MARSH

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PLUG AND PLAY TECH CENTER
SUNNYVALE, CA

Insurance 5G

The cognitive transformation is just beginning

Jon Walheim

US Insurance Industry Lead Partner, IBM Global Business Services

... as insurer revenue shifts from risk premium to services …

Illustrative Revenue Mix Outlook for Insurance Ecosystem

Non-Premium Services

InsurTech Erosion

Risk Premiums

Percentage of Revenue

Year
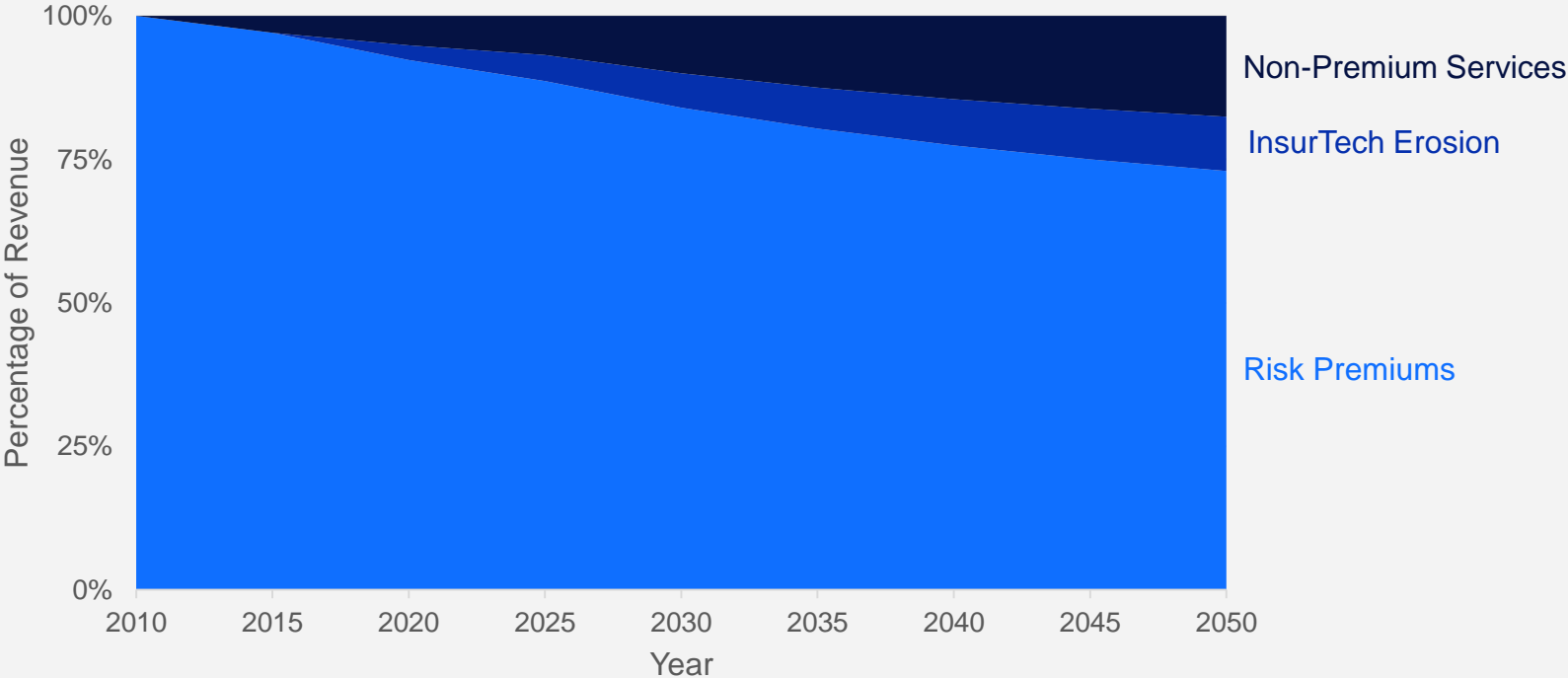
… requires transformation of the traditional paradigm of insurance.

Instrumentation
"Insurers as experienced risk mitigators"

Pay claims and benefits after a loss

Proactively prevent losses

Interconnectedness
"Insurance as a Service"

Sell a policy at fixed term and premium

Proactively cover at a point of risk

Intelligence
"Insurance as experienced risk planners"

"Insurance is sold, not bought"

Add value to insured through strong advice

Data is the next natural resource

How can insurers assess, price, and manage risk within the context of data ubiquity?

Data is transforming every industry, profession and domain.

102,000,000 wearables shipped in 2016, growing to 237,000,000 by 2021	**100,000** new cancer articles published every year	**80,000,000** MRIs taken every year, up from 3,000,000 in 1980	**2,200,000,000** locations generating hyperlocal weather forecasts across the globe every 15 minutes
2,581,586 emails every second	**10,000** new software vulnerabilities recorded in 2016, up 30% since 2011	**600,000,000** forms of malware - with close to 400k variations introduced daily	**500** hours of video uploaded to YouTube every minute

Nature and volume of data continue to evolve …

Data you possess   **+**   **Data outside your firewall**   **+**   **Data that's coming**

- Customer records
- Transactional systems
- Predictive models
- Institutional expertise
- Operational systems

- News
- Events
- Social media
- Weather
- Geospatial information

- Internet of Things (IoT)
- Sensory data
- Images
- Video
- "Data in motion"

Structured and active
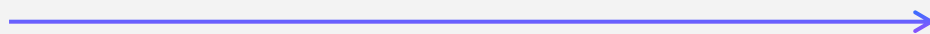
Unstructured and dark

Expose potential of current data stores

Derive value from public data and licensed private data

Rethink data management for new data types and sources

… and can enable better decision making throughout the insurance value chain as capabilities shift from automation to insights.

Automating the World →→→→→→→→→→→ Understanding the World

Engaging Users ❯ **Data in Motion** ❯ **Applying Analytics** ❯ **Generating Insight** ❯ **Driving Actions** ❯ Cognitive

- Voice Technology
- Visual Recognition
- Virtual Reality
- Augmented Reality
- Wearables
- Embodied Cognition

- Public Data
- 3rd Party Data
- Weather Data
- Corporate Data
- Drones/IoT

- Personalized
- Machine Learning
- Predictive
- Probabilistic
- Trained
- Reinforced

- Life Event Detection
- Behavior Based Insight
- Operational Efficiencies
- Fraud
- Risk

- Marketing
- Training
- Notifications
- Real-time Assistance
- Coaching
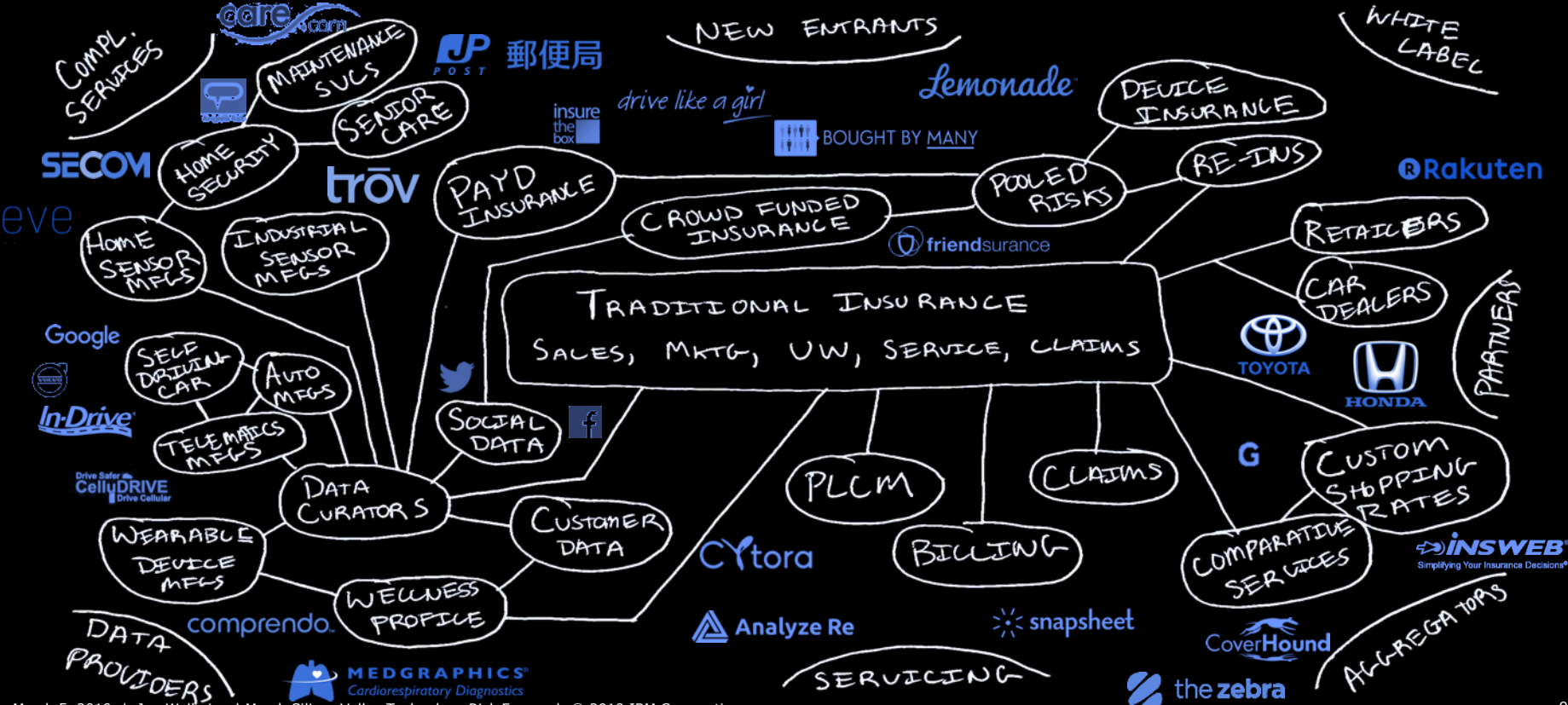
Digital ecosystems are rapidly forming around us

How can insurers become relevant in these new ecosystems?

Ecosystems are emerging around us with non-traditional partners and competitors … the key is to gain relevance for our customers.

Engagement defines your brand

How can insurers engage to create a differentiated brand?

Customers want to be known and understood as an individual … every interaction is an opportunity to build your brand

THE IMPLICATIONS AND OPPORTUNITY FOR INSURERS

Unprecedented technological, social and regulatory disruption is giving rise to the next era of business reinvention—with business platforms at its heart

Outside-in

Demand for Digital Reinvention™

Changing customer expectations	Pervasive interconnectivity

Business platforms

Inside-out

New outcomes from data possible with:

Automation	Blockchain	Artificial Intelligence

Insurers need to establish new business models to enable new capabilities and revenue sources...

IoT

Blockchain

New Capabilities

Dynamic Product Management

Dynamic Contract Management

Desired Business Outcomes

Real-Time Integrated Business Network

Faster Time to Market

Capital light, Variable Cost Operating Structure

Top-line Growth

Automated Claims Clearing

Artificial Intelligence

Real-Time Experience Management

Prospective Underwriting and Pricing

Open API Economy

... while focusing on differentiating front office factors, relying on ecosystems and cognitive, and less on back office
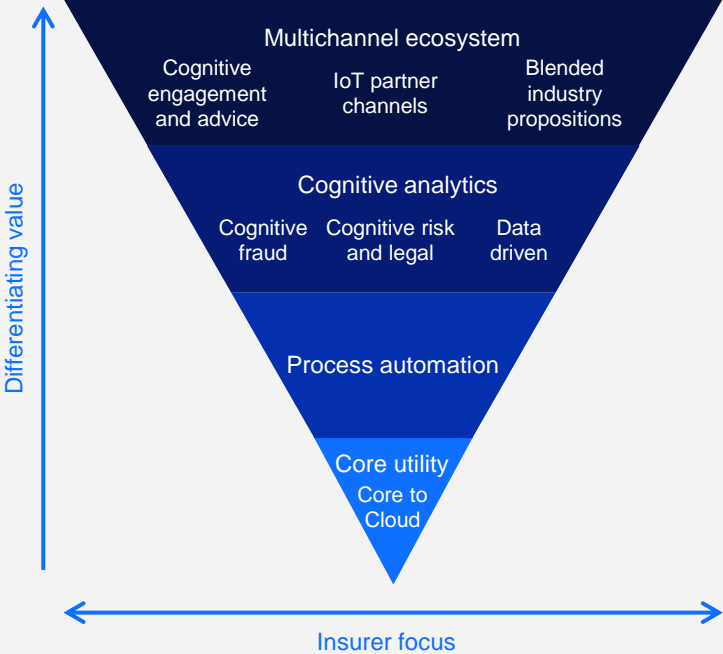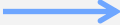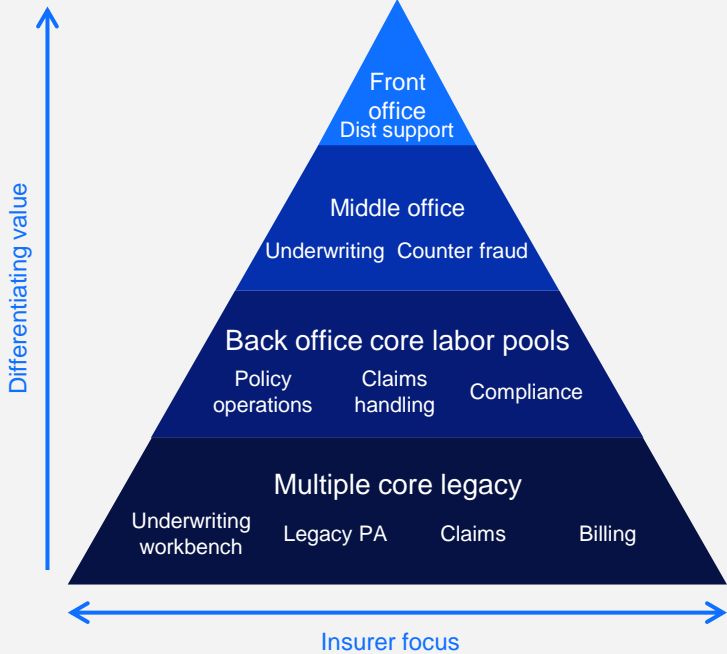
Case studies

Case Study 1: Insurance-as-a-Service with the IBM Insurance Platform... IBM has two public platform instances underway in North America for Group Benefits and Europe for Closed Book Life
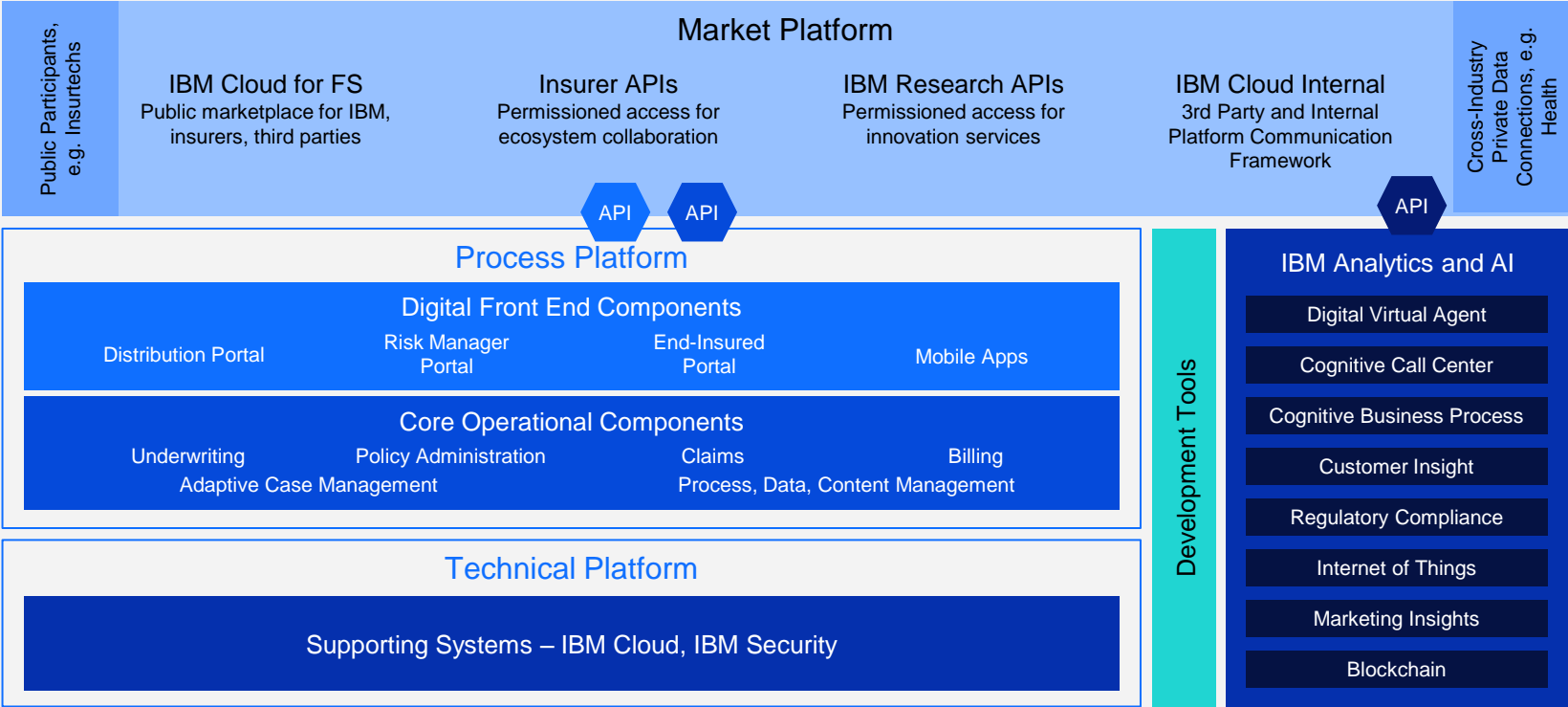
Case Study 2: "Aging in Place" is another opportunity to serve policyholders in a non-traditional way.

Generation 50+

62%
wish to live in their own homes

84%
wish to have age-based techniques e.g. emergency call or technical communication with doctors, nurses, etc.

95%
wish to get help and care at home

Case Study 3: An IoT equipped smart home offers many use cases for elderly care, which insurers can provide as a value-added service.

Water detector
Microwave sensor
Hub and presence detector
Window sensor
Stove sensor
Emergency button
Smoke detector
Motion sensor
Fridge Sensor
Cupboard sensor
Toilet sensor
Window sensor
Pressure mat
Door sensor
Motion sensor
Acoustic sensor
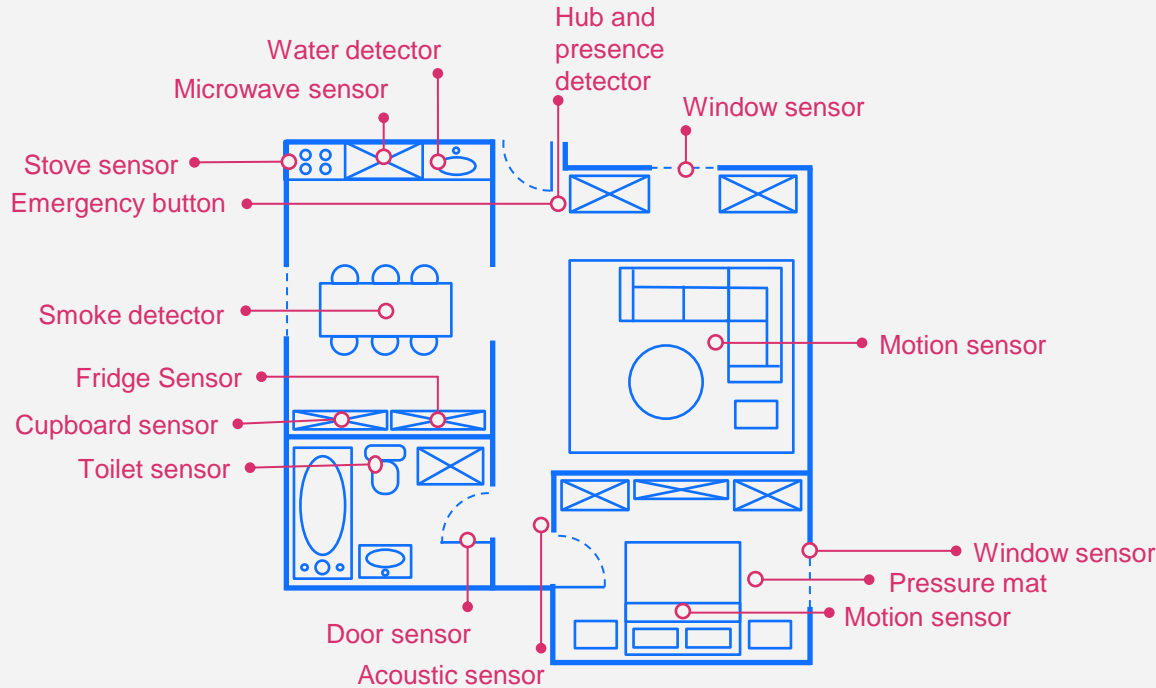
Elderly Care Use Cases
- Fire
- Prevention
- Emergency
- Discharge management
- Chronic Illness
- Accident
- Intrusion/theft

Case Study 5: The Netherlands' national bike theft register

Bicycle manufacturer
-Transfers ownership
-Registers new bikes

Bicycle shop (on behalf of owner)
- Registers bike and lock
- Associates lock with bike
- Transfers ownership

Owner
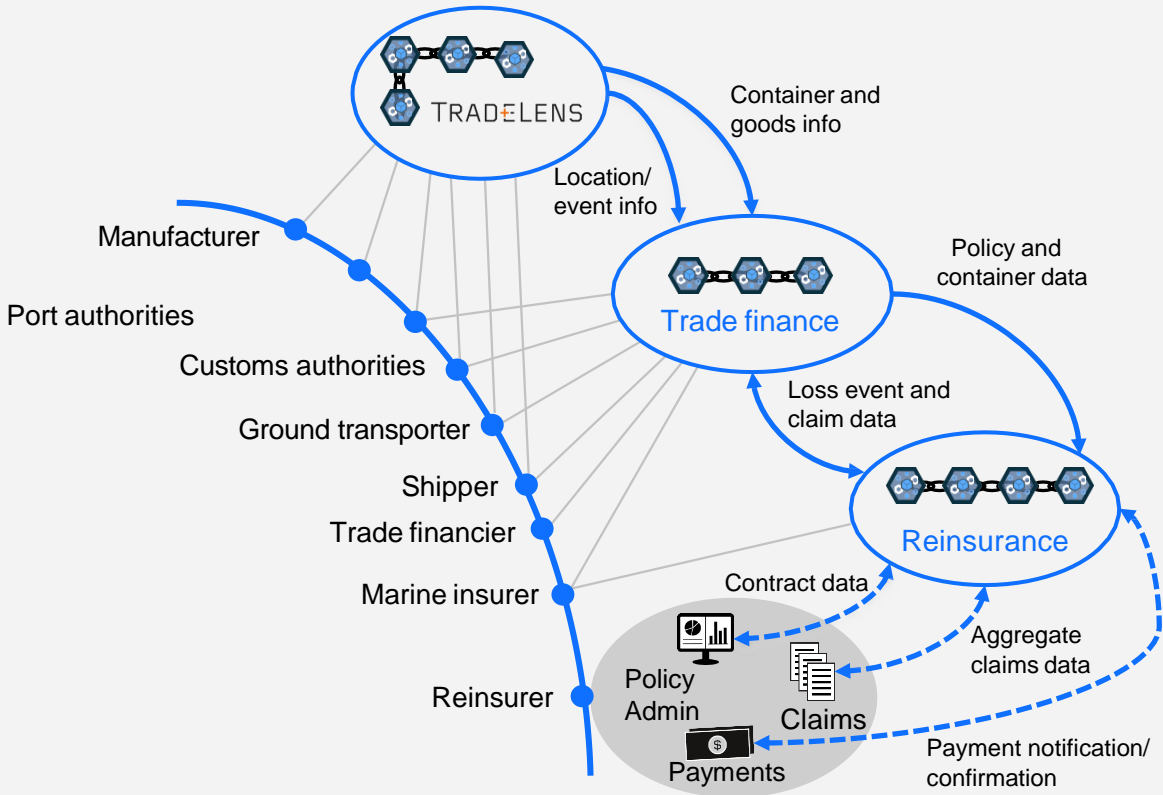- Registers bike and lock
- Insures the bike
- Transfers ownership
- Reports lost or stolen
- Requests insurance claim
- Checks status claim
- Deregisters bike (disposed)

Smart Lock - LoRa Lock
- Registers open/ close status and location
- Registers and confirms location
- IoT & GPS enabled
- Bluetooth

Police
- Registers 'notice' of owner of Lost / stolen bike
- Matches found bikes with owner
- Disposes bikes that are not claimed

Municipality
- Receives anonymized parking locations
  As registered by LoRa lock) for urban planning

Insurer
- Validates stolen claim (smart contact
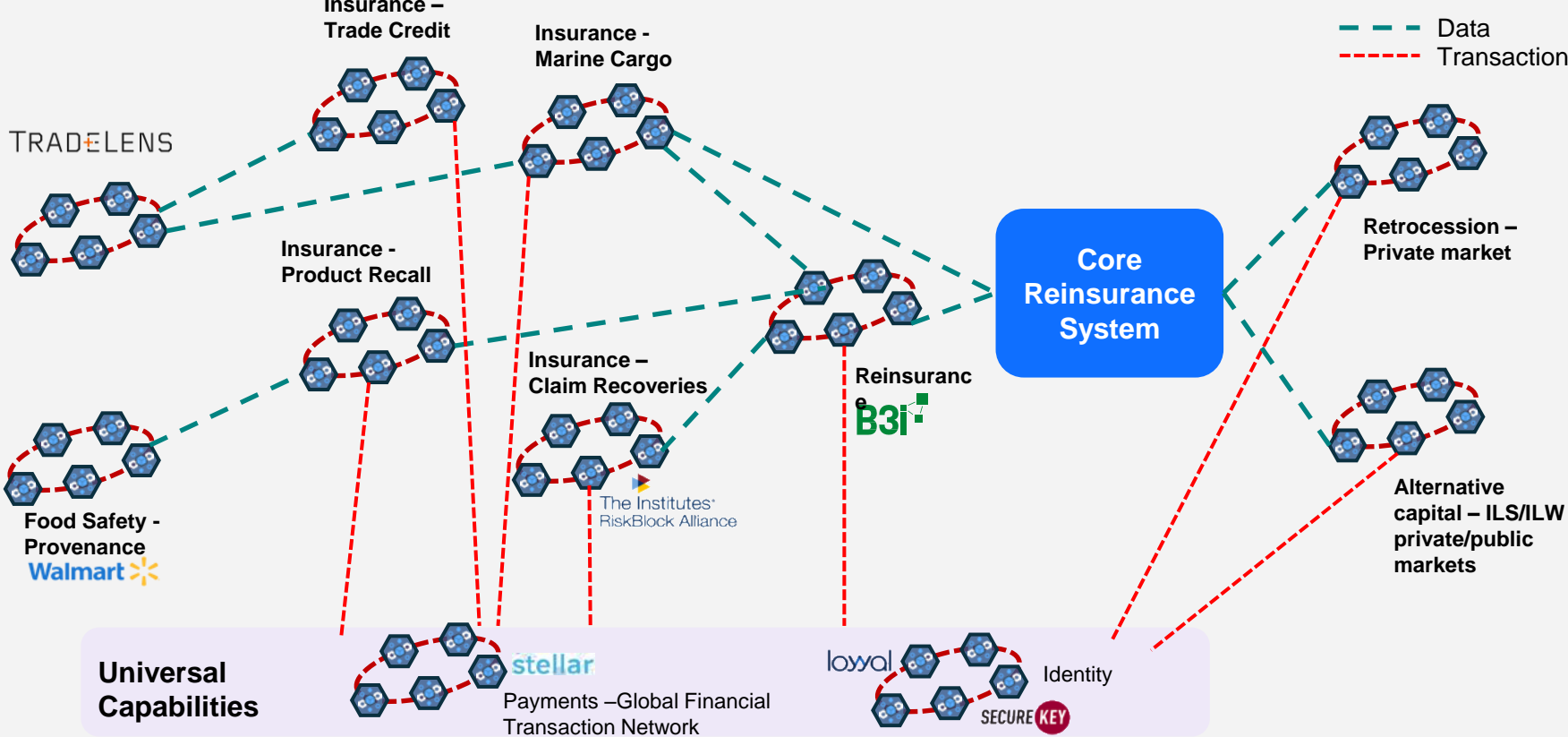 Owner report lost + police report)
- Update claim status
- Pays out insurance

Case Study 6: An international shipping network spurs industrywide innovation…

Illustration of network interoperability

TRADELENS

Container and goods info

Location/event info

Trade finance

Policy and container data

Loss event and claim data

Reinsurance

Manufacturer

Port authorities

Customs authorities

Ground transporter

Shipper

Trade financier

Marine insurer

Reinsurer

Contract data

Policy Admin

Claims

Payments

Aggregate claims data

Payment notification/confirmation
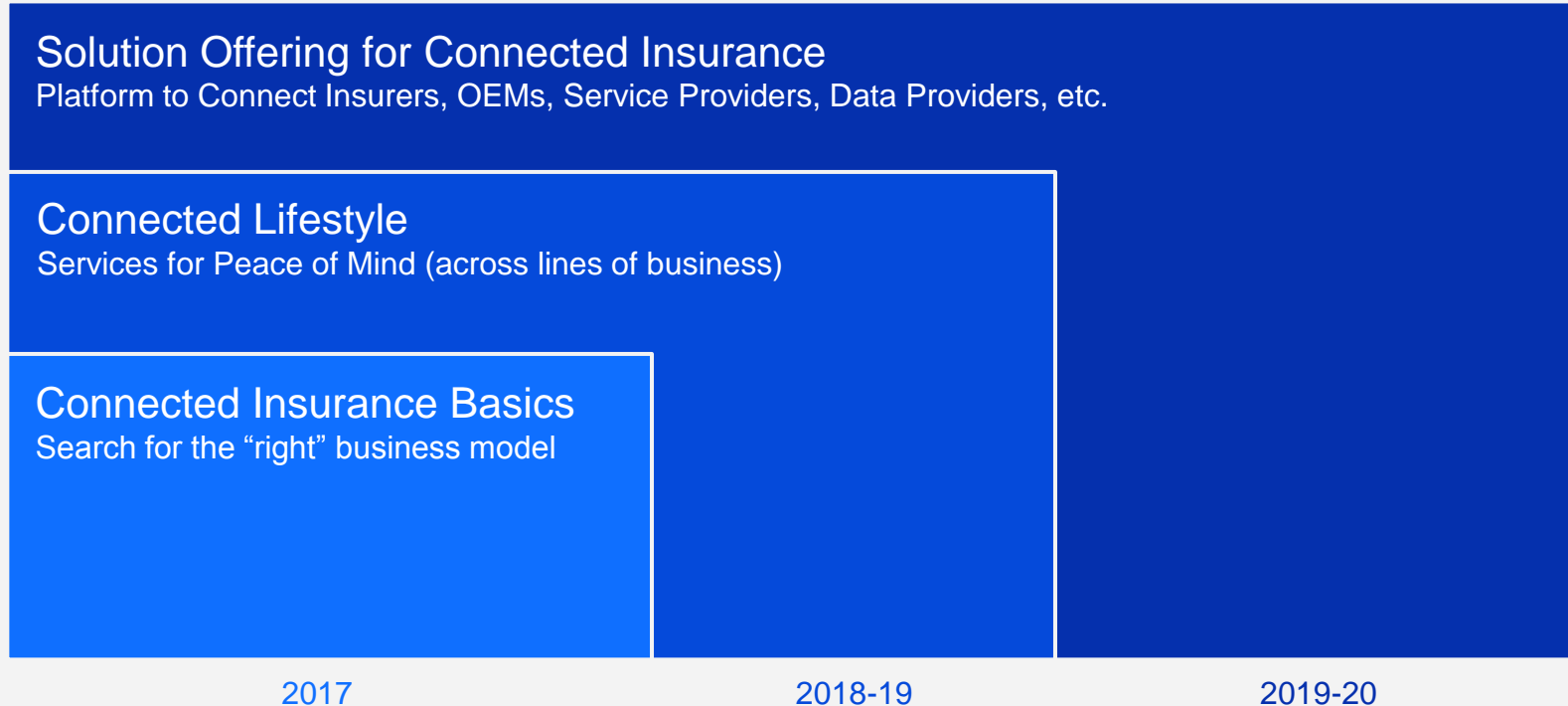
Case Study 6: ... and requires new ways of thinking about the world.

Case Study 7: European insurer plans to monetize data by establishing an "analytics as a service" industry platform.

Solution Offering for Connected Insurance
Platform to Connect Insurers, OEMs, Service Providers, Data Providers, etc.

Connected Lifestyle
Services for Peace of Mind (across lines of business)

Connected Insurance Basics
Search for the "right" business model

2017   2018-19   2019-20

Case Study 8: Building blocks for a cybersecurity insurance platform

IBM Security Services – Commercial Model Options

Carrier or Broker Bundle

Carrier includes selected IBM Security offerings as embedded elements in their cyber insurance products.

For example:
- Employee Cyber Awareness Web based training
- X-Force Threat Assessment Service
- X-Force Incident Response
- Vulnerability Scans
- Security Log Analysis

Carrier or Broker Upsell

Carrier acts as a channel partner to resell selected security services offerings to help reduce their cost of claims.

For example:
- X-Force Incident Response
- Managed Incident Response
- Security Log Management
- Advanced Threat Assessment

Joint Go-To-Market - We Co-Develop/Co-Sell

Comprehensive partnering with Carrier to jointly bring innovative cyber risk insurance solutions to the market.

For example:
- Carrier or Broker is entering / expanding in the market with IBM helping to develop a bespoke service specific for a large Prospect

Some learnings from our journey ...

It's not about a "Digital Strategy"

Operational agility is critical

User experience is key

You don't need to own everything

Digital eco-systems are forming all around us

Execute with speed

Focus is important ... what is going to move the needle in your business?

Think big, start small, scale quickly