



Distance breaks the loop.
We reconnect it.

Problem



Today's engineering teams are global and testing is stuck to old lab processes. It's slow, expensive, and risky.

As emerged from private interviews with different industry leaders.



MULTIPLE COMPANIES INVOLVED IN DIFFERENT LOCATIONS

- Frequent travels (Logistics represents 5-15% of R&D costs).



SENSITIVE DATA DISCLOSURE

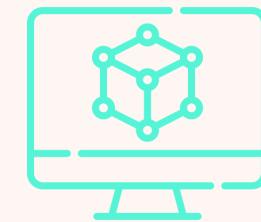
- Companies avoid sharing knowledge to prevent disclosure of sensitive data.
- Limited validation accuracy in the early stages.



FREQUENT SHIPMENTS DURING TEST CAMPAIGNS

- High delivery costs.
- Insurance requirements.
- Significant CO₂ emissions throughout the process. (Carbon Pricing system, e.g. in EU ≈30€/tCO₂ increasing)

Current Solutions



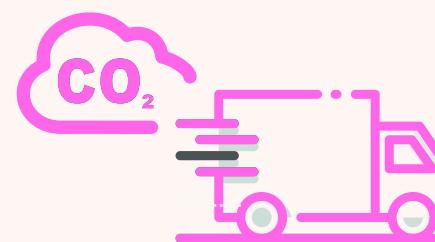
PURE SIMULATION

Already adopted, but for first iterations. For the final tests, there is the **need to test the real equipment**



REMOTE TESTING

Rarely adopted due to the **lack** of reliable solutions. It requires very skilled personnel. Used in research using expensive real-time simulators as a communication interface.

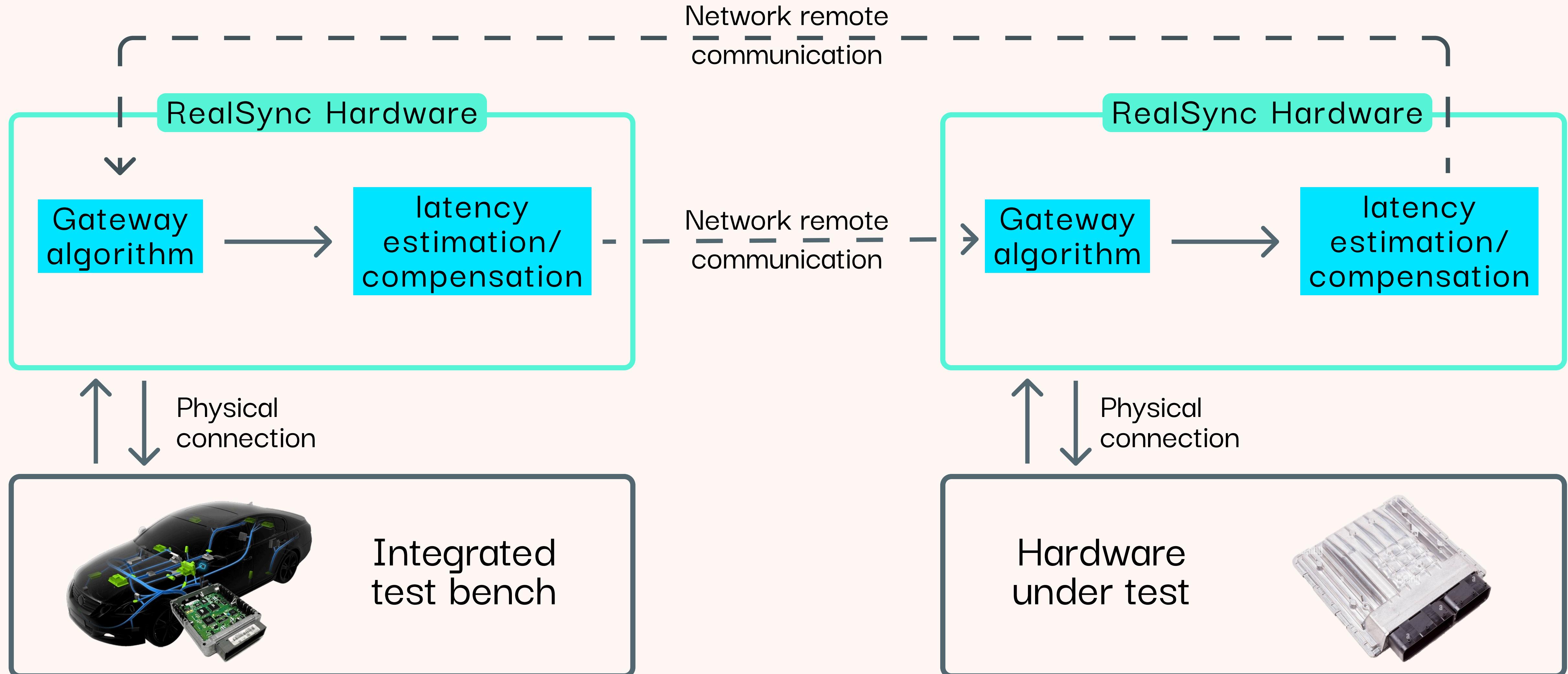


SHIPPING

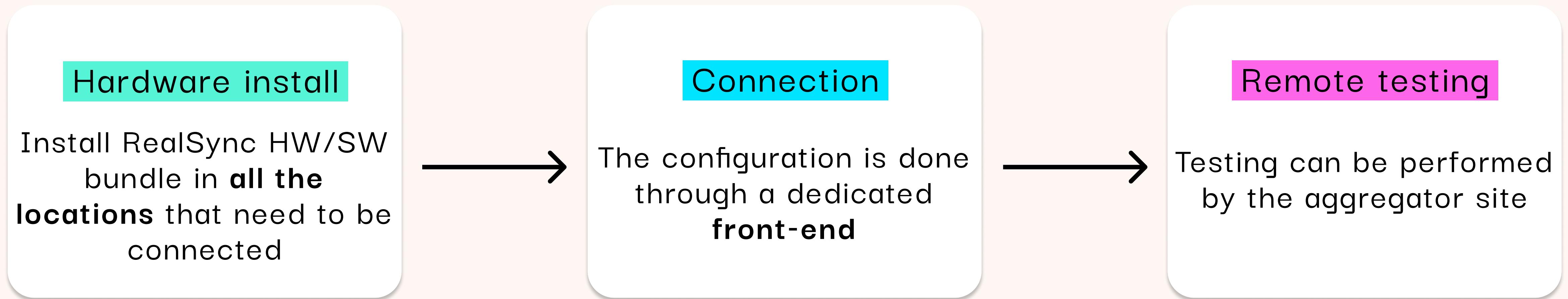
The **most widely adopted** approach is to perform **testing on-site** by shipping all hardware/software to a single location.

Our Solution

How it works

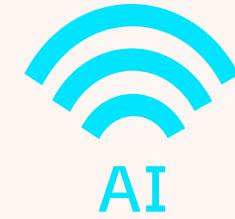


Our Solution



Our technology works transparently in the **background** on the connection stage, enabling real-time communication and acting as a **gateway** that turns the distributed setup into a unique test bench.

Value proposition



Enabling remote R&D through dedicated signal processing

Through the signal processing at the output stage the synchronization can be enhanced, enabling real-time operations with simulators and other hardware. Also the protocol conversion can be handled internally.



Easy to integrate in existing platforms

The solution integrates into existing platforms through analog ports and internal acquisition board, enabling systems from different brands to communicate. A user-friendly front-end allows you to configure communication routes without code. Available in Windows/Mac/Linux/IOS/Android



No HW/SW disclosure

Test your solutions remotely without exposing any hardware or software details. Only frontier data is exchanged, ensuring protection of proprietary technologies until the prototype is finalized.

Case Study

Automotive application: Camera-based lane detection developed in **Germany**
 Braking system in **Italy**

	€		kg CO2 eq	
	Traditional	RealSync	Traditional	RealSync
Travel & Expenses	4000	0	500	0
Shipping/Insurance	3000	0	40	0
Integration Time *	5000	5200 **	81	82 ***
Total single iteration	12000	5200	621	82
Total following iterations	7000	200	621	82
Total for 5 iterations	40000	6000	3105	410

*Considering € 100/h

**Considering 2 h setup RealSync solution

***Considering 2 engineers 8hr/day for 5 days

<https://www.sciencedirect.com/science/article/pii/S0360544224032006>

<https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024>

Automotive Average Italian emission factor (2024): 270gCO2/kWh

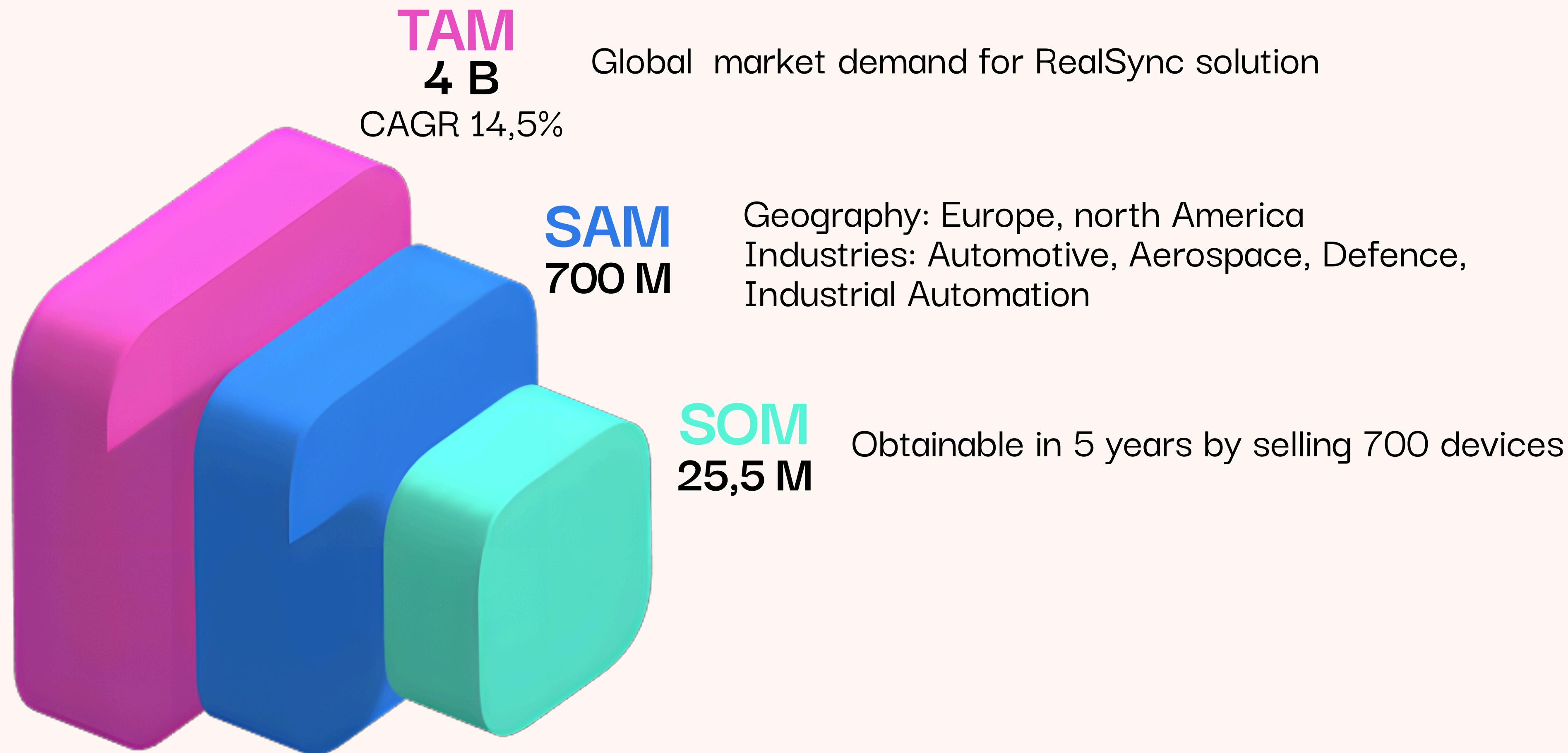
-85%

≈ -87%

Industry leaders increasingly prioritize CO₂ reduction over cost savings, seeing sustainability as key to long-term success.

Market

The main market of interest is the Automotive market, but the market discovery has been shown potential key interest from Aerospace, Defense and Energy Sector.



Market insights

MARKETS OF INTEREST

Real-time digital simulators market 0,8 B CAGR 10,2% (2032 up to 1,9 B),
Global Hardware in the Loop market 950 M CAGR 10,1% (2032 up to 2,2 B),
Automotive Remote Diagnostics Global Market 11,7 B CAGR 16,9% (2028up to 29,8 B)

EUROPE, NORTH AMERICA

Automotive OEMs & Tier 1 Suppliers: ~200 companies x 200k/y spent on testing= 400M
Aerospace & Defense Systems Integrators: ~50 x 500k/y spent on testing = 200M
Industrial Automation & Robotics : ~100 x 100k/y spent on testing = 100M

REVENUES IN 5 YEARS

700 hardware x 10k = 7 M
700 software x 5k-50k (5k for per user of 50k fee per company)= 17,5 M
cloud services x 10k (including the possibility to simulate real-time in the cloud) = 1M

<https://dataintelo.com/report/real-time-digital-simulator-market>

<https://www.grandviewresearch.com/industry-analysis/hardware-loop-market-report>

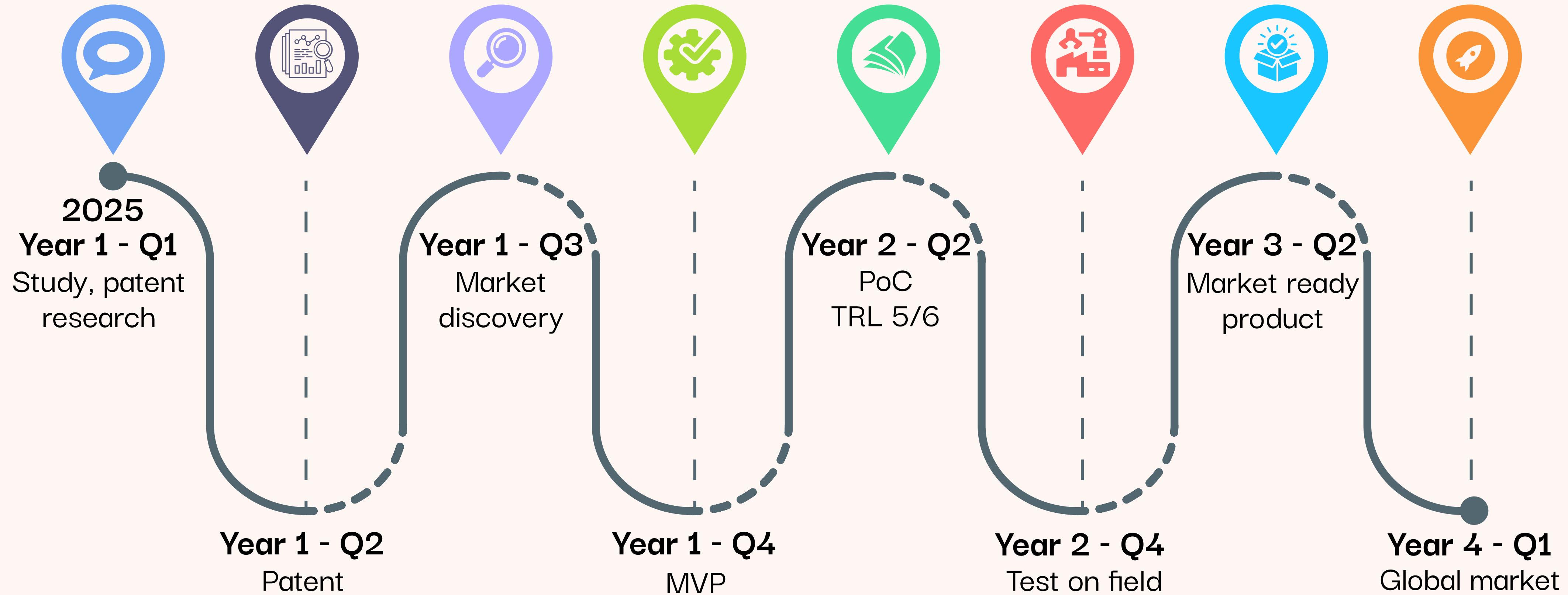
<https://www.globenewswire.com/en/news-release/2023/12/15/2796898/28124/en/Automotive-Remote-Diagnostics-Global-Market-Report-2023-2028-by-Product-Type-Connectivity-Vehicle-Type-Application-and-Region.html>

Competitor

	 OPAL-RT TECHNOLOGIES	 dSPACE	 Typhoon HIL	 VILLA Snode	 ADD-FOR	 Applied Intuition	 RealSync
Multiple protocols connection	✓	✓	✓	✓	✓	✓	✓
Interoperability	✓			✓		✓	✓
Fast dynamics support	✓	✓	✓	✓		✓	✓
Latency estimation							✓
Auto synchronization							✓
Secure connection by design							✓
Dedicated Hardware	✓	✓	✓		✓	✓	✓
Cost	\$\$\$	\$\$	\$\$	*	\$	\$\$	\$

* Open source project

Our non linear Road map



Revenue Model

Direct Sale of Hardware Devices:

Remote units are sold as **standalone hardware**, with the option to purchase maintenance and technical support packages.

PRICE: 10 k€
MARGIN: 5 k€

Sale of Software Licenses

The software on the hardware devices is sold under **license**.

PRICE: 2-10 k€
MARGIN: 40-50%

Cloud services on subscription

Access to the **cloud platform** for the management and coordination of communications via subscription.

PRICE: 10 k€/y
MARGIN: 4k€/y

Team



Giorgio Benedetto
Ing, PhD student

CEO

Specialized in real-time and Hardware in the loop co-simulation



Ettore Bianco
Ing, PhD

CTO

Control algorithm and custom board expert



Robert Girdea
Ing

Front-end developer

Specialized in immersive and interactive technologies.



Ariel Priarone
Ing

Back-end developer

Specialized in forecast and signal processing algorithm



Thank You!

realsync.info@gmail.com

https://real-sync.github.io/realsync_web/