

The REMONDIS Group

REMONDIS[®]

WORKING FOR THE FUTURE

World class **worldwide**

REMONDIS International

remondis.com

Business initiation for German companies of the circular economy to Romania

12th-16th July 2021

“Solution approaches for a functioning waste management”

> REMONDIS International

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Assistant to the CEO
Project management
Procurement

14th July 2021
remondis.com

The RETHMANN Group

Activities and key figures 2020

RETHMANN- Group	Revenue*:	16.6 bn €	Equity:	4.0 bn €
	EBITDA**:	1.93 bn €	Investment**:	1.3 bn €
	Employees*:	82,000		
	Legal Entities:	> 2,400		



REMONDIS®

- Recycling
- Services
- Water

RHENUS LOGISTICS

- Contract Logistics
- Freight Logistics
- Port Logistics

SARIA®

- High-quality goods from animal by-products
- Producer of renewable energy
- Service provider for the agricultural and food sector

transdev 34,0 %

- Operator and global integrator of innovative mobility solutions
- Operator of public transport networks (rail, bus, ferry, tram, cable car)
- Connected mobility and innovative on-demand solutions

▪ Revenue (€ mn):	8,000
▪ Employees:	38,300

▪ Revenue (€ mn):	5,600
▪ Employees:	33,400

▪ Revenue (€ mn):	3,000
▪ Employees:	10,300

▪ Revenue (€ mn):	6,800
▪ Employees:	83,000

*excluding Transdev and >1,000 minority joint ventures

**excluding Transdev, non-consolidated

Selection of worldwide presence



1. America

- North America
- Canada
- USA
- South America
- Brazil
- Chile
- Colombia

2. Asia

- China
- Cambodia
- Hong Kong
- India
- Indonesia
- Japan
- Kazakhstan
- Malaysia
- Myanmar
- Philippines
- Singapore
- South Korea
- Taiwan
- Thailand
- Turkey
- Uzbekistan
- Vietnam

3. Oceania

- Australia
- New Zealand

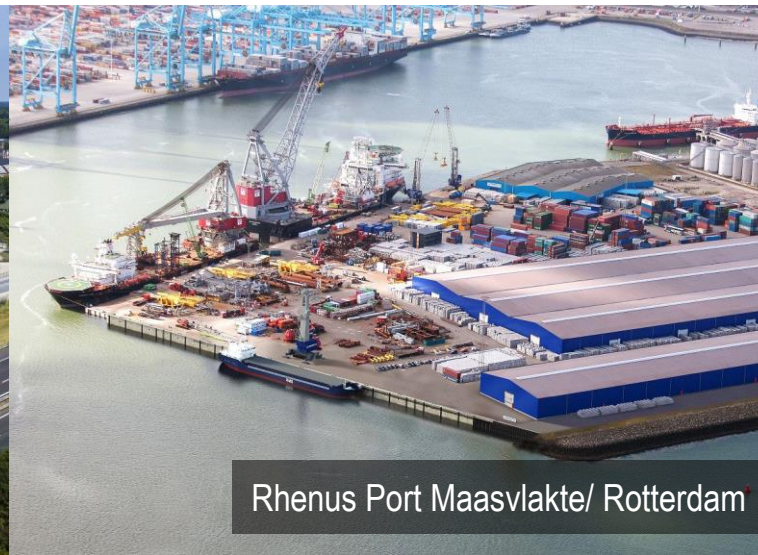
4. Africa & Middle East

- Azerbaijan
- Bahrain
- Egypt
- Morocco
- Qatar
- Saudi Arabia
- South Africa
- Tunisia
- U. A. E.

5. Europe

- Finland
- France
- Germany
- Great Britain
- Hungary
- Ireland
- Italy
- Lithuania
- Latvia
- Luxembourg
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- Sweden
- Switzerland
- Serbia
- Slovakia
- Slovenia
- Spain
- Ukraine

RHENUS LOGISTICS



RHENUS Group // A global logistics service provider



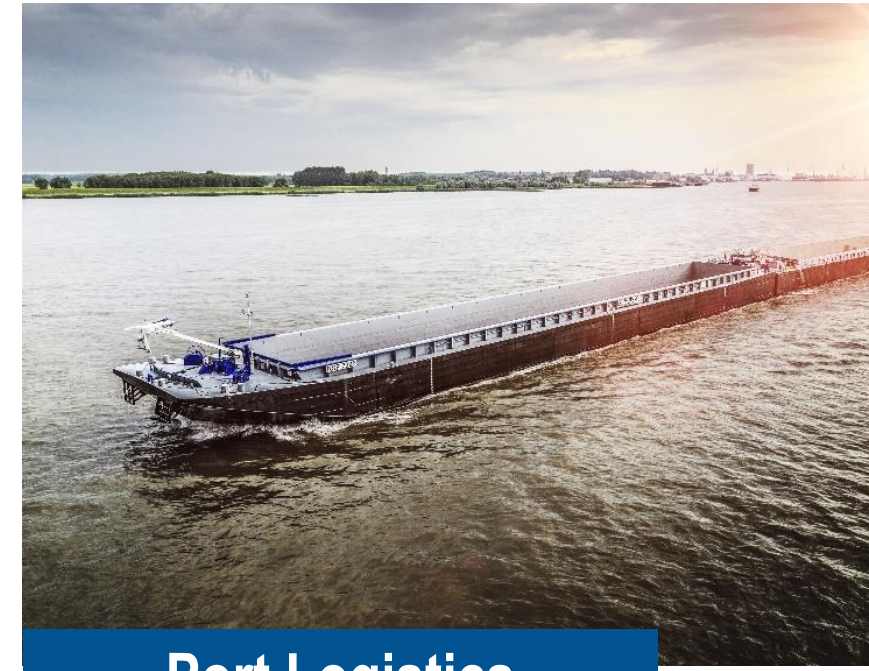
Contract Logistics

- AUTOMOTIVE
- HIGH TECH
- HOME DELIVERY
- OFFICE SYSTEMS
- WAREHOUSING SOLUTIONS



Freight Logistics

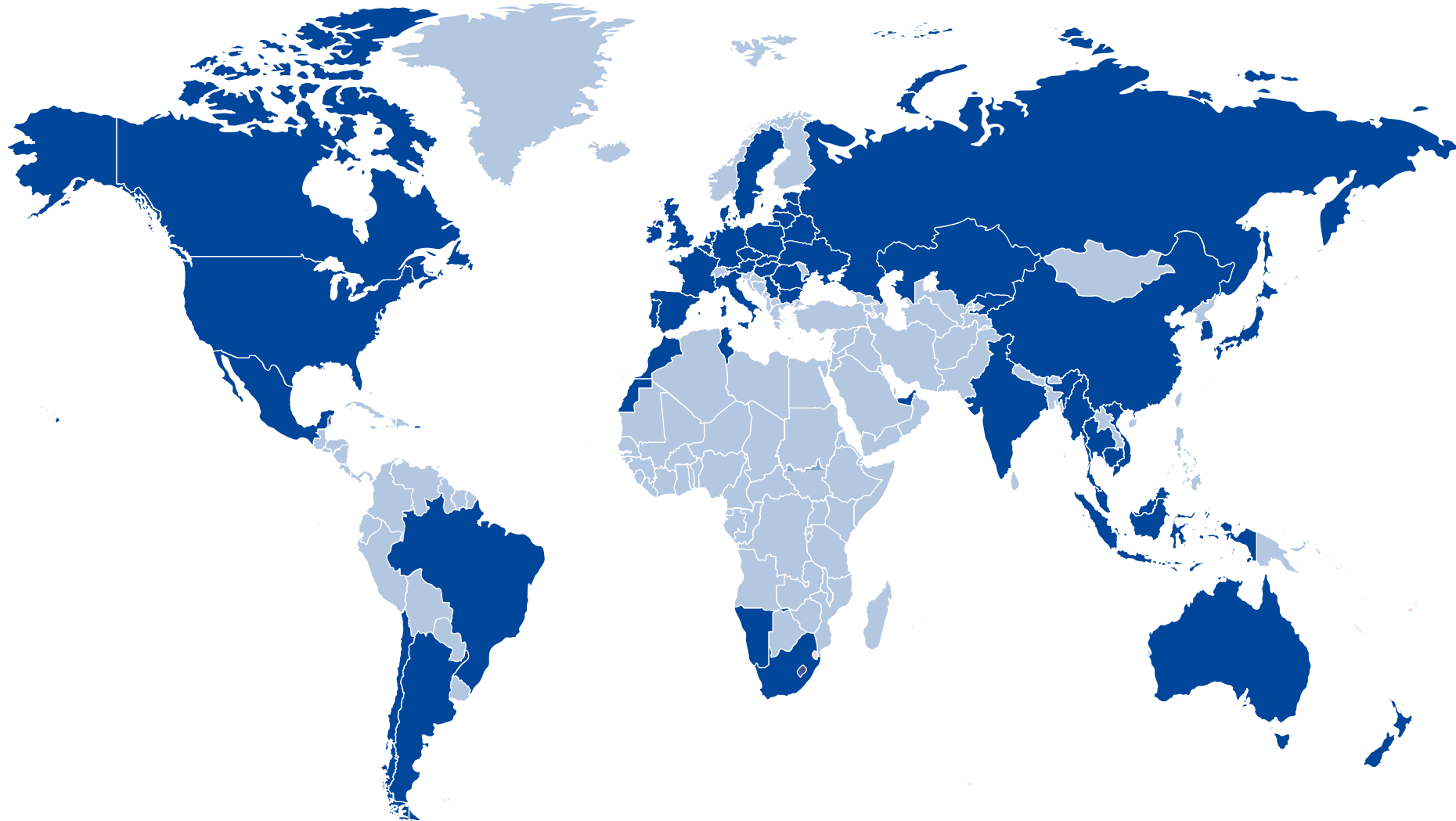
- AIR & OCEAN
- ROAD



Port Logistics

- PORTS
- TRANSPORT
- INTERMODAL
- COMMODITY LOGISTICS

Worldwide presence



SARIA®



World-leading specialist in the recycling of animal and plant residues



ORGANICS2POWER
BIOGAS
BIODIESEL

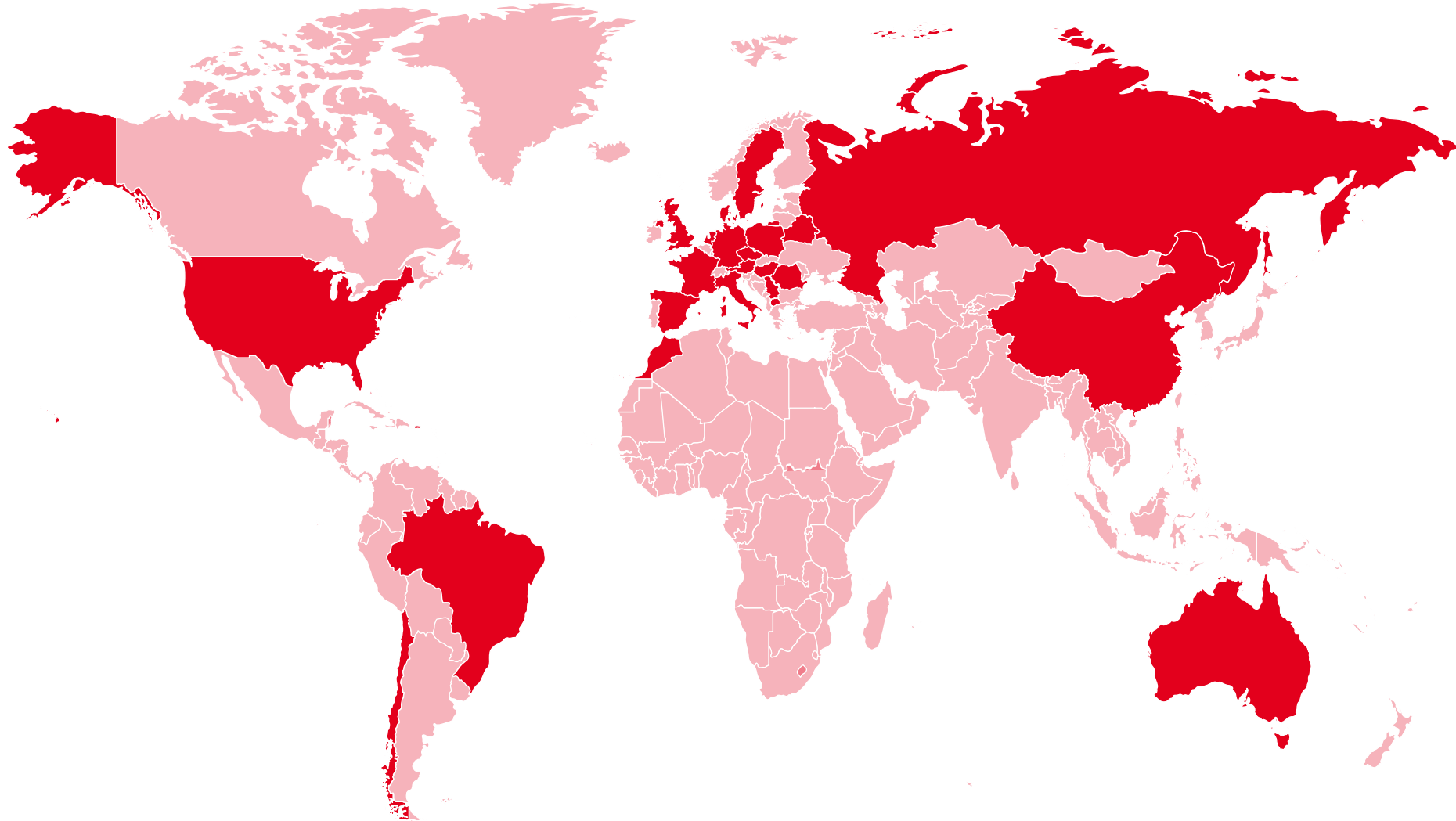


PETFOOD & FEED
RENDERING
FISH BY-PRODUCTS
CASINGS



FOOD & PHARMA
BIOMOLECULES
BIOTECHNOLOGY

Worldwide presence





MOVE



Worldwide multimodal presence



Tramway

World market leader: 26 networks in 10 countries

Railway

70 networks in 6 countries

Metro

Paris Charles De Gaulle Airport (France), Sao Paulo (Brazil)

Bus rapid transit

A pioneer in the field: Rouen, Nantes and Ile-de-France (France), Bogotá (Colombia), etc.

Bus

25,000 buses in 13 countries; including a rapidly growing fleet of more than 1,800 electric and hydrogen buses; largest operator of electric busses in Europe

Cable car

Cable car in Bogotá, carrying more than 3,600 passengers per hour with 160 gondolas

Ambulance transports and ambulance rides

3,000 vehicles in France ; 174 vehicles and 830 employees in the Netherlands

Parking

180,000 off-street and on-street parking spaces in France

Autonomous transportation

World leader in autonomous transportation with more than 35 million passengers so far and deployment in 10 countries

Maritime transport

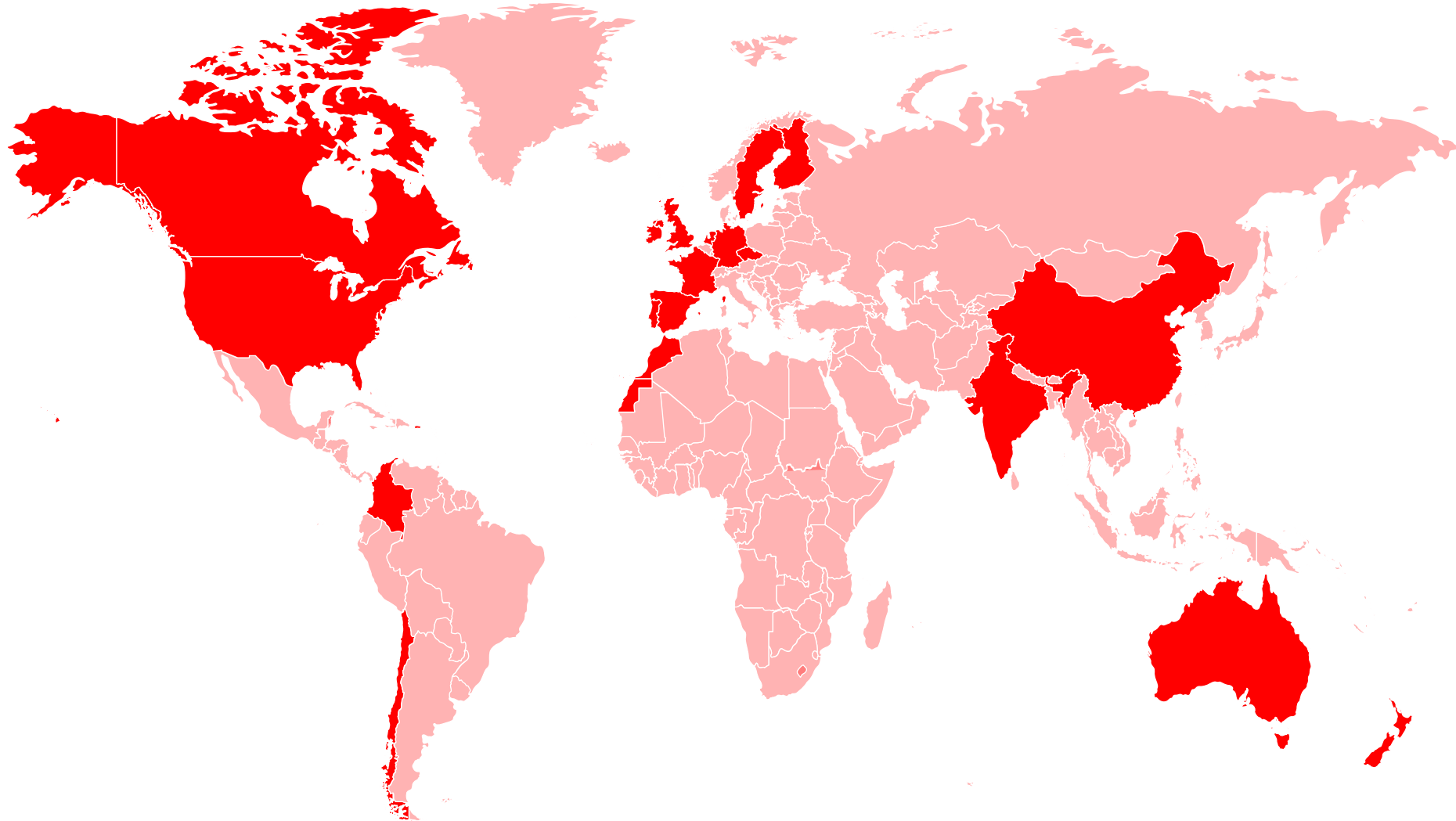
>100 vessels, e.g. Sydney, Brisbane, New Orleans, Rotterdam, Marseille, etc.

Carpooling & Bike sharing

Mobility-as-a-Service

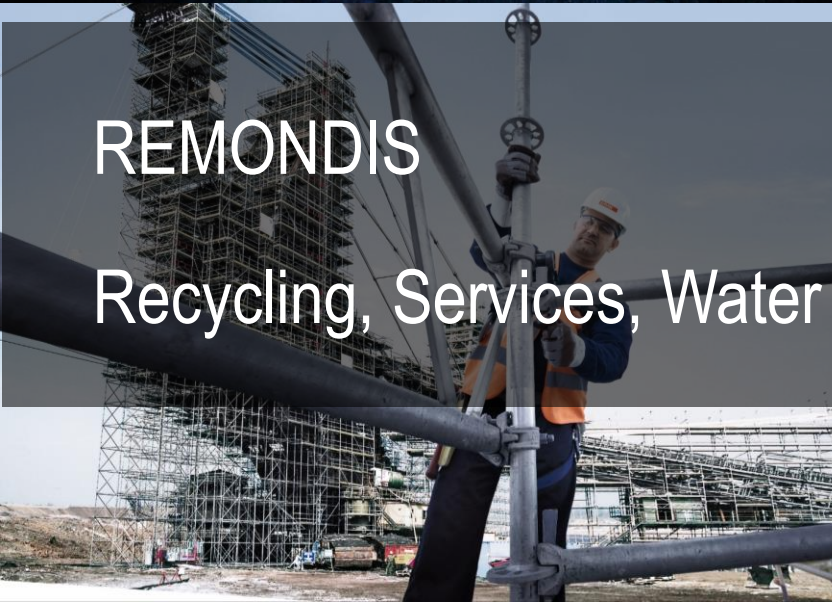
Applications and Digital solutions integrating public transit and private transportation within a single mobility offer using a smartphone.

Worldwide presence



REMONDIS®
WORKING FOR THE FUTURE





REMONDIS
Recycling, Services, Water



World's largest family-run environmental services company



RECYCLING

- Logistics
- Processing
- Treatment
- Sorting
- Energy Recovery

WATER

- Water Supply
- Sewage disposal
- Phosphorus Recycling
- Industrial Water Management
- Services

SERVICES

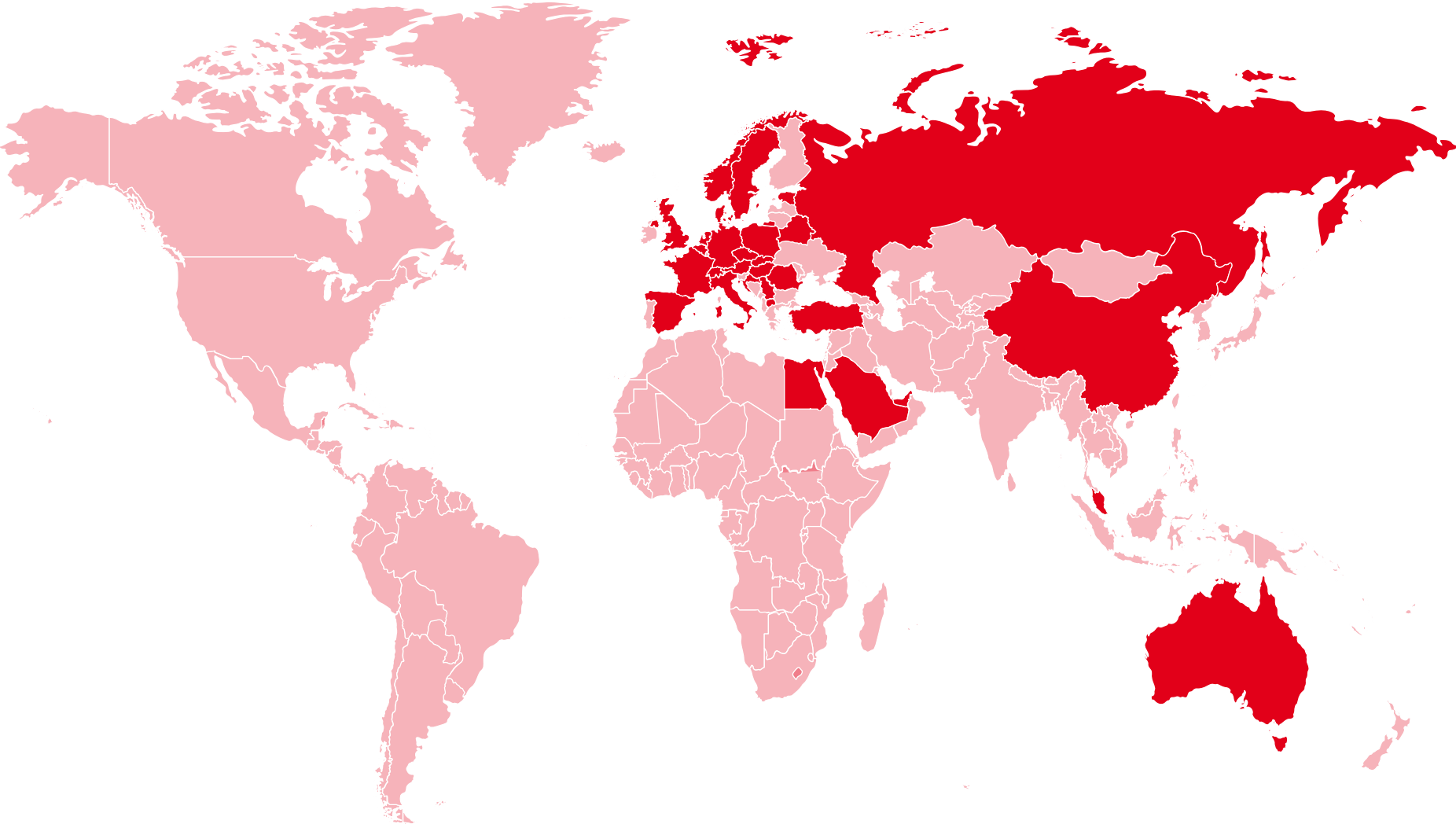
- Industrial Services
- Power Plant Services
- Dismantling of Industrial Facilities
- Remediation Services
- Take-back Systems

REMONDIS: Facts & figures (2020)

The result of our expertise, performance and capacities



Worldwide presence



Operating specialised plants & facilities: From solving problems to making new products

Construction waste processing plants	29
Landfills	23
Commercial waste processing facilities	23
Glass processing facilities	10
Wood processing facilities	15
Sewage treatment plants	180
Composting/anaerobic digestion facilities	66
Plastics processing facilities	5
Solvents treatment facilities	2
Paper sorting facilities	12
Residual waste processing plants, mechanical/biological	12
WEEE dismantling centres	7
Hazardous waste processing facilities	126
Sorting plants for light packaging	14
Drinking water processing plants	202

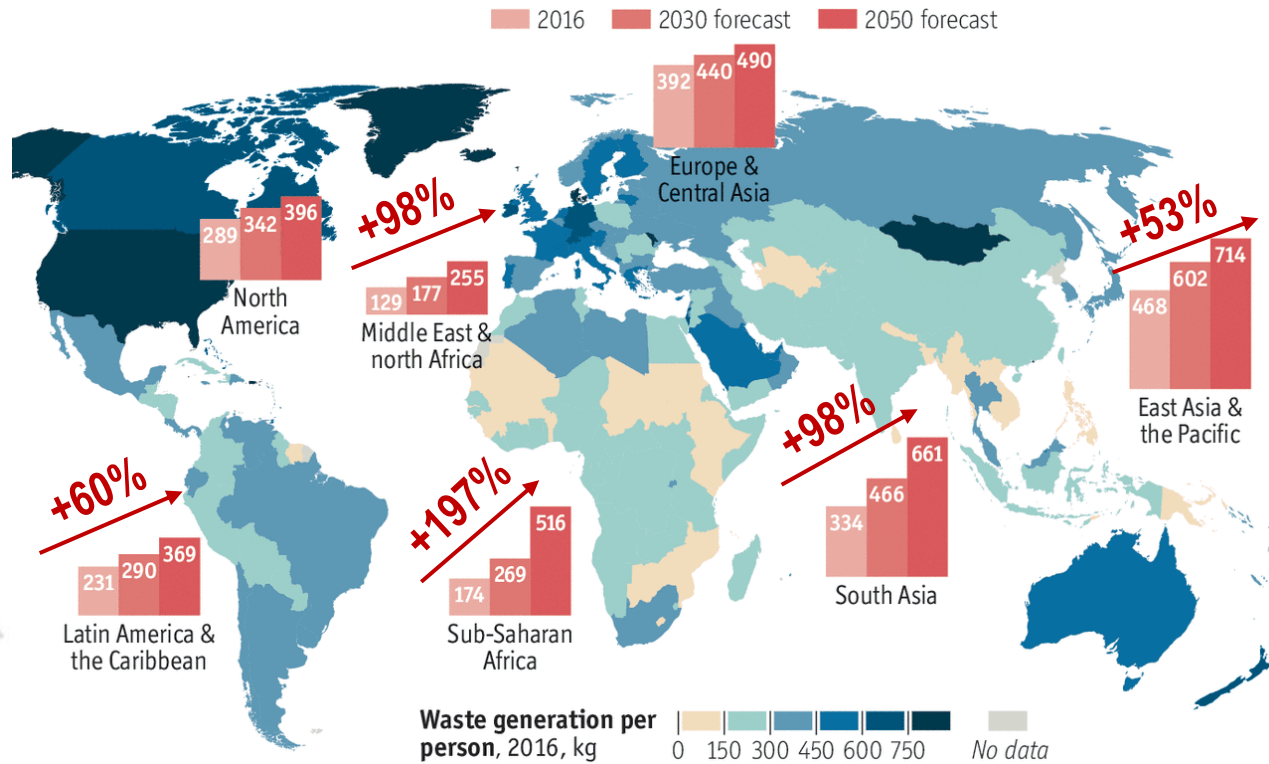
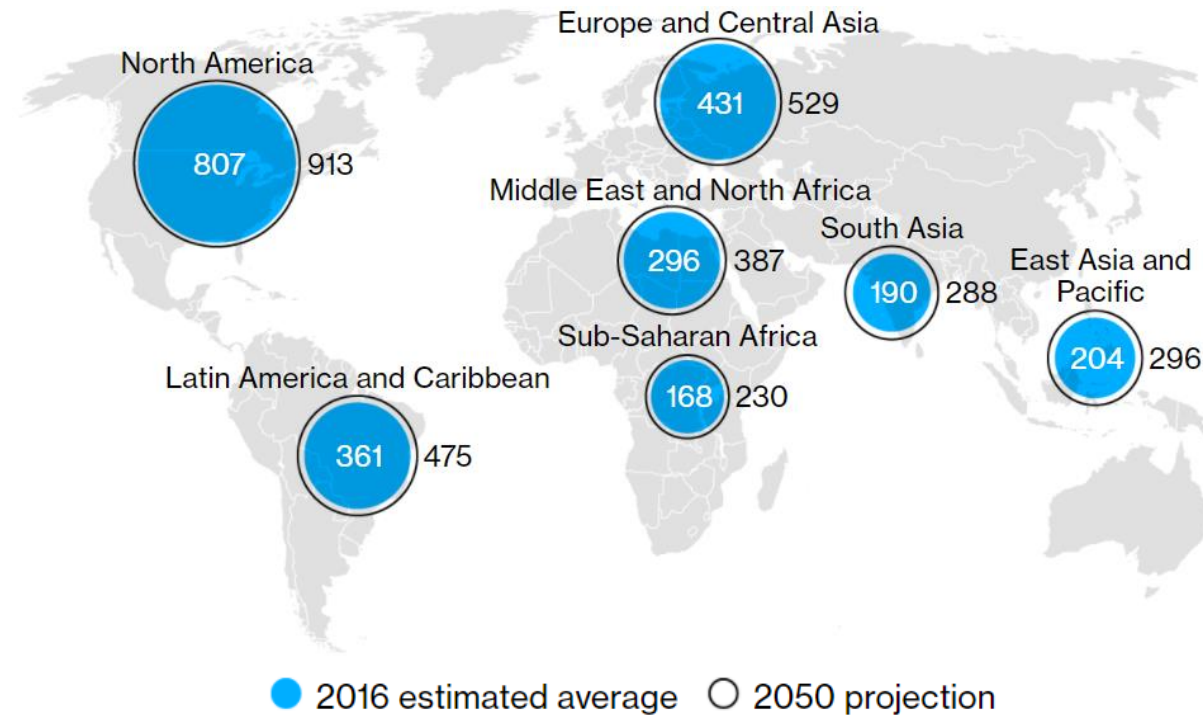
> 800 facilities

Selected plants from the REMONDIS facility network

As prosperity is rising, waste generation is rising too

Kilograms of solid waste **each person** creates a year

Regional waste generation in **million tonnes**



Challenge: EU Circular Economy Package

- A common EU target for recycling **65% of municipal waste by 2035**;
- A common EU target for recycling **70% of packaging waste by 2030**;
- There are also recycling targets for specific packaging materials:
 - **Paper and cardboard: 85 %**
 - **Ferrous metals: 80 %**
 - **Aluminium: 60 %**
 - **Glass: 75 %**
 - **Plastic: 55 %**
 - **Wood: 30 %**
- A binding landfill target to **reduce landfill to maximum of 10% of municipal waste by 2035**;
- **Separate collection obligations** are strengthened and extended to **hazardous household waste (by end 2022), bio-waste (by end 2023), textiles (by end 2025)**.
- Minimum requirements are established for extended **producer responsibility** schemes to improve their governance and cost efficiency.
- Prevention objectives are significantly reinforced, in particular, requiring **Member States to take specific measures to tackle food waste** and marine litter as a contribution to achieve EU commitments to the UN SDGs.

Proven treatment and recycling technologies for most municipal solid waste types

■ Plastic waste

- mechanical recycling
- **chemical recycling**



■ Globally in focus
New technology, chemical recycling on horizon

■ Paper and cardboard recycling

- traded as a commodity on a global market



■ Established, global markets and technologies

■ Glass

- easy to recycle unlimited times



MSW

■ Urgent actions needed to establish well known treatment technologies and methods

■ Biodegradable waste

- composting and fermentation resulting fertilizer
- biogas and/or energy production



■ Unfortunately landfilling is the main waste disposal technology.
■ Urgent actions needed to establish further treatment technologies

■ Residual waste

- landfill
- **mechanical biological treatment**
- **waste to energy**



Collection. The first step

- A well organized collection system is one of the corner stones of an effective waste management, but not all waste types are needed to be collected on the same way.

Collection

Collection close to the households



Collection at central collection points



- Residual waste
- Packaging waste: paper, plastic, metal
- Biodegradable waste

- Packaging waste: glass, wood
- Bulky waste
- Hazardous waste from the population
- Textile waste

Waste streams in focus

- Municipal solid waste management involves several different waste types. The most relevant from the perspective of the EU Circular Economy Package are



Residual waste

- 65% recycling and maximum 10% landfilling by 2035



Plastic waste

- 55% recycling by 2030



Biodegradable waste

- Separate collection by end of 2023

Treatment. Residual waste (1/2)



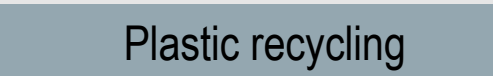
Wte - Incineration



MBT



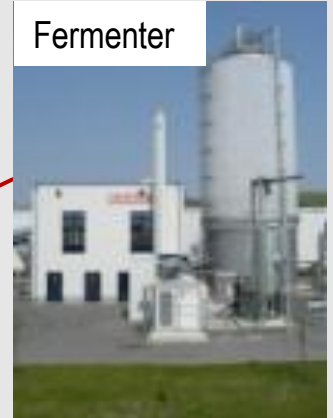
Wte – RDF-power plant



Plastic recycling

- “Only” energy recovery. No material recycling.
 - Recyclables in the residual waste are burnt.
 - Using transfer stations would be necessary.
 - High volume of ashes.
 - Not a solution for biodegradable waste and plastic waste recycling quotes.
-
- Recyclables can be sorted out from residual waste.
 - Volume reduction by biological stabilisation.
 - Biological treatment capacities available for bio waste treatment too.
 - Low amounts of ash during incineration.

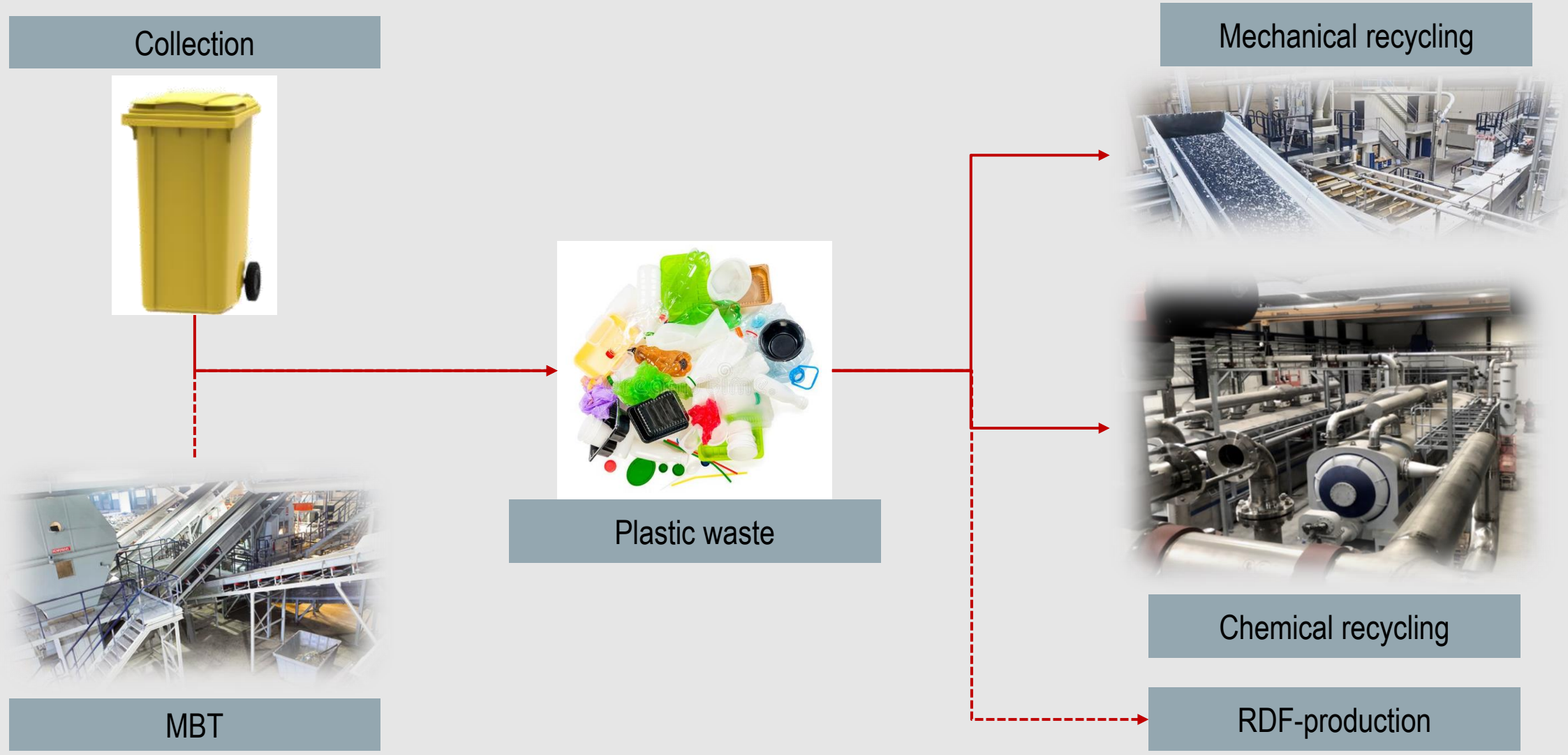
Treatment. Residual waste (2/2). Mechanical biological treatment



Machinery hall fermentation



Treatment. Plastic



Treatment. Biodegradable waste



Mulțumesc!

Cu plăcere răspund la întrebările Dumneavoastră.

Thank you!

I am happy to answer your questions.

Danke!

Gerne beantworte ich Ihre Fragen.

Attila Bogos

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- Project management
- Procurement

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