

VDL Special Vehicles



MAKING A DIFFERENCE **FOR THE WORLD OF TOMORROW**



STRENGTH THROUGH COOPERATION

FACTS AND FIGURES 2023

○ — **1953** — ○ — ○

Family business VDL Groep
was founded in 1953



75% of our
products are
exported to
112 countries
around the world



100+

We consist of more than 100 companies

14.973

Employees in 19 different countries



Combined revenue
€6,4 billion



Net Result
€147 million



63,2%
of total assets



VDL Groep is in the top six on the
Dutch reputation ranking

Source: RepTrak

THE WORLD OF VDL GROEP



**Science, Technology
& Health**



Mobility



**Energy
& Sustainability**



Infratech

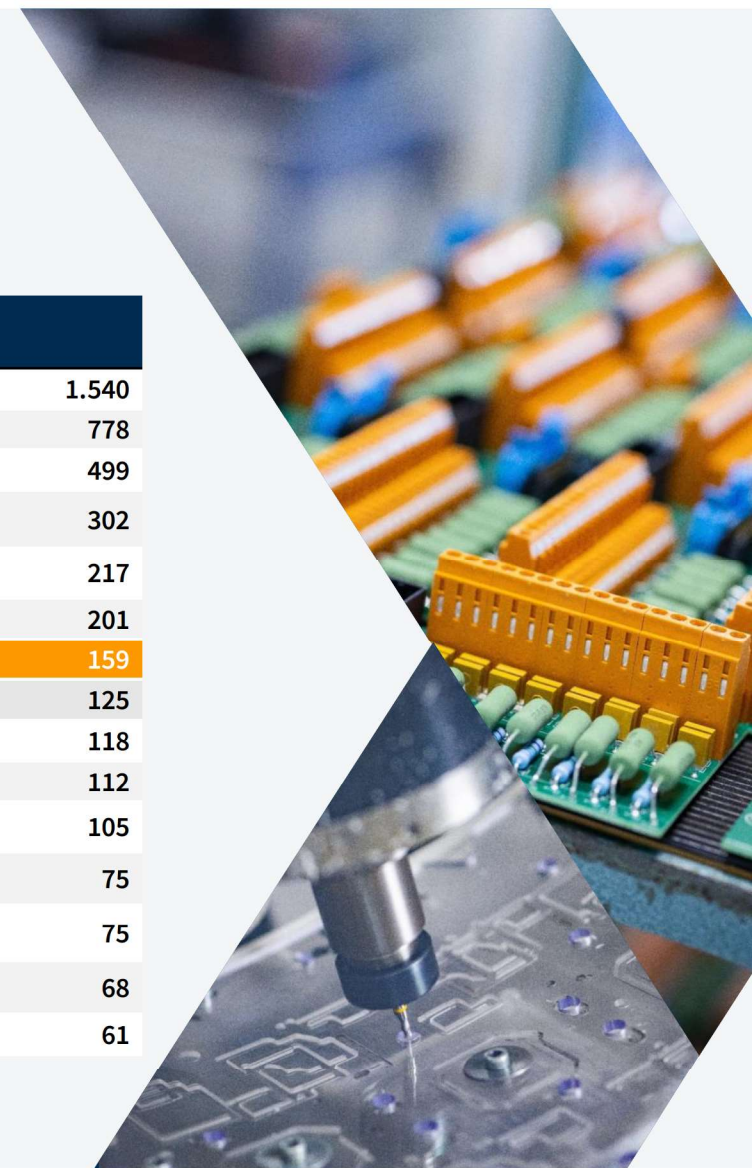


Foodtech

R&D EXPENDITURE

2022

Rank	Company	Location	R&D expenditure (millions of euro)
1	ASML	Veldhoven	1.540
2	Royal Philips	Eindhoven	778
3	Janssen: Pharmaceutical companies of J&J	Leiden	499
4	Koninklijke KPN NV	Rotterdam	302
5	Royal DSM	Geleen/Delft	217
6	NXP Semiconductors	Eindhoven/Nijmegen	201
7	VDL Groep	Eindhoven	159
8	DAF Trucks NV	Eindhoven	125
9	Thales Nederland	Hengelo	118
10	Canon Production Printing Netherlands BV	Venlo	112
11	Rijk Zwaan	De Lier	105
12	Vanderlande Industries	Veghel	75
13	FrienslandCampina	Amersfoort	75
14	Byondis (voorheen Synthon)	Nijmegen	68
15	Prodrive Technologies BV	Son	61





VDL SPECIAL VEHICLES

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STRENGTH THROUGH COOPERATION

VDL SPECIAL VEHICLES

FACTS & FIGURES

LOCATED IN
BORN (NL)



21.000 M²
PRODUCTION SURFACE AREA



TURNOVER
€21 MILLION



125 EMPLOYEES



1.250 UNITS/YEAR



VEHICLE **CONVERSIONS** & **ZERO**
EMISSION HEAVY DUTY VEHICLES

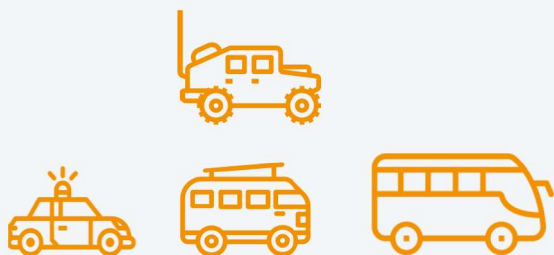
VDL Special Vehicles

MAIN ACTIVITIES



VEHICLE CONVERSIONS

Manufacturing, conversion and bodywork adaptations of vehicles



CONTRACT MANUFACTURING

Lean production third party vehicles



ZERO EMISSION VEHICLES

Manufacturing and integration of drivelines
Electric – Hydrogen – Hybrid



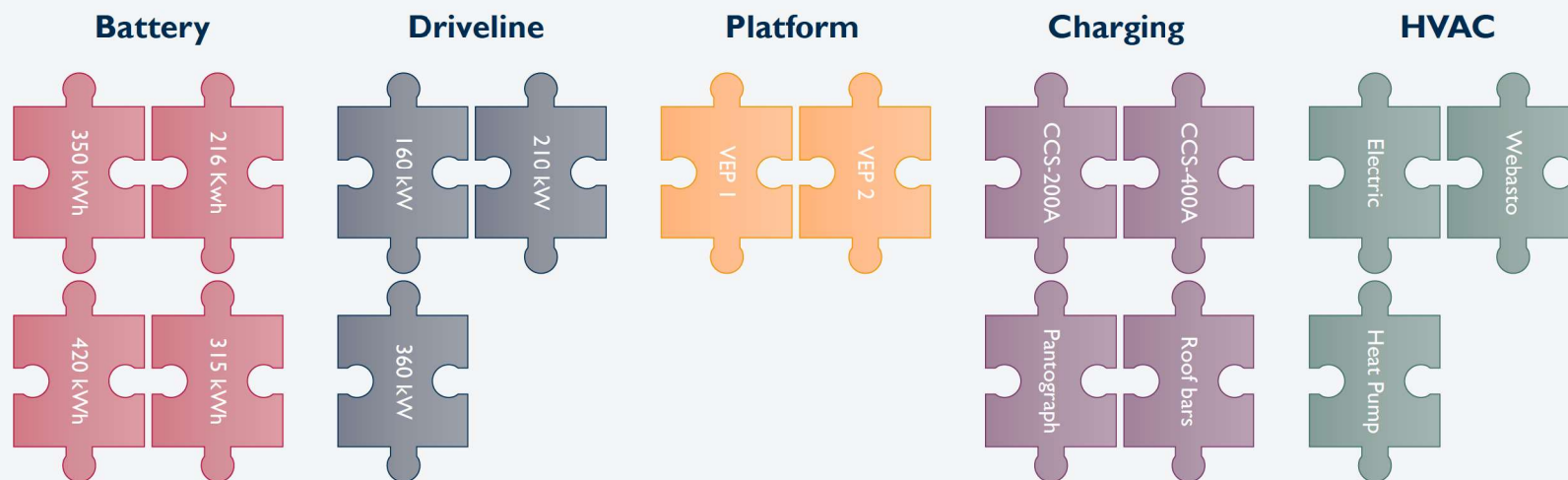
VDL Special Vehicles

CUSTOMERS (ZERO – EMISSION)



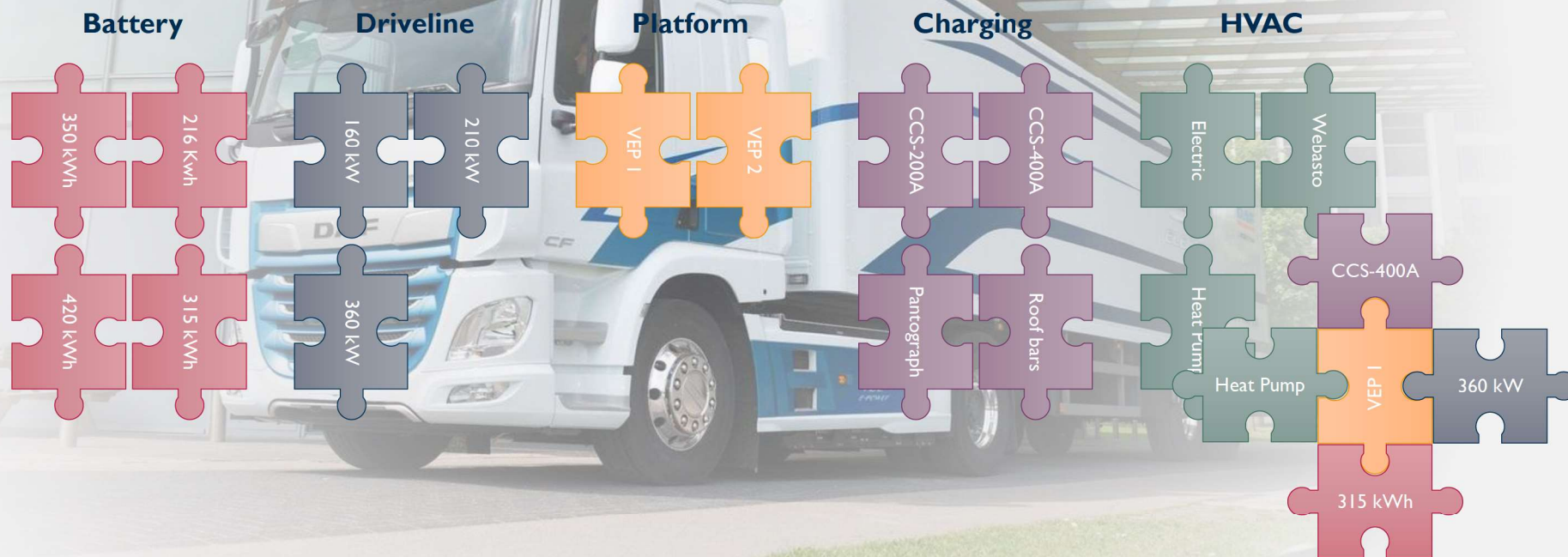
Hydrogen at VDL Special Vehicles

BUILDING BLOCK PRINCIPLE



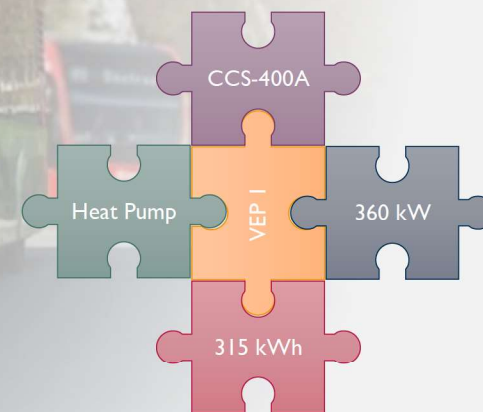
Hydrogen at VDL Special Vehicles

BUILDING BLOCK PRINCIPLE



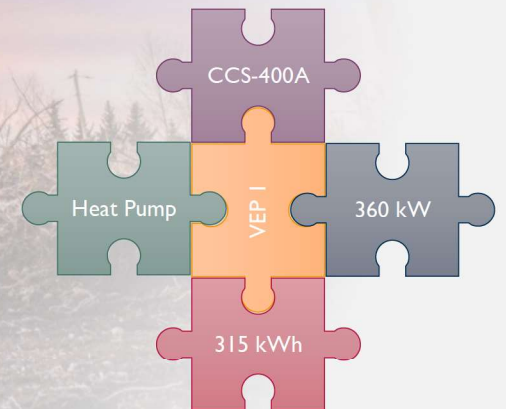
Hydrogen at VDL Special Vehicles

BUILDING BLOCK PRINCIPLE



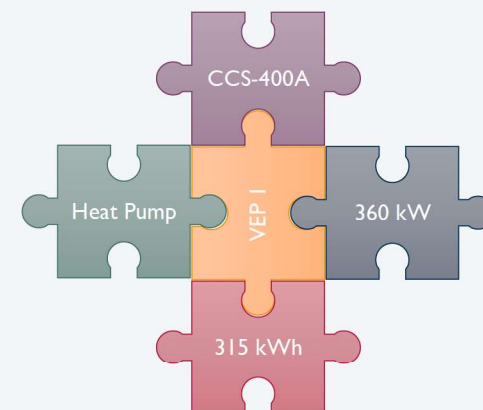
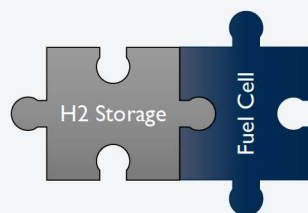
Hydrogen at VDL Special Vehicles

BUILDING BLOCK PRINCIPLE



Hydrogen at VDL Special Vehicles

ADDING HYDROGEN IN THE MIX



Hydrogen at VDL Special Vehicles

HISTORY



ICE-H2 with DAF
Liquid Hydrogen

1998



FC Ballard Phileas Cologne
2010-2014

2010



FC Ballard Phileas Amsterdam
2010-2014

2014



H2 Trailer
Proof of Concept

1999



FC Hydrogenics Range Extender
Proof of Concept

2013

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HISTORY



GIANT LEAP

improving the lifetime and reliability of fuel-cell systems in city buses

2016



H2Share

Heavy Duty FC Logistic vehicles

2017



H2Haul

Fuel Cell Trucks

2022



Interreg Waterstofregio 2.0

44t HD FC Distribution Truck







3EMOTION

4 FC City Buses in daily operation

Hydrogen at VDL Special Vehicles

H2Haul Project

Belgian deployment	
Fuel cell supplier	 PLASTIC OMNIUM
HRS provider	 COLRUYT GROUP ENERGY
Manufacturer	
Shipper	



3 VDL tractors + 1 VDL rigid truck – Min. 30,000 km/year per truck.



The trucks will be operated by Colruyt group and based at one of the distribution centres in Belgium.



The trucks will distribute goods between the distribution site and retail sites.



A new hydrogen refuelling station for heavy duty vehicles, at 350 bar, will be built in Ollignies (B).



VDL Prototype Truck 44t
4x 50kW Fuel Cell, 40kg/350bar H2 Tank System, 210kWh Battery

Hydrogen at VDL Special Vehicles

Toyota Fuel Cell Project

- Based on DAF CF Electric, 44t GCW
- Toyota Fuel Cells
- 40kg Hydrogen storage
- 350 Bar
- Central Electric Drive
- 5 Trucks in total



THANK YOU VERY MUCH FOR YOUR ATTENTION!

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