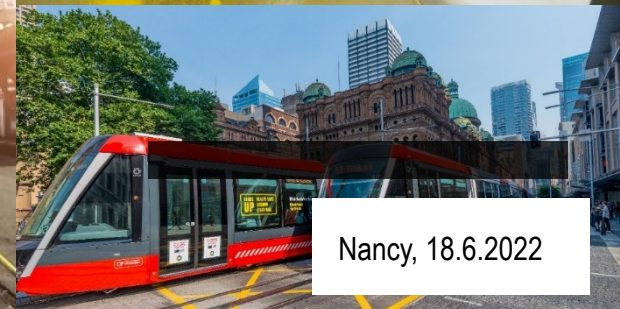


# World Material Forum 2022

How can we improve the conditions for companies to improve their material efficiency?



Ludger Rethmann



Nancy, 18.6.2022

# RETHMANN GROUP

## Activities and key figures 2020 / 2021

### RETHMANN-Group

Revenue *:	21,4 bn €
Equity:	4,4 bn € <sup>1)</sup>
Legal entities	> 2.400 <sup>2)</sup>
Employees:	88.000



34,0%

#### REMONDIS®

- Water
- Recycling
- Services

Revenue (€ mn)	11.500
Employees	40.000

#### RHENUS LOGISTICS

- Contract Logistics
- Freight Logistics
- Port Logistics

Revenue (€ mn)	7.000
Employees	37.500

#### SARIA®

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

Revenue (€ mn)	3.000
Employees	10.500

#### transdev

- 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)	7.000
Employees	82.000

\* The difference to the individual values of the three corporate divisions results from the consolidation at overall Group level. Excluding Transdev.

1 preliminary figures  
2) Actual figures 2020



# Rhenus Group // Implementation in Decentralised Units



- Contract Logistics
- Freight Logistics
- Port Logistics

▪ Revenue (€ mn)	7.000
▪ Employees	37.500



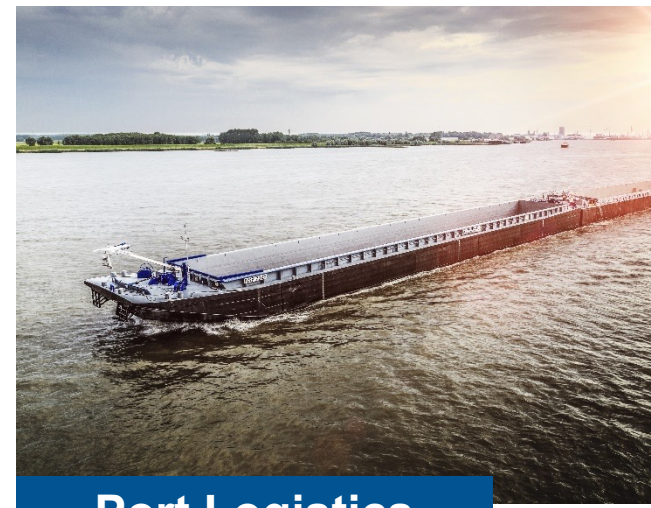
## Contract Logistics

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



## Freight Logistics

- AIR & OCEAN
- ROAD



## Port Logistics

- PORTS
- TRANSPORT
- INTERMODAL
- COMMODITY LOGISTICS

## SARIA Group // 1 Group, 3 Divisions



SARIA	
<ul style="list-style-type: none"> <li>High-quality goods from animal by-products</li> <li>Producer of renewable energy</li> <li>Service provider for the agricultural and food sector</li> </ul>	
Revenue (€ mn)	3.000
Employees	10.500



# Transdev Group – Services and competences

34%-  
JV with


- 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)	7.000
Employees	82.000

## Current developments:

January 2021:  
**Market entry Brazil**  
Set-up of Metro No. 6 in Sao Paulo (est. 650,000 passengers/day)

September 2021:  
Award of Shadow Operator contract for the **driverless Paris metro** network !

September 2021:  
Contract awarded for prominent **railway line on the Cote d'Azur: Marseille-Nice**



**Rail** | 32 networks in 6 countries



**Metro** | 1 metro line Paris-CDG airport (France)

**Tramway and tram-train** | World leader with 22 networks in 10 countries

**Bus rapid transit** | A pioneer in the field, with TEOR in Rouen (France), Nantes (France) and Bogota (Colombia)

**Bus** | 38,097 vehicles in 13 countries, more than 1,200 electric buses (incl. hydrogen) by 2021



**Coach** | Leader in intercity transport in France

**Ferry** | 113 boats, 11 networks in 5 countries

**Transport on demand** | 14M Passengers on our demand services (paratransit, NEMT, all public ToD), 200+ ToD operations worldwide, 25 Fully digitalized ToD accounting for 85 000 rides/year

**Car sharing** | 2 services in France: Nice and La Rochelle



**Paratransit and ambulance services** | Witte Kruis, the first ambulance service provider in the Netherlands with 130,000 patients carried every year

**Shared shuttles** | Leader in the USA with 9 million passengers

**Bike services** | 16 cities in France

**Parking** | 130,000 off-street and on-street parking spaces in France

**Cable Car** | The "TransMicable", the first urban cable car line, in the



colombian capital is connecting a southern Bogota municipality with the Transmilenio Bus Rapid Transit network

**Autonomous Driving** | Over 3.5 million passengers have travelled on Transdev shared autonomous services since 2005

**Alternative technologies** | Transdev was operating more than 800 electric and hydrogen buses worldwide at the end of 2019



# REMONDIS – World's largest family-run environmental services company.

## Enabling & calling for recycling

- 1970s: Introduction of plastic wheeler bins and start of plastic recycling (wheeler bins)
- 1981: Foundation of the European Recycling Association (FEAD)
- End of the 1980s: Start of the discussion about a circular economy law in Germany between Prof. Dr. Klaus Töpfer (German Environment Minister) and Norbert Rethmann (President of the German Recycling Association, BDE)
- 1993: Acquisition of the Lippe Plant in Lünen (formally largest German aluminium plant, 240 hectares)  
Today: The largest industrial recycling center in the world
- 2005: Landfill ban for non-pretreated organic waste (largest single CO2-reducing measure in German history!)



**Recycling**

- Logistics
- Processing
- Treatment
- Sorting
- Energy Recovery



**Service**

- Industrial Services
- Powerplant Service
- Dismantling of Industrial Facilities
- Remediation Services
- Take-back Systems



**Water**

- Water supply
- Sewage treatment
- Industrial Water Management
- Material flow management
- Services

## Challenges of a Circular Economy

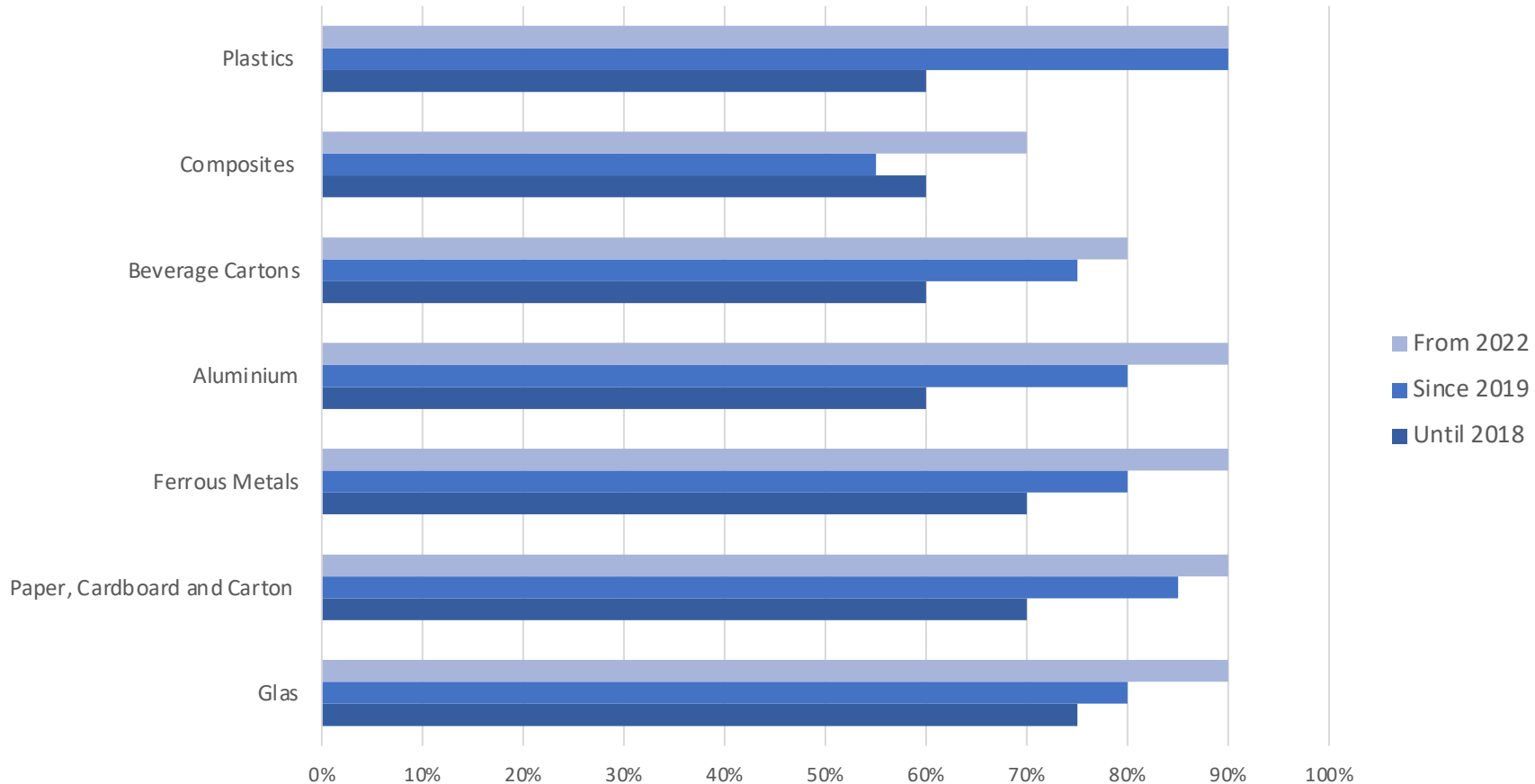
- Today, recycling accounts for only 13% of the total materials used by European industry.
- If this share were doubled, 60 million metric tons of CO2 equivalents could be avoided in Germany alone!
- Remember: The Circular Law in the 1980s had the intention of reaching 100% recycling!

In order to increase this so-called substitution rate, the framework conditions must be changed:

- Products should only be allowed on the market **if they can be recycled to high standards and contain a minimum percentage of recycled materials.**
- In order for public and private buyers to be able to make environmentally oriented and sustainable purchasing decisions, the environmental compatibility and sustainability of all products **must be accessible in the form of a label or product pass.**
- Public procurement must not only be based on price, but **also on this sustainability label.**



## Example: Recycling ratios on packaging materials in Germany

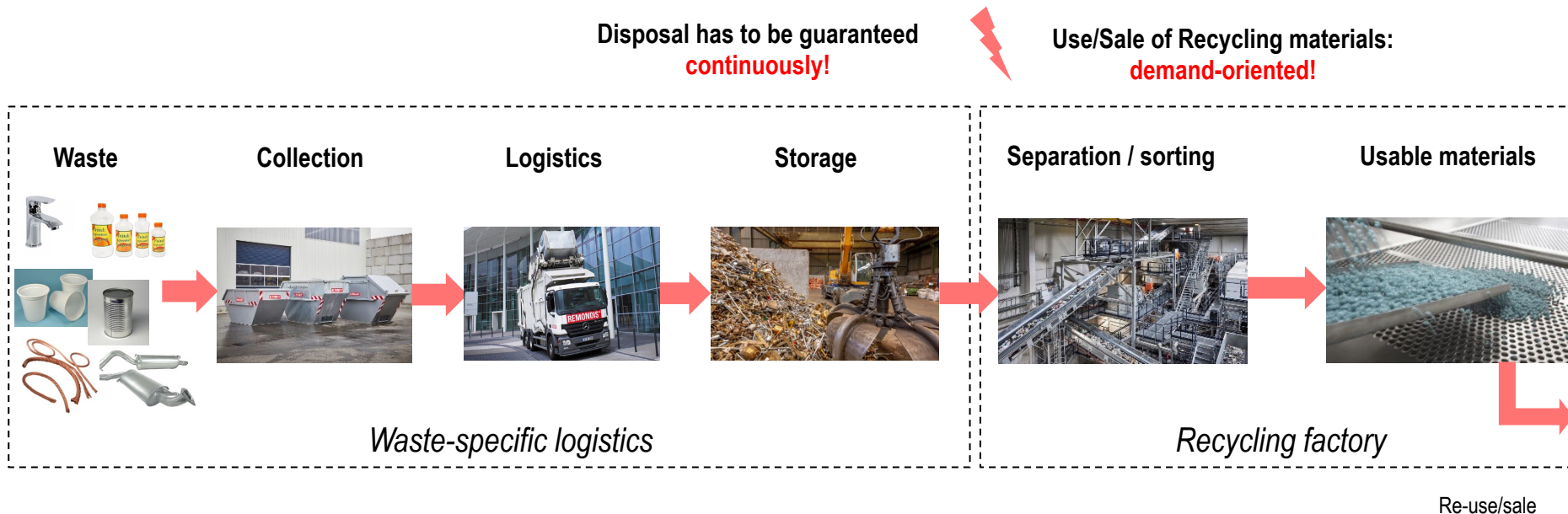




## REMONDIS Group: How do we coordinate material flows?

- Company culture “Being an entrepreneur within the company” with high regional relatedness
- Highly **decentralized** approach (4-eyes-principle on all levels, no large HQ controlling department)
- BUT: Long time ago, we have established overarching “Stoffstromrunden” (“Material Flow Networks”) for specific material groups
  - In these regional and supraregional meetings, we **aim to find the best allocation for a given unit of material flow within our network of international processing facilities**
  - The optimal way of, e.g. a container of material, can **vary from day-to-day** due to cost parameters (e.g. diesel price for transportation) or raw material prices
- Doing so, we attempt to enable efficient and dynamic material processing scenarios for the benefit of the customer
- Our customers **ask for more information** about how their materials are processed once REMONDIS has collected them
- Rising awareness and demand for information, e.g. on CO2-footprint:
  - The REMONDIS sustainability certificate is a **measuring and verification tool to show how responsibly your company deals with resources and climate protection**. We look at every single type of waste you produce and record the savings in primary raw materials, energy consumption and CO2 emissions achieved during disposal or recycling. It also shows the customer room for improvement!

# Practical challenges of „closing the circle“ for the industry



- Most serious challenge for our value chain:

- Heterogeneity and decentralized accrual of material feedstock **vs.** high specifications for recycled raw materials
- Typically, the generators of waste streams are **not** the users for the recycling materials
- Conflict resolution “**Design for Recycling**”? Current regulations hardly applicable, lack of objective criteria, information on product developments, material compositions, etc.



**„Producing good goods“**  
Good recycling begins in the product design!

# Thank you for your attention

Ludger Rethmann  
CEO REMONDIS SE & Co. KG  
Executive Board RETHMANN SE & Co. KG  
Brunnenstr. 138  
44536 Lünen  
[ludger.rethmann@remondis.com](mailto:ludger.rethmann@remondis.com)

