

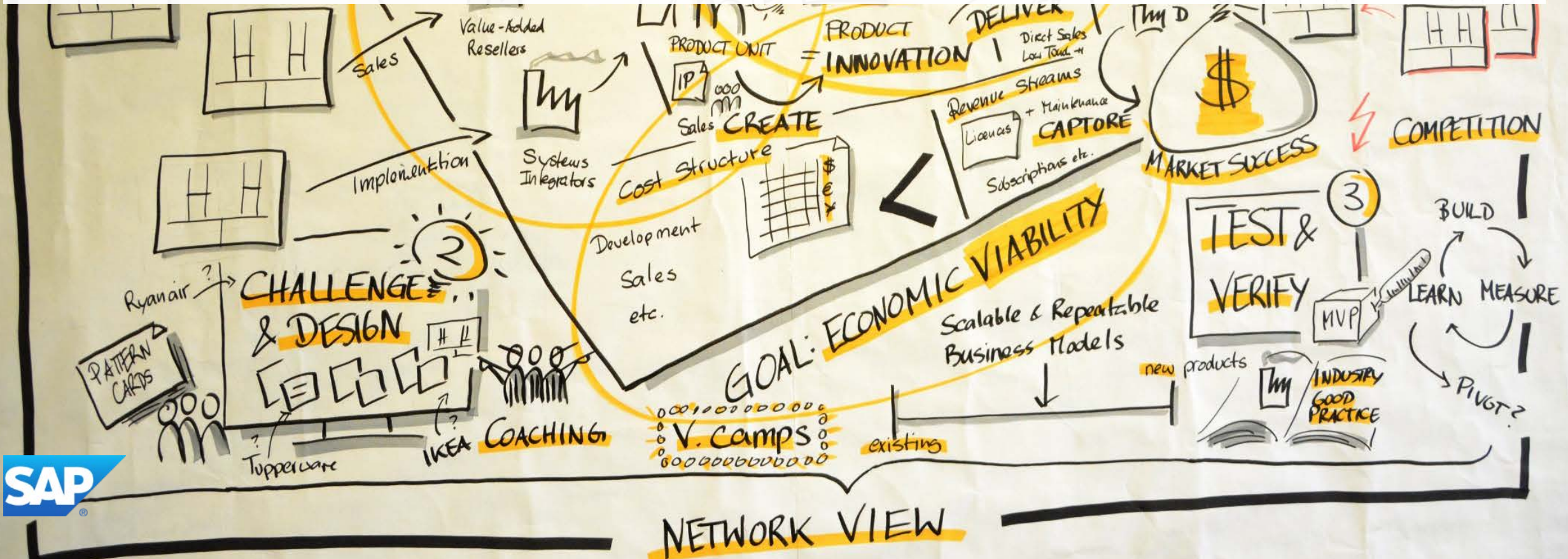
# Business Models in the Digital Economy

## A Digital Business Modeling Approach

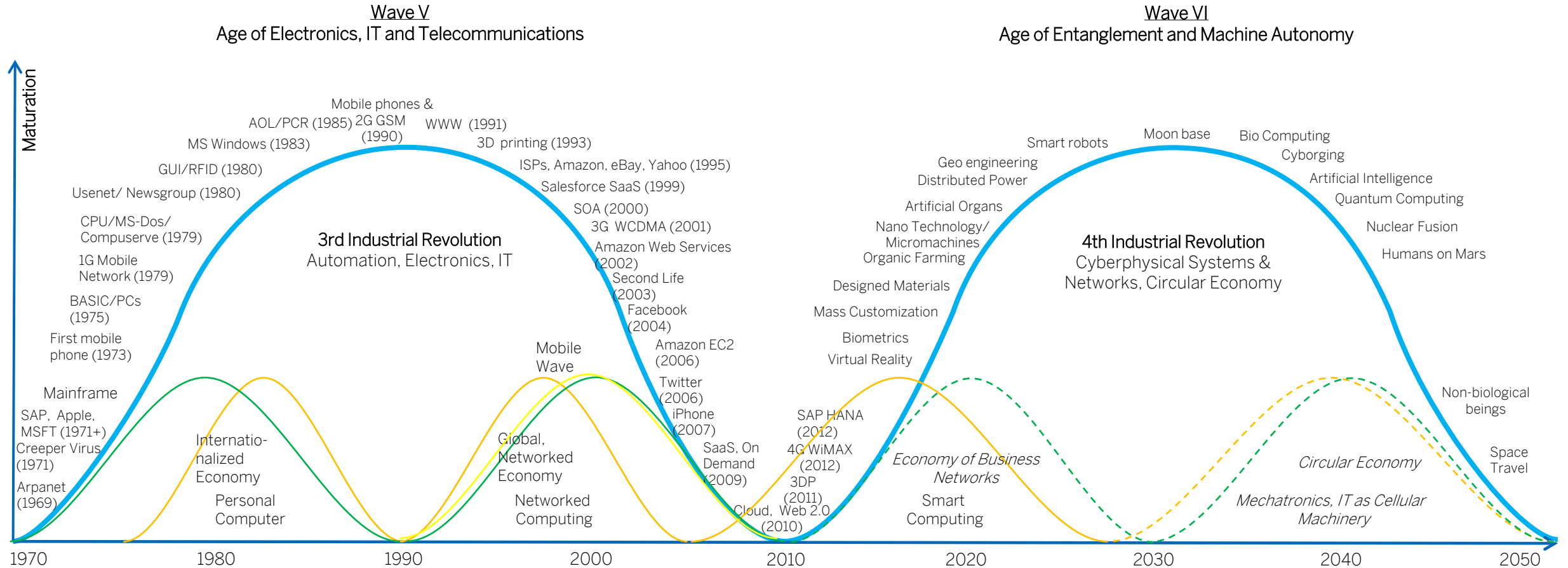
Maria Fay

Learning Program Lead, SAP Digital Business Services | PhD Candidate, University of Liechtenstein

February 19<sup>th</sup>, 2018, Moscow



# General Trends – Kondratieff Long Waves

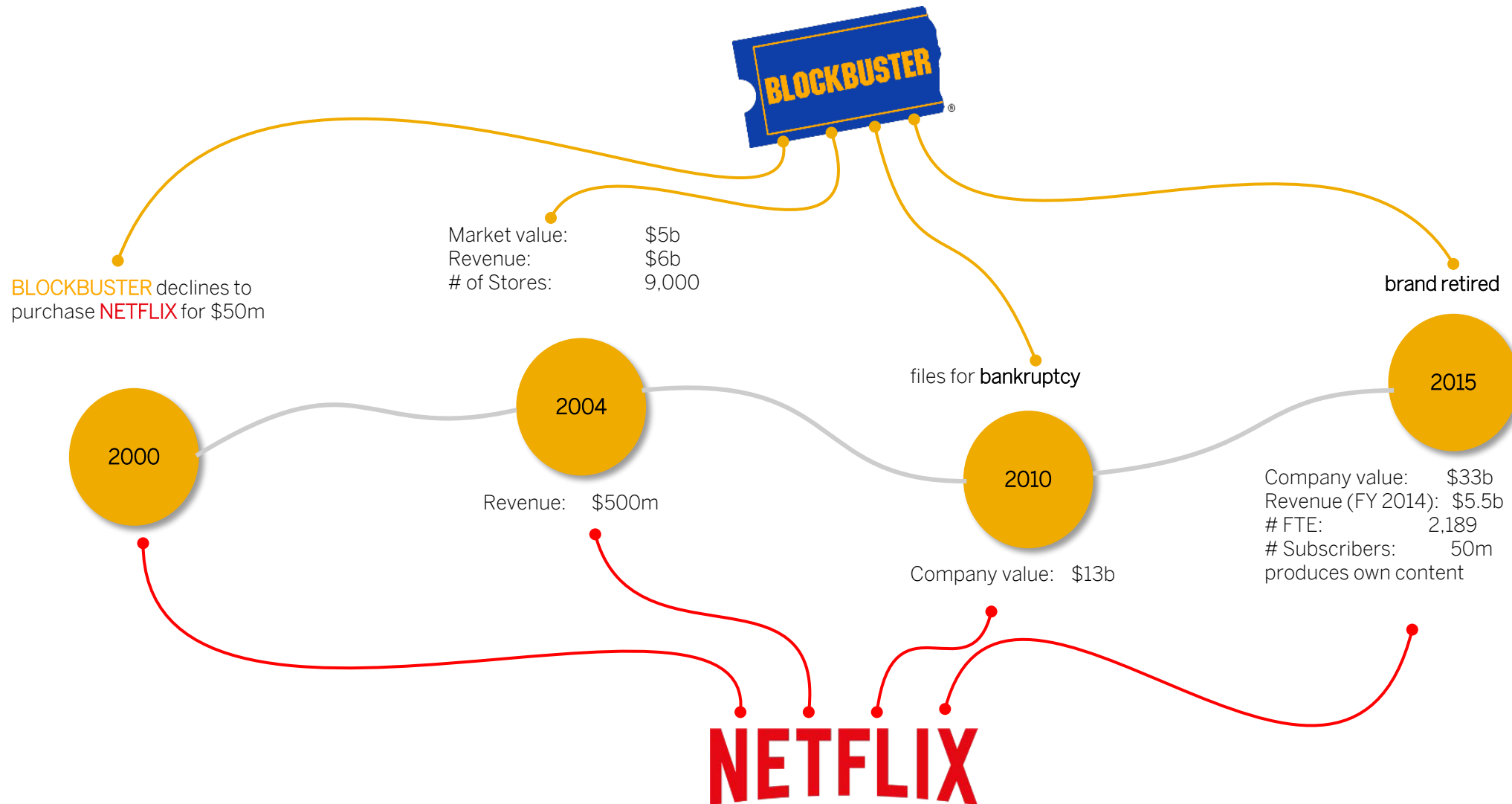


The year 2010, the expansion of the Internet into mobile and social media, mark the beginning of a new wave, where information, knowledge, humans, machines, robots and products are increasingly entangled. The next step into a new wave will probably be space travel.

Sources: Forrester Research, Gartner, IDC, DB Research; World Future Society, 2013 1 Forrester Research, The ICT Market Outlook For 2011 And 2012, 06/2011; 2 [The World Bank](#), Growth rate of mobile cellular subscriptions (per 100 people), 2011; 3 [Based on the numbers of IPOs by Prof. Ritter, University Florida](#); McKinsey Report No.20, Summer 2010. MIT Technology Review Special Issue: 10 Emerging Technologies, Vol. 114/no.3.; The Economist, „Catch the wave“, 02/1999; Kondratieff, N.D., "Die langen Wellen der Konjunktur", Archiv f. Sozialwissenschaften u. Sozialpolitik, Bd. 56 (1946 [1926]), 573-609; Gartner, Technological Revolutions: The Application of Kondratiev Waves to IT, 01/2007; Carlotta Perez, Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages, Edward Elgar Publishing, 2003

# Impacts of Digitization

Challenges for businesses: get disrupted

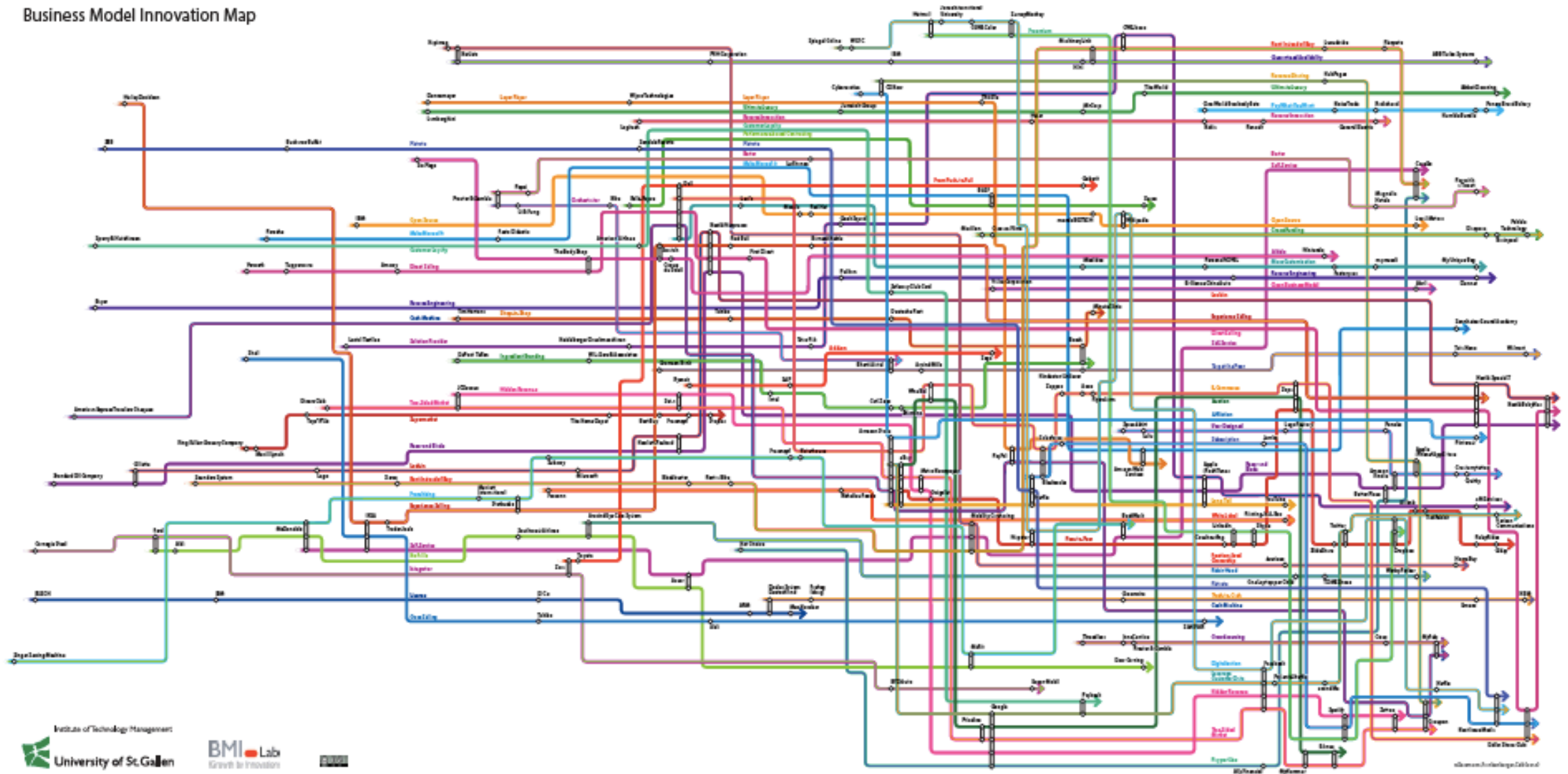






# Business Model Innovation Map

Business Model Innovation Map



# Lock-In Strategy

## Business model patterns





# Examples: Rolls-Royce

## Outcome based models



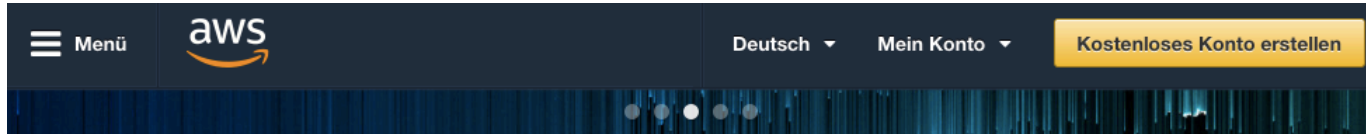
### Nor Lines and Rolls-Royce sign landmark Power-by-the-hour service agreement

Wednesday, 24 May 2017

Nor Lines and Rolls-Royce have signed a groundbreaking "Power-by-the-Hour" service agreement for the two vessels *Kvitbjørn* and *Kvitnos*. The new service offering harnesses the power of "Big Data" to monitor, plan and perform maintenance and repairs on all the equipment it has installed on the cargo vessels.

# Examples: AWS

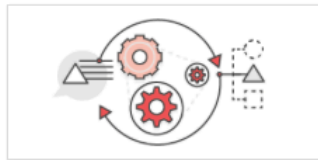
## Expand to new industries



**DEEP LEARNING-AMIS FÜR AWS**  
Steigen Sie in Deep Learning in der Cloud ein



**AUTO SCALING MIT DYNAMODB**  
Passen Sie Ihre Kapazitäten automatisch dem Anforderungsvolumen an



**AMAZON LEX**  
Erfahren Sie, wie Sie bessere Bots erstellen können.



**AMAZON POLLY**  
Was ist Text-to-Speech?

## Entdecken Sie unsere Produkte



Datenverarbeitung



Speicherung



Datenbank



Migration



Netzwerk und Bereitstellung von Inhalten



Developer-Tools



Verwaltungs-Tools



Sicherheit, Identität und Compliance



Analysen



Künstliche Intelligenz



Services für Mobilgeräte



Anwendungsservices



# Examples: Under Armour

## Digital channel & business platform

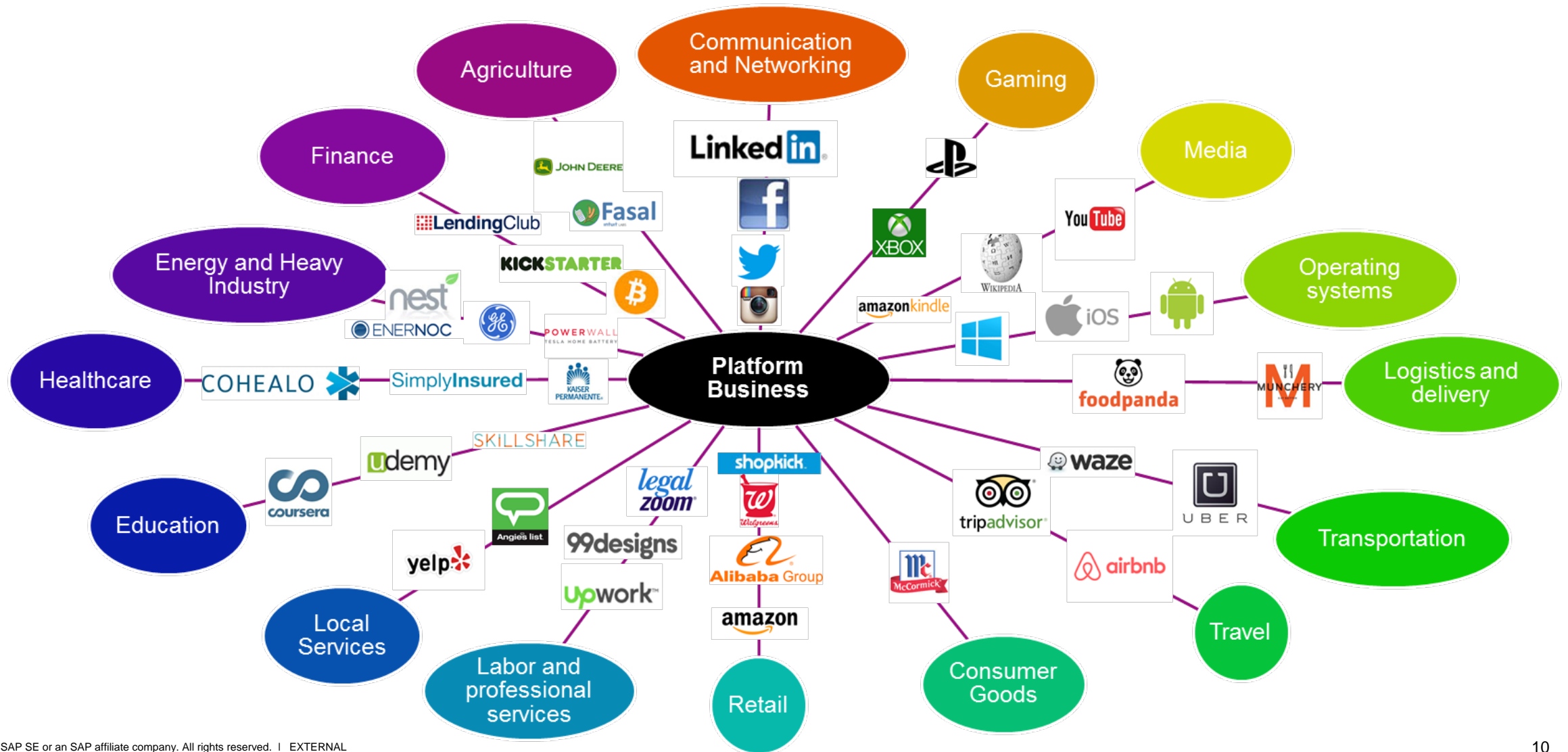
**WELCOME TO THE WORLD'S LARGEST DIGITAL HEALTH AND FITNESS COMMUNITY.**

FROM THE BRAND THAT CHANGED THE WAY ATHLETES DRESS COMES THE LARGEST CONNECTED FITNESS PLATFORM IN THE WORLD.

The advertisement features a central red 'RECORD' app icon at the top, connected by red lines to three other app icons below: MapMyFitness (blue), Endomondo (green), and MyFitnessPal (blue). The background is a dark space with a glowing red and blue network of nodes and lines, suggesting a global digital community. In the bottom left, there is a small video player showing a person running on a track. At the bottom right, there are logos for the App Store and Google Play, along with a disclaimer: 'Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc.'

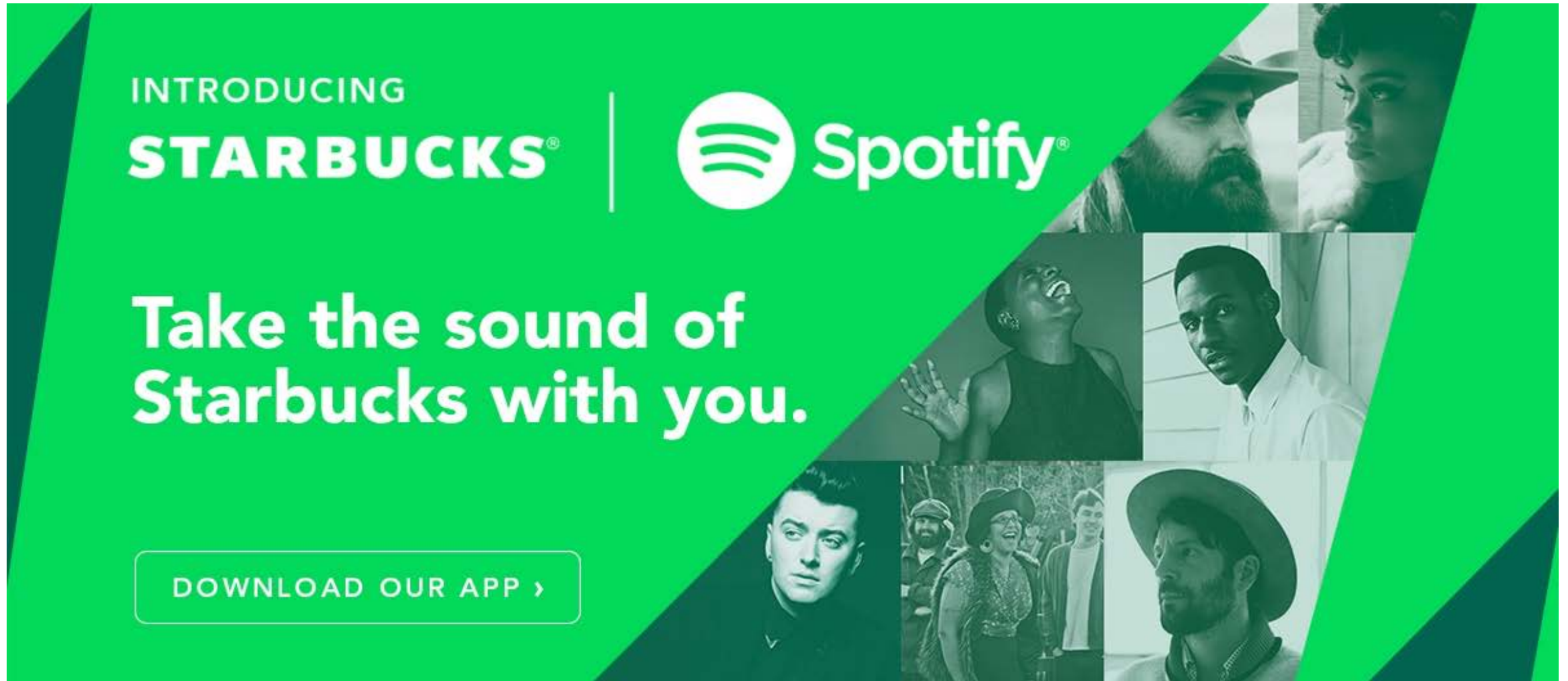
# Examples: Platform Businesses


## Digital channel & business platform



# Examples: Starbucks & Spotify

Compete as an ecosystem



INTRODUCING  
**STARBUCKS**<sup>®</sup> |  **Spotify**<sup>®</sup>

Take the sound of  
Starbucks with you.

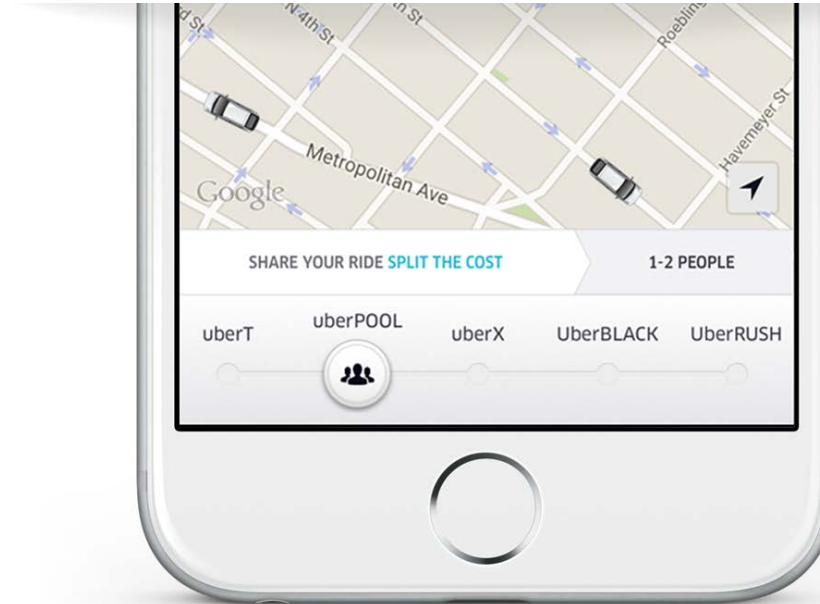
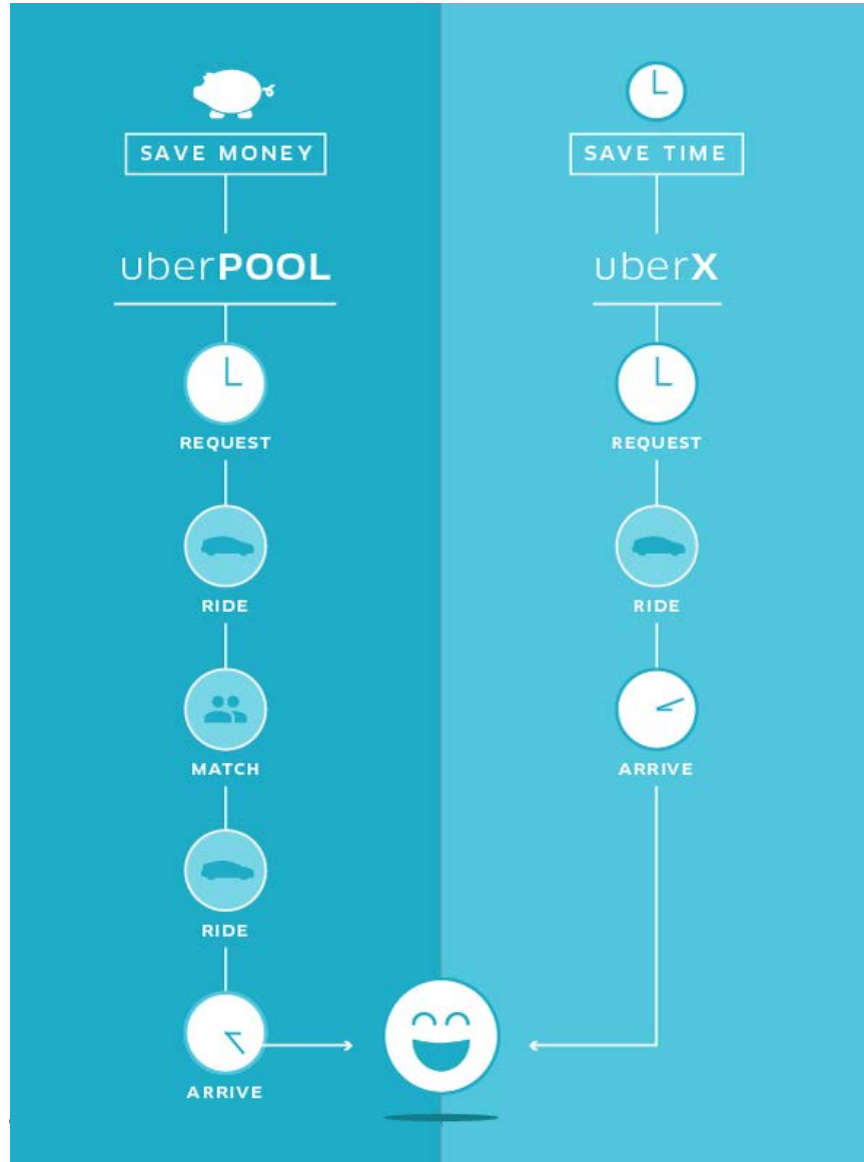
DOWNLOAD OUR APP >

The advertisement features a green background with white text and logos. On the right side, there is a collage of six black and white photographs of various people, including a man with a beard and hat, a woman, a man in a white shirt, a woman singing, a man in a cowboy hat, and a man in a dark shirt.



# Examples: Uber

## Shared economy



# Examples: Apple Watch

## Digitization of Products & Services

 WATCH

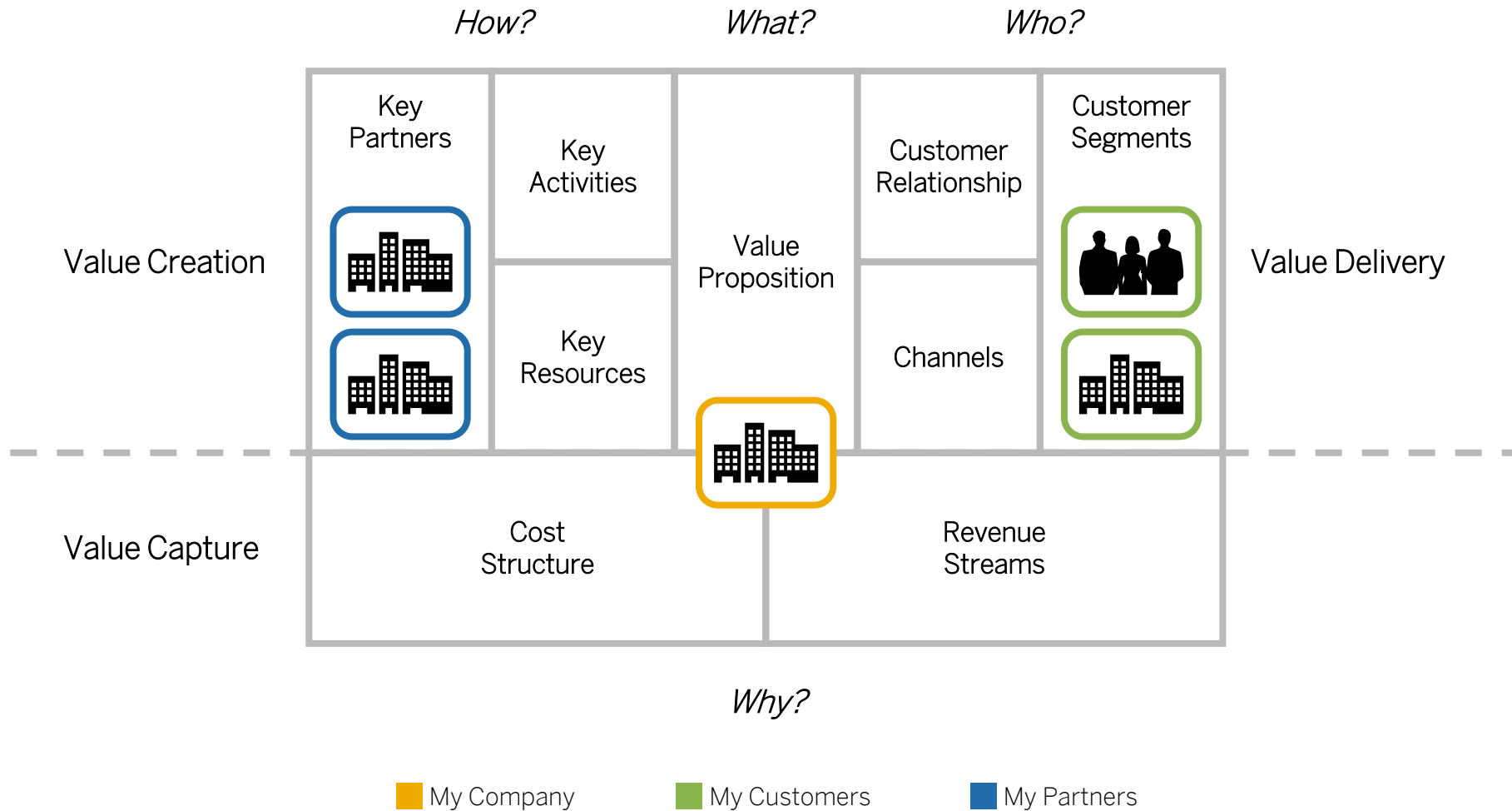




# Introduction to BMDI

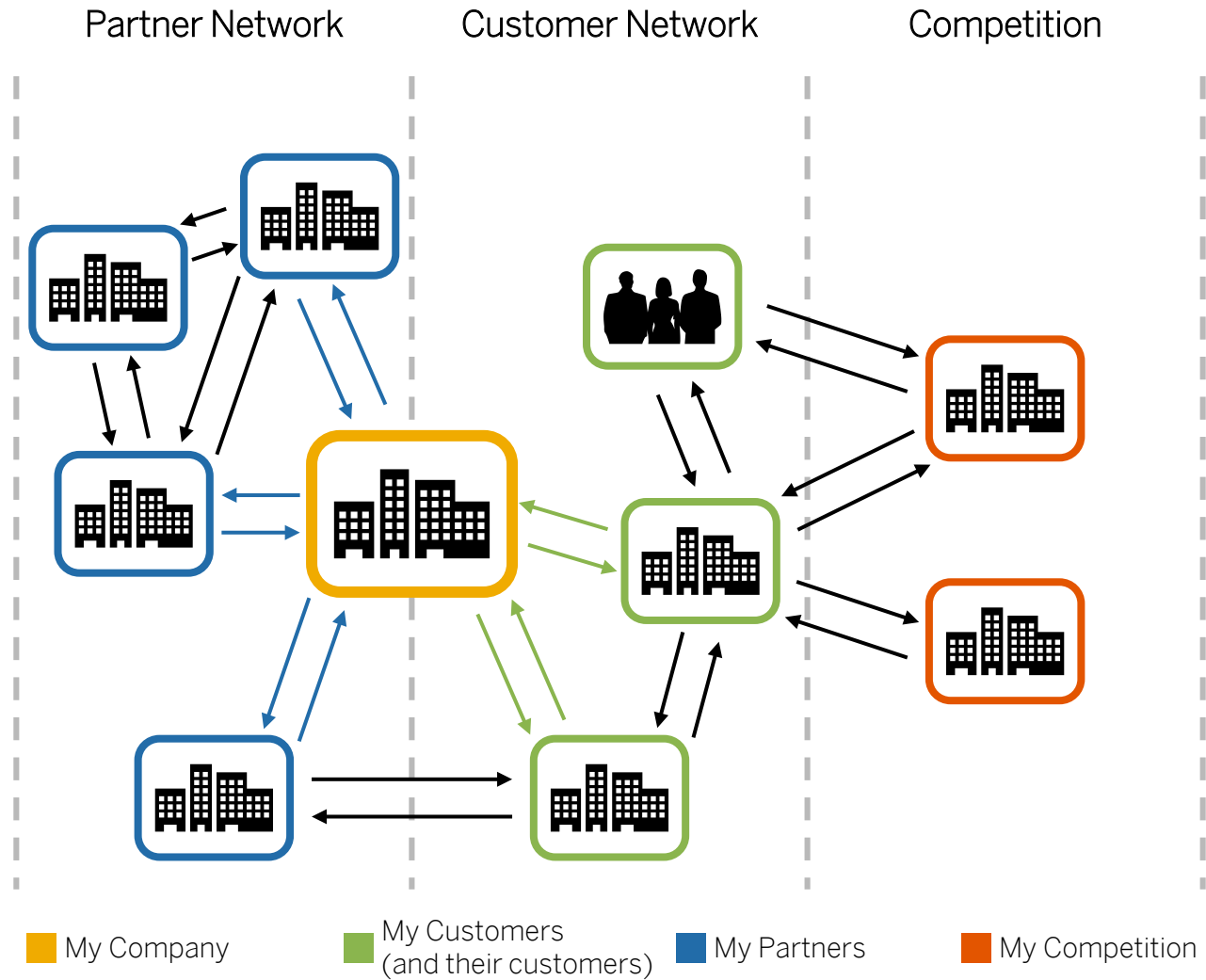


# Business Model Enterprise View<sup>1)</sup>

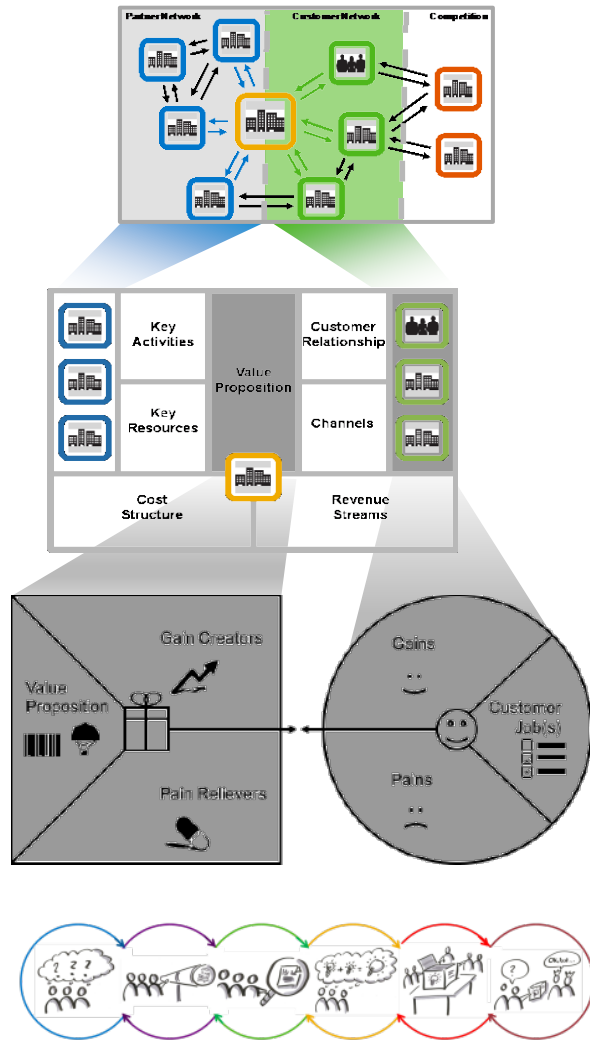


1) According to Osterwalder/Pigneur 2010)

# Business Model Network View



# From a Network View or Value Proposition to Business Model Baseline, describing your business / product



Network View for the environment you build in



Enterprise View for your own business values



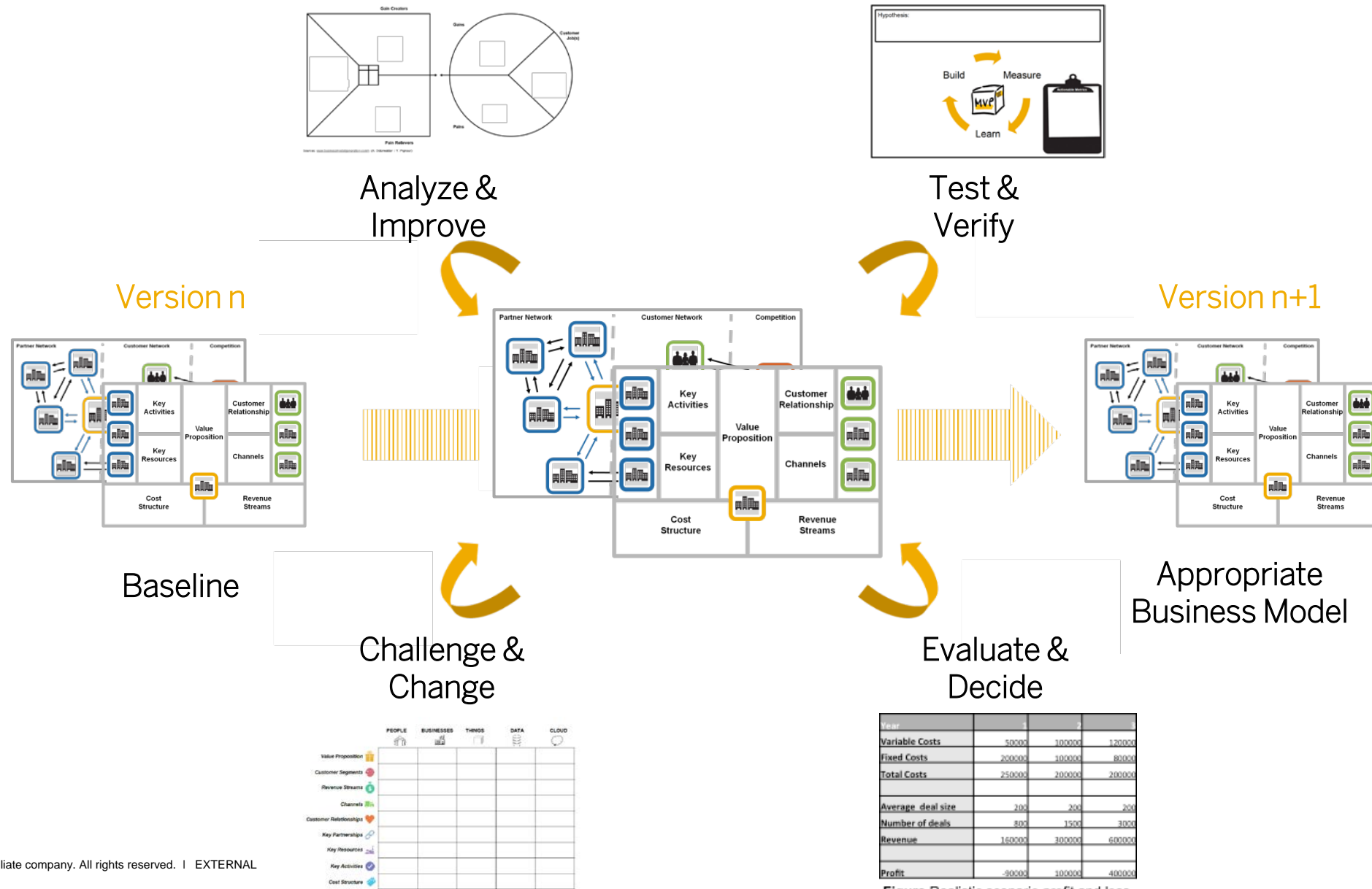
Ideate to create a value proposition for customer



Design Thinking used for product innovation



# The Business Model Development and Innovation approach



# Digital Business Modelling

Leveraged to define a gamified approach using cards as building blocks for digital business design

## The Business Model Canvas

Designed for:
Designed by:
Date:
Version:

<p><b>Key Partners</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Data provider(s)</b></p> <p><small>Data provider(s) as new partner(s)</small></p> </div>	<p><b>Key Activities</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>People-to-people digitized processes</b></p> <p><small>Processes/activities that enable interaction and collaboration between individuals and groups</small></p> </div>	<p><b>Value Propositions</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Fast decision execution</b></p> <p><small>Big personal benefit/benefit available as the execution of a channel (e.g. online or in-store purchase) for work and the customer/benefit itself</small></p> </div>	<p><b>Customer Relationships</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Social networks</b></p> <p><small>Social networks</small></p> </div>	<p><b>Customer Segments</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Ability to target individual customers</b></p> <p><small>Customer and ability to target</small></p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Identified, profiled, connected individual as customers</b></p> <p><small>Customers are clearly identified and profiled as individuals</small></p> </div>
<p><b>Key Resources</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Real-time, detailed, complete, accessible data as asset</b></p> <p><small>Real-time, detailed, complete, accessible data are an asset to leverage for our business model</small></p> </div>	<p><b>Channels</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Human-computer-interface (e.g. wearables) as channel</b></p> <p><small>Channels to customers provided / enhanced by usage of modern human-computer interfaces</small></p> </div>	<p><b>Cost Structure</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Cost-savings based on data-based predictions</b></p> <p><small>Cost savings based on the ability to make business model predictions based on data</small></p> </div>	<p><b>Revenue Streams</b> </p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px; text-align: center;"> <p><b>Data monetization</b></p> <p><small>Revenue coming from direct or indirect monetization of data</small></p> </div>	

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**DESIGNED BY: Strategyzer AG**  
 The makers of Business Model Generation and Strategyzer

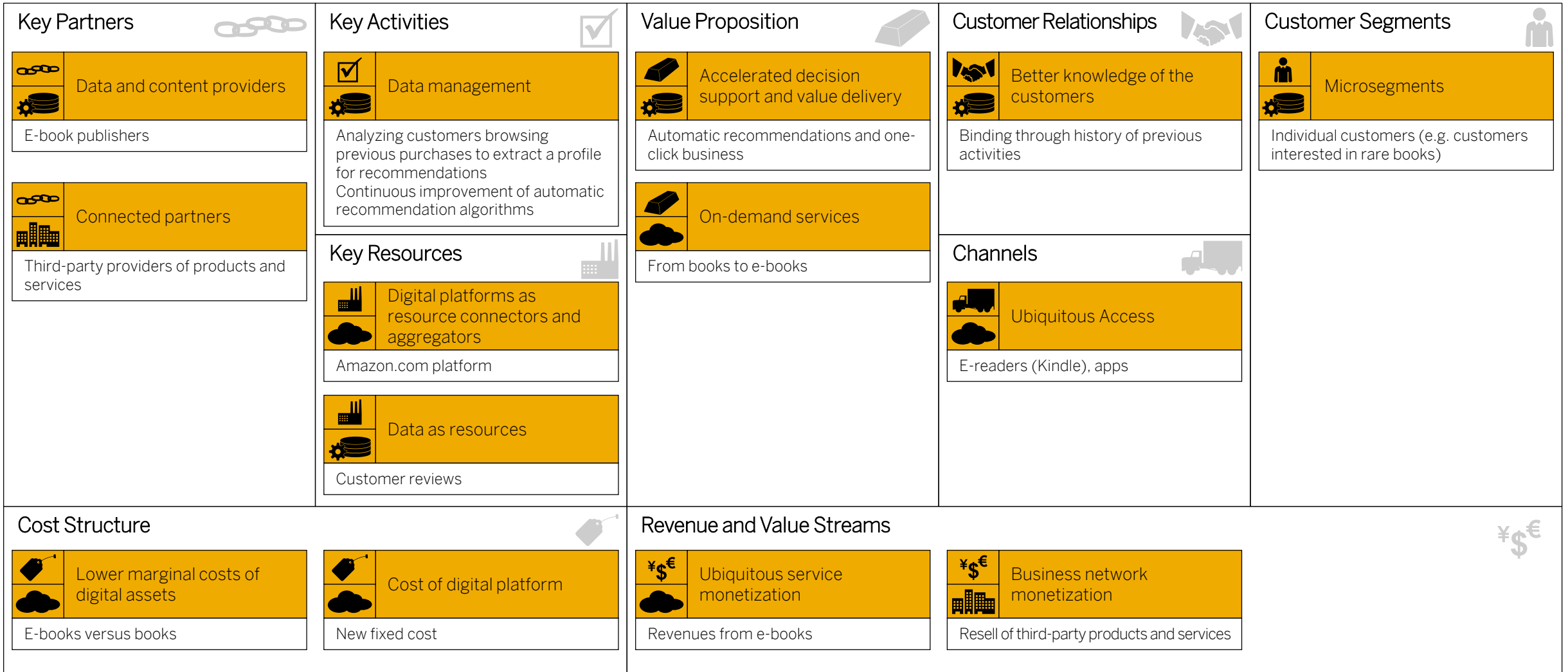
**Strategyzer**  
strategyzer.com



# Examples

# Example 1: amazon

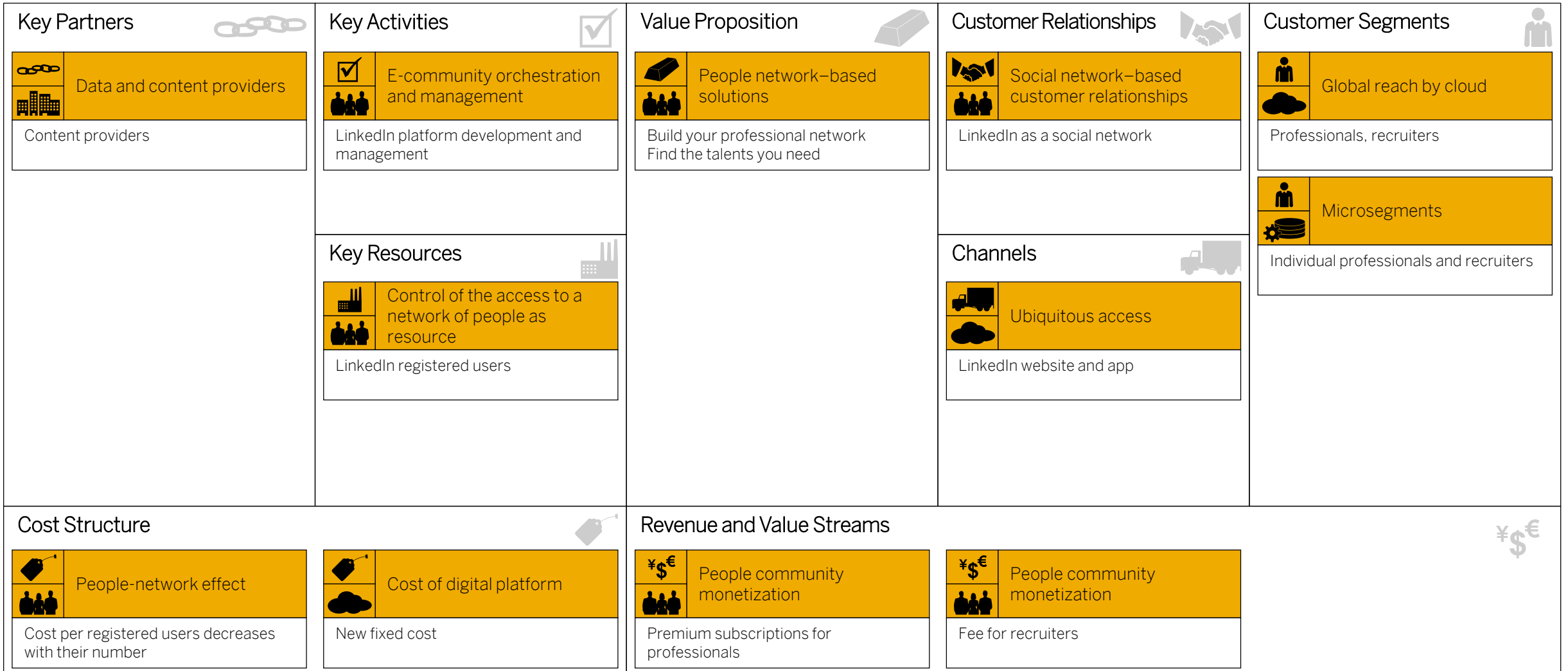
## Key Features





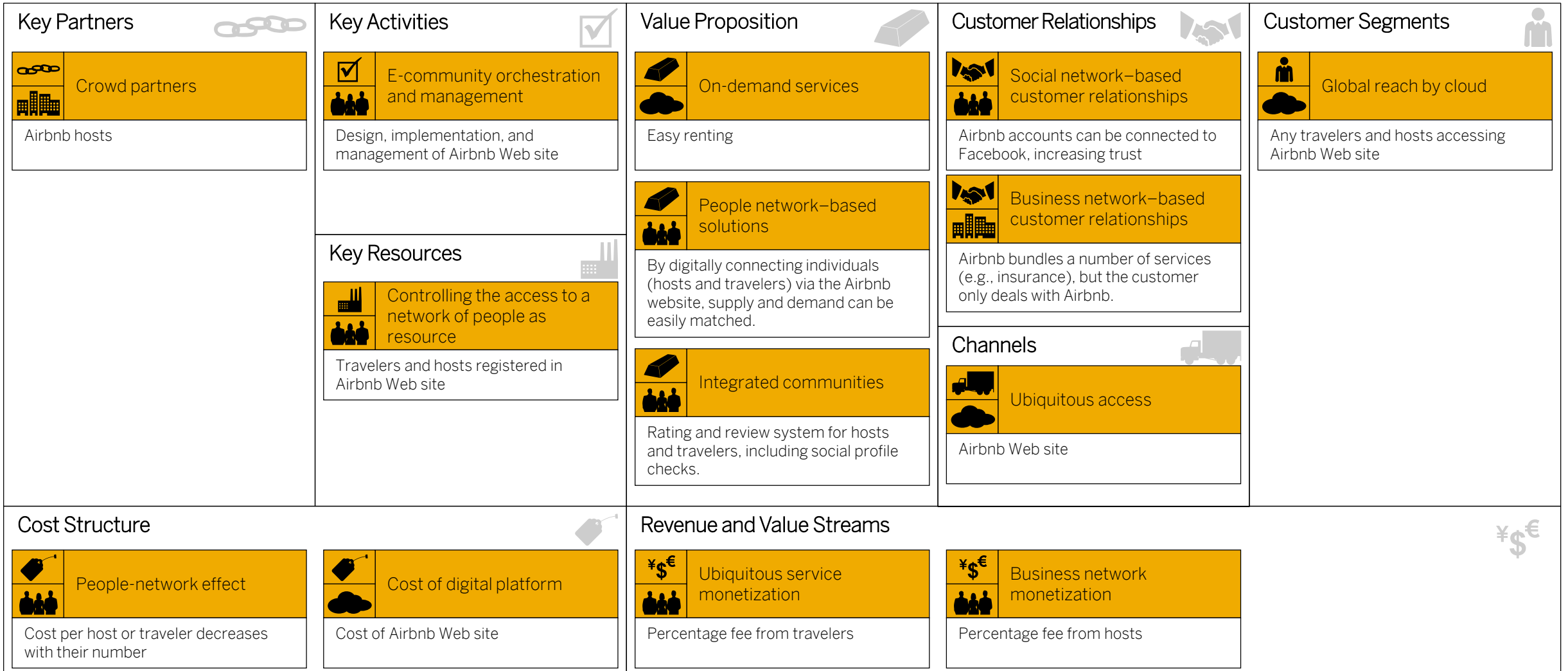
# Example 2: LinkedIn

## Key Features



# Example 3: Airbnb

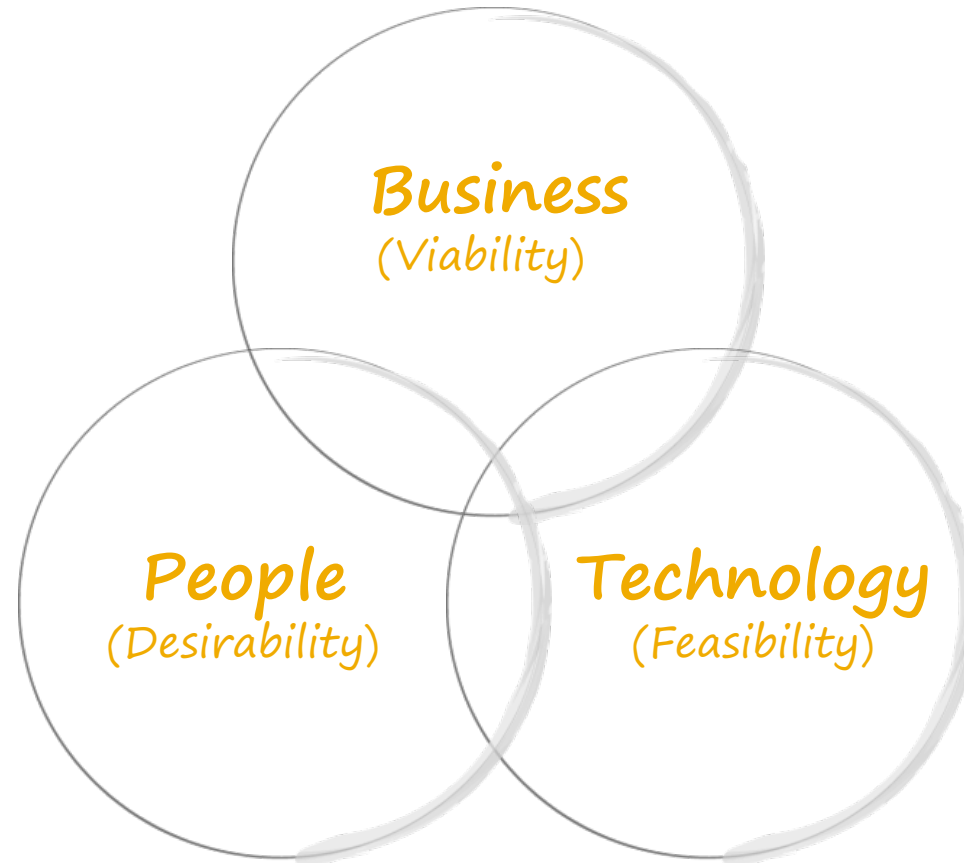
## Key Features



# Business Model Design and Innovation (BMDI)

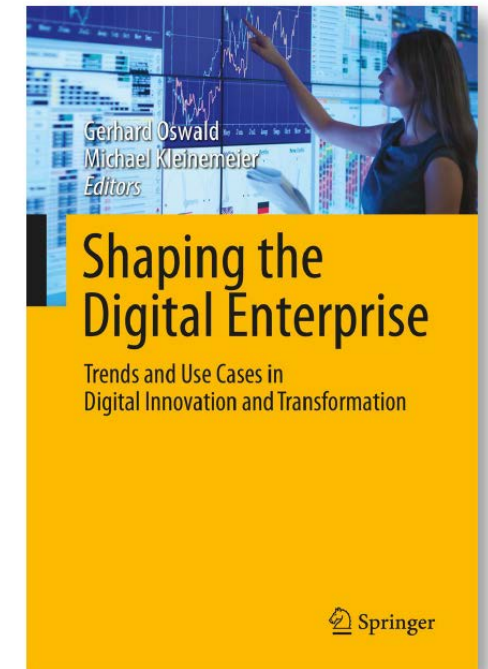
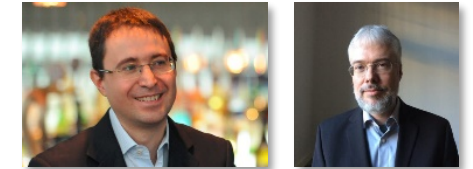
Doll, J., Eisert, U.: p. 7 – 15

1. From Baseline ...
2. ... to 4 types of iteration ...
  - I. Analyze & Improve
  - II. Challenge & Change
  - III. Test & Verify
  - IV. Evaluate & Decide
3. ... to an appropriate, validated business model
4. Case study Helix Nebula



# Literature

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2. Doll, J., Eisert, U.: Business Model Development and Innovation: in: 360° The Business Transformation Journal, Issue 11, 2015, p. 7 – 15.
3. Schreckling, E., Steiger, C.: Digitalize or Drown, in: Oswald, G., Kleinemeier, M.: Shaping the Digital Enterprise, 2016, p. 3 – 27.
4. Kowalkiewicz, M. et al.: The Business Consequences of a Digitally Transformed Economy, in: Oswald, G., Kleinemeier, M.: Shaping the Digital Enterprise, Springer 2016, p. 29 – 67.
5. de Jong, M. et al.: The Eight Essentials of Innovation, in: McKinsey Quarterly, April 2015, p. 1 – 12.
6. de Jong, M., van Dijk, M.: Disrupting Beliefs: A New Approach to Business-Model Innovation, in: McKinsey Quarterly, July 2015, p. 1 – 10.





# Thank you.

For inquiries and questions:



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