OPEN ROADS
Powered by Huawei

The Accelerator for Digital Transformation

DIGITAL MASTERMIND

A Holistic Framework for Navigating the Digital Transformation Journey

Introduction

In today's market, transformation is of vital importance for many companies; brought about by rapid changes in digital technology, new competition, business models and the demands from a new generation of customers. Some businesses are being forced to change in order to survive, whilst others are looking to build competitive advantages.

Technology is a vital component of this transformation, but companies must be careful to discriminate between becoming "digitised" rather than "digital". When a company is digitised, it achieves higher efficiency, reliability, and cost savings. But when it is digital, it also enables rapid product and service innovation to capture new opportunities, grow revenue and increase brand equity.

Transforming to become truly digital requires a company to change many aspects: the way it organises itself, the way it interacts with its customers and the way it utilises technology. However, for many companies these are unchartered waters, so where to begin?

Digital Mastermind has the answer.

The Digital Mastermind has been created to enable companies to plan and execute their entire transformation journey, adopting a "vision for growth, identify a scenario,start small, think big, and scale fast" strategy. It helps benchmark an organisation's current digital maturity and provides a step-by- step guide to defining objectives, strategy, operations and the time and investment needed to complete the transformation.

The Open ROADS* Community has brought together a number of specialist organisations whose expertise and experience have helped define the framework, and who are available to assist you on your transformation journey.

Hua Liang
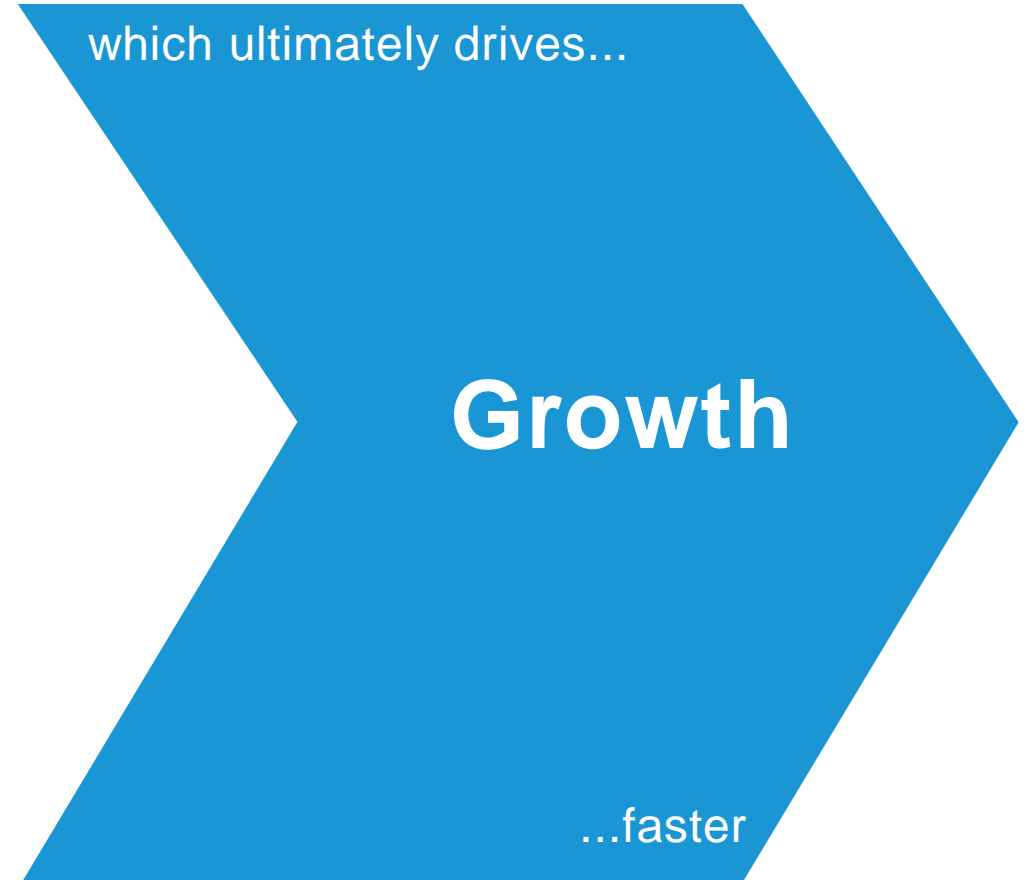
Chairman
(February 2016 to September 2018)

Qibing Tang

Chairman
(Since September 2018)

* ROADS stands for Real-time, On-demand, All-online, Do-It-Yourself, and Social
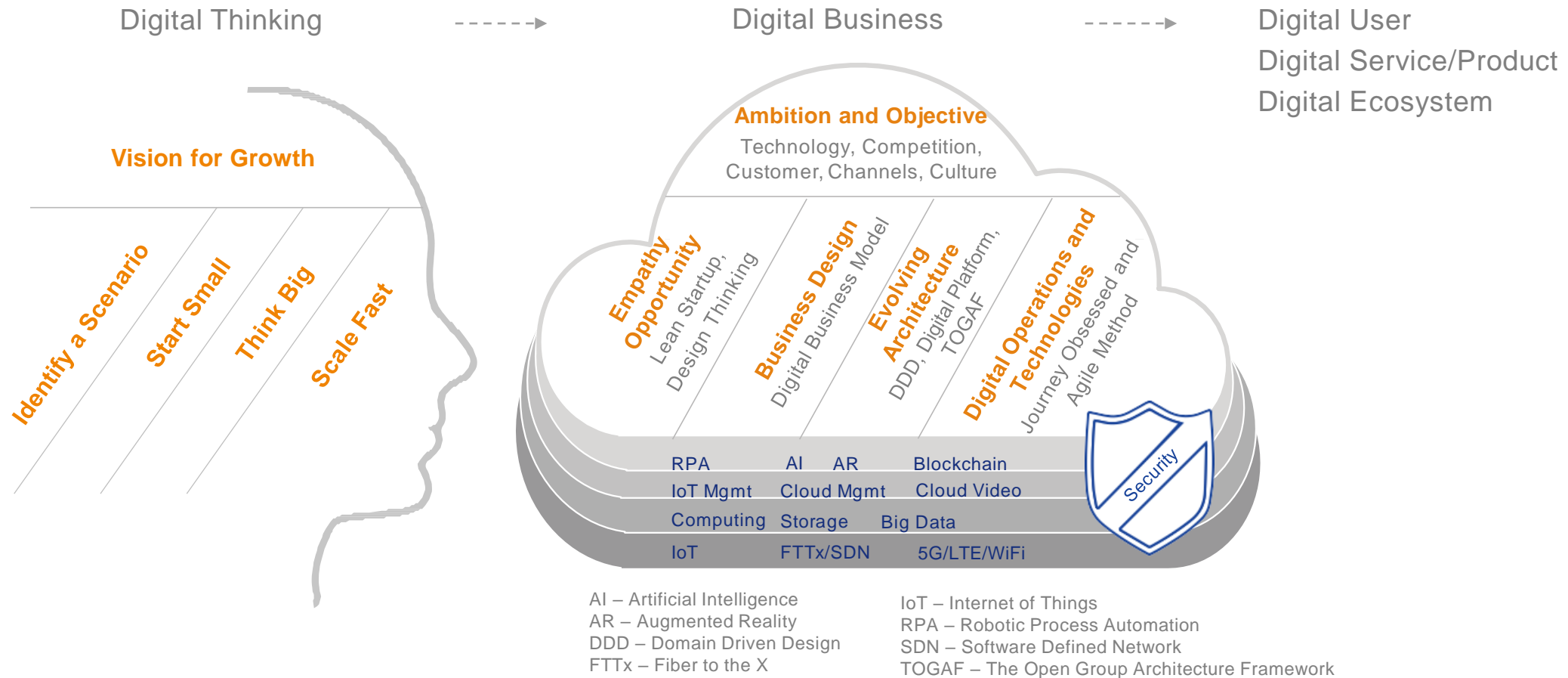
Adoption creates benefits

- Reduced Cost to Serve/Time to Market

- Refreshed Competitive Advantage

- Improved Customer Experience

- Improved Employee Experience

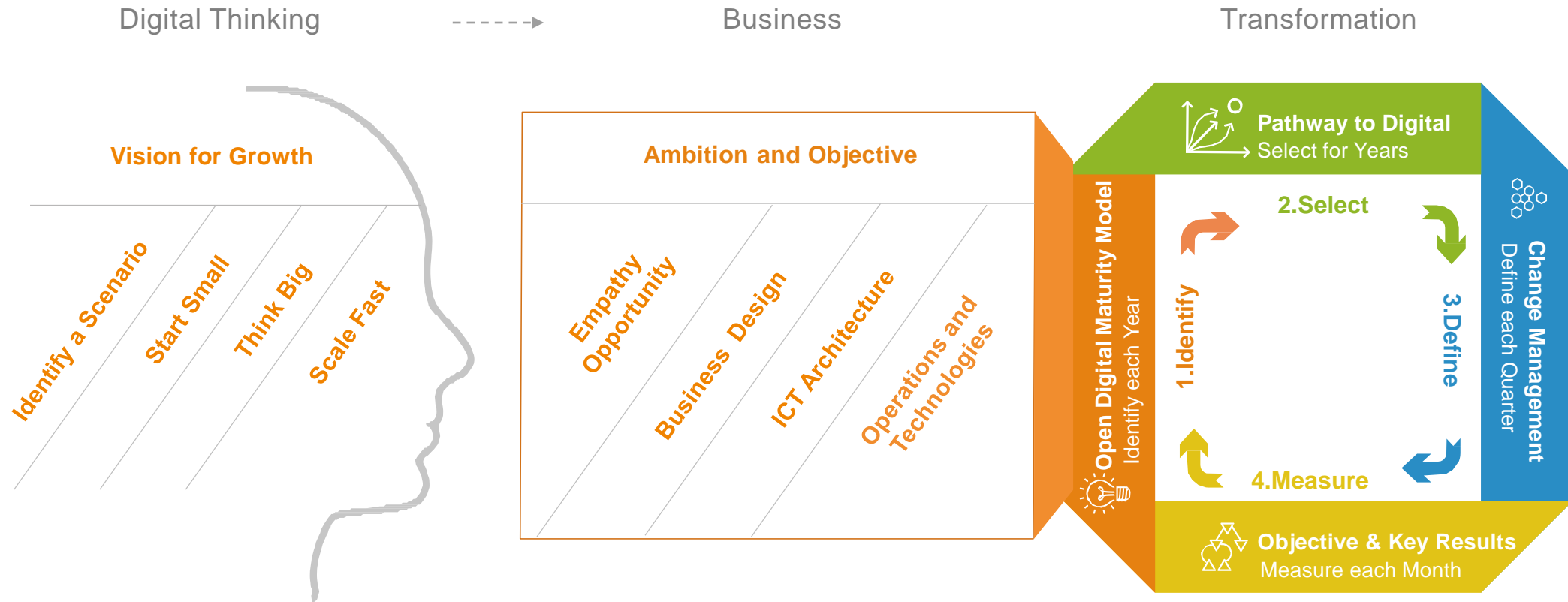- New Revenue Streams and Models

- Increased Brand Equity

which ultimately drives...

Growth

...faster

Digital Mastermind

A Holistic Framework for Navigating the Digital Transformation Journey

Digital Thinking - - - - - → Digital Business - - - - - → Digital User
Digital Service/Product
Digital Ecosystem

Vision for Growth

Ambition and Objective
Technology, Competition,
Customer, Channels, Culture

Identify a Scenario

Start Small

Think Big

Scale Fast

Empathy Opportunity
Lean Startup,
Design Thinking

Business Design
Digital Business Model

Evolving Architecture
DDD, Digital Platform,
TOGAF

Digital Operations and Technologies
Journey Obsessed and
Agile Method

RPA	AI	AR	Blockchain
IoT Mgmt	Cloud Mgmt		Cloud Video
Computing	Storage		Big Data
IoT	FTTx/SDN		5G/LTE/WiFi

Security

AI – Artificial Intelligence
AR – Augmented Reality
DDD – Domain Driven Design
FTTx – Fiber to the X

IoT – Internet of Things
RPA – Robotic Process Automation
SDN – Software Defined Network
TOGAF – The Open Group Architecture Framework

Digital Mastermind

A Holistic Framework for Navigating the Digital Transformation Journey

Digital Thinking

Business

Transformation

Vision for Growth

Identify a Scenario
Start Small
Think Big
Scale Fast

Ambition and Objective

Empathy Opportunity
Business Design
ICT Architecture
Operations and Technologies

Open Digital Maturity Model Identify each Year

Pathway to Digital Select for Years

Change Management Define each Quarter

Objective & Key Results Measure each Month

1.Identify
2.Select
3.Define
4.Measure

Telco, Retail, Industrial, Finance, Health

Digitalisation has already begun impacting nearly every industry with significant implications for our global economy.

— Damien Dujacquier, Senior Partner, Roland Berger

The 3rd wave of digitalisation

Underlying Technologies

- Big Data & Analytics
- 5G Connectivity
- The Cloud
- Artificial Intelligence
- Additive Manufacturing
- Augmented Reality
- Industrial Internet of Things
- Blockchain

Telco — Analytics predicts periods of heaviest network usage and takes measures to relieve congestion

Retail — Big data anticipates customers behavior and delivers groceries to your door step

Industrial — Fully autonomous factories minimises the need for labor to near zero

Finance — Blockchain has potential to replace the bank as an intermediary

Health — Augmented reality lets surgeons operate remotely
AI diagnoses diseases

and more…

Potentially **USD 100 trillion** cumulatively unlocked in value for society and industry by 2025 according to World Economic Forum

10x increase in cross-border traffic by 2030 generating an acceleration in international trade

Sources: IC Insights; ICTDS; World Economic Forum; ILO, Accenture; Roland Berger

It All Starts with the Customer

Whether, B2B, B2C, B2B2C, B2H…

Customers don't live in a digital world only, they live in their own world. It is important that we understand them first, their needs and wants and the moments that matter; if we do this we can build brands that make companies more valuable to customers and customers more valuable to companies.

— Jerry Smith, Executive Partner, Digital Transformation, Ogilvy Consulting

Customer Bonds

Emotional · Social · Structural · Financial
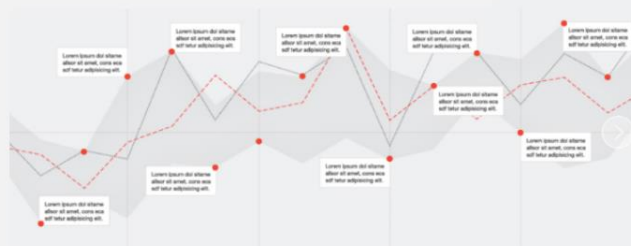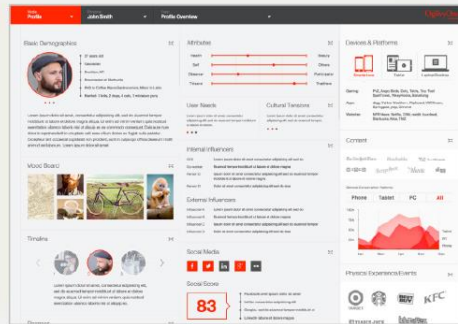
Enabled by Data and Technology and based on our ROADS Principles
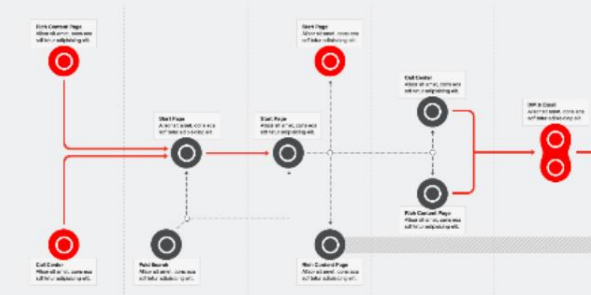
Emotional Bonds
e.g. Attaching emotion, such as a service that shapes a child's education for parents, or is highly personalised and intuitive

Social Bonds
e.g. Building network effect, a brand or experience that I want to brag about

Structural Bonds
e.g. A service or experience that can't easily be decoupled from a consumer's day-to-day life

Financial Bonds
e.g. A product that delivers compelling value at the moment of truth

Source: Ogilvy Consulting

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Lean Startup

Usage is oxygen for ideas. Iterate and learn from your customers.

— Ran Xiao, Head of Consulting & Head of Advisory for Greater China, ThoughtWorks

HOW TO BUILD A MINIMUM VIABLE PRODUCT

NOT LIKE THIS...

Traditional Sequential Approach

LIKE THIS...

Lean Startup Approach
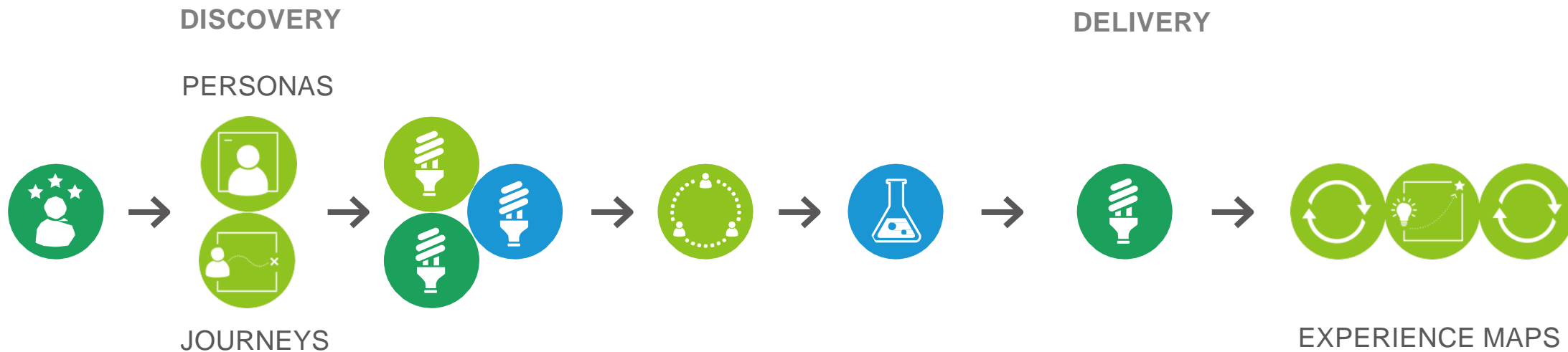
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Design Thinking Process

Human centric innovation, delivered at speed.

— Zhouyang Cheng, Design Thinking Coach, Huawei

DISCOVERY

DELIVERY

PERSONAS

JOURNEYS

EXPERIENCE MAPS

Timing

DAYS	DAYS	DAYS	DAYS	DAYS	WEEKS	MONTHS
KICK OFF	RESEARCH	IDEATION	MVP WORKSHOP	EXPERIMENTS	INCEPTION	DELIVERY

Design Thinking Process

Human centric innovation, delivered at speed.

— Zhouyang Cheng, Design Thinking Coach, Huawei

Map the human journey

Client Project Manager: Manage Online Survey

Positive Experience

Sense of accomplishment…

Negative Experience

Out of control, delay…

Receive baseline version online survey from ODMM PM

Collect feedback from client project team members

Consolidate customised online survey with ODMM PM

Send Survey mail to participants

Check with ODMM PM about the survey progress

Remind participant to complete ODMM survey

Access to survey analysis

Receive survey conclusion report from ODMM PM

| Identified Opportunities | Remove Hassle Factor | Minimise Effort | Meet Emotional Needs | Design in Transparency |

Experience in New Journey
Based on ROADS experience

On-demand
Survey questionnaire categorisation

Social
Collaboration for survey customisation

Real-time and Do-It-Yourself
Survey progress notification

All-online
Survey analysis key pieces
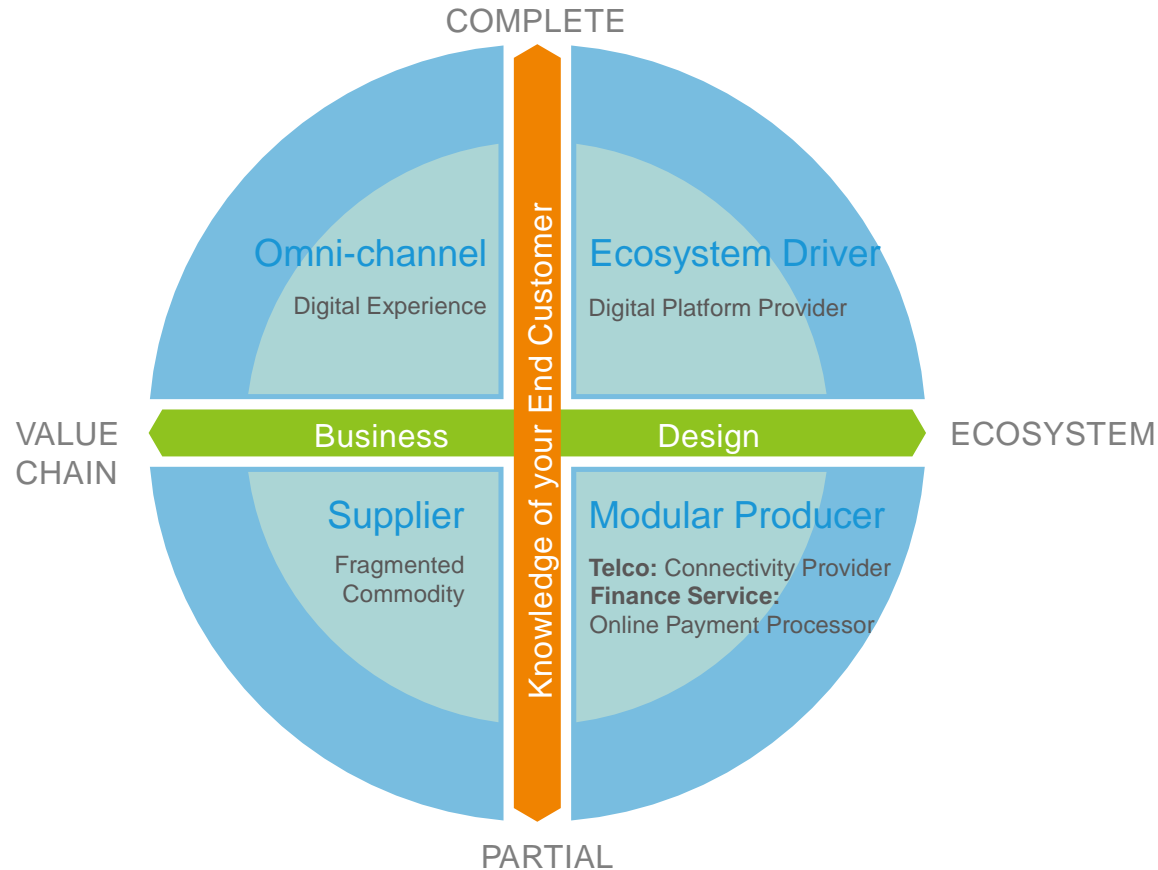
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| Vision for Growth | Identify a Scenario | Start Small | Think Big | Scale Fast |

Digital Business Model

Using the MIT Sloan CISR Next Generation Enterprise Model, companies can establish an aspiration in the context of what the business and brand ambition allows, and from their current starting point.

Knowledge of your End Customer

Know: Identity, purchase history with your company and other firms, and consumer goals.

Business Design

Who controls key decisions like brand, contracts, price, quality, participants, IP and data ownership, and regulation.

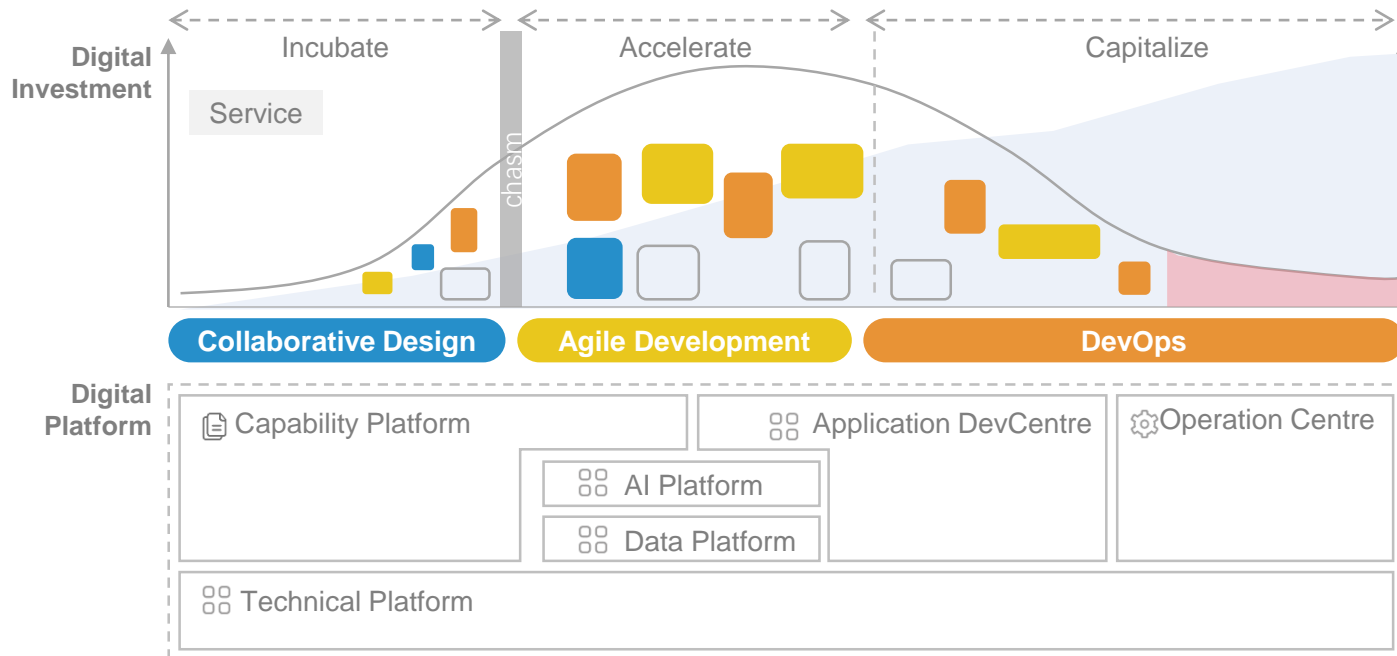Source: The MIT Sloan Center for Information Systems Research (CISR)

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Change the Way of Evaluating Architecture

An evolutionary architecture supports incremental, guided change as the first principle across multiple dimensions.

— "Building Evolutionary Architectures"

Evolutionary over Comprehensive

Digital Investment

Incubate | Accelerate | Capitalize

Service

chasm

Collaborative Design | **Agile Development** | **DevOps**

Digital Platform

📄 Capability Platform

⊞ Application DevCentre

⚙ Operation Centre

⊞ AI Platform

⊞ Data Platform

⊞ Technical Platform

Customer Engagement

Digital Platform
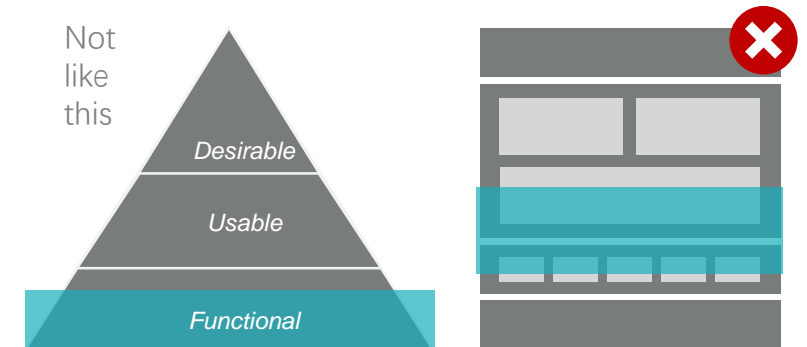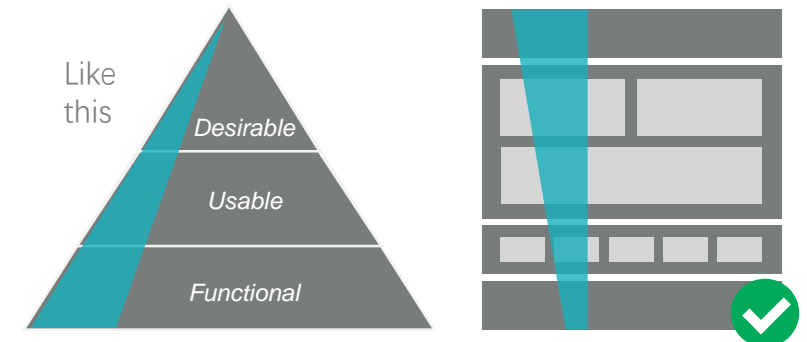
Like this

Desirable

Usable

Functional

✅

Not like this

❌

Desirable

Usable

Functional

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Journey Obsessed and Agile Method

In the Digital Transformation Practice Center (DTPC), Huawei has set up a cross-functional team, working with customers and partners in an agile and collaborative approach to design, build, test and verify the MVP for digital opportunities.

— Zheng Li, Head of Business & Network Consulting, Huawei
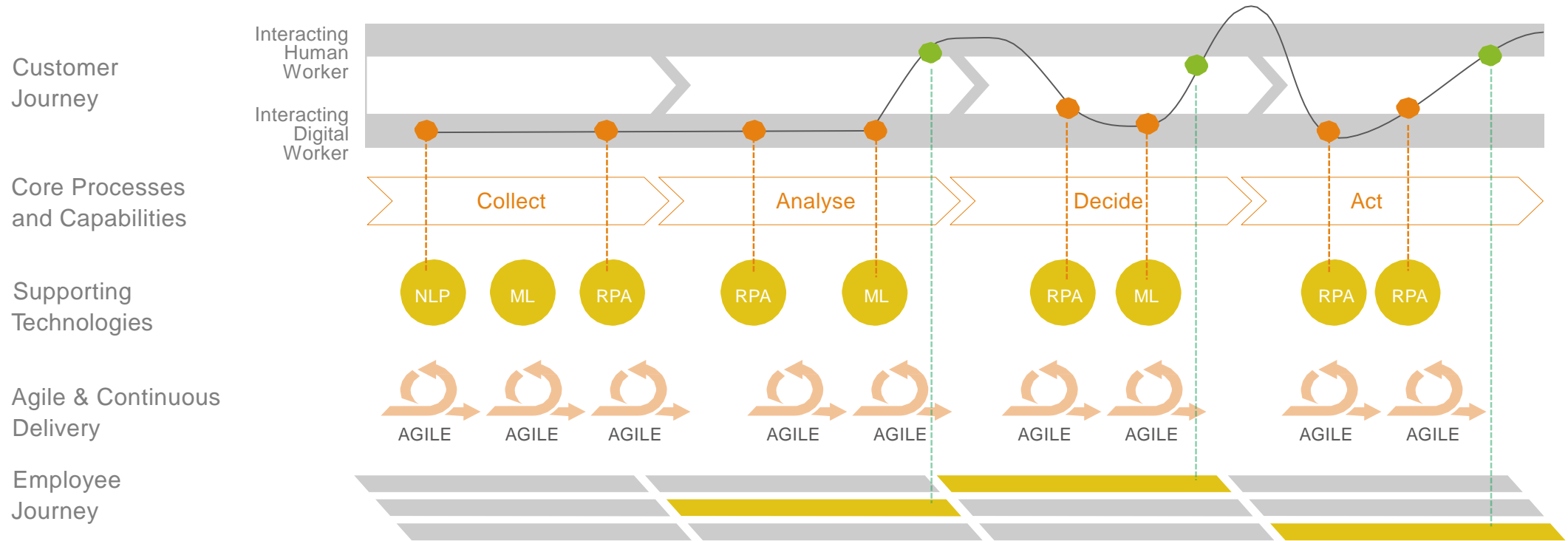
*NLP: Natural Language Processing   *ML: Machine Learning   *RPA: Robotic Process Automation   ● ● Touchpoint

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Transformation can begin with any aspect of the business from Ambition and Objective to Operations and Technologies

Business

Transformation

Ambition and Objective

Empathy
Opportunity

Business Design

ICT Architecture

Operations and
Technologies

Open Digital Maturity Model
Identify each Year

Pathway to Digital
Select for Years

Change Management
Define each Quarter

1.Identify

2.Select

3.Define

4.Measure

Objective & Key Results
Measure each Month
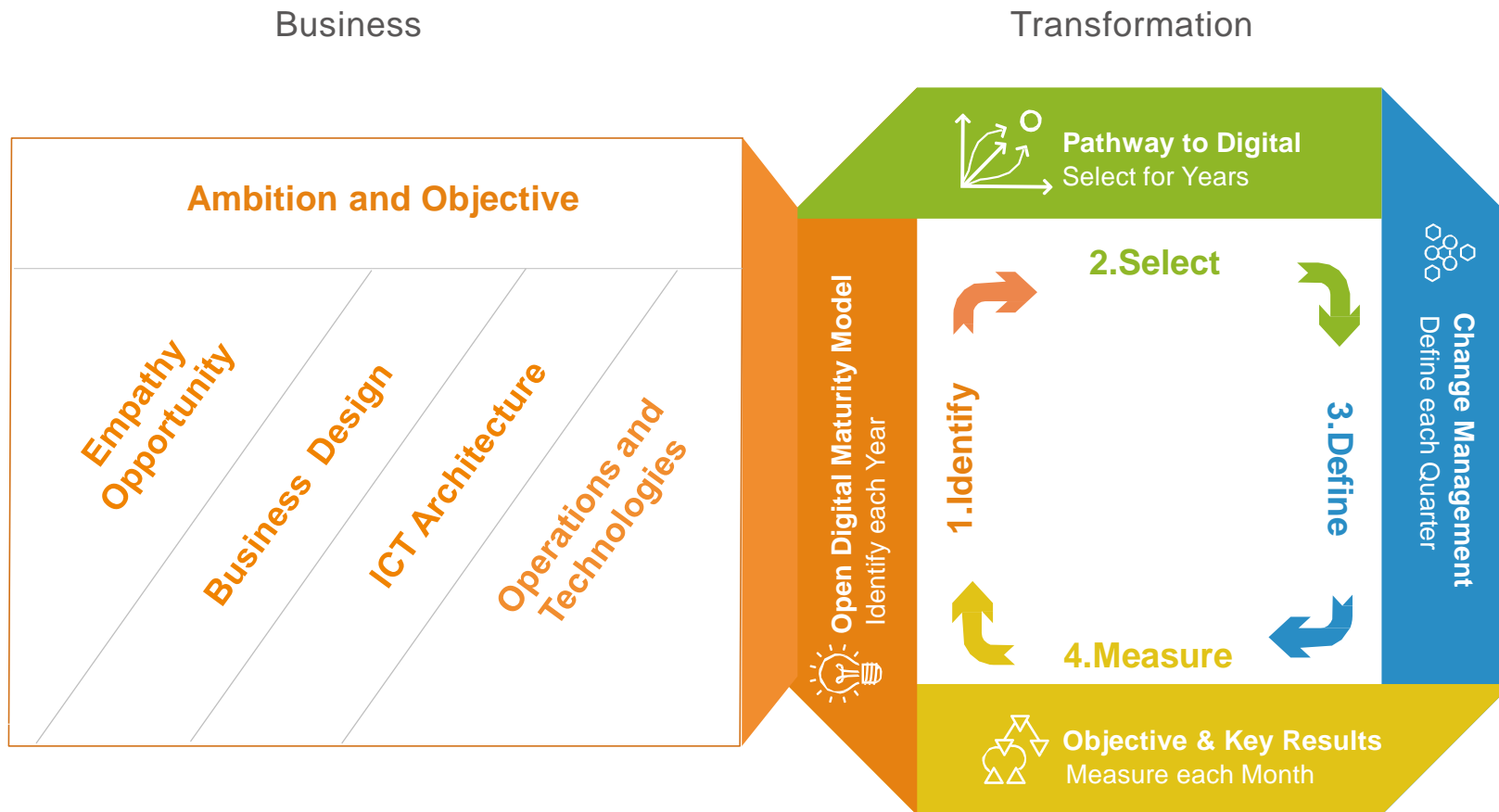
Scan to read more about the mapping between
(Digital) Business and Open Digital Maturity Model

Maturity insight

Open Digital Maturity Model (ODMM)

The ODMM provides in-depth coverage of all aspects of an organisation's digital maturity, providing an enterprise with a quantitative, detailed view of the maturity gaps between current state and its business aspiration. The complementary Digital KPIs are outcome-based, developed from proven implementations across industries.
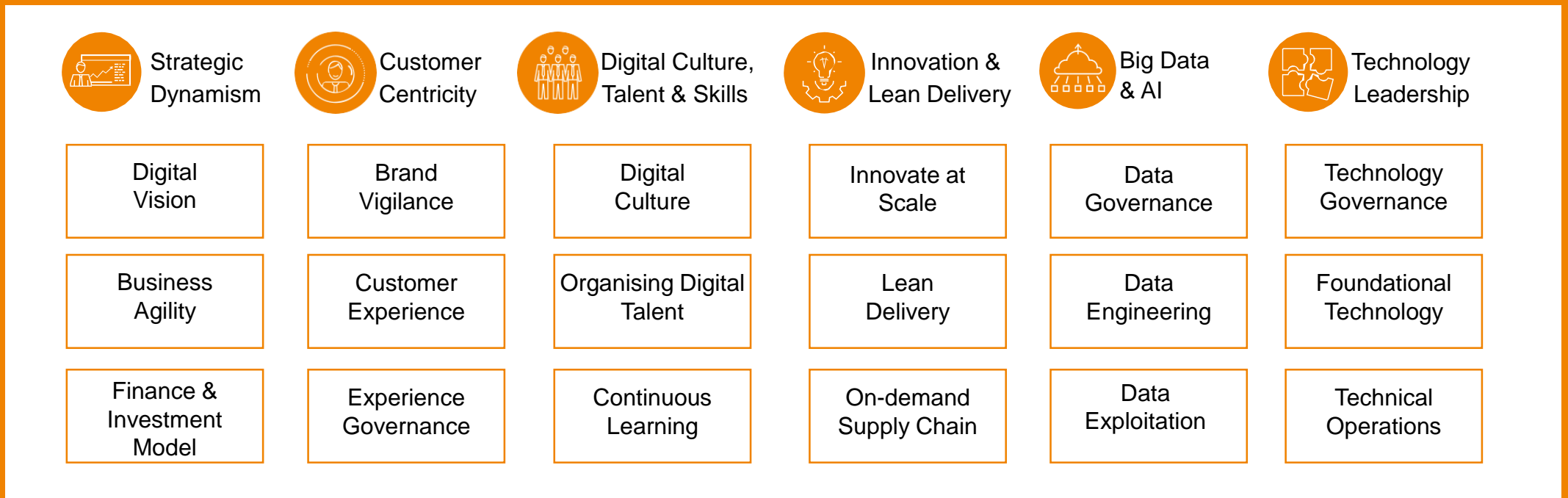
Strategic Dynamism	Customer Centricity	Digital Culture, Talent & Skills	Innovation & Lean Delivery	Big Data & AI	Technology Leadership
Digital Vision	Brand Vigilance	Digital Culture	Innovate at Scale	Data Governance	Technology Governance
Business Agility	Customer Experience	Organising Digital Talent	Lean Delivery	Data Engineering	Foundational Technology
Finance & Investment Model	Experience Governance	Continuous Learning	On-demand Supply Chain	Data Exploitation	Technical Operations

Timing

DAYS	DAYS	DAYS	DAYS	WEEKS	DAYS	DAYS
RESEARCH	ASSESSMENT PLANNING	KICK OFF	ONLINE SURVEY	INTERVIEWS & OBSERVATION	MATURITY SCORING	MATURITY INSIGHTS

Scan to read about Cross-industry KPIs

Maturity insight

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The ODMM provides in-depth coverage of all aspects of an organisation's digital maturity, providing an enterprise with a quantitative, detailed view of the maturity gaps between current state and its business aspiration. The complementary Digital KPIs are outcome-based, developed from proven implementations across industries.

Strategic Dynamism	Customer Centricity	Digital Culture, Talent & Skills	Innovation & Lean Delivery	Big Data & AI	Technology Leadership
Cross-Industry Engagement	**Brand Promise and Promotion**	**Team Agility and Empowerment**	**Design Thinking**	**Metadata Management**	**Cyber Security & Digital Risk Management**
% Revenue generated by digital products / services	• Brand affinity Score • Net Promoter Score	• Employee NPS • Peer Rating	• Customer effort score • Employee effort score	% Key data assets covered by metadata	• Elapsed time to identify failure • Elapsed time to identify threat
Strategic Portfolio Management	**Online Social Engagement**	**Extended Workforce**	**Continuous Delivery**	**Data Integration and Interoperability**	**APIs, Microservices**
Time from ideation to launch	• Longest wait for social engagement response • % Interaction through digital channels	% New hires from hack2hire	• Change failure rate • Mean time between releases	% Data entities that are physical	• # Partners connected via API • % Infrastructure that is virtualised
Financial Strategy	**Customer Experience Measurement**	**Structured On-Job Learning**	**Respond to Changes**	**Data Science & AI**	**Intelligent Automation**
% Investments devoted to new business models	• Social network sentiment • Churn	% Staff have digital passport	Order fulfillment lead time	• Chatbot (% Contacts) • First call resolution	% Processes handled by RPA

Timing

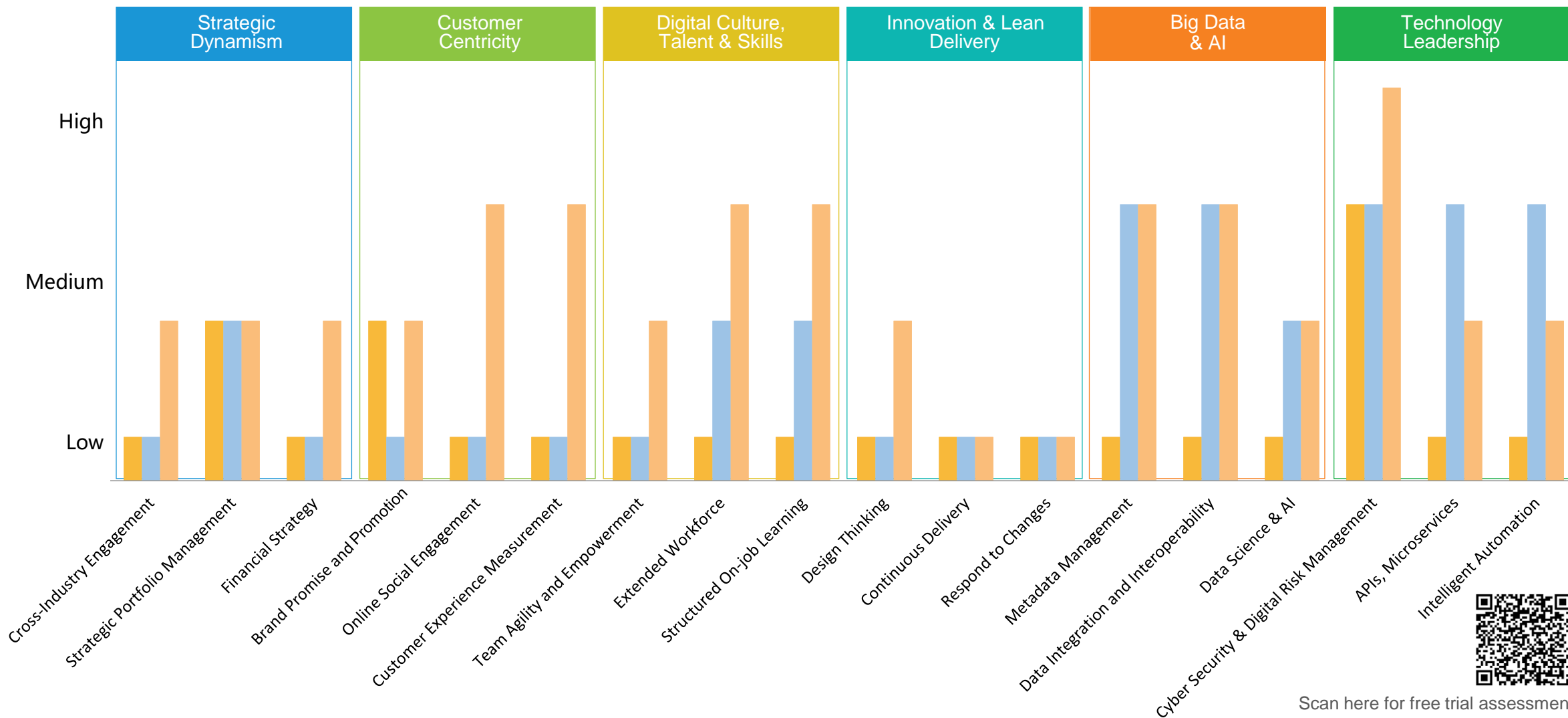| DAYS	DAYS	DAYS	DAYS	WEEKS	DAYS	DAYS
RESEARCH	ASSESSMENT PLANNING	KICK OFF	ONLINE SURVEY	INTERVIEWS & OBSERVATION	MATURITY SCORING	MATURITY INSIGHTS

Scan to read about Cross-industry KPIs

Benchmark your maturity score

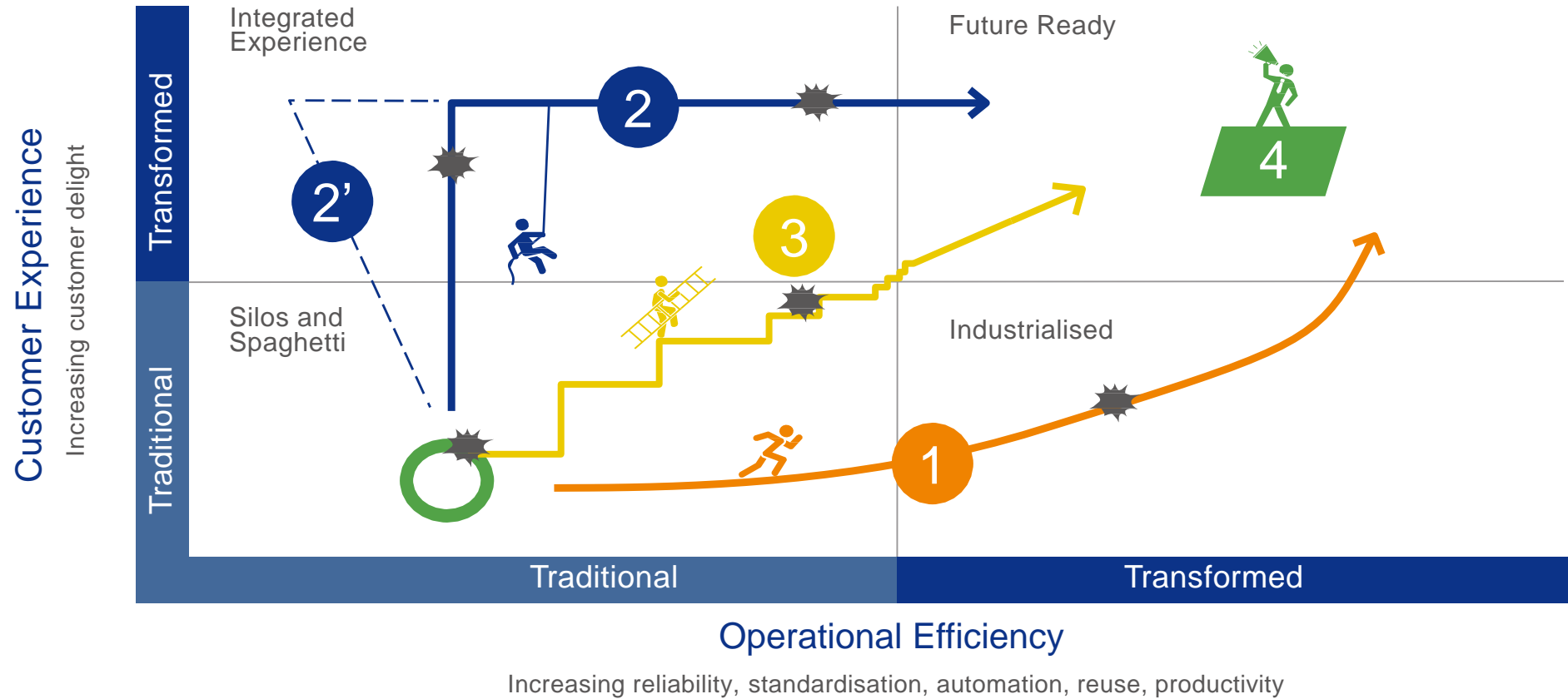**Legend:** Beginning, ready to transform · Progressing, with high digitisation · Experimenting, but needs delivery focus

Categories and metrics:

- **Strategic Dynamism:** Cross-Industry Engagement, Strategic Portfolio Management, Financial Strategy
- **Customer Centricity:** Brand Promise and Promotion, Online Social Engagement, Customer Experience Measurement
- **Digital Culture, Talent & Skills:** Team Agility and Empowerment, Extended Workforce, Structured On-job Learning
- **Innovation & Lean Delivery:** Design Thinking, Continuous Delivery, Respond to Changes
- **Big Data & AI:** Metadata Management, Data Integration and Interoperability, Data Science & AI
- **Technology Leadership:** Cyber Security & Digital Risk Management, APIs, Microservices, Intelligent Automation

Scan here for free trial assessment

Determine the right pathway for you

Customer Experience — Increasing customer delight

Operational Efficiency

Increasing reliability, standardisation, automation, reuse, productivity

Integrated Experience

Future Ready

Silos and Spaghetti

Industrialised

Transformed

Traditional

Traditional

Transformed

IAG, HKT and Royal KPN digital transformation success stories

Royal KPN – Digital Telecom – Netherlands – B2C – Path 3

KPN, although market leader, recognised that both their B2C customer experience and operating efficiency were not optimum. With the board's backing, and no pressure for quick returns, they selected Path 3. They initially focused on refreshing their IT architecture, which subsequently enabled them to eliminate waste and improve customer experience in parallel. Business benefits from higher revenues and lower costs started to appear after 18 months, with significant returns from year 3 onwards. In general, this path can be expected to take 3-5 years. (Bouke Hoving, CTIO, KPN)

Scan to read more

HKT – Digital Telecom – Hong Kong – B2B – Path 3

HKT offers a premium service to all major enterprises in Hong Kong, making customer experience a top priority. HKT conducted a vigorous design thinking exercise with their customers and internal stakeholders to redesign the customer journey and identify the new customer centric capabilities, which are required to deliver enterprise digital products. HKT chose Path 3 to deliver an end-to-end transformation covering services, business process and all the way down to even the network. These capabilities have helped HKT to maintain its leadership in customer experience and preserve its price premium, whilst also increasing operational efficiency. This helps HKT to improve its margins and increase agility to better address customer / market needs. (Peter Lam, MD of Engineering, HKT)

IAG – Financial Services – Australia – B2C – Path 1

IAG initiated a major digital transformation project with the aim of improving efficiency, which is why they selected Path 1. Their goal was to establish a new "platform" model (groups of 100-200 people with 5-15 end-to-end delivery teams) together with a new lightweight governance system. Lean delivery practices were implemented across the organisational structure with delivery managers appointed to orchestrate Lean/Agile values and practices. This has helped the platform teams reduce the time to deliver a business case from 6 months to a few weeks, yielding cost savings of tens of million dollars to date. (Song Zhang, Managing Director, ThoughtWorks China)
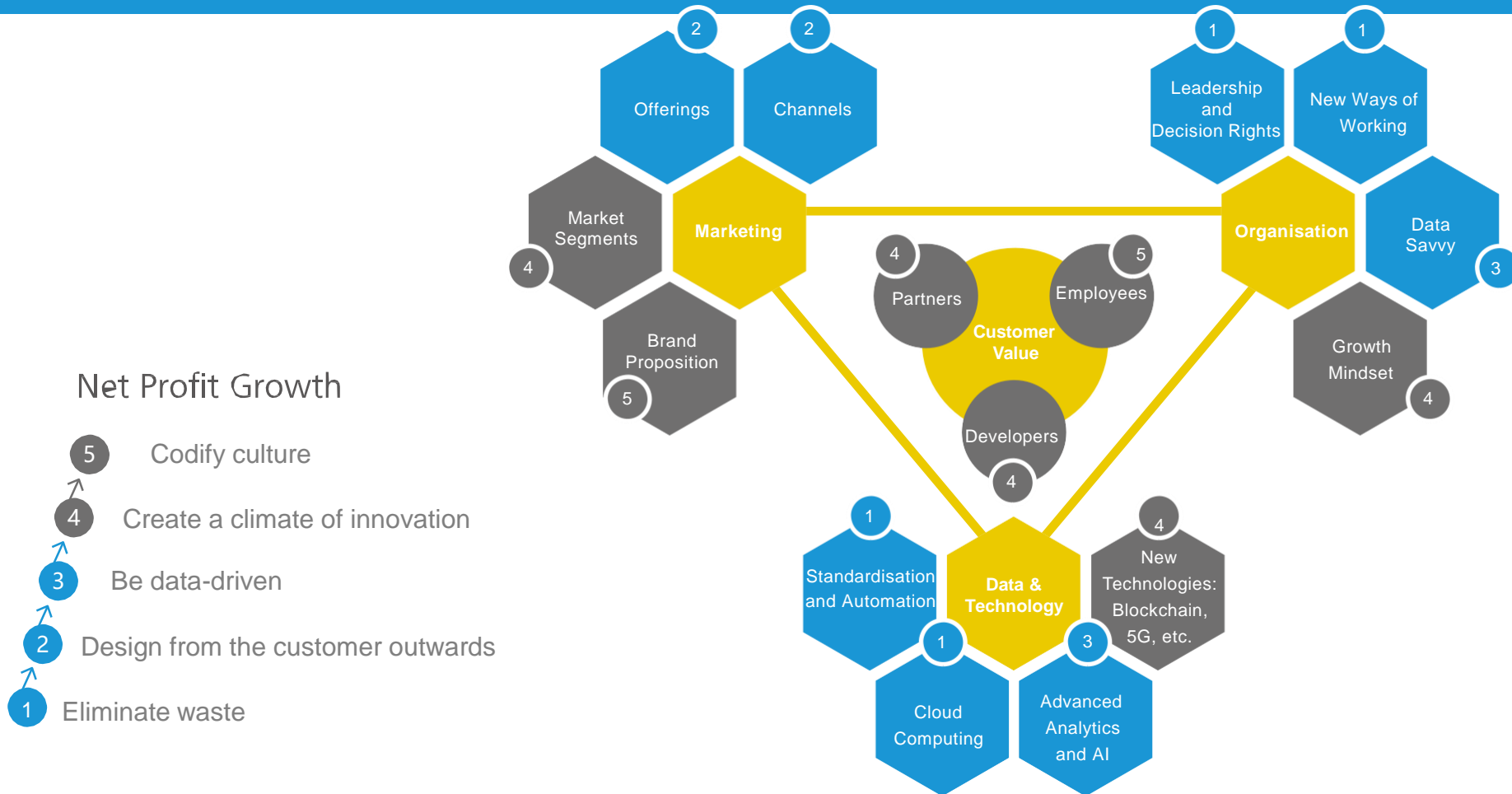
Change Management – four areas of focus
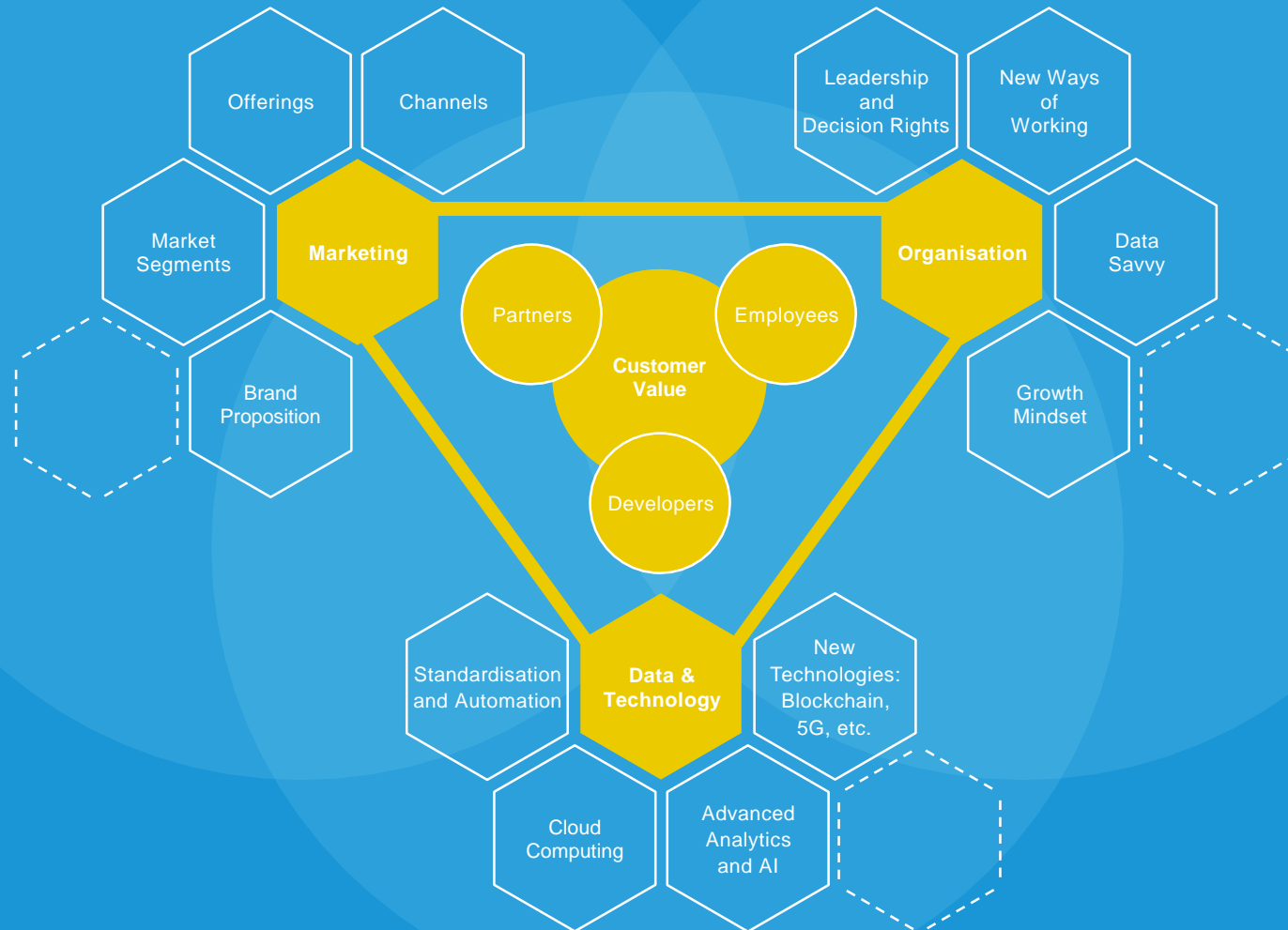
Objective and Key Results (OKR) – new ways of working

Head of Transformation

OBJECTIVE
Adopt new way of working

KEY RESULT
- Establish Scrum Team
- Establish the Architecture Review

Chief Architect

OBJECTIVE
Establish the Architecture Review

KEY RESULT
- Identify representative from Business, IT, Digital, Data analytics within 1 month
- Report beta architectures to transformation office in 3 months
- Reserve place to build portfolio wall

Product Owner

OBJECTIVE
Establish Scrum Team

KEY RESULT
- Employ qualified Scrum Master
- Perform Design Thinking on a product
- Use Kanban tool to track progress

HR

OBJECTIVE
Employ Scrum Master

KEY RESULT
- Scrum Master on-board within 1 month

Scrum Team Leader

OBJECTIVE
Perform Design Thinking on a product

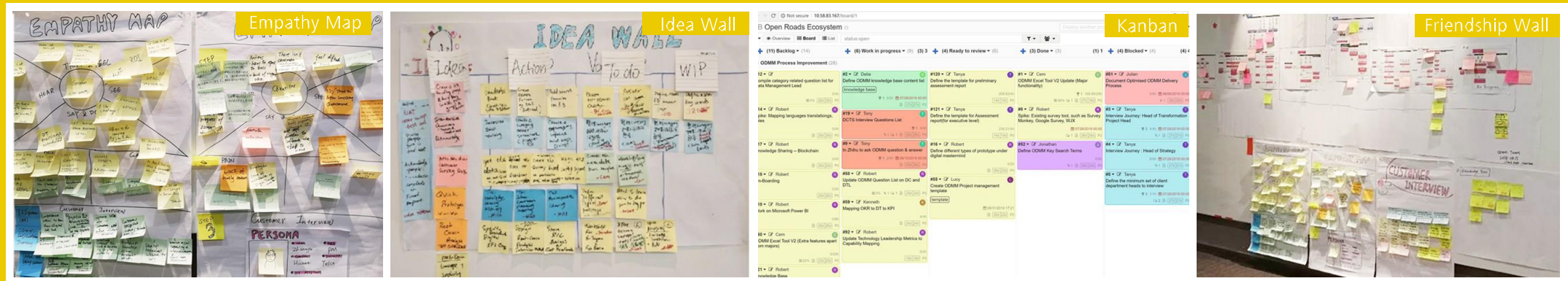**KEY RESULT**
- Attend training
- Build MVP

Scrum Master

OBJECTIVE
Use Kanban tool to track process

KEY RESULT
- Put the tool in place
- Commence daily stand-up within 2 months

Empathy Map

Idea Wall

Kanban

Friendship Wall

Open ROADS Community practice

Within the Open ROADS Community we have used a Design Thinking approach, combined with OKR, to transform the way we work to develop ODMM solutions. We have empathised with our users and team members to better understand their needs, and identify the most important areas for development. Using an OKR approach we have broken these down into individual, prioritised tasks to form our backlog. Then, by using an agile approach with daily stand- ups and Kanban board software, we have achieved much greater focus and team alignment on the key tasks we need to deliver.

— Chen Chen, Head of Operations, Open ROADS Community

HKT ODMM

The ODMM offered great insight into our current maturity level and the direction our digital transformation should follow.

— Derek Chen, AVP, Customer Services, HKT

China Operator Persona

I see the value of persona and journey to change and drive the whole business.

— Head of Video business operation, Operator in China

KPN Portfolio Wall

Our portfolio wall removes complexity, allowing all stakeholders to easily plan and track feature development.

— Vladimir Cibic, VP of Mass Market IT, KPN

ARE
YOU
NEXT ?

Together, we can each fast forward to a successful digital business.

As part of the Open ROADS Community, our members have widely contributed to identifying and developing digital best practices and, in doing so, helped to develop a thriving community. Community members, including Huawei, Ogilvy Consulting, Roland Berger and ThoughtWorks have leveraged the Digital Mastermind framework for the benefit of their clients, making it an integral part of their approach to digital transformation. Each brings their own expertise to help clients prioritise the key areas to focus on, while delivering the right support to implement actionable plans. Together, they cover every aspect of digital transformation.

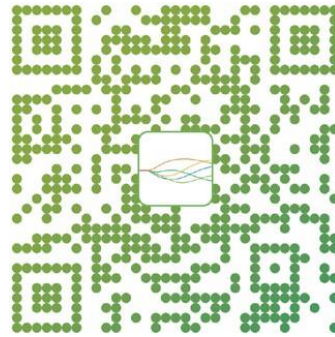*— Trevor Cheung, Managing Director, Open ROADS Community*

Contributors

The Open ROADS Community would like to thank the following individuals for their support in the development of the Digital Mastermind framework:

Angel Alija, America Movil

Bouke Hoving, KPN

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Zhouyang Cheng, Huawei

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Hong Kong Telecom

Huawei

KPN

Ogilvy Consulting

Orange

Roland Berger

SAP

STL Partners

Sunrise

Technology Services Industry Association (TSIA)

Telefonica

Telkom Indonesia

The Open Group

ThoughtWorks

TM Forum

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