The Digital Talent Gap

Looking at leaders and laggards based on a global survey of enterprise workforce digital skills readiness

Date: July 6th, 2019
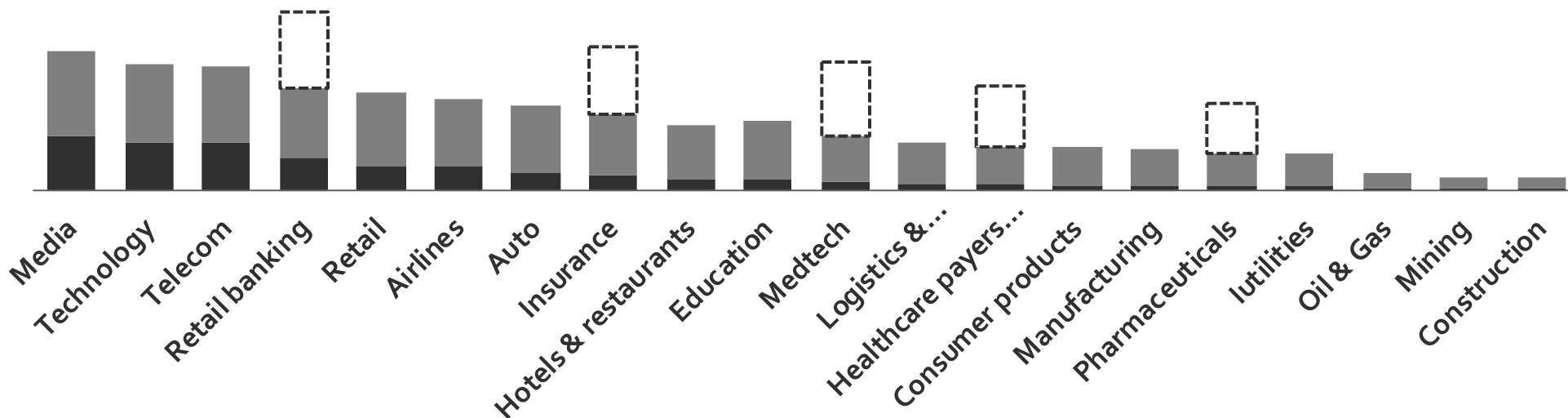
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Digital disruption is impacting almost all industries…. But current technologies will have a more severe impact on some industries… and regulations are slowing disruption in selected industries

Digital disruption by industry (2014, 2020)

- ⬚ Additional disruption, if there was no/less regulatory, legal barriers to entry of disruptors
- ■ Incremental through 2020
- ■ Today

Industries (left to right): Media, Technology, Telecom, Retail banking, Retail, Airlines, Auto, Insurance, Hotels & restaurants, Education, Medtech, Logistics &…, Healthcare payers…, Consumer products, Manufacturing, Pharmaceuticals, Iutilities, Oil & Gas, Mining, Construction

Note: The rankings are based on examination of more than 300 companies engaged in Digital projects, plus additional industry interviews. We calculated relative levels of disruption based on our review of value chain impact and importance both today and in the future—that is, which segments of the value chain are most important to success in that industry and how much disruption has occurred and will occur in those segments.

Source: Synergy Consulting Group, adapted from Bain & Co.

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The rapid increase in processing power, storage capacity, and communication speeds, all at cheaper prices, are the fundamental drivers of technology innovation

Underlying drivers of rapid technology innovation

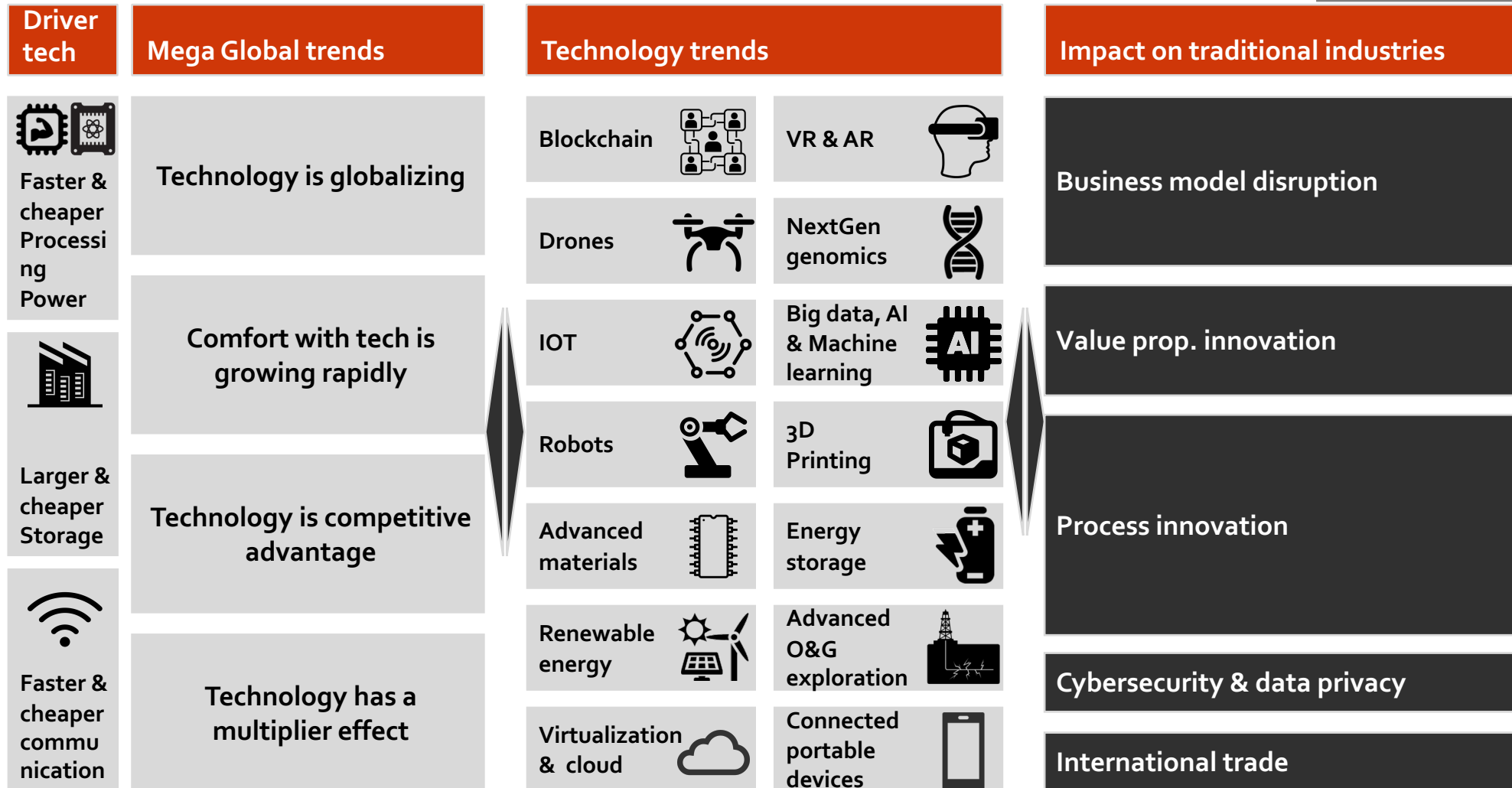**Faster & cheaper Processing Power**
(incl. future quantum computing)

Larger & cheaper Storage
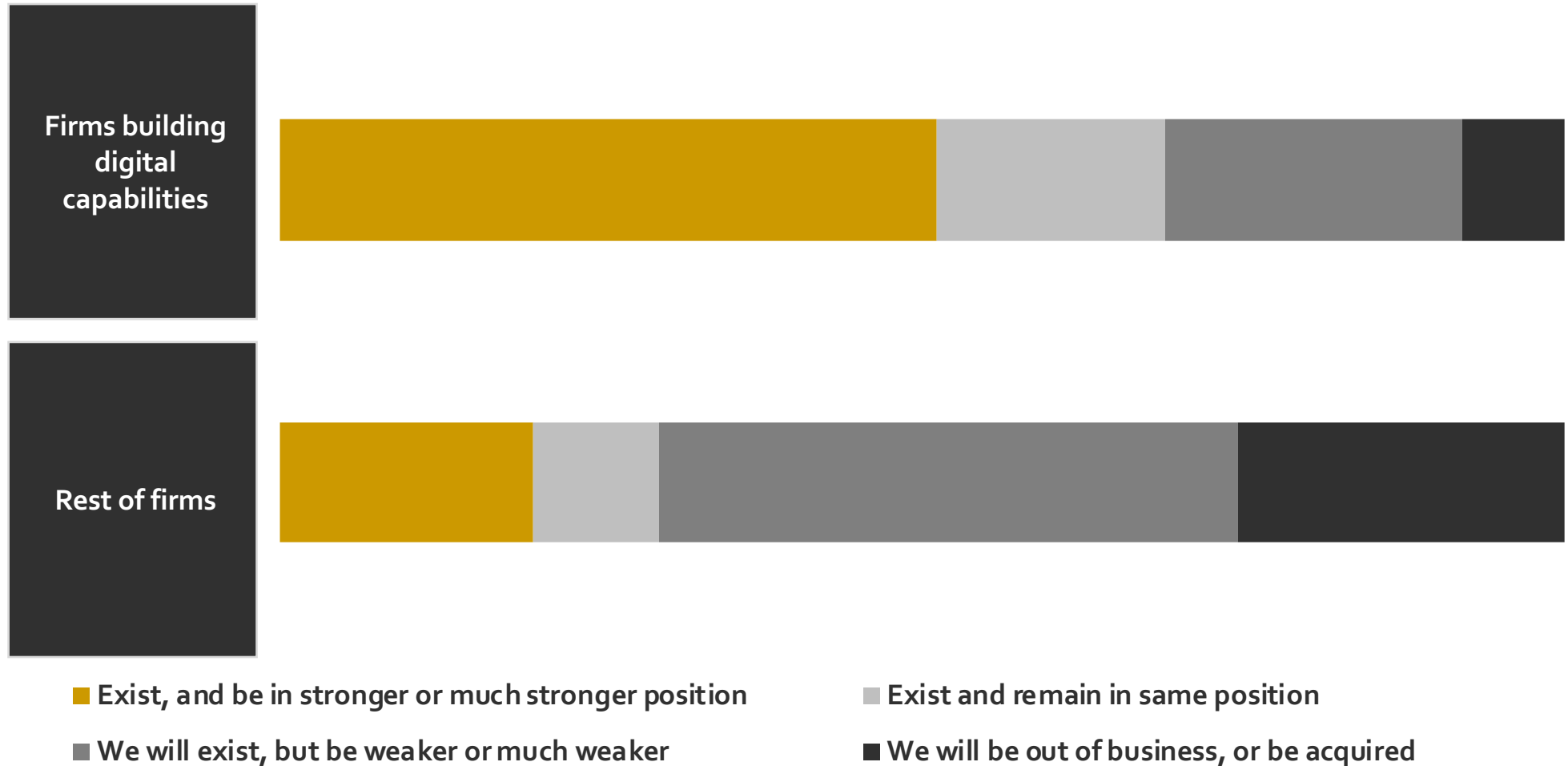
Faster & cheaper communication

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3 underlying technology drivers are having a ripple effect that are transforming industry value chains

NON-EXHAUSTIVE

Driver tech	Mega Global trends	Technology trends		Impact on traditional industries
Faster & cheaper Processing Power	**Technology is globalizing**	Blockchain	VR & AR	**Business model disruption**
		Drones	NextGen genomics	
Larger & cheaper Storage	**Comfort with tech is growing rapidly**	IOT	Big data, AI & Machine learning	**Value prop. innovation**
	Technology is competitive advantage	Robots	3D Printing	**Process innovation**
		Advanced materials	Energy storage	
Faster & cheaper communication	**Technology has a multiplier effect**	Renewable energy	Advanced O&G exploration	**Cybersecurity & data privacy**
		Virtualization & cloud	Connected portable devices	**International trade**

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Firms that are building strong digital capabilities expect to survive or thrive digital disruption, while the rest expect to disappear or become weaker due to digital disruption

Industry leaders expectations of firm survival in next 20 years due to digital disruption (2019)

Firms building digital capabilities

Rest of firms

- ■ Exist, and be in stronger or much stronger position
- ■ Exist and remain in same position
- ■ We will exist, but be weaker or much weaker
- ■ We will be out of business, or be acquired

Source: MTISloan 2019

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Becoming digitally competitive requires action along 4 pillars of a digital transformation, underpinned by digital capabilities built into the DNA of the organization

Digital Transformation
(Define your digital strategy and how it fits into your corporate strategy)

Digitally smart core
Digitize the core, cash cow business

Smart growth beyond the core
Move into adjacent businesses enabled by digital capabilities

Digitally smart operations	Digitally smart customer experience journeys	Digitally smart collaboration platforms	Smart & selective disruptive digital plays
♻ Digitize & automate back office operations	♻ Redesign experience outside-in ♻ Data analytics-driven insights ♻ Investing in digital channels ♻ Integrated digital & physical channels	♻ Platforms for partners to plug into, creating new revenues & enhancing the core business	♻ Selectively target disruptive digital plays that show the highest promise & leverage organizational strengths

Digital DNA: A digitally ready organization

- ♻ **Digitally smart IT and data**: Real time, integrated and converged customer and operational data analytics skills & tools
- ♻ **Digitally smart culture**: Aligned, collaborative, agile, internally and with external ecosystem partners
- ♻ **Digitally smart governance and structure**: Clear roles, with analytical, agile, data-driven decision making
- ♻ **Digitally smart workforce and leadership**: Analytical, balance between business, managerial, & technical skills

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There are critical organizational capabilities that underpin each of these pillars of digital transformation

NON-EXHAUSTIVE

Digitizing operations	Digitizing customer experiences	Ecosystems, platform business models, and digital plays
Predictive maintenance	Human-centered design	Ecosystem partnerships and collaboration
Digitized fulfilment & procurement	Consistent omni-channel experience delivery	Platform analytics
Intelligent process automation	Agile sales and marketing operations	Robust risk management with high risk appetite
Flexible IT architecture	Data-driven customer analytics and insights	Agile project and venture decision-making
Integrating analytics into management processes	Social media optimally used	Market intelligence on adjacent markets
	Personalized journeys	M&A
	Cyber security and personal data privacy	Venture capitalist approach
		Security and data privacy protection

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And underpinning all of those organizational capabilities is a digital culture that is built on smart IT, a digital workforce, and smart governance and structure

Drivers of a digitally smart culture

| Accountability | Empowerment | Calculated risk-taking | Agile | Data-driven decision making | Collaborative (Internal, customers, partners) |

Digitally Smart IT and Data

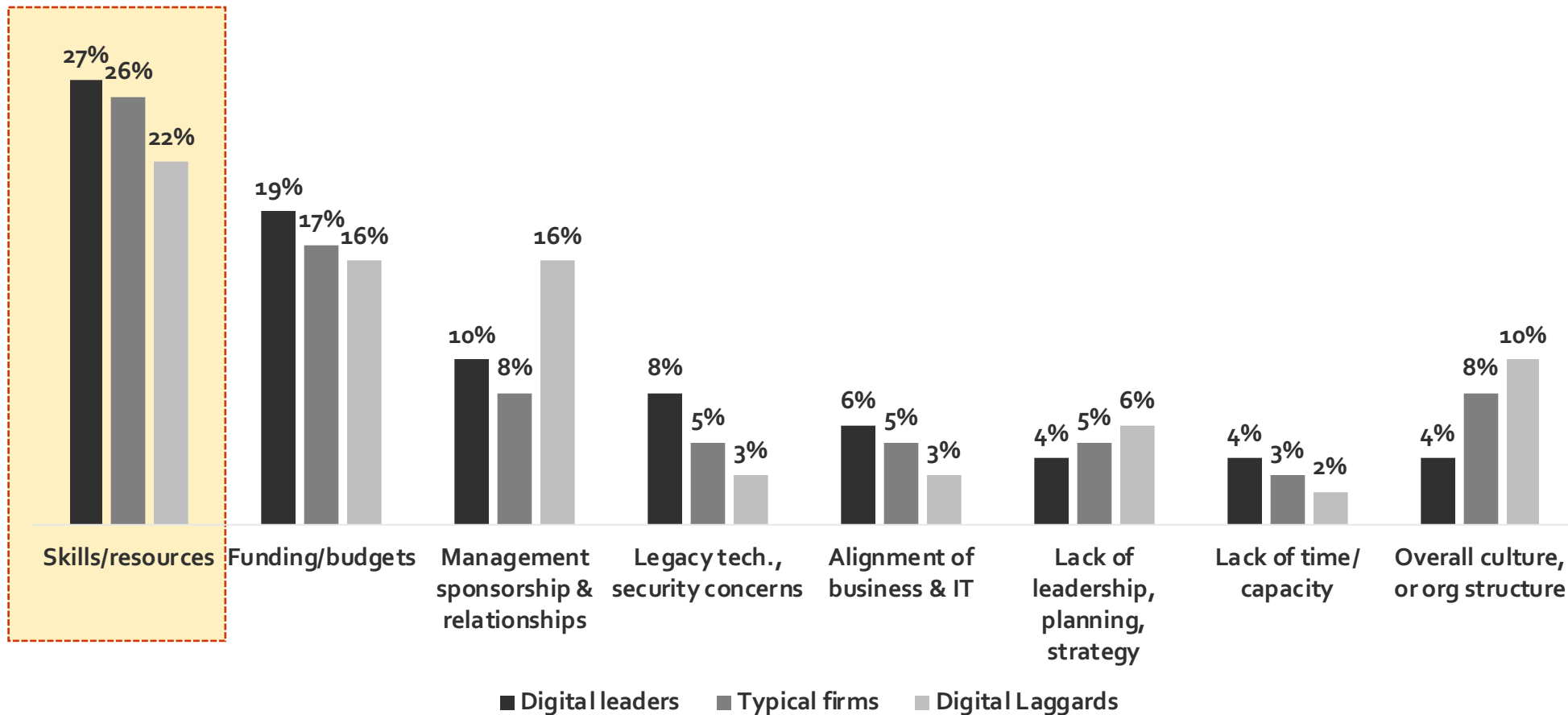| Virtualized, cloud-based, modular IT | Big data analytics and AI tools |
| Integrated internal and external data | DevOps |
| APIs | Robust security |

Digitally Smart Workforce and Leadership

Analytical, problem solving mindset	Digital tech and business model literacy
Adaptive, change oriented	Pragmatic and decisive
Team builders	Leading by example

Digitally Smart Governance and Structure

Clear roles and responsibilities	Integrated risk & performance management
Aligned incentives	Project-based team structure overlay
Ambidextrous two-speed organization structure	

| Recruit digital natives | On-the-job training & re-skilling | Digital Centers of Excellence | Selective replacement of "old guard" |

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Perhaps the most difficult part of building those organizational capabilities for a digital transformation is the the workforce skills

CXO barriers to achieving digital transformation objectives

- ■ Digital leaders
- ■ Typical firms
- ■ Digital Laggards

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Skills are of 3 types. For a digital transformation, organizations need to build all three types of digital skills

Digital re-skilling must combine 3 types of skills

Domain specialties such as marketing, org design, finance, or specific focus areas across physical and social sciences. The ability to share data across domains is contributing to new learnings and innovations

Business & science skills

Human or soft skills

Technology skills
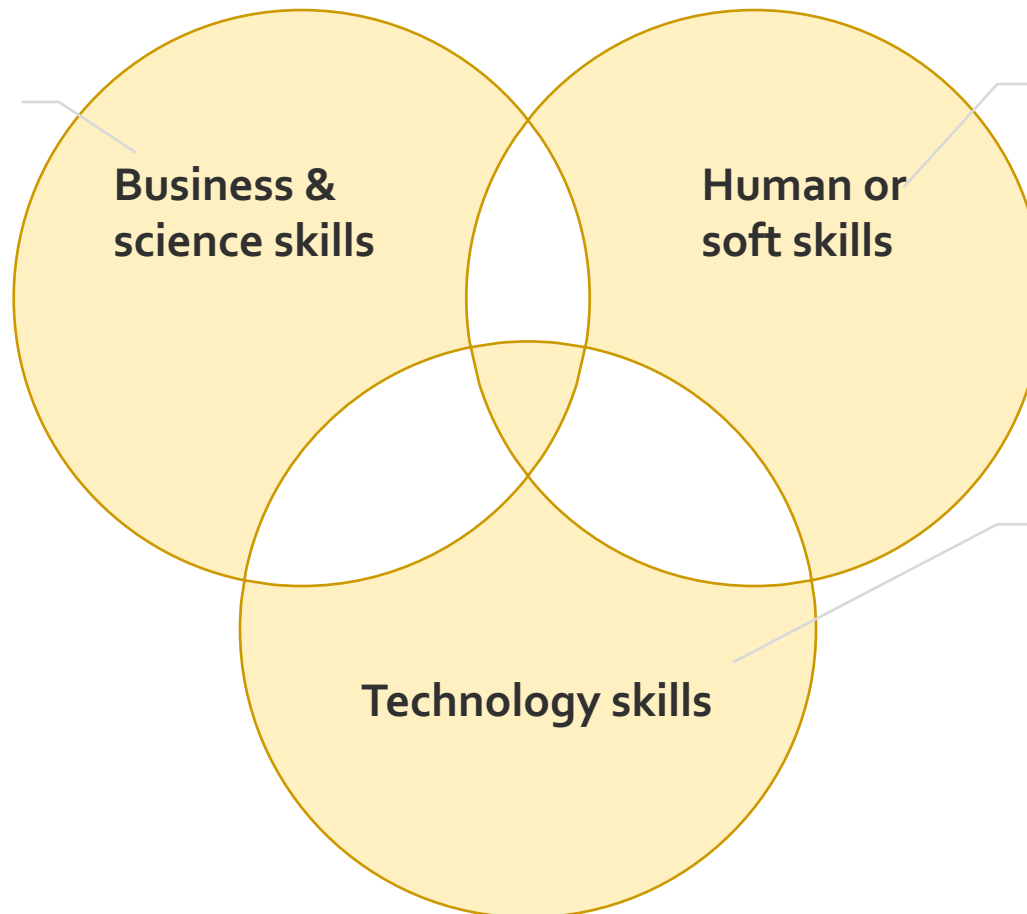
Communication
Critical thinking
Adaptability
Problem-solving
Leadership
Creativity
Innovation

From basic data literacy to applying AI to real-world problems
This area is most commonly cited as a gap for mid-career workers, as data and analytics are becoming more democratized and more useful across organizations

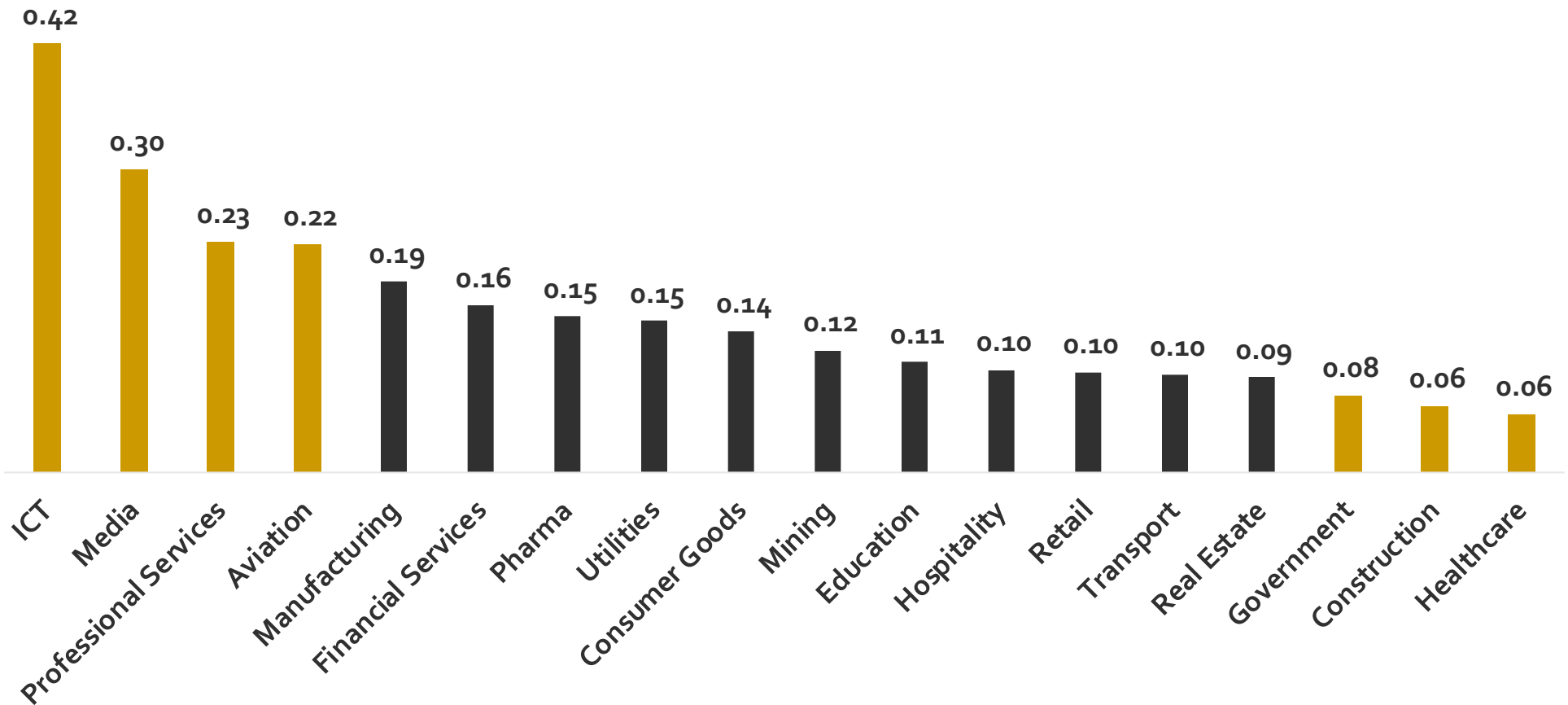**Synergy Consulting**
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But it is the "hard" business and technical skills that have the highest gaps for organizations undergoing digital transformaiton

Critical skills gaps for digital transformation

Today ■ In 3 Yrs

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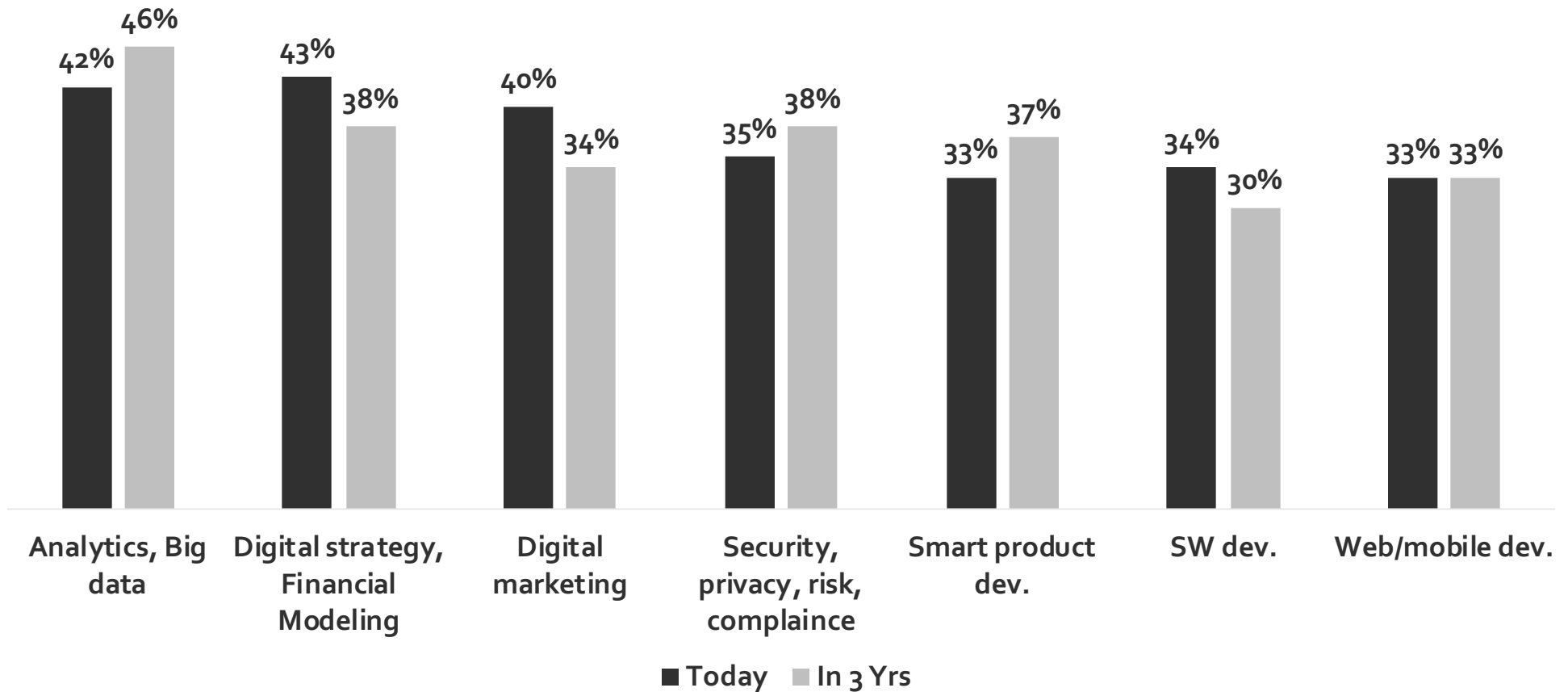
Across the 18 industries we surveyed globally, aside from the ICT industry sector, most others are still in need of further digital skills development

Global: Workforce digital skills readiness index by sector (Q4 2018)

Sector	Index
ICT	0.42
Media	0.30
Professional Services	0.23
Aviation	0.22
Manufacturing	0.19
Financial Services	0.16
Pharma	0.15
Utilities	0.15
Consumer Goods	0.14
Mining	0.12
Education	0.11
Hospitality	0.10
Retail	0.10
Transport	0.10
Real Estate	0.09
Government	0.08
Construction	0.06
Healthcare	0.06

Note: Index is a calculation based on % of employees having working knowledge of at least one digital sub-skill

Source: Synergy Consulting Group's Workforce Digital Skills Readiness Survey, 2018 Q4

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Across all industries and countries, firms have focused on developing skills required for digitizing operations, agile, DevOps, analytics and customer experience management

Global: Workforce digital skills readiness by skill type (2018)

Note: Index is a calculation based on % of employees having working knowledge of at least one digital sub-skill

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The Middle Eastern countries have some ways to go to reach the level of workforce digital skills readiness of leading countries such as Singapore & Australia
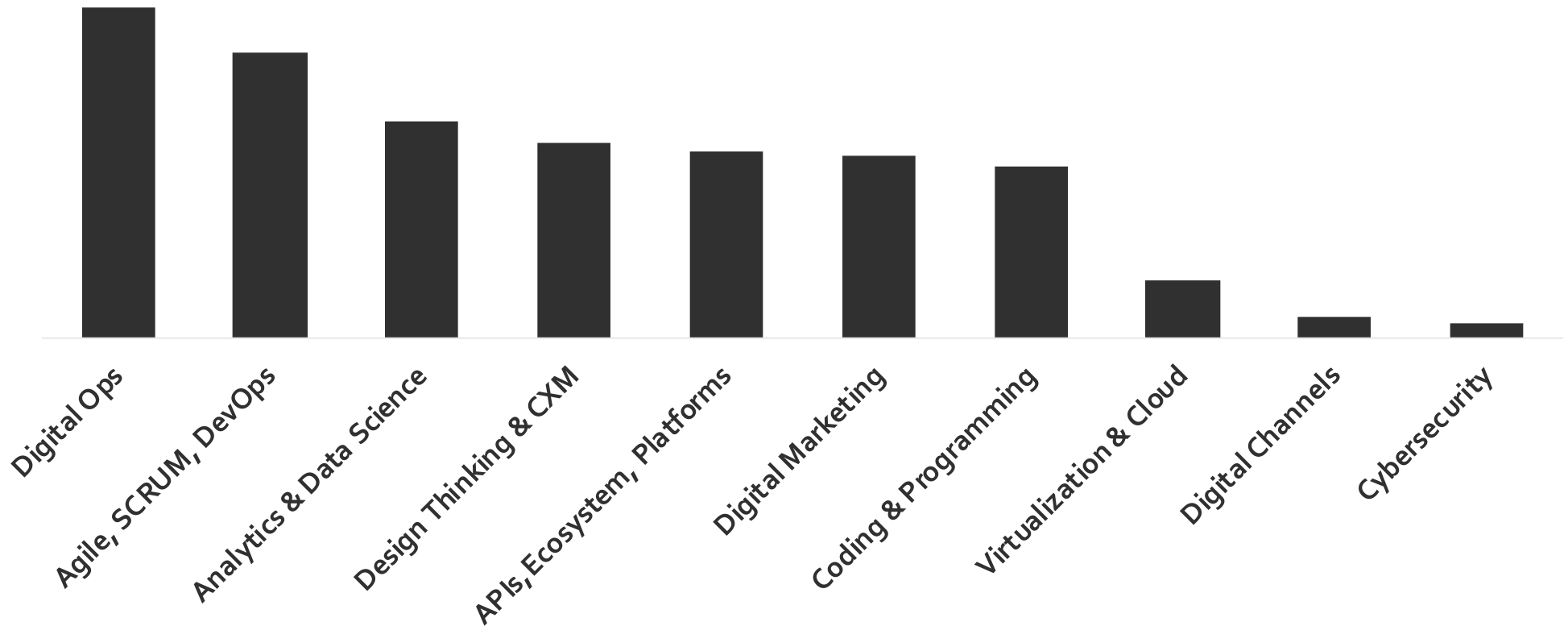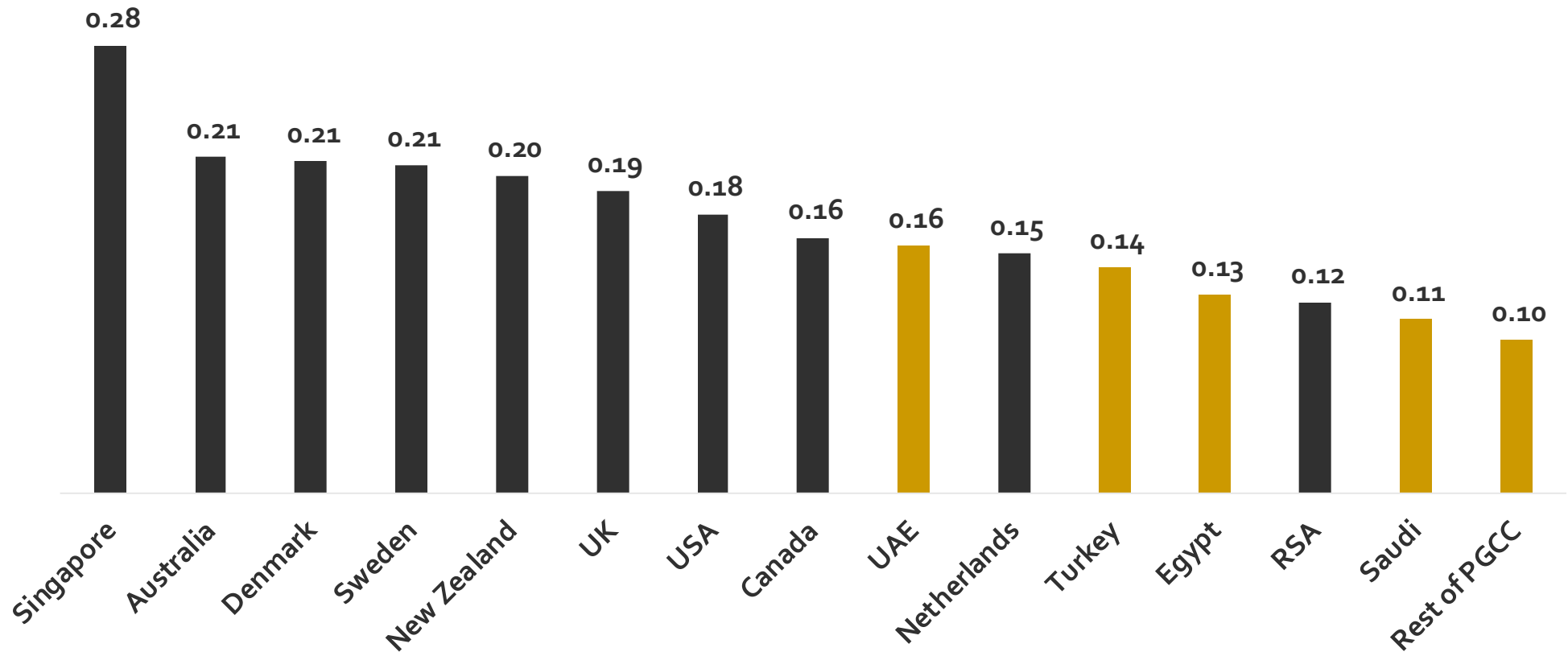
Global: Workforce digital skills readiness index by country (Q4 2018)

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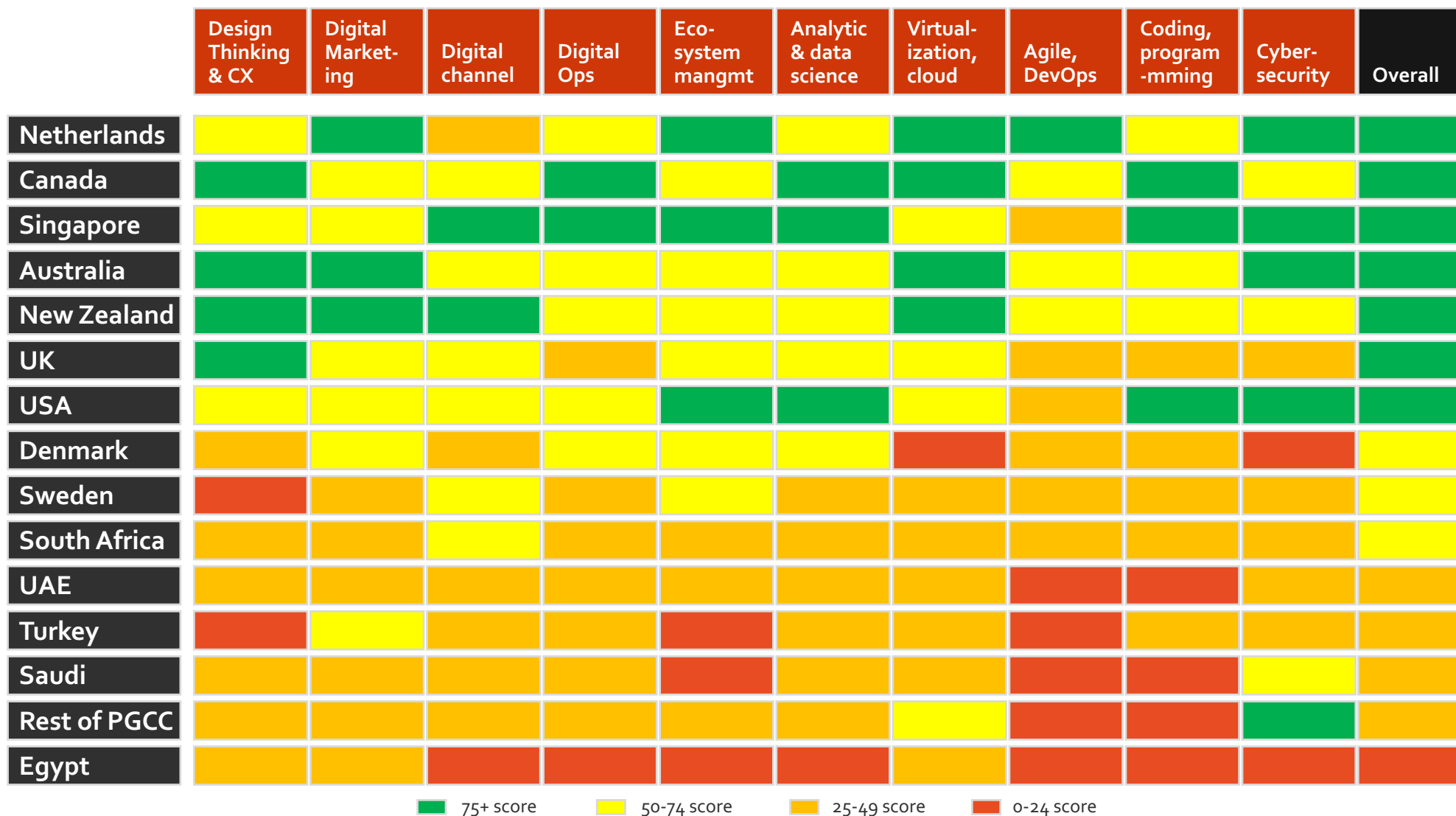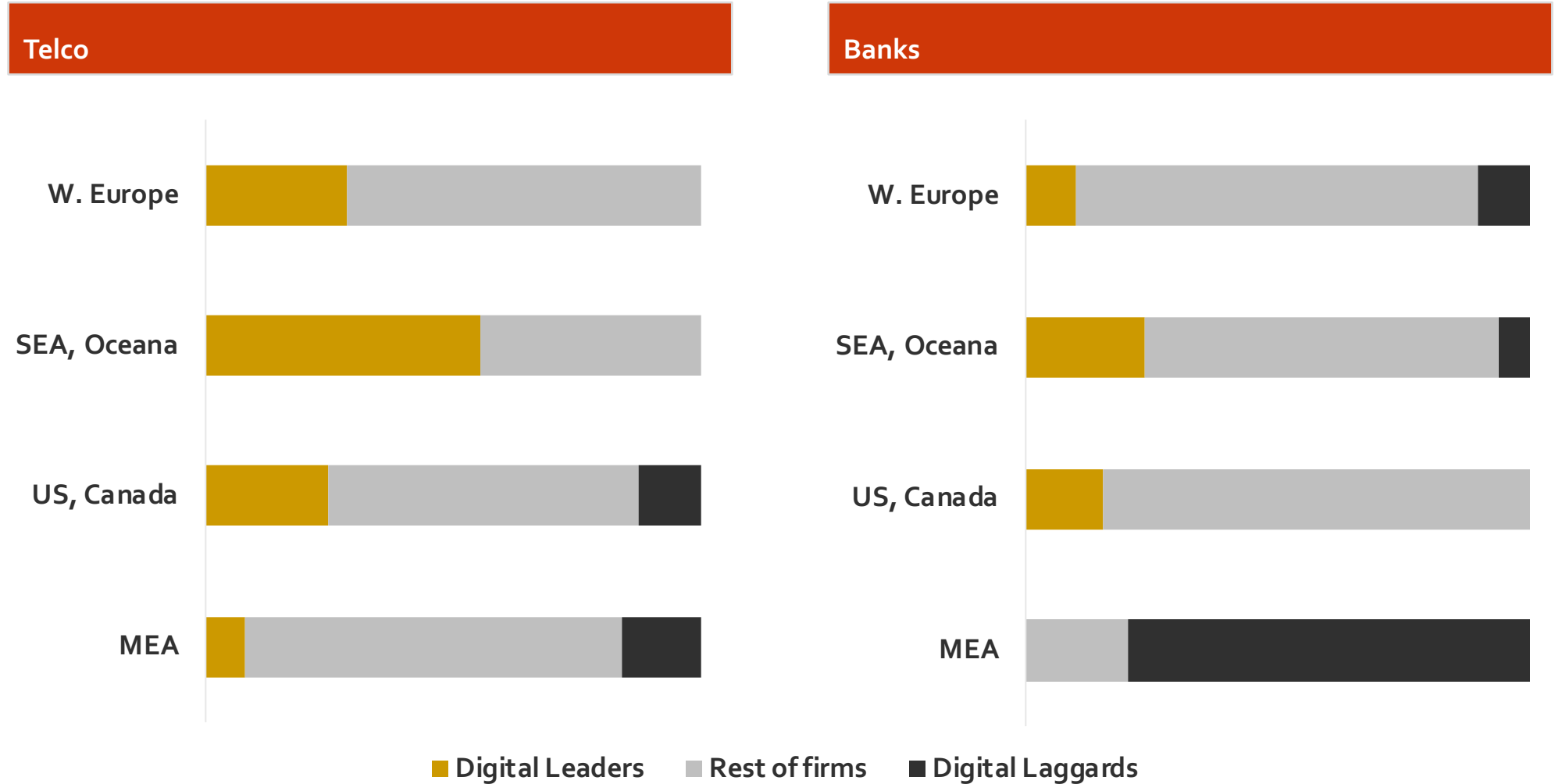
Source: Synergy Consulting Group's Workforce Digital Skills Readiness Survey, 2018 Q4

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From one sample industry (banking) we see that the Middle Eastern countries are ranked low in workforce digital skills readiness across most skills categories

	Design Thinking & CX	Digital Market-ing	Digital channel	Digital Ops	Eco-system mangmt	Analytic & data science	Virtual-ization, cloud	Agile, DevOps	Coding, program-mming	Cyber-security	Overall
Netherlands	Yellow	Green	Orange	Yellow	Green	Yellow	Green	Green	Yellow	Green	Green
Canada	Green	Yellow	Yellow	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green
Singapore	Yellow	Yellow	Green	Green	Green	Green	Yellow	Orange	Green	Green	Green
Australia	Green	Green	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Green
New Zealand	Green	Green	Green	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Yellow	Green
UK	Green	Yellow	Yellow	Orange	Yellow	Yellow	Yellow	Orange	Orange	Orange	Green
USA	Yellow	Yellow	Yellow	Yellow	Green	Green	Yellow	Orange	Green	Green	Green
Denmark	Orange	Yellow	Orange	Yellow	Yellow	Yellow	Red	Orange	Orange	Red	Yellow
Sweden	Red	Yellow	Yellow	Orange	Yellow	Yellow	Orange	Orange	Orange	Orange	Yellow
South Africa	Orange	Orange	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Yellow
UAE	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Red	Red	Orange	Orange
Turkey	Red	Yellow	Orange	Orange	Red	Orange	Orange	Red	Orange	Orange	Orange
Saudi	Orange	Orange	Orange	Orange	Red	Orange	Orange	Red	Red	Yellow	Orange
Rest of PGCC	Orange	Orange	Orange	Orange	Orange	Orange	Yellow	Red	Red	Green	Orange
Egypt	Orange	Orange	Red	Red	Red	Red	Orange	Red	Red	Red	Orange

Legend: ■ 75+ score (Green) · ■ 50-74 score (Yellow) · ■ 25-49 score (Orange) · ■ 0-24 score (Red)

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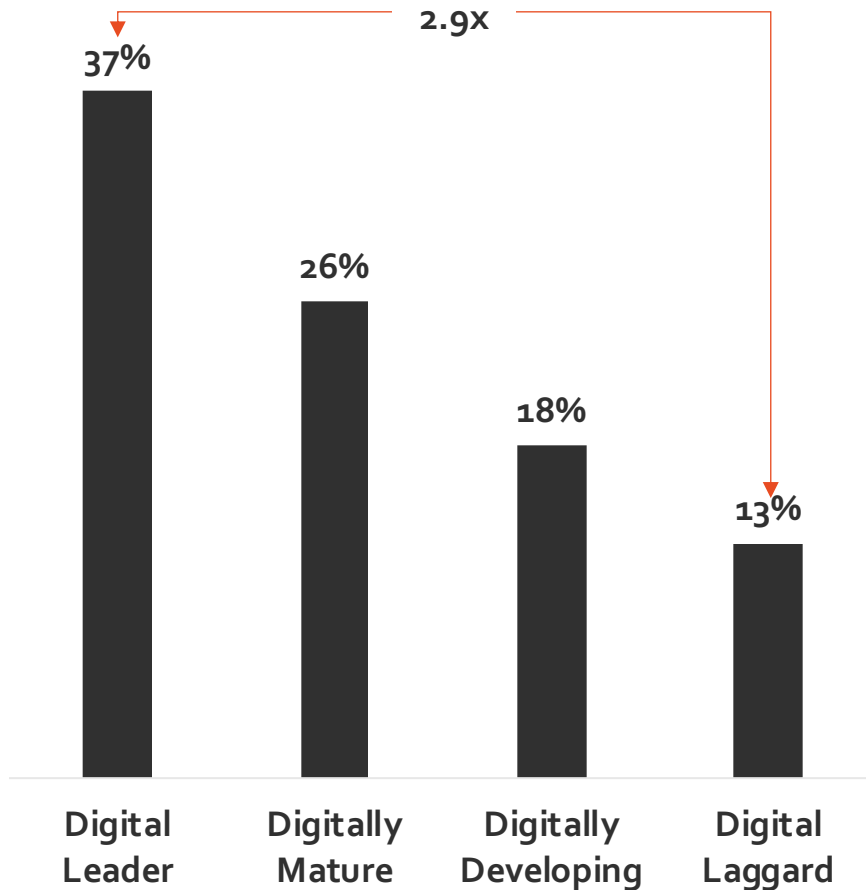Strategy · Planning · Execution

The reason for this weakness in workforce digital skills readiness in the Middle East is that the region lacks digital leader firms compared to other regions
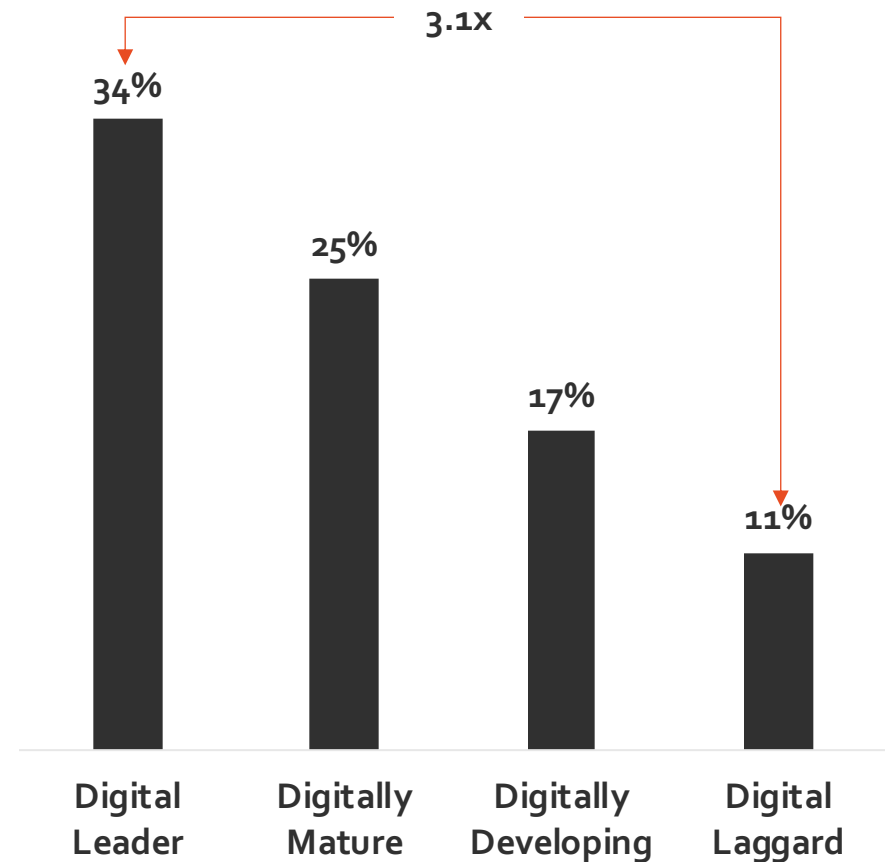
Telco

Region	
W. Europe	
SEA, Oceana	
US, Canada	
MEA	

Banks

Region	
W. Europe	
SEA, Oceana	
US, Canada	
MEA	

■ Digital Leaders   ■ Rest of firms   ■ Digital Laggards

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And our survey findings demonstrate that the gap in workforce digital skills between digital leader firms vs laggards is substantial
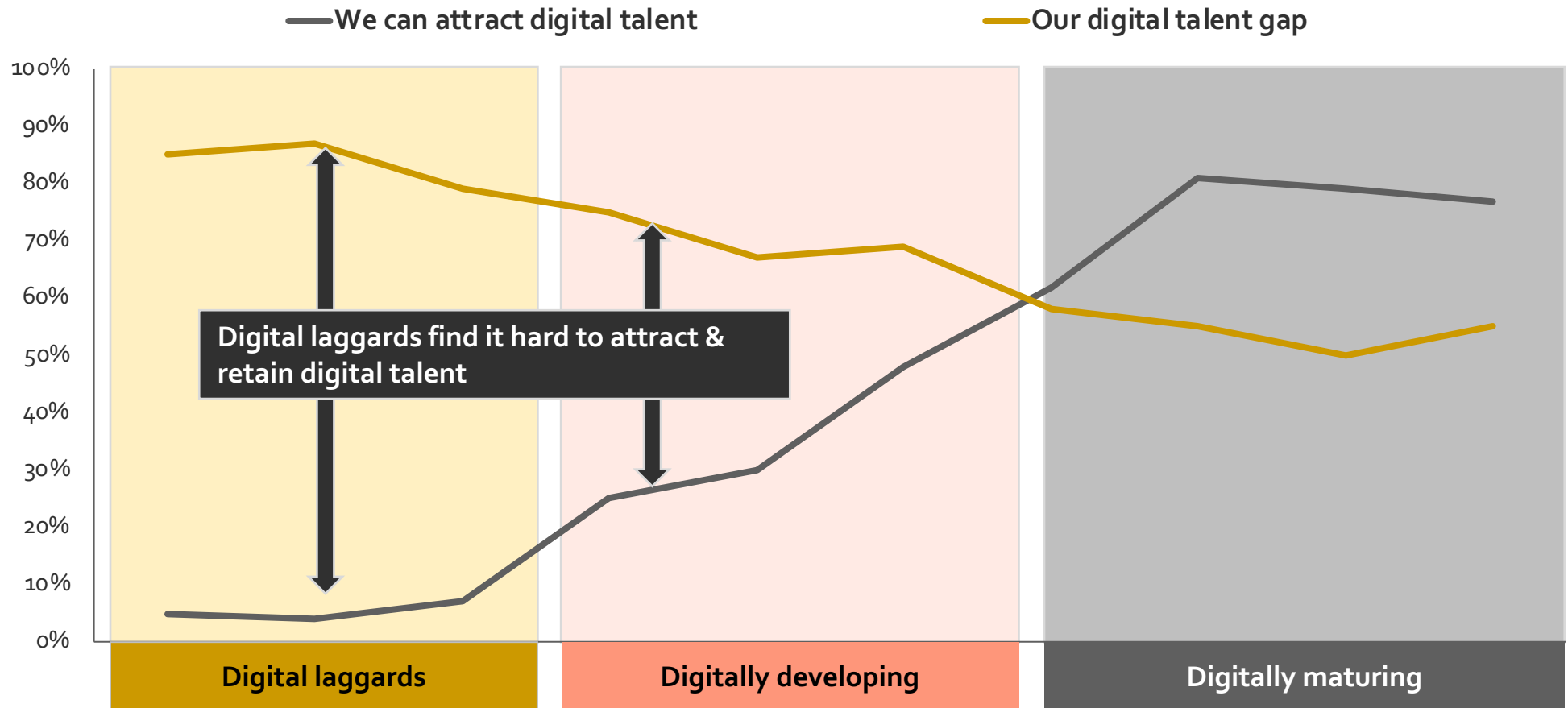
Telco sector

2.9x

37%

26%

18%

13%

Digital Leader | Digitally Mature | Digitally Developing | Digital Laggard

Bank sector

3.1x

34%

25%

17%

11%

Digital Leader | Digitally Mature | Digitally Developing | Digital Laggard

Note: Index is a calculation based on % of employees having working knowledge of at least one digital sub-skill

Source: Synergy Consulting Group's Workforce Digital Readiness Survey, 2018 Q4

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But not only are digital laggards far behind in skills readiness, they also find it very hard to attract and retain digital talent compared to digital leaders
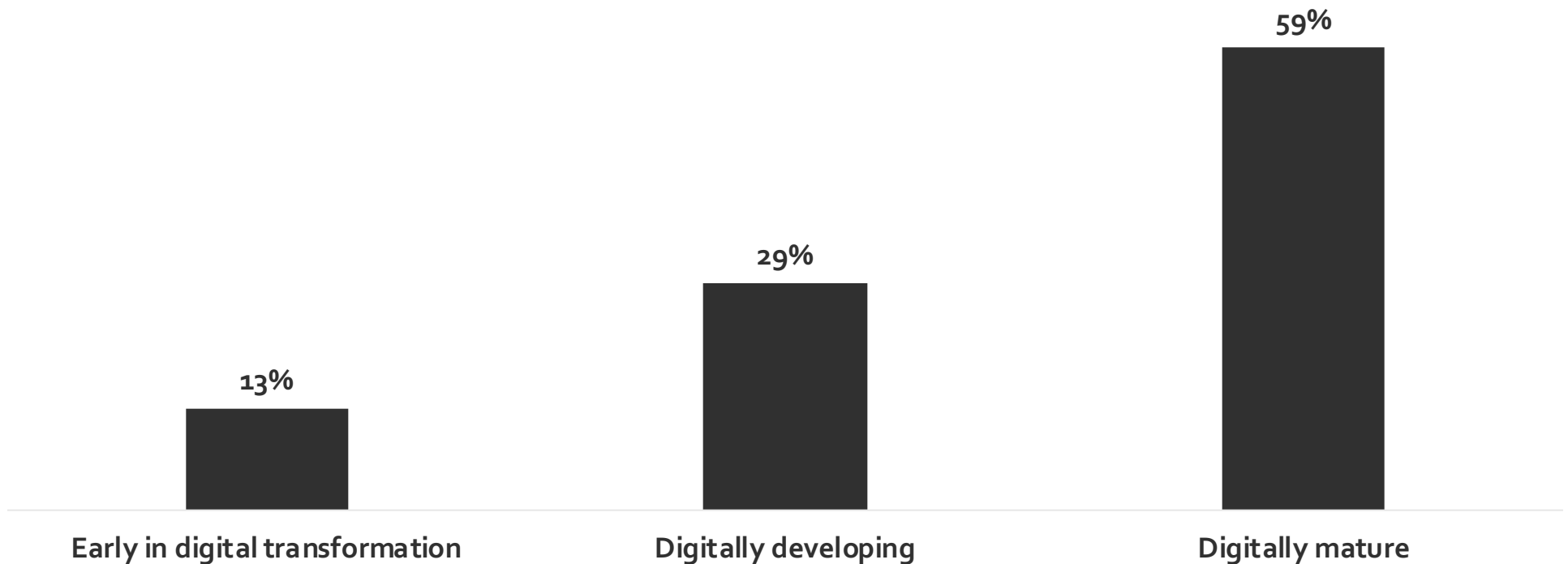
Talent gap of organizations by firm digital maturity

— **We can attract digital talent**   — **Our digital talent gap**

Digital laggards find it hard to attract & retain digital talent

Digital laggards   **Digitally developing**   **Digitally maturing**

Source: MITSloan Survey, 2016

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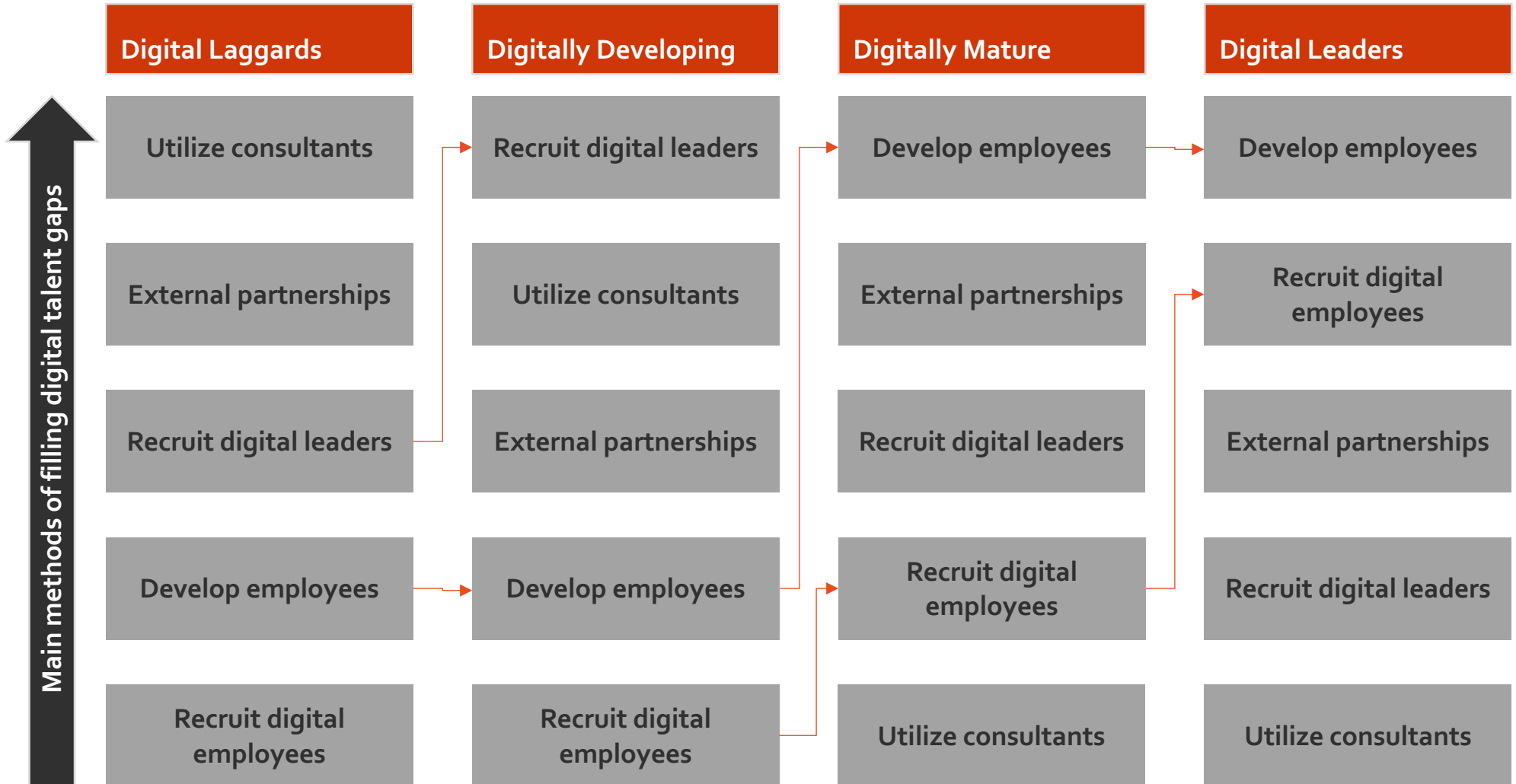Strategy · Planning · Execution

One of the reasons digital leaders have a higher workforce digital skills readiness is their focus on developing and updating their employees' skills

Organization's level of support in enabling workforce skills updating by digital maturity (% of respondents)

Question asked: am satisfied with how my organization is helping me prepare for the changes necessary for working in a digital environment


Early in digital transformation	Digitally developing	Digitally mature
13%	29%	59%

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But if you are at the beginning of your digital transformation journey, how do you manage to fill your skills gaps in the short term?

Main methods of filling digital talent gaps

Digital Laggards	Digitally Developing	Digitally Mature	Digital Leaders
Utilize consultants	Recruit digital leaders	Develop employees	Develop employees
External partnerships	Utilize consultants	External partnerships	Recruit digital employees
Recruit digital leaders	External partnerships	Recruit digital leaders	External partnerships
Develop employees	Develop employees	Recruit digital employees	Recruit digital leaders
Recruit digital employees	Recruit digital employees	Utilize consultants	Utilize consultants

Source: Synergy Consulting Group
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For organizations to close the skills cap in their workforce, we recommend a 6-step approach

Six steps to closing the skills gap in your workforce

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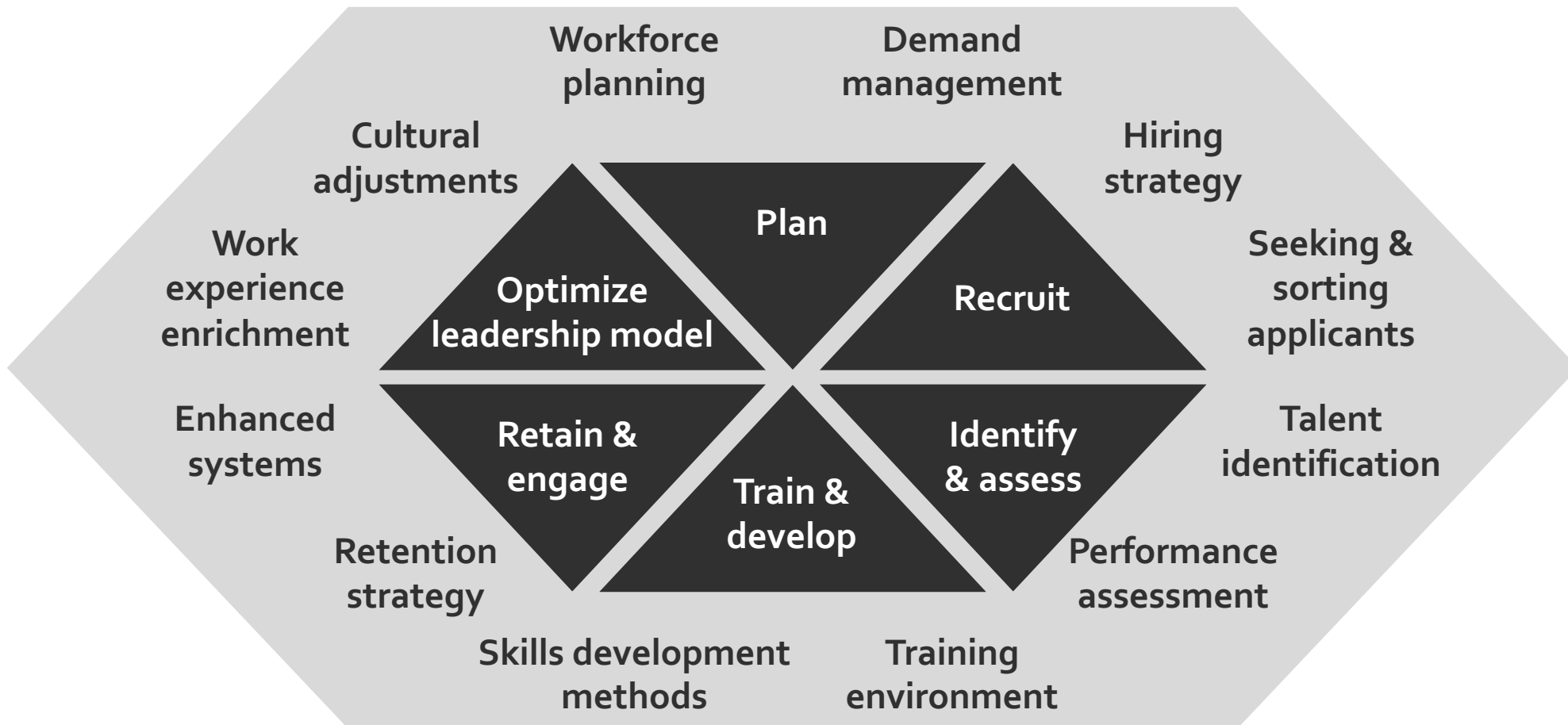
Thank you!

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