

# AUTOCRYPT Achievements

## Awards and Recognitions



**2019** Best Auto Cybersecurity Product/Service  
**2020** Automotive Tech Company of the Year Finalist  
**2021** Automotive Cybersecurity Product of the Year Finalist



**2020** Automotive Cybersecurity Company of the Year  
**2021** Automotive Cybersecurity Company of the Year  
**2022** Ride Hailing Innovation of the Year



**2020** Global Cyber Achievement Award



**2021** Forbes Asia 100 to Watch



**2022** Automotive Security (IoT) Gold Winner



**2022** Automotive Cybersecurity Solution of the Year



**2024** CLEPA Top Innovators



**2022** Red Herring Top 100 Global

# **AUTOCRYPT**

## **The Future of Automotive Software**

### **COMPANY OVERVIEW**



Best Auto Cybersecurity  
Product/Service 2019

The Automotive Tech  
Company of the Year Finalist 2020, 2021



2020 Global Cyber  
Achievement Award



2020/2021  
Automotive Cybersecurity  
Company of the Year



Artificial Intelligence Industry Association  
2020 Emerging AI+X Top 100 Company  
Mobility Category



2021  
100 to Watch

# CONTENTS

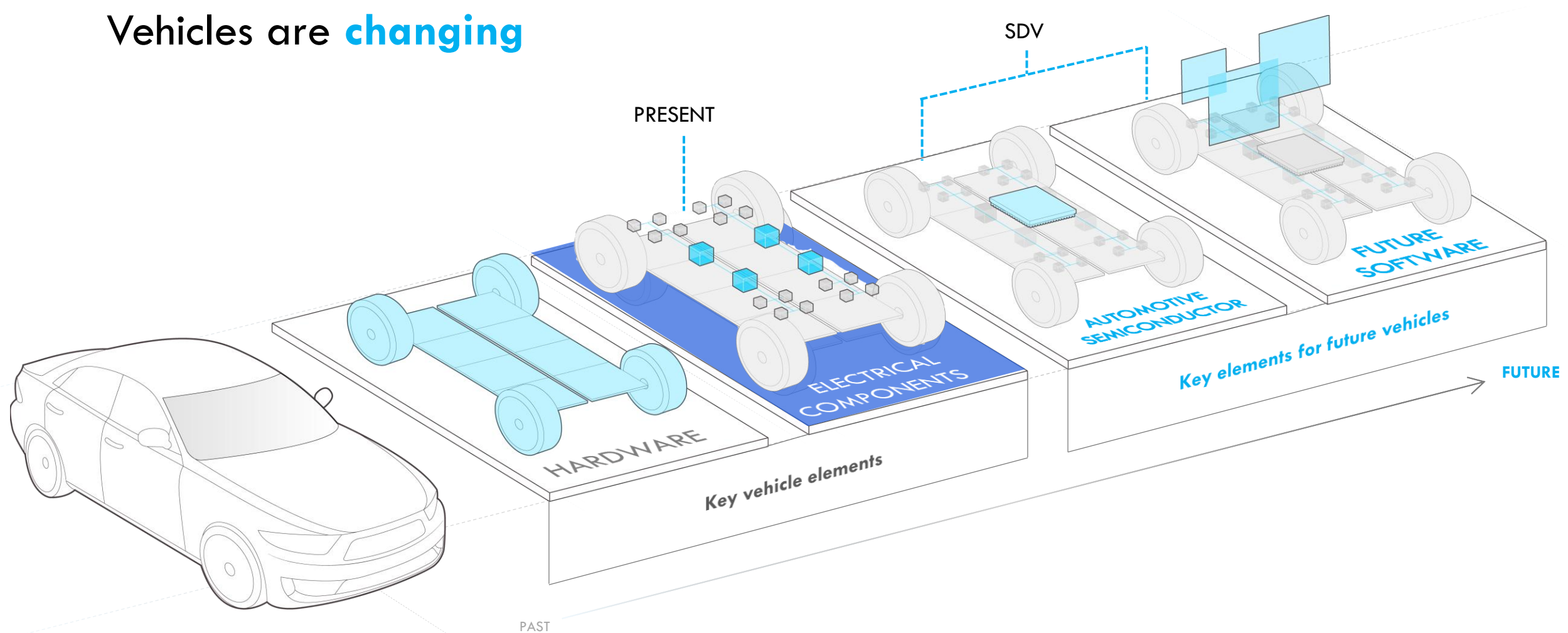
CURRENT MARKET

ABOUT AUTOCRYPT

OUR SOLUTIONS

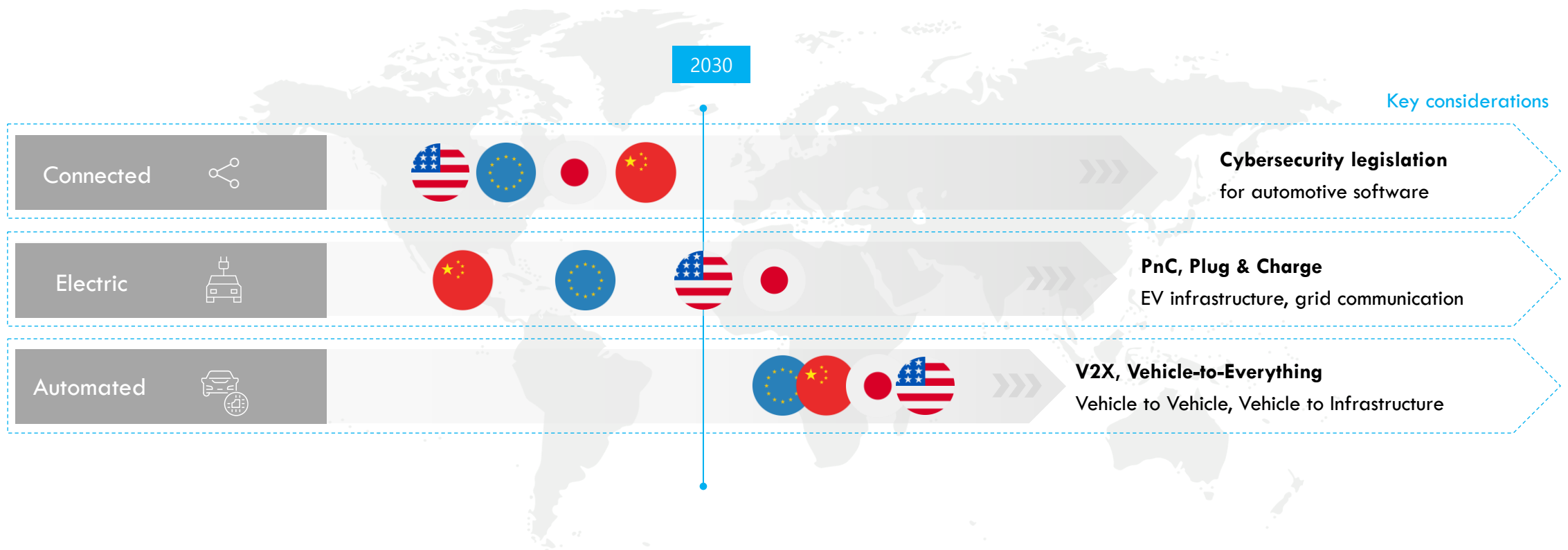
USE CASES & PROJECTS

# Vehicles are **changing**



AUTOCRYPT provides OEMs, Tier-1 Suppliers, and Governments  
**secure solutions for the future of automotive software**

## Future automotive technology is gaining momentum worldwide





**Future automotive technology is gaining momentum worldwide,  
making an impact on universal issues**

1

**Cybersecurity legislation**  
for automotive software



**Reducing sudden unintended  
acceleration,  
safer roads worldwide**

2

**PnC, Plug & Charge**  
EV infrastructure, grid communication



**Preventing EV battery fires,  
promoting green transport**

3

**V2X, Vehicle-to-Everything**  
Vehicle to Vehicle, Vehicle to Infrastructure



**Reducing traffic accidents,  
lessening infrastructure costs**

Starting in 2018, and projected to 2027,  
this era is a pivotal opportunity  
for the automotive industry,  
and specifically automotive software companies



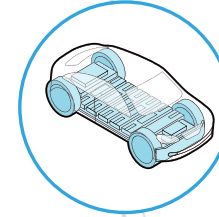
### V2X Security (Vehicle to Everything)

NCAP, a global automotive safety watchdog, declared in 2021 with the Euro NCAP 2025 Roadmap that V2X features will be necessary to receive a 5-star rating starting in 2027.

In August 2024, the US Department of Transportation announced its goal to **deploy V2X across 20% of the national highways by 2028,** and by 2036 raise deployment to above 85%

**USDOT  
\$60M**

in V2X grants  
by 2028



## Automotive Cybersecurity

(In-Vehicle Systems)

UNECE WP.29 **Regulations R155 / 156**

state that vehicles without cybersecurity type approval cannot be sold on the market

- Regulation established June 2020
- Effective July 2022 for new vehicle models
- Effective July 2024 for all new registered vehicle types

### KOREA

- Effective August 2025 for new vehicle models
- Effective August 2027 for all vehicle models

**Korea  
\$827M**

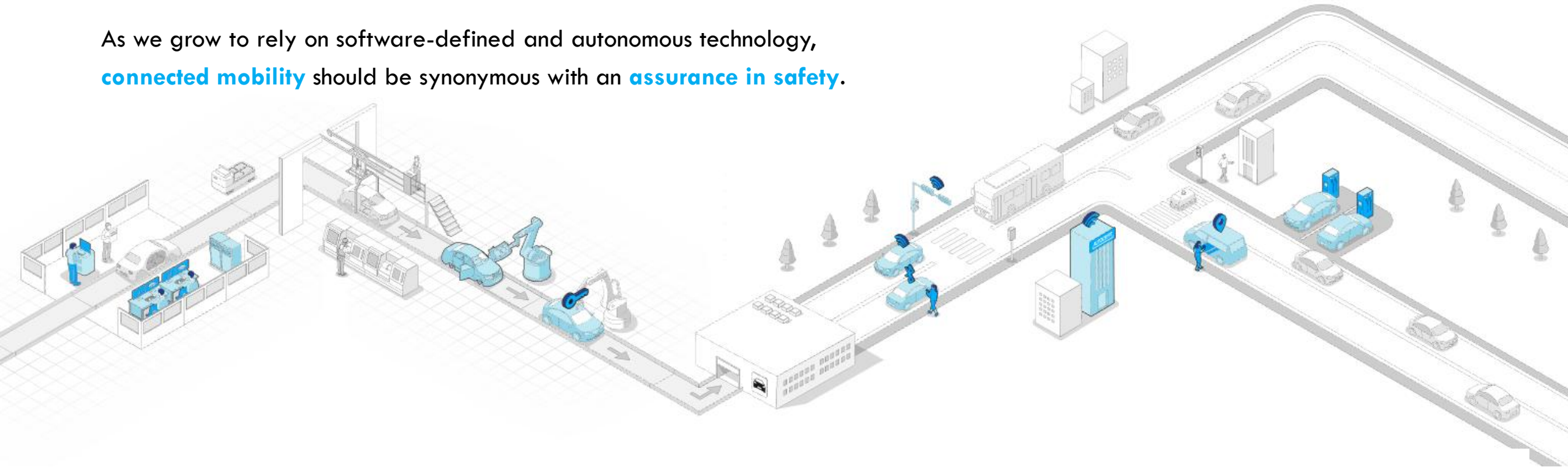
to be invested in  
cybersecurity  
by 2027

**European  
Commission  
€66.5M**

in funding for safe,  
resilient transport by  
2030

# AUTOCRYPT

As we grow to rely on software-defined and autonomous technology,  
**connected mobility** should be synonymous with an **assurance in safety**.

**Founded**

August 2019

**Founder / CEO**

Seokwoo Lee

**Business Areas**

Automotive Software

V2X Security, In-Vehicle Systems Security, V2G / PnC Security,  
Digital Key, Fleet Management System, Mobility Services**Company Size**

300 employees

**Headquarters**

Seoul, Korea

**Overseas Presence**Japan, Germany, USA,  
Singapore, China, UAE



# AUTOCRYPT

## 2007

The beginnings of automotive security

## 2011 ~ 2015

Launch of AutoCrypt

AUTOCRYPT

## 2016 ~ 2019



Launch of Plug&Charge,  
Leading Autonomous Driving  
Security with C-ITS

- Developed Korea's first automotive safety diagnostic device
- Authentication and encryption enhanced solution for vehicle/smart device sync connection
- GPS/telematics authentication and encryption system integration for police patrol vehicles
- Developed IEEE 1609.2-based V2X security solution for WAVE
- Developed Vehicle Data Management System (VDMS) for automotive big data processing
- Developed security verification technology for telematics smartphone application
- **Official commercial launch of AutoCrypt®, Smart Car Security Solution**
- Installed and operated security systems for Daejeon-Sejong C-ITS project
- Developed security solution for EV charging system
- Developed security system for railway transport system
- Installed and operated security systems for Hwaseong K-City autonomous driving testbed
- Installation and operation of Yeosu autonomous driving security system
- Designed secure authentication system for Korean Expressway Corporation C-ITS project
- Installed Jeju province C-ITS security system
- Developed vehicle/smartphone connection authentication security system for Samsung Electronics
- Deep learning based abnormal behavior detection function added for AutoCrypt® IVS, in-vehicle hacking prevention solution
- Developed ISO 15118-standard EV Plug&Charge security solution, AutoCrypt® PnC
- **Official spinoff of Autocrypt Co., Ltd.**

**AUTOCRYPT is the sole security provider for all Korean C-ITS Smart Roadway Projects**  
(Total of 11 projects nationwide)

## 2020 ~ 2023

Global Expansion

- Partnered with NXP for integrated security solutions
- Partnered with Korean Expressway Corporation for national V2X SCMS
- Developed V2X (C-SCMS) authentication solution for Company D in China
- Contract with Company H for new vehicle model security testing
- Contract with Company M for ECU security project
- **Subsidiaries established in Europe and North America, with offices in China, Japan and Singapore**

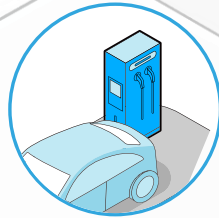
## 2024 ~ 2025

Global Regulatory Compliance

- **Expanded business to MENA region with UAE office**
- Integrated AutoCrypt® PnC into Hyundai Motor's E-pit EV charging network
- Established demand-responsive transport (DRT) system for Korea Transportation Safety Authority
- Launched automotive software vulnerability testing tools, AutoCrypt® Security Analyzer and Security Fuzzer
- Launched charging and charger management solution, EVIQ™
- Developed Integrated Management System (IMS) for SCMS
- Received OCPP 1.6 certification for smart-billing EV charger
- **Received ASPICE CL2 certification for AutoCrypt® TEE**
- Released comprehensive key management solution for automotive manufacturing, AutoCrypt® KEY
- Partnered with RWTH Aachen University and co-developed smart fuzzing tool for HIL simulations
- Partnered with Hitachi Solutions Ltd. on V2X and in-vehicle systems security solutions
- Partnered with a global Tier-1 telematics supplier to install AutoCrypt® V2X-EE security library to its OBUs
- AutoCrypt® V2X-PKI adopted by a multinational OEM in an emerging market, enabling CCMS-based V2X PKI operations
- **Designated as official TS (Technical Service) by RDW Netherlands**
- Launched India-compliant SCMS, adding onto North America, Europe and China-compliant solutions
- **Obtained ASPICE CL2 certification for AutoCrypt® HSM**
- Listed on the Korean stock market (KOSDAQ)

## Autocrypt provides secure solutions for future / autonomous vehicles,

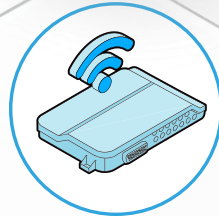
### Vehicle to Grid



Due to the rapid commercialization of electric and autonomous vehicles, AUTOCRYPT provides interoperability and mutual authentication for the grid

**Expanding business (2025-2030)**

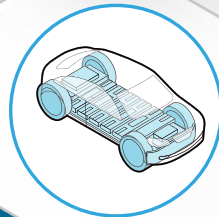
### Vehicle to Everything



Providing secure connections through certificates for vehicles and transportation infrastructure, Autocrypt allows for cooperative autonomous driving.

**Future-based business (2023-2030), profitability through certification services**

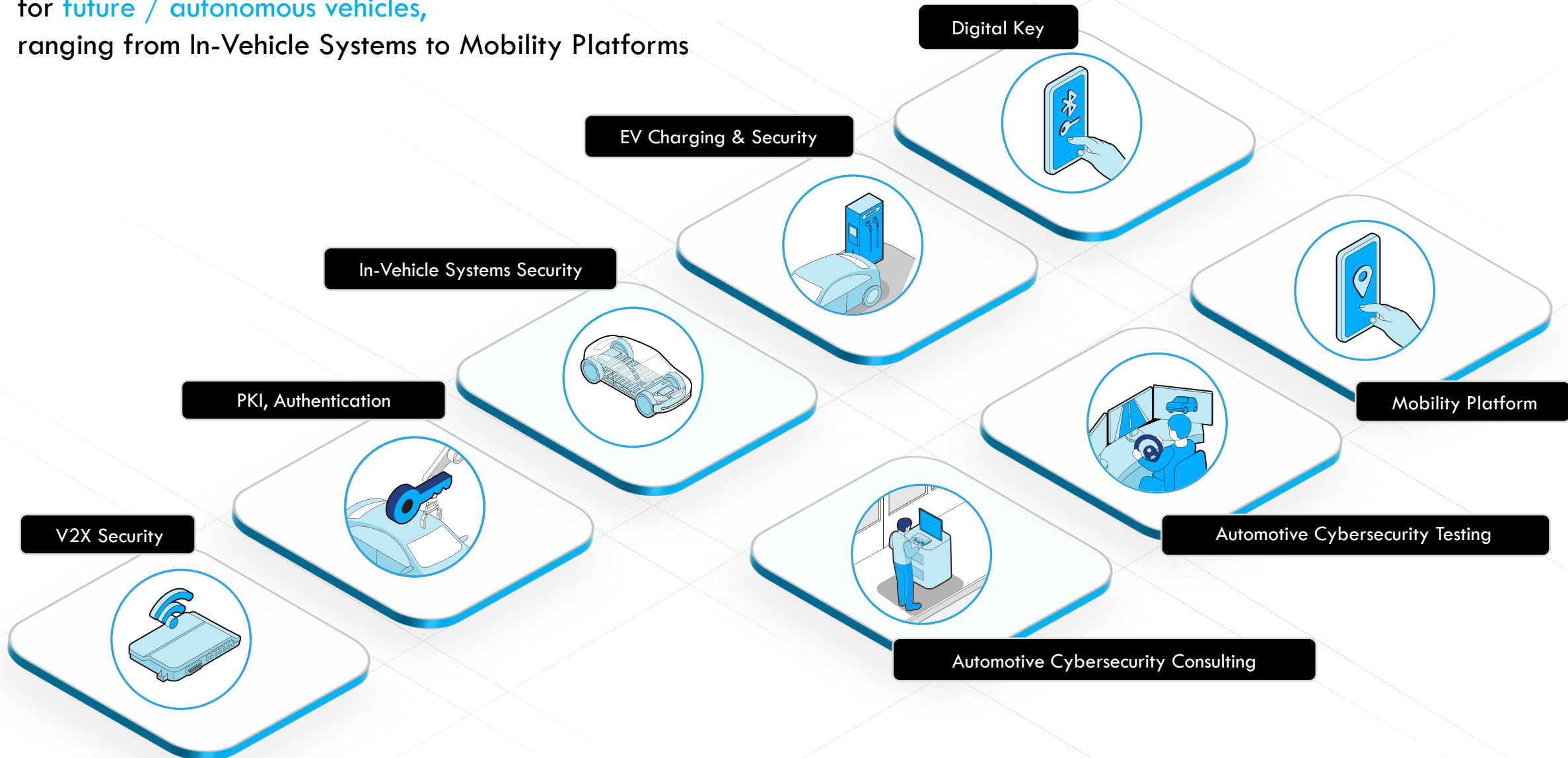
### In-Vehicle Systems



AUTOCRYPT supports OEMs in regulatory compliance and security certification by securing and testing ECUs in vehicles

**Core business (2019-2025), significant share of current and future revenue**

**Autocrypt provides secure solutions**  
for **future / autonomous vehicles**,  
ranging from In-Vehicle Systems to Mobility Platforms



# AUTOCRYPT SOLUTIONS

## Automotive Cybersecurity Testing

### Cybersecurity testing platform and services that comply with ISO/SAE 21434 and UN R155/156

- **AutoCrypt CSTP**  
Cybersecurity Testing Platform aligned with international regulations  
**AutoCrypt CSTP Compliance**  
Comprehensive vehicle testing to optimize compliance process  
**AutoCrypt CSTP Fuzzer**  
Smart and automated fuzz testing software, also deployable in hardware-in-the-loop (HIL) simulations  
**AutoCrypt CSTP Functional Tester**  
Customized testing tailored to vehicle environments, for security validation meeting OEM requirements
- **Testing Service**  
Fuzz testing, penetration testing, and functional testing services

## In-Vehicle Systems Security

### Full range of advanced security software, embedded components, and add-ons

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <b>AutoCrypt HSM</b><br/>Embedded security firmware for ECUs</li> <li>• <b>AutoCrypt TEE</b><br/>Trusted execution environment for advanced applications</li> <li>• <b>AutoCrypt Digital Key</b><br/>Secure key management system to verify and link vehicle owner device</li> </ul> | <ul style="list-style-type: none"> <li>• <b>AutoCrypt V2X-EE</b><br/>Security module and local certificate manager</li> <li>• <b>AutoCrypt IDS &amp; vSOC</b><br/>Intrusion detection system, policy management, security operations center</li> <li>• <b>AutoCrypt TLS</b><br/>Advanced encryption algorithms for automotive communications</li> </ul> |
|---|---|

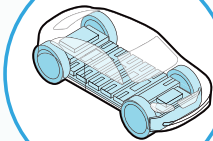
## UN R155/156 Consulting and Training

AUTOCRYPT provides professional consultation and training services for OEMs and Tier 1 suppliers such as TARA (template available as Siemens Polarion add-on), CSMS for UN R155 and cybersecurity testing

## Authentication, Key Management

AUTOCRYPT utilizes its proprietary PKI technology to systematically and securely control access to each vehicle component during the manufacturing process

## In-Vehicle Systems Security



## Vehicle-to-Everything



### V2X Security

Secure, internationally compliant V2X security with proprietary encryption technology

- AutoCrypt V2X-PKI

The V2X PKI system, adaptable to all three major SCMS standards (US SCMS, EU CCMS, China C-SCMS)

- AutoCrypt MBD

Misbehavior detection and monitoring integrated into V2X PKI operations

- AutoCrypt IMS for SCMS

Integrated management system for V2X PKI certificates, operations

- AutoCrypt CLS

Smart edge server connected to RSUs and roadside sensors, enabling sensor data analysis and direct V2I communication

### Teledriving Solution

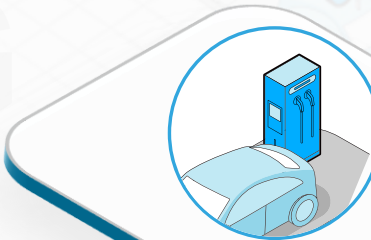
Remote control of autonomous vehicles in emergency situations, ensuring passenger safety

- AutoCrypt RODAS

A teledriving solution that provides a failsafe for autonomous vehicles, allowing for an authorized operator to take remote control over the vehicle when an unexpected situation arises

### EV Charging & Security

## Vehicle-to-Grid



Secure solutions for EV charging, comprehensive consulting for EV charging businesses

- AutoCrypt CSMS

A convenient way to manage charging infrastructure and operations through a secure GUI platform, fully compliant with OCPP 2.0.1

- AutoCrypt PnC

Secures the Plug&Charge process during electric vehicle charging, allowing for secure authentication and billing based on ISO 15118-20

### Mobility Platform

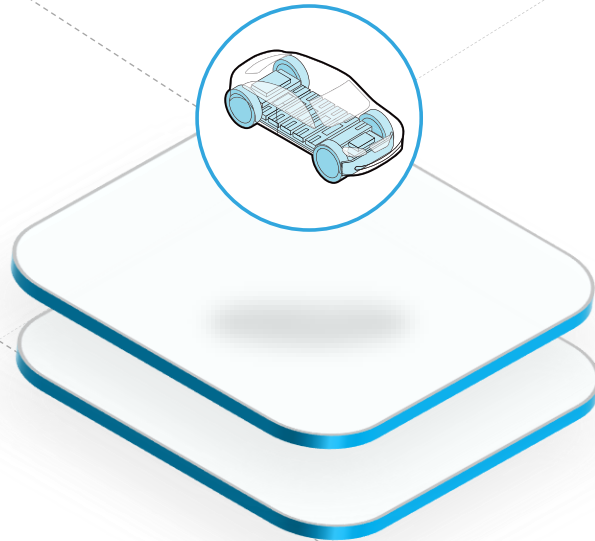
Customized secure multi-modal platforms for MaaS providers and operators, creating a safe transportation environment



- Accessible mobility solutions
- Multi-modal mobility
- Demand Responsive Transit
- Taxi services
- Data management for fleets



**AUTOCRYPT is the only official Technical Service (TS)  
for cybersecurity in the Asia-Pacific region**



## **AUTOCRYPT is the leader in automotive software**



### **The only official Technical Service (TS) for cybersecurity in the Asia-Pacific region**

Autocrypt received the designation from RDW, the vehicle authority and approval body of the Netherlands. The designation enables Autocrypt to issue European automotive cybersecurity type approvals



### **Autocrypt collaborates with global OEMs, suppliers, engineering companies, and academic institutions to advance automotive technology**

#### **Global R&D Network**

| United Kingdom

—Beam  
Connectivity



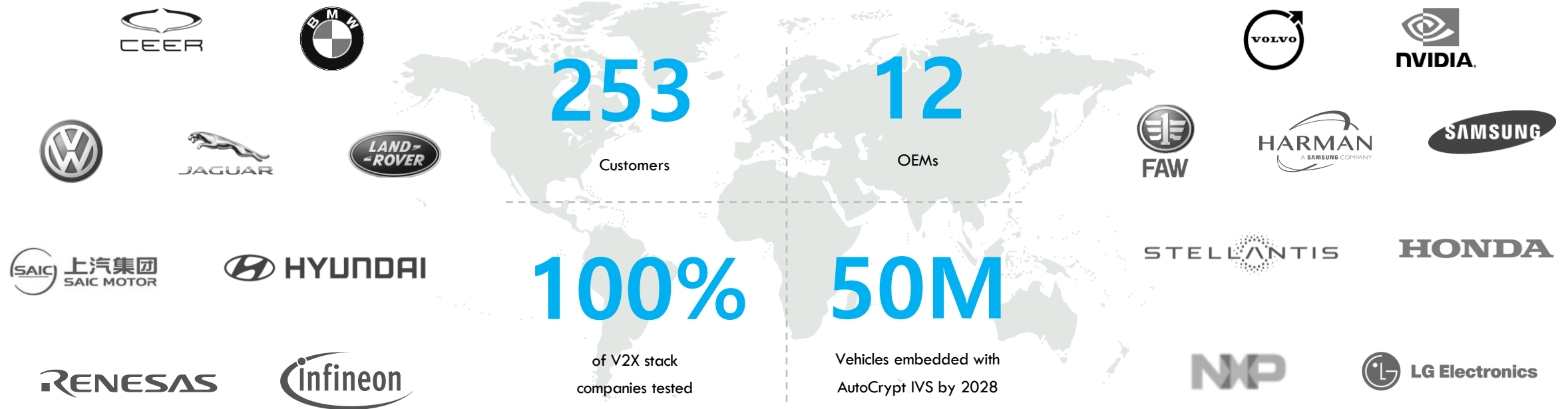
| UAE & Czech Republic



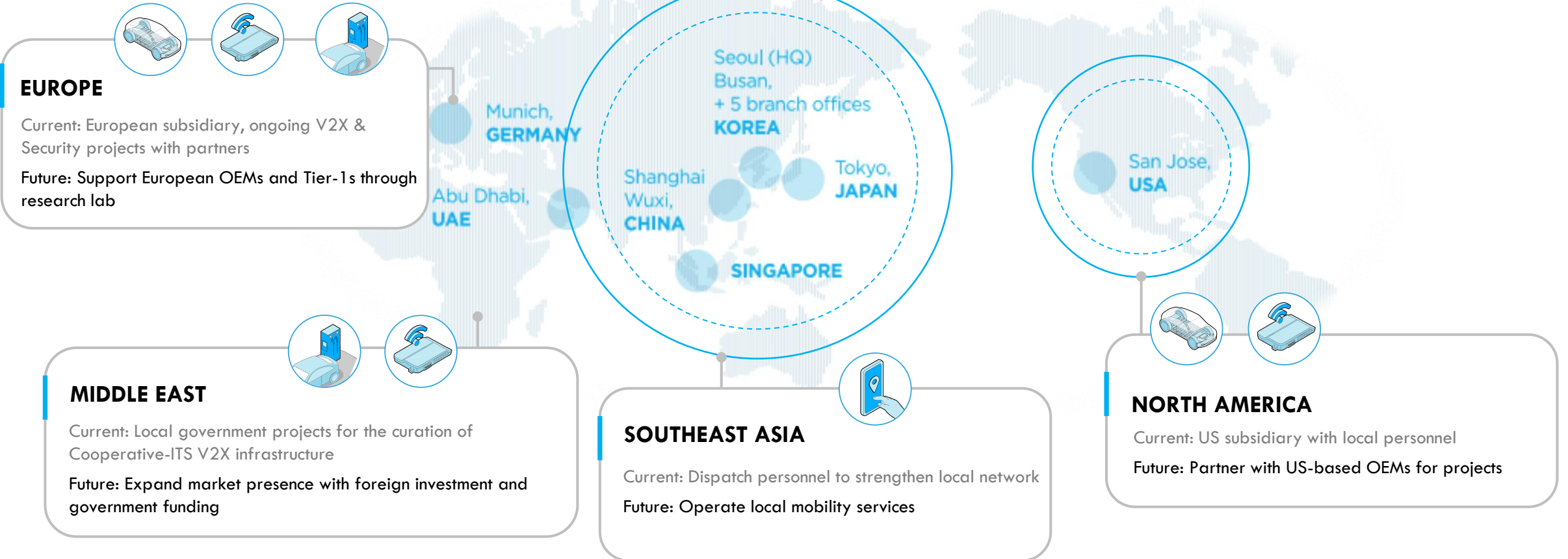
| Germany



**AUTOCRYPT** is proud  
to provide its innovative software solutions to  
**world-renowned OEMs and Tier suppliers**



## Expansion of Global Presence & Projects



## Expansion of Global Presence & Projects

### EUROPE

#### CATCH

CAN-based Automated Test of Cybersecurity on HiL



- Joint funded project (~'26)
- Integration of advanced security attack methods to HiL (Hardware-in-Loop)
- Extended to ADAS ECU's cybersecurity testing
- Autocrypt Security Fuzzer as a validation toolchain

#### eSiLa

Elektromobiles Sicheres Laden



- Bavarian state funded project (~'26)
- Advanced methods of ISO/SAE 21434 "cybersecurity validation"
- Validation of EVCC-SECC comm. based on future charging scenarios
- Autocrypt Security Fuzzer as a validation toolchain

### MIDDLE EAST



- Saudi Arabian EV OEM
- Secured a PnC PKI contract with CEER
- Goal: Produce 300,000 electric and autonomous vehicles annually by 2030
- Plans to expand into other Gulf countries to accelerate EV industry growth in the MENA (Middle East North African) region

### APAC

Only Technical Service (TS) in Asia-Pacific

- Vehicle Type Approval requirement for export to Europe
- Expectation: OEMs in APAC region will need to obtain type approval through AUTOCRYPT
- AUTOCRYPT provides an efficient certification process based on its technical capabilities

### NORTH AMERICA

October 2024: Successful V2X interoperability test with US DOT

- Two cybersecurity companies selected:  
**AUTOCRYPT** and GHS ISS

USDOT releases V2X Roadmap in August 2024

- Goal of 20% V2X deployment by 2028
- Over \$60 million in grants for V2X for states including Texas, Utah, and Arizona

# The Future in Automotive Software

---

SECURE. CONNECT. DRIVE.

# AUTOCRYPT

