

# Draft proposal for CAETS 2023 Conference

## e<sup>2</sup>-mobility

### Solutions and Opportunities

**Organiser:** Croatian Academy of Engineering

**Chair:** Neven Duic

**Location:** Zagreb, Croatia

**Dates:** October 2023, 9-11



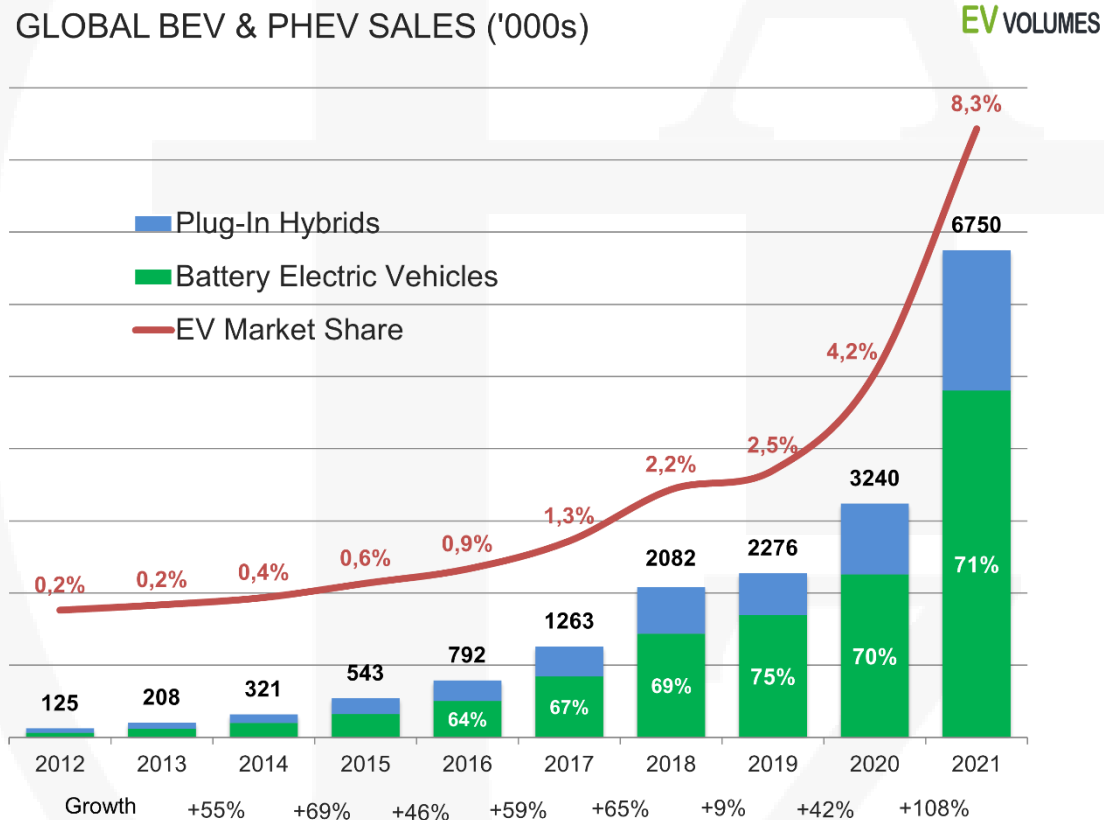




**CAETS**  
International Council of  
Academies of Engineering  
& Technological Sciences



# Transport electrification has started



Global light vehicles sales in 2021

- 6.7 mln EV
- 81 mln total
- 8.3% global sales
- 108% EV sales growth
- 6% cars sales growth

EU: 19% EV

HR: 3% EV



# Demand response – power-to-X

- 20th century energy systems: supply follows demand
- 21st century energy systems: demand follows supply -> smart energy systems



# Main topics

- Electrification of transport and integration with energy systems
- Batteries – the core technology
- Hydrogen, Fuel Cells and electrofuels
- Autonomous driving
- Modal shift – roads, railways, ships or planes?  
[Car sharing, Ride pooling]



# Conference Programme

- Opening
- Session on Electrification of transport and integration with energy systems
- Session on Batteries – the core technology
- Session on Hydrogen, Fuel Cells and electrofuels
- Session on Autonomous driving
- Session on Modal shift – roads, railways or planes?
- Closing



# Programme

- Session on Electrification of transport and integration with energy systems
  - Henrik Lund, Editor-in-chief Energy, h index 63, tbc
  - 3-5 panelists suggested by Council members



# Programme

- Session on Batteries – the core technology
  - Peter Bruce, Oxford Uni, h index 103, tbc
  - 3-5 panelists suggested by Council members





# Programme

- Session on Hydrogen, Fuel Cells and electrofuels
  - Frano Barbir or Iva Ridjan, tbc
  - 3-5 panelists suggested by Council members



# Programme

- Session on Autonomous driving
  - Sacha Vrazic, Director of Autonomous Driving R&D at Rimac Technology, tbc
  - 3-5 panelists suggested by Council members



# Programme

- Session on Modal shift – roads, railways or planes?
  - Pending, tbc
  - 3-5 panelists suggested by Council members



# Schedule – day 1

Time	Session Day 1	
[8]9-12	CAETS Board Meeting	8-10 Committees and WG 10-12 Committees and WG
12-13	Lunch for CAETS Board Members	Registration for participants
13-14	Opening	
14-16	Session on Electrification of transport and integration with energy systems	[Committees and WG]
16-1630	Coffee break	
1630-1830	Session on Batteries – the core technology	[Committees and WG]
20-23	Conference Dinner	







# Schedule – day 2

Time	Session Day 2	
9-11	Session on Hydrogen, Fuel Cells and electrofuels	Session on Autonomous driving [, Car sharing, Ride pooling]
11-1130	Coffee break	
1130-1330	Session on Modal shift – roads, railways or planes?	[Committees and WG]
1330-1400	Closing	
1400-1830	CAETS Council Meeting	Zagreb tour



# Schedule – day 3

Time	Session Day 3	
9-13	[Visit to Rimac campus, tbc]	
		

# Energy WG Report on transport decarbonisation

- Not covered by two previous energy reports
- Crucial bottlenecks in this decade
- Transport is the most difficult sector to decarbonise and it decides climate and can only be by integrating it with energy sector
- EV technology where a small country can have an impact

