

# RIWALD RECYCLING CIRCULAR RECYCLING

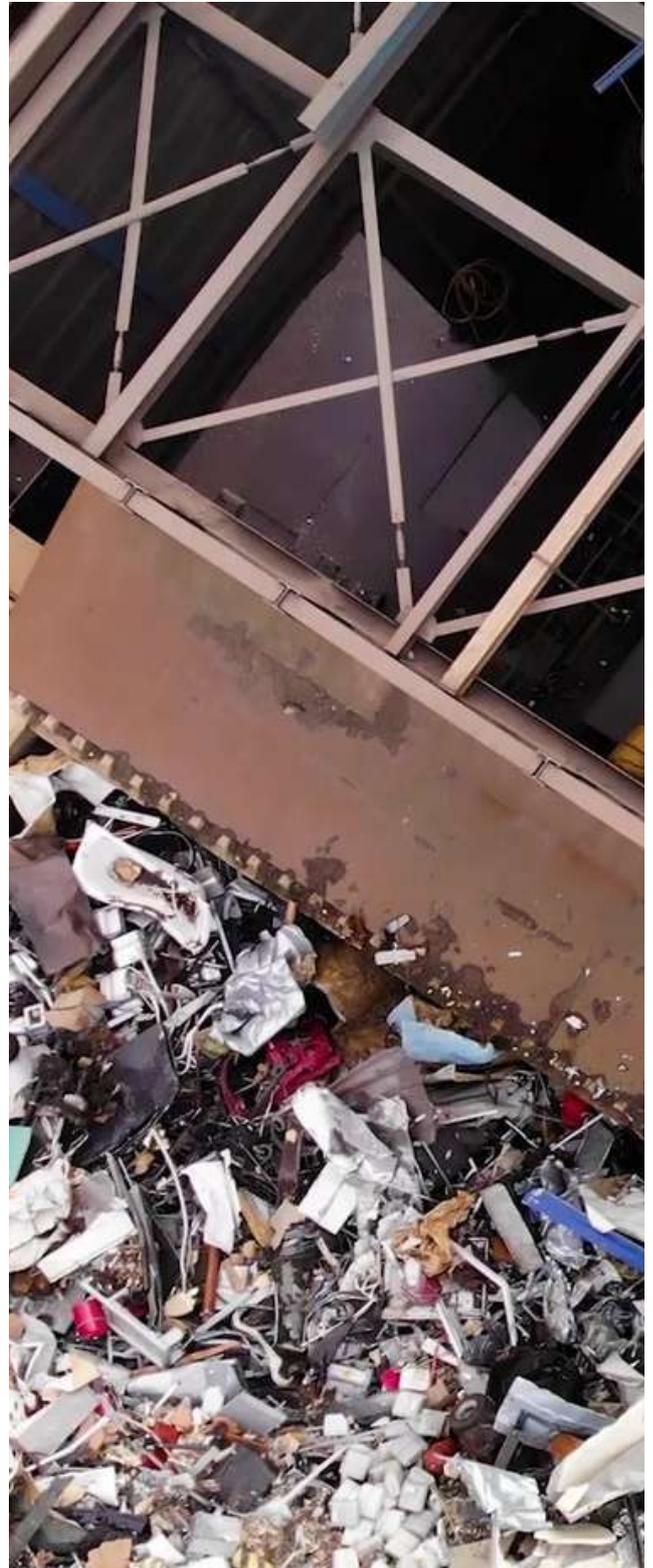


# PREFACE

The number of consumers in the world is increasing. As a result, raw materials to make products are becoming increasingly scarce and expensive. Unless we deal with raw materials more cleverly so that we can partly reuse them. We call this a circular economy. Companies must use at least 50% less minerals, fossil fuels and metals by 2030 and be fully circular by 2050. This is badly needed to achieve the goals of the climate agreement. The Dutch economy would then run on recovered raw materials and no 'new' raw materials would be needed. The increase in raw material efficiency is therefore very much reinforced.

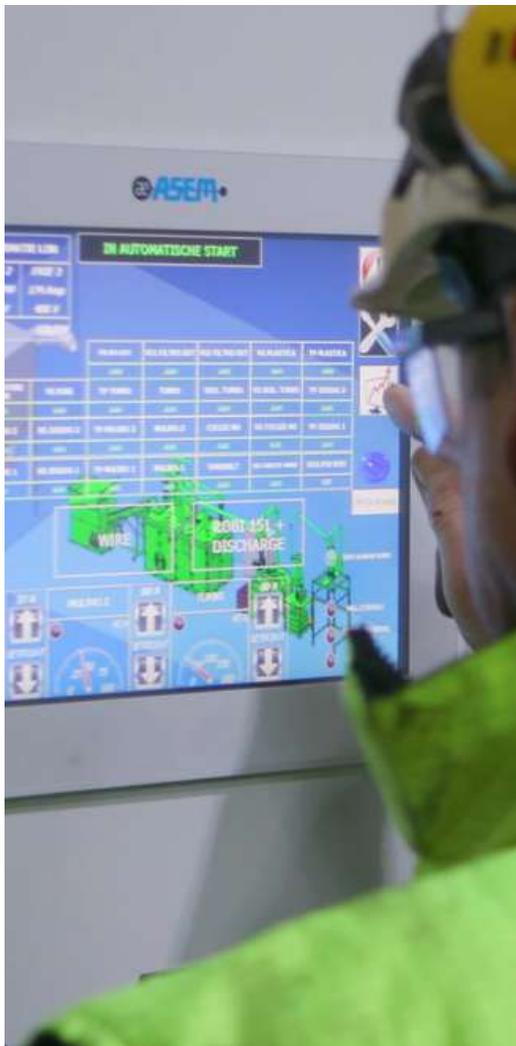
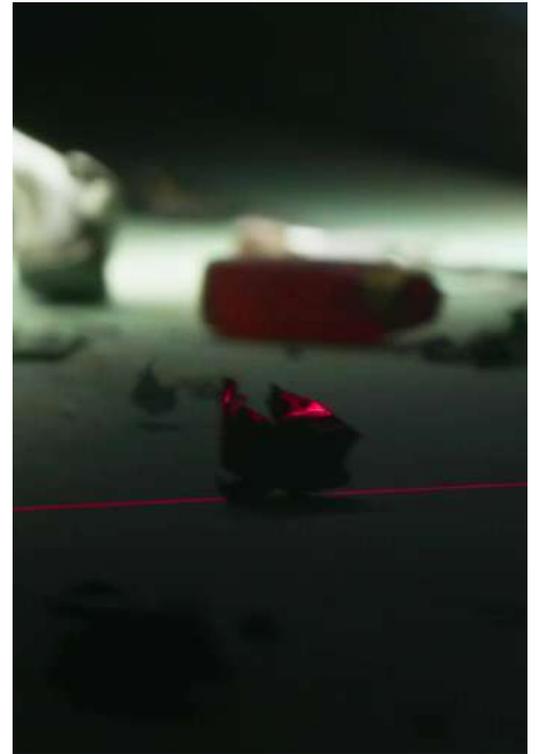
We, as Riwald Recycling, strive for a circular business strategy and invest in circular projects and related technical developments to meet the above challenges. Thanks to our efficient operations, in-house production process and geographical locations, Riwald Recycling holds a prominent position in the metal recycling industry within the Netherlands and the rest of the world.

Our business strategy was born from the combination of the Trias Energetica philosophy and the 3R philosophy, the predecessor of the 10R philosophy. By using our high-tech granulator in combination with our high-tech equipment - double shears, eddy currents, drum screens, wet separation tables, Infra Red (NIR), X-Ray, metal sensors, NF fines processing and color sortings - we enhance raw material efficiency, resulting in no more 'new' raw materials being required.



# SUCCESS OF RIWALD RECYCLING

As one of the world's leading metal recycling companies, Riwald Recycling plays a pivotal role as a supplier in the circular chain of sustainable material use worldwide. With over 30 years of history and two branches, we serve the global demand for metal for different types of industries. Our experience, wide range of recycling options, and commitment to environmental, social, and corporate governance criteria places Riwald Recycling among the most advanced, respected, and trusted recycling companies in the Netherlands and around the world.



# AUTHORITY ON RECYCLING AND SUSTAINABLE BUSINESS PRACTICES

Riwald Recycling recycles many hundreds of thousands of tons of waste materials each year - ranging from household electrical appliances, industrial high-value residual streams to railcars and airplanes. These materials are then recycled into more than 150 types of renewable raw materials. Given its position, expertise and separation technologies, Riwald Recycling plays an active role in finding solutions to global environmental issues. We link our sustainability strategies to the Sustainable Development Goals (SDGs) and integrate innovative technologies for maximum recovery from raw materials.

# CIRCULAR FRAMEWORK

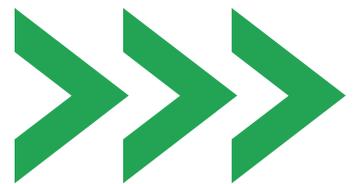
Our business strategy has been created from the combination of the Trias Energetica philosophy and the 3R philosophy, the precursor to the 9R philosophy. The 3R philosophy is based on Recover, Reuse and Recycle of valuable ferrous ((steel, cast iron, stainless steel, with iron (Fe) as the main component)) and non-ferrous (aluminum, copper, lead, zinc, bronze, brass, all materials with a different main component). Thanks to our efficient operations, in-house production process and geographical locations, Riwald Recycling holds a prominent place in the recycling industry within the Netherlands and the rest of the world, both in terms of competitiveness and capacity. Our goal is to become a 'circular hub' where all flows come together in our ecosystem - transforming complex products into pure raw materials and transporting them logistically in a sustainable way to companies in the manufacturing industry. The economy would then run on recovered raw materials and there would be no need for 'new' raw materials.



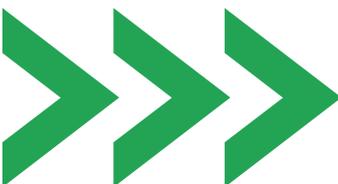
## TRIAS ENERGETICA

Using the Trias Energetica philosophy, Riwald Recycling's energy efficiency approach is achieved in three steps: 1) we limit the energy demand as much as possible; 2) we apply sustainable sources where possible; and 3) we fill the residual energy demand as efficiently as possible using fossil sources. Riwald Recycling continuously invests in a green future and makes use of a unique high-tech granulator in combination with associated separation installations for maximum recovery efficiency. Furthermore, Riwald Recycling uses electric shears and cranes which are environmentally friendly, fuel efficient and noise reducing. In combination with our sustainable transport, Riwald Recycling is one of the most innovative (metal) recycling companies in the Netherlands and the rest of the world..

# COMPLEX PRODUCTS



# FERROUS EN NON-FERROUS



# HIGH-TECH METAL RECYCLING

Our granulator, a unique metal processing machine, separates the ferrous from the non-ferrous metals. Due to its innovative operation, our granulator with its associated waste separation plants can separate the remaining waste from the incoming metals making practically all raw materials suitable for 100% reuse. This ensures pure end products, which in turn brings a higher yield. This also has the advantage that the end products can be offered directly to companies in the manufacturing industry, smelters and end processors for reuse. This makes Riwald Recycling one of the most innovative recycling companies in the Netherlands and the rest of the world. We think of the future and show that metal recycling can also be done differently. More sustainable, cleaner and more professional.



# CONTAINERSERVICE

Riwald Recycling can place containers for the collection of all metal-containing waste streams, such as scrap metal, production waste, scrap iron, surplus stock, machinery and equipment. We can place various types of containers from 1 to 40m<sup>3</sup>, for example open containers, containers with lids, lockable containers and liquid proof containers. All our standard containers are equipped with an anti-theft lock, which minimizes theft of the container and its contents placed with you. We also offer you the possibility to produce containers according to your wishes. Whether it is for one day, for a longer period, or for constant placement, the emptying will be carried out professionally and according to agreement. If desired, we can also provide you with mobile cranes equipped with high-tech equipment, for disassembly, cutting and loading work on location.

## DEMOLITIONS

Riwald Recycling can take care of dismantling plant, structures, infrastructure and machinery for you. We also specialize in dismantling vessels, vehicles, aircraft, locomotives, bridges, and locks. All this thanks to our expert staff, our extensive and well-equipped machinery and our own transport fleet.

We can receive large demolition objects, such as bridges, lock gates, discarded windmills and heavy structures via water at our locations.



## PRODUCT-DESTRUCTION

Riwald Recycling is specialized in the complete destruction of discarded, damaged and/or unsaleable (overstock) products and prototypes. Due to our physical high-tech destruction, you prevent rejected and written-off products from entering the market undesirably. Our product destruction process is completely safe, circular and certified. Riwald Recycling works according to the strictest European standards and guidelines, and thanks to our innovative separation technologies, seen in our machinery, we ensure that all the raw materials in your products find their way back into the circular economy. All products are transported according to the strictest guidelines and irreparably destroyed. After the product destruction process, you will receive a destruction report and the accompanying documents, with which you can prove that all products have been destroyed according to the applicable guidelines. In addition, it is also possible for all our customers to attend the destruction process under supervision. Thanks to our high-tech and circular chain, practically all raw materials become suitable for 100% reuse and we contribute to maximum raw material efficiency.



# HIGH-TECH EQUIPMENT AND SUSTAINABLE TRANSPORT

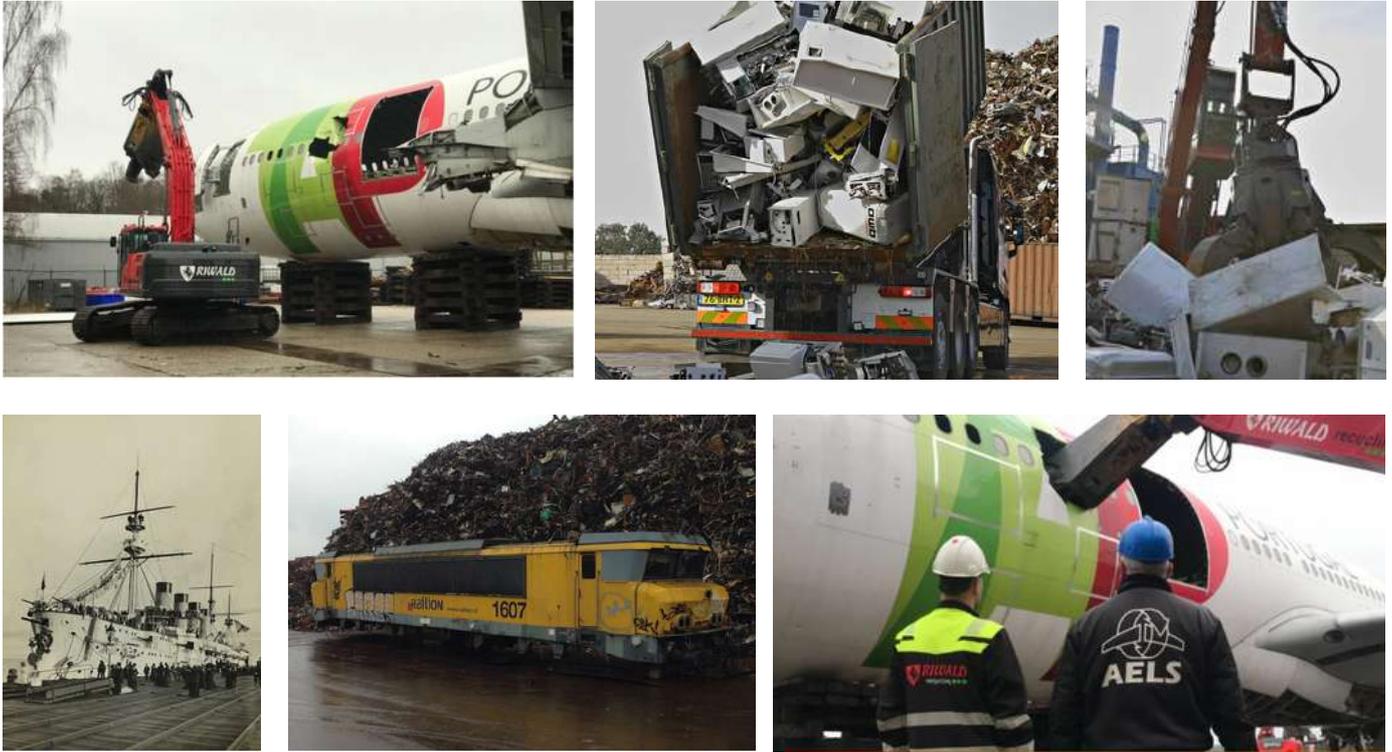
By using our high-tech granulator in combination with our high-tech equipment - double shears, eddy currents, drum sieves, wet separation tables, Infrared (NIR), X-Ray, metal sensors, NF fines processing and color sortings - we enhance raw material efficiency, resulting in no need for 'new' raw materials.

In addition, we transport all metals with our sustainable transport fleet for minimal CO2 emissions.



# PROJECTS

Small selection of complex projects executed by Riwald Recycling Almelo & Beverwijk.



# BUSINESSPARTNERS

Small selections of our business partners who collaborate with Riwald Recycling.



# BUSINESS PARTNER SPEAKS



When aircraft are no longer used for aviation, it does not mean that all parts have been discarded. AELS (Aircraft End-of-Life Solutions) is specialized in the reuse and recycling of aircraft parts, with the aim of taking a fully circular approach to the recycling of commercial aircraft.

At AELS, aircraft are disassembled and flown from all over the world to Twente Airport in Enschede. At this location, the aircraft will be disassembled and the usable parts will be removed. These parts will then get a new life in other aircrafts. Think for example of parts like the computers from the cockpit, the landing gear and other mechanical parts. These parts are expertly disassembled by AELS and then re-certified for the aviation world, so that the parts can be sold and safely used again.

When all usable parts are removed from the aircraft, there will always be material left over. AELS aims to process all aircraft in the most circular way possible. Mainly the aluminum fuselage of the aircraft remains. In order to also put these materials of the plane to high-quality use, AELS has started a collaboration with Riwald Recycling. Riwald specializes in metal recycling and in this collaboration ensures that the special aluminum alloys of the aircraft are recycled.

The cooperation between AELS and Riwald is distinguished by the innovative way of recycling the aluminum. "This metal has a different alloy than regular aluminum. Riwald can process this metal in such a way that it becomes raw material for new aluminum again," says Coen Teeuw, Recycling Manager at AELS. This way of recycling fits in with AELS' objective of reusing or recycling all aircraft in a fully circular manner.

Meanwhile, AELS and Riwald have already worked together several times to recycle the materials of commercial aircraft in a circular way.



# RIWALD RECYCLING ALMELO

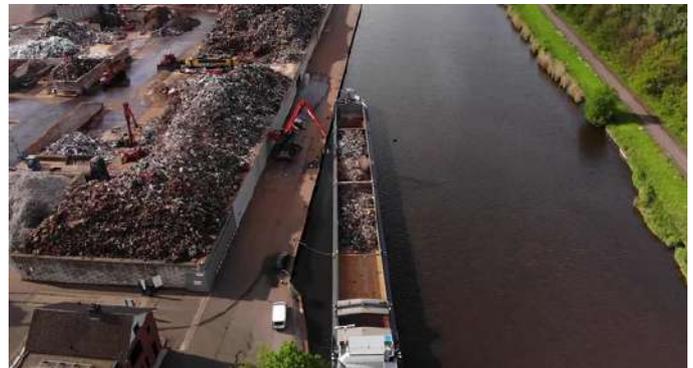
Our location in Almelo has a high-tech granulator with innovative separation technologies that separate all ferrous and non-ferrous materials. This makes practically all raw materials suitable for 100% reuse and contributes to maximum raw material efficiency. Because of our location next to the Twente Canal, transport by water is possible, which allows us to make optimal use of the possibilities for sustainable transport.

● **Hightech complex of 60.000 m2**

● **Headquarter next to our plant**

● **Location next to the Twente Canal**

● **Location close to the A35, N36 and N35**



# RIWALD RECYCLING BEVERWIJK

Thanks to its unique location along the North Sea Canal and its good accessibility to the A9 and A22 motorways, our Beverwijk site is easily accessible by road and by boat. Our 275-meter quay has various facilities and a large draught, allowing both inland waterway and ocean-going vessels to dock. Riwald Recycling ensures that the steel scrap with an exceptionally high quality is always tailored to and in accordance with the wishes of our clients, after which we supply the worldwide demand for metal.

● **Transport for inland and seagoing vessels**

● **International Hub**

● **Location along the North Sea Canal**

● **Located close to the A9 and A22**



# WHY CHOOSE RIWALD RECYCLING?

The 9 spearheads of Riwald Recycling

**01**

## EXTENDED OPENING HOURS

Open every weekday from 07:00 - 16:30 and also open during vacation periods with adjusted opening hours.

**02**

## ALWAYS ONE POINT OF CONTACT

You always have one point of contact during your delivery. We arrange everything from A-Z and take the complete delivery off your hands.

**03**

## HIGHTECH EQUIPMENT

Riwald Recycling works with the latest equipment in the field of sustainable and circular recycling of ferrous and non-ferrous.

**04**

## MAXIMUM RAW MATERIAL EFFICIENCY

Riwald Recycling contributes to maximizing raw material efficiency with a recycling rate of 95-100%.

**05**

## CIRCULAR ENTREPRENEURSHIP

Riwald Recycling performs its operational activities according to the principles of circular economy and the Trias Energetica.

**06**

## FAST, CLEAR AND FAIR QUALITY CONTROL

Riwald Recycling has a spacious complex where several inspections can be performed simultaneously by skilled personnel..

**07**

## EXPERTLY TRAINED PERSONNEL

Riwald Recycling has qualified personnel and offers internal training for new employees.

**08**

## INSTANT AND FAST PAYMENTS

Riwald Recycling is known for its fast direct and indirect payments to suppliers and business partners.

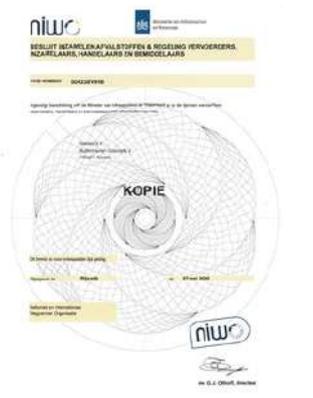
**09**

## WE ALWAYS BUY YOUR METAL

Riwald Recycling buys all different types of ferrous and non-ferrous from different order quantities, and even possible on a contract basis.

# COLLECTION OF OUR CERTIFICATES

Corporate responsibility with an emphasis on the environment and safety of our employees, customers and visitors. Riwald Recycling holds several certificates and seals of approval in the field of environmental management and recycling, including: ISO 14001, MRF Hallmark, NIWO-Kraamwerk 2017, VCA, RII&E, TMS MR, ABCS OF DEMIL, CO2 Performance Ladder and WEEELABEX.



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