

Data & AI @ Munich Re

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Group Chief Data Officer

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At Munich Re we are creating value through a diversified business model & innovative strength

Group

Munich Re Group is one of the world's leading risk carriers with more than **140 years** of unrivalled risk-related expertise.



... covers the entire value chain of **reinsurance, primary insurance, insurance related services** and **capital market solutions**.



... maintains with **39,281 employees** a global presence in **50+ countries**.



Reinsurance

... plays a key role in addressing and insuring **climate risks** to make the world more resilient.



... provides coverage for extraordinary risks such as **rocket launches, renewable energies** or **cyberattacks**.



... serving **4000+** corporate clients in **160+** countries



Data was always part of our DNA: AI & new data sources open up new opportunities in superior underwriting

Data is the key differentiator...

... it creates various new opportunities ...

... and to reap its full potential, we established a Data Economy



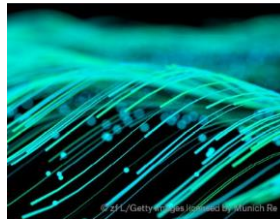
Risk market grows, e.g., +40% until 2030 in P&C premiums driven by Climate and Cyber.



Data is in the **DNA** of Munich Re.



Changes in climate, legal/regulatory environment and technology **increase complexity**.



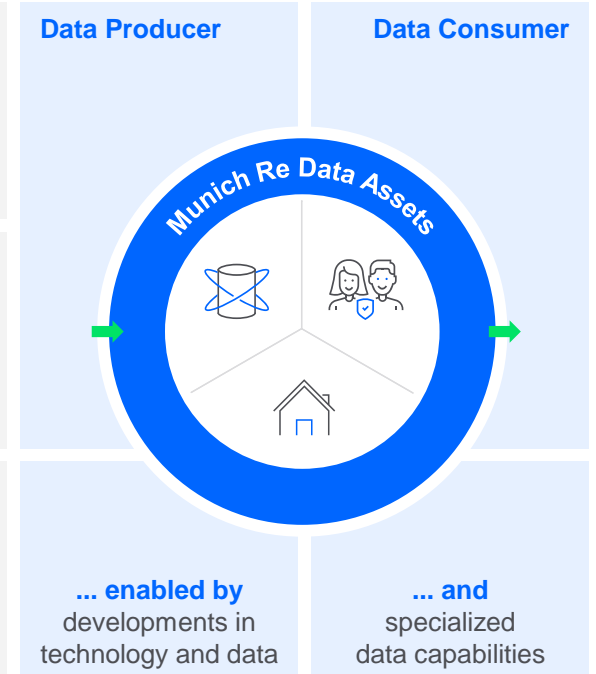
Digitalization **increases available data**, especially unstructured data.



Data & domain expertise are multiplicative assets.



Data has significant potential to **create value-add in the core & beyond**.



Data & AI enable the continuous improvement of existing business & the development of new business models

Improve existing business

- ✓ Better manage existing risk
- ✓ Broaden insurability of emerging risks
- ✓ ...

Create new strategic options

- ✓ Risk-driven business models
- ✓ AI-centric offerings
- ✓ ...

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Image: leszekglasner / stock.adobe.com

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- ✓ Risk-driven business models
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Our people & technology approach: we count on the combination of data and domain expertise

The Data Analytics Community of Munich Re

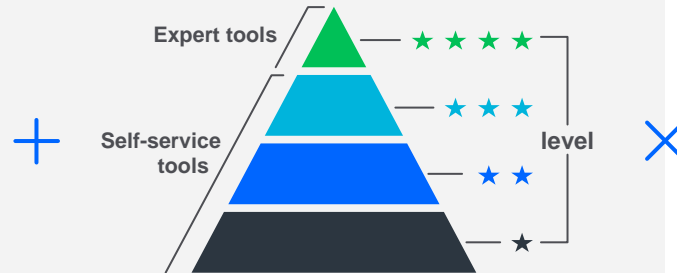
State-of-the-art Technology

Global team structure

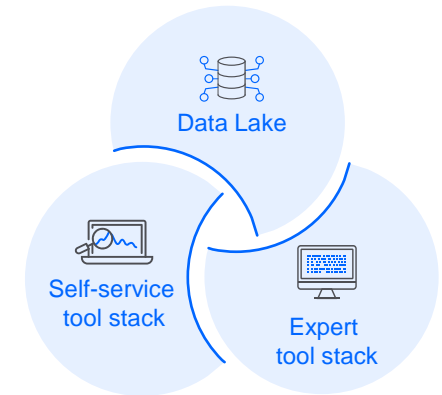


Global network of experts
in data analytics, data engineering and AI

Data analytics curriculum



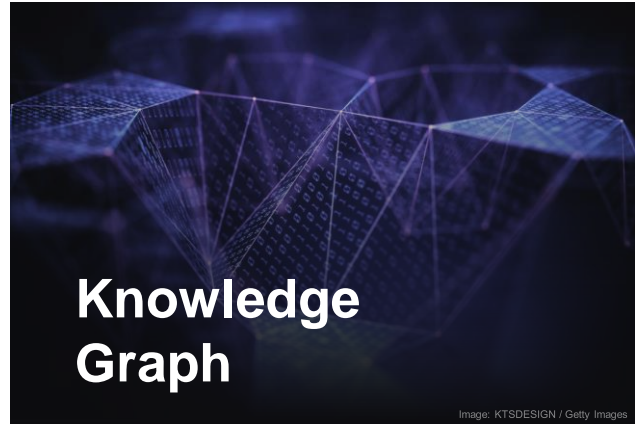
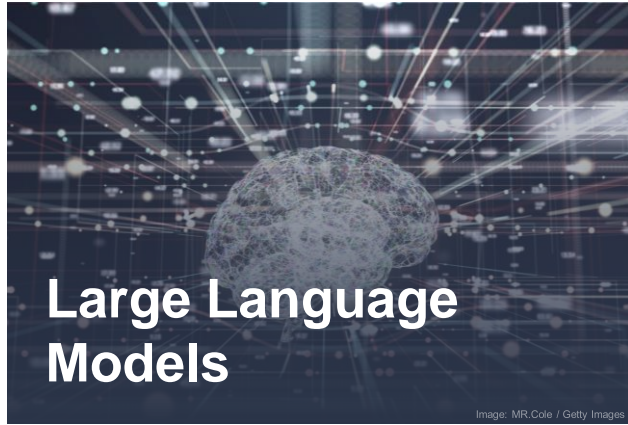
Comprehensive trainings
for a majority of employees across four levels



Talents equipped with adequate technology

Munich Re has trained a significant share of employees that work on data analytics topics, which ensures maximum business proximity.

Developments in AI-centric underwriting: we have invested in technology to improve core business processes



By enriching internal with other internal or external data we generate more value with existing data



Medical



Cyber



Climate



Legal



Specialty



Exposure



Risk Indices



Real-time



Data Pools



Claims



Enriched
for better ...

... exposure information

... loss understanding

... trend detection

... accumulation control

... efficiency

Creating new strategic options and business models through data & AI

Improve existing business

- ✓ Better manage existing risk
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- ✓ ...

Create new strategic options

- ✓ Risk-driven business models
- ✓ AI-centric offerings
- ✓ ...

AI poses new risks to clients but also enables completely new business opportunities



AI as a risk

e.g., certifying and validating AI risks

Quantum
technology

AI-centric offerings

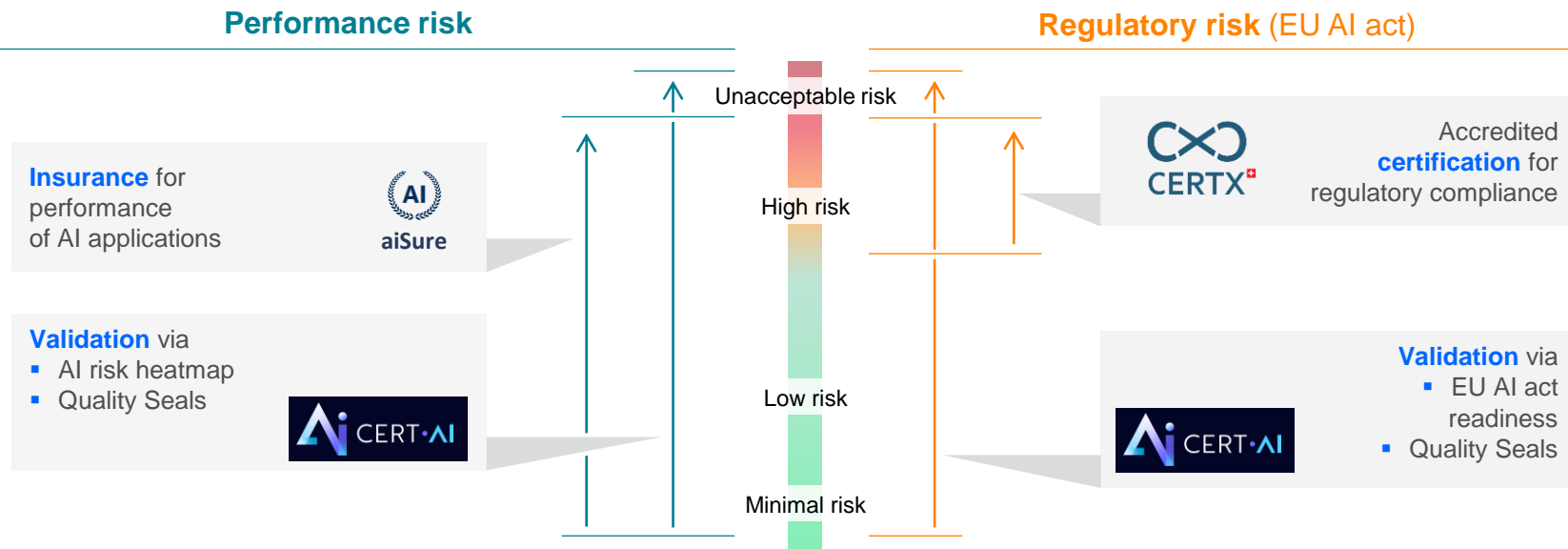
e.g., AI-centric products and services

Image: mauritius images / Cultra / Andrew Brookes

Image: MR.Cole / Getty Images

AI is a major tool in our arsenal to explore new business opportunities.

Munich Re and its partners offer solutions to build trust in AI and ensure ethical usage, compliance and performance



For performance and regulatory risks, Munich Re has a comprehensive solution offering for varying risk levels.

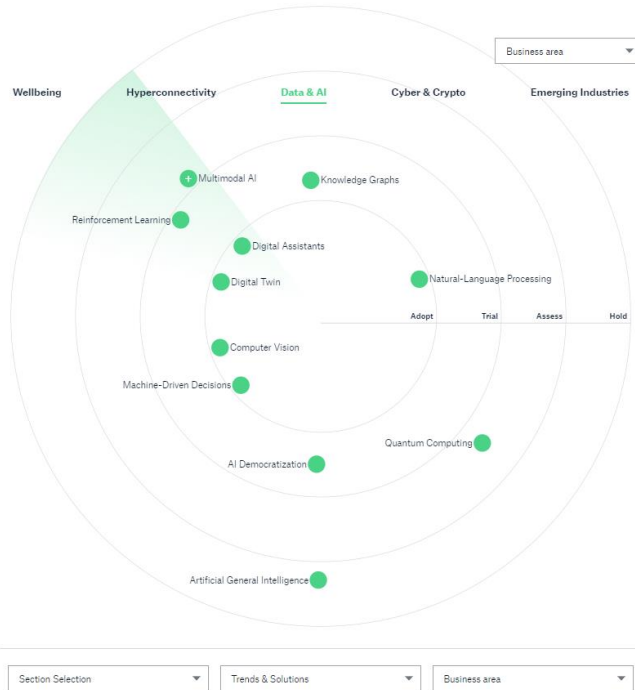
As the world's leading risk specialist, Munich Re sees enormous potential of quantum computing in many fields

Area of application



Munich Re is part of the Quantum Technology & Application Consortium (QUATC) together with 12 leading German corporations to jointly drive the industrialization of quantum computing.

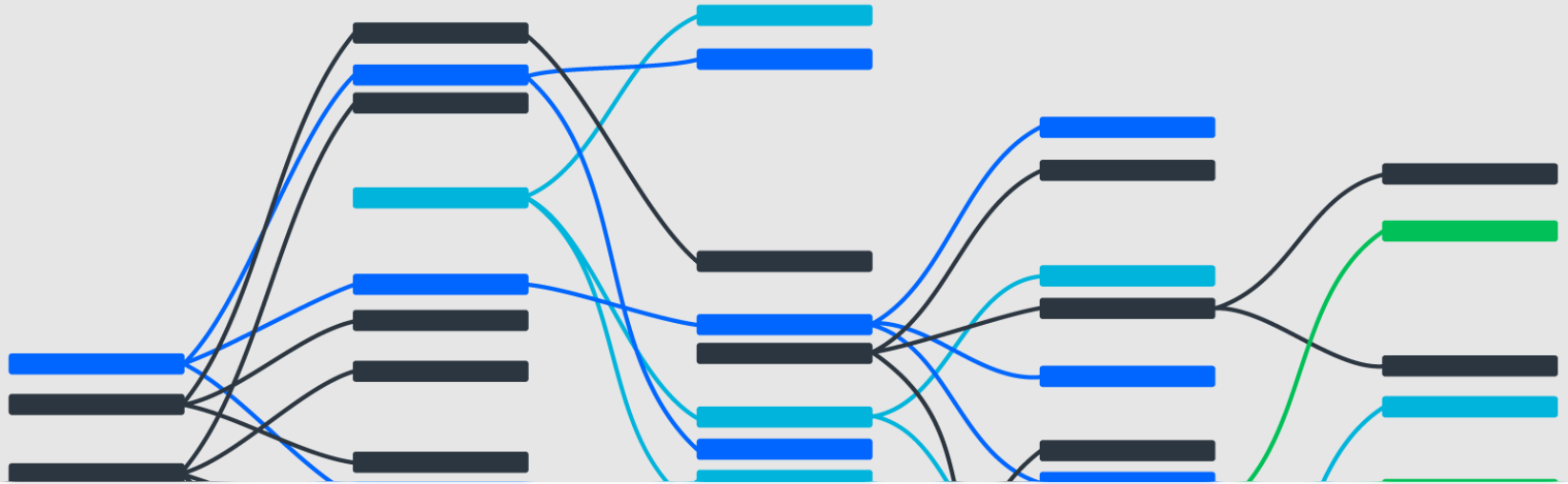
Munich Re and ERGO publish annual report on latest technology trends to guide the industry



Behavioral Analytics	Digital Healthcare	Biomanufacturing
AI Medicine	Personalized Medicine	Population Health
Vaccine Technologies	Robotic Health	Human Enhancement
MIRA FuS	MRApply Invoiced	CLARA plus
GroupHEALTH	Parasolute	Predictor
ALLFINANZ SPARK	Insight	SMARTAR and Visualizer
IQ2Health		
Data Fabric	Edge Computing	5G
Enhanced Reality	Metaverse	Brain-Machine Interface
Realize Zero	verdige	One Cat
Computer Vision	Natural Language Processing	Digital Twin
Digital Assistants	Machine-Driven Decisions	AI Democratization
Knowledge Graphs	Reinforcement Learning	Quantum Computing
Multimodal AI	Artificial General Intelligence	eSine
Epidemic Risk Solutions	FIVE	Insurance analysis platform
Customer analytics	Building insurance analytics	Vahana AI
IMPROVEX	Munich Risk underwriting engine	CapAI Solution
PAC Insurance pricing and UW	RE Map	RE Chart
RE Mixall		
Digital Identity	Human Recognition	Treated AI
Cyber Security	Deepfake Defense	Process-Enhancing Tech
Digital Commerce	Smart Contracts	Decentralized Data Economy
Automated Compliance	DYRESK	Cyber solutions
Cyber-SafeKit	Digital assets and smart contracts	
AI4Tech	Robotic Revolution	Smart Cities
Autonomous Things	Cellular Smart Grids	In-Space Economy
Advanced Batteries	Microreactor Power Plants	Hydrogen
Remote Inspection Solution	TrueTrust	Infrastructure Risk Profile
Equipment as a Service	IoT Solutions	Data Risk Intelligence platform
Location Risk Intelligence platform		

- 5 areas in 2022:
 - Wellbeing
 - Hyperconnectivity
 - Data and AI
 - Cyber and Crypto
 - Emerging Industries
- Various application examples from Munich Re and ERGO

www.munichre.com



Thank you!

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