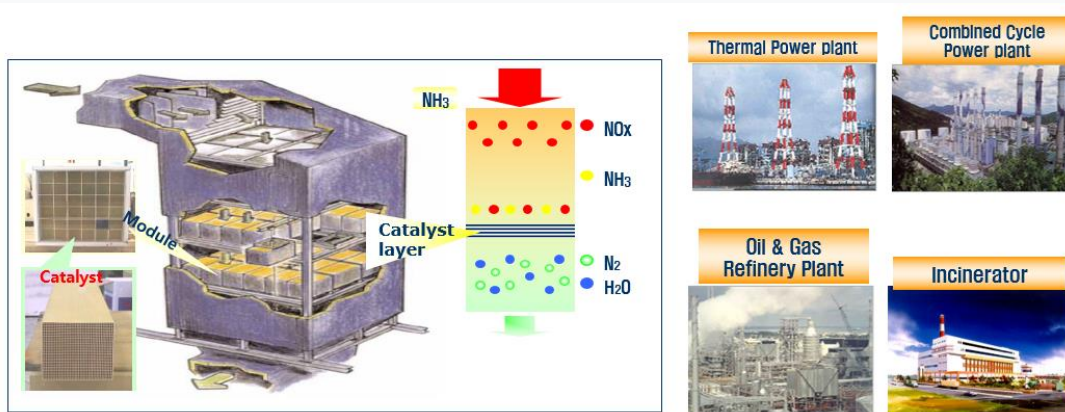


## “We turn discarded denitrification waste catalyst into a resource”

- With our Korean technology, we will be able to catch three rabbits: reduction of environmental pollution, recycling of resources, and creation of high added value.”



It is a process of recovering valuable metal components from spent denitrification catalysts through alkali rare metal oxides such as tungsten, vanadium, and titanium are extracted. It is the world's first process to realize the commercialization of the technology by operating a plant that applied 'denitrification waste catalyst recycling technology.

Our technical partner, Vitzro, is the only company in the world that makes and supplies waste denitrification catalysts as useful resources. It is a place that makes a significant contribution to the industry through recycling. Moreover, the 'SCR denitrification catalyst' used to remove nitrogen oxide (NOx), which is the cause of fine dust, has been simply landfilled as designated waste after use. In the meantime, recycling technology was not developed, so it was simply landfilled.

We are the first company in the world to develop the technology to separate and recover rare metals from waste denitrification catalysts that were simply discarded. In particular, we are set to advance into the eco-friendly metal material market by establishing a virtuous cycle of resources by commercializing waste catalyst recycling technology for denitrification and contributing to environmental preservation.

When used in power plants, steel mills, incinerators, combined heat and power plants, cement factories, and general industrial plants, and disposed of or landfilled, it becomes a serious problem for environmental pollution. In addition, as environmental regulations are strengthened, the use of 'denitrification catalyst', a fine dust removal device, is on the rise.

We make these waste catalysts into useful resources, contributing to the reduction of fine dust, as well as contributing to a virtuous cycle of resource recycling. We also learned that the discarded 'denitrification waste catalyst' contains about 80% of rare metals such as tungsten, vanadium, and titanium, so it has a great potential to be used as a useful resource.

### ■ Denitration Waste Catalyst

Denitration catalyst with SCR (Selective Catalytic Reduction) performance is a catalyst used to convert NOx, an air pollutant among exhaust gases generated from thermal power plants and incinerators, into N2 and H2O that are harmless to the human body and the environment by reacting with ammonia and urea, which are reducing agents. , V2O5-WO3-TiO2 catalyst is mainly used, and the main composition is TiO2 70~80%, which is the highest, and WO3 5~12% and V2O5 1~5% are partially contained.