NEXT | Smart Mobility for Smart Cities

“One vehicle to rule them all”

http://next-future-transportation.com/

“We don’t want only to create cars doing what humans can already do.

We are creating a new kind of vehicles capable to do what no human can do.”

VIDEO – Trailer NEXT

Problems | Solutions

Modularity and passengers en-route-transfer allow to solve most of the current mobility problems

TRAFFIC

Private cars and taxi can fit on average **4 passengers in about 5 meters** of road length much less than a bus

80% LESS TRAFFIC

A single NEXT can fit **10 passengers in just 2,5 meters** of road, so the same density of a bus, but in the length of a Smart ForTwo

POLLUTION

due to the **difficulties of implementing mass electric mobility** because of the infrastructures and charging issues

ZERO EMISSIONS

NEXT, thanks to the modularity and battery swap, it **ease significantly** the **transition to electric** mass mobility

UNDERUTILIZATION

private cars, taxi and buses are used on average at **20% occupancy rate**, and are limited to a **single use case role** during the day

ALWAYS USEFUL

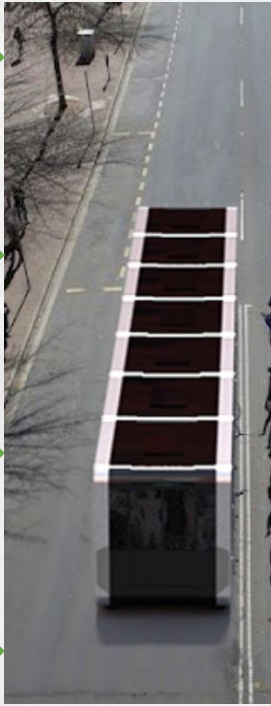
NEXT arrives at **75% of average occupancy rate**, thanks to the possibility of **"car jumping"** and the capability of being **multi-role** during the day

INCONVENIENT

waiting time and distance from home diminish the ridership of public transport

SUITABLE FOR YOU

NEXT is flexible, ubiquitous and comfortable: the **right balance between taxi and bus**



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What's | NEXT

the "Wildcard" of transportation

NEXT is a **modular vehicle t**hat could be considered as the **"Wildcard of Transportation"**

It could behave as a **shared car** or as a **taxi** but also as a **bus,** last mile delivery **van,** or a **truck** for long distances, or and **interchange hub** for passengers and goods **without outdoor transshipment.**

bus

18m

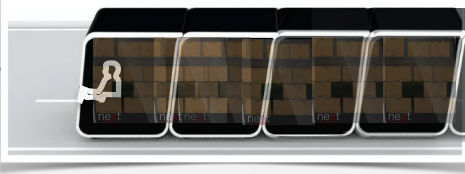
taxi

mini van

van

minibus

truck



How does it work | "Car Jumping"

Ubiquitous Passengers Pickup
Even with different destinations
(unlike UBER pool)

Door to Door
The vehicles detach to reach
different destinations

"BUS CONNECTION"
without stops

Passengers group in the right
pod based on their destinations

NYU

Advantages demonstrated also by independent studies done by New York University:
"60% less distance traveled by the entire fleet to bring to destination the same number of passengers compared to taxi"

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Logistics | Goods

NEXT can be applied also to the goods logistics
Smart Delivery means that NEXT can:
Collect + Organize + Deliver = In Motion (no transshipment involved)


VIDEO – NEXT for Logistics
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www.get-next.com

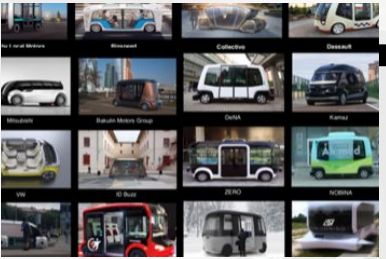
NEXT | The Mall on the Go

The endless possibilities platform of services on the go

On top of having the capability of assuming the function of many existing vehicles, NEXT it's also an **architecture in motion.**
NEXT is therefore, also a platform of services in motion: restaurants, hospitality, shopping, entertainment, etc.
In fact a mall **in motion or that can reach you at home** to deliver a premium and tailor made service: a **new retail frontier**.

Real & Pseudo Competitors | VS | NEXT

NEXT could be confused for an autonomous shuttle, but it is NOT, let's see why instead it competes with e-buses and ride hailing.



AUTONOMOUS SHUTTLE

saturated market: more than 100 copycat models on the market: Navya, Olli, Easymile etc. **low speed (25 km/h), not modular, not operable with human driver,** limited to a **showcase** niche market

VS

MASS MARKET

NEXT top speed is 90 km/h, flexibility and optimization through modularity **quickly ready for the mass market** with human drivers before autonomous driving will be legal on public roads.

ELECTRIC BUS

underused, expensive, **not flexible**, **complex charging** infrastructure, need of **dedicated parking** spaces

VS

LESS COSTS

A **single NEXT vehicle** unit, can be parked on **regular car parking** spaces and charged with **regular car charging points** (or via battery swap)

RIDE HAILING

(Uber, Taxi, demand responsive transit, etc.) **20% occupancy rate,** high price, low capacity, **high traffic generated**

VS

300% MORE CAPACITY'

NEXT leads to an average **occupancy rate of 75%**, therefore lowering the price of the service and the traffic generated

Competitors | Comparative Table

	next	Electric Taxi	Autonomous Shuttle	Electric Buses
Price of the vehicles (50 passengers)	600k € 120k x 5	900k € 90k x 10	1000k € 250k x 4	520k € 520k x 1
Self-Driving *self-driving ready	✓*	✓*	✓*	✗
Modularity	✓	✗	✗	✗
Exchange Hub in Motion	✓	✗	✗	✗
Logistics In-Motion Transhipment	✓	✗	✗	✗
Battery Swap	✓	✗	✗	✗
Services in Motion	✓	✗	✗	✗
Passengers Optimization	✓	✗	✗	✗

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Real | Competitors

NEXT compares to current means of transport

Modularity and transhipment-in-motion between vehicles are the keys to obtain the b**enefits of each single mean of transport**, without the issues typical of multimodal solutions.

Comfortable & Fast

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Ubiquitous as Uber
at half the price
Do not create traffic congestion
No need for stops
Transfers-In-Motion

Taxi / Uber

Ubiquitous
No need to find parking
Very Expensive
Traffic Congestion
No Additional Services

Private Car

Ubiquitous
Traffic Congestion
Stress to find parking
Costs of purchase and maintenance
Driving Stress

Cheap

Expensive

Multimodality

Cheaper than taxi
More Ubiquitous than Bus
Time/Stress of transfers between various means
Limits in case of adverse weather: rain, heat, cold

Bus / Tram / Metro

Very Cheap
Stations / Stops are often far away
Waiting time
Frequent Stops
Crowdy and Not Comfortable

Stressful & Slow

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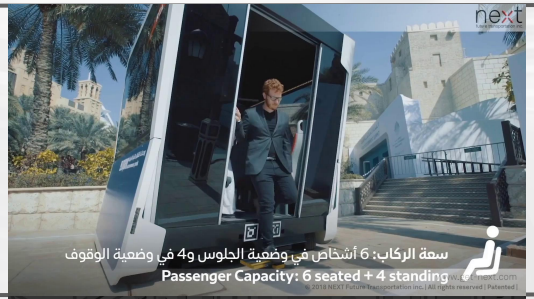
“Pseudo-Competitors” | Comparative Analysis

MODEL		VEHICLE TYPE	FEATURES								
			PRICE (indicative)	Road Ready (Homologable with Driver)	Traffic Reduction (Passengers/meter)	Max Speed	Capacity (Single Vehicle)	Modularity Transfer In Motion	Variable Capacity	Battery Swap	Multi-Role
Navya		Shuttle A-B Slow Speed Driverless	300.000 €	NO	3,1	25km/h	15	NO	NO	NO	NO
Olly		Shuttle A-B Slow Speed Driverless	300.000 €	NO	3,8	40km/h	15	NO	NO	NO	NO
EasyMile		Shuttle A-B Slow Speed Driverless	300.000 €	NO	3,75	40km/h	15	NO	NO	NO	NO
Toyota E-Palette		Autonomous Shuttle Multi-Role	Not for sale	NO	3.8	20km/h	20	NO	YES	NO	YES
NEXT		**Modular Vehicle Combinable High Speed Multi-Role**	150.000 €	YES	4 - 6	90km/h	10 - 15	YES	YES	YES	YES

USP & Competitive Advantages | Business Model

Unique Vehicle

Know How, IP, Engineering, Supply Chain on a unique vehicle **in terms of functionalities** and form factor, NEXT



Vehicles Sales

The first business line giving immediate margins is selling the vehicles to: cities, **transportation companies, big private companies**, functional areas like inland ports and industrial areas.

Optimization Algorithms

Proprietary simulation software and operational algorithms to manage and optimize fleets of NEXT vehicles to provide a **seamless MaaS** service

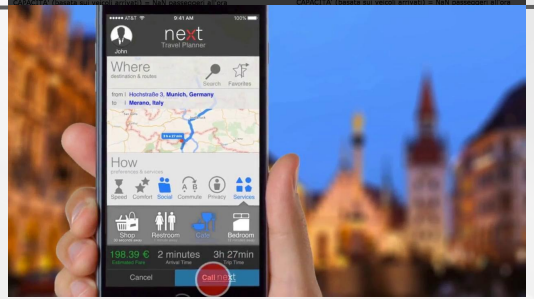
Mobility Optimization Studies

Another business line is related to **consulting smart cities** to implement NEXT into their cities/areas and the **software license** to manage the vehicles fleet.

App & IT Platform

Front-end and access platform, advertisement, booking, utilization and payment of services through NEXT

Algorithms and App Platform provide an enormous amount of **highly valuable aggregated data** for clients and third party companies



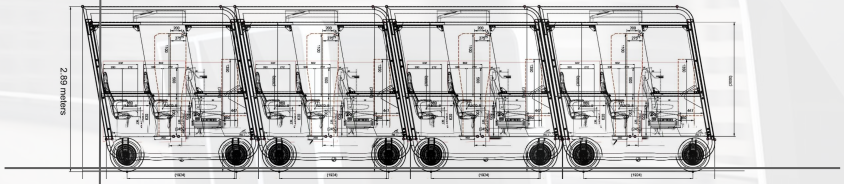
Ticketing & Transactions

The ticketing platform, payment and integrated services gives revenues as **percentage of each transaction** between users and service suppliers

Selling aggregated advanced **Data Analytics** from the vehicle management platform & App

COVID19 | Traffic Efficient even with one single passenger

4 passengers in 4 docked NEXT = 10 meters



NEXT creates 60% less traffic due to zero distance platooning and short form factor

4 passengers in 4 cars = 25+ meters

Technical | Specifications

Capacity per Unit
Passengers: 10 (up to 20 all standing)
Seating: 6 (standard)
Standing: 4 (standard)

Dimensions per Unit
Length: 2,67 m | Width: 2,35 m | Height: 2,89 m
Ground clearance: 6 - 18 cm
(Adjustable via Active Air-Suspensions)
Wheelbase: 1,98 m
Curb weight: 2000 kg
Max weight: 3400 kg

Powertrain per Unit (Standard)
Drive Wheels: 4
Motor: Electric in-wheel
Power: 32kW (80kW peak)
Maximum Speed: 70 km/h
(90 km/h with 2 or more units)
Max Slope: 9%

Powertrain per Unit (Optional)
Drive Wheels: 2
Motor: Electric in-wheel
Power: 100kW (150kW peak)
Maximum Speed: 90 km/h
(120 km/h with 2 or more units)
Max Slope: 15%

Energy per Unit (Customizable)
Battery: Battery pack LiFeP04
Theoretical capacity: from 20 kWh to 80 kWh
Standard Pack: 40kWh
Standard Range: 200km Range (Urban)

Battery Swap
Manual with Pallet Jack or Forklift
or Automatic on dedicated swap stations.
Battery Swap Time: 2 Minutes (manually)

Charging
Thanks to battery swap, by default,
batteries are charged outside the vehicle.
If needed the battery pack can be
customized for charging on board.
Charge at 90%: 9 hours 3,6kW plug
Charge at 90%: 5 hours with 7,2 kW plug

Interiors per Unit
Air Conditioning: 5.0kW (17000 BTU)
Frontal & Back Doors: Sliding
Side Door (Optional): Sliding
Body: Aluminum & Stainless Steel
Side Windows: Tempered Glass
Front/Back Windows: Laminated Glass
Access Ramp (Optional)
Safety: 3-Points seat belts equipped seats
Security: RGBD Camera in each unit

Self-Driving Capabilities
Fully Driverless in private areas, or parking spaces for fleet rearrangement and joining.
Automatic docking in-motion with emergency manual override.
Human driver enabled when on public roads with manual failsafe braking system and triple redundancy steer-by-wire system.

Sensors:
- 1 x Lidar 180°
- 1 x Long Range Radar
- 6 x RGB Stereo Cameras
- 16 x Ultrasound Proximity Sensors
- 4 x Wheels Encoders
- 2 x IMUs
- GPS & GLONASS

Modularity
NEXT Pods Joinable: 3 to 15 Units
(depending on local roads regulations)
Docking: Rigid, with Virtual-Link* in case of tight turns or steepness.
*Virtual Link: Pods slightly detach, platooning as long as the road condition are critical. Pods rejoin when conditions are optimal.

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