



# SQUAD

## WORLD'S FIRST SOLAR CITY CAR

### PITCH DECK

October 2024

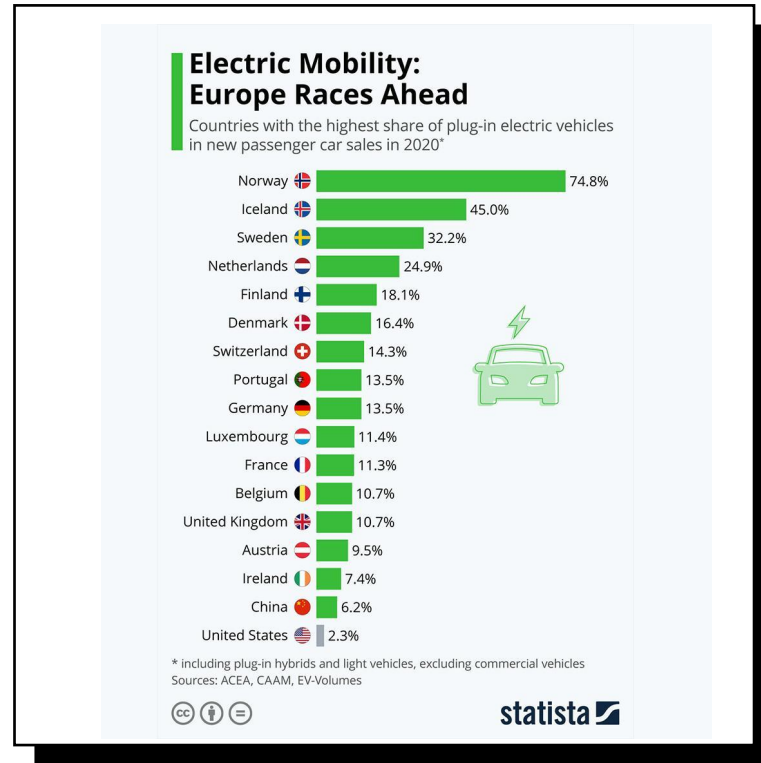
# MOBILITY TRANSITION EU

*Older petrol & diesel cars will be banned from cities*

Increasing & stricter urban Low Emission Zones (to 507 in 2025).



Accelerating transition to electric mobility



Rapid growth of shared EV (micro-) mobility services



# AFFORDABILITY OF EV'S

*Most Europeans cannot afford an electric car*



New ACEA data reveals that many Europeans struggle to afford electric cars. ([Reference](#))



Increasing stricter EU regulations on M1 ICE emissions increase prices even more

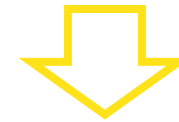
The EU L6/L7 and US LEV regulations offer the opportunity for lower cost cars.

# URBAN CHALLENGE

*30 percent of drivers on the road are looking for parking*



*Single-occupancy cars and vans are the main contributors to congestion and parking issues in cities*



*Electrification of family cars and vans won't solve this problem*

“Studies have found that an estimated 30 percent of all drivers currently on the road are actively looking for parking.” ([reference](#))

# INTRODUCING: WORLD'S FIRST SOLAR CITY CAR

AFFORDABLE  
& LOW TCO

- Starting at € 6.250,- (ex VAT)
- Very low TCO (Total Cost of Ownership)

EASY &  
COMFORTABLE

- 2 person side-by-side
- Solar-charging
- Swappable batteries
- Air conditioning & heating

SAFE &  
SECURE

- Crash structure front & rear
- Roll over structure
- Secure from unwanted attention
- Lockable

SUSTAINABLE &  
DURABLE

- Solar Charging
- Energy Efficient
- Limited use of resources
- Durable & Repairable



# SOLAR CHARGING

The solar panel integrated in the roof charges the battery all day and every day with up to 22 km per day in the Netherlands\* and 31 km in Spain.

The average distance travelled with Micro cars in Europe is 12,5 km/day.



\*Validated in The Netherlands

# SWAPPABLE BATTERIES

Up to 6 Swappable and portable batteries give the Squad a range of up to 150 km\*.

\*(Excluding Solar kilometers)



# CROSS PARKING

The Squad is very compact with a length of 2 meters for easy cross parking. Three Squads fit on a regular parking space





# REMOVABLE DOORS & COMFORT



The doors are easily removable  
for those hot summer days  
Heating is standard  
Air-conditioning optional



# FOUNDERS

*"We believe the world is ready for an affordable solar-powered city car that benefits everyone: riders, mobility providers and cities."*



## Robert Hoevers, Founder & CEO

- Over 25 years experience in Automotive and EV space e.g. MotoGP, A1GP, FIA Formula E, China Racing, NIO en Lightyear
- Started Squad Mobility in 2019: responsible for Sales & Marketing, Procurement ERP/CRM, Business Development and Government Relations



## Chris Klok, Founder & Chief of Design

- 25 years experience in developing mobility products, from two- to four-wheeled vehicles e.g. interior concepts for Renault, motorcycles for Piaggio, development of the PAL-V flying car, and chief vehicle engineer at Lightyear
- Joined Squad in 2019: responsible for Design and Research & Development

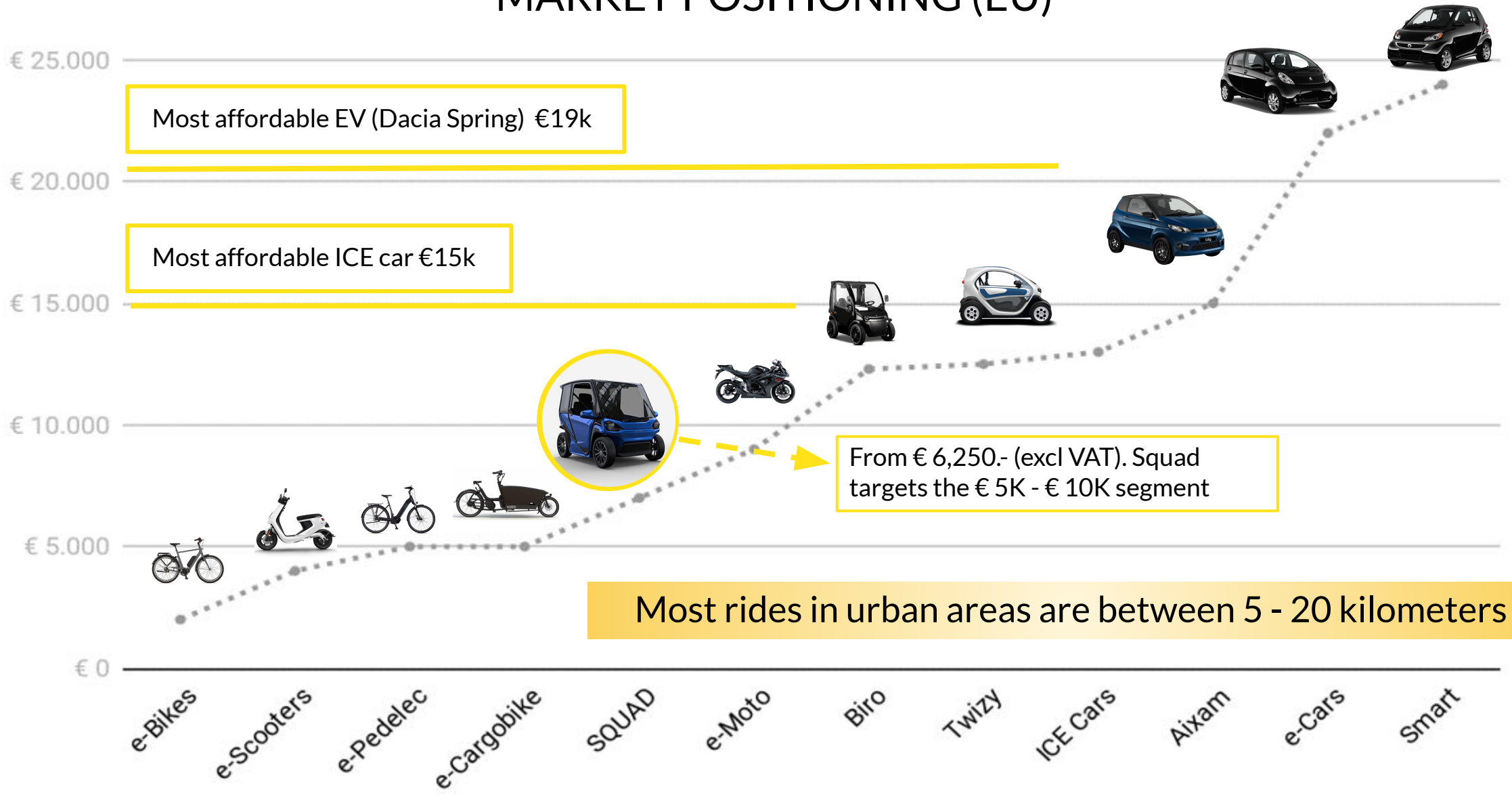


Squad Mobility is supported by Bloomit Ventures since March 2021.

Bloomit is an active investor and accelerator of Light Electric Vehicles (LEV) run by former founders in this sector.



# MARKET POSITIONING (EU)



Most affordable EV (Dacia Spring) €19k

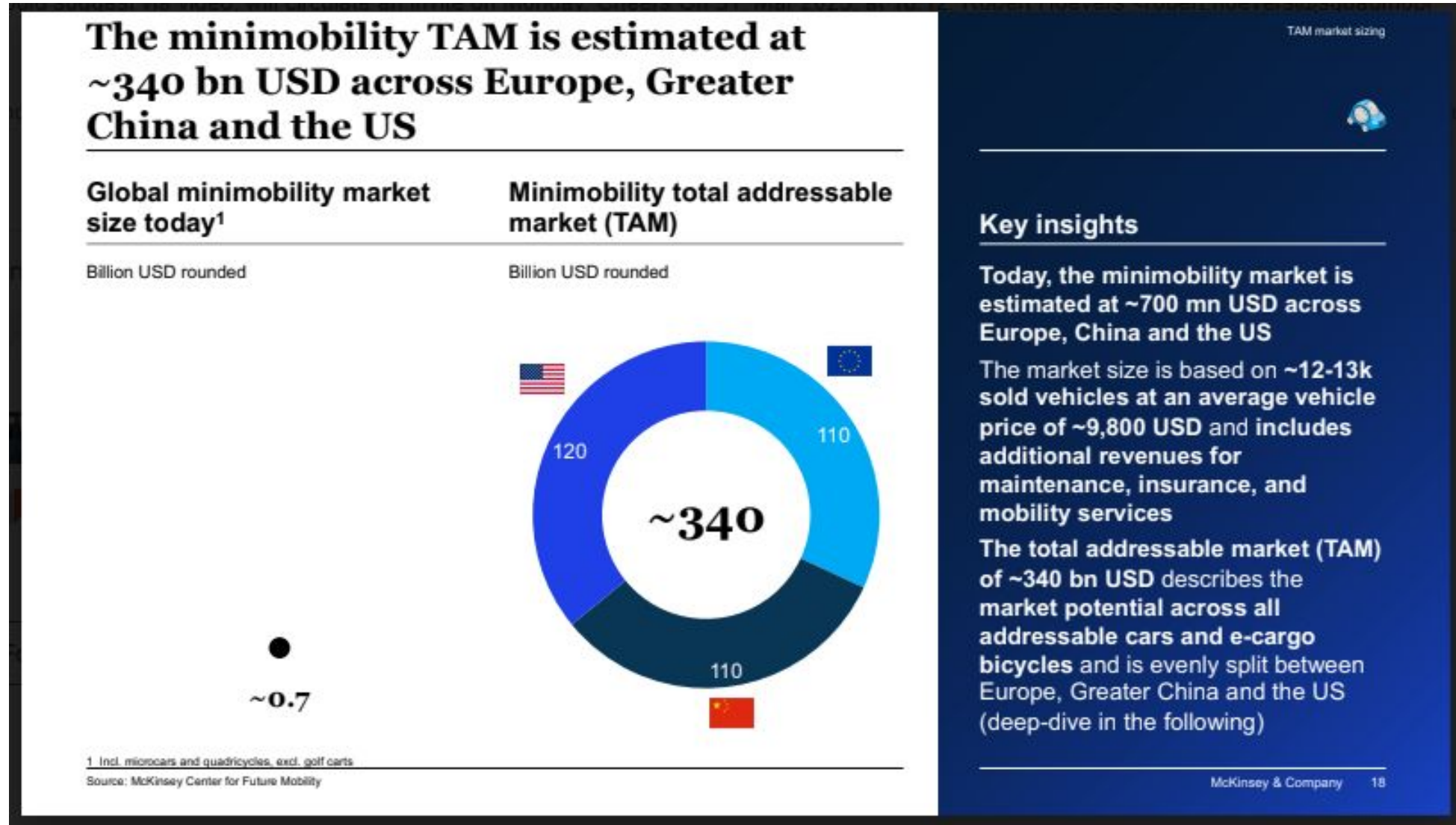
Most affordable ICE car €15k



From € 6,250.- (excl VAT). Squad targets the € 5K - € 10K segment

Most rides in urban areas are between 5 - 20 kilometers

# McKinsey : Total Addressable Market (TAM) of minimobility is ~340 bn



# OUR POTENTIAL CUSTOMERS (TAM, SAM & SOM) Market size

TAM (Total Addressable Market) 2030 Mini mobility 370B USD (source : McKinsey)

- Europe 110B USD
- USA 120B USD
- China 110B USD
- Japan 30B USD

~11 million mini vehicles in Europe 2030

~12 million mini vehicles in USA 2030

Squad target markets 2027

- Europe, USA, Japan

SAM (Serviceable Available Market) EU+USA+JP = ~ 8,5 million mini vehicles in 2030

SOM (Serviceable Obtainable Market) Market share Squad in 2030 = 2% = ~170k Squads

**TAM 2030 : 370 B USD**

Source; McKinsey 340 B\$ + Japan estimated.  
Minimobility (road legal quadricycles and similar)

**SAM 2030 : 84 B USD**

SAM: Western Europe +  
Southern USA + Japan

**SOM 2030 : 1.67 B USD**

2.0% market share  
170 k Squads per year

# TARGET MARKET (SOM)

**B2B FLEET &  
SHARED  
MOBILITY**

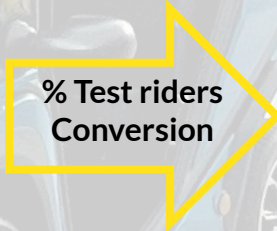


**B2C OWNED  
LEASE &  
SUBSCRIPTION**



B2B Fleet & Shared Mobility Market

**MARKET POTENTIAL  
50.000 SQUADS BY 2030**



Owned Mobility Market

**MARKET POTENTIAL  
120.000 SQUADS BY 2030**

# DESIGNED FOR COST AND SCALABILITY

## Design

- Design for cost & scalability
- Fit-for-purpose (Speed, Size, Features)
- Swappable batteries
- Modularity
- Combination of features
- Spaceframe chassis
- Design for assembly
- Options & accessories



## Logistics

- Micro factories close to market
- Flatpack transport of sub assemblies
- Warehouse & Microfactory combination



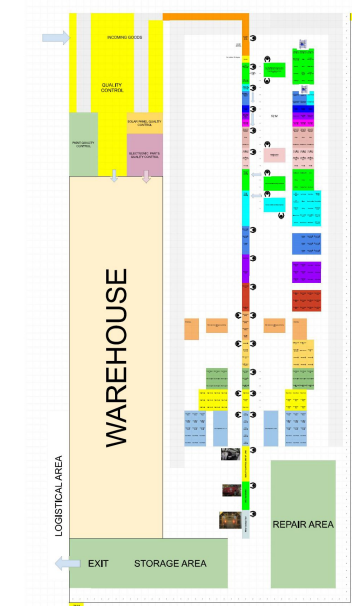
## Sourcing

- Mass production
- Off the shelf parts
- Worldwide sourcing



## Manufacturing

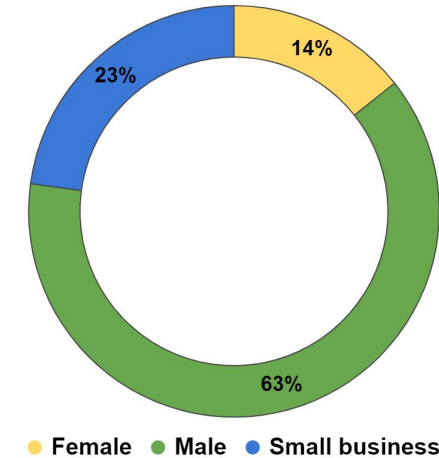
- Mass production
- Injection molded bodywork
- Color in mold
- Low wage countries
- Micro factories close to market run by partners



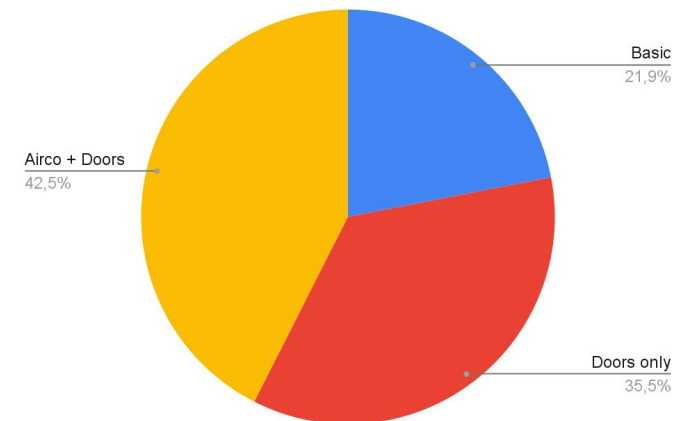
# MILESTONES REACHED

- Prototype finished and first validation tests completed
- Over 4900 Squad pre-orders (Av. pre-order fee > 60 €)
  - B2C : Over 3300 (80% of second year production) organic through website
  - B2B : LOI of 1500 Squads with IP Dreams Japan
- More than 230 potential interested distributors worldwide
- More than 17k newsletter subscribers
- PR : More than 2m video views, 100's of articles worldwide
- Fully functional ERP and CRM deployed
- 80% of Bill of Materials (BoM) & sourcing secured
- IP: Model and brand protected, patents pending
- First two investment rounds secured

Sales by person making the order



Configuration





# Squad is the perfect sharing vehicle

- **Low Capex**, very affordable pricing
- **Low Opex**, solar charging, swappable batteries, easy to clean
- **Compact, easy parking**, three Squads fit on one parking spot
- **Low maintenance cost**, stable, durable, robust design, online software updates
- **Inclusive, all ages**, stable, easy operation, easy access
- **All season**, protection against cold, rain, heat : A/C
- **Safe**, stable, seat belts, crash structure, roll cage
- **Secure**, lockable, doors, windows, luggage space
- **Social**, two person side by side, friendly to other citizens
- **Sustainable**, light, energy efficient, silent, solar charging, fit for purpose

# FUTURE VISION

“Our vision for the future is an fleet of shared Squads autonomously moving to those places in the city with the highest demand”



## Remote Control & Autonomous Driving

- Smart sensors & cameras
- Remote Diagnostics
- Growing IoT-integration
- Mid Term: Remote Control
- Long Term Vision: AI
- Autonomous fleet distribution
- SQUAD = Native Future Proof



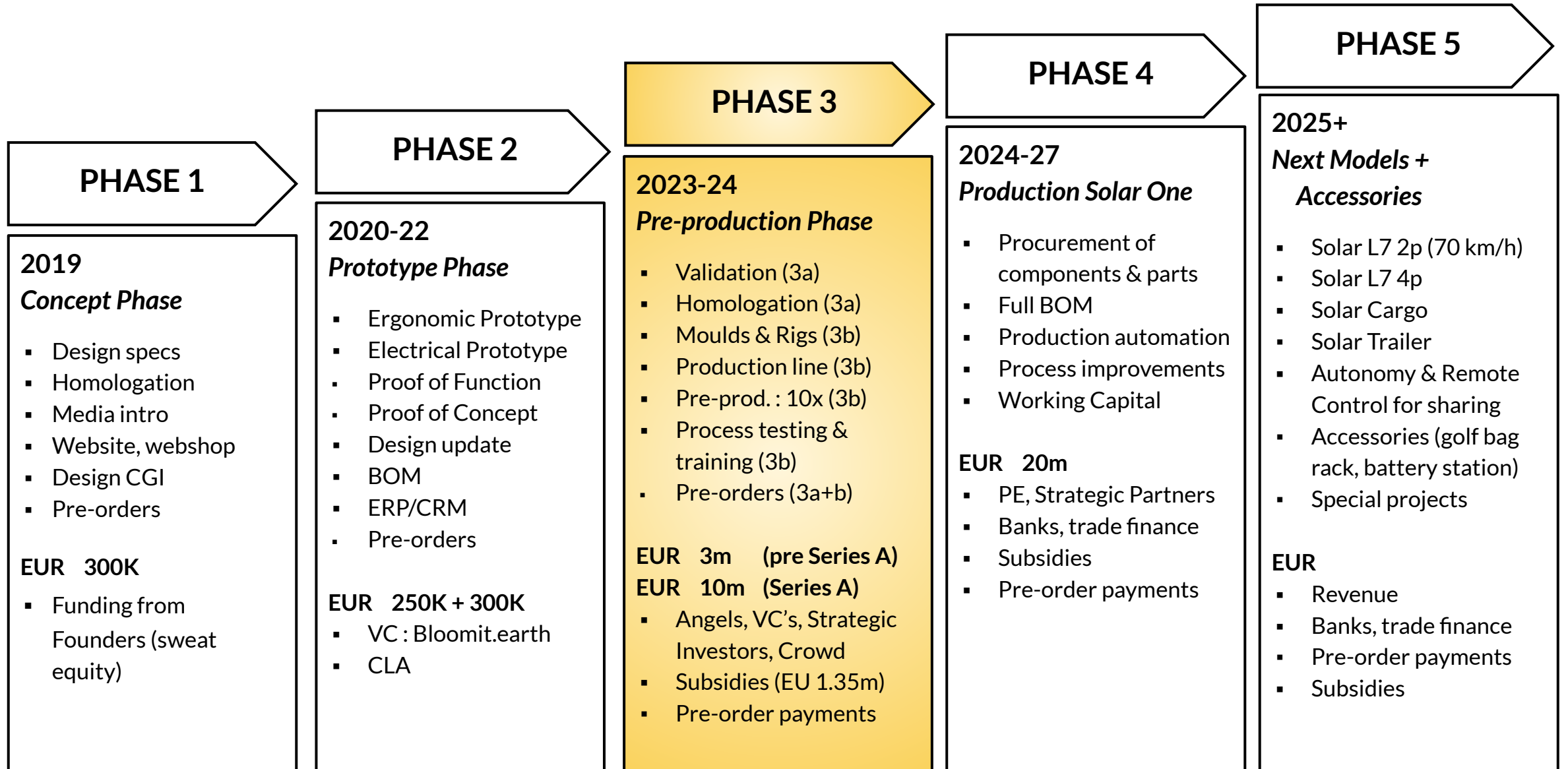
# GIANTS Horizon Europe Project

“Frugal zero-emission vehicles concepts for the urban passenger challenge”

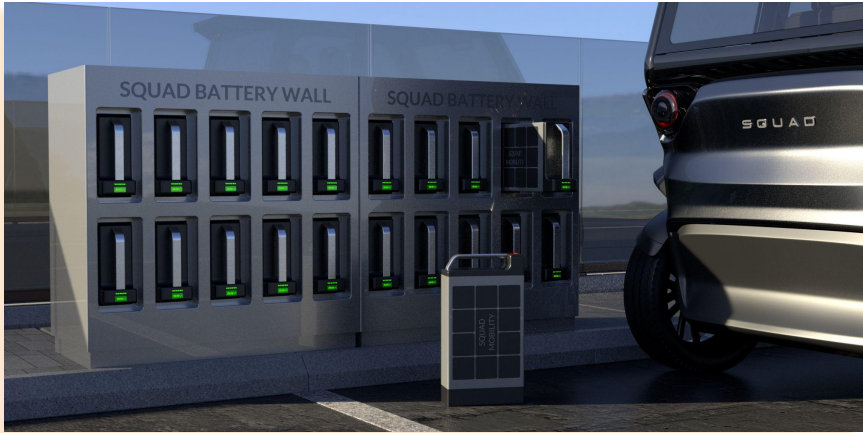
- 12 Million Euro funded by the European Commission
- [22 European Partners](#) in the GIANTS consortium
- 1,35m Euro grant for Squad Mobility
- Squad Solar Car as main solution for advanced markets
- Development budget and components from all partners



# FUNDING STATUS & ROADMAP



# PRODUCT PORTFOLIO 2030



2025	SQUAD SOLAR L6	20 k - 40 k	2026	SQUAD L7 Cargo	10 k - 20 k
2025	SQUAD SOLAR L7 2 seater	15 k - 30 k	2026	SQUAD LSV Cargo USA	10 k - 20 k
2025	SQUAD SOLAR LSV 2p USA	20 k - 40 k	2026	SQUAD Trailer	5 k - 10 k
2026	SQUAD SOLAR L7 4p	20 k - 40 k	2024	SQUAD L6/L7 Swapp batteries	450 k - 900 k
2026	SQUAD SOLAR LSV 4p	30 k - 60 k	2025	SQUAD L6/L7 Swapp stations	

# Financing round

## PHASE 3a: Validate Product

- Engineering: design for assembly
- Proof of product prototype
- Validation prototype

**Secured : 1,35 m EU Grant  
(70% of project cost)**

### Bondex

Shares type B  
(no voting rights)

€ 3m (> € 250,-)

First 1,8m, 25% discount

Shares type A  
(with voting rights)

> € 1m



# SQUAD

## Thank You!

Robert Hoervers, CEO  
Squad Mobility



# APPENDIX



**SQUAD**

*Easy Solar Mobility For All*



# SMART, SAFE & DURABLE DESIGN

1.3 m<sup>2</sup> Solar roof with high efficiency cells

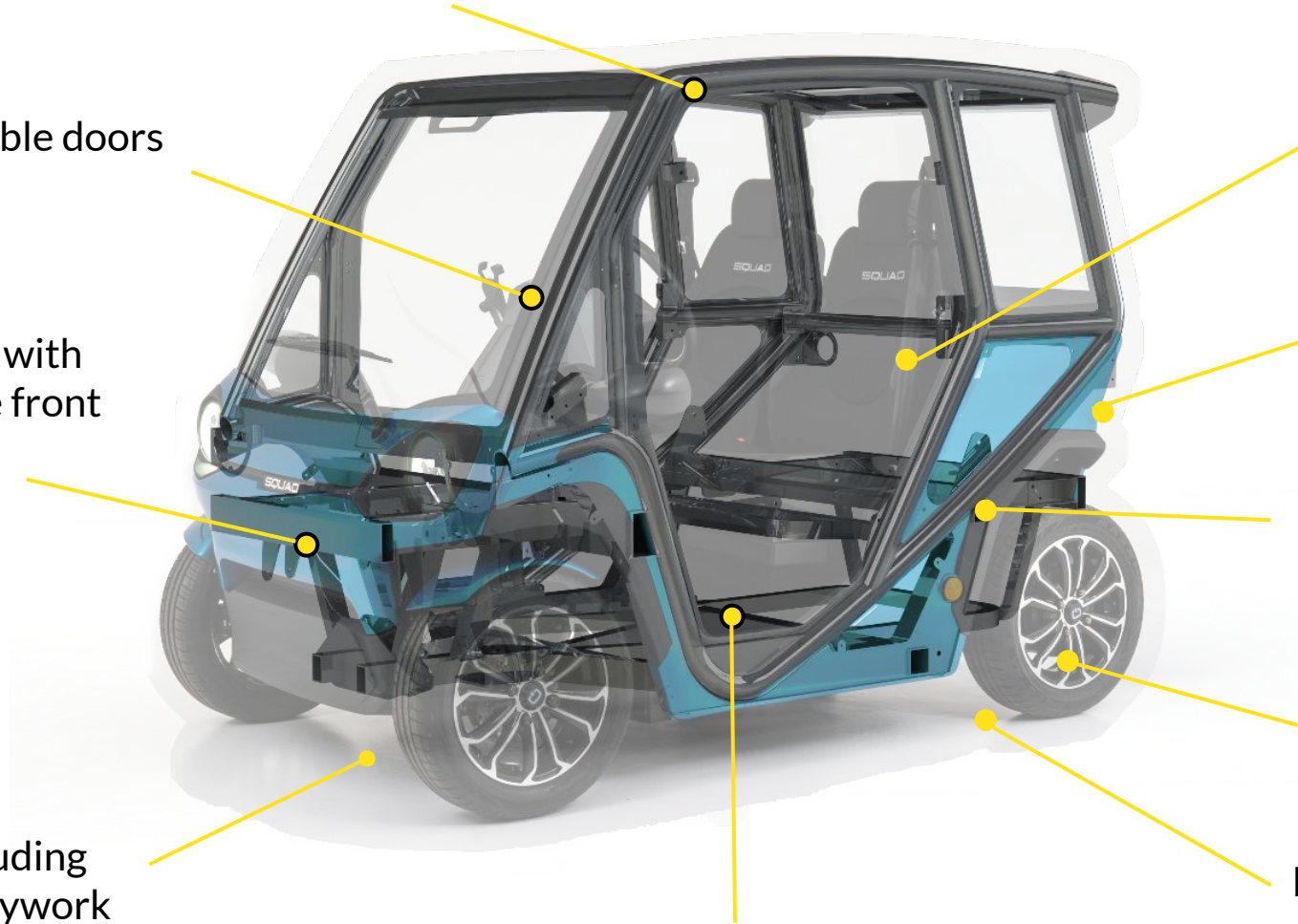
243 L Cargo space

Removable doors

Aluminium Tubular space frame functioning as roll cage

Aluminium chassis with full crash structure front and rear

6 x 1,6 kWh swappable batteries, high quality cells



L6: 4.0 kW motor L7 < 15kW

Tyres are protruding beyond the bodywork functioning as bumpers

Linked rear suspension swingarms

Optional Airconditioning

# TYRES ARE THE BEST BUMPERS

Wheels and tyres are extending beyond the bodywork functioning as bumpers for easy cross parking against the curb



# Intellectual Property

- Squad design, EU Model registered
- Squad name, EU brand registered
- Patent registrations
  - Battery placement system
  - Curved Solar Panel production method
  - Electrical Connector for Swappable Batteries
  - Improved robustness of solar panels
- Patent applications in progress
  - Seat Folding Mechanism
  - Battery sliding seat cover

# SQUAD



Ontvangstbevestiging	
Ontvangstbevestiging van uw verzoek om een aanvraag om een octrooi bij Octrooi centrum Nederland:	
Behandelsnummer	500386110
(voorlopig) aanvraagnummer	N2035038
Datum ontvangst	08 juni 2023
Ontvangend bureau	Octrooi centrum Nederland, Den Haag
Uw referentie	Curved Solar Panel
Aanvrager	Squad Mobility B.V.
Aantal aanvragers	1
Land van herkomst	NL
Korte aanduiding	Curved Solar Panel production method



**Formuliergegevens**

**Algemeen**  
 Referentie van de inzender: SQ battery system  
 Is deze aanvraag een afsplitsing van een eerder ingediende aanvraag? Nee

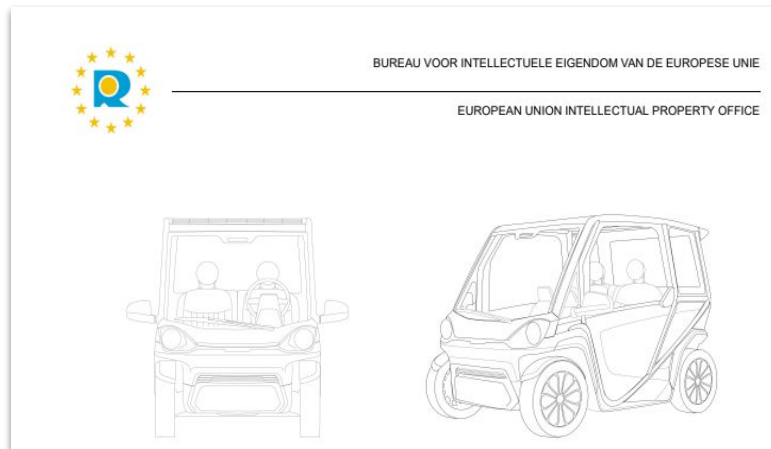
**Korte aanduiding**  
 Korte aanduiding: Electric Vehicle battery placement system

**Aanvrager**

**Aanvrager 1**  
 Bedrijfsnaam: Squad Mobility  
 Adres: Riethil 12  
 Postcode: 4825 AP  
 Plaats: Breda  
 Land: Nederlands  
 Telefoonnummer: 06 25115605

Wordt deze aanvraag door een gemachtigde ingediend? Nee

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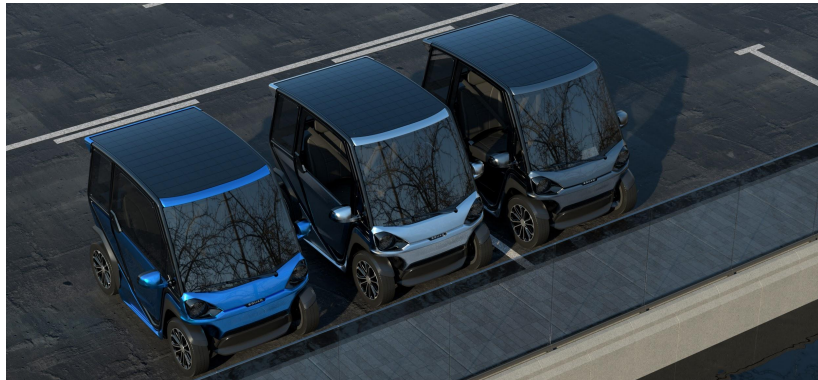


# Production Forecast L6

From € 0 to € 200 Million Turnover in 5 years

## Main Assumptions

- Sales price: € 6,250,- (excl VAT)
- Growing to 20,000 in 2027
- Options & Accessories: Average € 2240



## Forecast (EUR mln)

