AI@BMW

RAIQON

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BMW GROUP – FINANCIAL YEAR 2025 AND PRODUCT RANGE

- **Revenue Development 2025**

  Revenue amounted to €137.6 billion,
  reflecting market normalization following high figures in the previous year.

- **Stable Profitability**

  EBIT margin remained stable within the target range of 5 to 7 percent
  despite challenging market conditions.

- **Electrification Strategy Growth**

  Deliveries of fully electric vehicles increased by 32.4%,
  with the share of electrified vehicles reaching 26.9%.

- **Strategic Stabilization**

  Focus on sustainable profitability and technological competitiveness for future growth.

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RAIQON - A PRODUCTION READY AI-PLATFORM

- Established 2023 in Stuttgart by **former founders and management of Codebeamer** to enhance ALM systems with AI
- **Combining expertise** in the field of IT product development, ALM, Automotive and Artificial Intelligence; currently 35 employees
- Currently rolling out the Raiqon Platform at selected clients to create the **best AI-Platform** to improve efficiency in automotive R&D

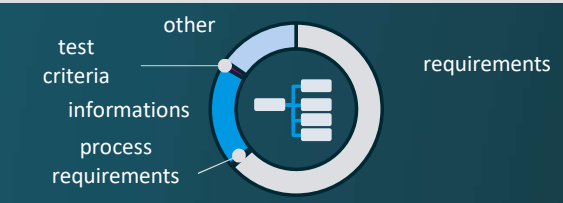
SOME FACTS AND FIGURES ABOUT REQUIREMENTS MANAGEMENT

Requirement specifications: ~1.200 per year

1.200

Users: 7% of BMW employees use cb

Items: 5,5 Mill are requirements (64%) in cb



Data growth: 120k per month

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IN BUSINESS CONTEXT
3 MAIN TOPICS ARE SUPPORTED BY AI

• Office tasks

AI supports in daily office work

- handling mails
- creating documents or presentations
- Handling data in tables and charts
- …

Copilot

• Unspecified tasks

AI supports in various and changing tasks

- Research
- Occasional coding
- Generating pictures
- …

ChatGPT

Claude

Gemini

Grok

• Expert tasks

AI supports in highly specialized tasks

- Cancer detection
- Crash simulation
- Requirements management
- …

Which AI featured on the left would you use for expert tasks?

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AI INTEGRATION EVALUATION MATRIX APE*.

Task/ Tool integration	**A** nalyze AI **analyzes** data and highlights improvement potential	Bus. value	**P** ropose AI analyzes data and **proposes** improvements	Bus. value	**E** xecute AI analyzes data and **executes** improvements if accepted	Bus. value
Integrated GUI and full use of tool data including analytics	Phase 1 **Relyze-cb-Widget**: Automatic weak word analysis	10	Phase 2 **Raiqon-cb-Widget**: Automatic formal req. analysis	20	**Raiqon-cb-Widget**: Traceabilty discovery/ Functional linking [3]	100
Automatic import/export between tool and AI tool		5		10		50
Manual import/export between tool and AI tool	Phase 0 **Relyze**: LH Check [1]	1	**GAIA App**: Formal req. analysis	2	**Other**: Function linking [2]	10

[1] LH-Check: 1 Export, 2 change tool, 3 Upload, 4 AI Analysis, 5 man. viewing (parallel), 6 man. correction in cb

[2] Function linking: 1 Export, 2 change tool, 3 Upload, 4 AI Analysis, 5 man. viewing, 6 man. correction, 7 download, 8 change tool, 9 import

[3] Traceability/Functional linking: 1 trigger analysis, 2 confirm/correct proposal

AI@CODEBEAMER: USECASE DRIVEN ASSISSTANCE IN REQUIREMENT MANAGEMENT

Quality + Cost

That's a fact, not a fiction

5,5 Mill requirements

10.000 engineers

Creation	Agreement	Update	Search	Validation	Linking	Translation	Compilation
RAIQON authoring		RAIQON authoring	RAIQON search	RAIQON discovery	RAIQON discovery	DeepL	
Time saved, better quality	Time saved, because of better quality	Time saved, better quality	Time saved	Time saved, impossible task	Time saved, impossible task	Time saved	Non AI measures

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ENTERPRISE-READINESS: SECURITY, SCALE, QUALITY

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Domain-specific Model Tailoring

- ✓ Pre-trained for **industry-specific** use cases
- ✓ Allows to include **proprietary data in training** for higher quality
- ✓ High Quality => **High Productivity + High Acceptance**

Enterprise-Grade Security

- ✓ Air-gapped (Private Cloud, On-Premise or SaaS)
- ✓ Certified under **ISO 27001 & ISO 42001**
- ✓ **TISAX Certified**

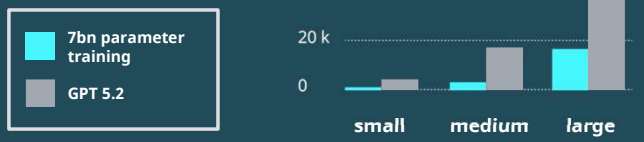
Workflow Integration

- ✓ **Embedded** into existing enterprise systems (e.g. RM-Tool, ALM)
- ✓ Follows **individual data access** permissions
- ✓ Prevents data leakage through strict permissioning

Exceptional Scalability

- ✓ Processes > 10 mio. artefacts reliably
- ✓ Horizontally scalable across teams and workloads
- ✓ Maintains performance under high demand

Cost Efficiency



Fully deterministic system

1+1 =2

- ✓ Same input leads **always** to the same result
- ✓ Enables **compliance & explainability**
- ✓ Increases end user **acceptance**

ENTERPRISE-READINESS THROUGH **SCALABILITY**

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1.8bn input and 5.9bn output tokens

Formal analysis of 2 mio. requirements

4,000 GPU-hours, done under 48h

ENTERPRISE-READINESS THROUGH **COST EFFICIENCY**

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Raiqon is more cost-efficient by **65–135x**

Opus/GPT 5.2	vs.	**Raiqon**
ca. 135k / 65k € (2 mio req.)		**ca. 1k €** (2 mio req.)

ENTERPRISE-READINESS THROUGH **DETERMINISM**

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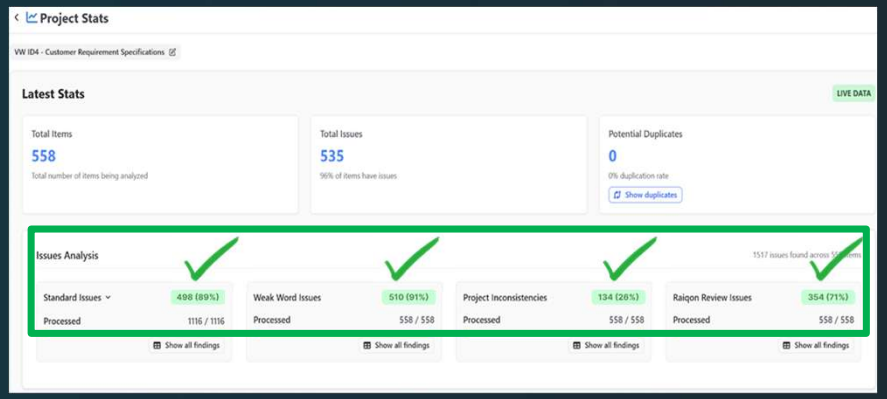
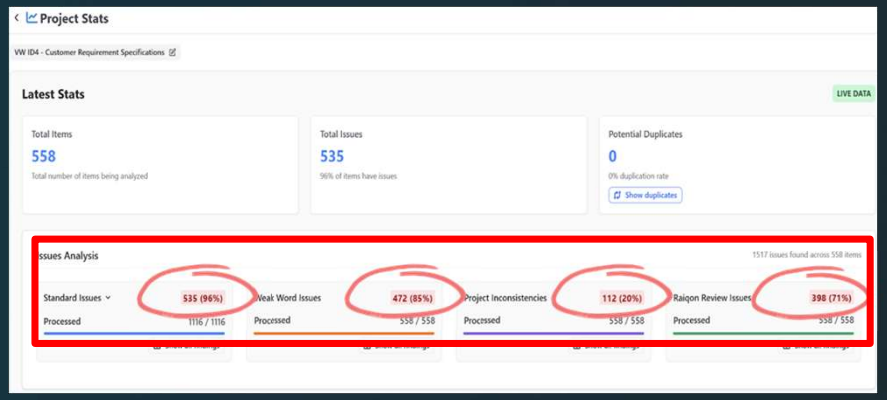
Non-determinism is problematic because identical inputs yield inconsistent results, for example:

Monday 10:00 am



Monday 10:05 am



Non-Determinism leads to:

- Lack of user trust
- Lack of explainability and trustworthiness (affects compliance)
- Lack of measurability (if you can‘t measure it, you can‘t improve it)

1+1 = 2

Raiqon’s system is deterministic by design

This means that the same result will always be produced by an identical query on identical data.

OPEN ARCHITECTURE. BUILT TO INTEGRATE AND ENHANCE.

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Secure • Extensible • Enterprise Ready

THE **RAIQON PLATFORM** ASSISTS YOU ALONG THE WHOLE V-MODEL

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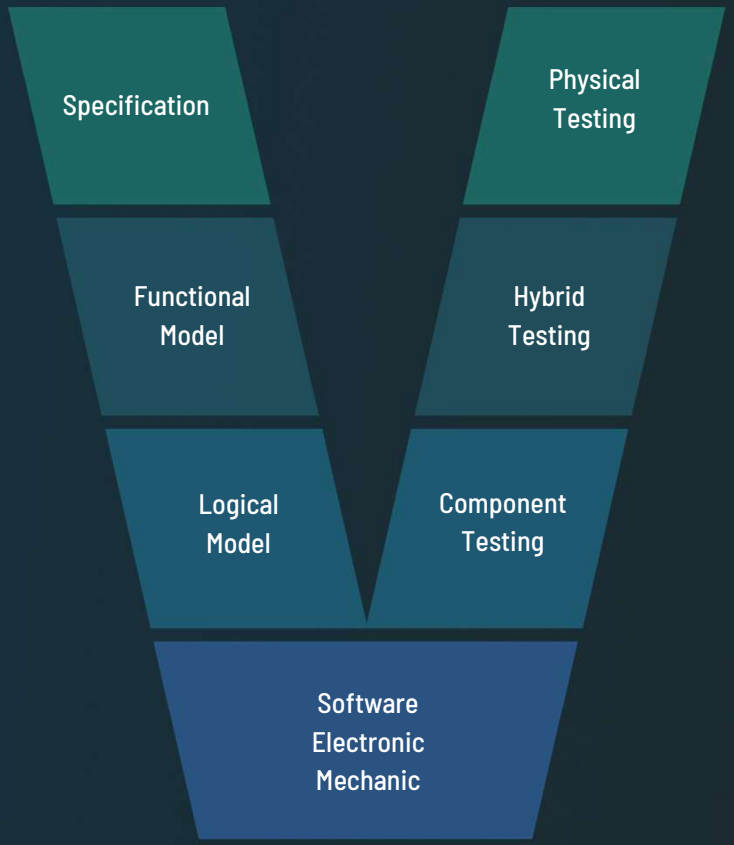
Requirement elicitation
- ✓ Identical, similar, new, etc. requirements
- ✓ Check for duplicates, contradictions, etc.
- ✓ Classification of requirements (level, type)

Single requirement analysis
- ✓ Live authoring assistant
- ✓ Weak words, INCOSE, etc.
- ✓ Agentic Autocorrect
- ✓ Field consistency analysis
- ✓ Related item suggestion

Project level analysis
- ✓ Similarity, consistency and contradiction analysis (within project and cross-project)
- ✓ Duplicate analysis
- ✓ Report based “project analysis”



Under construction
- ✓ Test coverage analysis
- ✓ Knowledge Graph integration
- ✓ Integrations (VS Code, EA, Rhapsody, etc)

Traceability assistant
- ✓ Traceability completeness
- ✓ Traceability correctness
- ✓ Impact analysis

Test case Generator
- ✓ Derive test cases from Requirements (1 to n)
- ✓ Create test case sets for entire projects (n to m)

Comfort / efficiency Tools
- ✓ Semantic Search
- ✓ Translator
- ✓ Chatbot
- ✓ Glossary
- ✓ Decomposition

Exotic use cases
- ✓ Migration: mapping of attributes
- ✓ By-catch analysis
- ✓ Generate requirements and test cases from source code

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One platform which solves many use-cases.

RAIQON PLATFORM CUSTOMIZE YOUR USE-CASE

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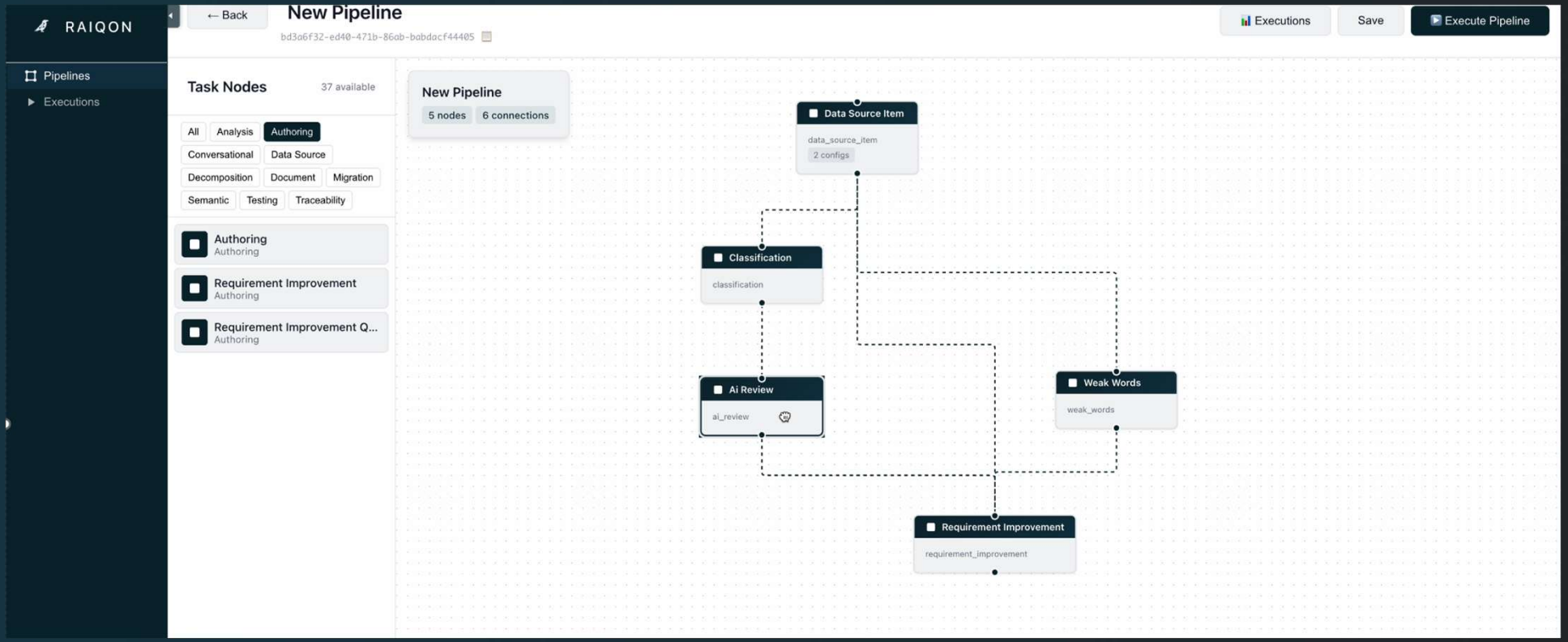

Build your own agents and workflows in your secure environment with “drag and drop”