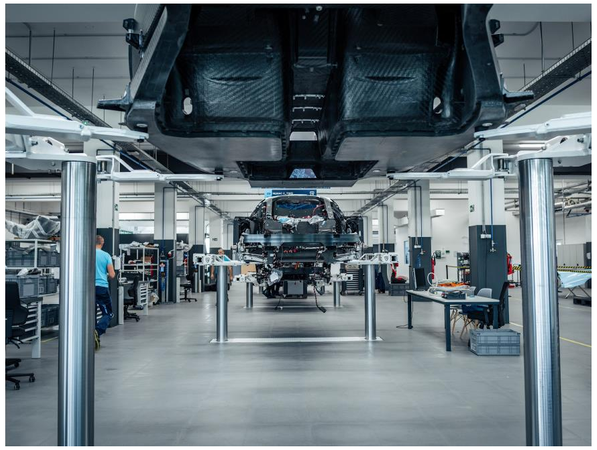
Insights into ASPICE Implementation: Lessons Learned and Transitioning from 3.1 to 4.0

From Garage Startup to High-Volume Tier 1 Supplier for Global OEMs

Rimac Auotomobili started from garage in 2009

Starting out in a garage, the company has evolved into a multinational operation wivdfsgsdfgsfgsdg vdvsdth headquarters in Zagreb, Croatia, and a workforce exceeding 2000 people spread across five countries.



Porsche investment and Bugatti joint venture

In 2018, Porsche acquired a 10% stake in Rimac Automobili, increasing it to 15.5% in 2019. This investment boosted Rimac's growth to nearly 1,000 employees and advanced its electrified vehicle technologies. In a historic milestone, Rimac and Bugatti combined to form Bugatti Rimac d.o.o., merging innovation with Bugatti's 110-year legacy.

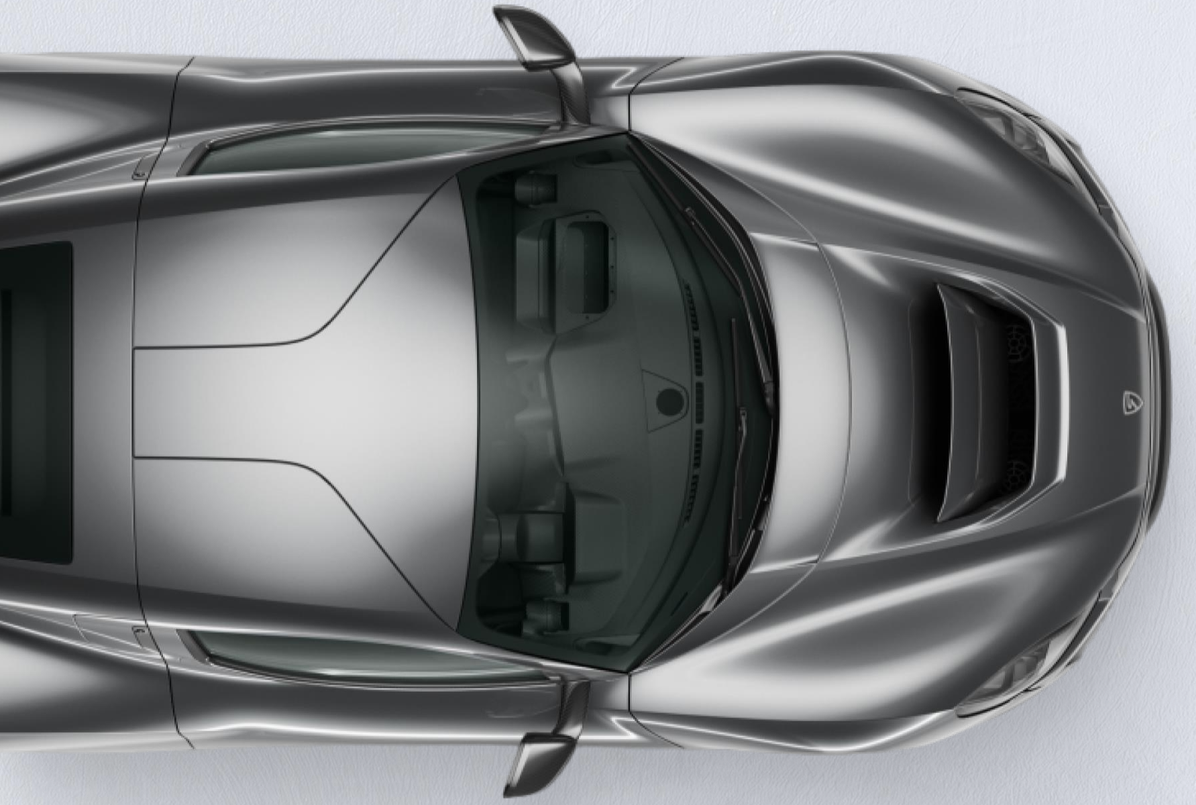
Start of Nevera production

In 2021, Rimac launched the Nevera, the world's fastest accelerating production car. This milestone spurred rapid expansion, leading to Rimac Technology's establishment as its own entity. Now RT collaborates with major European manufacturers, leveraging expertise from developing the Nevera to offer comprehensive services from concept to large-scale production.

The Rimac Campus

The Rimac Campus, spanning 200,000 square meters in Zagreb, Croatia, will serve as production site for advanced electrification components, vehicles, and technology projects for global OEMs

Two complementary business



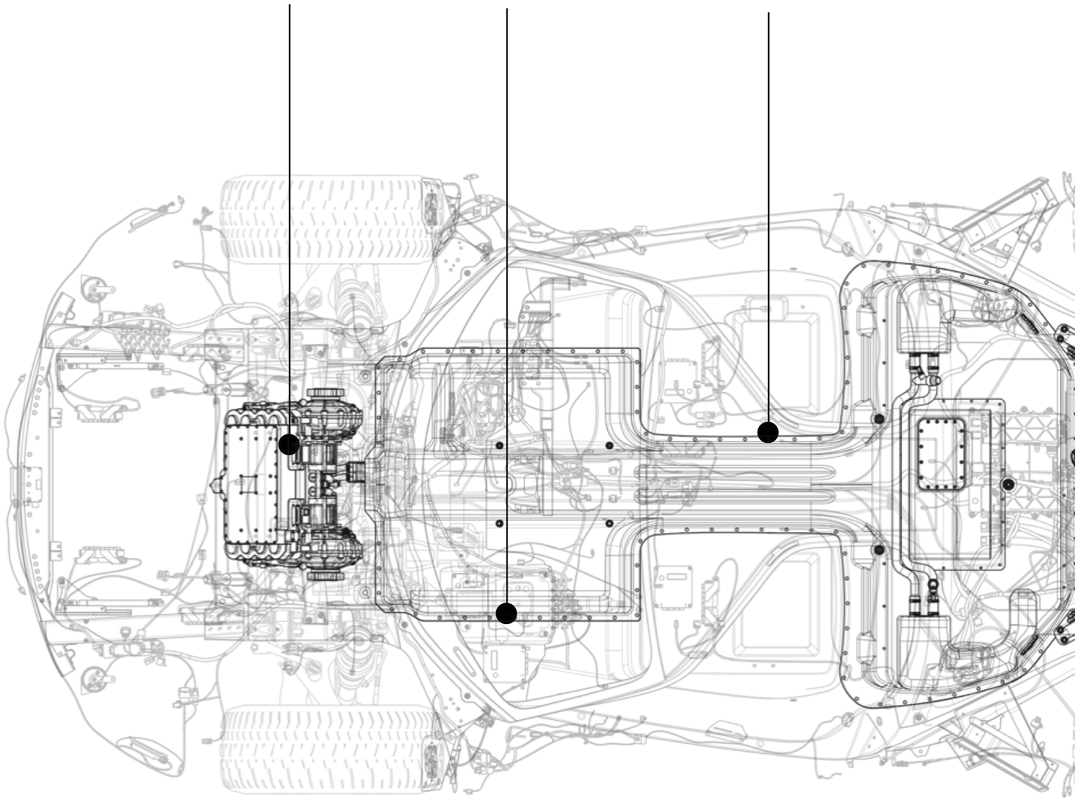
Hypercars

BUGATTI RIMAC

Developing and building the world's most advanced hyper car.

RIMAC TECHNOLOGY

E-Axles Electronics Battery packs



EV Technology

RIMAC TECHNOLOGY

Helping the industry to go electric by designing and producing key components for large OEM'S hybrid and electric cars.


Size
100,000+ m2
Investment
$200+ M
Capacity
2,500 employees

Rimac Technology Products

Battery systems

Customizable battery solutions, offering the highest energy and power density on the market

Powertrain&Electronics

Performance-oriented E-Axles, electronic control units and control systems

Energy

Highly integrated energy storage and power conversion solutions for various stationary applications

Software Quality - History

- Rimac Automobili – Start-up - 2 in 1 company - OEM and Tier 1 as well
- No experience with high-volume projects
  - Mostly low-volume / hypercar projects
- No automotive history in Croatia
- No experience or knowledge about Software Quality
  - SW Quality Assurance = SW Testing ☹

Software Quality - the 1st Implementation

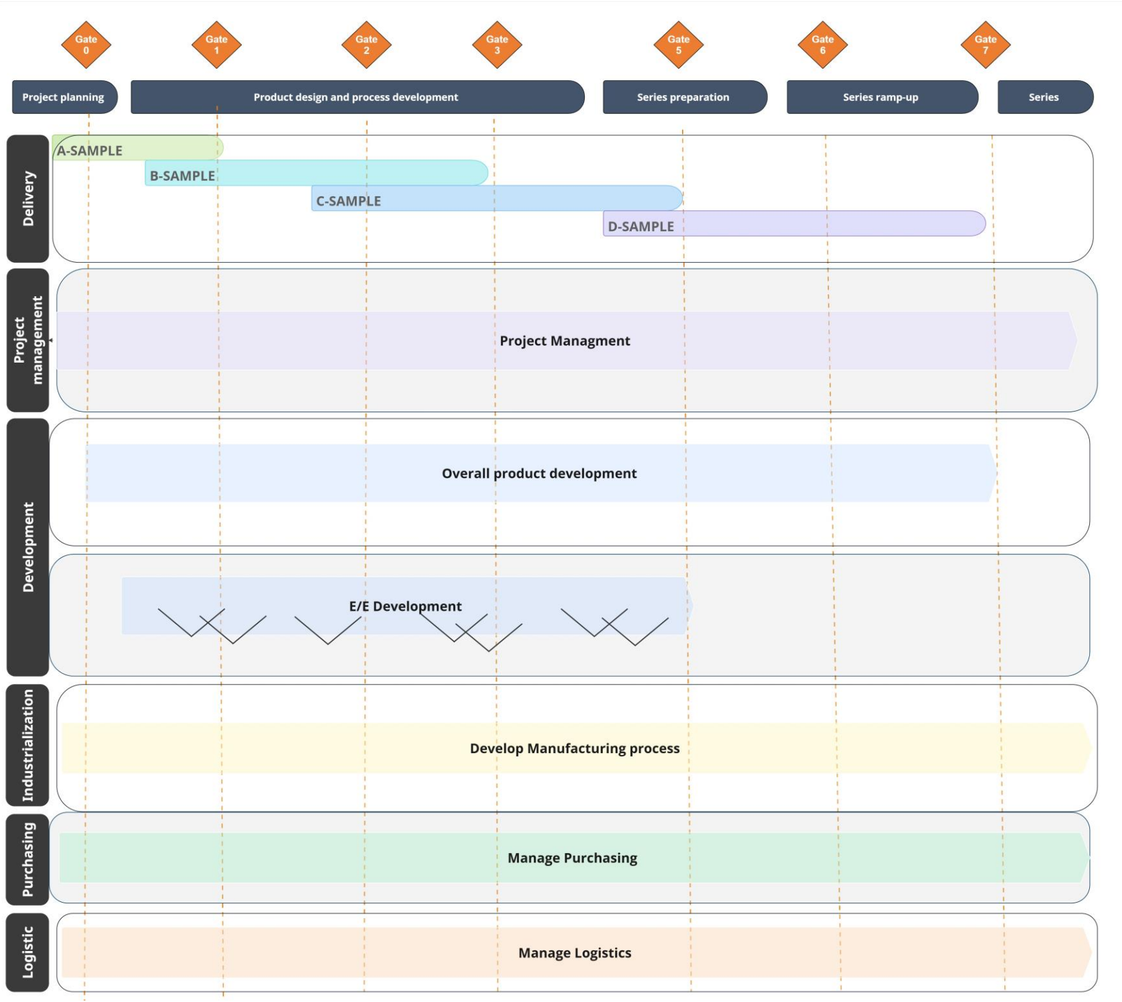
- Nominated for a high volume project – including Software Development, SW Quality, and ASPICE compliance, which was a requirement from the Customer
- No internal experience or competence yet - They were not aware that SW Quality is a thing
- External help and support were hired - experts who implemented an End-2-End process landscape for the company – SW processes implemented in End-2-End mindset as well
- The first implementation was very project-specific - project-specific elements were burned into the processes
- Parallel to the external help, the internal competence started to build an internal Software Quality Group
- Not ideal and not properly distributed throughout the whole company
- Successful ASPICE LVL1 achieved 

Software Quality - Lessons Learned

- Too specific and overcomplicated processes
- Processes were defined before the split into OEM and Tier1 parts
- No proper distribution and training to the other projects/product lines
  - No common understanding
  - Zero awareness outside of the project
- Rejection and push back from other teams – Fear that processes will make their lives harder
- End-2-End processes were not fit for E/E related activities
  - Problematic to align E/E related part with the high-level/mechanical processes
- From a start-up to a proper Tier 1 – a mindset change didn't happen
  - We are not working for ourselves anymore - we have Customers!

Software Quality - the 2nd Implementation – now ongoing

- With the ASPICE 4.0 release – New round of process review – continuous improvement
- Focusing on **E/E scope** (including Embedded Hardware and all relevant supporting processes)
- Define a separate **E/E process streamline**
- Feed it back into the overall End-2-End process landscape when and where it's needed and where it has an added value



Software Quality - the 2nd Implementation – now ongoing

- Set up **working groups** – 1-1 individual from each area (BU/product line)
  - Involve the subject matter experts from the affected areas
- Set a named leader/ **responsible** for the processes (editing, updating)
- Rework the processes – Define **real-life** processes – not translating BP-s to process steps
  - Define our way of working that fits us – start from what we are doing
  - With the help and support from key areas like
    - Functional Safety
    - Cybersecurity
    - Quality

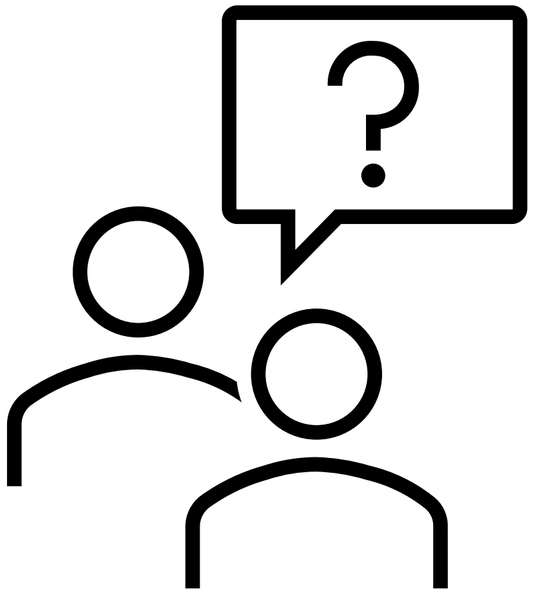
    } Ensure compliance with the standards

    - Process Expert – support from the process development methodology point of view

Software Quality - the 2nd Implementation – now ongoing

- Goals
  - **Lean** and **stable** processes – created and accepted by everyone
  - Avoid overdefinition –processes shall be simple
    - The core activities shall be common
    - Product/Business Unit -specific implementation shall go into the guidelines/work instructions
  - Try to use a common toolchain - standardize reporting and build a proactive risk management
  - Distribute properly and provide **training** for everyone – Have full awareness throughout the whole company – **Mindset Change** to be a proper Tier1
  - Provide continuous **coaching** and offer coaching sessions – e.g.: start of new project

Questions?



RIMAC TECHNOLOGY

Thank you for your attention!

Viktoria Bencz
Process & System Quality Manager
Rimac Technology d.o.o.

viktoria.bencz@rimac.technology.com
+385 91 3337 329
Ljubljanska ulica 7, Brezje 10431 Sveta Nedelja, Croatia