# **Evento 10/20**

Martedì 10 maggio 2022

Pomeriggio 14:30 / 16:00

Un'economia a basse emissioni per città, imprese e mobilità sostenibili

# Le *smart cities* oggi: esperienze a confronto

(Workshop - Auditorium)



# PROGRAMMA:

Moderatrice: Daniela Luise, Comune di Padova

La transizione verde della città di Milano 2030

(E. Grandi, assessora all'Ambiente Comune di Milano)

La transizione digitale del Comune di Padova

(A. Corò, Comune di Padova)

**Genova Smart City** 

(S. Manca, resilient manager Comune di Genova)

**Smart Mobility MUVT** 

(R. Scaramuzzi, Comune di Bari)

Next e l'esperienza del trasporto modulare a guida autonoma

(A. Guadagnino, Paradigma)

L'integrazione delle infrastrutture di ricarica nel network cittadino

(A. Chiari, GMT)





### OUR MISSION IS A SUSTAINABLE FUTURE

# **PARADIGMA**

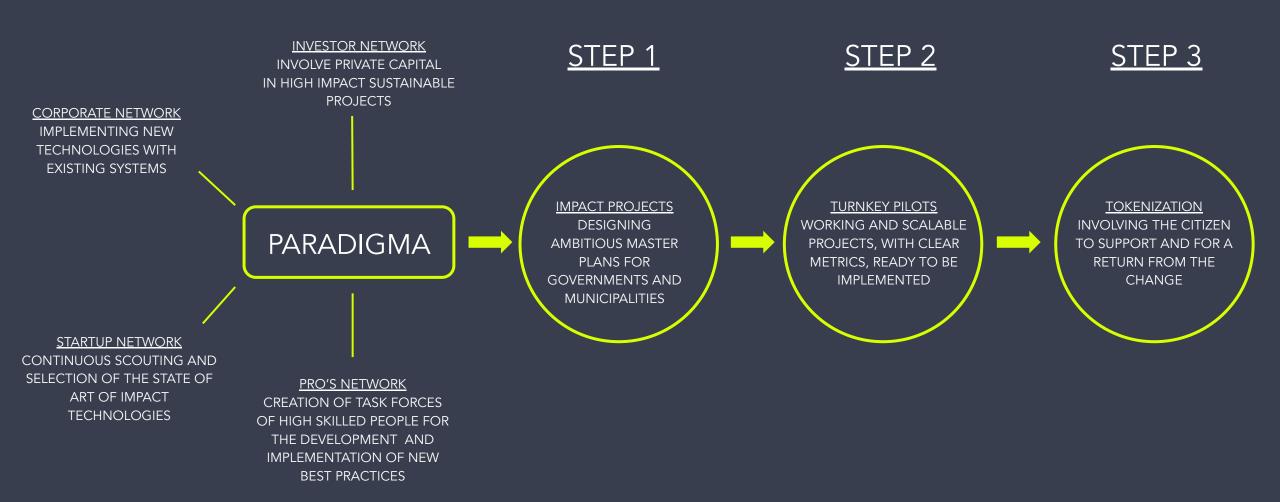
Supporting high-impact and high-added-value startups that can accelerate transition to Smart City

- 1. Focus on sustainable and innovative solutions ready to be implemented and scaled quickly
- 1. Focus on top industry metrics



### SUPPORTING PUBLIC DECISION MAKERS TO DRIVE A SUSTAINABLE CHANGE

# IMPACT DRIVEN



WHAT WE FOCUS ON

# 7 VERTICALS

**AGRITECH** 

RENEWABLE ENERGIES

**SMART MOBILITY** 

**FUTURE MATERIALS** 

**FINTECH** 

**BIG DATA** 

**COMPUTER VISION** 



# POTENTIAL UNICORNS ON SUSTAINABILITY

**TRANSPORTATION** 



NEXT
- 80%

URBAN TRAFFIC
IN PROCESS WITH
RTA

ENERGY /
CONSTRUCTION



GREENETICA
91%
ENEA CERTIFIED
EFFICIENCY

FOOD PRODUCTION

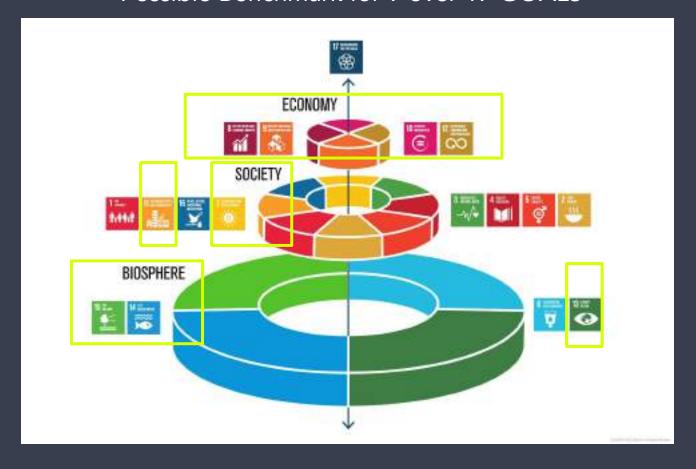


AGRIROBOT
-70%
COST/ha
CNR CERTIFIED

# A CONTRIBUTION TO LEAD SDGs

1 MASTERPLAN
3 out of 3 macro areas addressed
Possible Benchmark for 9 over 17 GOALS



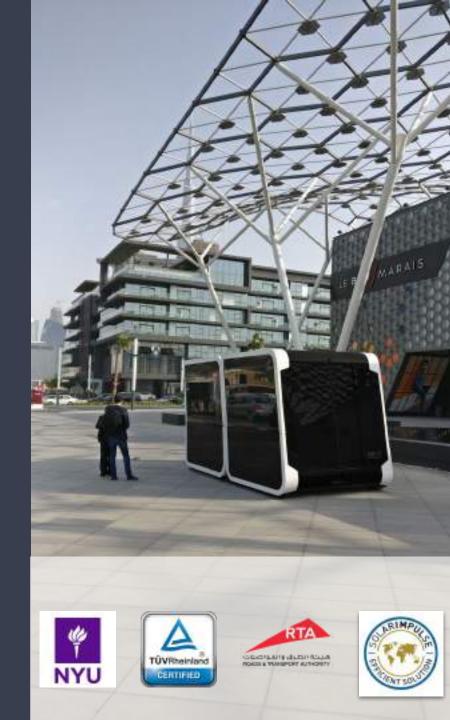


### MOST ADVANCED MaaS & TaaS SYSTEM ON THE MARKET

# NEXT MODULAR VEHICLES

- The most efficient urban surface transport;
- Flexible according to demand, modular to replace a family of vehicles for the transport of people and goods;
- The **best metrics** on traffic reduction and cost savings also confirmed by New York University and 4 other universities world wide
- 5 Patents Issued (1 Granted, 1 Approved, 3 Pending)
- TÜV Rheinland Homologation Pre-Assessment = PASSED
- First Sale: DUBAI RTA
- Solar Impulse Label and several international awards and prices
- **20+ scientific publications (NYU, UM, USF QUT),** 2 university thesis, several papers and numerous clinical market tests.

Potential Unicorn	Disruptive Impact	Impact	Best of breed	TRL
Yes	Yes	<ul> <li>Reduction of traffic with true door-to-door solution</li> <li>Export globally</li> <li>Thousands of jobs</li> </ul>	<ul><li>Patented modularity</li><li>85% certified traffic reduction</li></ul>	8

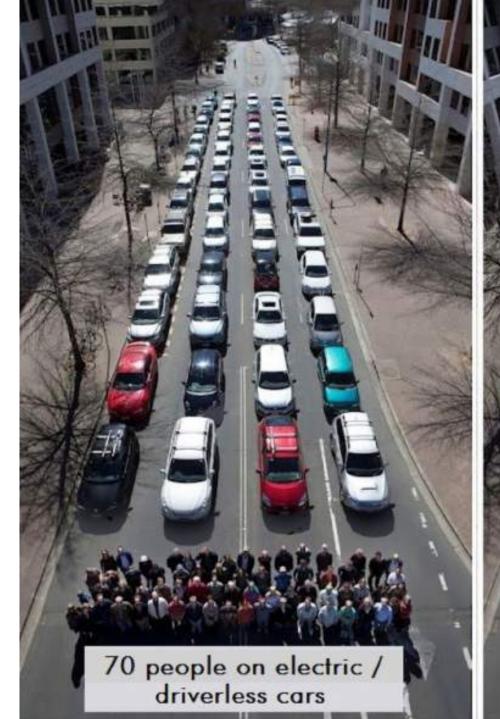




#### OUR MISSION

"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."





### **Product Details**

#### MODULAR ELECTRIC VEHICLE

- Electric vehicle **2.7 meters long** but large and tall as a city bus
- Each unit fits 5 passengers sitting + 1 driver in a very compact footprint
- Single unit can be used as a regular city car, but multiple standard units could be **physically joined together** creating a minivan up to a city bus
- When in bus mode 5 pods can fit up to 80 passengers (29 sitting)
- Therefore a single production line can produce many **different vehicle types**

#### METRICS

#### 60% to 80%

traffic footprint reduction compared to an average city car due to the form factor

#### 15% to 75%

consumption reduction if used as a variable capacity bus (compared to an e-bus) due to modular energy management

#### 85%

less CAPEX to start the mass production of a wide range of vehicles types due to:

- Flat minimal design and production
- Standardized small single vehicle
- Up to 5 modules dockable together

A single module is equivalent to an electric citycar or to a last mile electric delivery van





Two modules are equivalent to an electric minivan for people or for cargo delivery



4 or 5 modules are equivalent to an electric bus or a long cargo truck









# Business Model | Use Cases

**4 parallel scenarios** profitable and doable right now before self-driving will be legal on public roads

#### INDUSTRIAL AREAS

**Driverless** already feasible

**24/7 service** with modular charging

Repurposable idle vehicles for just in time

#### CARGO & DELIVERY

From truck to local delivery vans without transhipment

Reduced need for local warehouses

**Cargo-Hitching** with Modular Bus possibility

#### MODULAR BUS

Just **one bus driver** for up to 80 passengers

From 15% to 75% less consumption

Cyclical & modular in-Service Sanitization system

#### NON-STOP-TAXI-POOL

One **taxi driver in each** NEXTaxi

Up to **300% more capacity** 

Up to **75% cost savings** 









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# Operations | NEXT LHF 4.0 Lean Production - High Scalability

### Suppliers High Local Availability

95% of the industrial areas worldwide have the main suppliers needed to manufacture a Next unit: laser cutting/bending, tube laser cutting, CNC milling.



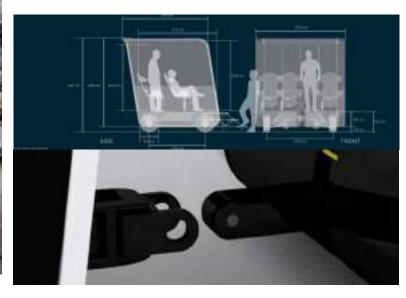
#### LOW Initial costs





### Designed by NEXT in Italy

Highly recognised brand value, key IP and core subsystem made in Italy: Docking System Black Box steganography seal protected, software, Al core and firmware.



### **Battery Technology Agnostics**

Battery pack is swappable in minutes, so the battery technology can be easily customized based on the availability and needs of the region.



# Recent Updates | Padua & Dubai

Paid trials in Padua for city mass implementation <u>completed</u> | 6 Months Pods rental sponsored presence at EXPO Dubai <u>completed</u>



PADUA, ITALY

**EU Backed Project** 

Trials both on dedicated and **public roads** 

Study for mass implementation

#### **DUBAL EXPO**

LAROCHUPOSA

Sponsored by L'Oreal

Mall in Motion business model showcase

6 Months Rental - Vehicles in the Mobility Area

### THE CITY OF THE FUTURE

# PARADIGMA.CITY:

- LAUNCHING DISRUPTIVE SUSTAINABLE INITIATIVES
- ACCELERATING INNOVATION ECOSYSTEM
- INVOLVING LOCAL PRIVATE CAPITAL
- CREATING SKILLED JOBS
- MAKING IT A SCALABLE CONCEPT FOR CITIES

# THANK YOU

**Antonio Guadagnino CEO Paradigma** 

## FOR MORE INFO ABOUT PARADIGMA ACTIVITIES:

https://www.paradigma.city/

https://www.facebook.com/paradigma.city

https://www.facebook.com/paradigma.city/photos

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