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Seize the Moment



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Context: Business Objectives

 Needed to rethink its underwriting process to become more agile, to respond faster to market demand and remain competitive in the insurance market.

Build the foundations to be ready for **Digital Revolution**



Reduce Time To Market

Reduce Cost To Market

Reduce Risks

 Wanted to launch a 4 months pilot project to initiate the modernization of P&C Retail landscape but it was concerned about the upfront costs and the risk related to the introduction of new software components



The notation shangest of my species that autories, nor the most intelligent, but suffer the one most adaptable to change."

- Charles Darwin -



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AXA Strategic Underwriting – Agenda



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Context

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Context: AXA Overview

AXA in the World



Countries in which AXA aperates Acquisitions and new business launches in 2014 -

AXA employs 157,000 people, based in 56 countries, serving 102 million customers and has a network of 30,000 Brokers & Agents

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REVENUES

UNDERLYING EARNINGS



ASSETS UNDER MANAGEMENT



BREAKDOWN BY BUSINESS LINE Underlying earnings before tax,

excluding holding company



· Protection & Health Savings & Asset Management (including general account business, unit-linked business and banking) Property & Casualty and international insurance

GEOGRAPHIC BREAKDOWN OF BUSINESS Underlying earnings (insurance activities)



- · Northern, Central and Eastern Europe · Japan
- France
- United States
- Mediterranean and Latin American Region
- Asia (excl. Japan).
 - International Insurance
 - United Kingdom and Ireland Direct



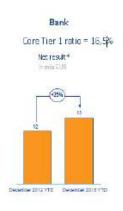


Context: AXA Overview

AXA in Belgium

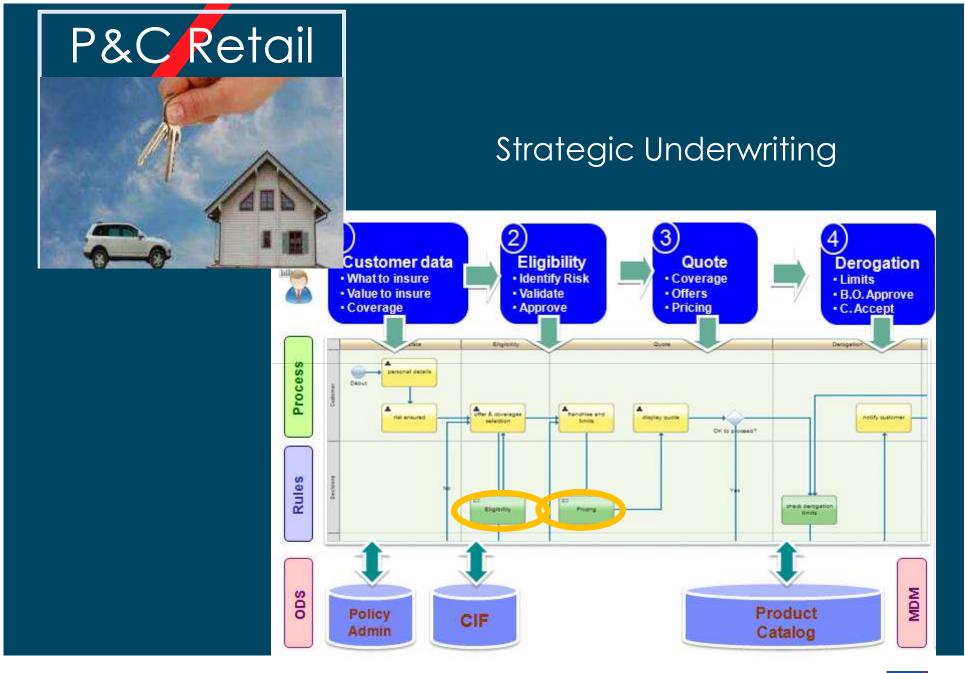
- Network of 5,000 brokers & bank agents
- 4,700 employees
- 2.8 million clients
- #1 in P&C Insurer and #3 Life Insurer
- 5th Bank on the Belgian Market
- 3 billion euros invested in real estate







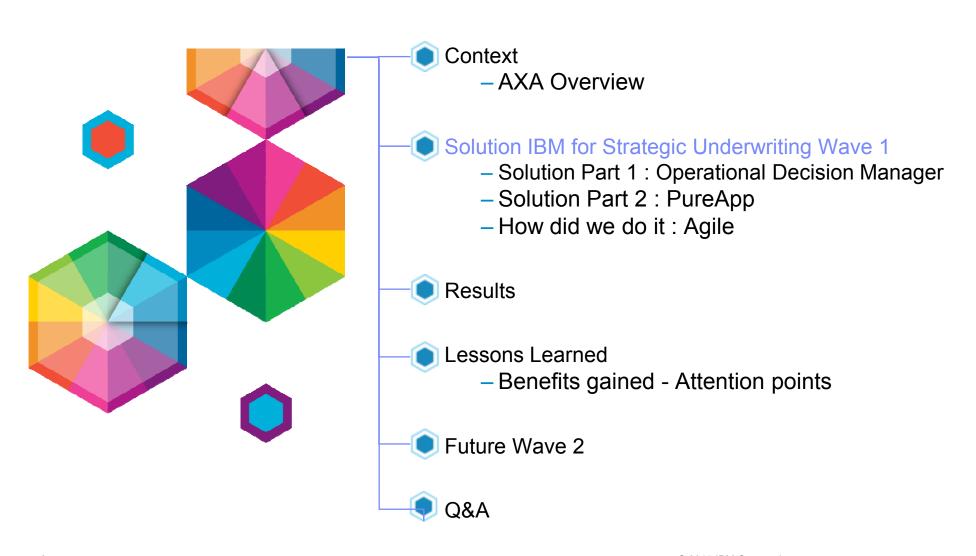




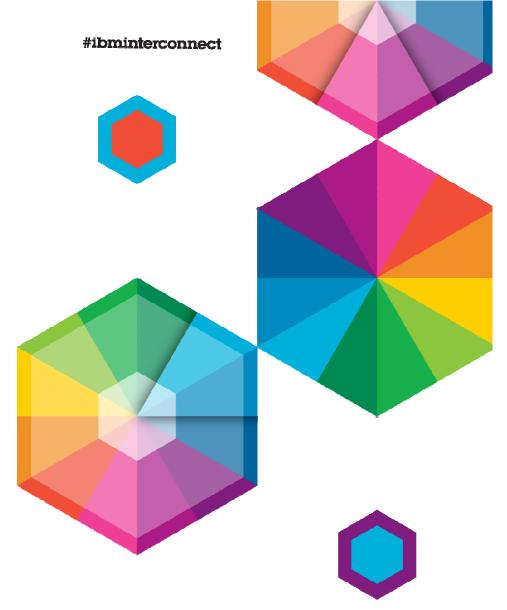


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Solution Part 1
Operational Decision
Manager
(aka ODM)



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Externalize and Manage Business Decisions



- Eliminate decision silos
- Make decision logic accessible to Business and IT
- Implement fine-grained, contextspecific logic

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all of the following conditions are true:

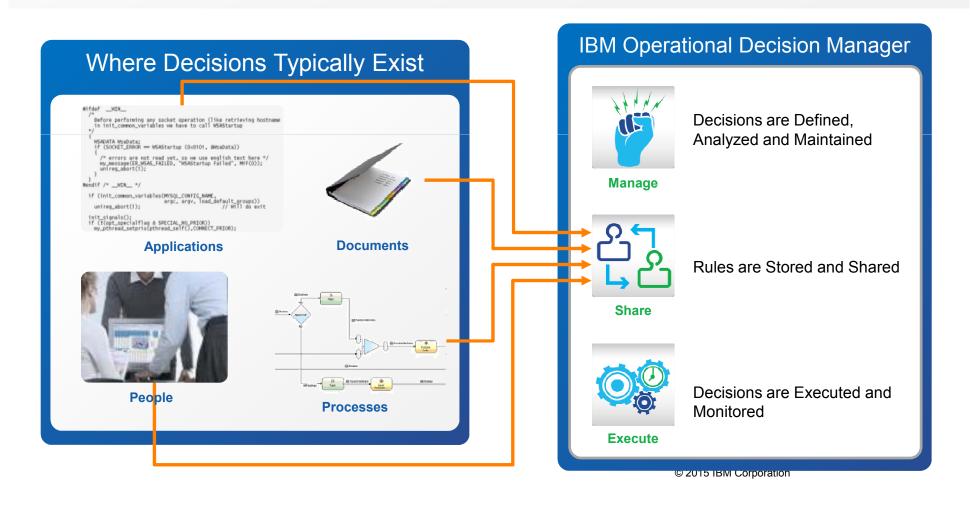
- the age of the driver is between 18 and 21

- the number of accidents the driver has been involved is at least 1

- the number of traffic tickets the driver has received is at least 1

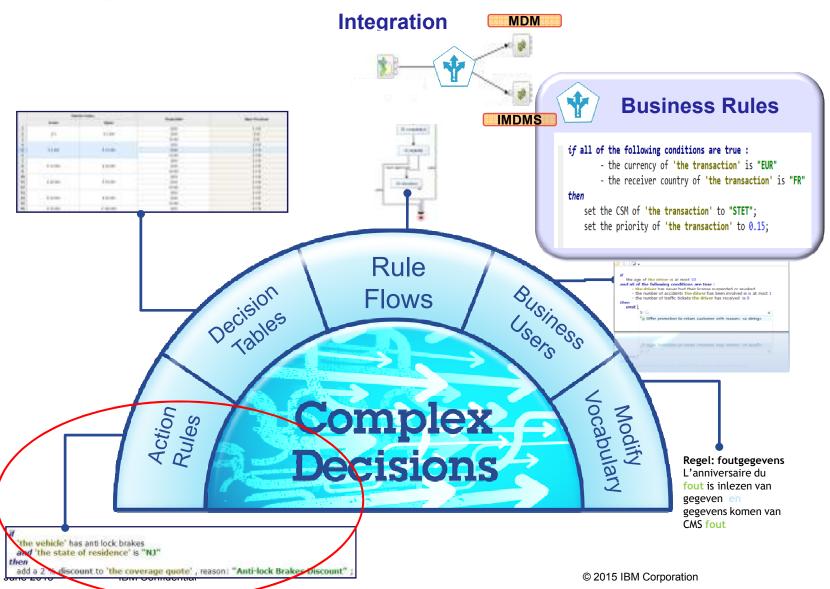
then

add a $ 8 surcharge to 'Auto Quote Response' , reason: "Young driver surcharge" ;
```





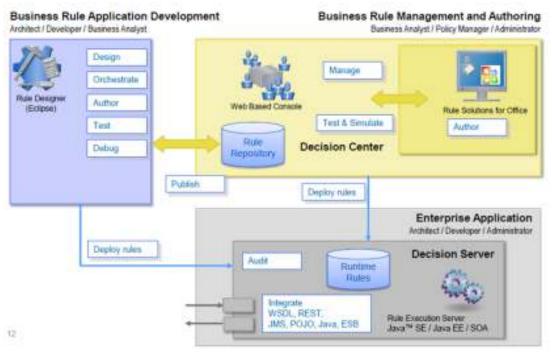
Rules Management Services—IBM Operational Decision Manager (ODM) Rules management creates Business Flexibility





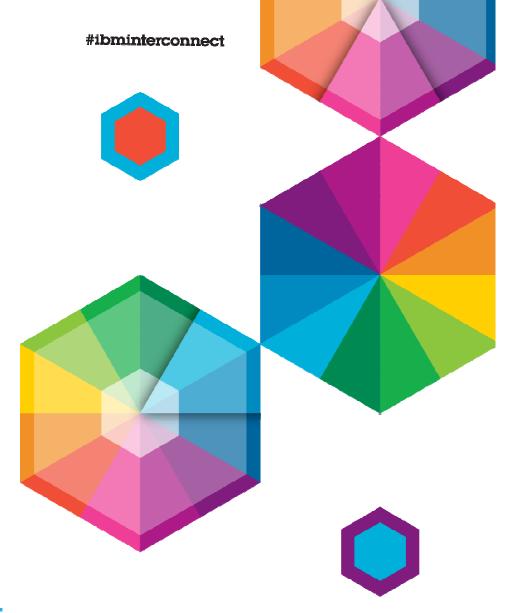
ODM: Product Tour

ODM is composed of many components:



- Installation specificities:
 - 1 DC environement to allow business users to centraly manage (maintain and test) business rules
 - 4 DS environments to execute the business rules (Integration Test, Functional Test, Staging, Production)
 - Existing Client applications to be integrated with new ODM component via ESB
 - ¹No DR setup because rollback strategy available

Solution Part 2 PureApp



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IBM Patterns

- Includes expert patterns and script package samples to enable fast, optimized and consistent implementations according to best practices
- Automated installation and configuration of the necessary software helps to minimize cost and reduces risk

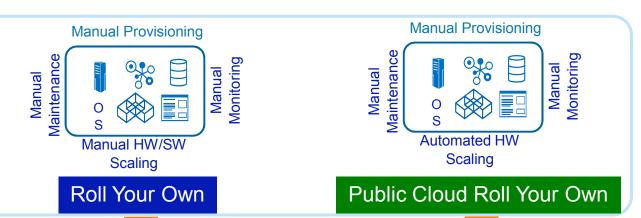




PureApplication on SoftLayer brings cloud economics & hybrid cloud to proven PureApplication platform

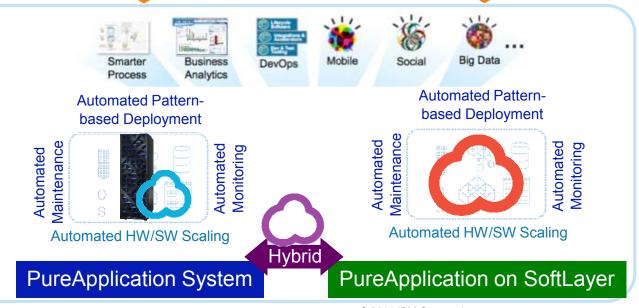
Manual

Deployment
Monitoring, Scaling &
Maintenance is
manual



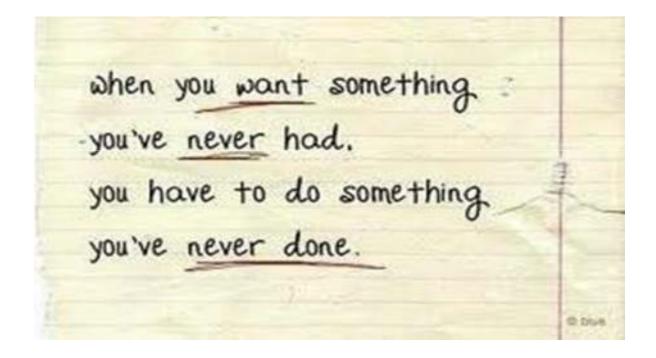
Automated

Simplicity, Speed & Lower TCO





ODM: Infrastructure Scenarios



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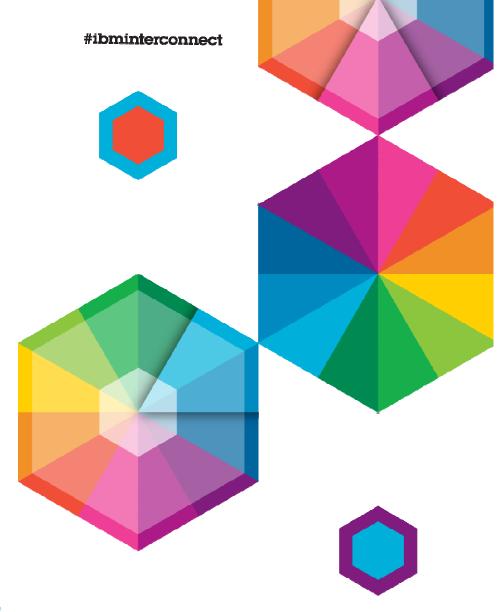
ODM: Infrastructure scenarios

- Dedicated Off Premise Cloud scenario selected because it allows us to quickly setup standard infra for ODM (using Patterns) while minimizing the initial investment and limiting the risk
- In the short term, iPAS on premise has not been considered as a viable option because not in line with test and learn principle
 - The timeframe is too short to put such decision on the project critical path (approbation from Group, ATS local and global, Large investment from day one ,...).
 - Over-sized infra is installed from day one and most probably 10 cores from available 32 are sufficient at start.

General Announcement 13 June 2014

Up and running 1 day later, Business started immediately

How did we do it **Agile**



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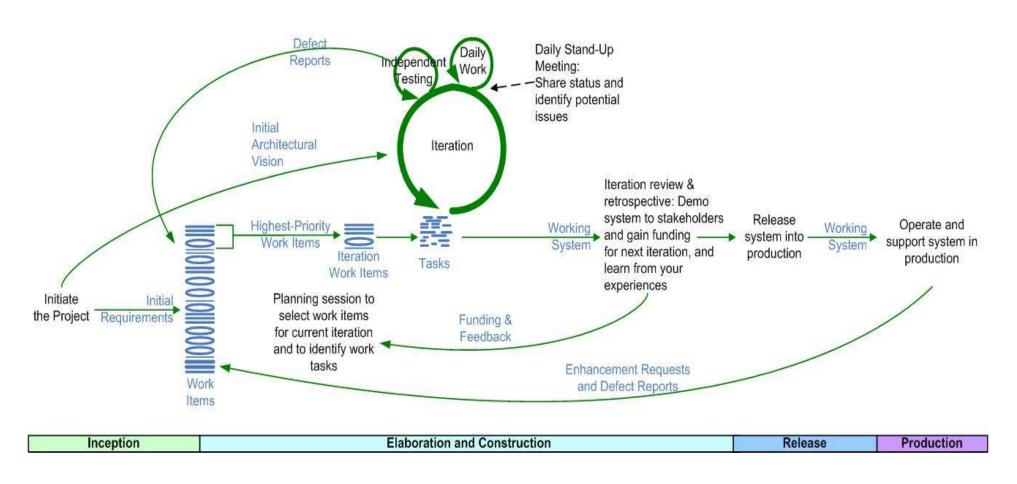
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The Full Agile Delivery Lifecycle

Each 4 weeks have results of next Iteration Work with Business Requirements from day 1





Context: Project

Scope

Allow business to take back control on underwriting rules for home insurance products

Timing

Project started in June 2014 and first delivery in October 2014

Key Principles

- <u>Test and learn approach:</u> start with minimal scope (and investment) and grow if solution fits with business expectations
- Agile methodology is used to gradually deliver capabilities towards the customer (sprint = 4 weeks / 4 weeks = 1 release)
- Partnership (ONE Team): Business, IT, ATS (Infra) and IBM

Pilot Approach

Rollback procedure available from day 1 (fail fast principle). Allow to innovate while limiting the operational risk

Technology

IBM ODM - Key software component to be integrated in existing application eco-system



Results: timeline



1 June 2014 – IBM Contract Signature



13 June 2014 – Pure Application Service on SoftLayer is GA



1 July 2014 – Project start => first ODM environment available



15 Augustus 2014 – All ODM environments available



October 2014 Release – Home Insurance: Business able to manage **Underwriting rules** via ODM



December 2014 Release – Home Insurance : Business able to manage **Pricing Rules** via ODM



February 2015 Release – **Business updates Pricing rules** without IT intervention

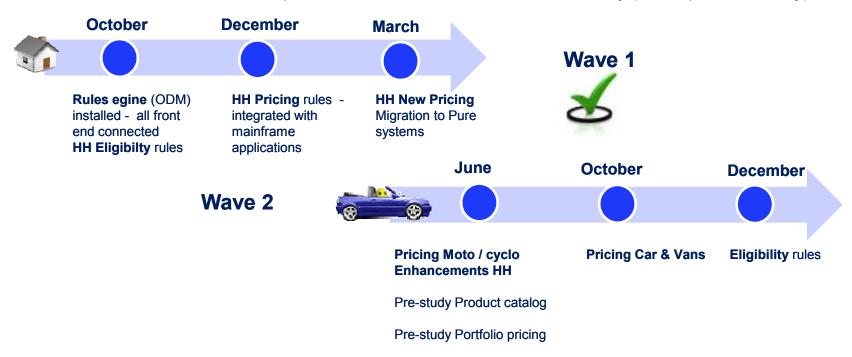


March 2015 – **Final Wave 1 with advanced tarification** based on specific business requirements (neighborhood and broker)



Wave1 rapidly delivered new short term capabilities Wave2 extends pricing to other branches & explores new capabilities

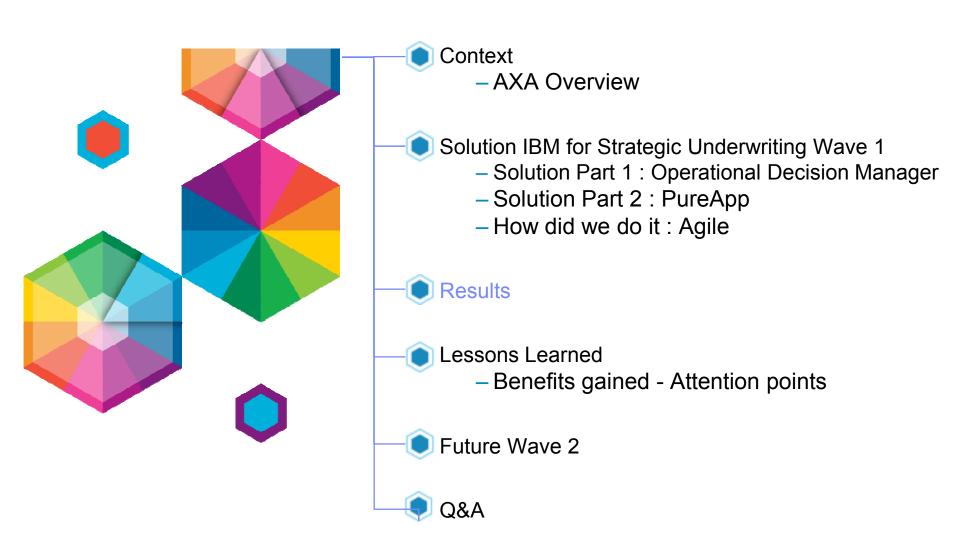
- Improved risk selection linked to Cat Nat (expected since 2006)
- More nuanced pricing through use of external data thanks to the neighborhood zoning
- Improved reactivity to competition, unexpected events
- Additional modifications made possible ... ex. Increase broker autonomy (too expensive today)





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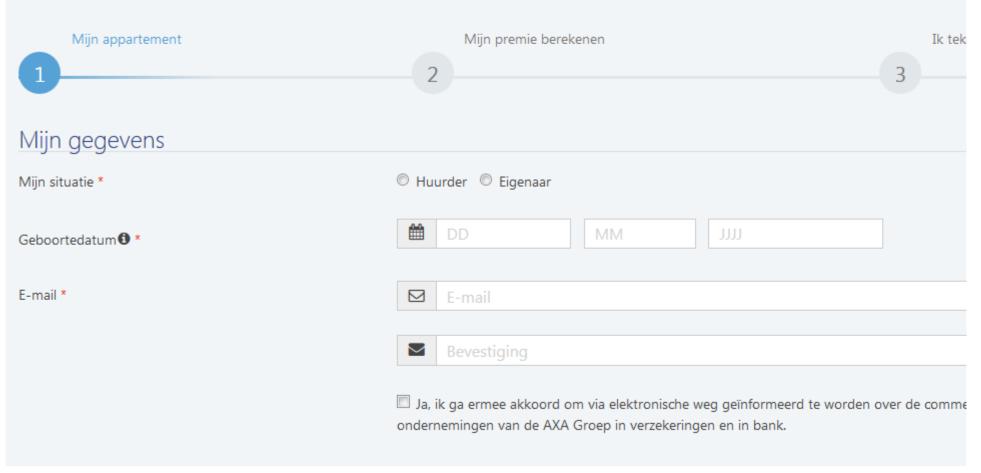
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Woonverzekering voor appartement van max 140m²



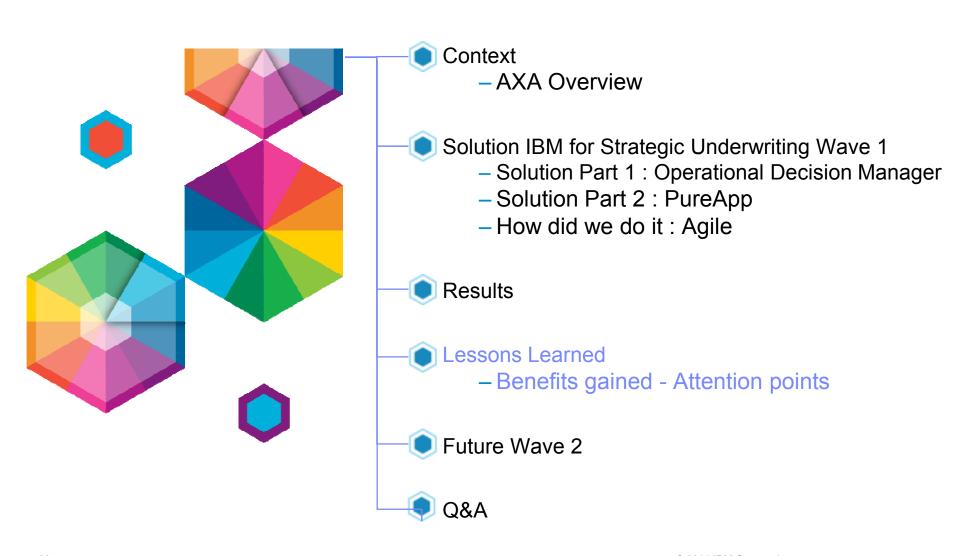


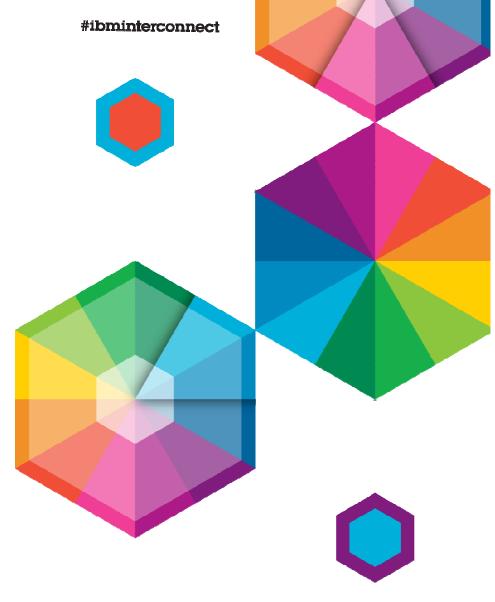




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Lessons Learned

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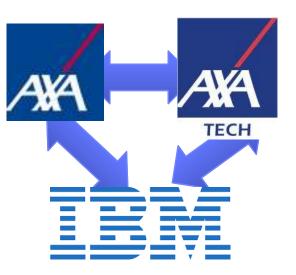
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Lessons Learned

- Strong Team
- Agile development
- Start with all stakeholders (Business, IT, IBM) from day 1
- New Technology IBM Innovation Partner







Attention Points



Project was delivered:

- On time
- Within budget
- Within scope
- 9

While regaining confidence than IT can deliver innovative solution in a short period of time

Business Benefits

- Around 4000 business rules managed by the business in ODM
- Ability to promote rule changes in PRD every week instead of 4 times a year

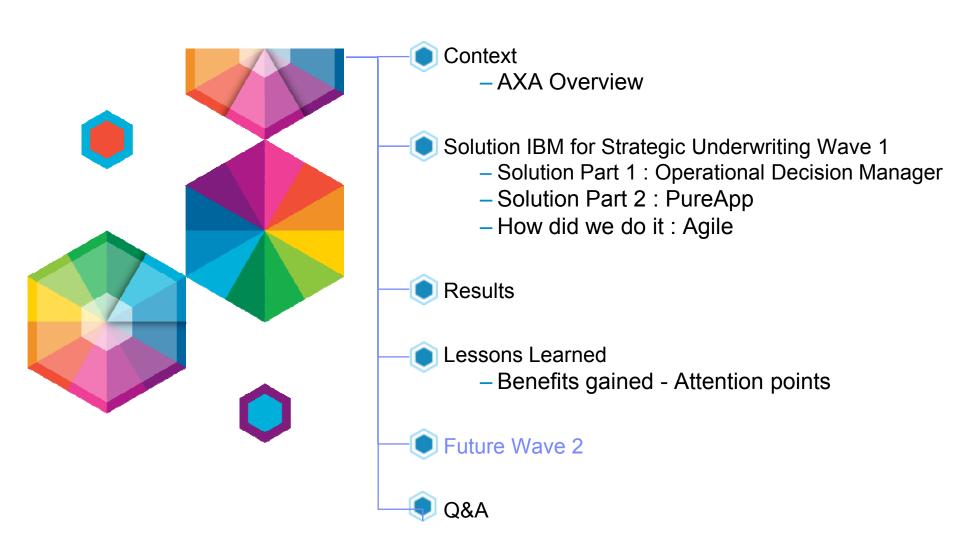
Partners

- Some stability issues => solved with IBM in good partnership
- AXA Belgium is Member of the IBM PureApplication Service on Softlayer Customer Advisory Group

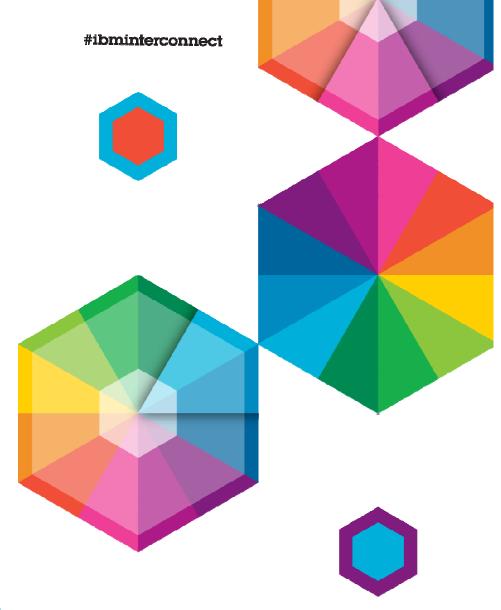


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Future Wave 2



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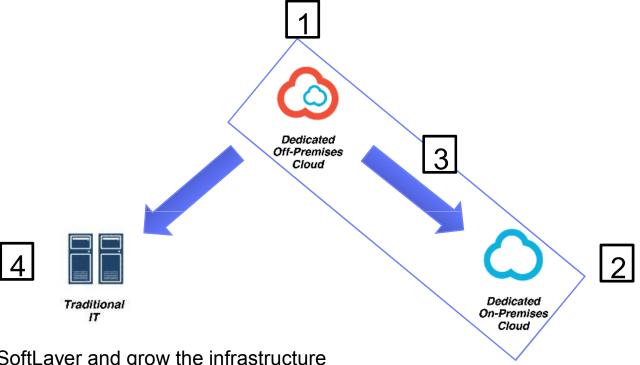
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ODM: Infrastructure scenarios

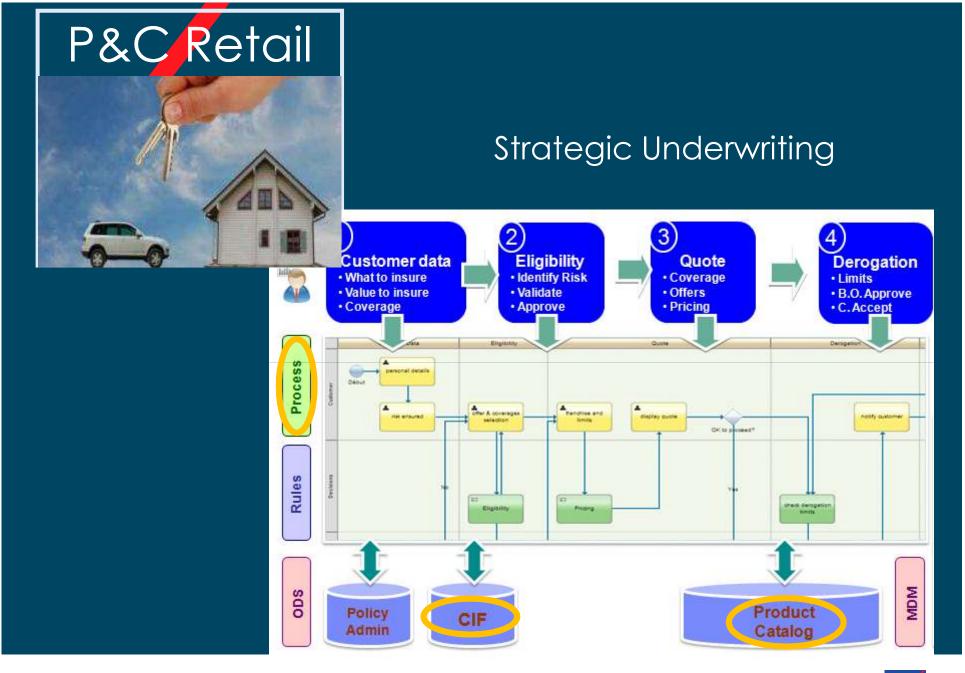
• This scenario allow us to move forward to one of the next scenarios:



- 1. Stay on SoftLayer and grow the infrastructure
- 2. Go back on premises using Pure Application Systems leveraging pattern capabilities to relocate the environments
- 3. Hybrid cloud combining two above scenarios
- 4. Go back on premises using standard AXA infra

32

32





Underwriting Innovation - Wave 2

- Business Challenge, success of WAVE 1
 - Insurance markets are becoming more competitive and AXA Belgium is continuously challenged to maintain a leading position. AXA Belgium needed to rethink its underwriting process to become more flexible and to respond faster to market demand with new products and services.
- Next Step, take success of WAVE 1 and next level
 - MDM Product : product catalogue for the Insurance Products
 - MDM Customer: one central view of the customer, which products does he has under usage.
 - Watson Explorer : 360 view of the customer
 - IAA Models: Use Insurance Model to have a uniform standard for the relations between products, customer and others such as Telematics or Geographics.
 - BPM : Model the overall business process where you have combination of STP and BPEL

Solution Components:

- IBM ODM 8.5.1
- IBM ODM Virtual Application Pattern
- Pure Application Service on SoftLayer
- PureApp on Premise
- MDM Prod
- MDM Cust
- Watson
- IAA models
- BPM



Agile MDM for Big Data:

The Complete 360° View of Important Data
Business User sees 360° view of entity including

Business User sees 360° view of entity including structured and unstructured data, from sources both inside and outside the enterprise

Master Data Management





Watson Explorer with Content Analytics

Content Analytics
Customer Churn
Prediction

Developer Cloud Q&A Natural Language Dialog

Content Analytics Sentiment Analysis



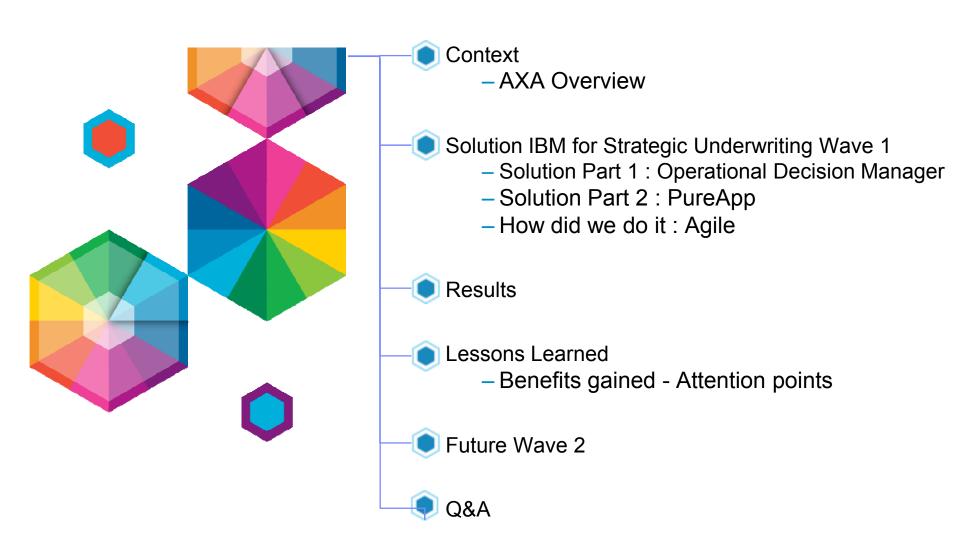
Developer CloudUser Modeling

WEX 360° Interface



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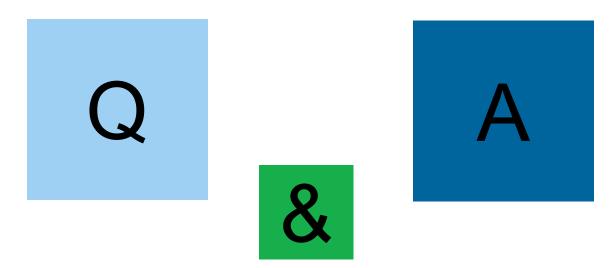


Session Abstract

- Attend this session to hear how AXA Belgium, a Fortune 500 company in Europe, is **innovating** its insurance underwriting processes with speed with reducing costs.
- The insurance industry is becoming increasingly competitive.
 Companies need to respond faster to market demand with new products and services.
- Underwriting by IBM Operational Decision Management ODM
- Cloud provides the economics and agility to drive this innovation with speed.
- AXA Belgium is gaining new customers faster by giving their customer a unique Customer Experience



Questions?



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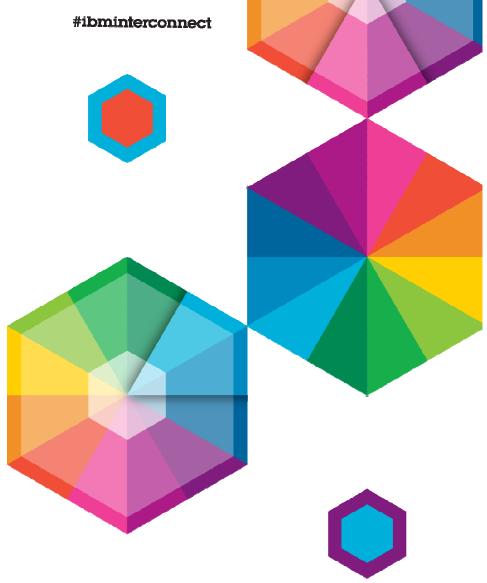
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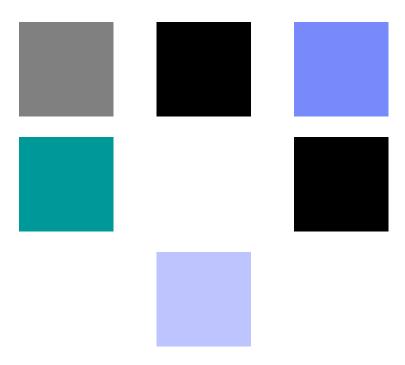
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Color Palette







Context: System

- Introducing a new software component in existing landscape is not a click and deploy activity. It requires:
 - High number of MD's to setup & maintain
 - Additional Application Server to support
 - Software integration knowledge to be built
- While the following capabilities are not available out of the box
 - No automatic Life Cycle Management
 - No automatic scaling (SW and HW)

• ...