



AUTOSAR - Challenges and solutions from a Romanian Software Service provider

Silvan Morariu, Head of Automotive



AROBS Transilvania Software is an IT solution provider of ready to use systems and tailor-made software based on the latest technologies.

With 20 years of experience in software development, we address the IT needs of travel, automotive, home automation, and life sciences industries, with advanced and effective web, mobile, embedded, and cloud solutions.

Since our foundation in 1998, in Cluj-Napoca, Romania, we have combined well trained specialists with out of the box, but also bespoke processes to consistently deliver top quality software solutions.

The services we provide and our teams' dedication helped us build strong, long-term partnerships with hundreds of companies across Europe and the US.

Our passion for innovation and sustained efforts to acquire new skills alongside the market's evolution turned AROBS into one of the top players in the Romanian IT landscape.

Romanian leading IT solution provider: 22 years

7 Romanian branches: Cluj-Napoca, Bucharest, Iasi, Targu Mures, Suceava, Arad and Baia Mare

6 International branches: Chisinau (Republic of Moldavia), Budapest (Hungary), Breda (Netherlands), Belgrade (Serbia), Jakarta (Indonesia), Munich (Germany)

Turnover 2020: 44 MLN EURO

Headcount 900+ employees

Retention rate 88%

International customers in 14 countries (Europe, USA, Asia)

Main industries: Automotive, Travel, Transportation, Healthcare..

Main focus: Software development and engineering services

AROBS Key Facts



Travel



Transportation



Financial Services



Healthcare



Automotive



Retail & Consumer



Overview of AROBS' engineering services for the automotive industry

WHAT WE DO

We provide customized software, hw and mechanical design solutions for a wide range of automotive products, including:

Body Control Modules

Gateway ECUs, Door Control ECUs, Car Keys

Instrument clusters, Head-Up Displays,

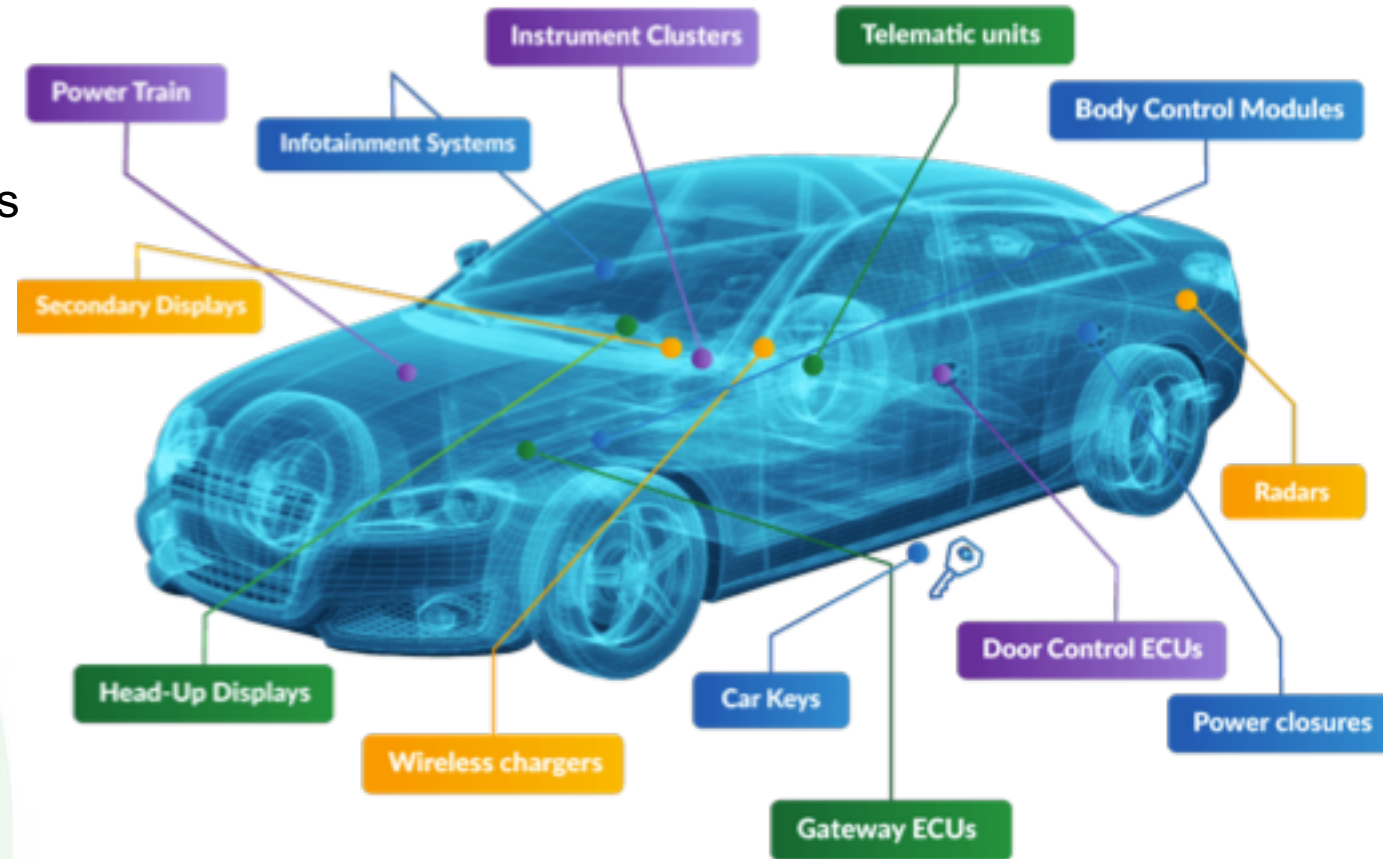
Infotainment systems

ADAS ECUs

Engine Control Systems, HEV ECUs

Telematics units

Test equipment production



Wide range of products from basic software layer, device drivers, middleware components to applications for the most diverse vehicle architectures and OEM strategies.

Overview of AROBS' engineering services for the automotive industry

HOW WE DO IT

We provide: V-model or Agile development process, requirement engineering, SW architecture, code construction, software Integration, software and system testing and quality management services.

Experience with Renesas, NXP and Infineon automotive MCUs

Experience with a large range of compilers including Green Hills and IAR

Applications development in "C" language

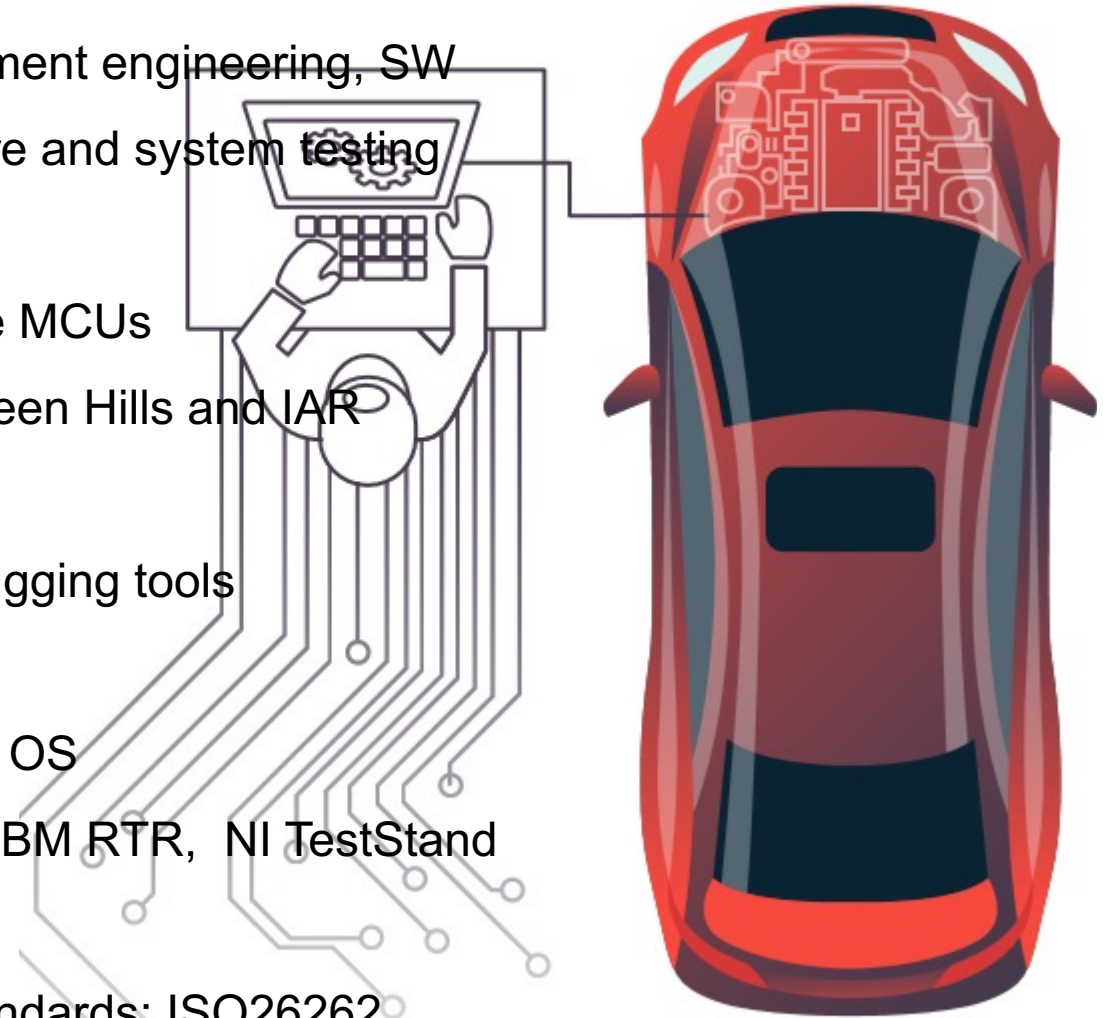
Experience with Renesas / iSystem emulators and debugging tools

Experience with Vector CAN / LIN tools

Configuration and integration of OSEK and Linux based OS

Manual / automated software and system testing using IBM RTR, NI TestStand or custom tools

Our software is compliant with the following industry standards: ISO26262, AUTOSAR, Automotive SPICE (ISO/IEC 15504).



Building AUTOSAR experience

About the challenge to adopt the AUTOSAR to an increasing number of R&D projects

Initial AUTOSAR adoption was unstructured and was very dependent on projects.

Mix of know how and training approaches



The geek
self taught



Smart guy
training courses & mentoring



I like
formal training courses

AUTOSAR training framework and continuous improvement

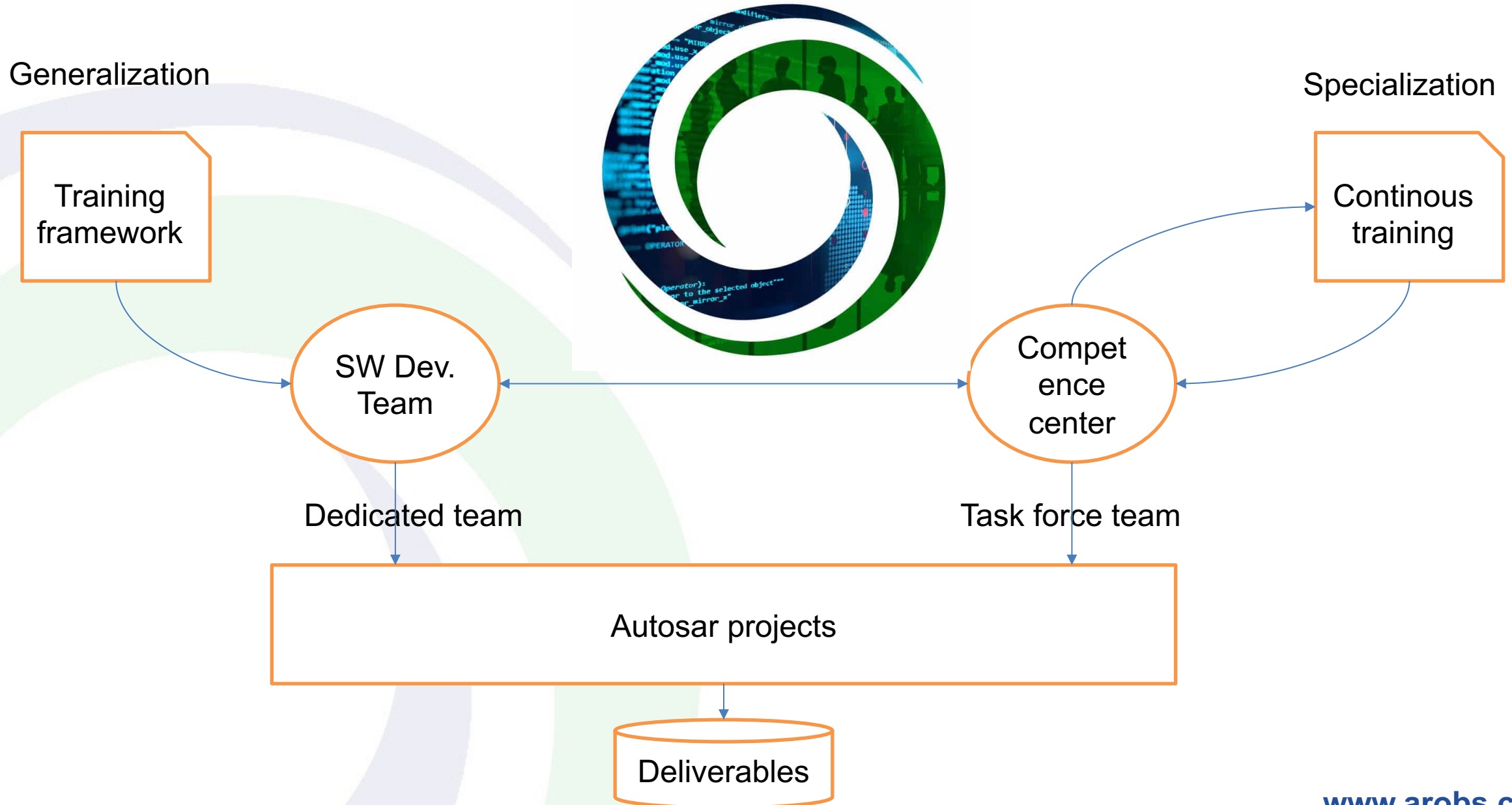
- Relevant
- Usefull
- Efficient
- Consistent



- Increased productivity
- Happy customers
- Proffesional team

Step	What	Mentoring
Step 1	Basic AUTOSAR training (formal training, external trainer, self study and knowledge validation)	Yes
Step 2	Hands on AUTOSAR training (practical training using dedicated tools and handwritten code and demonstrating capabilities)	Yes
Step 3	Guided work on real AUTOSAR projects.	Yes
Step 4	Specialized work on AUTOSAR based projects	No

AROBS as an “AUTOSAR competence center model”



Thank you

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