



**From Uppsala
to Suncheon Wetlands**

**Jörgen Gustafsson
Managing Director, Vectus Sweden**

Uppsala, in operation since 2007

Safety case accepted by Swedish Railway Agency

More than 3000 hours of operation.

More than 2000 visitors to date.

All functions for commercial system have been tested.

- **Fully automated driver-less operation.**
- **Three vehicles, 3-4 sec headway, 30 mph.**
- **Complete station, including ticketing.**



Do you have time to wait?

**Short waiting time. Direct travel. Comfortable. Quiet.
Efficient. Safe. Secure.
No barriers. No emissions.**



Performance in all conditions





Vectus Vehicle

- Speed 25+ mph
- Headways at 3-4 seconds
- Safe
 - Vehicle is captive to the track
 - Mechanical guidance along track and through switches
 - Compliant with EN/BS fire standards.
- Comfortable
 - Aircon, heating, excellent view, quiet
- Efficient
 - Quick and easy access, also for disabled
- Spacious
 - Prams, bicycles, luggage, wheelchair



The Vectus Station

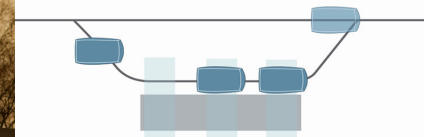
- **Linear Movement**

- High Efficiency
(vehicle & passenger flow)
- Low Overall Space Requirement

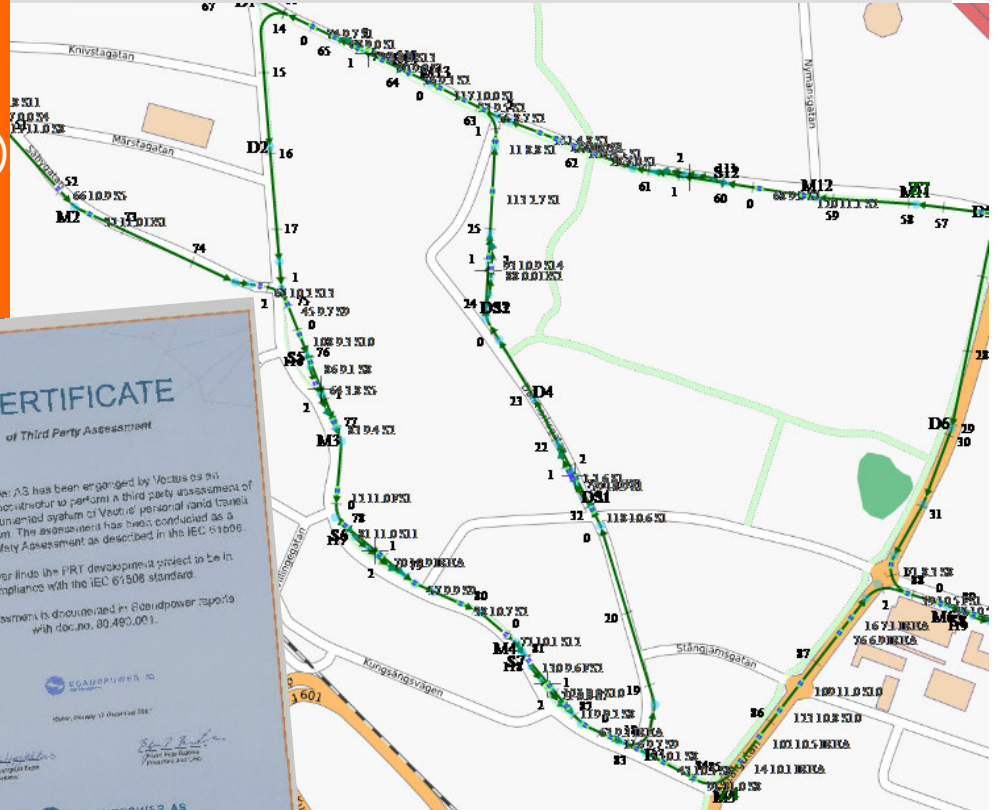
- **Multitude of Configurations Possible**

- Passenger Flow
- Number of Berths
- Parallel Tracks

- **Full Vehicle Protection (ATP/ATO)**



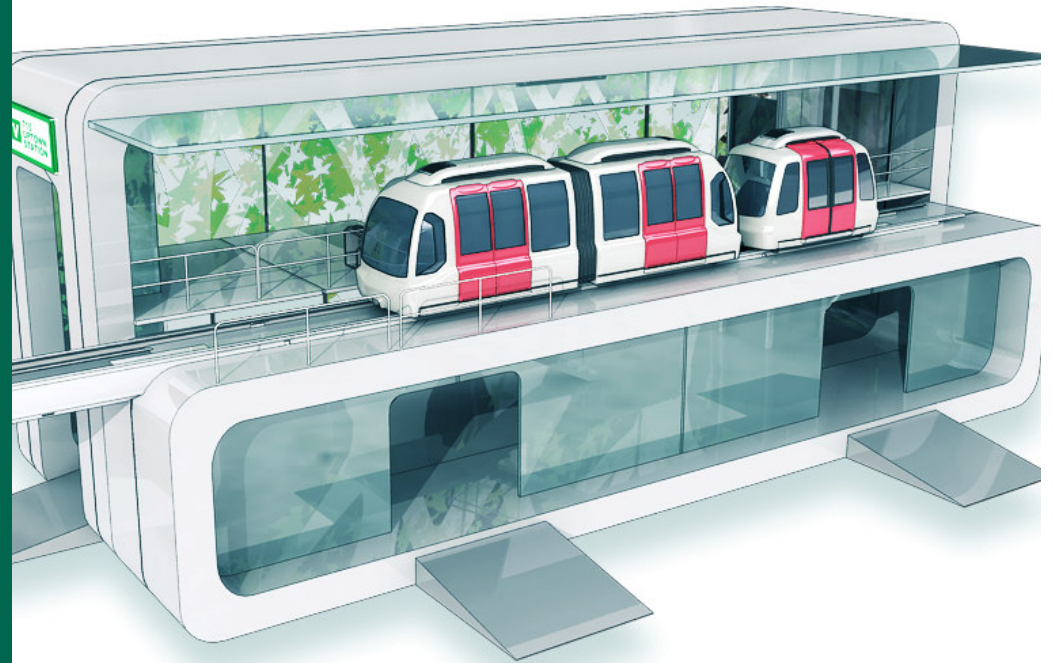
- **State of the Art Control System**
- Distributed
- Asynchronous
- Dynamic Moving Block
- **Real Time Emulation**
- **Rigorous Safety Case**
- Approved by Swedish Transport Agency
- International Standards (incl. ASCE/APM)



Larger Vehicle

Higher Capacity with

- Same Interface to Guideway (Track)
- Same Interface to Stations
- Combined Operation with Small Vehicles
- 6 – 10 seated passengers
- About 100 sqft floor area for standing passengers
- Acceleration and Braking to accommodate standing passengers
- Down to 10 Seconds Headway



Line Capacity Indication

Tram / LRT / Monorail



230 passengers / 5 min = **2760 pass/h**

460 passengers / 1,5 minutes = 18400 pphpd



2 passengers / 5 seconds = **1440 pass / h**

6 passengers / 3 seconds = 7200 pphpd



30 passengers / 30 seconds = **3600 pass / h**

40 passengers / 10 seconds = 14400 pphpd

Bespoke through Modularity

Application Specific:

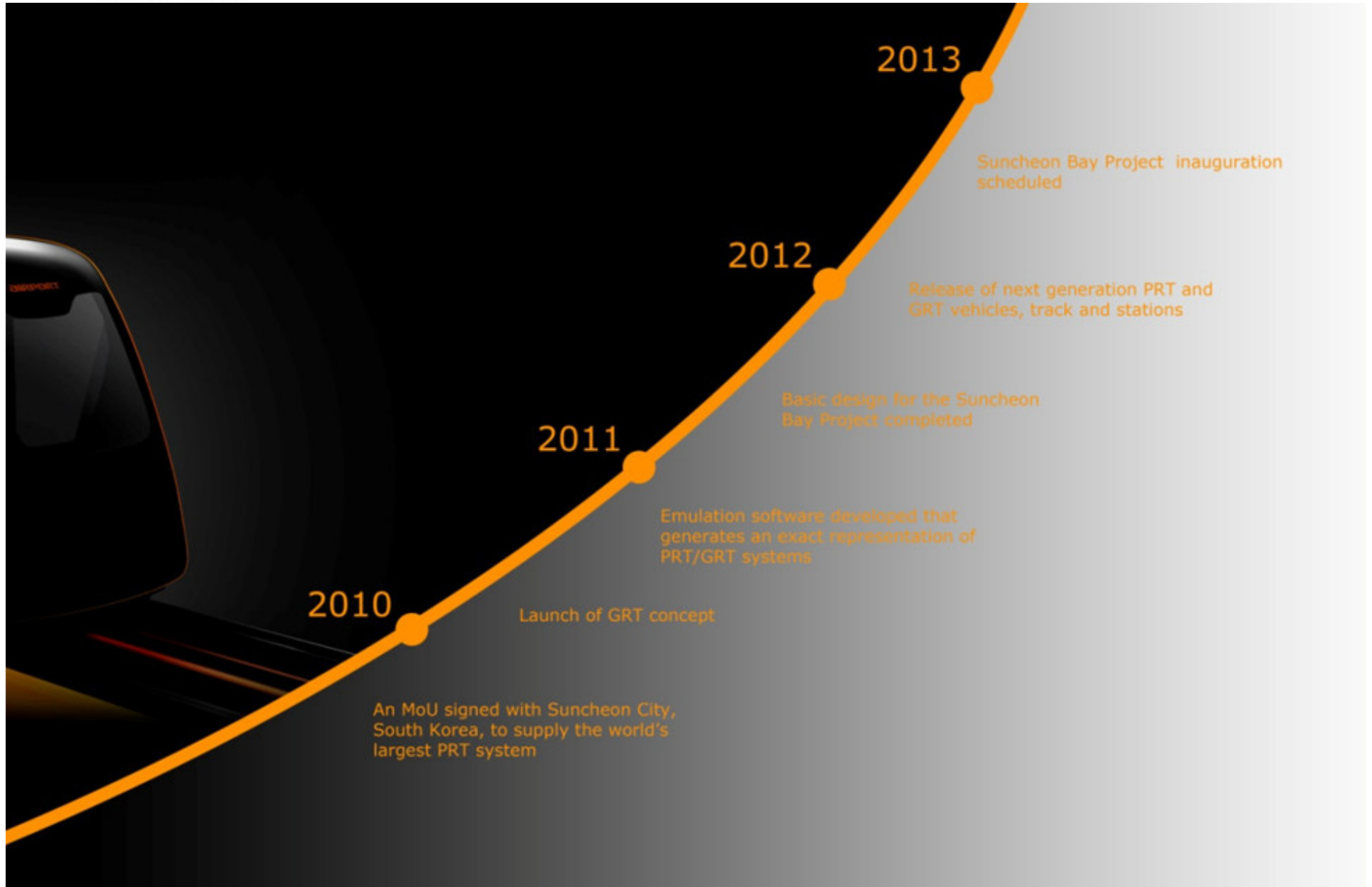
- Propulsion Systems
- Power Supply
- Track Structure
- Station Configurations
- Vehicle exterior
- Vehicle interior
- Station design
- Guideway architecture



The First Generation



The Next Generation





Suncheon Bay Project



Vectus Next Generation

New styling

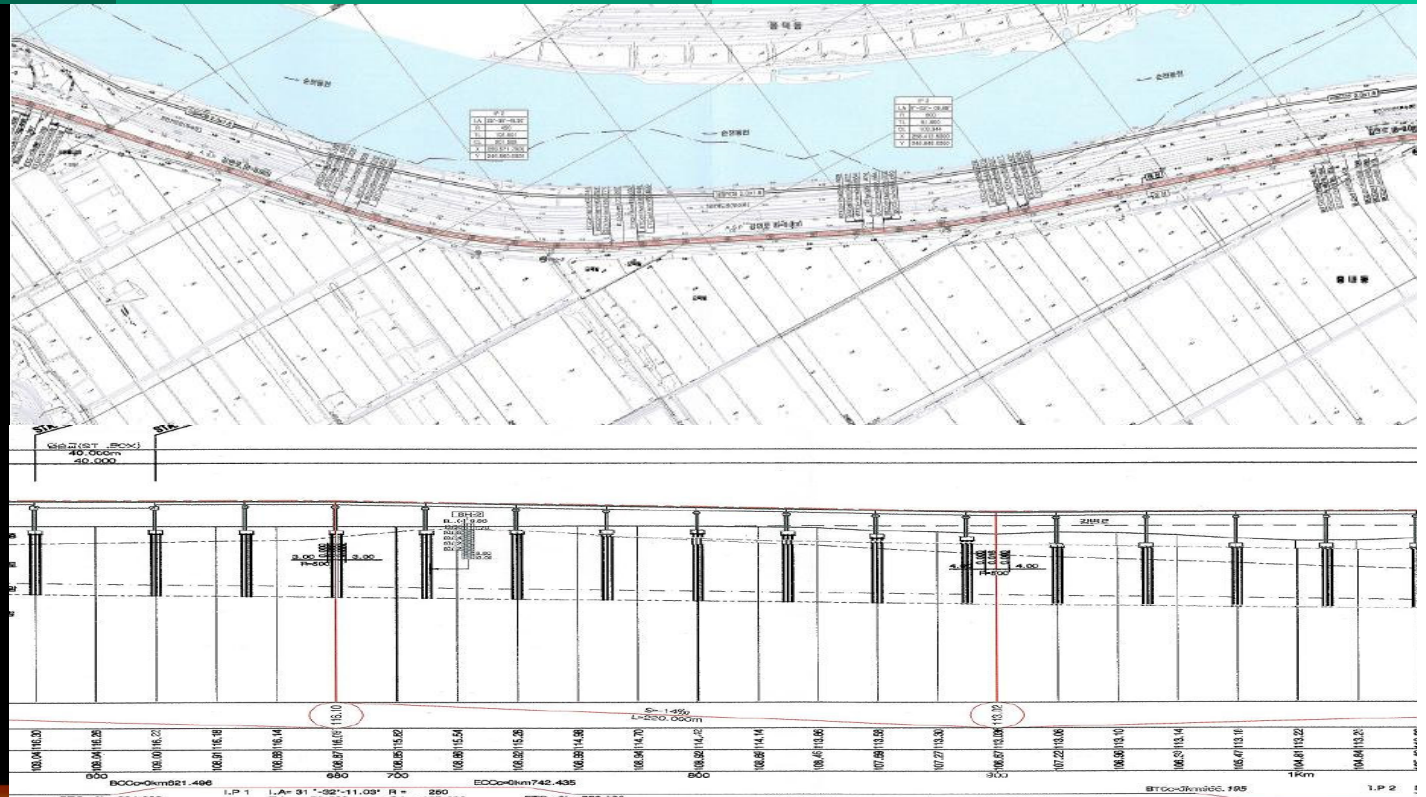
- Small Vehicle
- Large Vehicle
- Track Structure
- Stations

Vehicles

- Onboard Propulsion
- Current Collection
- 3 + 3 seating

Guideway

- Double track
 - PSC 30 m span
 - Steel 40 and 50 m span
- Single track
 - Steel 15 m span





Thank you!