

BUSINESS MODELS FOR CLEAN CARS

Patrick Pélata, Renault Chief Operating Officer

BUSINESS MODELS FOR CLEAN CARS

- **Different profiles for clean cars**
- **Potential customers for the electric vehicle**
- **Breakthrough for business model for the electric vehicle**
- **Role of governments in the development of the electric vehicle**
- **Market size for the electric vehicle**

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RENAULT'S ANSWERS TO 2020 EUROPEAN TARGETS

Automotive CO₂ emissions regulation
443/2009

CAFE = 95 g/km

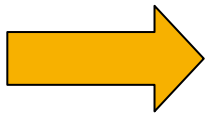
European Directive on Renewable Energy
2009/28/CE

**20 % Renewables
in energy mix**

&

European Directive on Fuel Quality
2009/30/CE

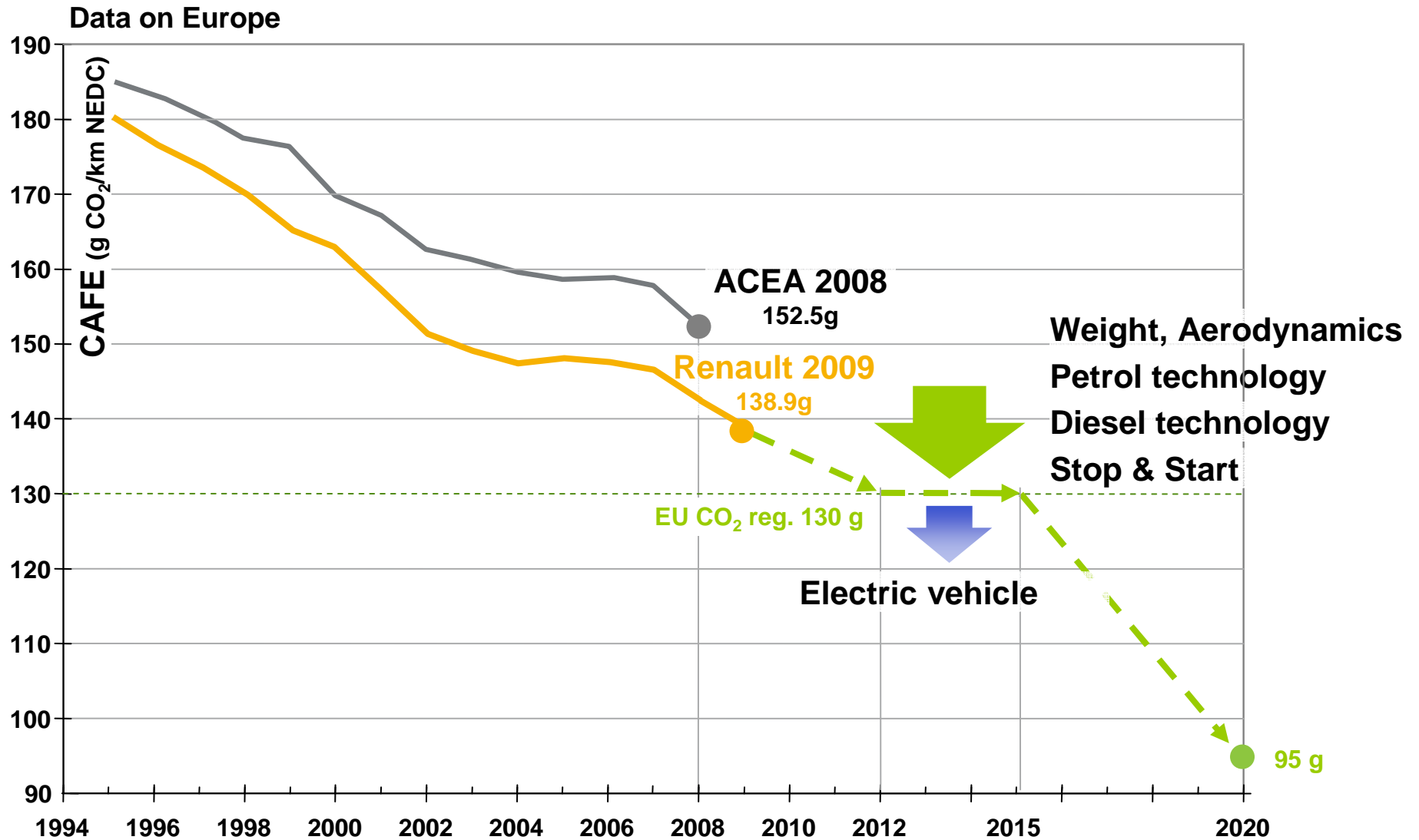
**10 % Renewable fuels
in transport**



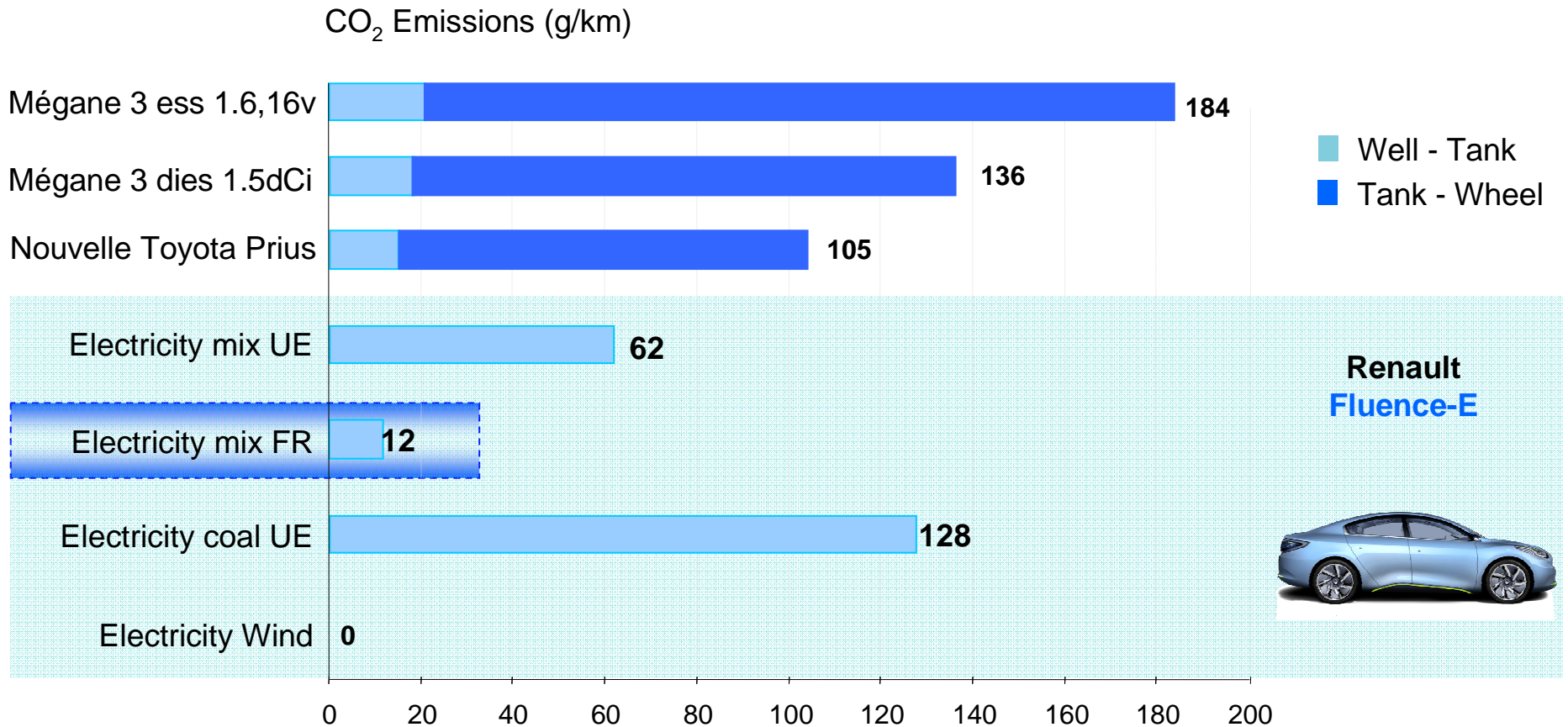
RENAULT's answers :

- Biofuel compatible vehicles
- CO₂ efficient internal combustion engines
- Electric Vehicles

RENAULT TARGETS TO BECOME LEADER IN CO₂ EMISSIONS



THE ELECTRIC VEHICLE : THE ONLY REAL BREAKTHROUGH IN CO₂ EMISSIONS

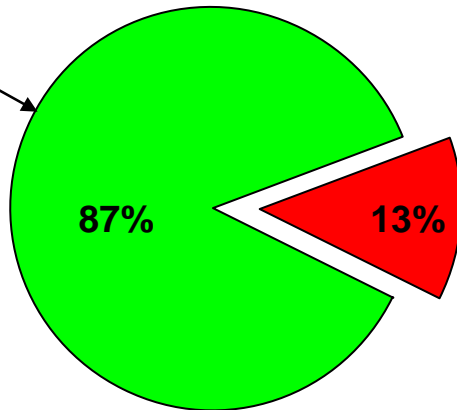


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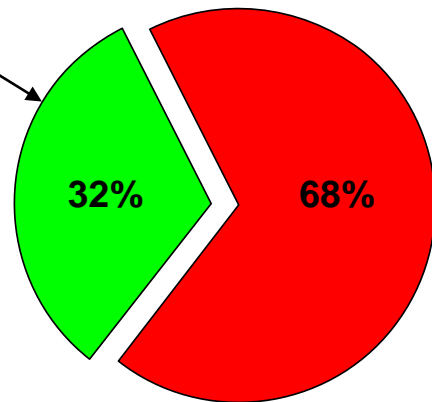
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WHICH CUSTOMERS? *In Europe*

87% of customers travel less than 60 km per day



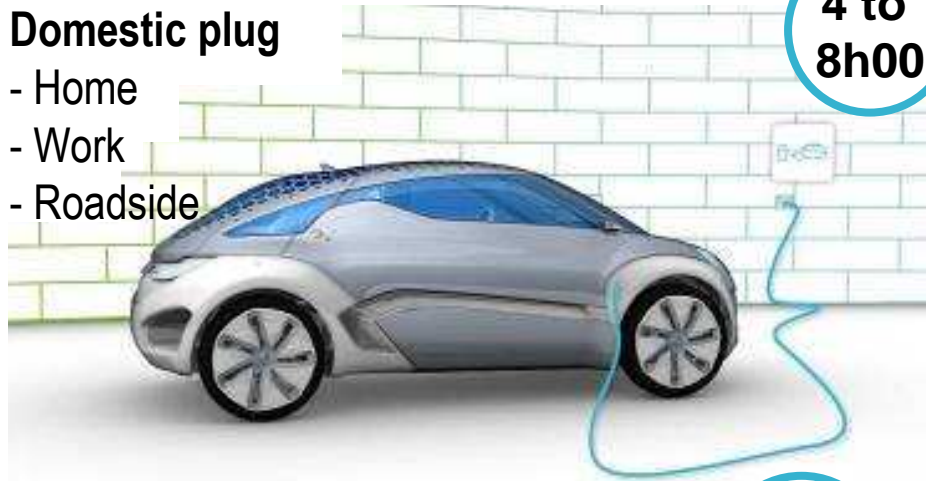
On B segment, 32% of customers never travel more than 150 km per day



THE BATTERY RECHARGE INFRASTRUCTURE

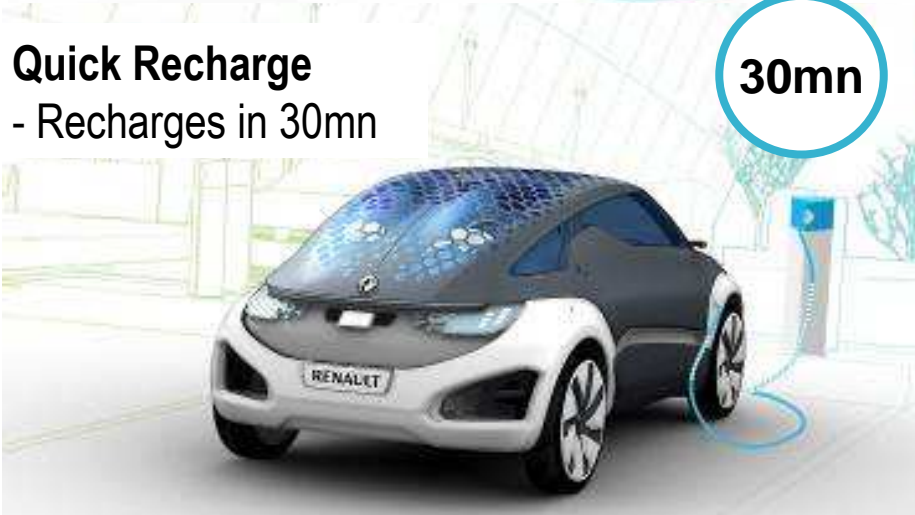
Standard charge Domestic plug

- Home
- Work
- Roadside



Quick Recharge

- Recharges in 30mn



Quick Drop Station

- A new battery \approx 3mn

3mn



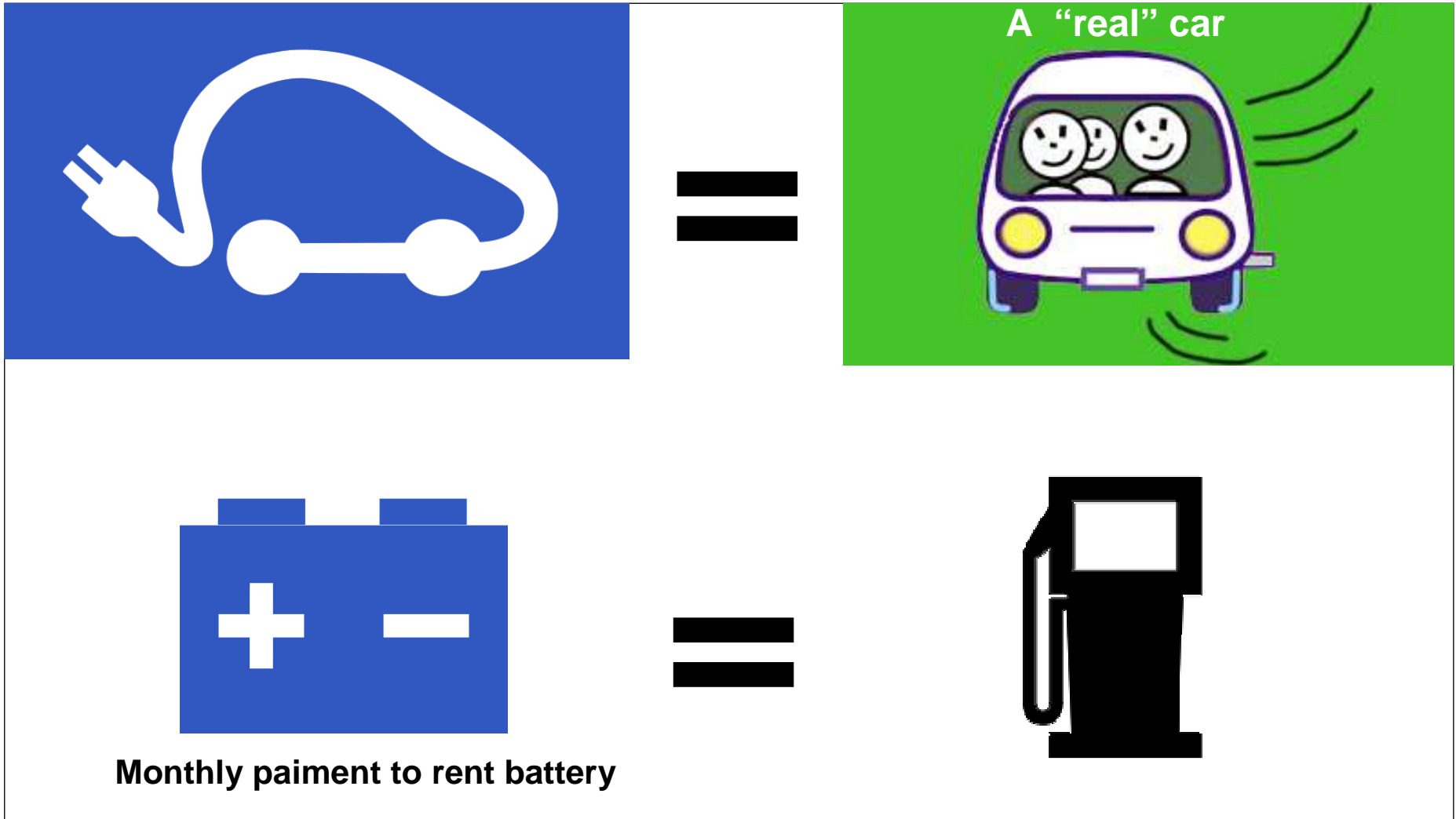
Intelligent navigation



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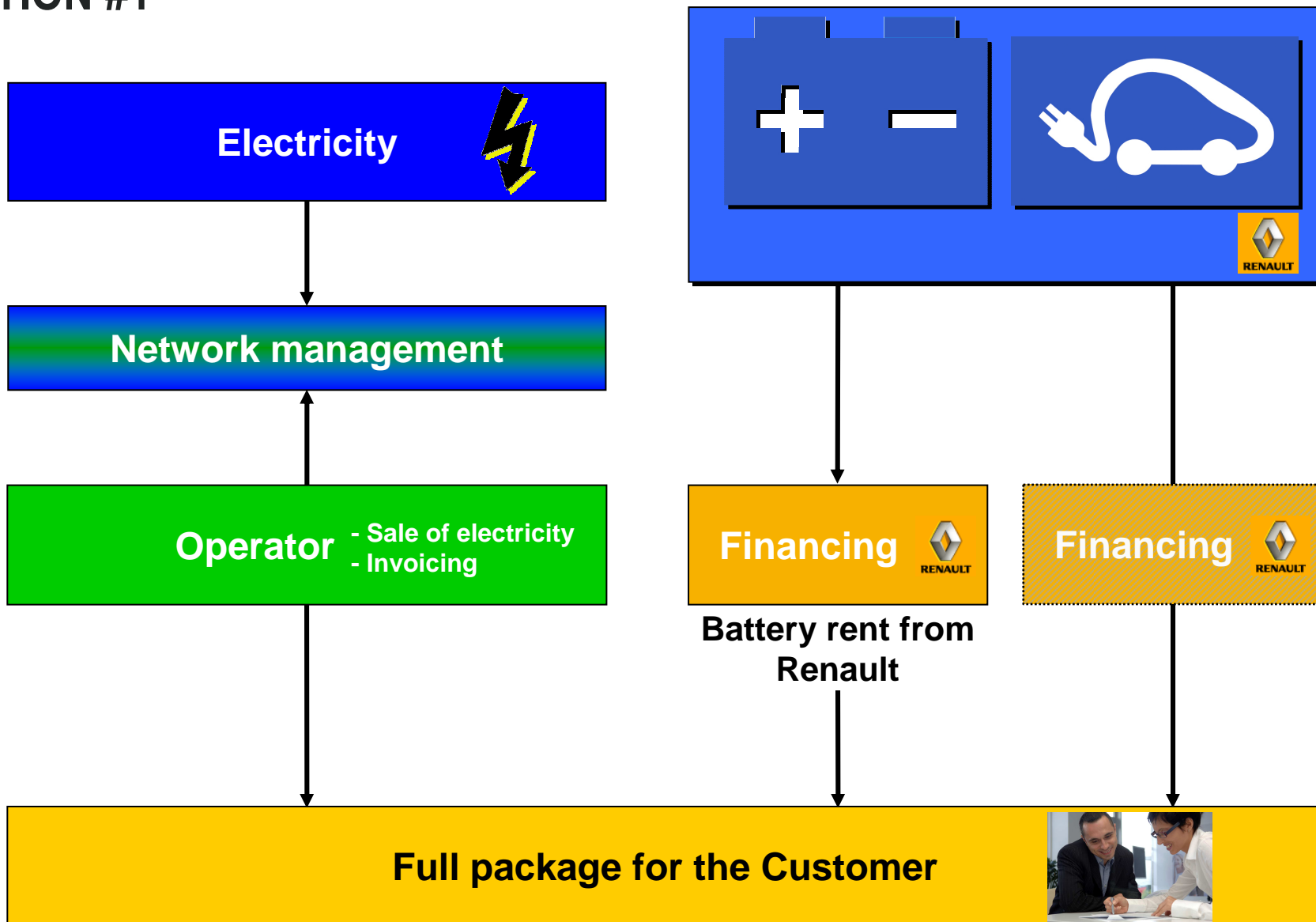
BUSINESS MODEL PRINCIPLES FOR THE ELECTRIC VEHICLE



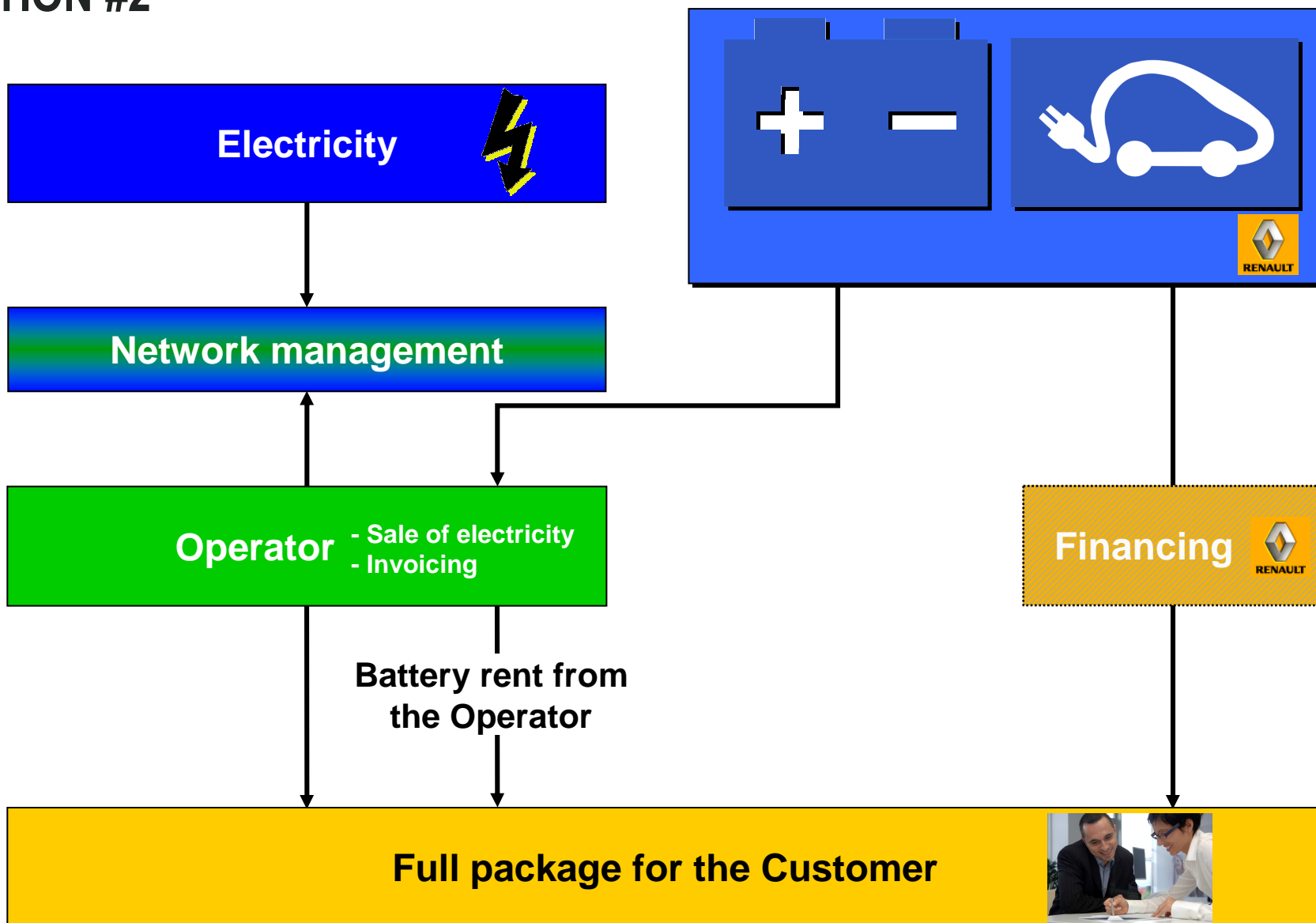
REAL CARS, A WHOLE RANGE



OPTION #1

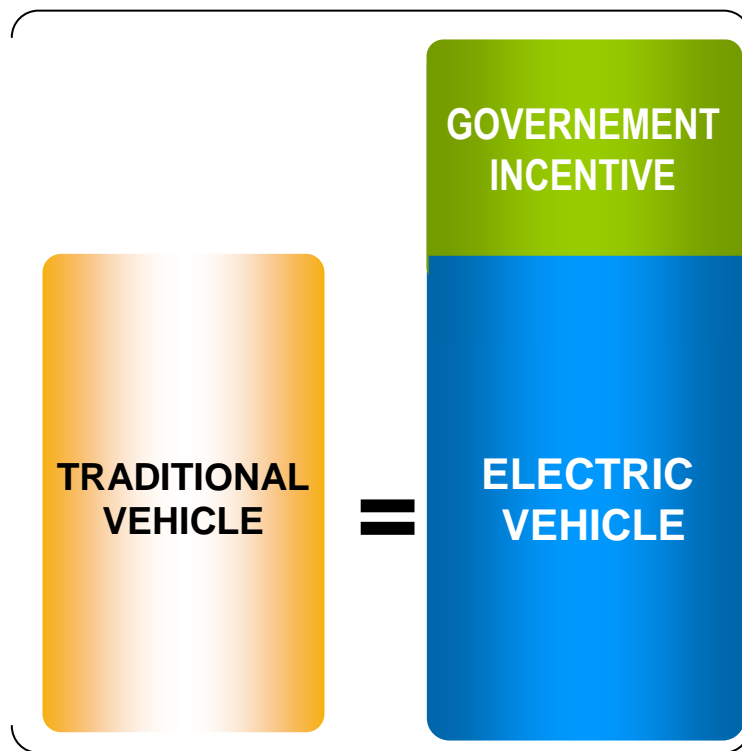


OPTION #2

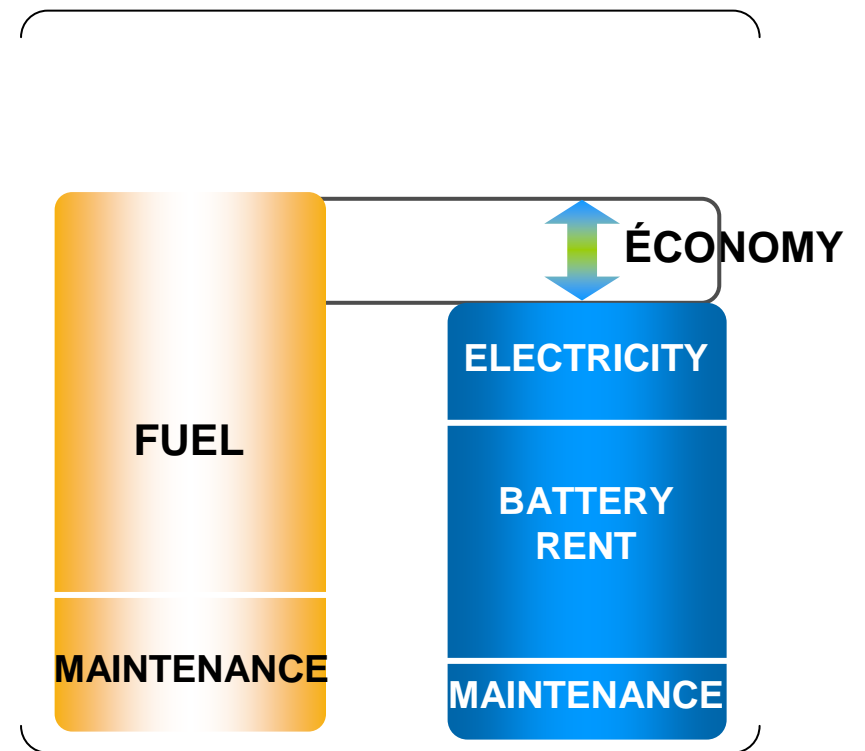


A RATIONAL CHOICE FOR THE CUSTOMER

FOR PURCHASE



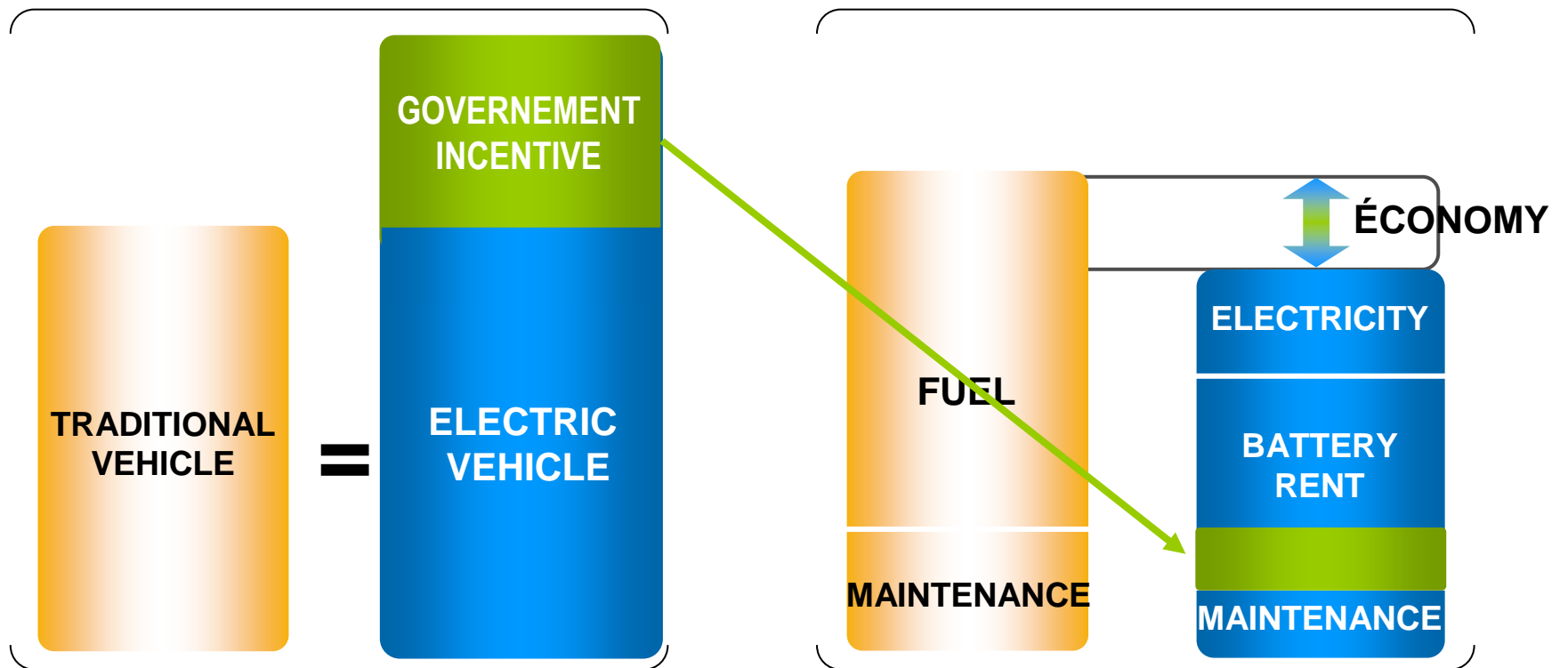
FOR USE



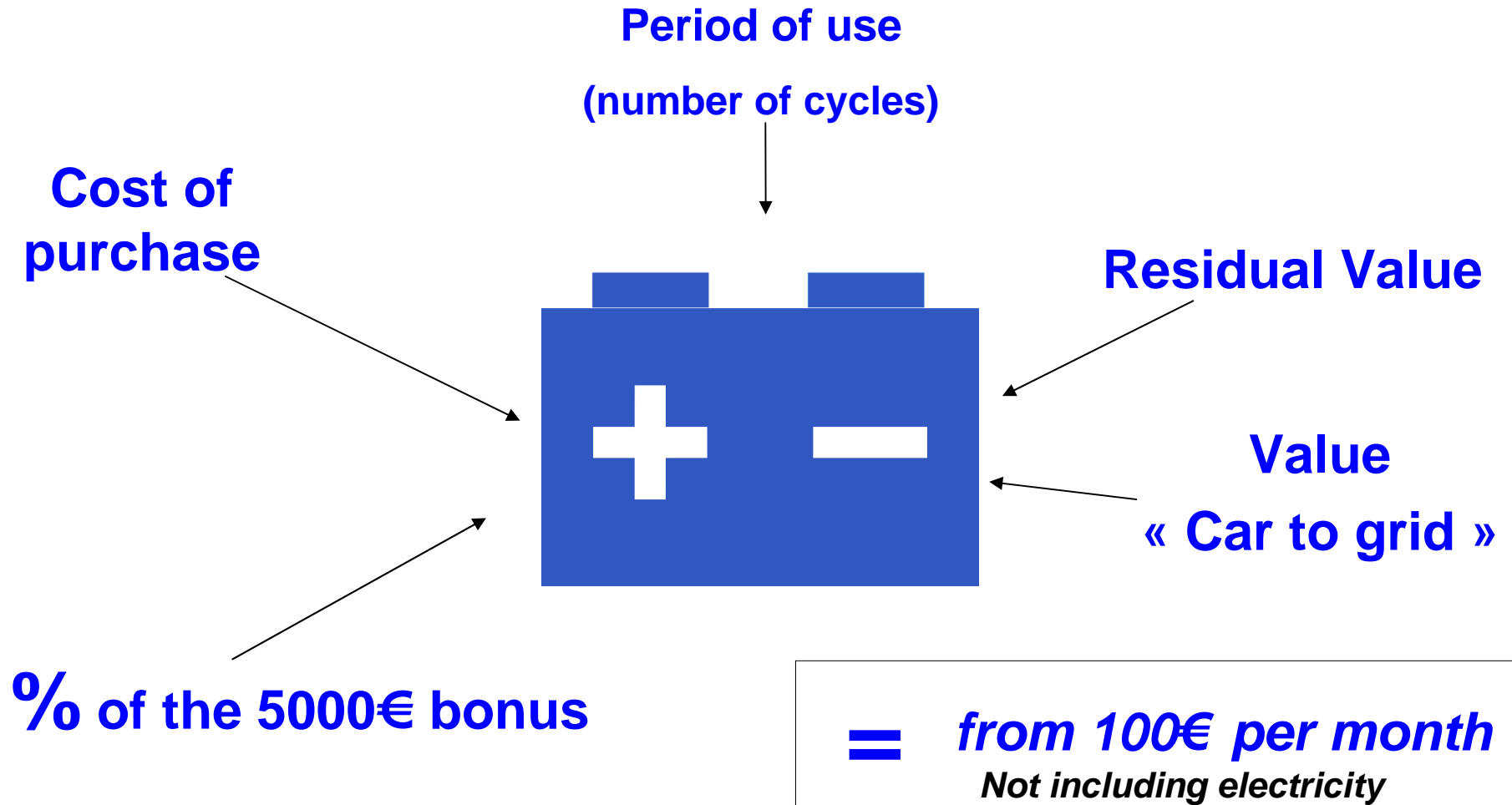
A RATIONAL CHOICE FOR THE CUSTOMER

FOR PURCHASE

FOR USE



BATTERY RENT PACKAGE



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THE ELECTRIC VEHICLE ANSWERS ENERGY AND ENVIRONMENTAL QUESTIONS CONCERNING TRANSPORT

- ✓ **Reduction of the oil bill and reduction of CO₂ emissions offer collective benefits (PIB, Country, Planet)**
- ✓ **Key point to drive changes : the CO₂ value**

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WHICH MARKET SIZE?

- ✓ Oil price
- ✓ Development of regulations and incentives on the reduction of emissions
- ✓ Reduction of battery costs and Electric vehicle technology
- ✓ Roll-out of the recharge network, including the « smart grid »
- ✓ Change in motorists attitudes

Potential annual market :
10% of market share in 2020

2016
3M of EV

2020
6M of EV

ELECTRIC VEHICLE MAY SPARK OFF NEW OR RENEWED MOBILITY SOLUTIONS

Car-sharing

