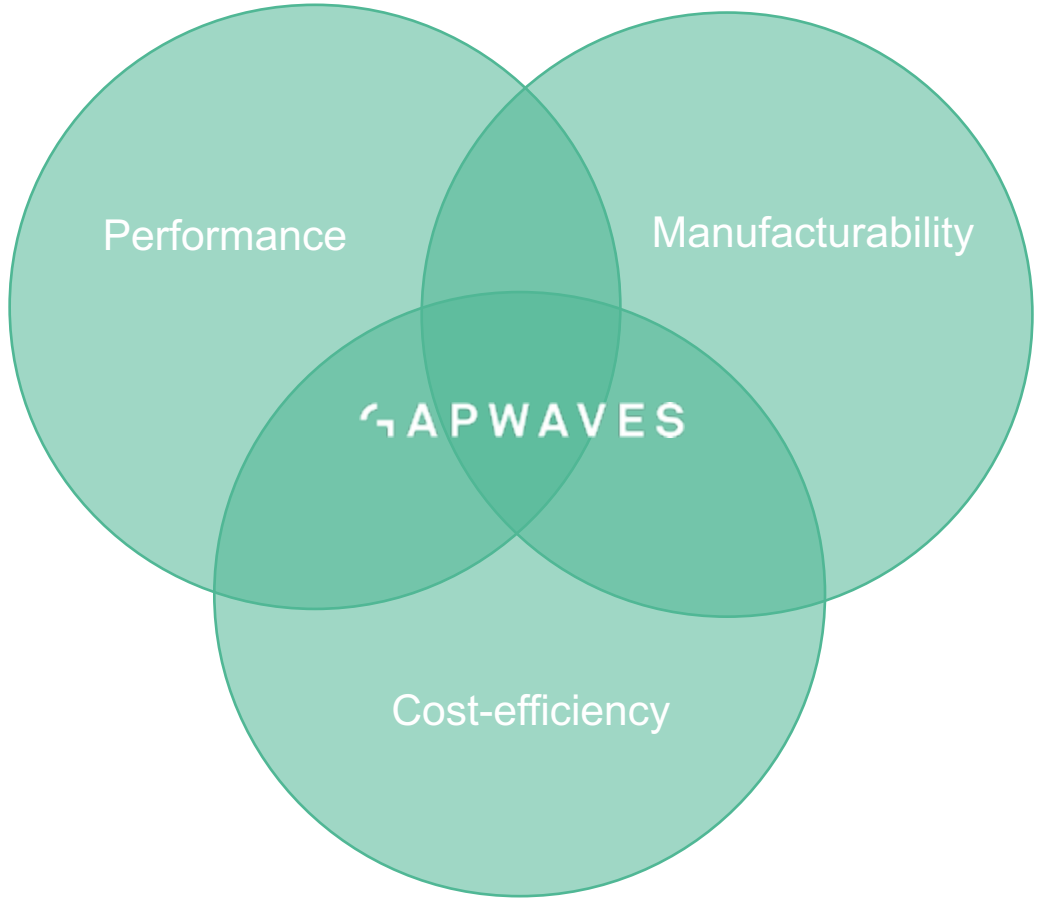

Tech that sees the human side of things
APWAVES
Waveguide antennas for advanced urban mobility

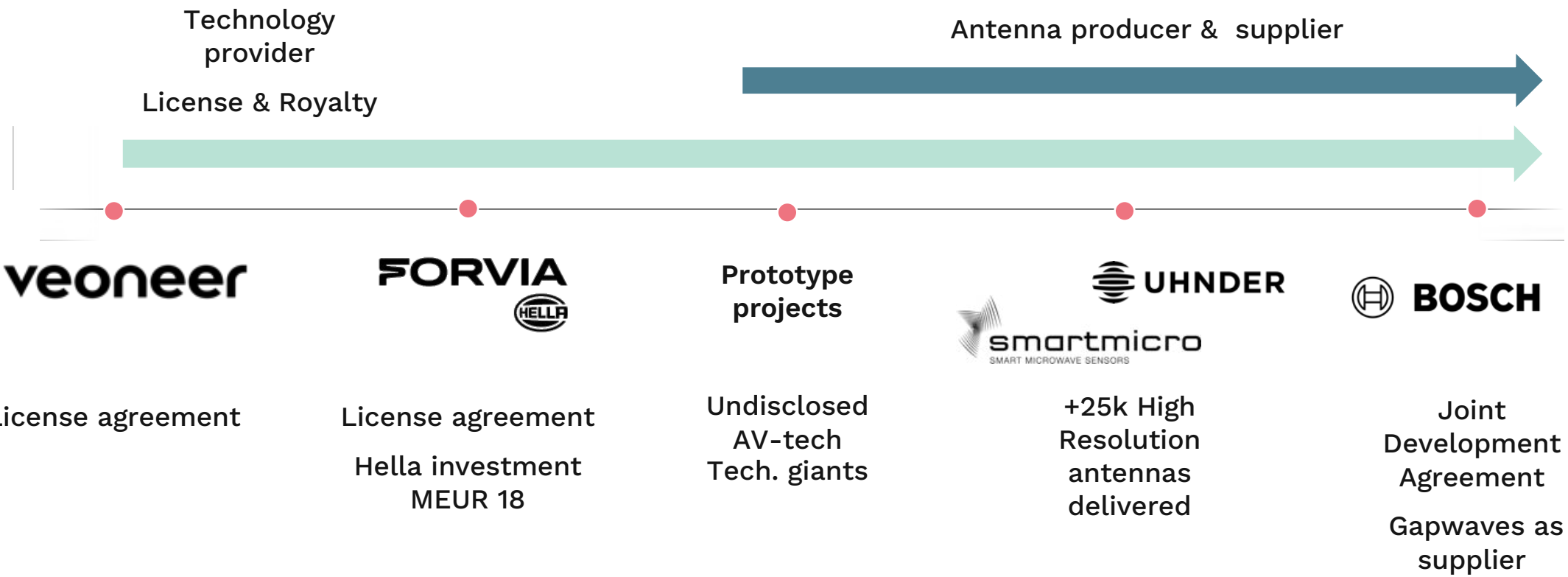
Unlock the next generation

With our compact, efficient, high gain antenna for advanced radar solutions

Our patented waveguide antenna technology is the first to combine the necessary manufacturability, cost effectiveness and performance needed to accomplish this at scale

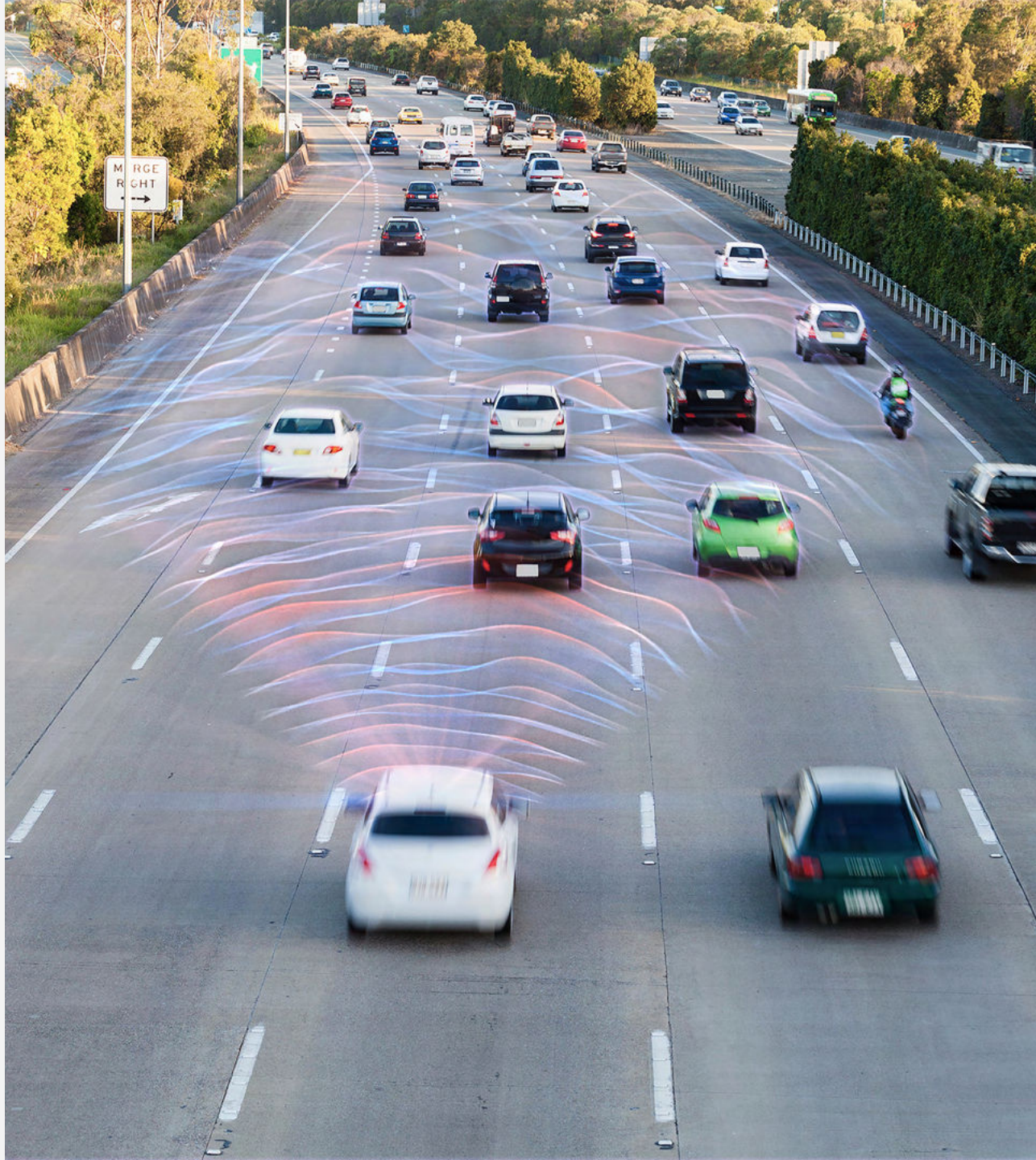


A proven solution



Gapwaves offer

- Development and supply of customized antennas, based on our unique technology, for radars
- Technology License including engineering service and production enablement
- 4D Imagining Radar Solutions for Smart Cities as well as Automated and Autonomous Vehicles



What makes our waveguide technology different?

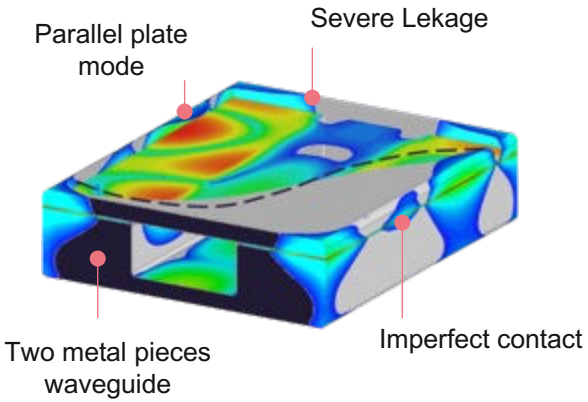
Reliable construction, thanks to our 3D building practice using Artificial Magnetic Conductor (AMC) i.e. our pins instead of solid walls

The pins don’t even need to have physical contact with the layer above, they will anyhow prevent any leakage

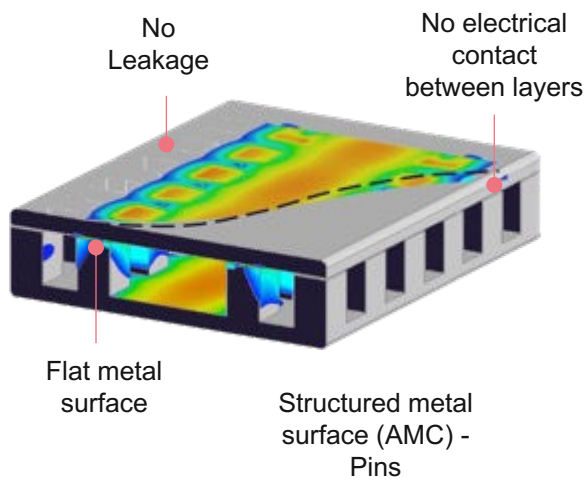
No soldering, No screws just efficient ultrasonic welding technic to assemble the antenna

Our technology could be produced in very high volume with a very high yield meaning cost efficient

Traditional Waveguide

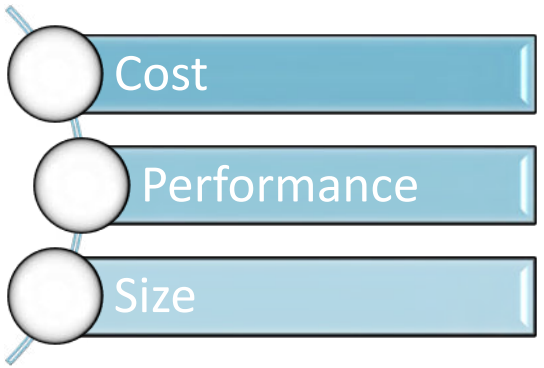


Gapwaves Waveguide



Technology advantages

- Minimum number of injection molded layers
- Passivated copper (No Silver)
- Simple assembly
- Low temperature plastic
- Thinnest possible antenna
- Absorber at antenna interface
- Integrated Cooling/ Thermal spreader
- Robust Contactless PCB integration & LIP
- Pure aluminium sheet metal solution



- 76-81 GHz and 100+ GHz with λ/2 spacing
- From smallest radars to large 4 D Imaging Radars.
- From Low to High Volume

Gapwaves engagement model

Step 1

Prototype project, 3-6 months

Step 2

Contractual and business model work

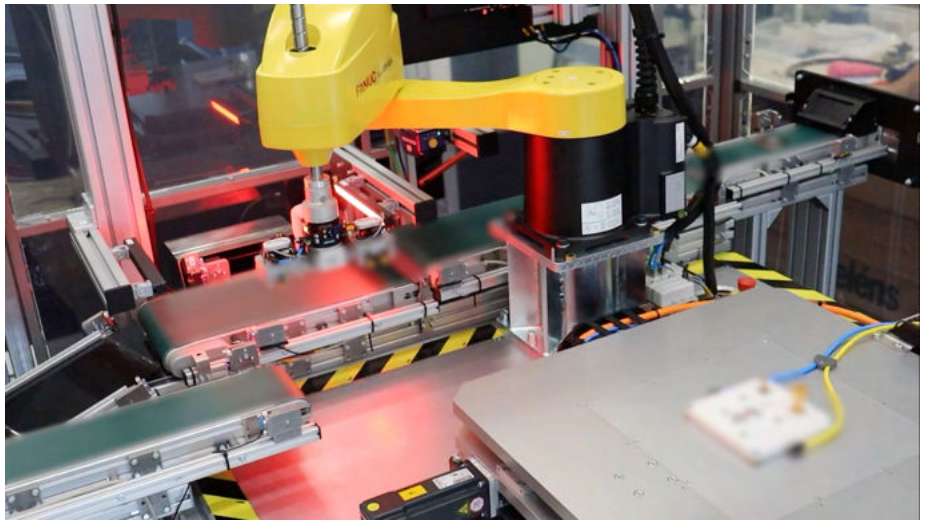
Step 3

Product development project including set-up of production solution, 9-24 months

Gapwaves as supplier

- European and Asian based supply chain
- In-house production and production through partnership
- Standard processes for parts production
- Unique, own developed, assembly and test with 100% in-line electrical testing
- IATF Certified Production

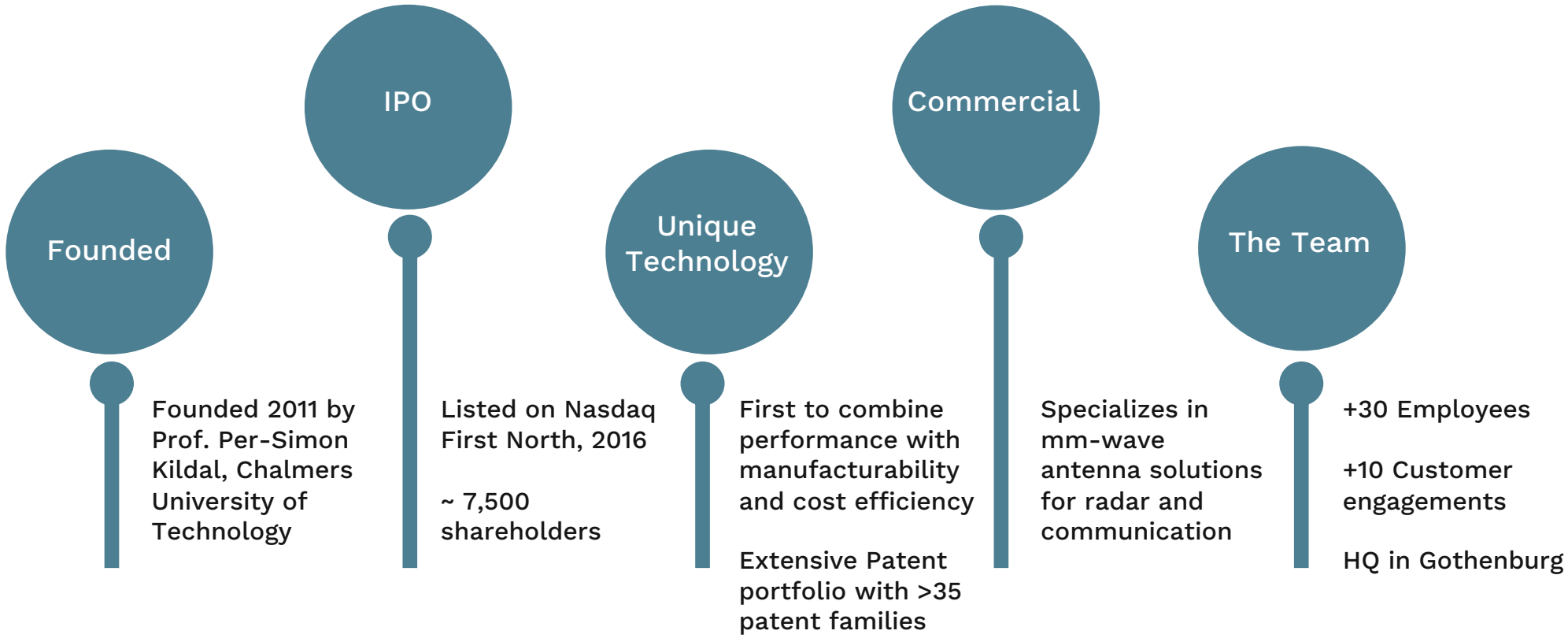
- Prototype and Small Scale Production Capacity
  150 000 / year and growing (500 000 in 2023)
- Set-up of a customer dedicated multi-million series-production take ~12 months



Frencken

PROTOTAL INDUSTRIES

Gapwaves at a glance

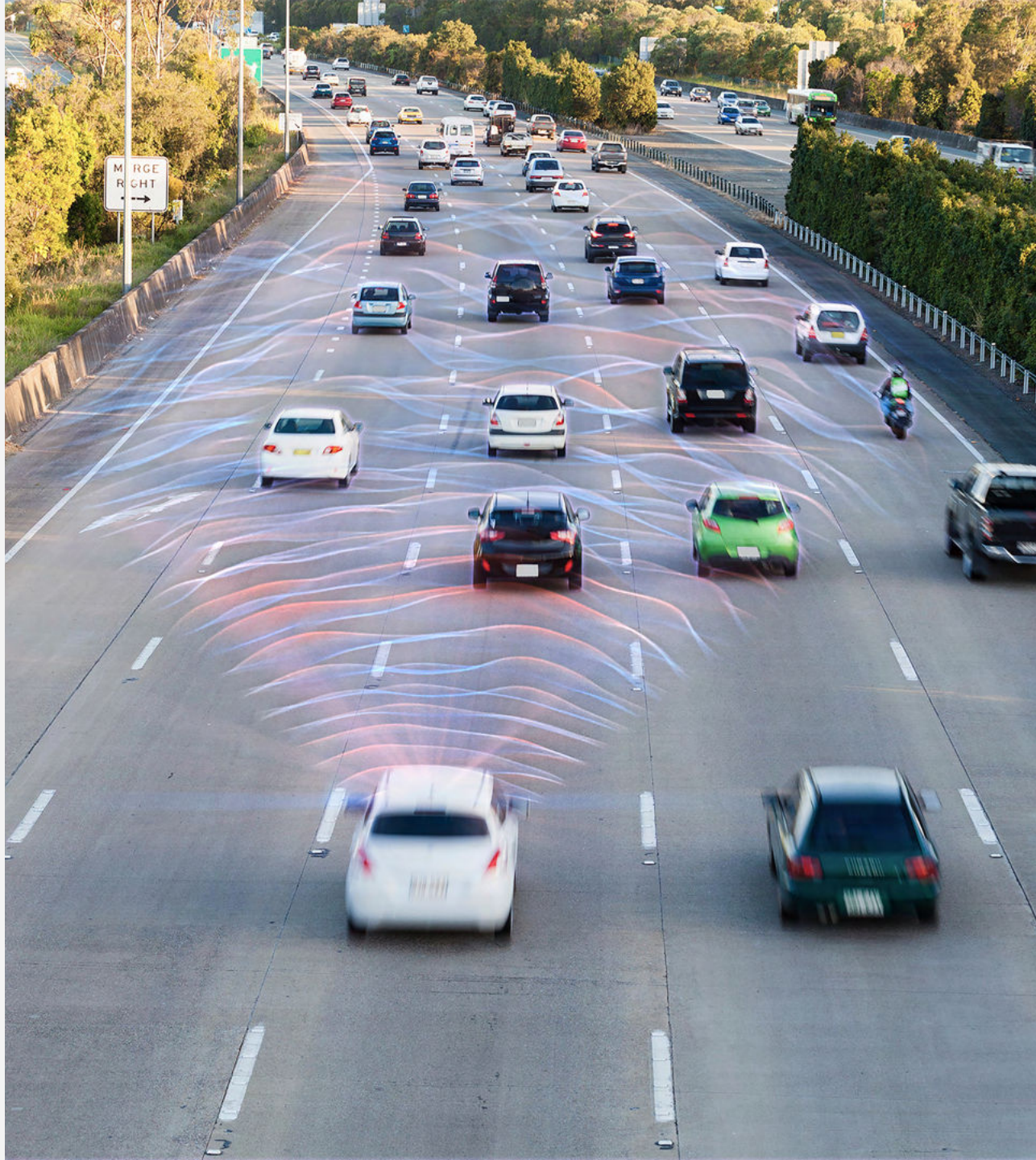


Want to know more?

Whether you are looking for an antenna for your short, mid, long-range radar or your imaging radar we are your dedicated development partner offering our know-how, technology and patents to develop customer specific antennas fulfilling your requirements.

In other words: there is no use case we can’t support and we would love to be your development partner.

Contact us and we tell you more!



GAPWAVES

www.gapwaves.com