



INVESTOR DAY

Munich Re driving digital transformation

Munich, 21 November 2017

A Framework and infrastructure



Munich Re (Group)

Joachim Wenning
CEO – Munich Re (Group)



ERGO Digital Ventures

Mark Klein
Chief Digital Officer – ERGO Group



Reinsurance

Marcus Winter
Head of Reinsurance Development



Data and analytics

Wolfgang Hauner
Chief Data Officer

B Business transformation



Cyber insurance

Daljitt Barn
Global Head of Cyber



Canadian multi-channel distribution

Mary Forrest
President & CEO, North America (Life and Health)



ERGO Mobility Solutions

Karsten Crede
CEO – Mobility Solutions



Mass customisation in India

Ritesh Kumar
Managing Director and CEO HDFC ERGO India

C Business extension



Internet of Things

Greg Barats
President and CEO – HSB



Digital Partners

Andy Rear
CEO – Digital Partners



nexible

John Paul Pieper
CEO – nexible

Munich Re (Group)

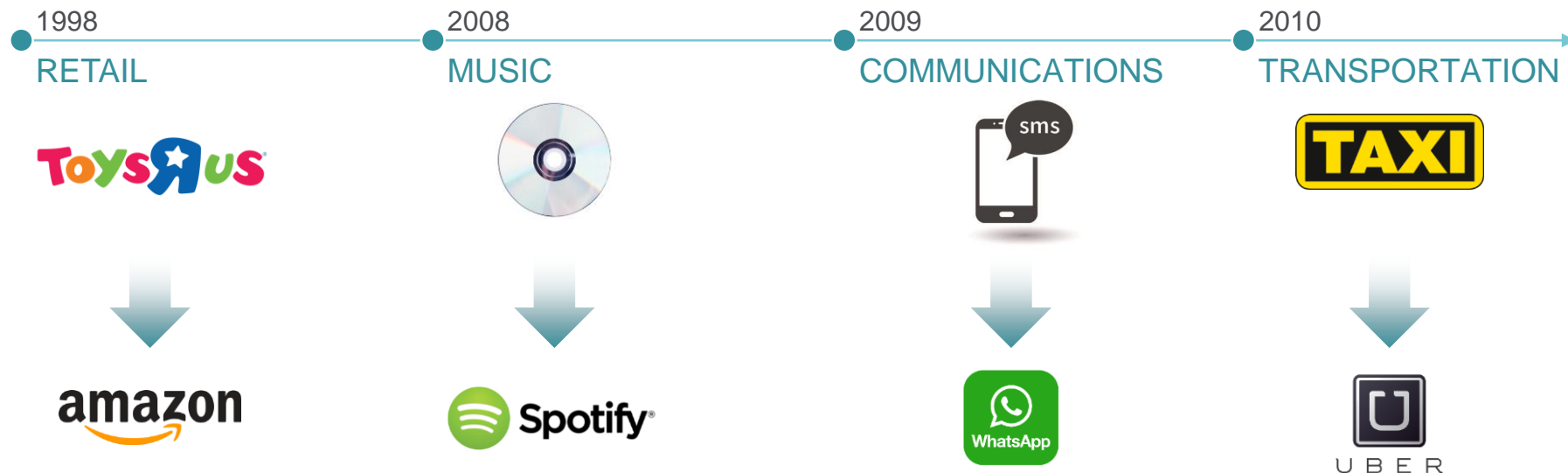
Joachim Wenning



1

Digital business models have been penetrating all industries since almost 20 years

Product launch



► Insurance industry in the midst of digital transformation

Insurance industry perspective – Future winners will leverage “digital ingredients”

Traditional insurance value drivers will remain



REINSURANCE

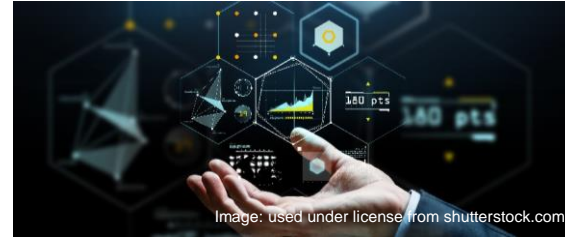
- Risk assessment
- Products

PRIMARY INSURANCE

- Sales
- Operations

ASSET MANAGEMENT

Additional value-creation lever: Data analytics and technology



- New risks, extended insurability, and risk mitigation/prevention
- New products, solutions, and extended services
- Effectively serve the (hybrid) customer across all channels
- Efficiency increases and automation

Opening the gates to new businesses



- Changing front ends
- Changing needs of transforming industries (from standard products to system solutions)

▶ This will sophisticate/extend “traditional” and create “solution” business for transforming industries

To remain a winner in the future, “digital ingredients” are embedded in our business strategy

STRATEGIC FOCUS

Improve and grow the Group portfolio
Business first

Invest and divest according to
strategic fit and performance

Digital transformation
Build new businesses

RESULT FOCUS

Strict bottom-line focus

ERGO Strategy Programme

Create new business opportunities

Leverage underwriting and
innovation

Strong asset management

DIGITAL FOCUS

Invest in technology, data, and agile IT

Partner with start-ups and InsurTechs

Create new market access and
new business models

Co-create new businesses with clients

LEADERSHIP FOCUS

Rigorous execution

Powerful leadership

Reduce complexity and drive
business

Push to win

BASIS

Reliable results

Attractive returns to shareholders

Transparency

Client and business focus

Leading functional competencies

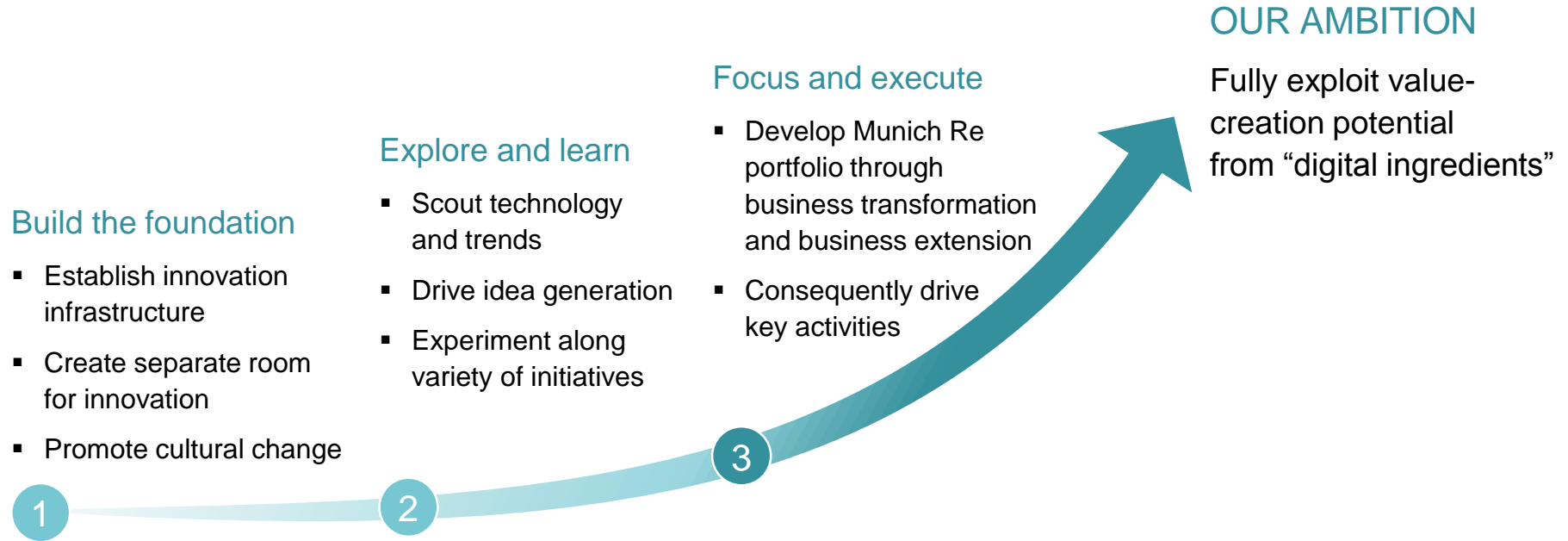
Strong capital position

Leading brand

Attractive place to work

Driving change

To achieve concrete results from innovation and digitalisation, we systematically follow three steps



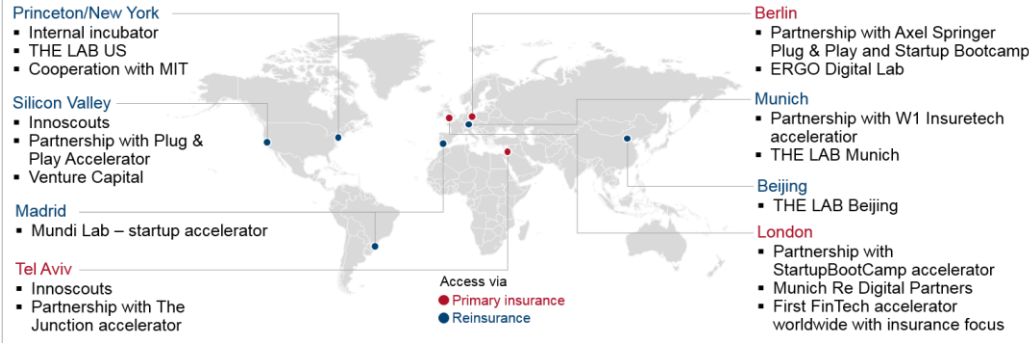
1 We have invested in building a global foundation for innovation across the Group

Invest in people



Global network of
>300 FTE dedicated to innovation activities and
>200 FTE with a data science background

Invest in global innovation footprint



Invest in projects



>€160m invested beyond FTE assignment since 2015

Invest in data analytics and technology infrastructure



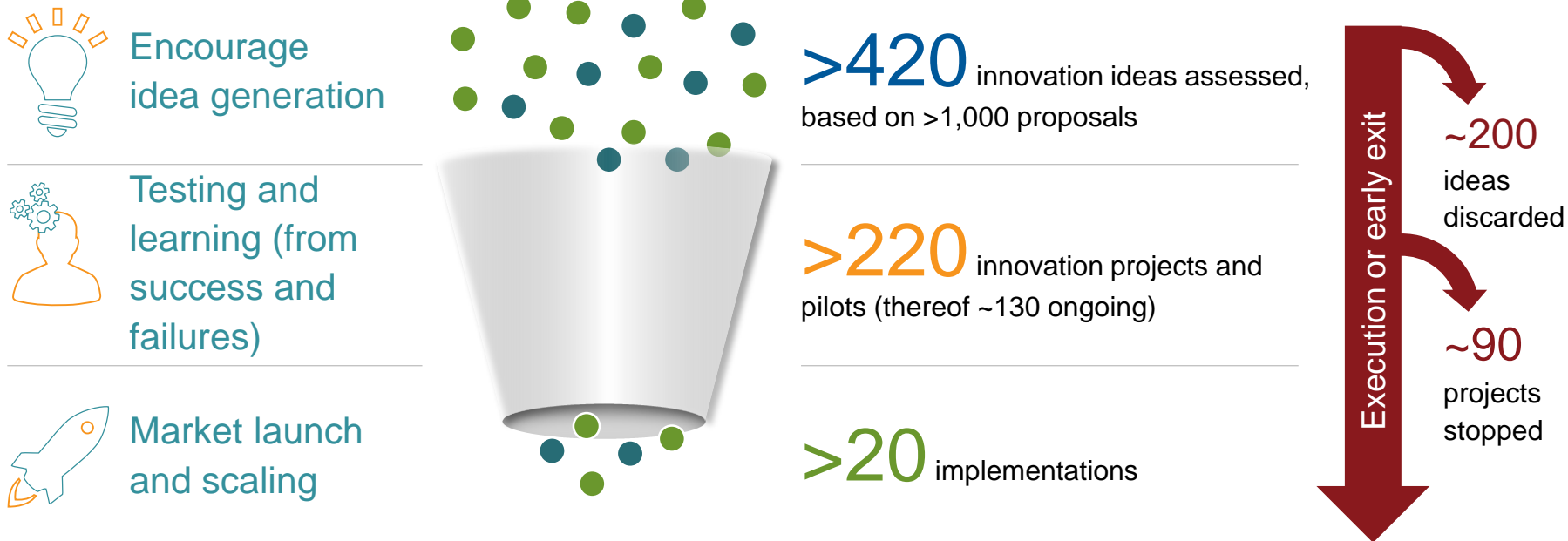
Bi-modal IT, smart data analytics, data storage (“data lake”), cooperation with technology analytics providers

Invest in acquisitions

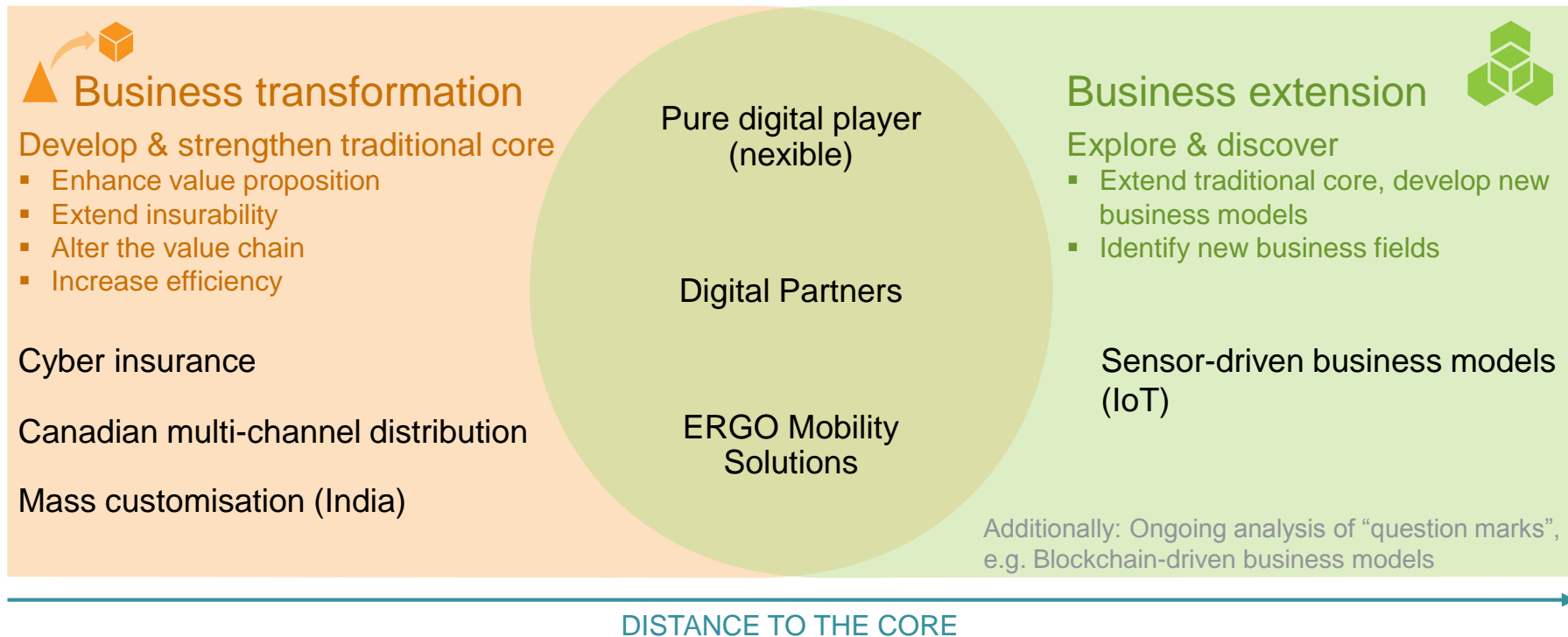


>€60m invested in more than 10 corporate venture capital (CVC) projects and start-ups with primary focus on InsurTech, IoT and data specialists – further M&A activities based on strategic fit and performance/scalability

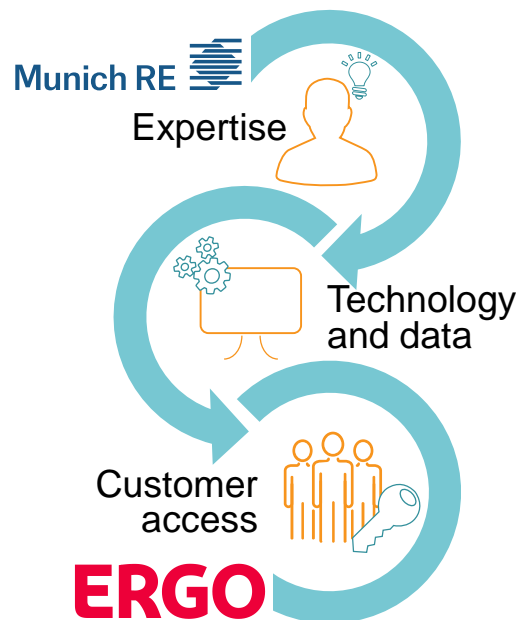
2 We turn ideas into business potential based on a managed process from idea generation to implementation



3 We take an active role to continuously transform and extend our business – Selected projects to be discussed today



3 We realise innovation synergies from our set-up as RI and PI through our project on Interlocked Business Models



Key areas for innovation synergies

- Joint innovation activities and building of business models, e.g. IoT, digital platforms, and ecosystems
- Joint use of resources
 - Product development competencies, e.g. cyber
 - Innovation infrastructure, e.g. innovation scouting
 - Technology know-how and infrastructure, e.g. data analytics, artificial intelligence
- Leverage global presence of RI, e.g. for ERGO Mobility Solutions in China
- Corporate venture capital (CVC) infrastructure and competencies

▶ Create a strategic advantage from primary insurance and reinsurance set-up

ERGO Digital Ventures

Mark Klein



2

We live in a time of technological change

ERGO

Devices and sensors



30 billion
connected devices
by 2020¹

Data



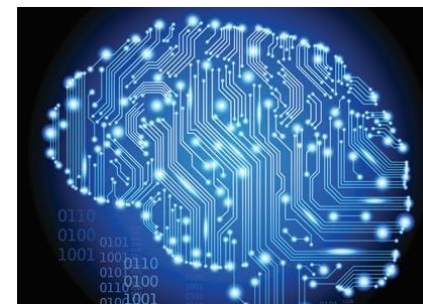
90% of data
was gathered
in the last 2 years

Computing power



It took Google
1,202 CPUs
and **176** GPUs to beat the
world champion at the game Go

Artificial intelligence



A **new world**
chatbots, robots,
autonomous cars ...

▶ Changing behaviour is driving digital opportunities for primary insurance business

Our origin and mission: Turn ERGO into the leading provider for digital solutions

ERGO Strategy Programme



» Net investment of ~€1bn (2016–2020)

€400m

€400m

€200m

- 8 Fundamental optimisation of product portfolio
- 9 Integrated offerings for hybrid customers
- 10 Solutions for pure online customers
- 11 Strengthening internat. comm./indust. business
- 12 International B2B2C partnerships
- 13 International growth

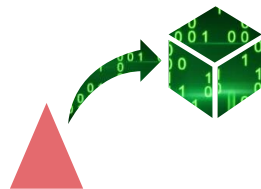
Founding of

ERGO Deutschland

ERGO Digital Ventures

ERGO International

Our mission



Ensure successful
execution of ERGO's
digital transformation

- P&L responsible for >€1bn GWP online and direct sales in Germany¹
- Driver of growth initiatives

Framework for digitalisation at ERGO

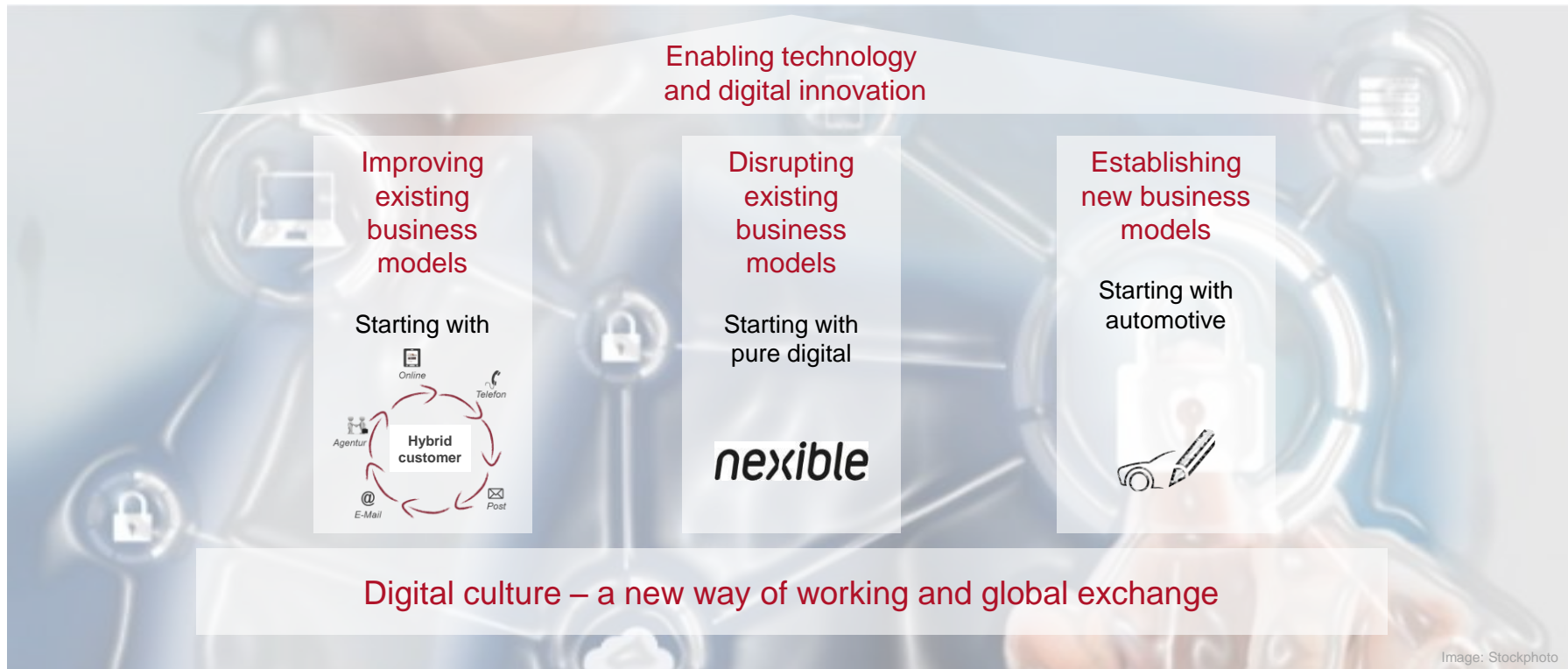


Image: Stockphoto

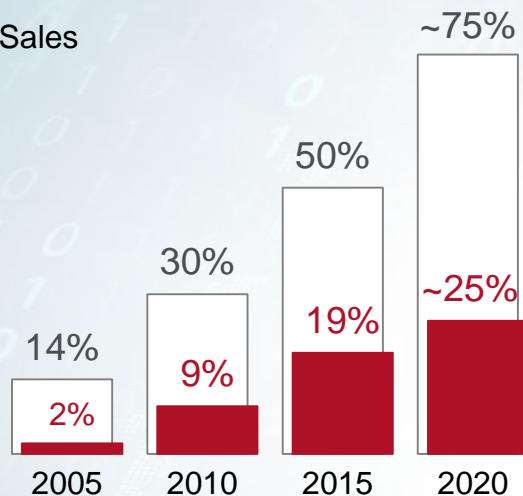
The online market for insurances is growing strongly



Insurances – Online share

Information

Sales



GfK, Bain "Global Digital Insurance Benchmarking Report 2015"

Significant potential
in online/offline link

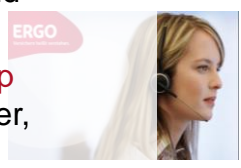
Further growth potential
in online sales

© Bildagentur PantherMedia/vantuz

We aim at the modern customer and adapt in sales, retention and service

360-degree customer view

- We aim to further **harmonise products** (car, home, liability) **and operations** to meet our customers' needs and expectations on all channels
- Usage of **customer relationship management** started in October, serving our first individualised **cross-channel campaigns**



Service

- We aim to provide Germany's **leading insurance customer self-service portal** (measured in absolute number of logins)
- More than **620,000 registered users**, **annual growth rate 35%**



The new agency

- **50%** of ERGO.de's **web traffic** induced from our **agencies' web sites**
- We strive to become the **leading website** for **tied agents** in Germany



Empowering ERGO in online business

- We aim to make **all main retail products** attractive and available for sales on **all channels** (online, telephone, print, ...)
- **Conversion rates increased** in health products by **22%**



We empower ERGO to deliver best-in-class user experience by means of our new digital factory

ERGO Digital IT as part of ERGO's global IT



Source: Shutterstock

BERLIN

~50 experts

WARSAW

Source: Shutterstock

WARSAW

~250 experts

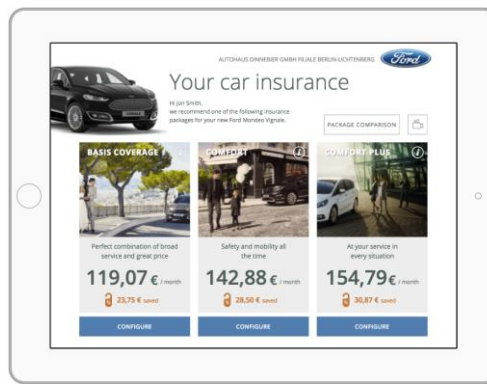
~€140m (gross)

planned investment 2017–2020
in customer-facing IT solutions
for unrivaled costs per product

We live a new way of working

- Use **greenfield** approach where possible
- **Agile** projects – developed Multitool Life end-to-end in only three **months**

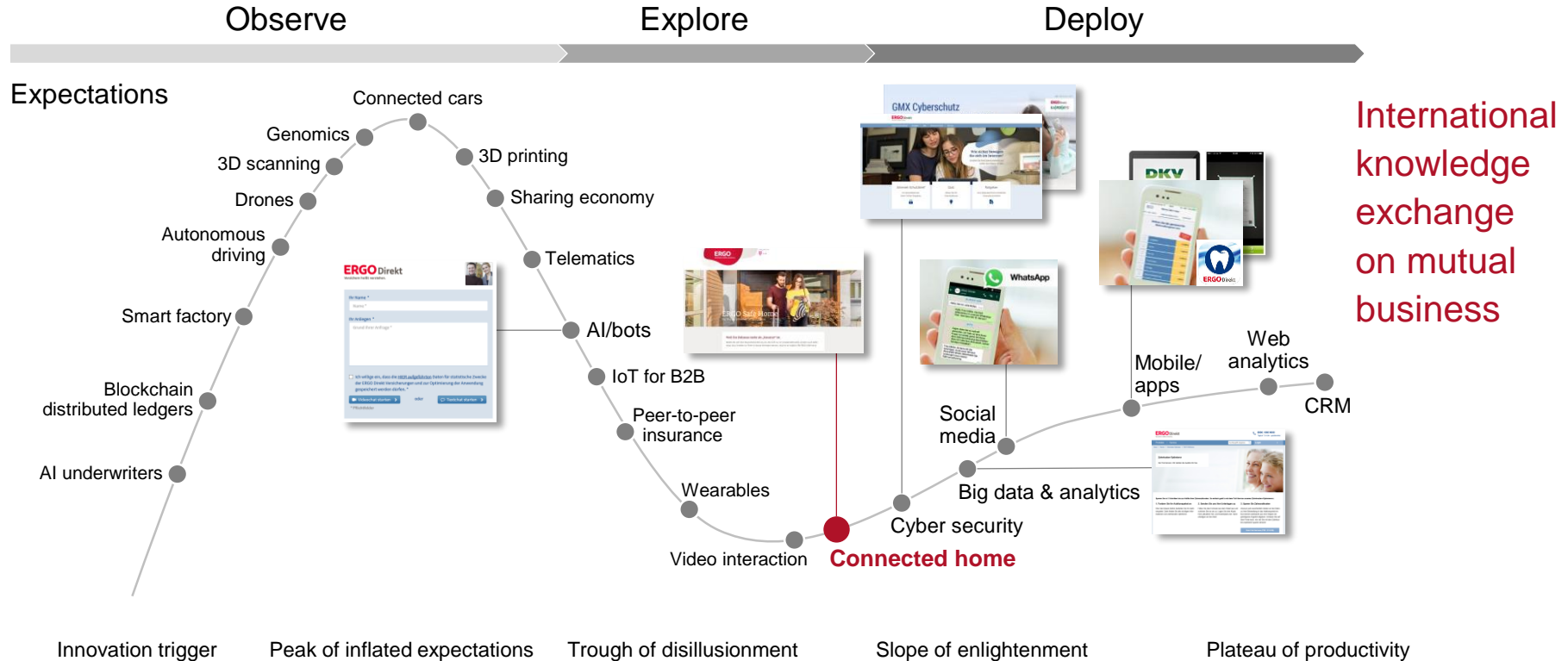
ERGO Mobility Solutions



Success case

- **Increase volume** – Increase overall sales volume and number of policies concluded in car business by establishing new sales channel through OEMs
- **Market penetration** – Conclude cooperation with OEMs and strengthen market penetration for ERGO
- **Sustained profitability** – Aim to achieve sustained profitability of the ERGO brand

We focus and account for different maturities of innovation topics by using a hype-cycle logic



Connected Home – ERGO Safe Home minimises and prevents damage for smart-home customers

Overview: ERGO Safe Home



Deutsche Telekom cooperation

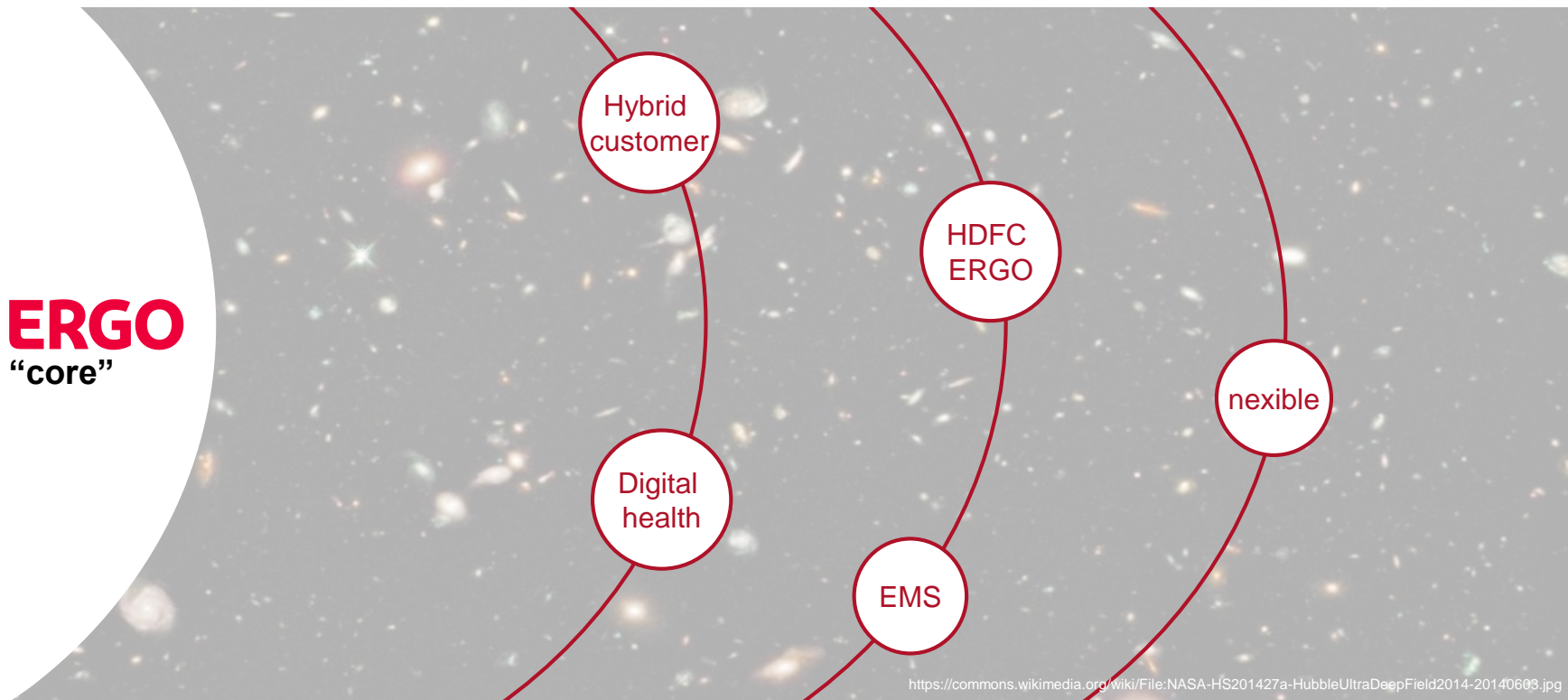


- **Product bundle of insurance, technology and service**
Sensor-based alarm system combined with household insurance and assistance service. Sensors detect incident and notify customer and assistance service partner for immediate relief.
- **Joint sales with Deutsche Telekom**
Sale of smart-home bundle via ERGO's tied agents and sale of stand-alone assistance service via Telekom shops

Automated alert chain triggered by sensors
with 24/7 emergency assistance

We have established units and programmes to drive digitalisation from the edge

ERGO



Reinsurance

Marcus Winter

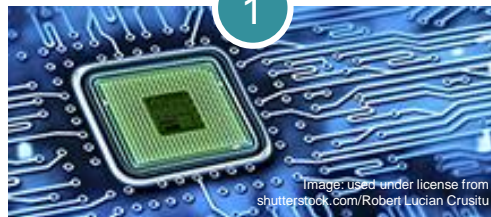
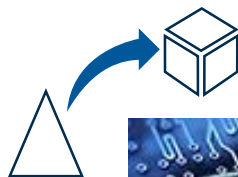


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Our innovation activities capitalise on major external trends

TECHNOLOGICAL SHIFTS – “INDUSTRY 4.0”

Sensors

Digitalisation
and automation

DIGITAL ECOSYSTEM

Digital Partners

Canadian
multi-channel
distribution

NEW TYPES OF RISKS

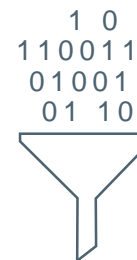
Cyber



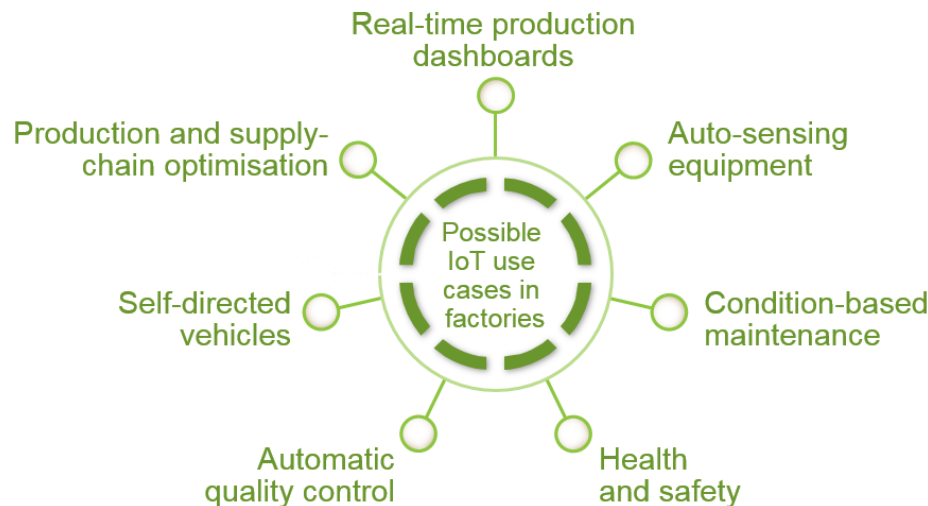
“Hyperloop”

DATA & ANALYTICS

Data lake

Digitally
augmented
underwriting/
claims

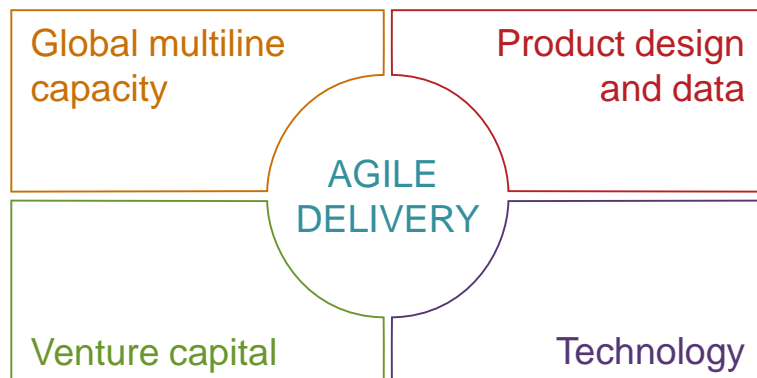
1 “Industry 4.0” provides us with the opportunity to access a huge market with new business models



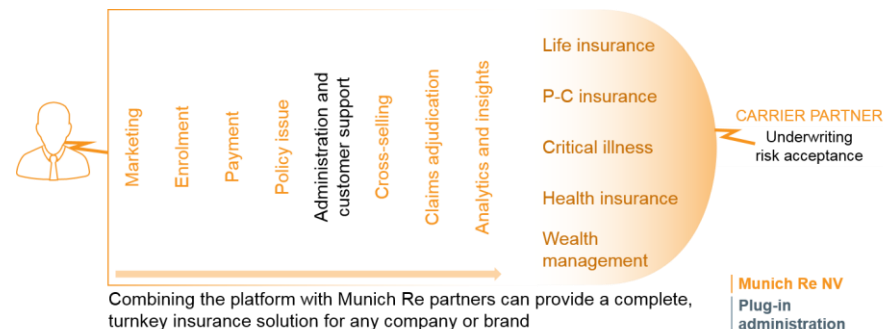
- “Industry 4.0” provides access to significant new revenue streams and a new customer base
- Change of value proposition
 - Claims prevention vs. claims coverage
 - Assurance of outcome vs. insurance of risk
 - Provision of hardware (sensors/assets) and performance guarantee

2 Digital Ecosystem – We provide an attractive value proposition for players rethinking insurance delivery

Digital Partners



Canadian Multi-channel Distribution



- Providing digital backend systems beyond traditional underwriting/pricing support
- Offering value to different players servicing consumers with risk coverage

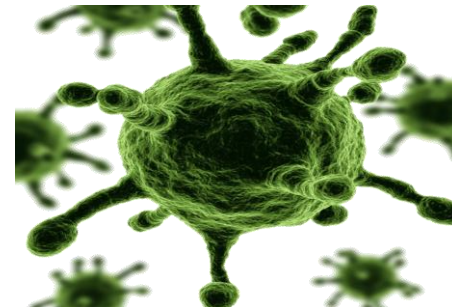
3 We have a longstanding tradition in insuring new types of risks



Pushing the boundaries of technology:
“Hyperloop”



Extend value proposition into services:
Cyber



Leverage data analytics:
Pandemics cover

4 Strong investment into data analytics allows us to extract value from internal and (new) external data sources

TECHNOLOGY

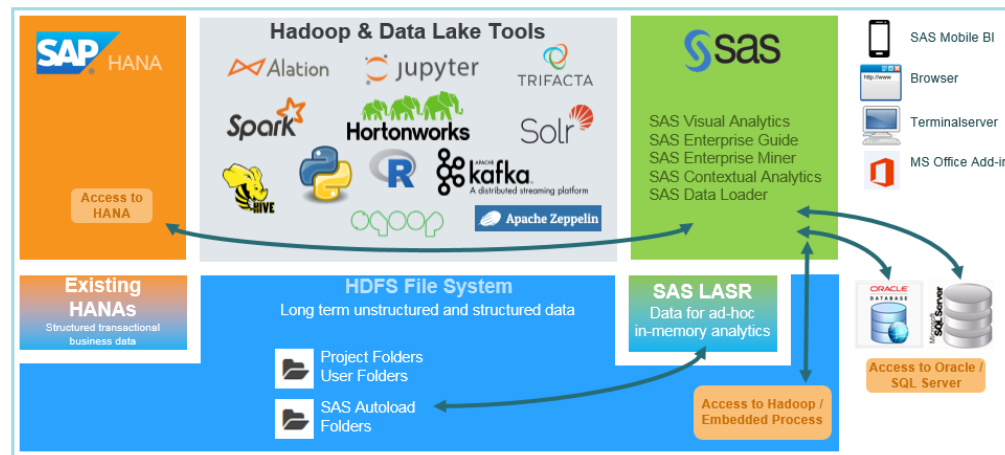
State-of-the-art data analytics infrastructure
“Munich Re Data Lake” in place – no legacy systems

PEOPLE

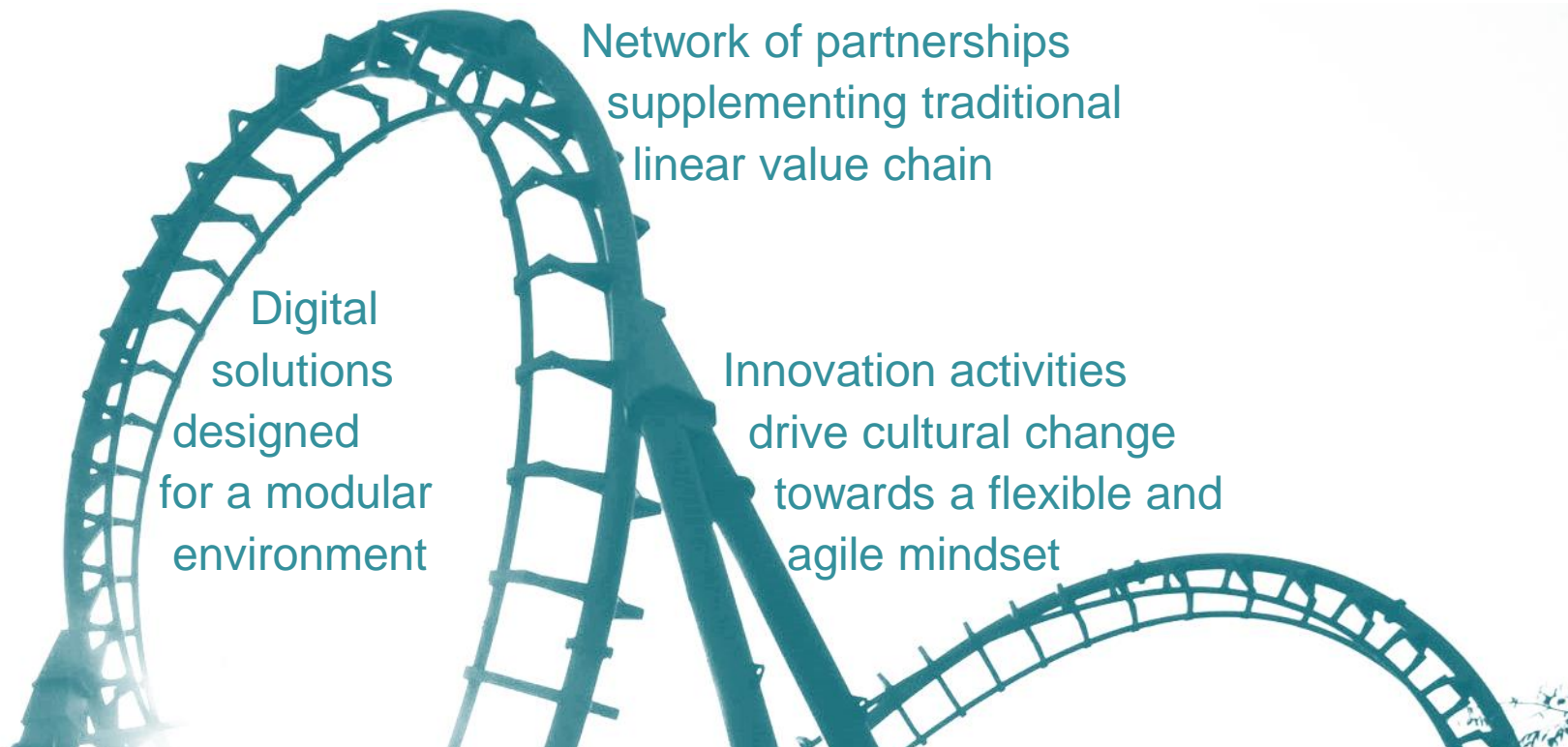
Investment into decentral data analytics capabilities, >150 FTE with data science background across global organisation

VALUE

Data scientists and business function teams partner to deliver cognitive computing and artificial intelligence across the value chain



Our transformation: Agile, flexible, modular



We drive innovation in the industry

Unique positioning



- Global presence
- Financial strength
- Full range of monetisation options
- No IT legacy
- No channel conflicts

Unique mix of value propositions for our partners



- Domain expertise in underwriting, claims and risk management
- Efficient access to new solutions
- Strong brand and reputation
- Mutual trust
- Longevity of our offerings

Strategic investments in selected partnerships to leverage joint value creation potential

InsurTech



IoT

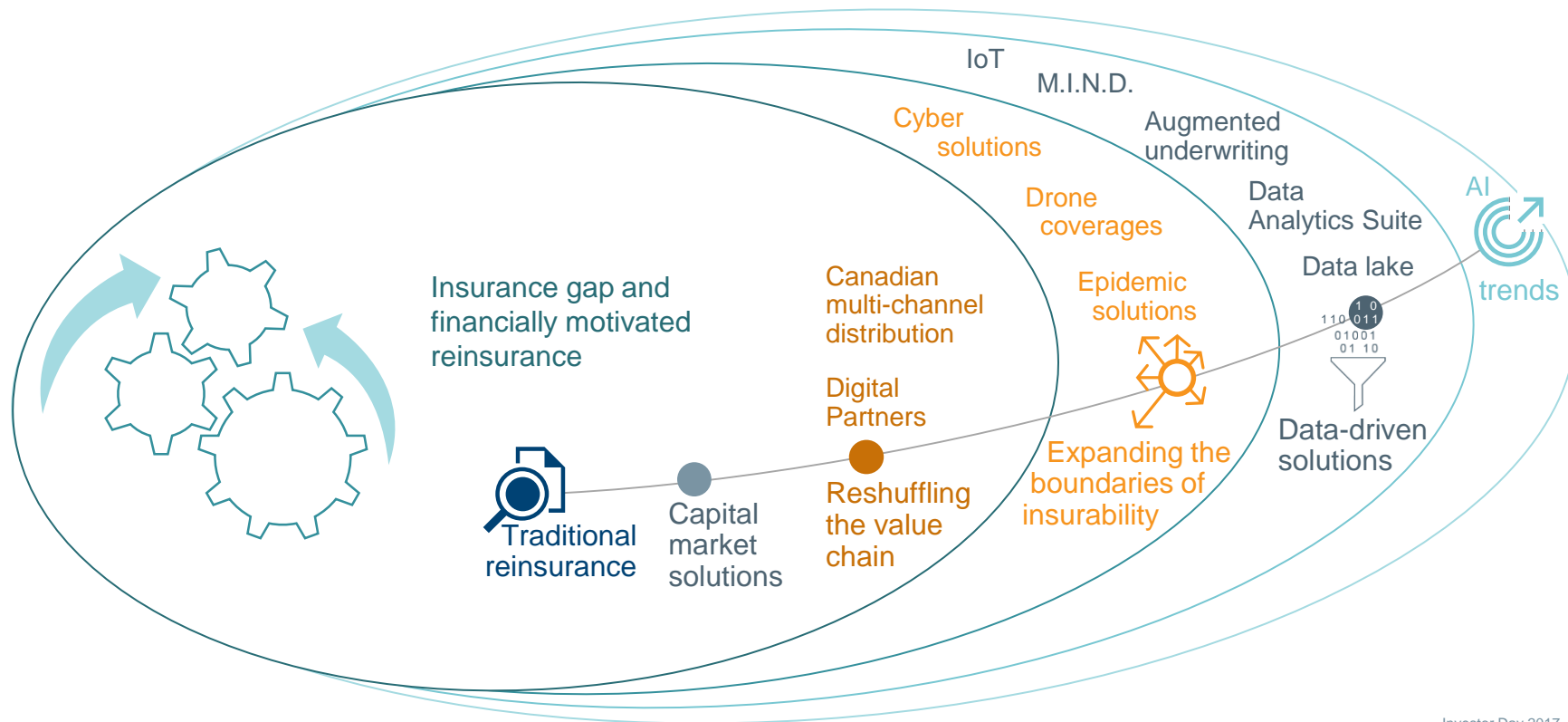


Other



- >€60m invested into >10 assets focusing on InsurTech and IoT ecosystem
- Strategic intent is joint value creation and establishment of long-term partnerships
- We provide value – not only money: Start-ups seek access to domain expertise, clients and brand accreditation provided by Munich Re

From incremental innovation to leading-edge technology – Tangible success cases



Data and analytics

Wolfgang Hauner

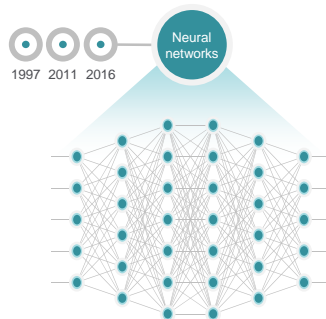


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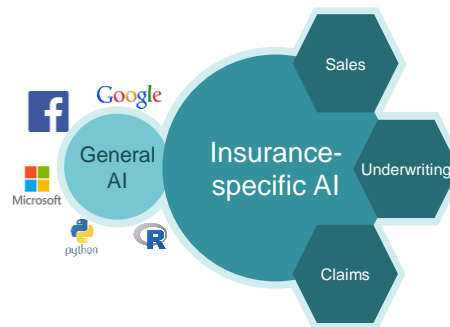
Data and analytics – Why, why now, and how?



New developments help to use full power of technologies



Data volume is growing exponentially



We enable our employees and customers to use enriched data, advanced tools and state-of-the-art analytics

Munich Re is leading in insurance-specific artificial intelligence (AI)



Data scientists and business-function teams partner to deliver cognitive computing and artificial intelligence across the value chain

Data and analytics supports Munich Re's core strategic areas, serving as business enabler for the whole Group



Mission: Generate business value through data analytics for internal and external clients

Data analytics

Help to retain business by providing data analytics services

Portfolio analysis

Generate more and better business, identify weak spots

Fee business

Getting paid for services

ERGO

- Tariff optimisation
- Customer satisfaction
- Automated underwriting
- Loss-driver analysis
- Telematics



Hartford Steam Boiler

- Churn
- Cross selling
- Loss-driver analysis
- IoT and telematics
- Supply chain monitoring

DKV

- Daily sick allowance
- Medical coding assistant (MOCA)
- Predictive underwriting
- Dental billing check

MEAG

- Predict interest rates
- Portfolio optimisation
- Sentiment analysis



Data and analytics serves purposes along the (re)insurance value chain

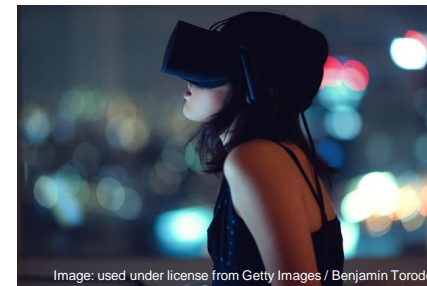
Insurance value chain



DISTRIBUTION



UNDERWRITING



CLAIMS

AI trends

AUTOMATED ADVISORY

- Complement face-to-face interaction
- Enable innovative distribution (e.g. P2P)
- Serve low-volume, high-frequency segment
- E.g. mass business in India

AUTOMATED UNDERWRITING

- Leverage all data and resources
- Improve workflow and customer experience
- E.g. “The Box”

VISUAL CLAIMS SUPPORT

- Enable fast response
- Obtain more detailed information
- Handle low-volume, high-frequency claims
- E.g. M.I.N.D

1

Client/
portfolio data

Munich Re
data

External data sources

2

Store, cluster and structure data

Data lake

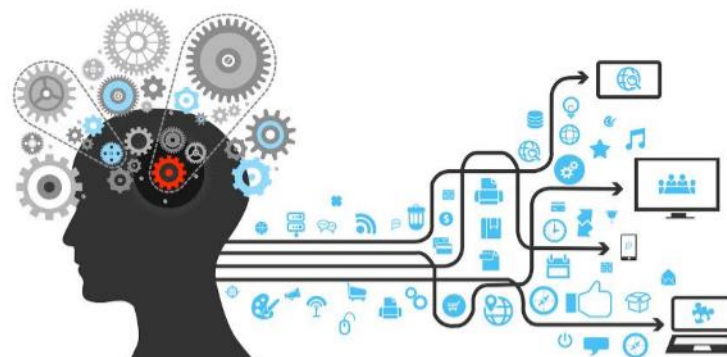


3

Analyse data

4

Add value

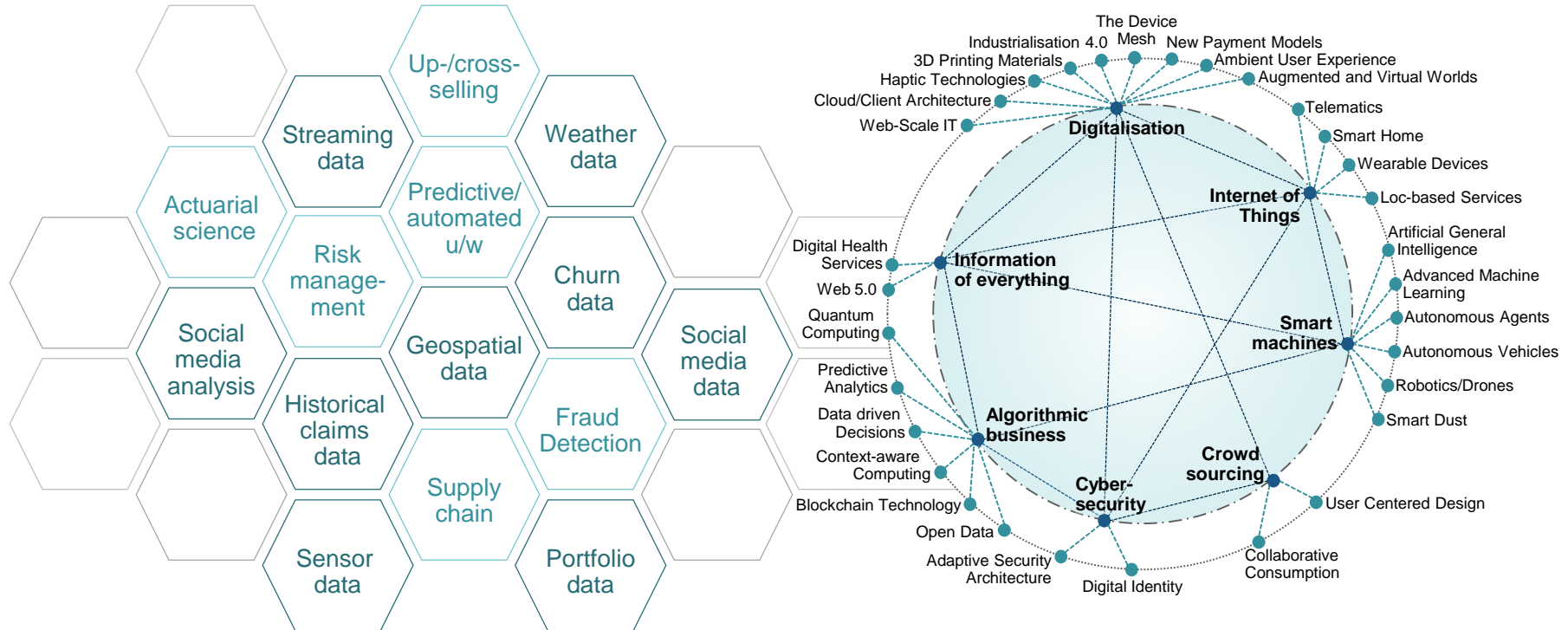


Machine learning,
AI, statistics

Solution

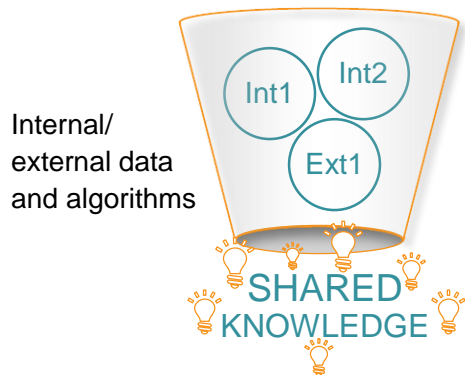
- Improve efficiency
- Improve portfolio quality
- Business generation

1 Collect data: Combination of data with domain-specific expertise is key!



2 Munich Re Data Lake – The open enterprise approach for the reinsurance group globally

Data innovation



Reach highest level of data innovation by community-driven digitalisation

- Share data, knowledge and algorithms
- Very fast prototyping and innovation
- Easy access and self service

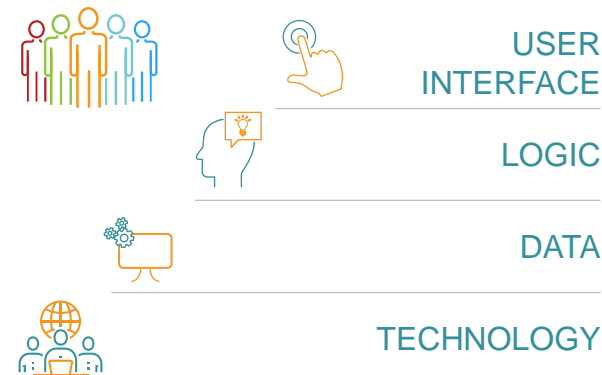
Time to digital market



Shorten time to insight and product by centralising and cataloguing

- Find data fast using a catalogue
- Clean, prepare and merge centrally
- Lots of horsepower

Service diversity

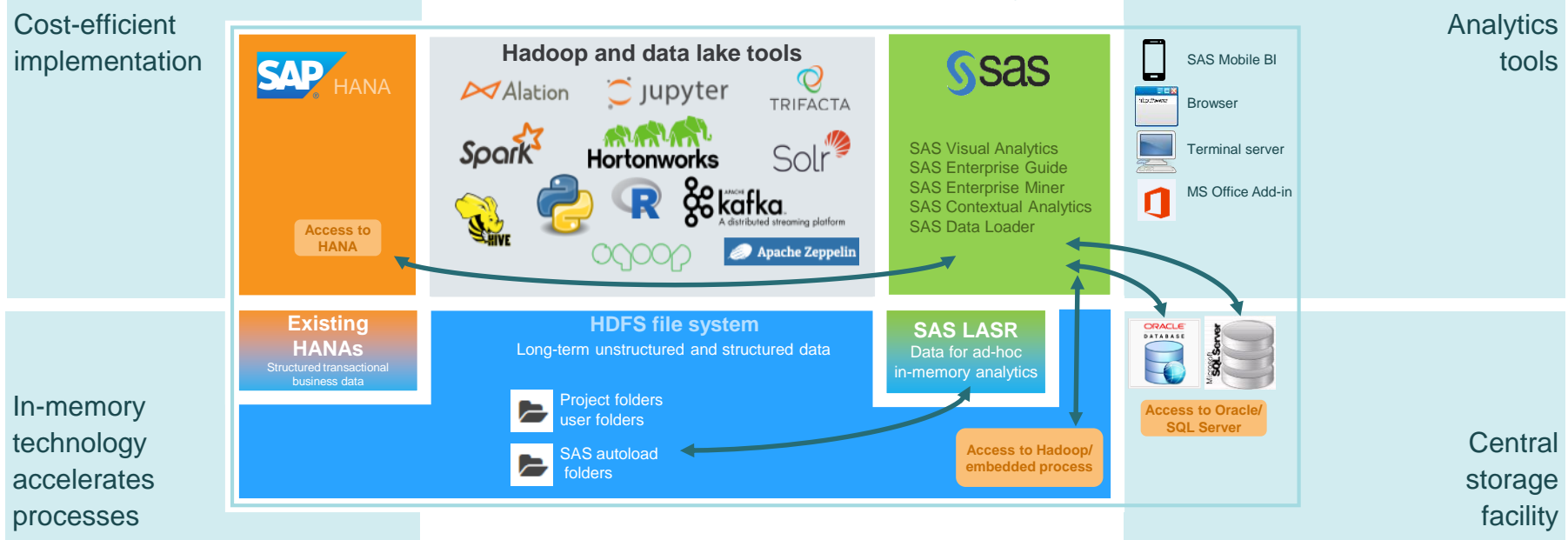


Layers of expertise, professionalism and enterprise readiness

- Service development in every layer of the value creation process
- Multi-dimensional customer base

2 Munich Re Data Lake – Leading-edge infrastructure

Intelligent shortcut using best-in-class solutions to build a superior overall system



3 Turning data into value

Platform open to every Munich Re employee

- Dynamically visualise data of any size
- Get a quick and easy overview of data by using heatmaps, correlation matrices, etc.
- Predict outcomes based on certain explanatory factors
- Predict claimed amount per individual based on age, gender, disease, etc.

Explorative analysis
Advanced visualisation techniques

Predictive modelling
Regression and machine learning models



Multivariate effect analysis
Regression and machine learning models

AI,
text mining,
deep learning
Singular-value decomposition, NLP, neural networks

Often initial focus on data extraction to be solved to enhance available data

- Figure out how certain factors influence a target variable
- Influence of age, gender, disease, etc. on claimed amount
- Analyse large amounts of unstructured text, pictures, speech, ...
- Extract key topics from claims reports, insurance-specific computer vision

Support new developments, e.g. text mining (NLP) and telematics


Facilitates quick and in-depth analysis of problems


4 Example: Risk assessment to improve efficiency – Digitally augmented underwriting: Tariffs using artificial intelligence

Tariffs are key – But hard, slow, and costly

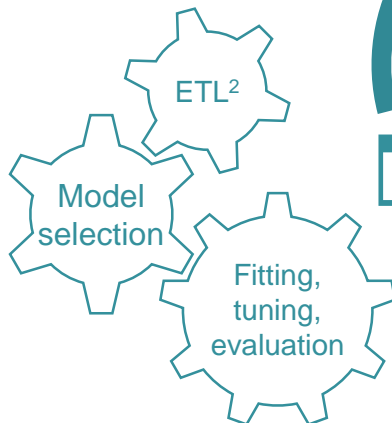
- Experts using portfolio-specific data
- GLMs¹ as state-of-the-art risk models
- Various individually estimated factors for tariff adjustment


Munich Re


Additional
external data 

Munich Re
data and
insights 

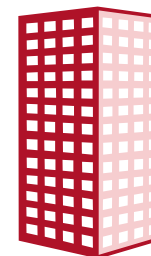
AI methods



Automatic
and individual
AI-based tariffs 

Claims, tariff and
contract data 

Primary insurance



Benefits

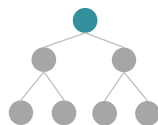
- Speed/timeliness
 - Cost reduction
 - Improved risk selection
-
- Large repository of proprietary global risk data
 - Access to high-quality external data sources
 - Exceptional data science and domain expertise
 - Cutting-edge data and artificial intelligence technology

4 Example: Risk assessment to generate more business – Identify cross-selling potential for a client

Identify pools with high cross-selling potential



Data collection
and testing



Machine
learning



Result clustering:
Profit potential



Geocoded result visualisation

- Forecast insured's policy type with 90% success ratio
- Identify customers with high potential to buy additional insurance by region

 High potential to buy additional insurance

Improve sales efficiency and profitability

- Improve transparency on existing customers, e.g.:
 - Clusters with high buying potential
 - Geocoded distribution of customers per insurance policy
 - Potential analysis per distribution channel
- Efficient usage of sales force capabilities
- Better customer relationship management
- Swift deployment of service: complete analysis cycle can be done within 4–8 weeks
- No system integration needed

Cyber insurance

Daljitt Barn



1

Our approach

History

We have been writing cyber for over 10 years

Ambition

Munich Re would like 10% market share by the end of 2020

Growth

Organic through quota-share, plus white-label and primary markets

Resonance

Our heritage of managing complex risk whilst being innovative in the cyber market



Hartford Steam Boiler

ERGO

Munich Re Syndicate Limited

Global trends

Cyber penetration in the US: ~20%

- Strong growth in certain industries: Manufacturing, transportation, life sciences, power and utilities
- Ransomware attacks in 2016: Increase of 100%–400%, making it the “year of the ransomware”
- More IoT-leveraged attacks in 2017, like the “Dyn event”
- Attacks on cloud services will be more prevalent, e.g. business interruption. We will therefore see more primary cyber policies being written

Cyber penetration in rest of world: <5%

- Lloyds have circa 60 syndicates writing cyber
- Strong growth predicted in EU for SME and growing markets in Asia, especially Japan
- Cedants wanting support from Munich Re (quota-share or facultative) to understand the gaps between writing SME and moving to industry
- Automated underwriting and MGA models key for distribution

Cyber incident – WannaCry

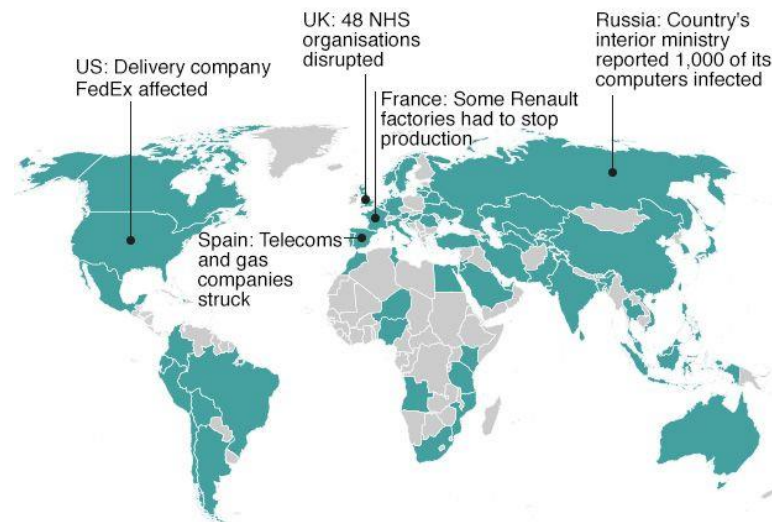
Executive summary

- Example of a ransomware worm that encrypts files on the compromised computer and demands a ransom payment for decryption (~US\$ 300–600 paid in bitcoins)
- Attack has hit over 200,000 systems in 150 countries since 12 May 2017
- All Windows versions before Windows 10 are vulnerable to WannaCry if not patched for MS-17-010
- Finally WannaCry scans for other vulnerable Windows computers to spread very quickly

A turning point for cyber insurance?

- Raised awareness globally of this type of peril, i.e. it impacted people's lives
- Did not impact cyber policies because of waiting periods, and with this and Petya, the ransom is below retention limits
- Business interruption is the more prevalent impact

Countries hit in initial hours of cyber-attack



*Map shows countries affected in first few hours of cyber-attack, according to Kaspersky Lab research, as well as Australia, Sweden and Norway, where incidents have been reported since

Source: Kaspersky Lab's Global Research & Analysis Team

BBC

Cyber insurance landscape – What do we think?

Current market size

~US\$ 3.6bn

At the end
of 2016

Global distribution of cyber

85%

US market by
end 2016

Munich Re GWP in 2016

US\$ 263m

38% growth
(versus 26% market)

Size of the opportunity

US\$ 8–10bn

By the end
of 2020

EU growth

GDPR¹

Mandatory breach
reporting for cyber

Munich Re low loss ratios

Profitable

For the class
of business

Cyber risk in the insurance industry – Cyber as a peril

Rapidly evolving
landscape

Inhomogeneous

Cyber crime is
big business

Risk
quantification?

Cyber past does
not predict cyber
future



Implementing cyber security – Cyber as a control

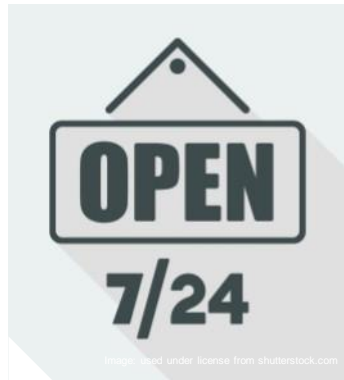
Budget and
teams often
aligned with IT

Risk mitigation
focused

Security controls
must work at all
times

How much
security is
enough?

What is the RoI?



Cyber risk in the insurance industry – Cyber as a product

Coverage versus
pace of change
in technology

Managing the
risk, and pricing
accordingly

We're in the risk
management
business

No quantum of
cyber claims
data

Accumulation



Cyber risk in the insurance industry – Commonalties between the two worlds

PERIL

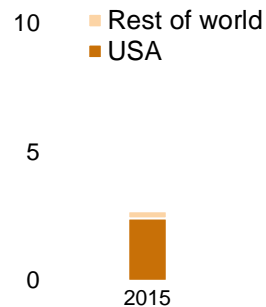
PRODUCT

People	▶ Lack of skilled cyber resources	Lack of cyber skills in cyber underwriting
Regulation	▶ No mandatory breach notification outside US	85% of global market is US focused, but EU to follow
Technology	▶ Digitisation – connecting the old with the new	Distribution opportunities

▶ Confidence is increasing within our industry, but more work needs to be done on both sides

Cyber (re)insurance market – Strong and long-term growth to be expected

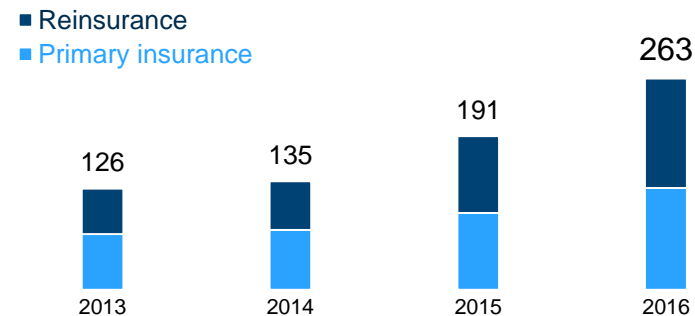
GWP global cyber insurance market¹ US\$ bn



Reinsurance: First-mover and global market leader

- Dynamic growth through joint projects with cedants
- Steady growth in the US
- Strong accumulation models

GWP Munich Re cyber portfolio US\$ m



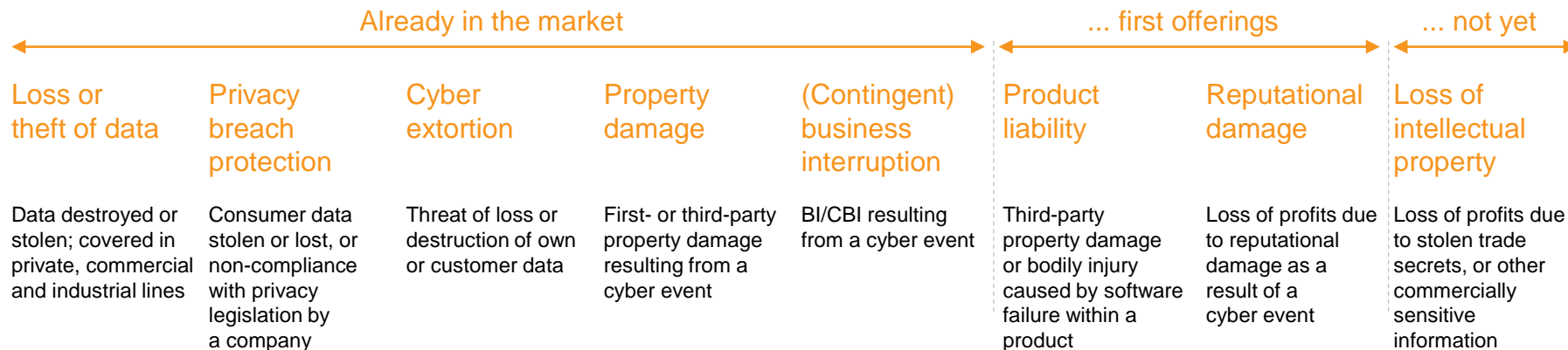
Primary insurance: Specialised single-risk taker

- Hartford Steam Boiler: Established player in the US for SMEs and individuals
- Corporate Insurance Partner: Focus on large corporate clients – Cooperation with IT providers, and Beazley

With our leading-edge expertise and strong global market presence, we will cautiously participate in the growth of this market segment

¹ Estimates based on different external sources (Marsh & McLennan, Barbican Insurance, Allianz).

Cyber (re)insurance outlook – Significant expansion of coverage types possible



Increasing exposure and complexity of coverages

▶ Cautious evolution of market offerings

Munich Re cyber accumulation scenarios – Overview

Accumulation scenario	Self-reproducing IT viruses	Data breach	Corrupted software in core module	Failure of external networks
Description	<ul style="list-style-type: none"> ▪ Untargeted cyber attack on multiple computer systems ▪ Large number of systems infected by one event ▪ First-party business interruption and data losses 	<ul style="list-style-type: none"> ▪ Many insureds affected (exploit of common vulnerability by hackers) ▪ Top-down PML estimate for breach of cloud service provider in 2014 ▪ Privacy breach and cyber liability, cyber extortion 	<ul style="list-style-type: none"> ▪ Randomly falsified data over a longer period of time ▪ Data compromise across multiple clients and industries ▪ Business interruption and data losses 	<ul style="list-style-type: none"> ▪ Includes power outage and internet outage ▪ Property damage, BI/CBI and liability losses
Munich Re risk management	<ul style="list-style-type: none"> ▪ PML calculation model and guideline in place since 2012 ▪ Regular revision of model parameters (2015, 2016) 	<ul style="list-style-type: none"> ▪ Monitoring of limits of exposed (cyber) participations ▪ Probabilistic PML model under development and to be implemented in 2017 	<ul style="list-style-type: none"> ▪ Lower top-down PML assessment as compared to other scenarios ▪ No bottom-up PML methodology required 	<ul style="list-style-type: none"> ▪ High loss potential ▪ Mandatory exclusion for cyber/IT coverages ▪ Internet outage scenarios are currently investigated ▪ Monitoring of full limits in case of dispensations


Cyber insurance underwriting guidelines covered systems and networks



Covered

Insured's computer system:

- Internal computer systems under the operation or direct control of the insured



Can be
covered as
IT outsourcing
provider

Cloud computing
(SaaS, PaaS, IaaS)

- E-mail service provider
- Web-hosting provider
- Cloud provider



To be
excluded

Failure of:

1. Electricity supply networks,
2. Telecommunication networks,
including the internet

Internet services:

- Internet service provider (ISP)
- DNS service provider
- Internet exchange provider

Munich Re's value-add – Where can we offer support?



Experience and expertise

We bring well-established experience to the table with experts who can operate in all industries and organisations, from large corporates to SMEs and personal lines



Continuous improvement

We continuously monitor changes to the cyber environment, seek to improve our understanding of the risk, and then adapt our cyber products to ensure we remain relevant to our customers



Innovation

We are actively identifying and developing cyber initiatives to improve our customers' experience and enhance underwriting

Canadian multi-channel distribution

Mary Forrest

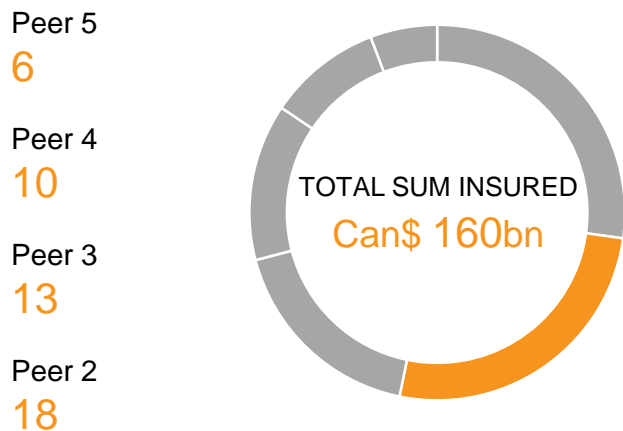


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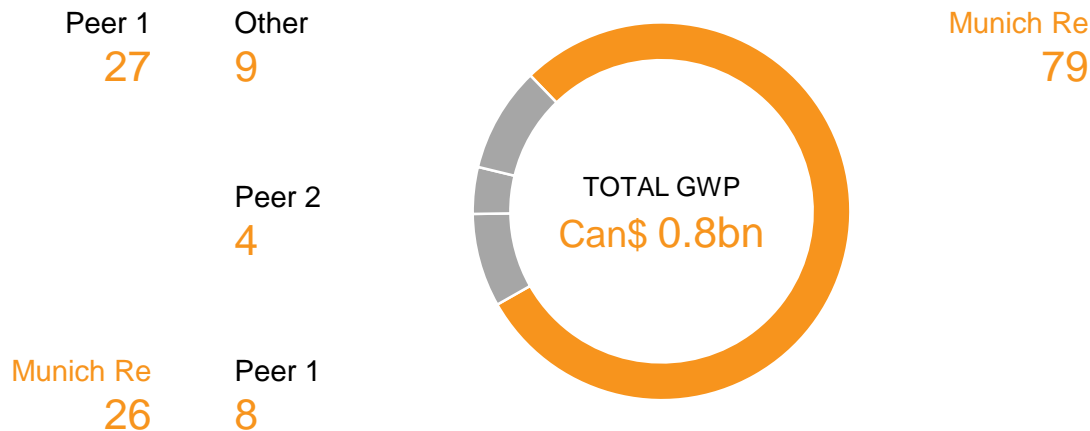
Munich Re Canada Life at a glance

Munich Re is a premium reinsurer in the Canadian life market and the biggest mortality risk carrier %

Individual life reinsurance market¹



Group reinsurance market²



Market becoming more competitive

Based on our strong market position, we are exploring new opportunities to grow a currently saturated market

What will we achieve?



Open an
untapped market



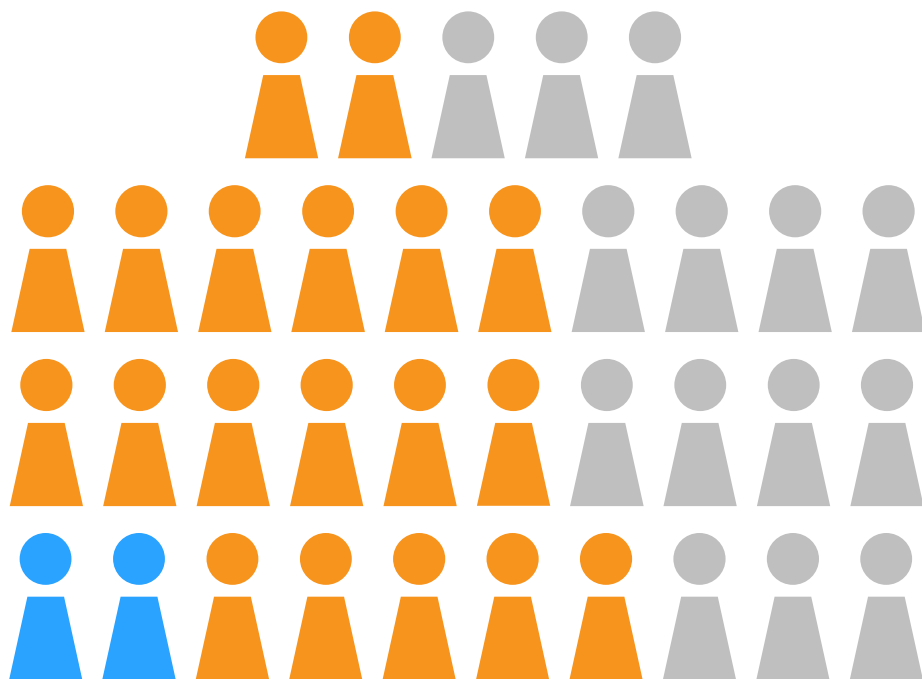
Enlarge product
offering for clients



Develop a new
revenue stream



Canadian group benefits market



\$40 billion
Market

35 million
Canadians

20 million
Mandatory insureds

2–3%
Voluntary insureds



What is our innovation strategy?

MANDATE

Solve problems that are plaguing our industry by developing turnkey solutions we can bring to our partners to drive reinsurance reach and growth

PROBLEM

Lengthy policy underwriting timelines

PROBLEM

Policy behaviour and meeting customer product needs

PROBLEM

Claims adjudication complexity

PROBLEM

Wellness and living a healthy life

PROBLEM

Overall poor customer experience

GUIDING PRINCIPLES

SPEED TO MARKET

Iterative development to prove concept

COST EFFECTIVE

Deliver a MVP cost effectively

MODULAR

Ability to integrate with multiple partners

OWN THE IDEA

Proactively take ideas to partners

STRATEGIC OBJECTIVES

Become one of Canada's largest group insurance consolidators

Develop an end-to-end technology platform

Create a multi-channel distribution network

Establish a preferred partner network

Our innovation strategy is creating value for all “players” in the insurance sales chain

MEMBER

Improve the user experience by making it **EASIER** to buy insurance with **IMMEDIATE FULLFILMENT**

SPONSOR

Create a platform that **IMPROVES BENEFITS** for my employees and makes **ON-BOARDING EFFORTLESS**

BROKER

Creates a **NEW** stream of **REVENUE** for existing clients with **LOW EFFORT** for the customer’s lifetime

CARRIER

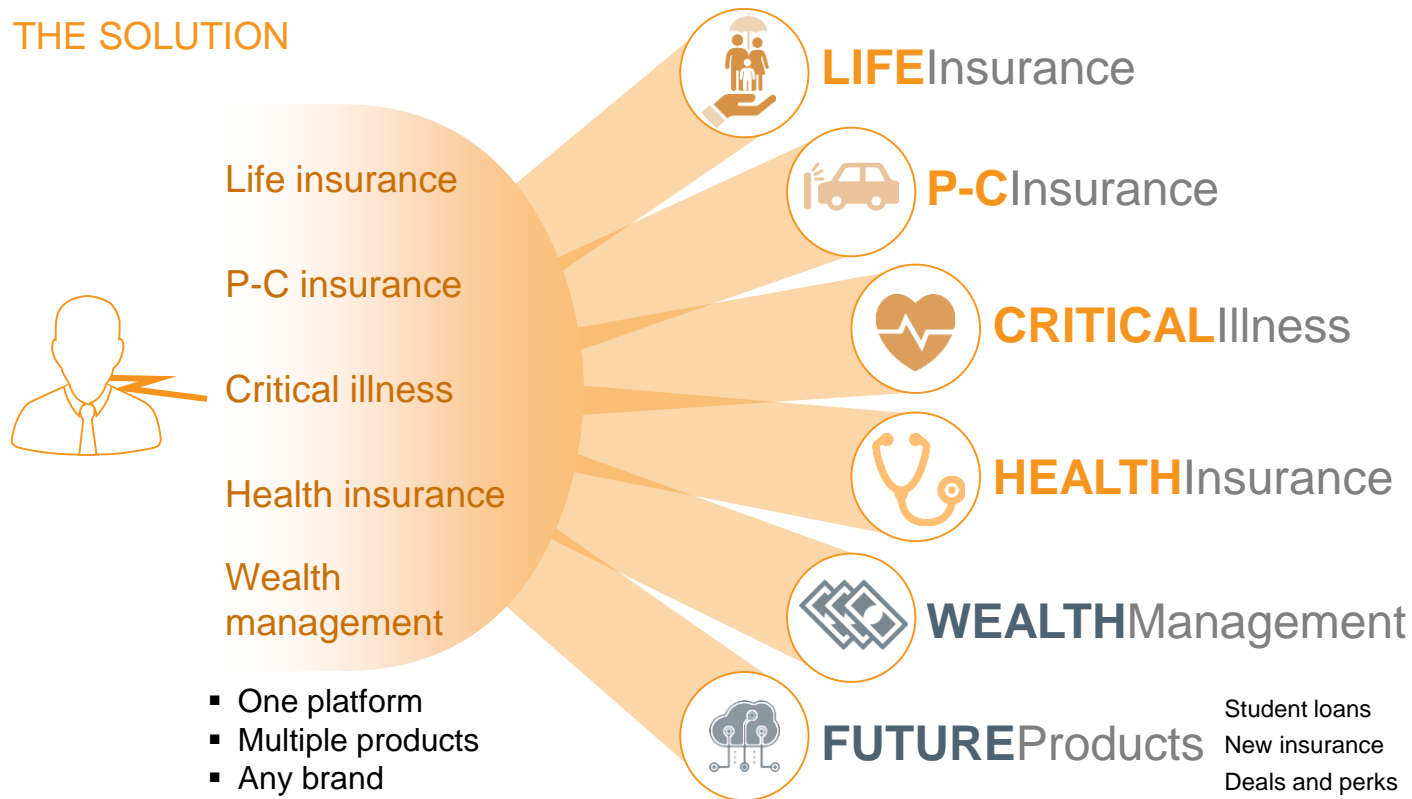
A way to sell new insurance products that is **LOW EFFORT, COST EFFECTIVE** and **QUICK TIME TO MARKET**



Video

 A customer-centric platform that allows the customer to research, **Munich RE**  buy and manage their insurance products and investments

THE SOLUTION

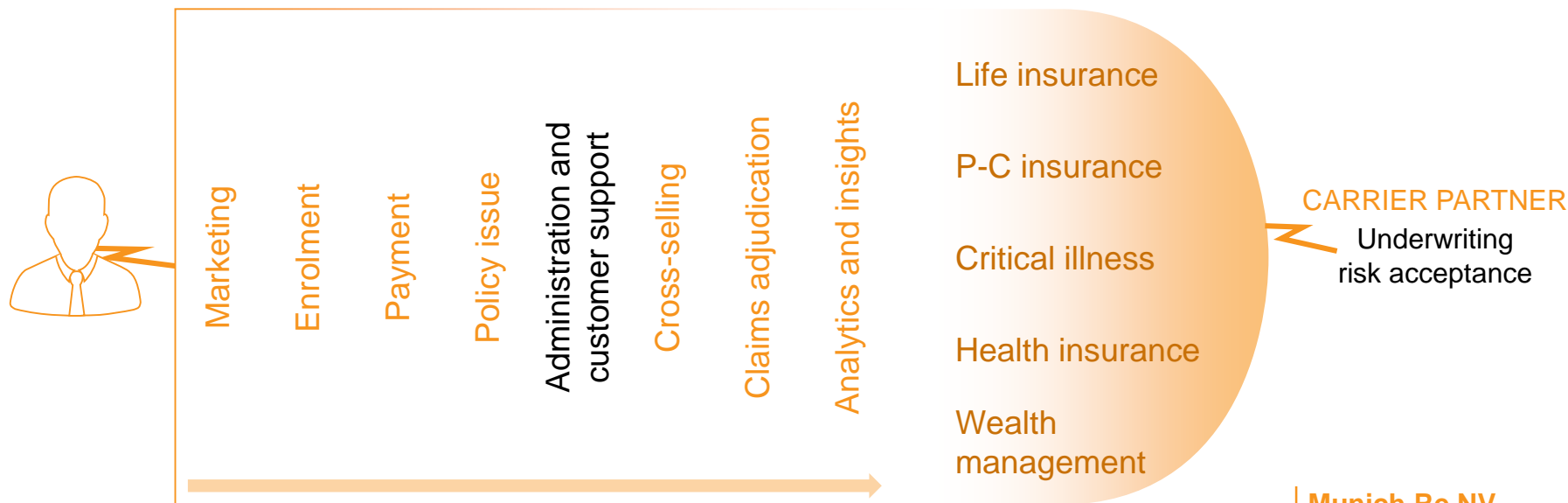


Munich Re
core expertise

External
partnerships

The platform handles all aspects of the insurance sales cycle creating a “Virtual Insurance Company” ...

THE SOLUTION



Combining the platform with Munich Re partners can provide a complete, turnkey insurance solution for any company or brand

Munich Re NV
Plug-in
administration

... while improving customer experience and convenience

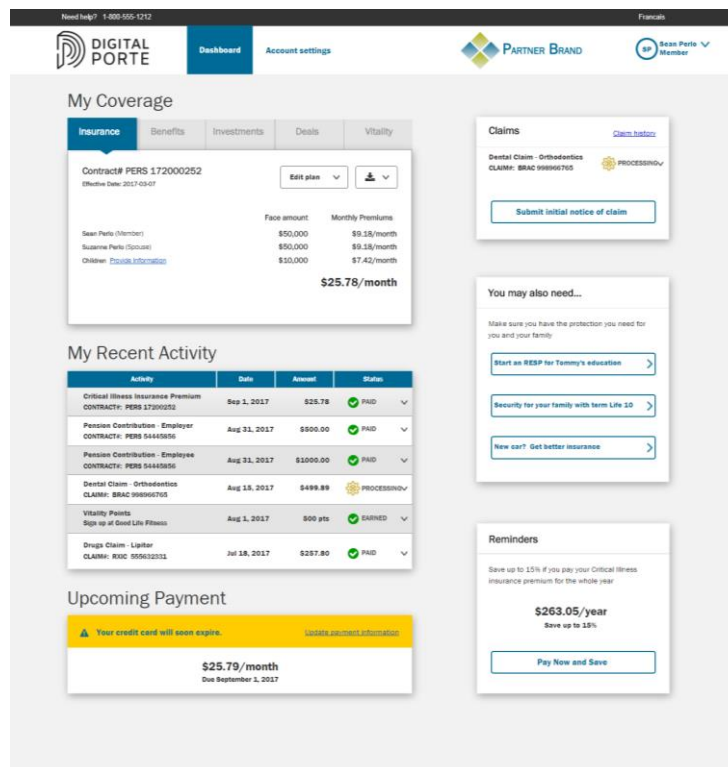
THE SOLUTION

Quick access to all products and services

Insurance | Investment | Vitality

A live feed of all activity around products including ALERTS, PAYMENT, PURCHASES and CLAIM STATUS

Payment and renewal reminders to encourage accounts in good standing



My Coverage

Contract#	Face amount	Monthly Premiums
PERS 172000252	\$50,000	\$9.15/month
PERS 172000252	\$50,000	\$9.15/month
PERS 172000252	\$50,000	\$9.15/month
Total		\$25.78/month

My Recent Activity

Activity	Date	Amount	Status
Critical Illness Insurance Premium	Sep 1, 2017	\$25.78	PAID
Personal Contribution - Employer	Aug 31, 2017	\$500.00	PAID
Personal Contribution - Employee	Aug 31, 2017	\$1000.00	PAID
Dental Claim - Orthodontics	Aug 15, 2017	\$499.89	PROCESSING
Vitality Points	Aug 1, 2017	800 pts	EARNED
Drugs Claim - Lipitor	Jul 18, 2017	\$257.80	PAID

Upcoming Payment

\$25.79/month
Due September 1, 2017

Claims

Dental Claim - Orthodontics
CLAIM#: BRAC 00960705
PROCESSING

You may also need...

- Start an RESP for Tommy's education
- Security for your family with term Life 10
- New car? Get better insurance

Reminders

Save up to 15% if you pay your Critical Illness Insurance premium for the whole year

\$263.05/year
Save up to 15%

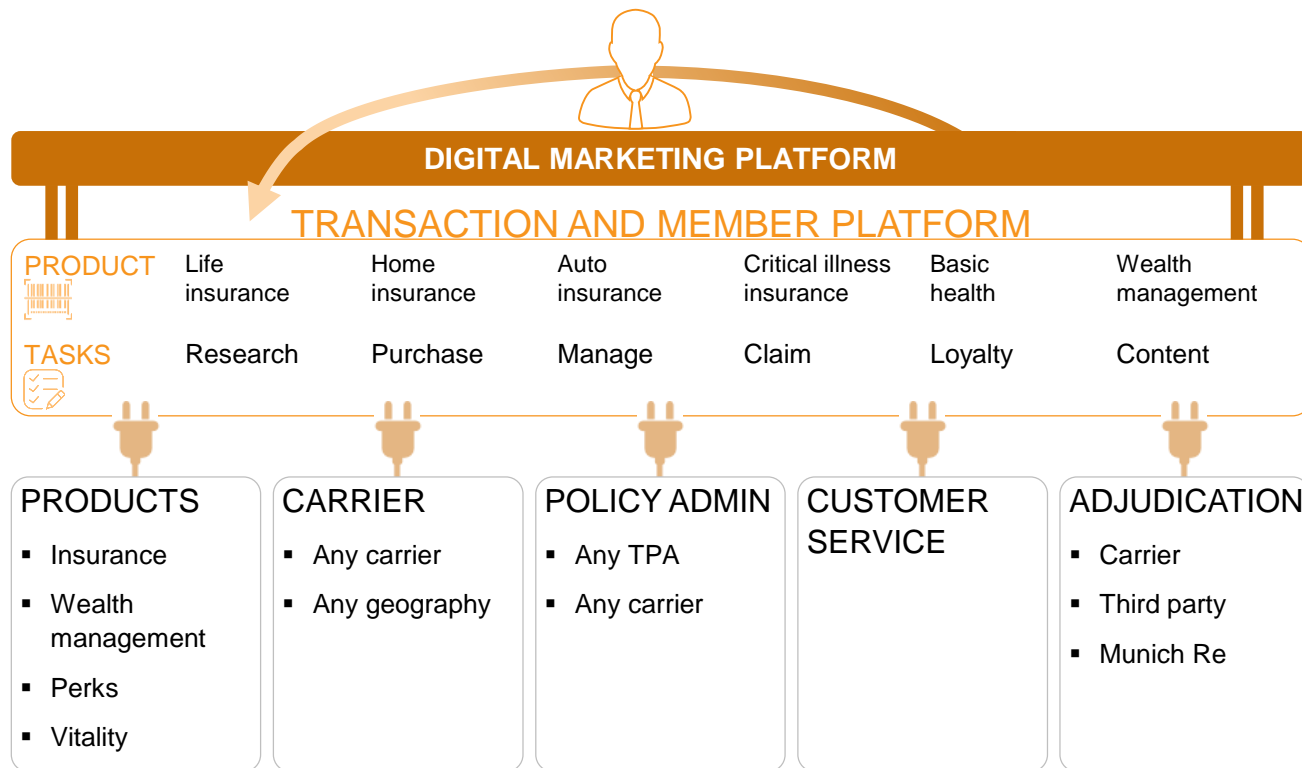
Claim status and submission

Upsell and cross-sell product suggestions based on customer behaviour and life stage

Bundling and discounting to drive loyalty and engagement



We are creating a modular platform that allows any brand to participate, leveraging the Munich Re partner network



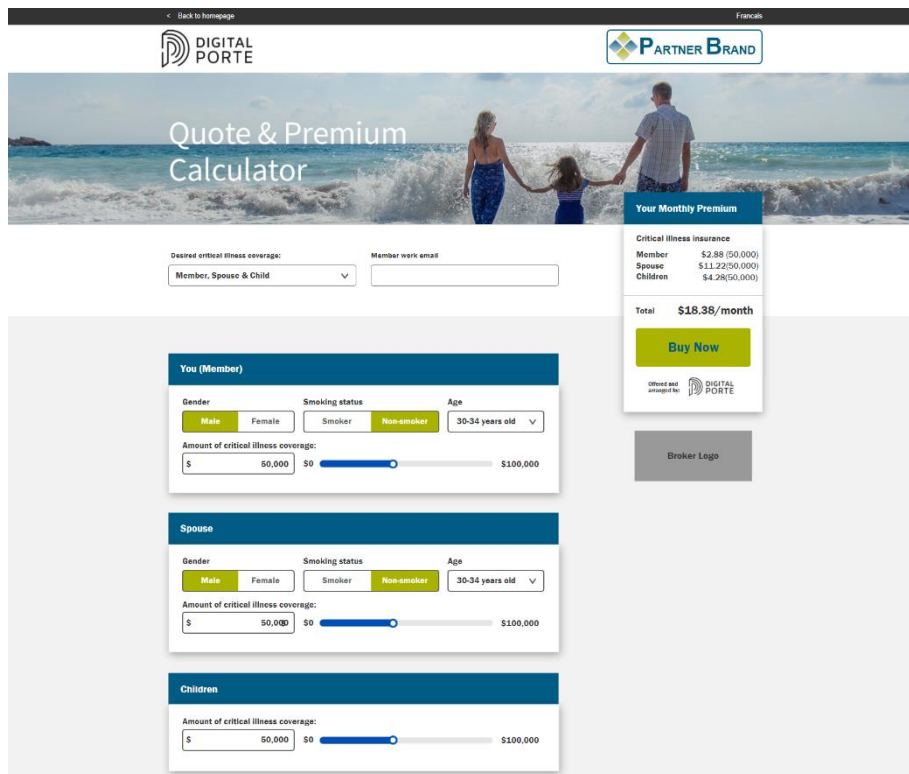
DIGITAL MARKETING PLATFORM (WHITE LABEL)
Acquire and engage customers

INSURANCE PORTAL (WHITE LABEL)
Customer can purchase a policy with a credit card and get **immediate coverage**

INTEROPERABILITY
Ability to “plug in” any aspect of the insurance sales cycle or use existing Munich Re partners for a turnkey solution



With our platform and DIGITAL AGENCY we can work with ANY CARRIER, ANY BROKER and ANY BRAND



The screenshot shows the 'Quote & Premium Calculator' interface. At the top, there's a navigation bar with 'Back to homepage' and 'Français'. Below it, the 'DIGITAL PORTE' logo and a 'PARTNER BRAND' badge are visible. The main header features a family walking on a beach with the text 'Quote & Premium Calculator'. The form includes sections for 'You (Member)', 'Spouse', and 'Children', each with fields for Gender, Smoking status, Age, and Amount of critical illness coverage. A 'Your Monthly Premium' summary box on the right shows a total of \$18.38/month. A 'Buy Now' button and a 'Broker Logo' placeholder are also present.

Munich Re has created a DIGITAL INSURANCE agency

We can work with ANY CARRIER, ANY BROKER or ANY BRAND to create a branded end-to-end experience

We provide and manage all aspects of the insurance process including:

Marketing
Customer service
Adjudication

Administration
Payment and billing
Policy issue

\$\$\$ Our platform and innovation strategy will help us become an even larger player in the Canadian insurance space

Objectives





We have seen early success in our controlled critical illness pilot, running since January 2017

FORECAST

ACTUAL RESULTS

DIFFERENCE

CONVERSION
RATE

3%

Canadians purchase
voluntary benefits

35%

TPA new customers
purchased a CI product

+1,100%

ANNUAL
PREMIUM

Can\$ 150

Munich Re forecast for
average annual premium

Can\$ 250

Average annual premium
among TPA new customers

+66%

ENROLMENT

30 days

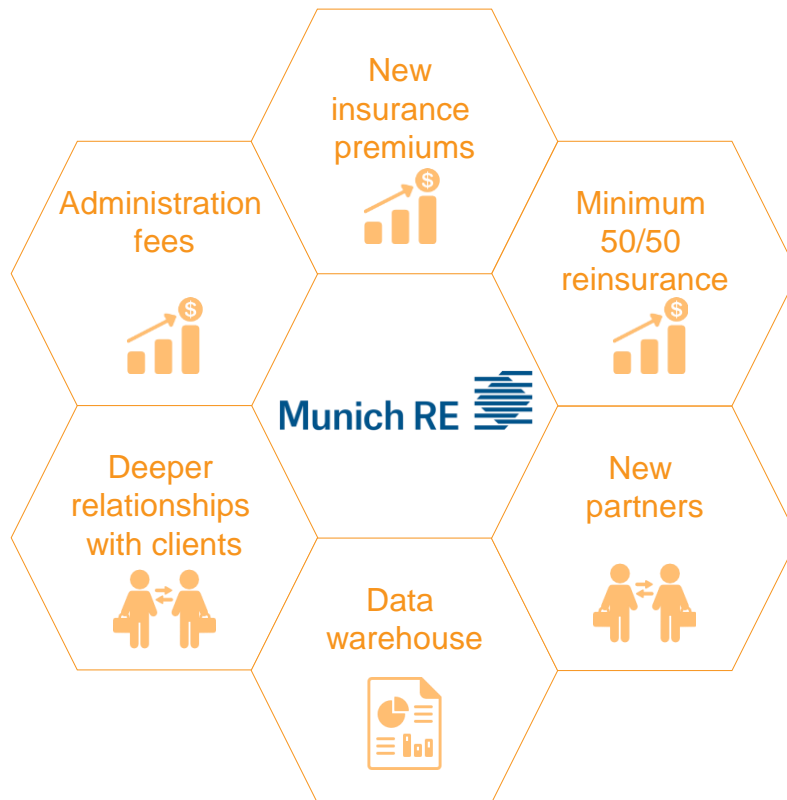
Average enrolment time

2 days

Average enrolment time

−28 days

Our strategy provides significant benefits for Munich Re



ERGO Mobility Solutions

Mobilising growth as strategic partner of the automotive/mobility industry

Karsten Crede



3

ERGO Mobility Solutions (EMS) entering the B2B2C automotive segment

EMS



History

- Founded in January 2017 as strategic response to future automotive and insurance mobility opportunities
- Originated from ERGO Strategy Programme (ESP)
- Strong mandate regarding governance, infrastructure and investments



Team

- Dedicated team with automotive and insurance experience
- Integrated teams between ERGO and Munich Re
- Leveraging diverse assets and expertise of Munich Re/ERGO Group



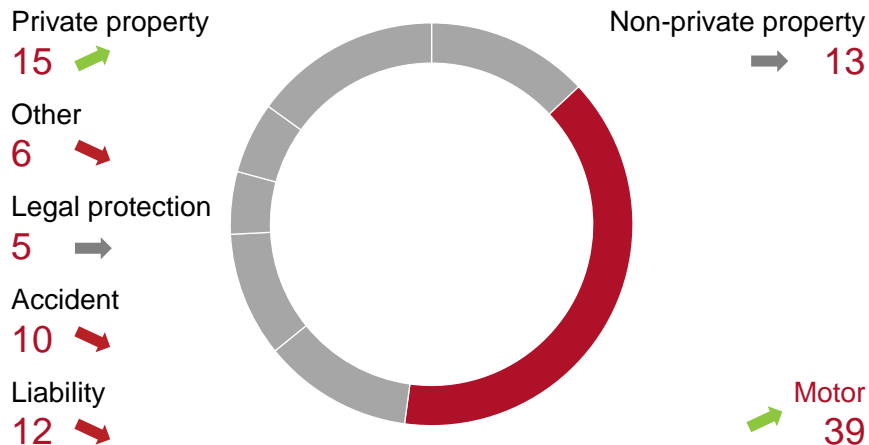
Strategy

- Positioned as strategic/international partner of the automotive industry
- Collaboration as core value in a B2B2C business model
- Expertise along automotive and insurance value chain
- EMS with comprehensive key account function to the automotive industry

Motor insurance with its majority market share also remains the strongest growth driver

German P-C market share per line of business

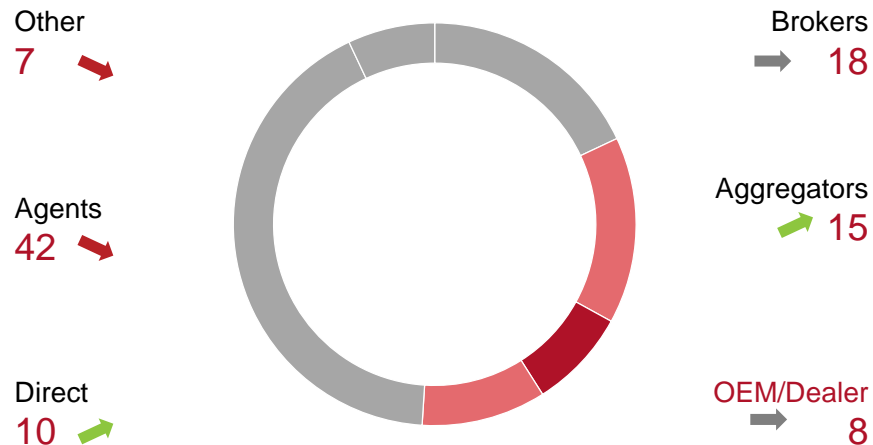
% 2016; 5-year growth trend



Motor dominating segment with total GWP of ~€25.9bn in 2016

German motor insurance market per sales channel

% 2015; 5-year growth trend



- Automotive channel stagnates, but strong replacement potential of non-strategic players – “second source approach”
- Online and direct providers are winning market shares

▶ Motor is the combustion engine of the insurance industry

Challenging environment for both industries – Automotive and insurance

Automotive industry trends



- Connected cars
 - Autonomous driving
 - Sharing economy
 - Electric vehicles
-
- “Using”, not “owning”
 - Peace-of-mind offerings
 - (Intermodal) mobility solutions
-
- Massive investment efforts needed
 - Challenging political social conditions
 - Environmental issues (NOX)
 - Dependency on few growth markets

Technological evolution

Customer demand

Market environment

Insurance industry trends

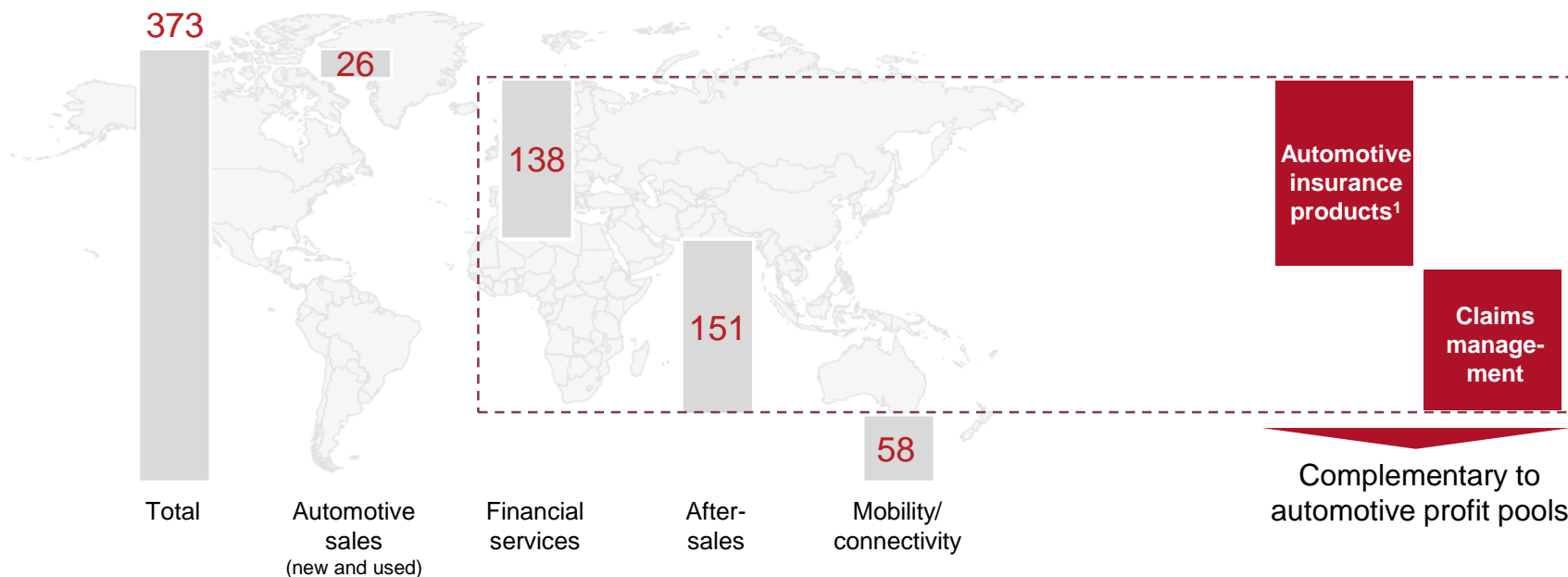


- Internet of Things
 - Artificial intelligence
 - Legacy IT
 - Data analytics
-
- Low-cost products
 - Seamless processes
 - Omnichannel
 - Flexible and easy coverage
-
- Stressed profit pools
 - Low interest rates
 - Low growth in mature markets
 - Weak infrastructure in growth markets

However, significant interdependency between insurance and automotive core profit pools

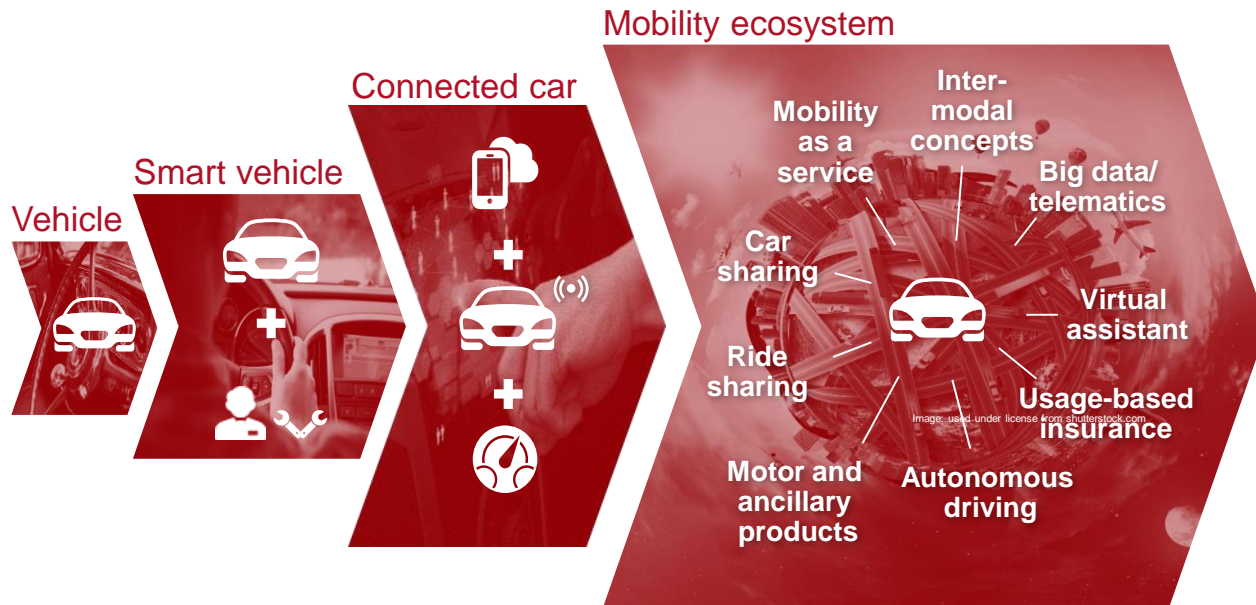
Expected profit pools 2025 – Automotive, global, without inflation

€bn



¹ Motor, payment protection/GAP/warranty, Source: Oliver Wyman, Ritzenhoefer & Company research

Becoming an integrated player in the mobility ecosystem



ERGO value contribution to OEMs/mobility providers

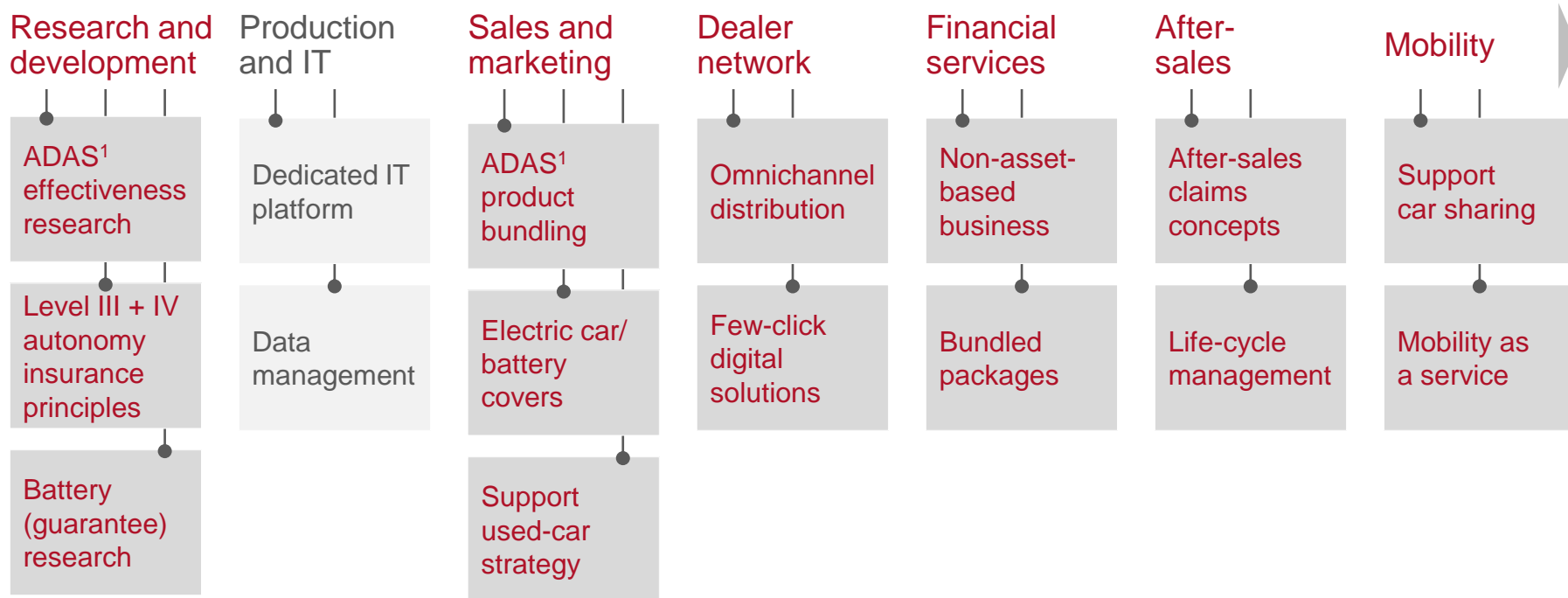
- Reduce total cost of mobility (TCM)
- Support penetration of new mobility concepts
- Optimise aftersales revenue
- Increase customer retention
- Increase financial products penetration
- Stem investments as strategic co-investor

Evolving from traditional motor insurance provider ...

... to become an integrated player in mobility ecosystem(s)

EMS to add value along the entire mobility value chain

Selective measures along automotive value chain



Using R&D partnerships to develop innovative product offerings

ERGO

EXAMPLE 1

E-MOBILITY



ERGO FLEET



CYBER SECURITY
PROTECTION



R&D partnership with ...



AFTER-SALES



CONNECTIVITY SERVICES

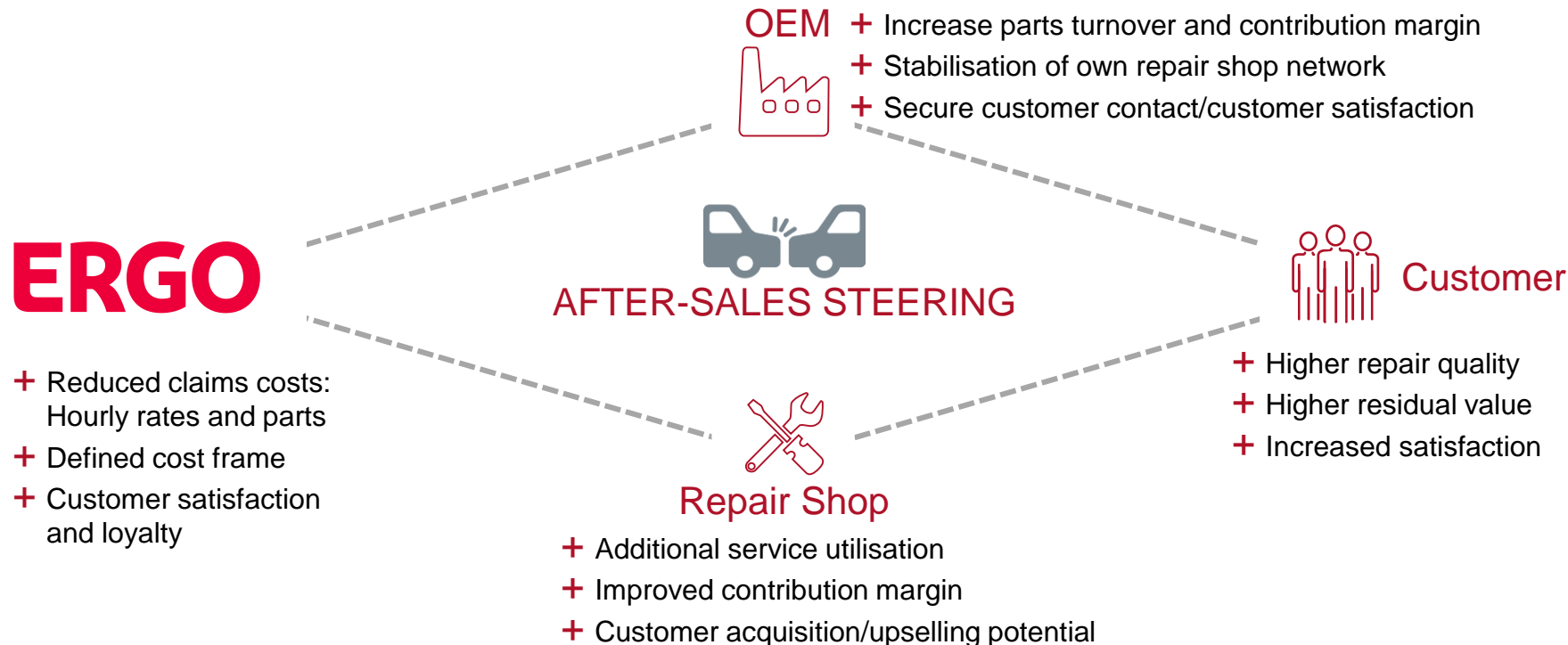


ADAS
EFFECTIVENESS

After-sales/claims management concepts help all parties to stabilise profit pools and increase customer satisfaction

ERGO

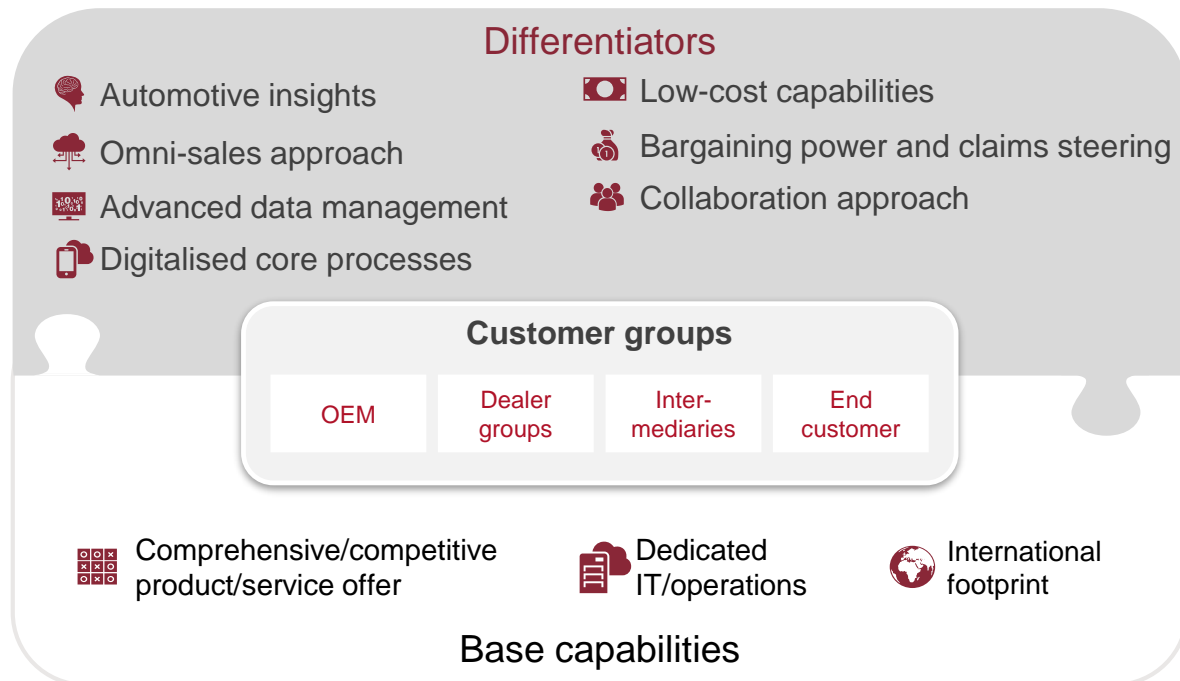
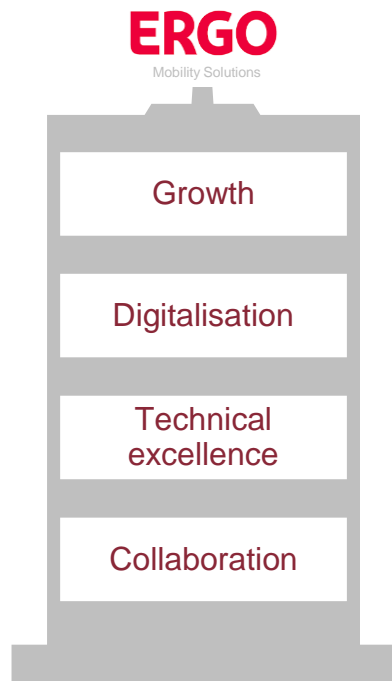
EXAMPLE 2



Building strong base capabilities and competitive edge

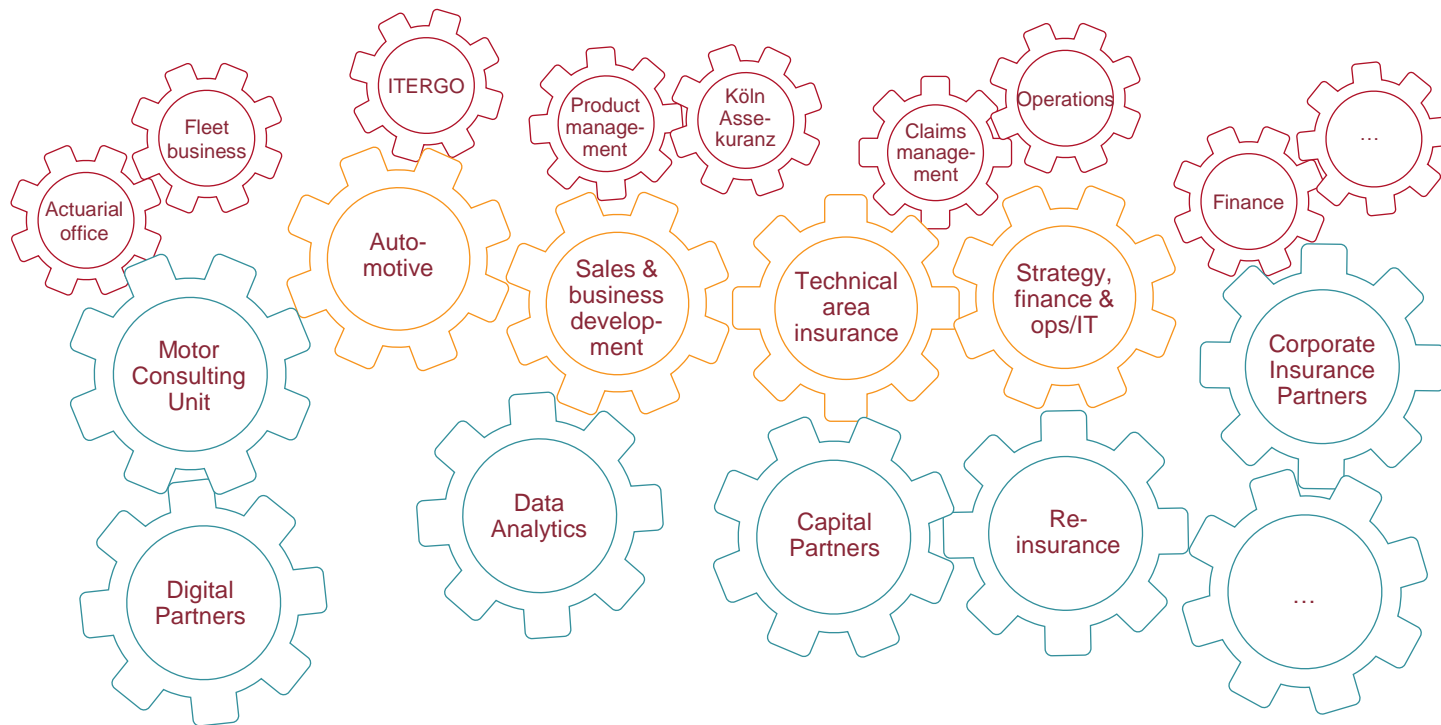


Strategic pillars of ERGO Mobility Solutions



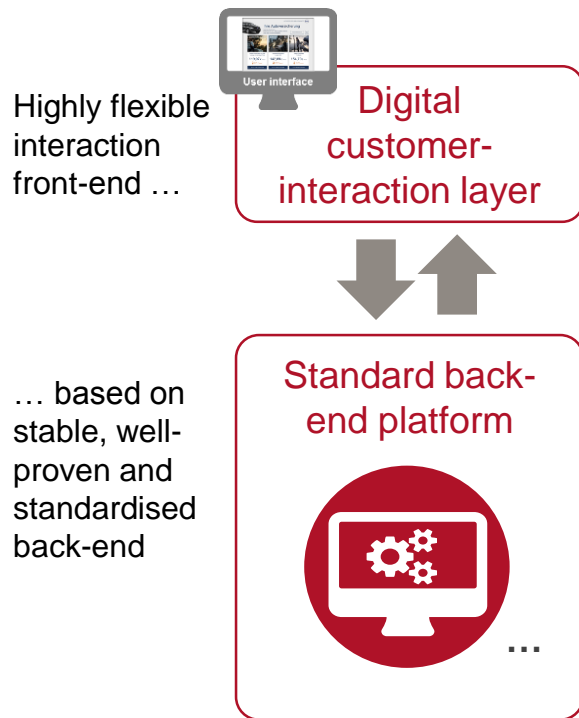
Joining forces internally between Munich Re and ERGO to create unique expertise

ERGO



- Interlocked business model mobilises the diverse assets and entire expertise of Munich Re/ERGO Group
- International reach and market knowledge of particular importance for successful expansion
- Open up all sustainable business opportunities and optimise business mix

Dedicated IT platform as differentiator with flexible customer front-ends



Key characteristics

Customer and dealer interaction

- Appealing user interfaces
- “Agile development” approach

System of record (single truth)

- High-quality delivery of standard business processes, incl.
 - Pricing
 - Contractual changes
 - Printing
 - Billing
- “Stick to standard” approach

Main benefits



Simple,
innovative
add-on features



Short
time-to-market



Intuitive
modern
usability



Low-cost
system
integration



Effective
analytics and
forecasting



Optimised
processes

Exploiting digitalisation potential and improving the customer experience

Customer
journey

Perception

Detection

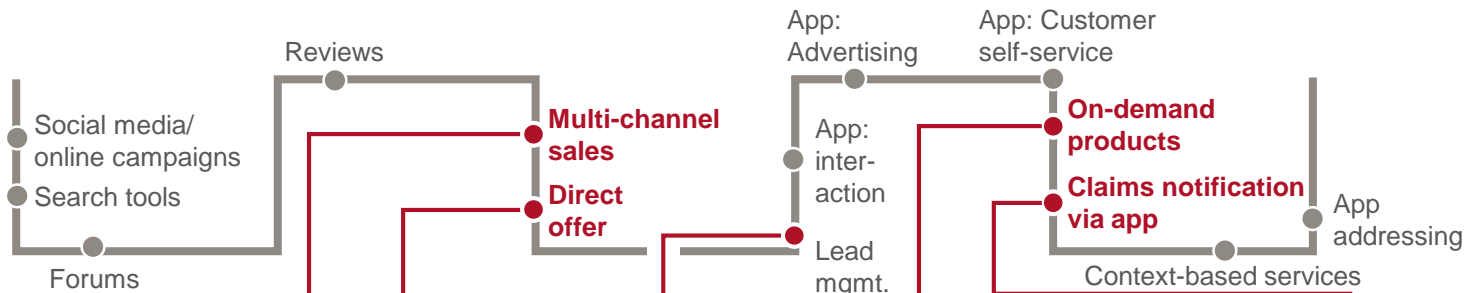
Information

Purchase

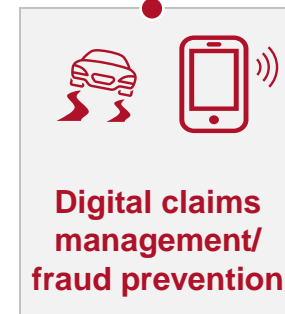
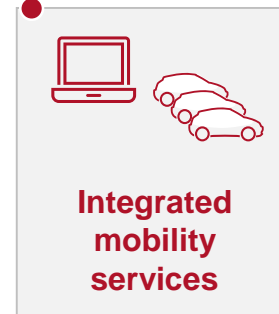
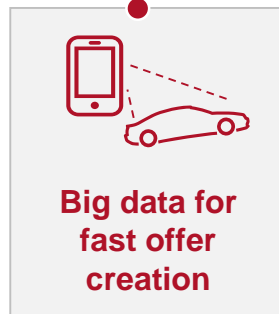
Usage

Renewal

Digital
touchpoints

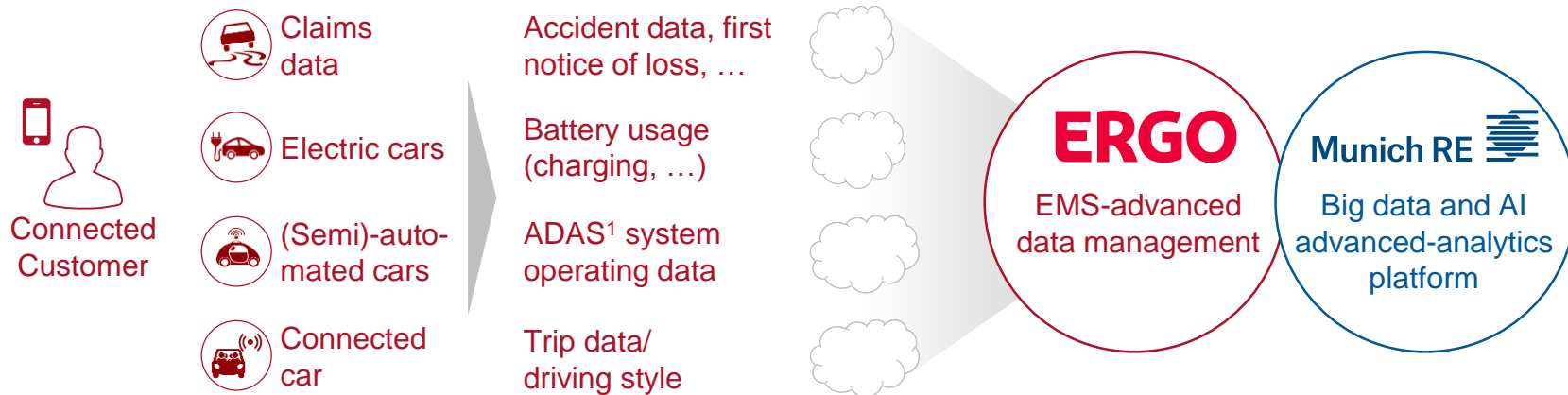


Digital/
digitalised
services
(exemplary)



Leveraging advanced data management to provide essential customer value via new services and products

Advanced Data Management integration [exemplary]



EXAMPLES

Contextual enrichment of driving style
Targeted product/modules via customer insights

Machine learning regarding ADAS¹ effectiveness
Intelligent product offering based on geodata

Intelligent business models to optimise strategic fit with automotive industry



Germany, China and India as anchor markets and innovation hubs will be pursued first

EMS wave I markets¹



Germany

- One of the top 4 automobile manufacturers in the world
- Growing popularity of shared mobility
- Exemplary developed market



China

- 29% of total car sales worldwide
- Globally sizeable Chinese OEMs (SAIC #4 globally)
- Profitable motor insurance market

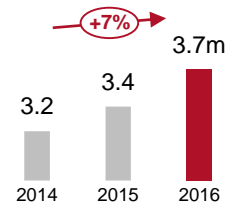
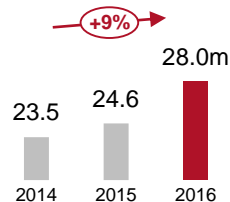
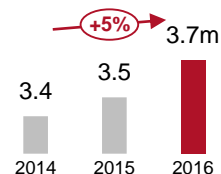


India

- High growth rates in both new and especially used car sales
- Exceedingly profitable motor insurance business

Key characteristics

Car sales²



Market potential

- Main market for new mobility
- Demand for new corporate mobility solutions
- Testing ground for innovations
- E-mobility lead market
- Future global innovation hub
- Growing shared mobility market
- ~10% sales growth until 2020
- Growing online sales channel
- Large number of uninsured cars

Strategic milestones to achieving ambitious growth targets



Winning strategic partnerships to mobilise growth

Digitalisation as a “must-do” to master high-volume, low-value policies in India

Ritesh Kumar

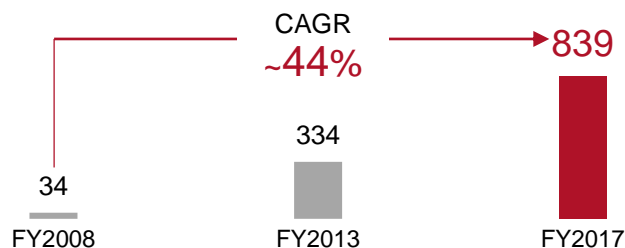


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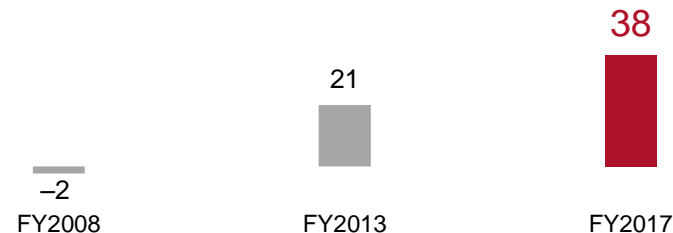


Introduction to HDFC ERGO (India) – Joint venture of HDFC (51%) and ERGO (49%)

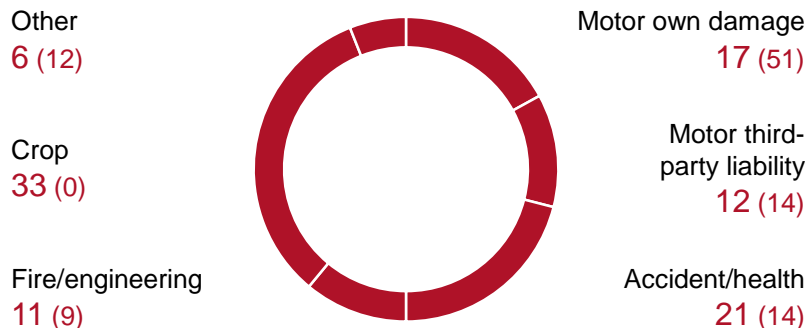
Gross written premium^{1,2,3} €m



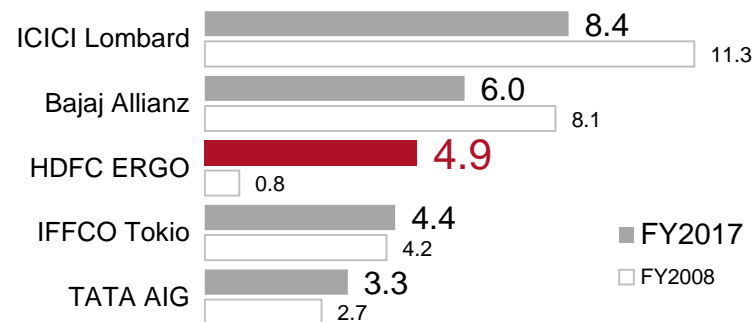
Net income^{1,2,3} €m



Product mix, FY2017 (FY2008)^{1,2,4} %



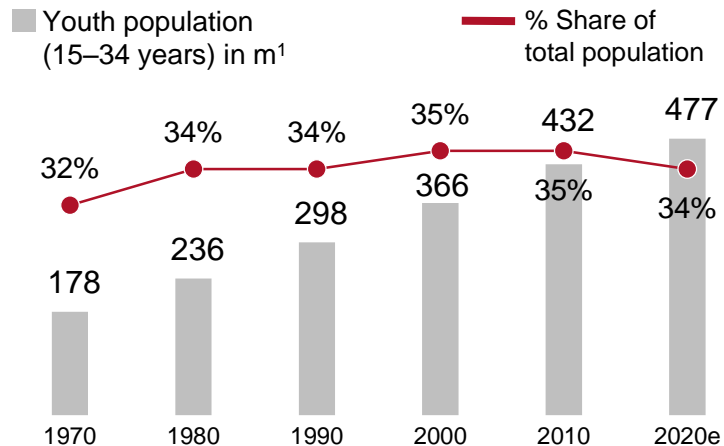
Market share of leading private-sector insurers^{1,2,4} %



1 FY2017 stands for period from April 1, 2016 to March 31, 2017 and likewise for other financial years. 2 Figures for HDFC ERGO for FY2017 include HDFC General.
3 €1 = INR 75. 4 Source: General Insurance Council.

India – Favourable demographics and increasing internet access through smartphone

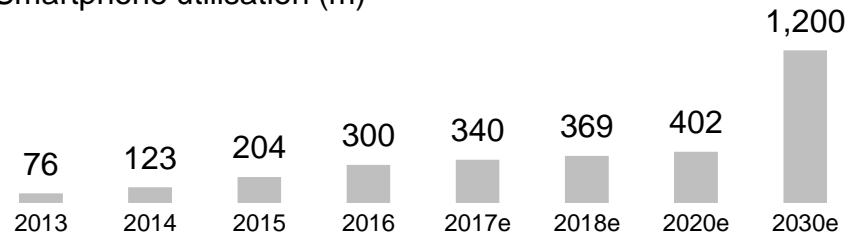
Growing young population^{1,2} ...



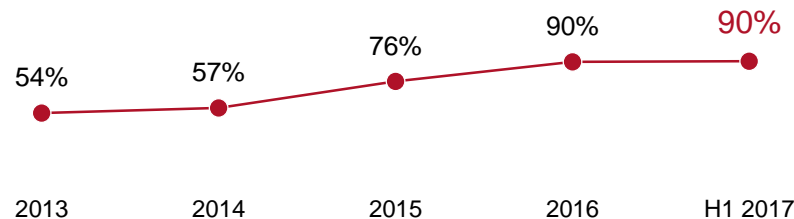
By 2020, the average age of Indians is expected to be 29 years vs. 37 for China, 38 for USA and 47 for Germany³

... with high internet connectivity, esp. smartphones

Smartphone utilisation (m)⁴



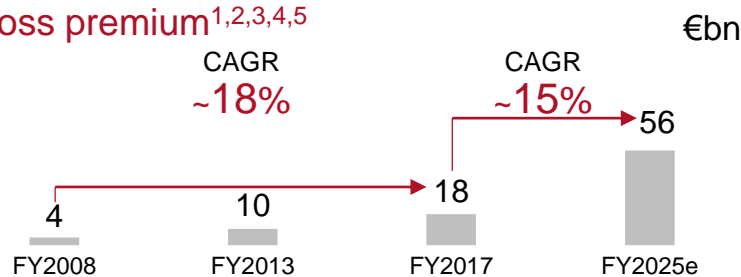
% of internet accessed via mobile⁵



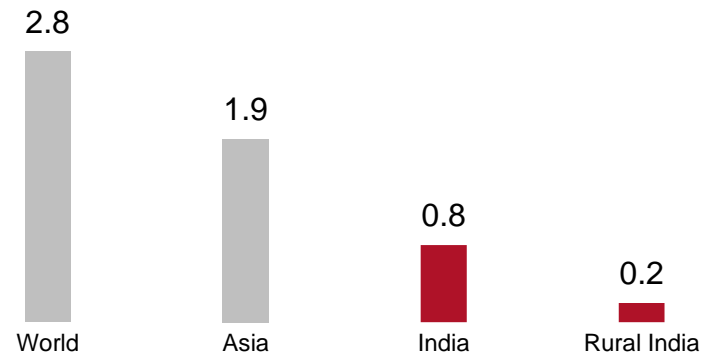
India has the second-biggest smartphone user base after China and ahead of US⁴

Non-life market in India – Strong need for digitalisation for cost-efficient delivery of products and services

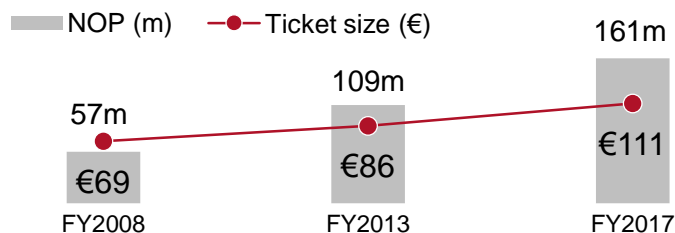
Gross premium^{1,2,3,4,5}



Non-life penetration, 2017 (% of GDP)⁶



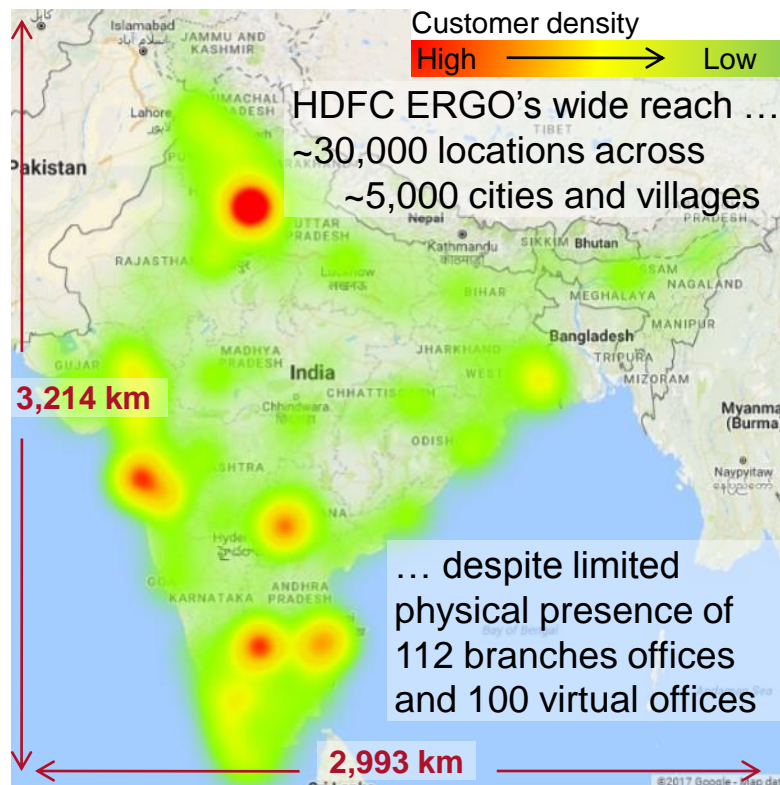
No. of policies (m) and average ticket size (€)^{1,2,3,4}



- High-volume, low-value business with significant growth potential
- Overall low penetration, much lower in rural India and low-value segments

Given higher cost of policy issuance via manual mode, digital mode is critical to improve viability of small-ticket business

HDFC ERGO has achieved multifold increase in scale of operations and pan-India reach by embracing digitalisation



Scale of operation

- Issuing ~12 policies per min
- Servicing ~1 claim per min
- Handling ~2 incoming calls per minute, across 10 languages

Delivering excellence by focusing on

- Quality of offering
- Speed of response
- Better engagement

Using digital technologies to drive efficiencies

Key operating levers



Automation

Maximising
Straight-through
processing



Mobile-first architecture

Increasing
convenience for
customers and
sales forces



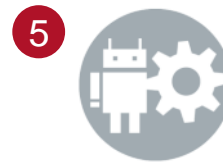
Self-service

Consistency
across channels



Predictive analytics

Improving
portfolio quality
and identifying
growth potential



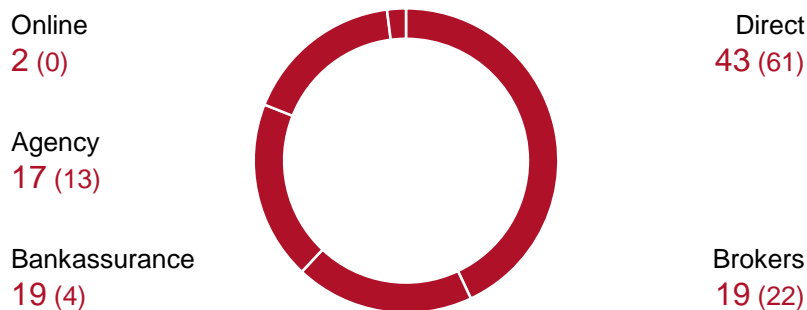
Digital innovations

Exploring
emerging
technologies
(RPA¹, chatbots,
voice)

¹ RPA: Robotic process automation.

1 Automation – Plug and play architecture facilitating straight-through processing (STP) to drive efficiencies

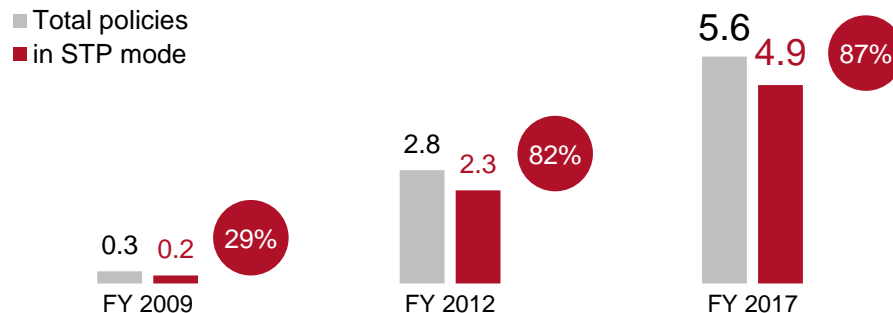
Distribution mix, FY2017 (FY 2008)^{1,2}



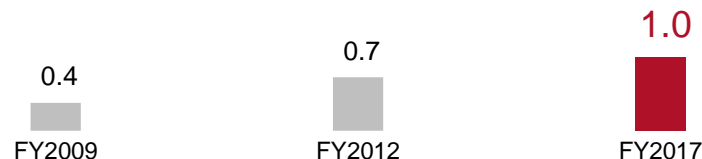
Agile digital platform cater to all customer segments with different buying behaviour across

- banks and financial institutions,
- agents and brokers,
- OEMs,
- online and web aggregators.

87% of policies issued in straight-through process ...



... incl. 1m digital policies (online sales and renewals)



Having no legacy issues positions us well for hybrid customers

2 Mobile-first architecture – A host of feature-rich mobile apps digitally enable distribution, customer service and claims

Sales force



- Sales portal
- Point of sale on mobile
- Micro insurance
 - Office in a bag (crop, cattle)

Partners



- Agency management system

Customers



- Insurance Portfolio Organiser (IPO)
- IPO on Apple Watch

Claims field force



- Motor claims survey
- Motor pre-inspection
- Microinsurance
 - Crop survey

Community



- Customer discussion forum

Insurance Portfolio
Organiser app

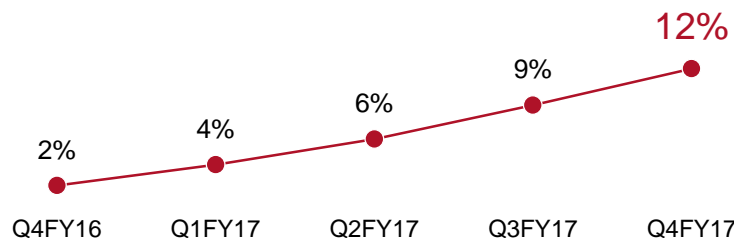
Motor claims
survey app



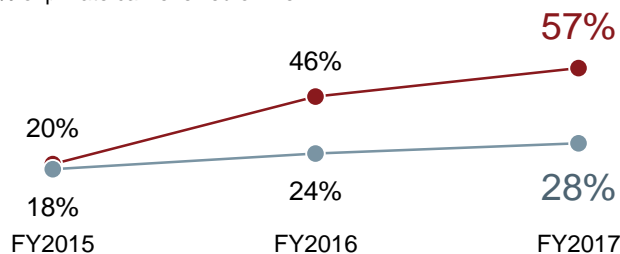
Video

3 Self-service – Digital service model for new-age customers

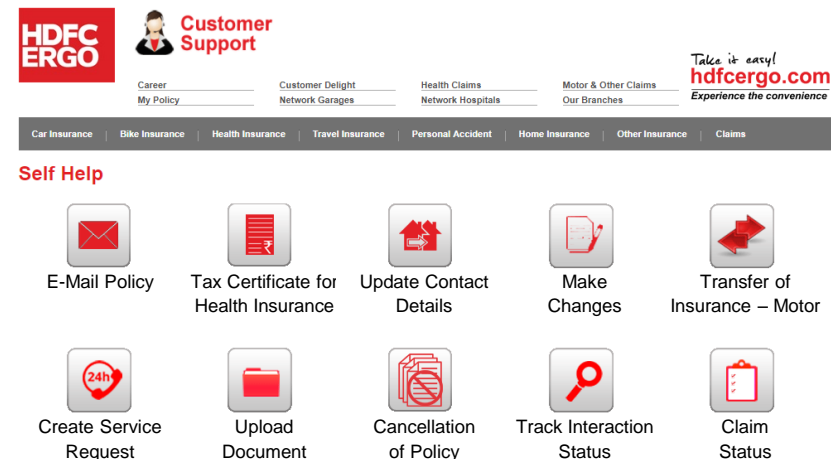
12% of requests serviced in self-service mode¹



—●— % Private car own-damage claims intimated via garage portal/mobile app
—●— % of private car renewed online



Example of self-service features on our website



¹ In % of total requests. Interactive Voice Response (IVR) and mobile, website using one-time password mechanism, no need to login

4 Predictive analytics helping in portfolio steering, optimising sales campaigns and fraud control

Portfolio steering to drive profitability

- Predictive models to estimate the impact of various decisions on performance
- Scenario-analysis-based portfolio steering

Customer analytics for renewal and cross-selling

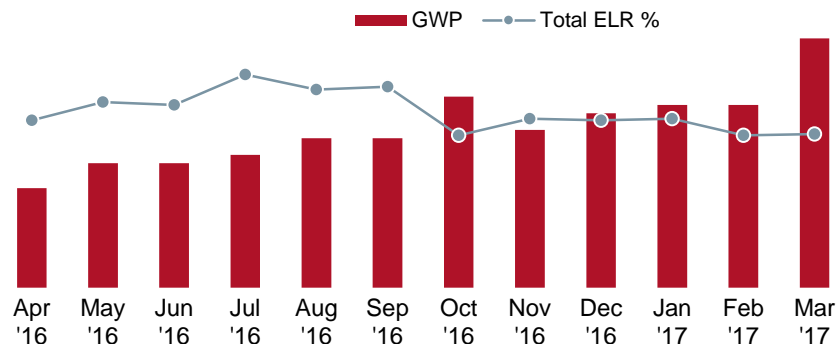
- Predictive model to improve motor renewal performance
- Up-sell/cross-sell targeted campaigns

Analytics-based fraud control engines

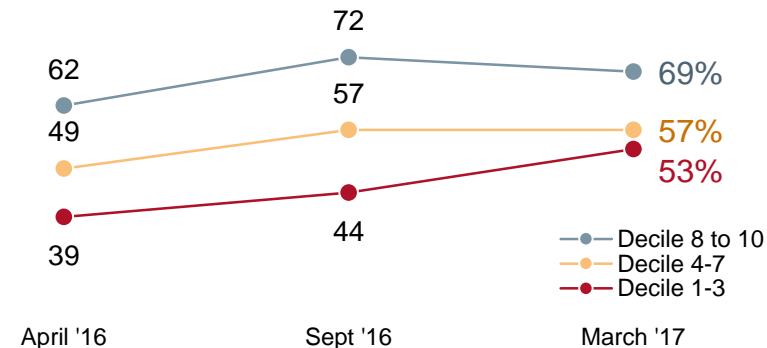
Comprehensive measures supported by

- Predictive analytics engine for health and motor
- Integrated workflow
- Social analytics tool

Estimated loss ratios (ELR) for motor



Target intervention on bottom 3 deciles for renewal



5 Digital innovation – Continuously striving to improve customer engagement and drive growth



Chatbot “Aby”

- Helping call-centre agents address customer calls effectively
- Initial results on select scenarios
 - ~8,500 requests assisted by **Aby** in two and a half months
 - **18% reduction** seen in average call time
 - Better consistency in customer response across floor



Robotics

- RPA ¹ **Rambo** implemented to automate manual processes and achieve operational efficiencies
- Initial results on select scenarios
 - ~260,000 transactions processed in two months
 - **87% reduction** in transaction processing time



Voice analytics

- Voice analytics of calls to generate insights on call-centre performance
- Customer insights, business issues and improve contact centre performance
- Targeted coaching for agents by analysing their performance

Continuously exploring and piloting emerging technologies like robotics, chatbots, voice analytics

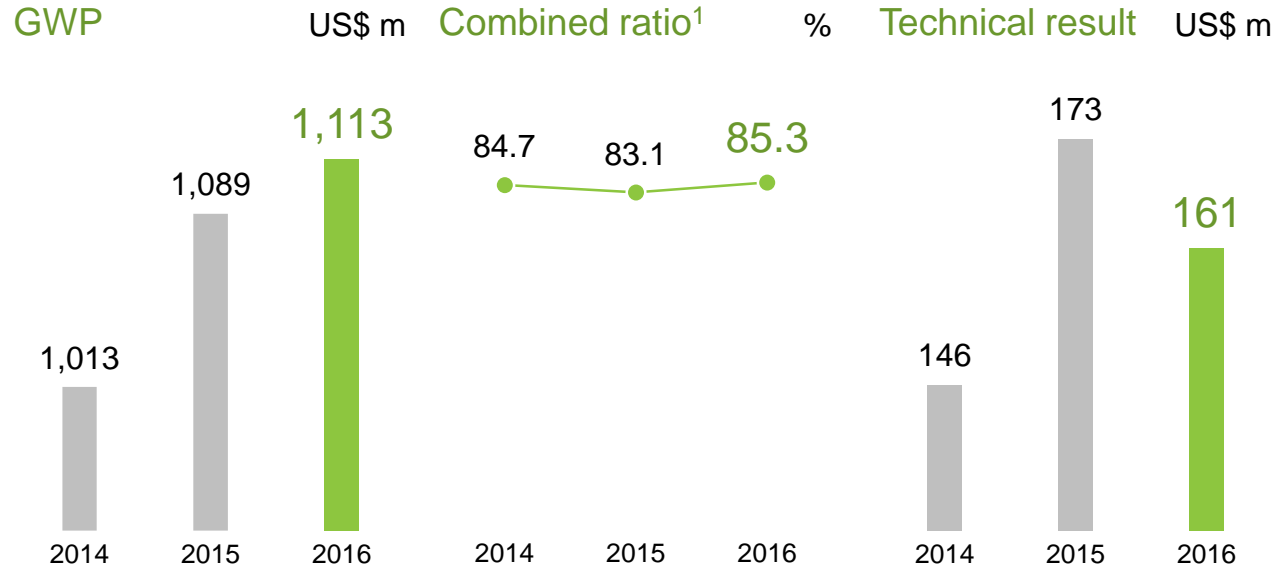
Internet of Things

Greg Barats



1

Introduction to Hartford Steam Boiler (HSB) – Market leader for equipment breakdown in North America



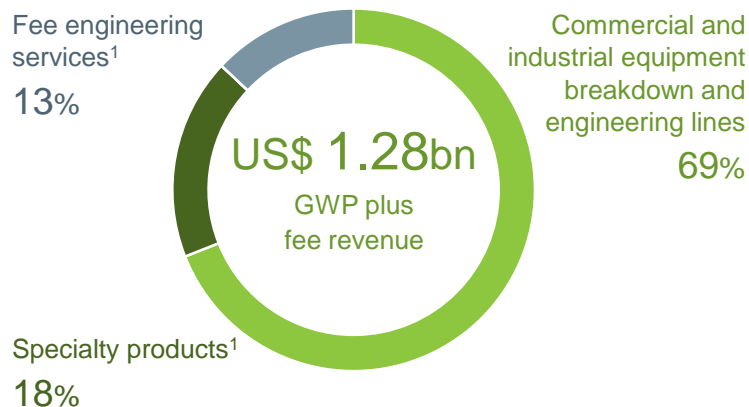
HSB – Key facts

- Founded in 1866: “the first company in America devoted primarily to industrial safety”
- Global fee engineering presence and the largest authorised inspection agency for its niche
- More than half of 2,500 employees are engineers, inspectors and technicians
- Established HSB Strategic Corporate Ventures in 2014, funded with \$50m to invest in emerging technologies

Engineering services, both packaged with insurance and directly for a fee, are significant differentiators for HSB

Specialty solutions for emerging risks globally – With 20% GWP from innovative specialty products in 2016

Gross revenues

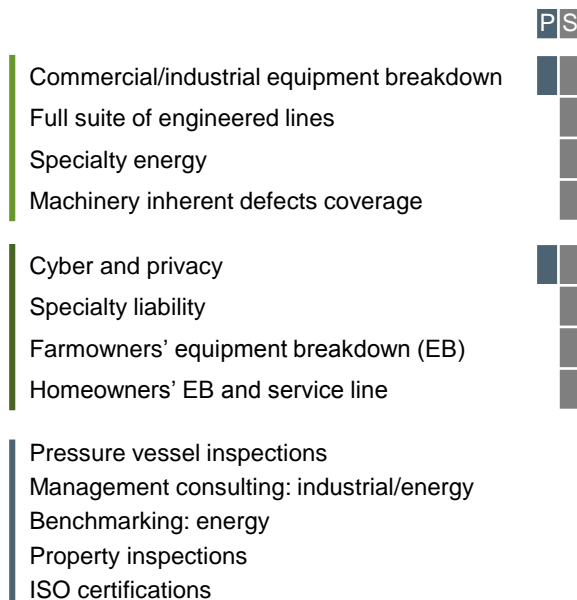


CAGR 2012 to 2016



¹ Indicates anticipated growth areas.

Product and services inventory



Product key **P** Portfolio products typically distributed via other insurance companies
S Single-risk products typically distributed via agents and brokers

Recent highlights



I Investment **D** Developing

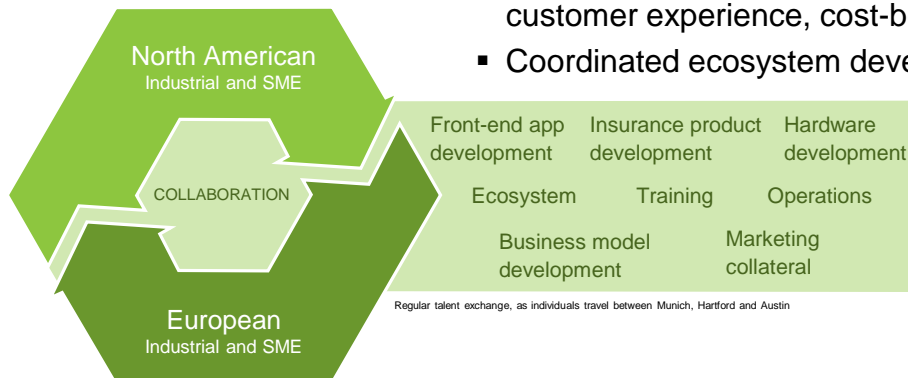
HSB leads the Munich Re IoT strategy

MUNICH RE IoT Steering Committee

GLOBAL IOT LEAD Greg Barats, HSB

North America

Europe



Global team driving IoT for Munich Re

- 70 FTEs (60% of these resources came from outside HSB/Munich Re for technical expertise and/or software development skills)
- Commercial/industrial focus (from SME to Industry 4.0)
- Pursuing both retrofit and integrated IoT solutions
- Testing technologies, platforms, business models and partners, customer experience, cost-benefit outcomes and more
- Coordinated ecosystem development

▶ Globate mandate to drive IoT strategy for Munich Re (Group)

IoT: The interconnection (via the internet) of computing devices embedded in everyday objects, enabling them to send and receive data

IoT creates massive opportunity ...

Estimates of global IoT economic impact

- US\$11.1tn by 2025 (McKinsey)
- US\$14.2tn by 2030 (Accenture)

... and new revenue sources

Estimates of IoT revenue from hardware, software, services

- US\$470bn by 2020 (Bain)
- US\$344bn by 2020 (AT Kearney)
- €250bn by 2020 (BCG)

Manufacturing and industrial applications offer the biggest early opportunity

- US\$151bn Industrial IoT market by 2020



- US\$124bn total Industrial IoT market by 2021



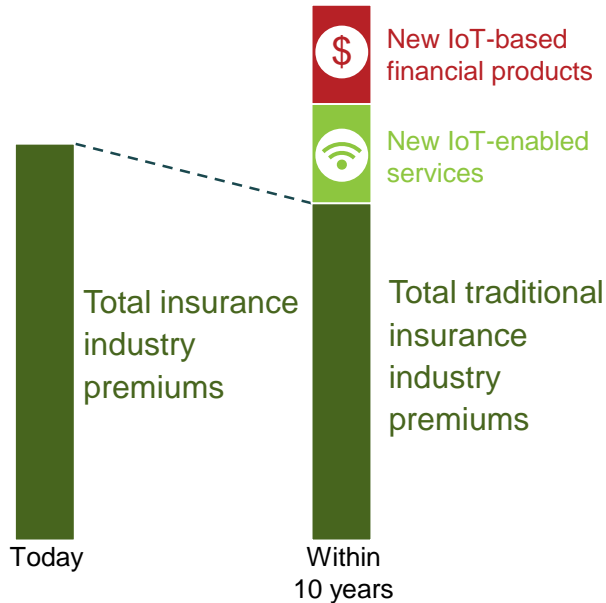
Industrial IoT technologies enable and enhance the delivery of key **business outcomes** ...

- Reduced downtime
- Increased productivity
- Improved quality
- Lower costs
- Higher flexibility

... and the insurable risk landscape will be modified by IoT activities

Customer transformations will provide opportunities for increased efficiencies, production and new revenue streams

Insurance will transform by expanding beyond traditional coverages



New IoT-based financial products \$

Assuring business outcomes from IoT investments

- Providing warranties and other vehicles to assure that positive business outcomes from IoT implementations are achieved

New or enhanced cyber for IoT

- IoT installations create new risks of “smart” devices being accessed, attacked or exploited
- New insurance products designed to manage unique IoT-based exposures

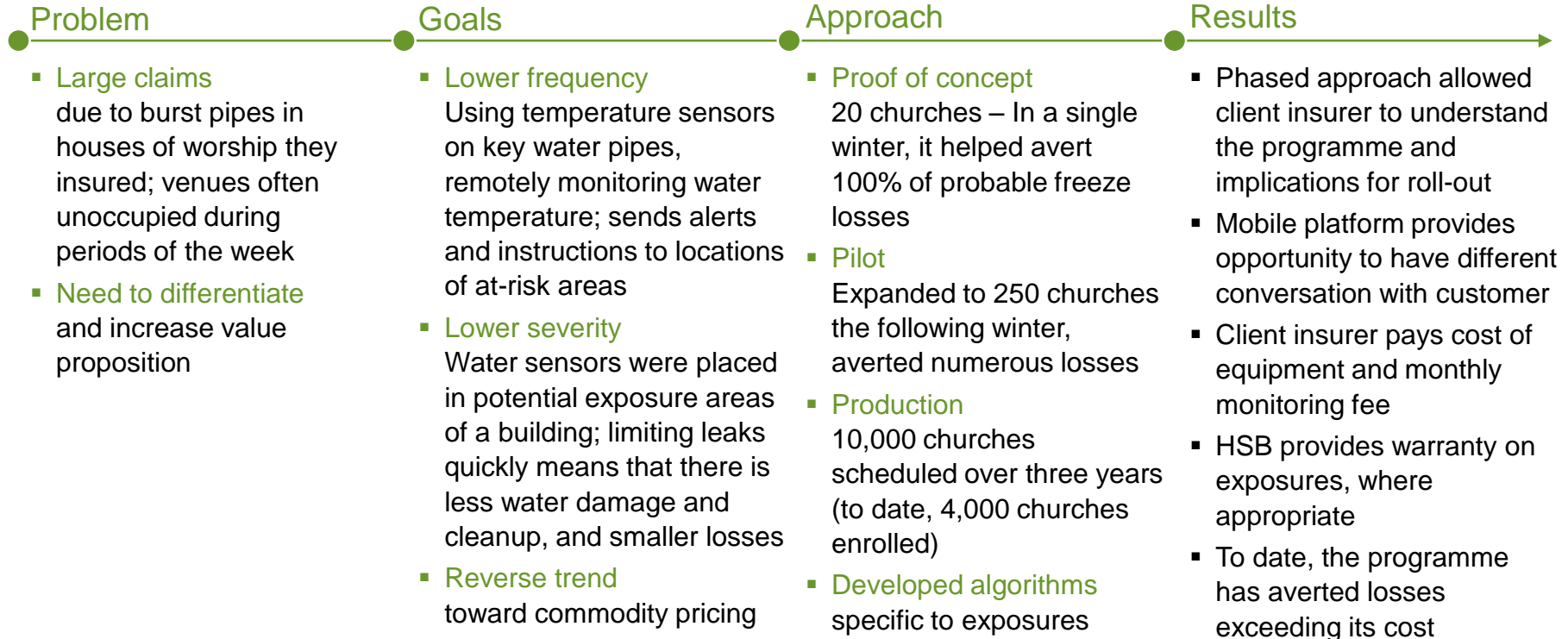
New IoT-enabled services 📶

- IoT monitoring
- Uptime management
- Efficiency and optimisation
- Performance insights and anomaly detection
- Risk management
- Repairs optimisation

Traditional insurance premiums will shrink as increased customer-data access and risk understanding drive expectations of better (lower) pricing and/or demand to buy insurance only for specific risks or a limited duration

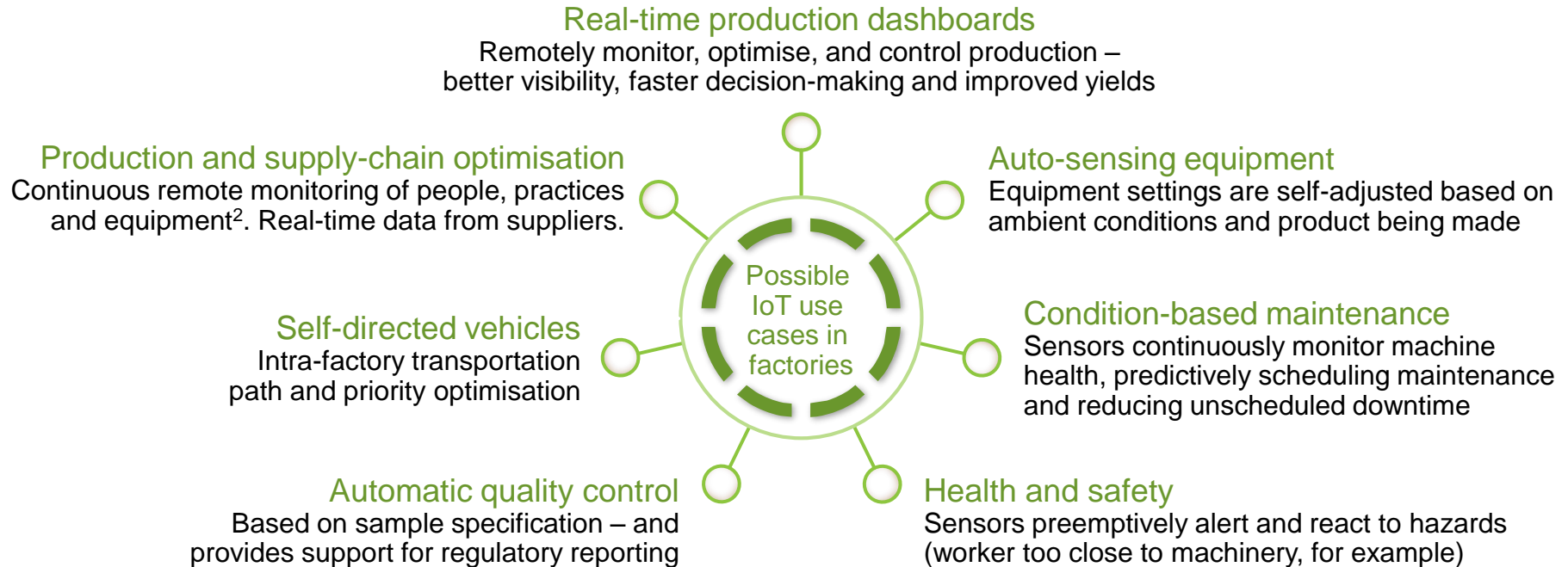
SME example:

IoT drives strategic and bottom-line results for insurer



Example:

Projected IoT technology impact on manufacturing¹



¹ SOURCE: McKinsey Global Institute analysis. ² Inventory, tool status, machine utilisation, and repairs.

HSB/Munich Re has significant market opportunity

HSB/Munich Re competitive advantage for IoT

Complex **financial and insurance** capabilities

Sophisticated **data analytics**

Occupancy knowledge and failure **data**

Services are a core capability

Engineering-based technical insights

Equipment is a competitive advantage

Ecosystem integration into solutions

Importance of pursuing IoT strategy

- Software and technology will play an increasingly larger role in our everyday lives and our customers' businesses
- Technology will change the behaviour of our customers and associated risk exposures
- Our business solutions need to have an expanding technology component to position ourselves for success in the future, HSB/Munich Re are leveraging technology partners
- Our strategy gives HSB/Munich Re and its clients the ability to add new diversified service-revenue streams and profit pools as well as a clear advantage on writing emerging exposures

▶ Greatest opportunities for companies that can combine technology capabilities and domain knowledge with risk management

IoT presents a long-term strategy that began four years ago with practical experimentation and ecosystem development

17,800 sensors deployed

5,900 locations, **13,000** additional locations scheduled

58 alerting algorithms from concept to production stage

16 SME occupancies installed

Numerous SME applications available

Multiple Industry 4.0 market approaches being tested

4 IoT investments   **relayr.** 

1 pending (AI)

1 IoT acquisition 

IoT summary

- IoT is a threat as it will reduce risks currently insured
- IoT will significantly impact our current industrial/commercial book of business
- IoT presents a significant market opportunity to companies that can combine technology capabilities with risk management capabilities

Digital Partners

Andy Rear



2

Digital Partners at a glance



Founded May 2016



30 employees operating as a single global team from London, Palo Alto and Cincinnati



Experienced management team, with insurance, technology, consulting and programme management backgrounds



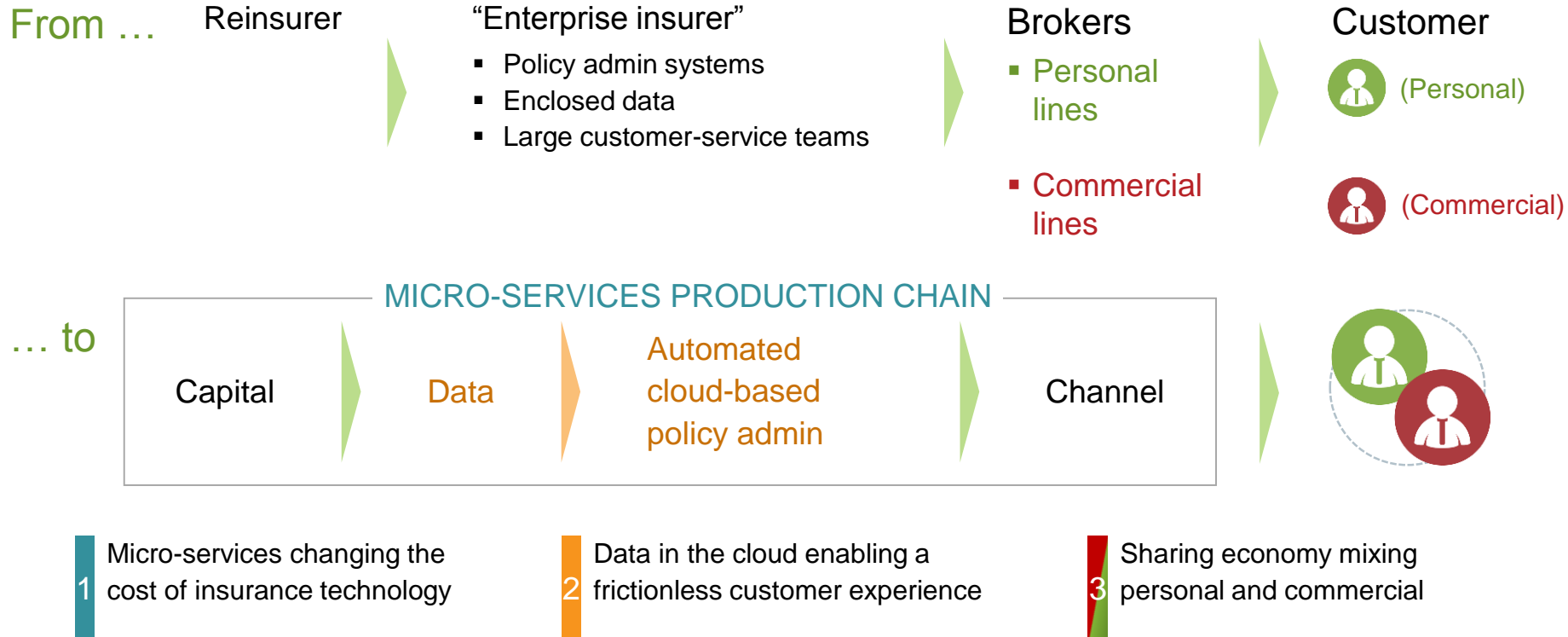
Working closely with our partners at Munich Re who offer us expertise and support services



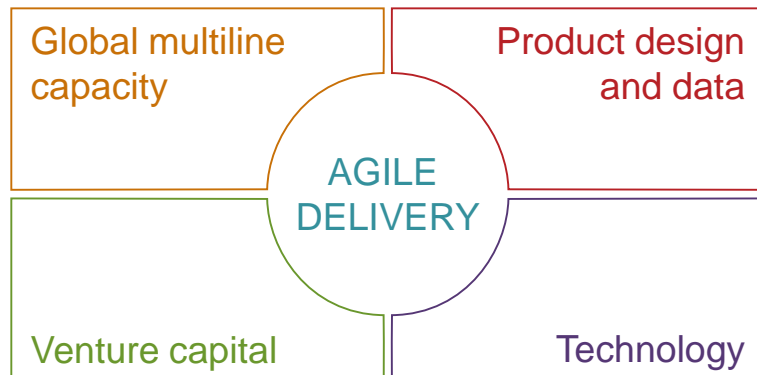
Global mandate across all retail and small-company business classes

▶ Mission: To develop a new “digital wholesale” business field for Munich Re – accessing distribution that neither our primary or reinsurance business fields access currently

Digital Partners seeks to exploit three disruptions



Our proposition



EXAMPLE PARTNERSHIPS



- USA, then Asia and Europe ex UK
- Trov technology
- Munich Re led Series D



- UK then overseas expansion
- Munich Re technology
- Munich Re invested in Series A



- UK
- Munich Re technology
- No investment



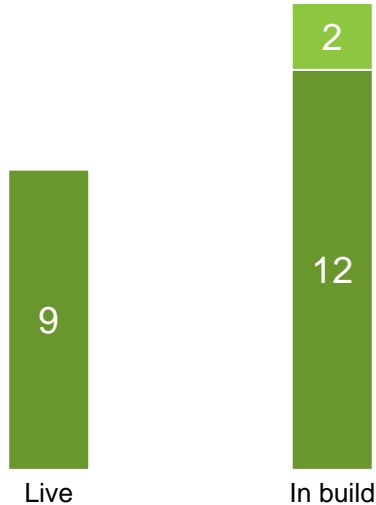
- Global, starting in US
- Slice technology
- Munich Re invested in Series A



We partner with disruptors who are changing the way insurance is experienced by customers

Established
company

Start-up



What makes a good partnership

- Large **total addressable market** – big enough opportunity to reward success
- Credible **team** – capable of building a business to address the opportunity
- **Testable proposition** – learning comes at an acceptable price
- **Sustainable** partnership – with barriers to entry for cheaper capacity

Establish relationships with new potentially strong players in the market and learn/develop new capabilities that can be transferred to traditional clients later on

Digital Partners – Strategic investment activities

Investment thesis

- Participate in upside
- Accelerate growth
- Strengthen relationship
- Increase strategic value of partnership
- Fund ecosystem development for Munich Re and industry

Investment approach

- Minority stakes of <20%
- Stage-agnostic
- Sweet spot US\$ 2–5m – will do seed investments and up to US\$ 20m
- Active investors: Lead or follow, board seat or observer required

Current portfolio

- US\$ 35m invested in US and UK
- Technology companies with MGA business model
- Digital and data-driven customer experience
- Consumer and small business lines of business



trōv

Slice nextinsurance

Key element of Digital Partners' strategy is to invest in selected partners as strategic business owner for investments by Munich Re/HSB Ventures

Trōv app enables people to easily insure things they love, for whatever duration, entirely from their smartphone

How it works



1. Easily collect details about your things
2. Swipe to protect just what's important to you
3. Choose the price that's right for you
4. Swipe to claim for damage, loss or theft
5. Claims are as easy as sending a few text messages

Major elements of the partnership

How does Trōv benefit?

- Product, underwriting and pricing are experimental and needed to support the Trōv customer experience
- Munich Re's international footprint and venture capital funding facilitates quick global expansion

How does Munich Re benefit?

- Investor and board member of innovation-leader
- Capacity provider in multiple countries
- Learning how to manage on-demand insurance

Slice Labs – Insurance for the sharing economy

How it works

Slice



1. Reach Slice directly or through white-label channel (e.g. Progressive.com and 1-800-Progressive)
2. Go through simple underwriting process in advance
3. Turn on insurance on the app or by text when you need it

Major elements of the partnership

How does Slice benefit?

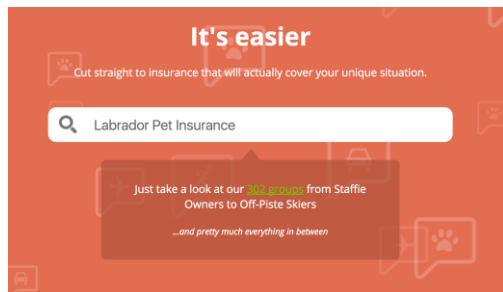
- This product combines commercial and personal lines so required new underwriting thinking
- Munich Re's international footprint and venture capital funding facilitates quick global expansion
- Munich Re rating supports B2B2C channels

How does Munich Re benefit?

- Investor and board member of innovation-leader
- Access to channels not otherwise available
- Developing deeper understanding of sharing economy

Bought by many – Insurance tailored to individuals with specific needs

How it works



1. BBM uses Facebook to determine your interests and match these to relevant insurance products
2. Products are tailored to, and with, groups with a particular interest
3. BBM focus on groups for whom a specific matching product does not exist: “insurance for the long tail”
4. Initial evidence suggests lower acquisition costs, and higher retention than “untailored market”

Major elements of the partnership

How does BBM benefit?

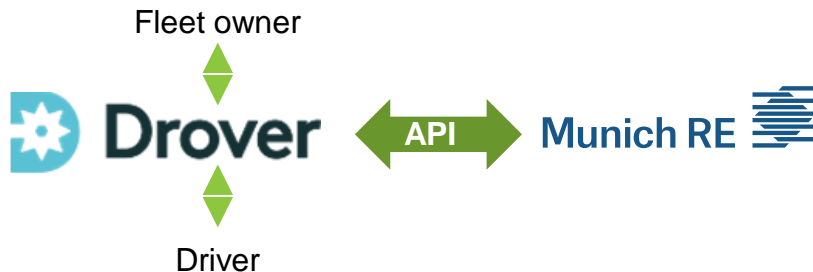
- Flexible mix of Munich Re and BBM technology
- Experimental product design and pricing
- Venture capital
- International scale

How does Munich Re benefit?

- Detailed data on customer behaviour
- Investor in, and insurer to, platform with exceptionally high net promoter score
- Understanding of social media marketing

Drover – Enabling Uber drivers and creating a new asset class for investors

How it works



1. Fleet owner makes cars available on Drover platform
2. Driver rents on flexible terms
3. Both owner and driver are insured via Digital Partners API

Major elements of the partnership

How does Drover benefit?

- Insurance via API: fully automated digital customer experience
- Simple interface to Drover platform
- Rating to attract larger fleet owners

How does Munich Re benefit?

- Profitable and growing business line
- Data on sharing-economy driver behaviour
- Ability to add further distribution to the platform

Building sustainability – Digital Partners in 5 years

40 live partnerships

US\$ 250m VC investments

€70–100m operating investment

Global, multi-line proposition

Unique frictionless and automated underwriting and claims capabilities

Maintained technology advantage

Shareholdings and board seats in partners



OUR AMBITION

To build a global digital-wholesale insurance platform with a largely fixed cost base and a substantial bottom-line contribution

nexible

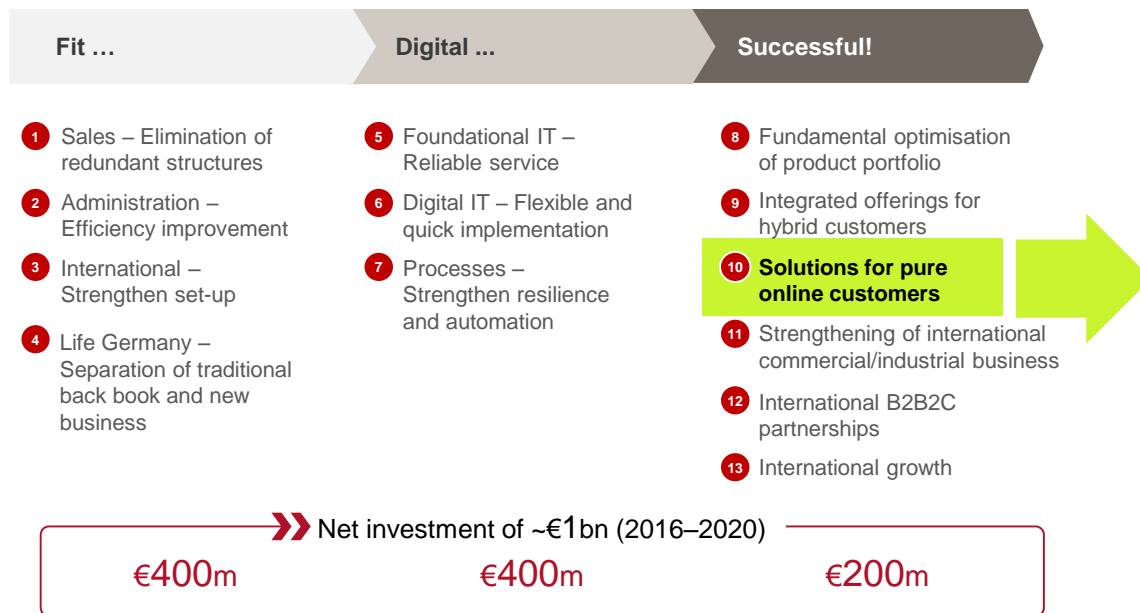
John Paul Pieper



3

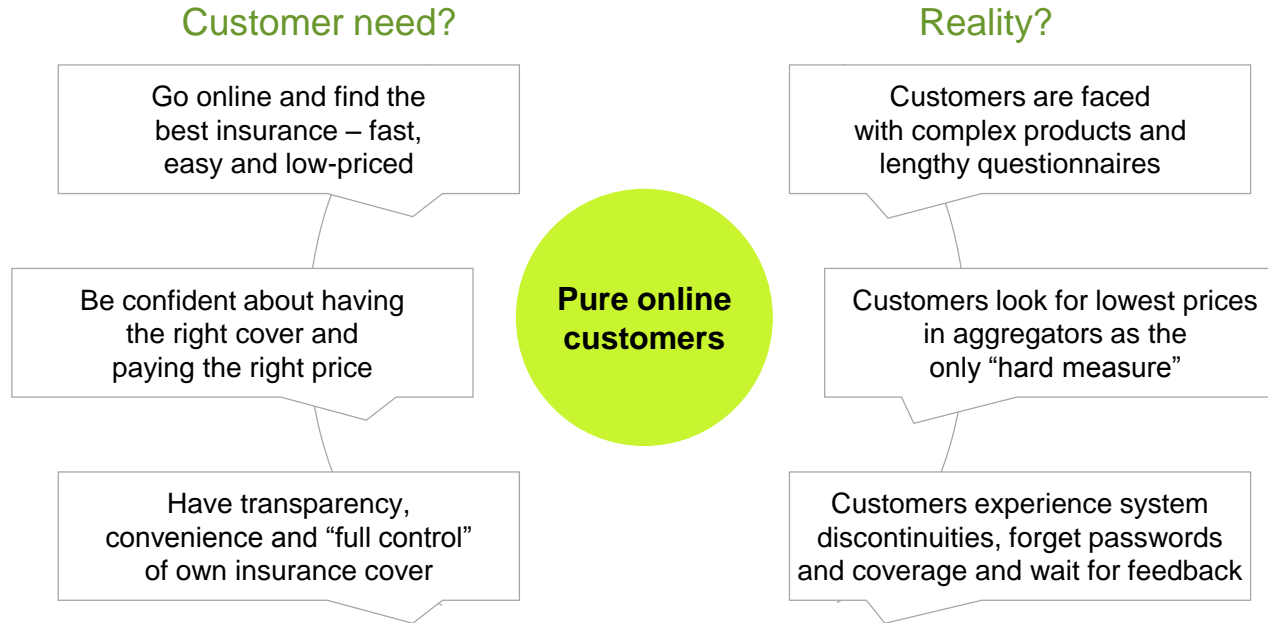
The relative investment into nexible is low – But a clear commitment to target a niche and new way of working

ERGO strategy programme



- Overall investment to build nexible in Germany and another market until 2020 <€50m (gross)
- Limited budgets for ramp-up and running will trigger **creative solutions** to solve problems
- Relatively low fixed costs do lead – with acceptable scale – to **very competitive** expense ratios in the market

We see an untapped demand for pure online insurance

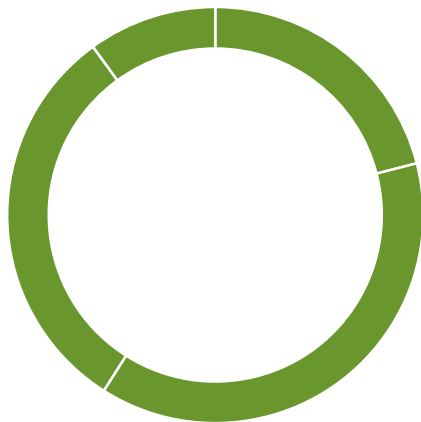


Yet, no player within the market has given full control over insurance cover to the customer

Starting conditions for nexible have been validated

Service quality of motor insurers in Germany?¹

“Inadequate”
10%



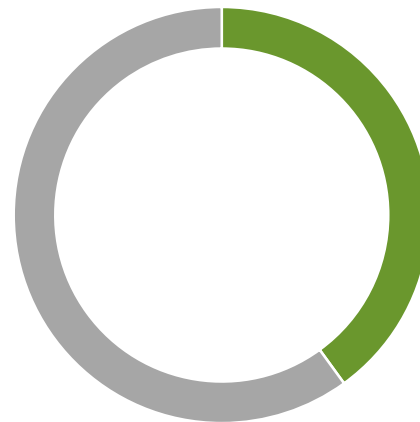
“Sufficient”
31%

“Good”
21%

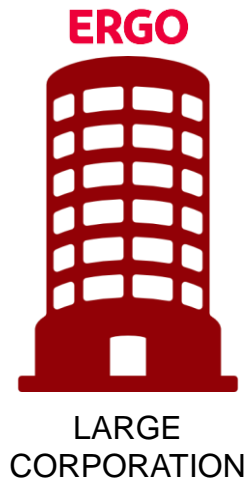
“OK”
38%

Acceptance for pure online sales, claims, service?²

“Yes, I consider it”
40%



The innovator's dilemma within large corporations



“Lead customers” determine resource allocation

Niche markets do not satisfy large corporations

Disruptive market changes can not be analysed

Existing processes and values are limiting success

Technology often confused with customer demand

That's why nexible is well-positioned to innovate

nexible

nexible is set up with a clear value proposition



We built nexible to focus and best **serve**
pure online customers

We came to stay, being part of **two huge insurance**
companies

We are expanding in
products and countries

We're a spin-off



No paper, no phone queue,
cancellable monthly

Competitive pricepoints for
our customers because
we have low costs

Get **fast help** by using the
digital channels you prefer

All we do is digital



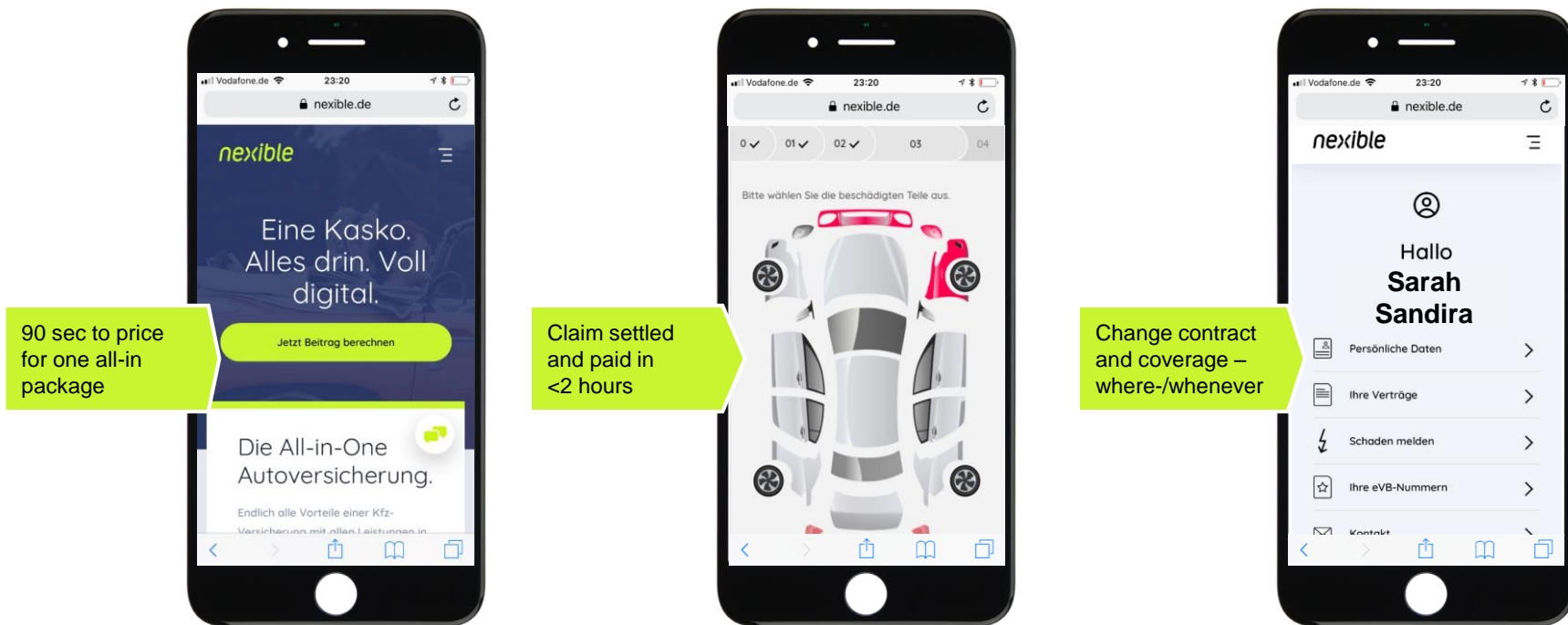
Get **insured** in
less than **90 seconds**

Get **claims settled in**
hours and relax

Change your details and
your **policy whenever** and
wherever you want

We're fast and easy

The customer impact is tangible: It's simply made to fit

nexible

Duty first: We start with what's most important, and work on excitement by experimenting

From duty ...

We have a great product ...

- State-of-the-art pricing
- Worry-free coverage packages
- Reliable (with ERGO and Munich Re)

... that easily fits your changing life and ...

- Pay monthly, cancel monthly
- Customise your coverage, decide yourself
- Low-effort self-service saves you time

... it's digital, but feels personal

- We are mobile first
- We are a brand with edge, character, humour
- Trust through the team and testimonials

... to excitement

... be in control of a complex subject

Always-available service by the digital channels you prefer, full transparency

... enjoy a UX¹ that feels great

Intuitive design, slick and easy, with a twinkle in the eye that makes you smile

... have a bit of fun and get rewarded

e.g. provide incentive for desired behaviour or gamification elements

... feel unique by embracing passion

e.g. co-creation with existing communities to build the perfect product



A purely digital insurance ...



... which is more than you think.

Focus in 2017

Ongoing customer-affinity tests and user experience experiments

“Einfach online versichern” is our motto –
A low cost operation offering a great customer experience



nexible
Einfach
online
versichern

= Simply insured online



**Keep it
simple**



**Do it
online**



**Design
to cost**



**Be
edgy**

All-in-one tarif



Cancellable every month

Pure online touchpoints, great user experience

Risk factors adjustable anytime (repricing)



Lots of standard, avoid exceptions



Continuous automation step by step



Gain momentum with existing online channels

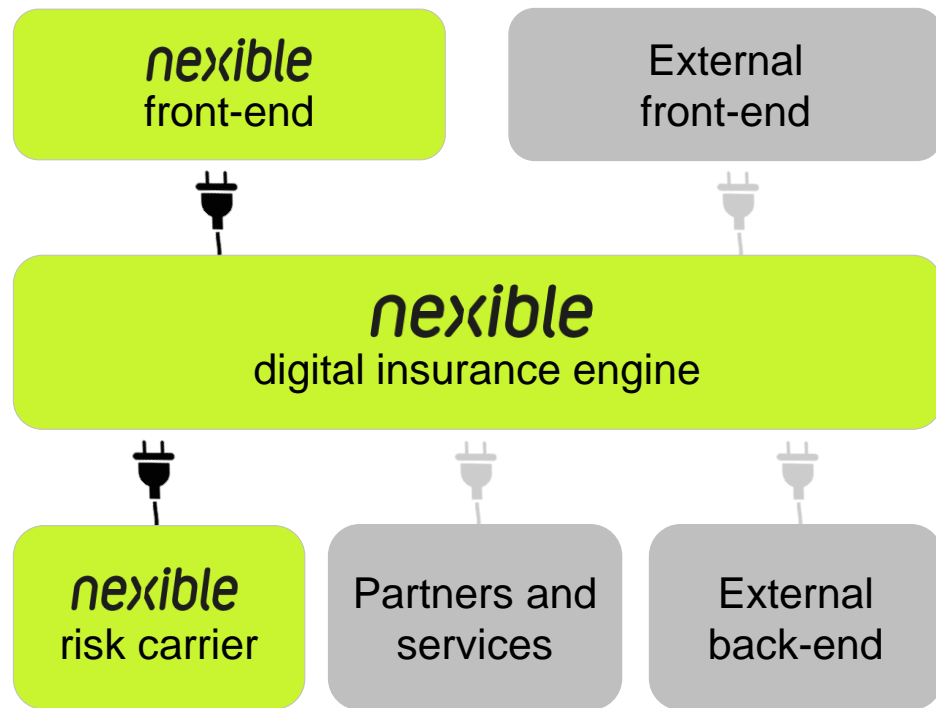
Drive brand awareness by edgy experiments



Potentially challenging for competition

nexible DE has built an API-centric platform for more speed and flexibility

nexible



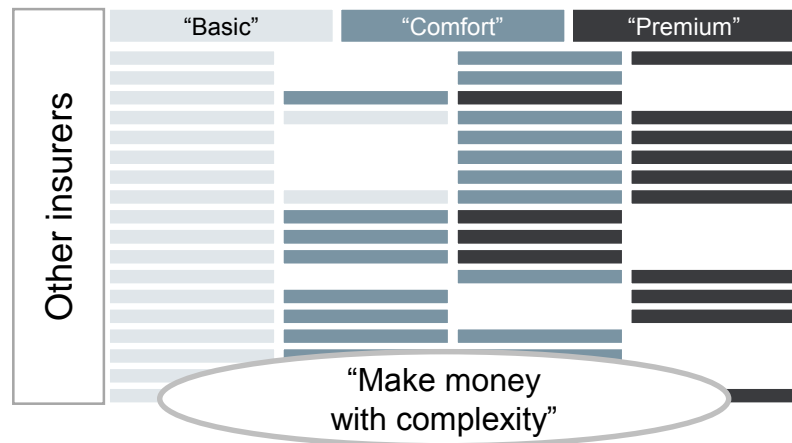
Risk carrier = nexible Versicherung AG
MGA (e.g. platform, front-end) = nexible GmbH

API-centric technology approach

- State-of-the art API-centric platform – efficient build-up of new business models using API to connect to third parties
- Efficient business model due to automation of core processes avoiding low-level manual tasks performed by humans
- Dynamic pricing capabilities for fast-paced product building and development
- Further efficiency and effectiveness realisable by integrating machine learning capabilities based on end-2-end insights gathered all the way through an integrated business model

nexible is aiming to offer a simple product for an attractive price in selected segments

nexible



VS.



- Up to 20 criteria with 2–4 options, each differentiated in typical motor tariffs
- Hard for consumers to understand what's in and what's out, what's needed and what's not
- Pricing inflated by sales channel considerations and unclear discounts

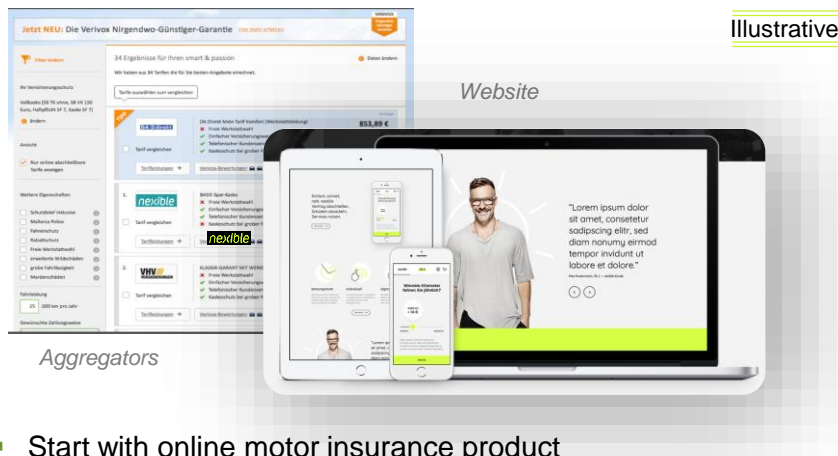
- Best and relevant coverage picked to form one tariff that fits every typical need
- Pricing fully risk-adequate and very competitive in selected customer segments
- Customer can choose from options easily, but we only present options with "wallet-impact"

We focus on motor first for volume and learning – And leverage experiences for services, products and markets

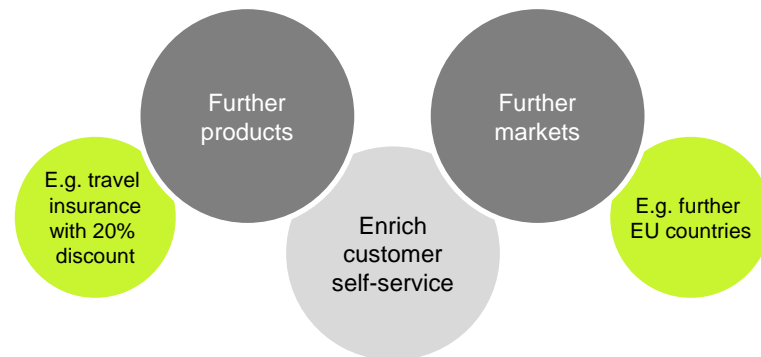
Phase 1

Phase 2

Roadmap to success



- Start with online motor insurance product (highly transactional, big volume market)
- Focus on aggregators for launch in busy season of 2017
- Build-up of customer base crucial to drive customer-centric cross-selling and value-added services along the journey



- Leverage experiences from motor MVP to enrich customer self-service
- Build further products based on feedback gathered and increase customer profitability through cross-/upsells
- Scale offerings to further markets

nexible benefits from its position within Munich Re (Group)

nexible

ERGO

Support from functions
(e.g. HR, Legal)

Data science know-how
and capabilities

Joint real-time advertising

Procurement power and
operations scalability

International market
know-how and access

Broad insurance customer
base and know-how



DEFENCE VS.
DISRUPTION



LOW-RISK
TESTING ABILITY



ADAPT NEW
PRACTICES



BUILD UP
REAL DATA



GROW IN
NEW MARKETS

Munich RE 

Artificial intelligence services

Data science know-how
and capabilities

Branding

Consultancy, e.g. Munich Re
Motor Consulting Group

International market
know-how and access

Broad expert network

The nexible team brings in all required capabilities

nexible

MANAGEMENT TEAM



CEO



CFO



COO (Interim)

PROJECT TEAM (WITHIN ERGO)



Business development



Transformation back into ERGO



Public relations



Human resources

- Former ERGO employee
- Former different industry or company
- Part-time support ERGO

MARKETING



Digital Branding



Performance Marketing and Analytics



Social Media Performance Marketing

PRODUCTS AND SERVICES



Chief Actuary



Product Management and Underwriting



Product Owner Frontend and User Experience



Actuary (Interim)

OPERATIONS



Operations and Business Intelligence



Operations Processes



Operations and Customer Service



Data Science

CLAIMS AND SUPPORT



Claims Management



Claims Process and Customer Experience



Claims and Partner Management

TECHNOLOGY



Chief Product Owner



Architecture and Technology

SUM.CUMO
Technology-Partner

We learned that a few things are key to being successful

1. We **trust in the brand** we create and fill it with life
2. We **stick to our beliefs**, but do not shy away from massive pivots
3. **Pure digital** means pure digital – as far as we can get
4. Unleashing **the power of two giants**, we benefit from being part of ERGO and Munich Re
5. We balance **leveraging corporate resources** and establishing **true autonomy**
6. **Speed beats perfectionism** – we fail fast and learn more
7. Development and learning cannot be a silo – we systematically **share back with ERGO**

Financial calendar

2018

6 February	Preliminary key figures 2017 and renewals
15 March	Balance sheet press conference for 2017 financial statements Analysts' conference in Munich with videocast
25 April	Annual General Meeting 2018, ICM – International Congress Centre Munich
8 May	Quarterly statement as at 31 March 2018
8 August	Half-year financial report as at 30 June 2018
7 November	Quarterly statement as at 30 September 2018

For information, please contact

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