



Insurance-Canada.ca


Technology In Action

Explore and Innovate with Data Science, Machine Learning and AI

Rob Fursey IBM and Guest Hashmat Rohian The Co-operators



Insurance-Canada.ca
Where insurance and technology meet



Explore & Innovate with AI, Machine Learning,
and other Data Science Applications
Insurance



An aerial, high-angle photograph of a large, modern indoor event space, possibly a conference or networking event. The space is filled with people, many of whom are blurred due to motion, suggesting a busy atmosphere. People are gathered in various groups, some standing and talking, others seated at round and rectangular tables. The tables are set with plates, glasses, and water bottles. The floor is a light-colored, polished material. In the background, there are glass railings and a brick wall. The overall lighting is bright and even. The text "THE INDUSTRY" is overlaid in the center of the image in a large, white, sans-serif font.

THE INDUSTRY

Customer expectations
are evolving...

\$200b

annual buying power for the fastest
growing customer segment:

Millennials

Customers demand 24/7 access to
insurance companies across devices
with policies better tailored to their
specific needs:

- Simpler digital interfaces
- Customized policies
- Easier claims filling and redemption process

Artificial Intelligence
solutions are disrupting...

80%

Cognitive makes use of 80% of the world's data. In today's world, **digital business + digital intelligence = competitive advantage**

- Cognitive computing (virtual assistants and chatbots) to improve underwriting, claims and fraud detection
- Robotic Process Automation to automate claims and benefits, policy administration, and account maintenance
- Cloud platforms to support customer service, policy administration, regulatory compliance and data mining.

Pace of innovation
is growing...

10%

Global **insurtech market is expected to grow** over the next 4 years with a CAGR of more than 10% by 2020.

- VC investments in Insurance startups (740M in 2017)
- Partnerships with insurtechs (Blockchain consortiums)
- Rise of innovation/incubator hubs



THE WHAT

The robots
are coming.

35%

A 2015 REPORT ON THE "UNSTOPPABLE" DIGITAL
TECHNOLOGICAL REVOLUTION SUGGESTED THAT 35% OF JOBS
ARE AT RISK OF BEING AUTOMATED OVER THE NEXT TWO
DECADES.

Not
all robots
are evil.

To understand the scope of AI, let's define the scope of Human cognition

A visit to the doctor in response to pain leads to



Reference: Prof Ajay Agrawal at Rotman School of Management

AI should augment us in 3 (out of 5) areas of human cognition

We should focus to maximize human potential



Retrieve
Information



Make
Prediction



Recommendation &
Judgement



Take
Action



Assess
Outcomes

Let AI augment us to be faster, cheaper and more accurate

ML vs. AI vs. Cognitive



Cognitive Computing

Systems that simulate human senses to learn at scale, reason with purpose and interact with people to augment intelligence

Artificial Intelligence

AI is the broadest term, applying to any technique that enables computers to mimic human intelligence, using logic, if-then rules, decision trees, and machine learning (including deep learning).

Machine Learning

The subset of AI that includes abstruse statistical techniques that enable machines to improve at tasks with experience. The category includes deep learning.

Deep Learning

The subset of machine learning composed of algorithms that permit software to train itself to perform tasks, like speech and image recognition, by exposing multilayered neural networks to vast amounts of data.



THE

WHERE

Digitizing “paper” data

Smart Pages

Leveraging Optical Character Recognition (OCR) technology, you can classify and normalize information in your paper documents. By looking at more than just *what’s* on a page and gaining insights from *how* its on the page as well, you can begin to derive more context out of your handwritten documents.



The image displays three sample forms from the Government of Canada Motor Vehicle Accident Report. The top two forms are 'MOTOR VEHICLE ACCIDENT REPORT' and 'PERSONAL INFORMATION'. The bottom form is 'CHECKLIST OF DAMAGE TO YOUR VEHICLE'.

Transforms handwriting to text

Classifies and groups document

Signature & Checkbox detection

Extracts data from tables

Image recognition and Analysis



Macro Action Data (Telematics)

Desjardins Insurance is launching a new feature for its customers; the ability to be alerted to extreme weather conditions that may impact them. As a customer, you will soon be able to select up to 5 different locations and be notified of any severe weather event within 500 meters. By creating event thresholds for things like heavy rain, high winds, hurricanes, tornadoes, and others, customers can prepare for, and possibly prevent, damage. Brings data to the hands of people who need it and when they need it.

“In a world now dominated by the Internet of Things (IoT) and Big Data, the rapid expansion of data collection has put insurers in a position where they can start to prevent accidents from happening”

Source: Insurance Institute of Canada





Transforming customer data into action

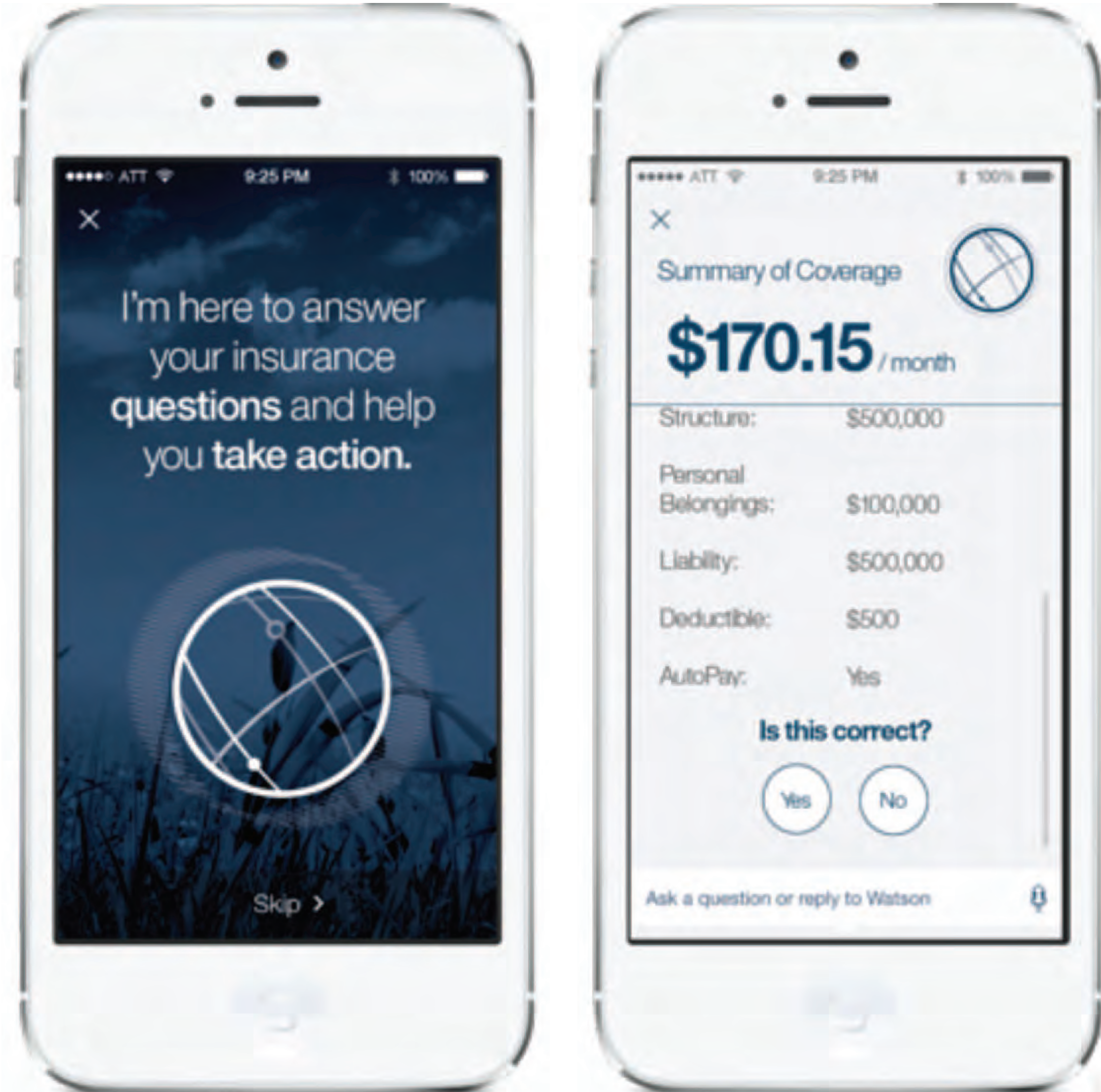
Transforming Member Data From Life Events Into Valuable Business Practices.

With Watson for Customer Insight for Insurance, USAA built a robust policyholder insight model based on cognitive technologies and behavioural data to understand and retain customers:

- Generate member insights based on life event prediction
- Anticipate member needs before they happen
- Reduce member risk with predictive analysis



Making a difference with Customer Experience



Virtual Agent technology enables insurers to build and deploy client-facing, self-service solutions so customers can converse, using natural language, with an engaging, consistent cognitive customer service agent using the channel of their choice—whenever and wherever they want.

“The last best experience that anyone has anywhere, becomes the minimum expectation for the experience they want everywhere.”

“AI bots will power 95% of all customer service interactions by the year 2025”

Source: [Servion](#)

RoboChat is helping Australians move in with less of a headache

UBank home loan's RoboChat is an automated chat offering that leverages IBM® Watson® to engage clients. It exists as an upgrade to UBank's home loan livechat service and is ready to answer most client questions in mere seconds. RoboChat was initially deployed to handle questions relevant to loan applications, but the solution is designed to learn and grow over time to handle a wide range of customer inquiries.



Doing your taxes will never be so taxing ever again

H&R Block worked with IBM to design, develop and train a Cognitive Tax Advisor solution to make suggestions and **give guidance to tax advisors as they are working with clients.**

With Watson, H&R Block's 70,000 professionals can now draw connections between tax laws, insights from the company's deep database of 720 million tax returns over the past 60 years, and personal financial documents to maximize outcomes for customers. More than 10 million tax filers are expected to benefit this year.



Prudential has a new call centre agent... and it's always working

Prudential Singapore has launched askPru, built using IBM Watson, which helps the company's Financial Consultants get real time access to details about their customer's life insurance plan. By offering 24/7 access to a chatbot, they have enabled their consultants to engage their customers in a way never done before.

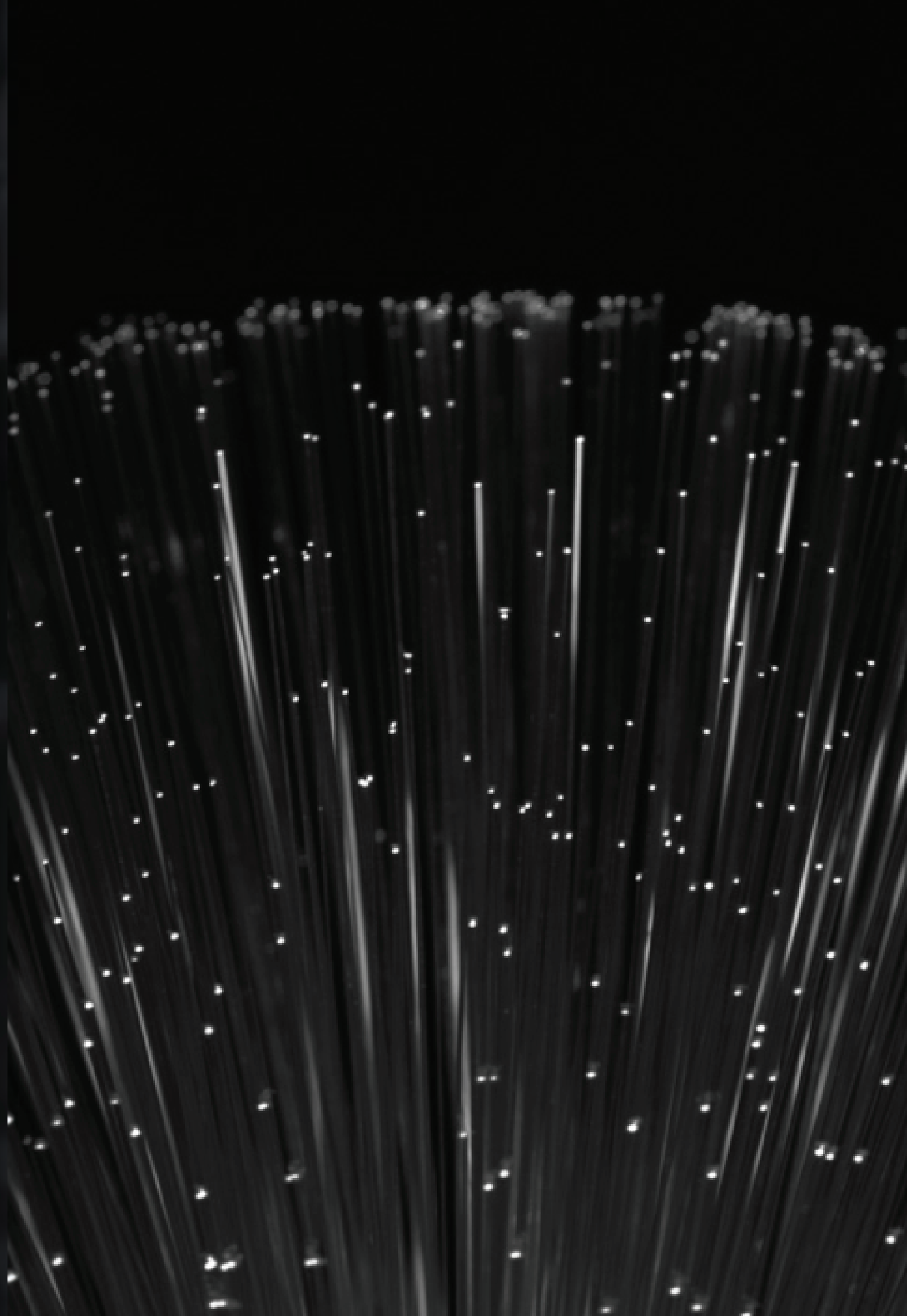
The pilot launched in July 2017 to about 4,000 consultants and Prudential has anticipated that improved efficiencies could cut the call centre volumes by around **30%**

Welcome to
askPRU





Capitalizing on the explosion of data



Realigning purpose to delighting customers



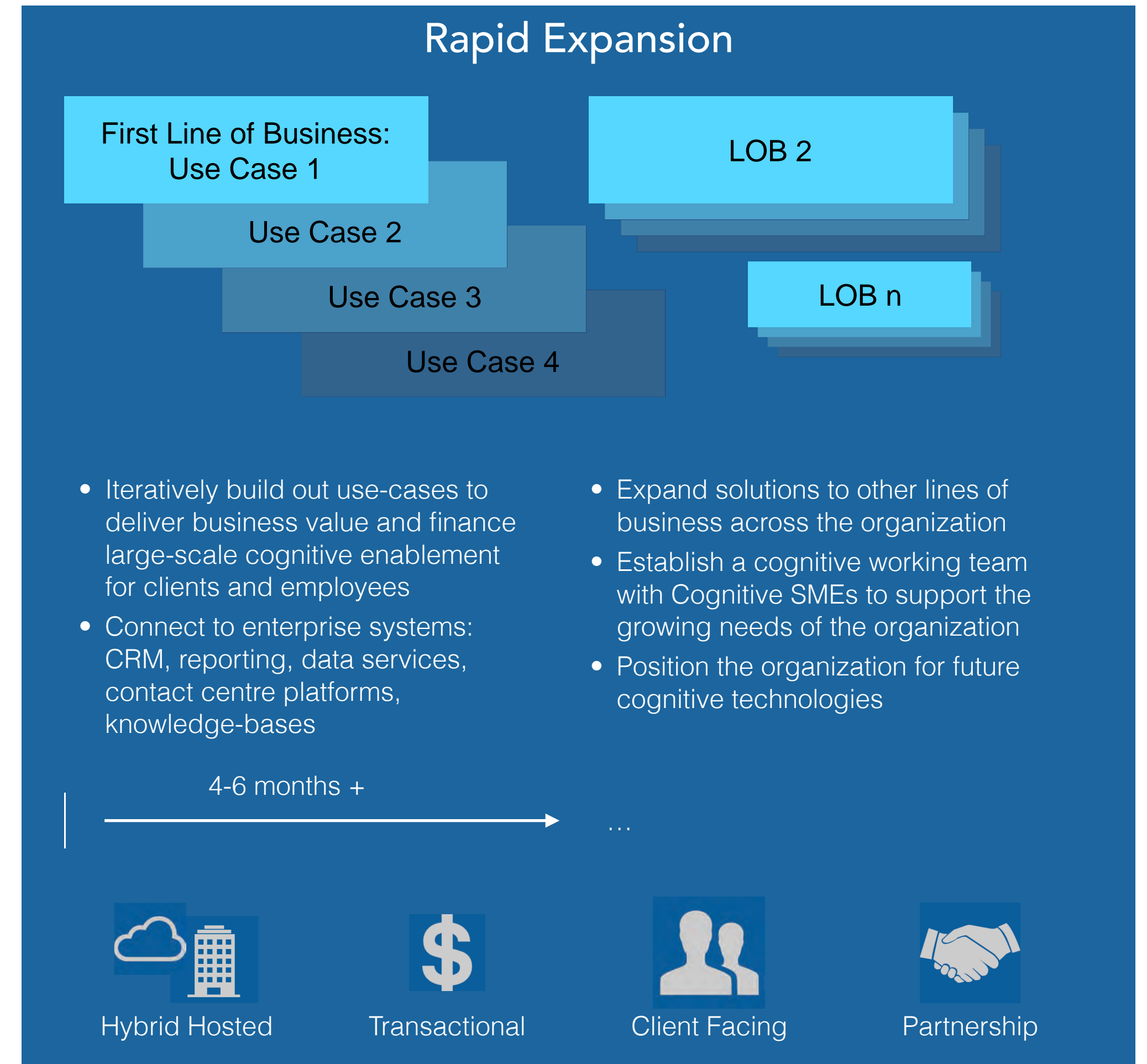
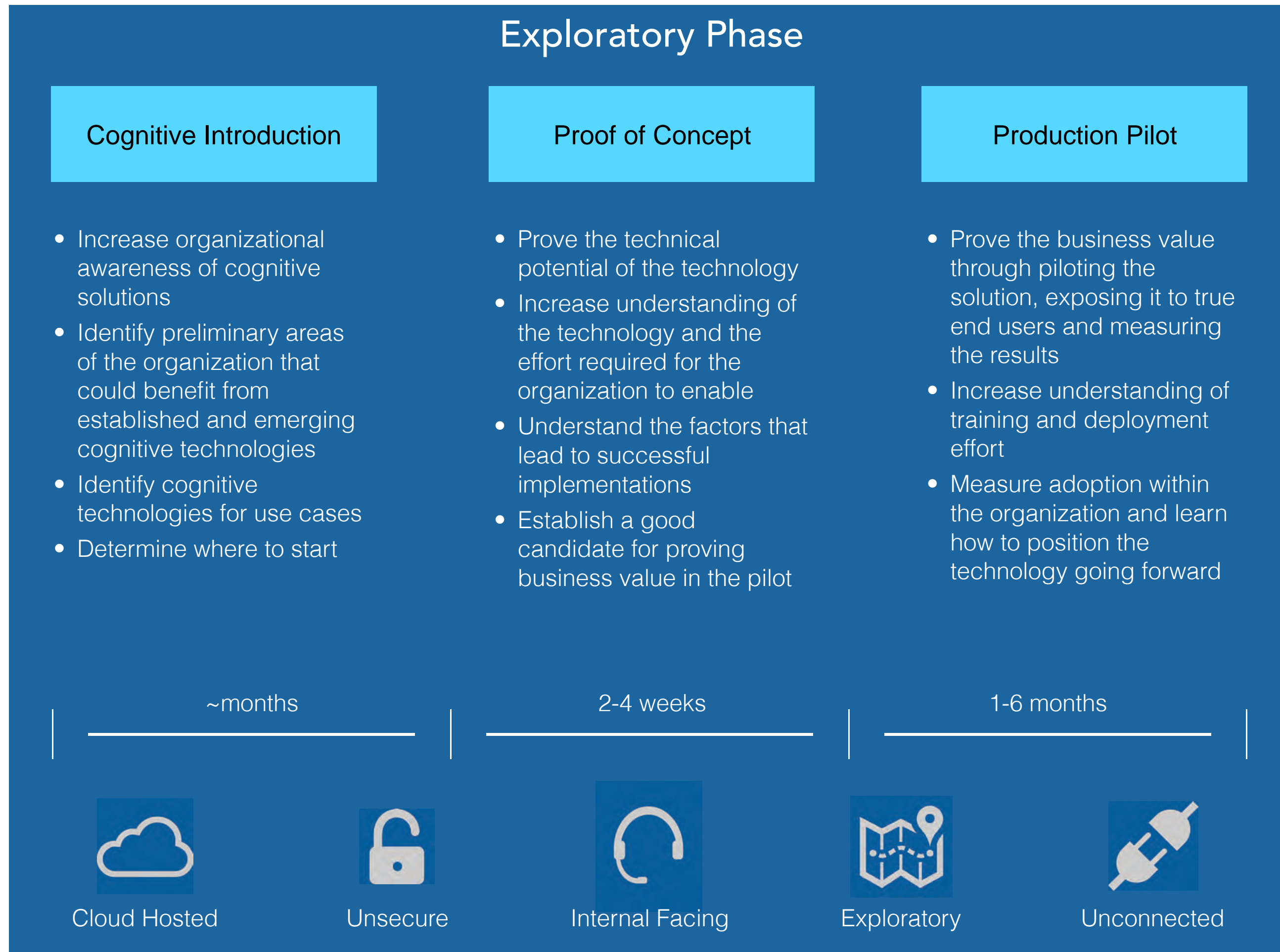
Creating future-shaping user experiences



THE HOW

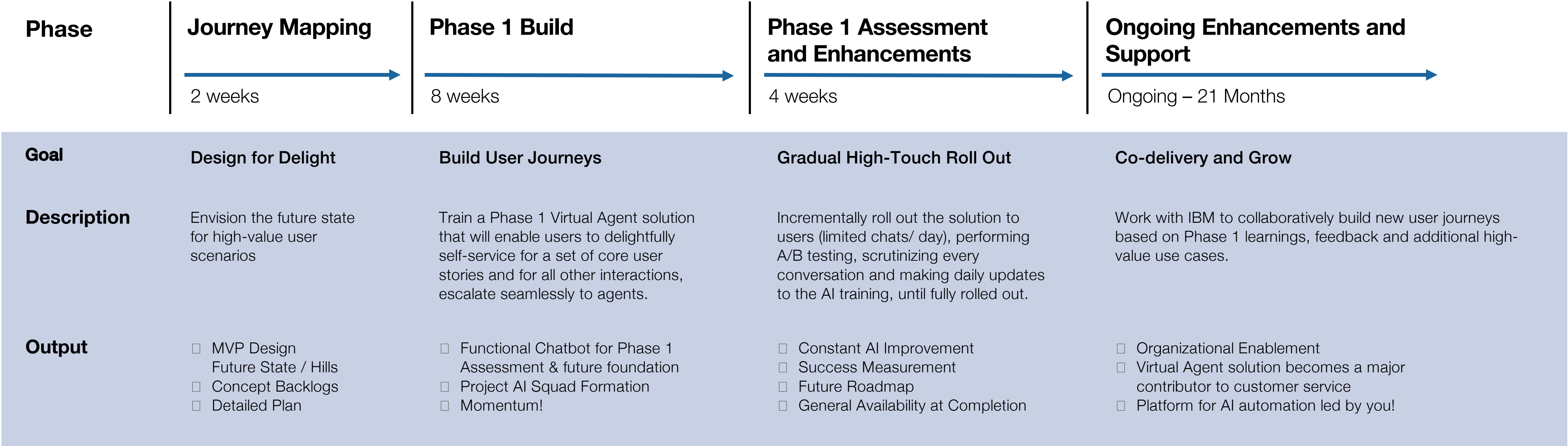
Planning for Success through Iteration

Most organizations are approaching cognitive technology tentatively to validate the business value - once this is realized, organizations pursue the technology aggressively.



Iteratively evolve your cognitive capabilities

Phase 1 deployment of use cases, gradually rolled out, targeting specific high-value user journeys, followed by an on-going program for continuous enhancement and support to continually drive customer automation and self-service.



How do you get started?

Guidelines for your Cognitive Journey

Checklist for success

Pick a Challenge

Leverage **Design Thinking** and **Agile approaches** to develop meaningful use cases

Identify **business outcomes** for use cases

Articulate impact to user experience

Prove it Fast

Identify **right data sets** to solve the challenge

Demonstrate **value**, in terms of **benefits and outcomes**, early and often

Create a series of **periodic demonstrable playbacks** and prototypes

Plan the Program

Develop a **roadmap** for the organization

Set **milestones for success** during the cognitive journey

Train and educate teams on **how Cognitive** solutions work

Develop a **Center of Competency** to build awareness, skills and best practices

Secure **Buy-in** from stakeholders

Measure the Outcomes

Create **project scorecards** to monitor the program

Listen, iterate, learn, and course correct while continuously learning

- ✓ Moonshots + tactics = win
- ✓ Better data = better outcome
- ✓ Training is different than programming
- ✓ Ubiquitous cognitive on cloud
- ✓ Proactively address AI anxiety

Co-operators is changing the way they provide service to their advisors



Hashmat Rohian

Sr. Director & Managing Enterprise Architect,
The Co-operators Group Ltd.





**Think Big.
Start Small.
Scale Rapidly.**

Explore and Innovate with Data Science, Machine Learning and AI

- Thanks for attending
 - Rob Fursey, IBM
 - Hashmat Rohian, The Co-operators Group
 - Christine Haeberlin, IBM
- Evaluation
- Replay and slide deck
- Seminar May 30:
 - “AI: The Foundation of Next-Gen Insurance”
- Webinars