



**SOLARIS**  
A CAF GROUP COMPANY

# PRESS BRIEFING

– 6.06.2023

11:00 a.m.

Javier Iriarte, CEO





# AGENDA

**01. COMPANY FIGURES**

**02. SOLARIS UNIQUE VALUE PROPOSITION**

**03. LOOKING AHEAD**



# COMPANY FIGURES

# PUBLIC TRANSPORT IS THE GREENEST AND MOST EFFICIENT WAY TO TRAVEL



## URBAN MOBILITY IS CHANGING

- Need for faster growth of mobility in towns and cities
- Cities are the biggest pollutants
- Congestion



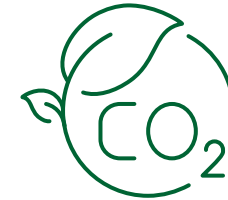
## PUBLIC POLICIES SUPPORT THE GREEN TRANSITION

- Green Deal regulations:
  - “EU’s Sustainable and Smart Mobility Strategy”
  - “EU Clean Vehicle Directive”
  - NextGen



## PUBLIC TRANSPORT IS A KEY IN ANY FUTURE MOBILITY SCENARIO

- Urban passenger transport is expected to grow by 60-70% by 2050



## BUS SEGMENT ON TRACK TO ACHIEVE NET ZERO SCENARIO IN 2050

# MARKET SURROUNDINGS

## 2022

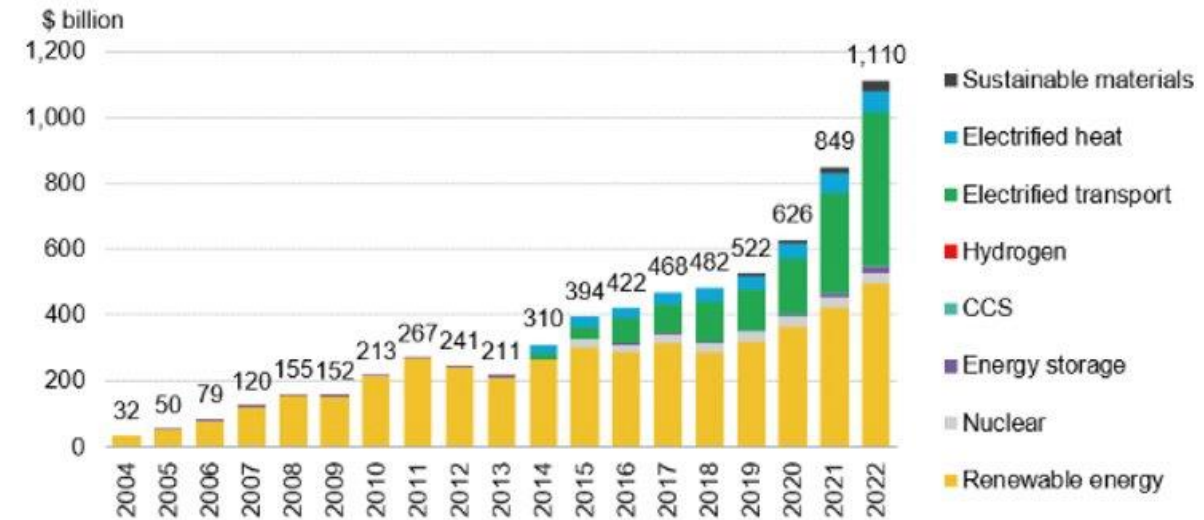
- After a difficult 2020 and 2021, 2022 was **another challenging year**
- COVID aftermath** and **supply chain instability**, followed by an **armed conflict in Ukraine**, **hyperinflation** and a **global economic crisis**



# TOWARD SUSTAINABILITY

- The year of the largest **investment in renewables** and **sustainable transport** ever

Figure 1: Global investment in energy transition by sector



Source: BloombergNEF

# INVESTING IN VARIOUS TECHNOLOGIES LEADING TO E-MOBILITY

- Constant development and investments in the field of **green technology**
  - **Urbino 18 hydrogen** launch
  - Evolving **battery technology**
- The green trend is highly visible in production figures – **more than half of the buses that left our factory in 2022 had alternative drives**



# PAN-EUROPEAN COMPANY



## HEADQUARTERS

Bolechowo

## OTHER FACILITIES

- Środa Wielkopolska
- Kijewo
- Murowana Goslina
- Poznan
- Jasin

**2,700**  
employees

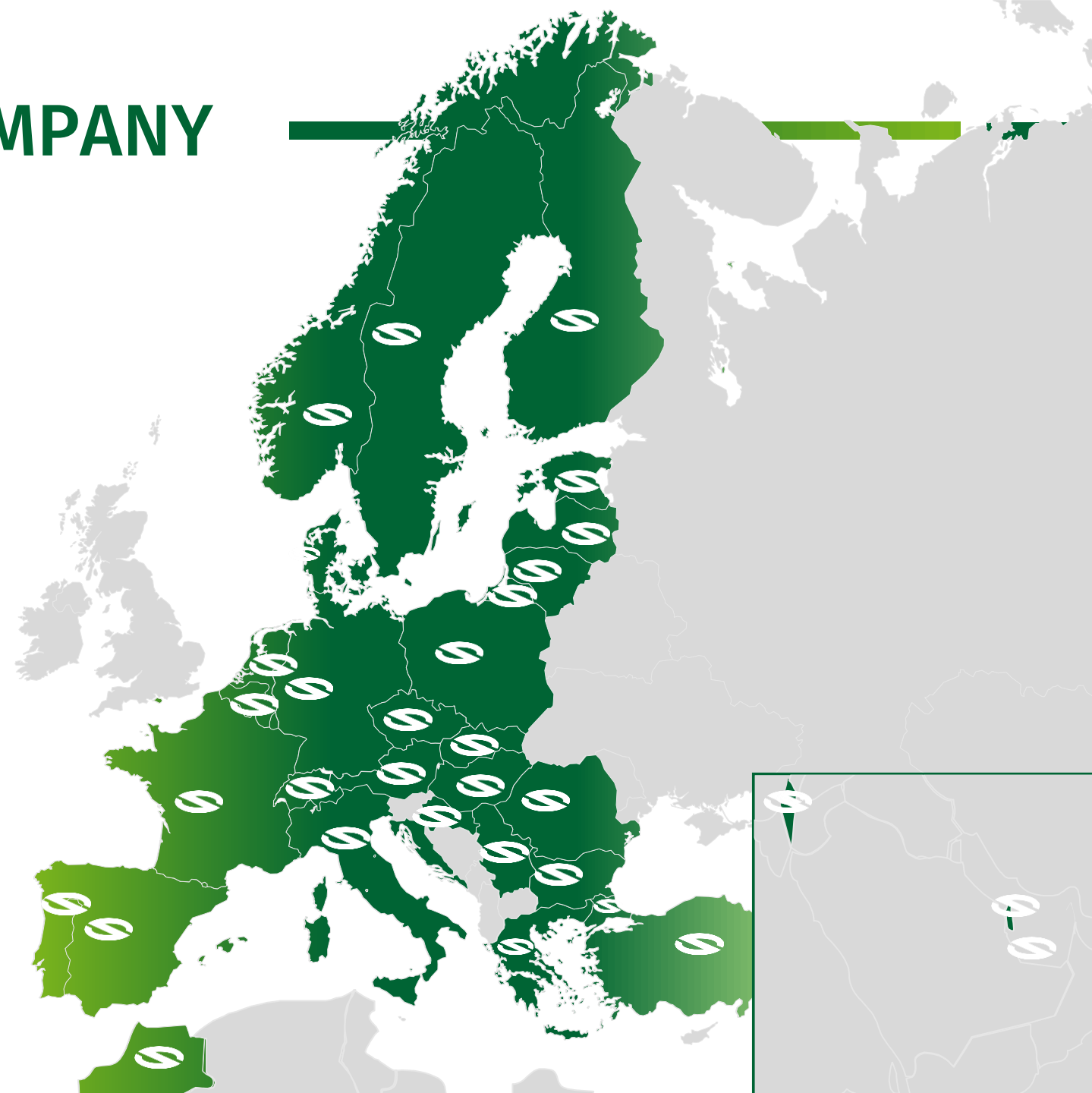
**6**  
Latest generation facilities in  
Poland

**387**  
Service Centres in 29  
countries

**750**  
cities with buses in  
operation

**23,000**  
buses delivered

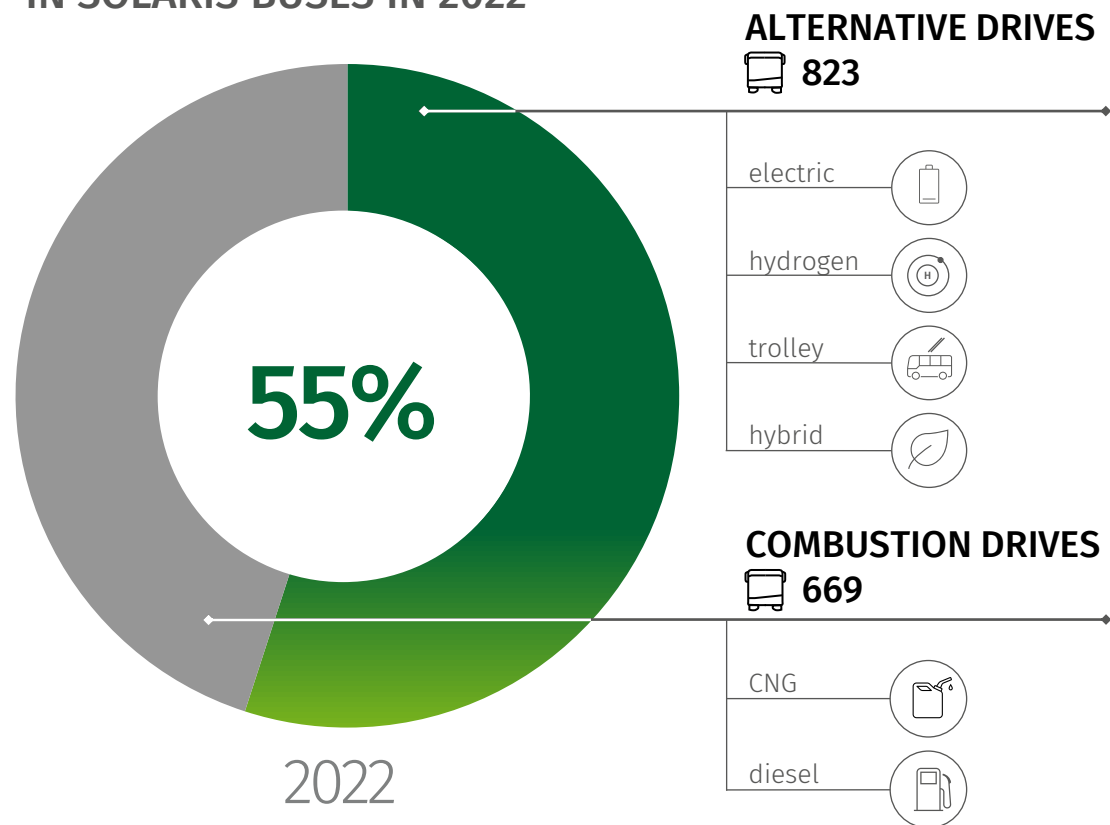
**33**  
countries



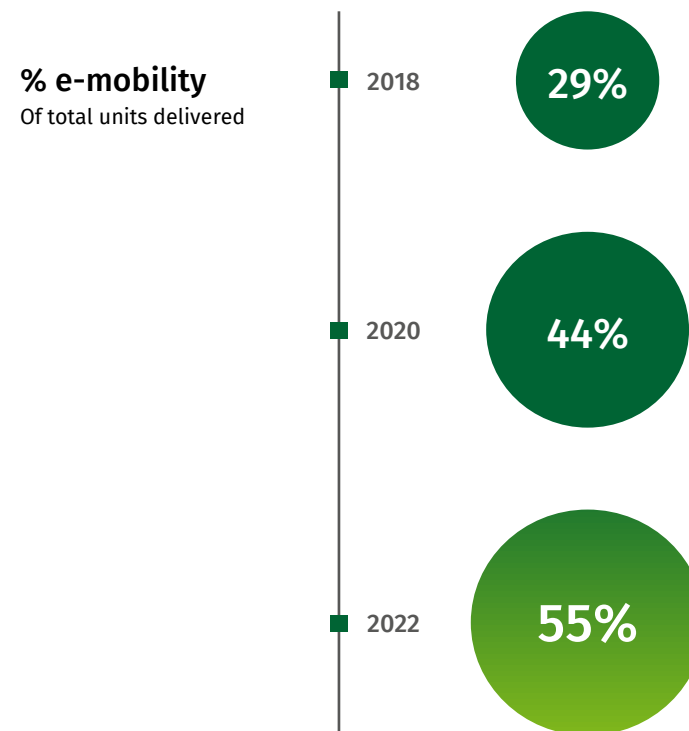
# MOVING TOWARDS ZERO-EMISSION

 **1,492** BUSES DELIVERED  
IN TOTAL IN 2022

## SHARE OF ALTERNATIVE DRIVES IN SOLARIS BUSES IN 2022



## GROWTH OF ALTERNATIVE DRIVE SHARE IN SOLARIS BUSES BETWEEN 2018-2022

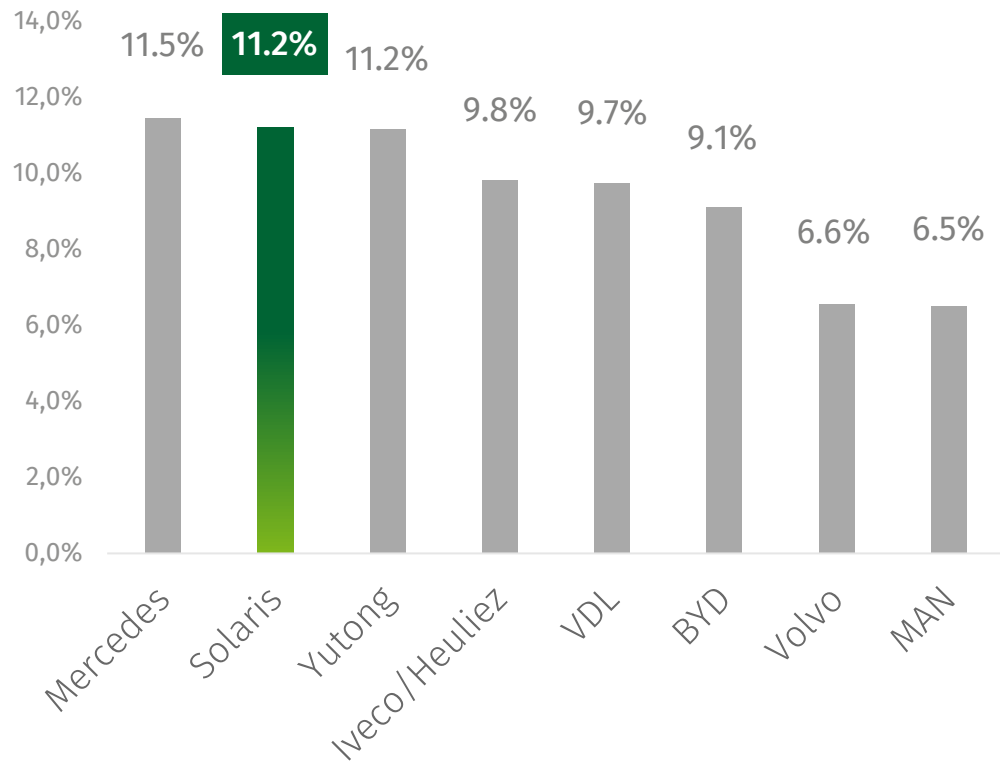




# ELECTRIC BUS MARKET

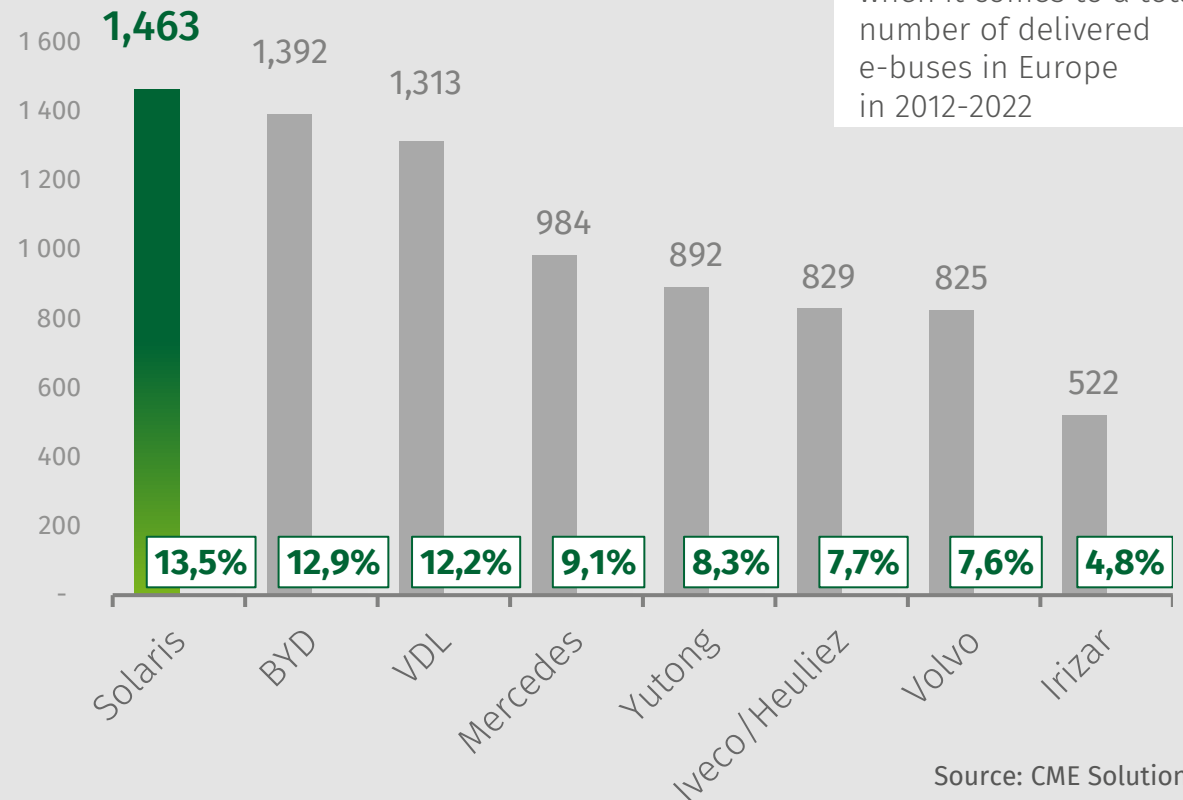
## 2022

2022 ZERO-EMISSION (ELECTRIC + HYDROGEN)  
BUS MARKET SHARES BY MANUFACTURER  
EU27 + NO + CH WITHOUT UK AND IRELAND  
TOTAL MARKET SIZE = 3,535



## 2012-2022

ELECTRIC BUS MARKET TOTAL SHARE  
SINCE 2012  
EU27+NO+CH WITHOUT UK AND IRELAND  
TOTAL MARKET SIZE: 10,798



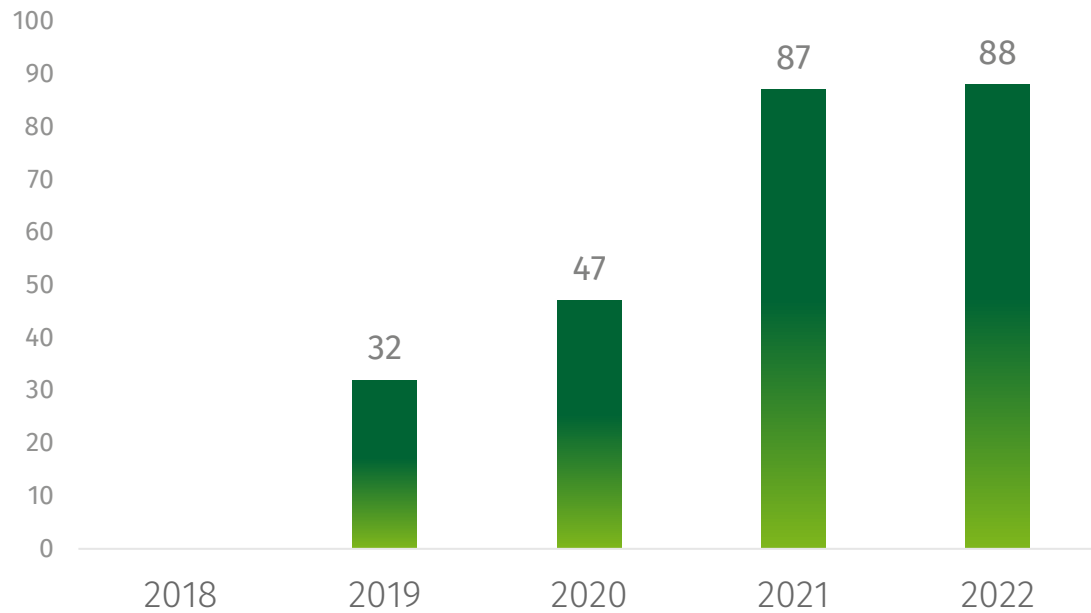
 **1st position**  
when it comes to a total number of delivered e-buses in Europe in 2012-2022

# HYDROGEN BUS MARKET

## 2012-2022

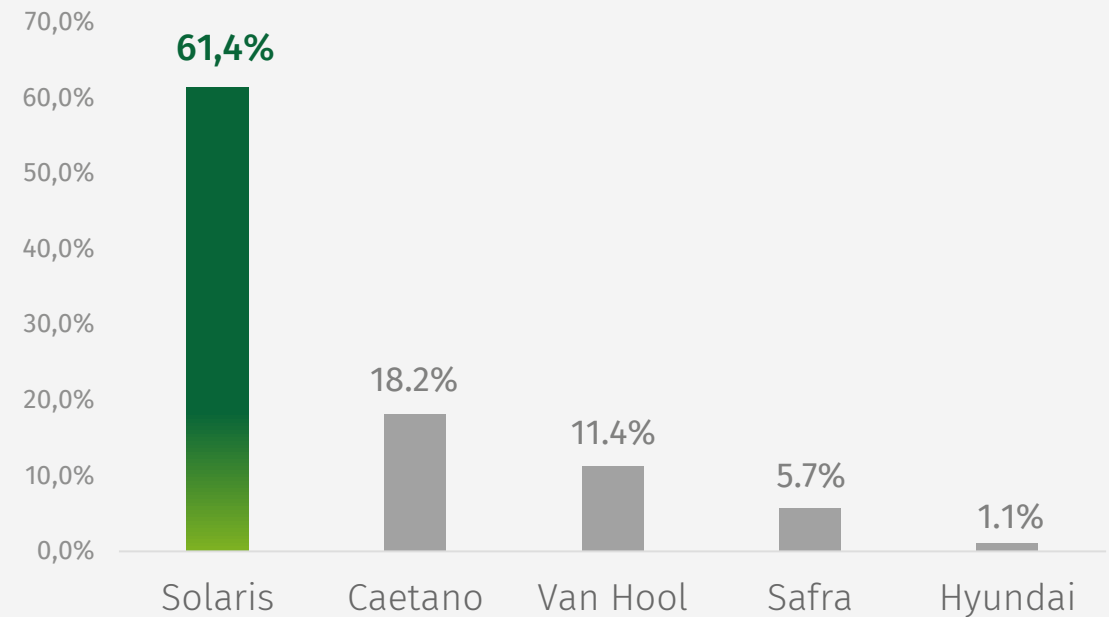
### FUEL CELL MARKET IN EUROPE 2012-2022 (REGISTRATIONS)

WESTERN EUROPE + POLAND, WITHOUT UK & IRELAND, 2012-2019, EU +UK+NO+CH IN 2020 AND FORWARD



## 2022

FUEL CELL MARKET SHARE IN EUROPE 2022, WESTERN EUROPE + POLAND, WITHOUT UK & IRELAND REGISTRATIONS, TOTAL MARKET SIZE: 88



# A PROMISING OTLOOK FOR THE FUTURE

## BREAKDOWN

 **80** cities

 **150** contracts

 **22** models

## MOST POPULAR MODELS



battery



hybrid



trolley

## SELECTED CONTRACTS

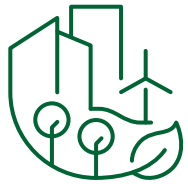
- **18x electric** – Cluj Napoca, Romania
- **52x hydrogen** – Güstrow, Germany
- **50x trolley** – Milan, Italy
- **100x hybrid** – Cagliari, Sicily
- **71x hybrid (inc. 18 plug-in)** – Barcelona, Spain
- **60x electric** – Madrid, Spain
- **183x electric** – Oslo, Norway
- **20x hybrid** – Hunedoara, Romania
- **100x trolley** – Bucharest, Romania
- **35x electric** – Riga, Latvia
- **23x 18m trolley** – Bratislava, Slovakia
- **21x trolley** – Usti nad Labem, Cz. Rep.
- **20x 24m trolley** – Prague, Cz. Rep.
- **25x hydrogen** – Poznań, Poland





# SOLARIS UNIQUE VALUE PROPOSITION

# PREPARED FOR THE GREEN TRANSFORMATION IN TRANSPORT

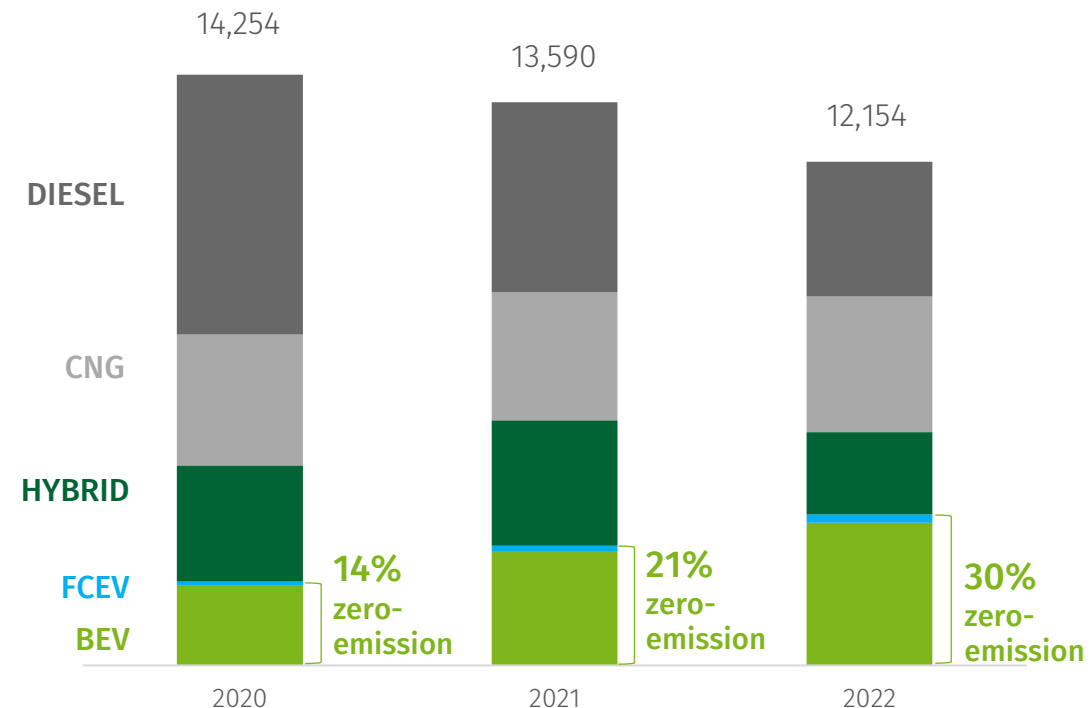


## ELECTRIC BUS MARKET IS CONSTANTLY GROWING

Even though the total number of city buses has fallen down in 2022, the **e-bus segment increased 30% up** vs 2021.

Market Forecasts Global (BNEF) says that the global e-bus fleet will reach 1.75 million **by 2040**, representing **62% of all buses on the road**.

EUROPEAN MARKET SIZE BY DRIVELINE 2020-2022





**3000**  
**zero-emission**  
**BUSES**

# REAL EXPERIENCE IN E-MOBILITY

## BATTERY BUSES

2700

Awarded through contracts

~2200

Delivered

140

cities

22

countries

In operation since  
**2013**



## HYDROGEN BUSES

300

Awarded through contracts

150

Delivered

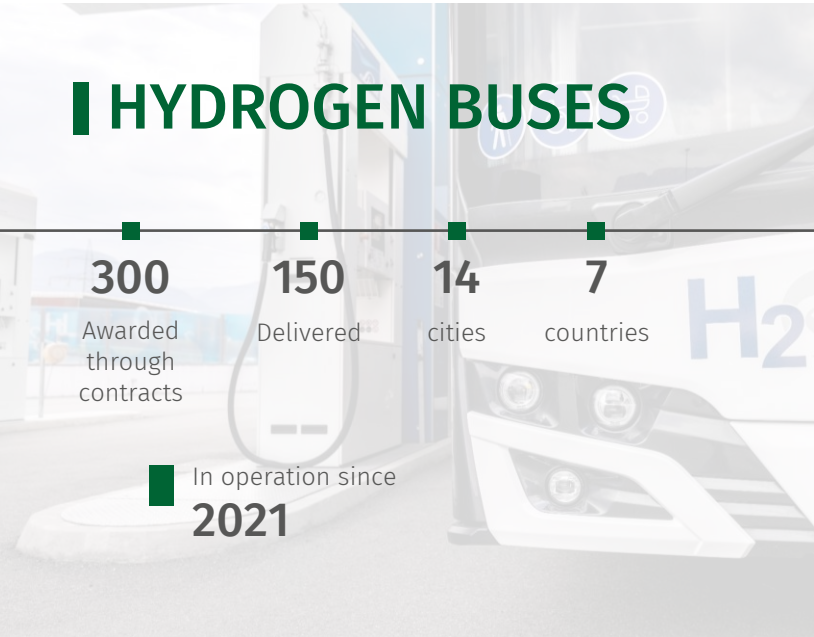
14

cities

7

countries

In operation since  
**2021**



Reliable solutions

Accumulation of deep and diverse experience

Established customer relationships

Established aftersales network



# THE MOST COMPREHENSIVE OFFER ON THE MARKET

## DRIVE TYPES

- Electric
- Hydrogen
- Trolleybus
- Hybrid

## BUS LENGTHS

- 9 m
- 12 m
- 15 m
- 18 m
- 24 m

## BATTERY TYPES

- High Power
- High Energy

## CHARGING SYSTEMS

- Plug-in
- Panto-up
- Panto-down

## ADAS SYSTEMS

- Mobileye
- MirrorEye
- CMS

## INTEGRATED SOLUTIONS IN E-MOBILITY FOR CITIES

- eSConnect
- Oneline

- The only manufacturer to offer **the complete range of low and zero-emission solutions**
- There are **more alternative-drive vehicles** in Solaris portfolio than those with conventional drives



# BUSWORLD 2023

**busworld**<sup>®</sup>

EUROPE BRUSSELS

7-12 OCT 2023 



## NEW MODEL:

**Urbino 12 and 18 electric** with high-capacity batteries on the roof only, fitted with modular drive and without "engine tower"

## 2022 LAUNCH:

**Urbino 18 hydrogen** with enhanced fuel cell parameters, fitted with modular drive and without "engine tower"

# ESG

- **Photovoltaic panels** on Charging Park and the Main Warehouse – **will produce 306 MWh of energy annually**
- **LCA life cycle assessment of 2 models of buses**  
We are working on the analysis of further models
- **100% of the energy** to power our main factories in Bolechowo and Środa comes from **renewable sources**
- **Commitment with battery suppliers** to jointly ensure a responsible battery supply chain
- **67%** of waste is recycled





— **LOOKING AHEAD** —



# SOLID FOUNDATIONS TO BUILD THE MOBILITY OF THE FUTURE



# SOLARIS STRATEGIC PLAN 2026

**Solaris** aspires to **maintain its European leadership** in zero emission mobility in the urban segment, while **expanding its product portfolio** in the European intercity segment, and to **enter the North American market** with an exclusive zero emission value proposition.



# ASPIRATION FOR THE FUTURE

## TODAY

 EUROPE

 URBAN RANGE

Strengthen position on electric urban bus market in Europe

## 2025-2026

 EUROPE

 INTERCITY RANGE

Enhance electric interurban market position in Europe

- Reinforce current product complementarity (nE15+)
- Position exclusive in electric and hydrogen buses

 NORTH AMERICA

 URBAN RANGE

Enter electric urban bus market in North America with an exclusive zero emission value proposition

- Enter in the United States and Canada markets with an exclusive zero emission value proposition
- Establish operations in United States
- Synergetic approach with CAF Rail business



**SOLARIS**  
A CAF GROUP COMPANY

# PRESS BRIEFING

— 6.06.2023

Thank you for  
your attention!

