

# Arval – Hydrogen Involvement

Driving innovation, investment and a cleaner future



**ARVAL**  
BNP PARIBAS GROUP

We care about cars. We care about you.

# Arval – Who We Are

## Vehicle leasing and fleet management



Cars & Vans



For a broad range of customers:

Individuals

SMEs

Mid & Large  
Companies

Large International  
Corporates

### INTERNATIONAL

**29** countries

Leasing more than  
**1.1 million** vehicles

**No.1**  
Locally in several  
EU countries

**+350,000**  
Vehicles ordered each year

**+250,000**  
Vehicles sold each year

Element – Arval Global Alliance Leasing  
**+3m** vehicles in **50** countries

### IN THE UK

**165,000**  
vehicles leased

Market share of around  
**9%**

**750**  
Employees

**No.4**  
in UK

**3** locations

Swindon  
(Head office)

Birmingham

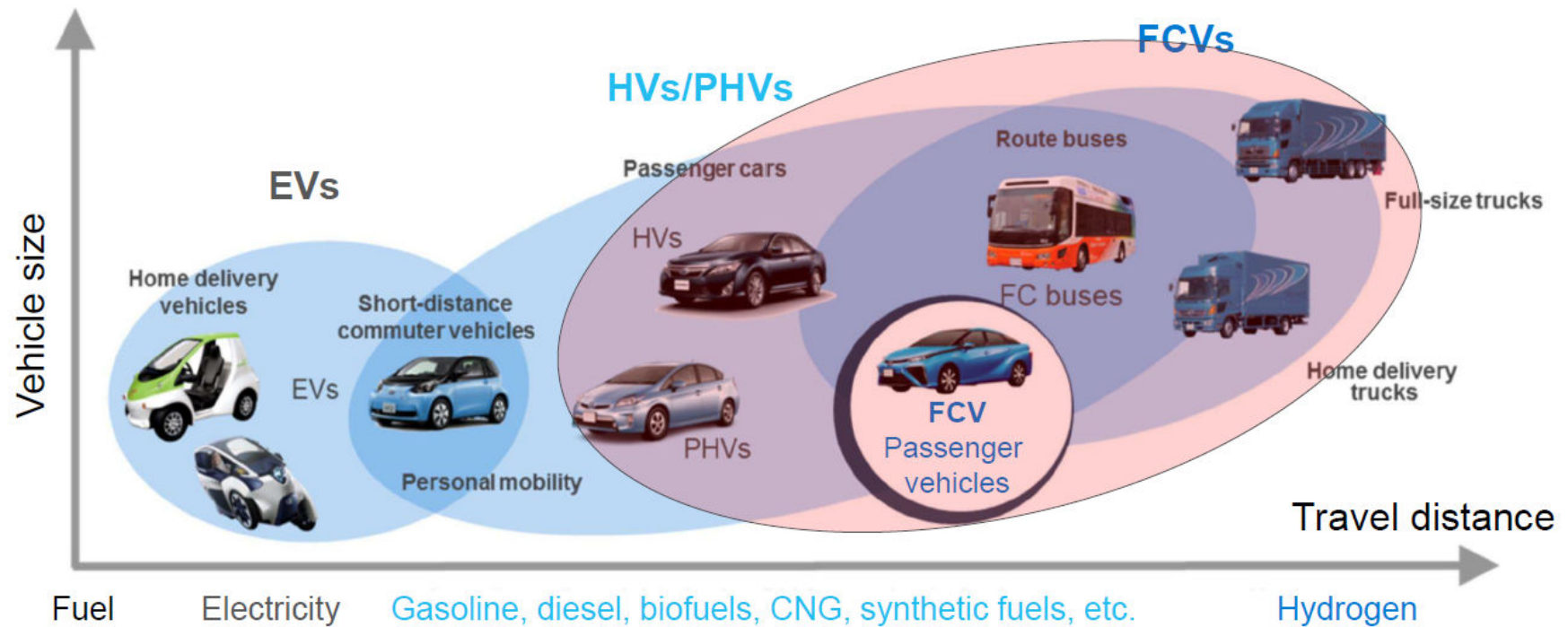
Manchester



# UK & Global Investment and Commitment



# Why Hydrogen?



- Refuelling time – 2-4 minutes from empty
- Emissions – Water
- Range – 300-350 miles per tank

# Swindon Hydrogen Hub

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- Hydrogen Hub partnership
  - Launched the 1<sup>st</sup> UK hub in Swindon on 2017
  - 4 Hydrogen Innovation streams
    - Car (Arval Executive Sponsor)
    - Buses
    - Forklift trucks
    - Combine heat and power
  - Car Stream objectives
    - Working with circa 40 companies in Swindon
    - Key Partners: The National Trust/Science Museum/Johnson Matthey/Nationwide Building Society/Business West
    - Key Manufacturer partners: Hyundai & Toyota
    - Open a second refuelling station in Swindon
    - Deployed 8 fuel cell cars around Swindon – Arval has a Hydrogen Car & leases 3 cars to partners
    - Developing a leasing model for cars
- National involvement:
  - Collaboration with OLEV Hydrogen Team
  - Collaboration with Government BEIS Hydrogen team (headed up by MP Clare Perry)
- International Involvement:
  - Hosted the Chinese EV100 delegates in Swindon (event in Q4 2017)
  - Hosted the Japanese Hydrogen delegates in Swindon (events in 2017 & 2018)

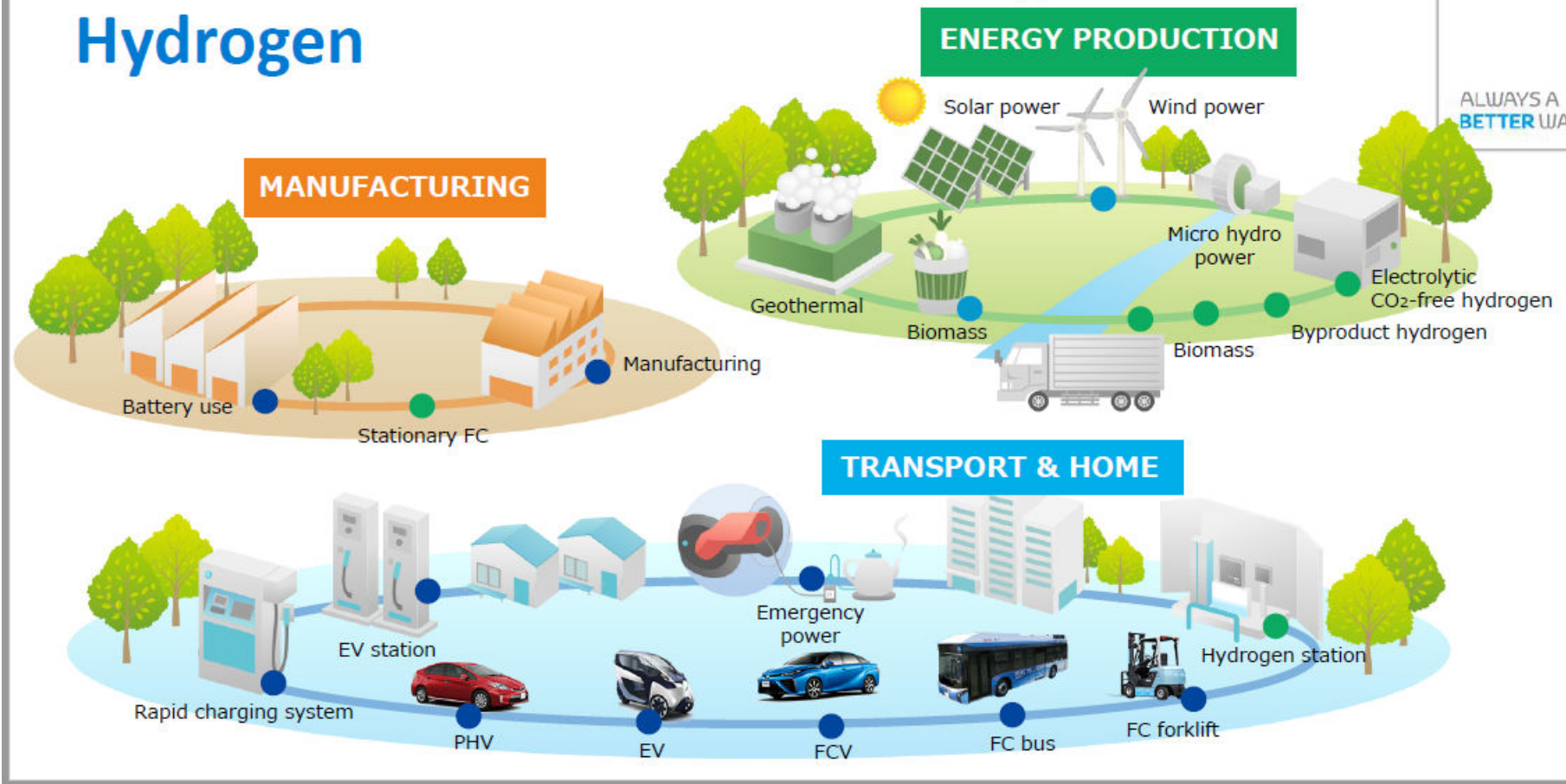


# OEM's view

## Toyota view : Renewables & CO<sub>2</sub> Free Hydrogen



ALWAYS A BETTER WAY



# Hydrogen transport, today



# 2019 Arval Hydrogen Roadshows

- BNP Paribas funded the 2019 Hydrogen Roadshows as part of their #PositiveImpact Campaign in 2018
  - UN Sustainable Development Goals were at the heart of the project
- In 2019 Arval is partnering with the Hydrogen Hub to deliver 5 Roadshow events across the UK
- These events are focussed on:
  - Raising awareness of the role of hydrogen in the Energy Transition
  - Engage with local businesses and the general public in how hydrogen can make a positive impact in the local community.
  - Showcasing manufacturer technology and innovation
  - Highlighting the role of Arval and Hydrogen Hub in the development of the UK hydrogen economy
  - The events are opened up to the public in the afternoon, with people able to explore and learn about the vehicles
- The events were located in Swindon, Oxford, Leeds, Birmingham (16<sup>th</sup> October) and London (TBA)
- Events include speakers from Arval, BNP Paribas, Hydrogen Hub, OEMs such as Toyota and Hyundai, refuelling operators and current users of the fuel cell vehicles.



# Public Awareness

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- World's first emergency response hydrogen fleet – 11 Mirai (first batch of 140)



- Circa 180 FCV deployed in the UK to date
- Hyundai Nexa fuel cell SUV achieves top safety rating



# Public Awareness – Education Pack

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- Arval / Hydrogen Hub Schools Education Programme launched in February
  - Supporting GCSE Chemistry Syllabus
  - <https://www.tes.com/teaching-resource/fuel-cells-gcse-chemistry-new-spec-12069201>
  - <https://www.youtube.com/watch?v=j5Al3Q-RfUw>



Thank you for listening  
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