



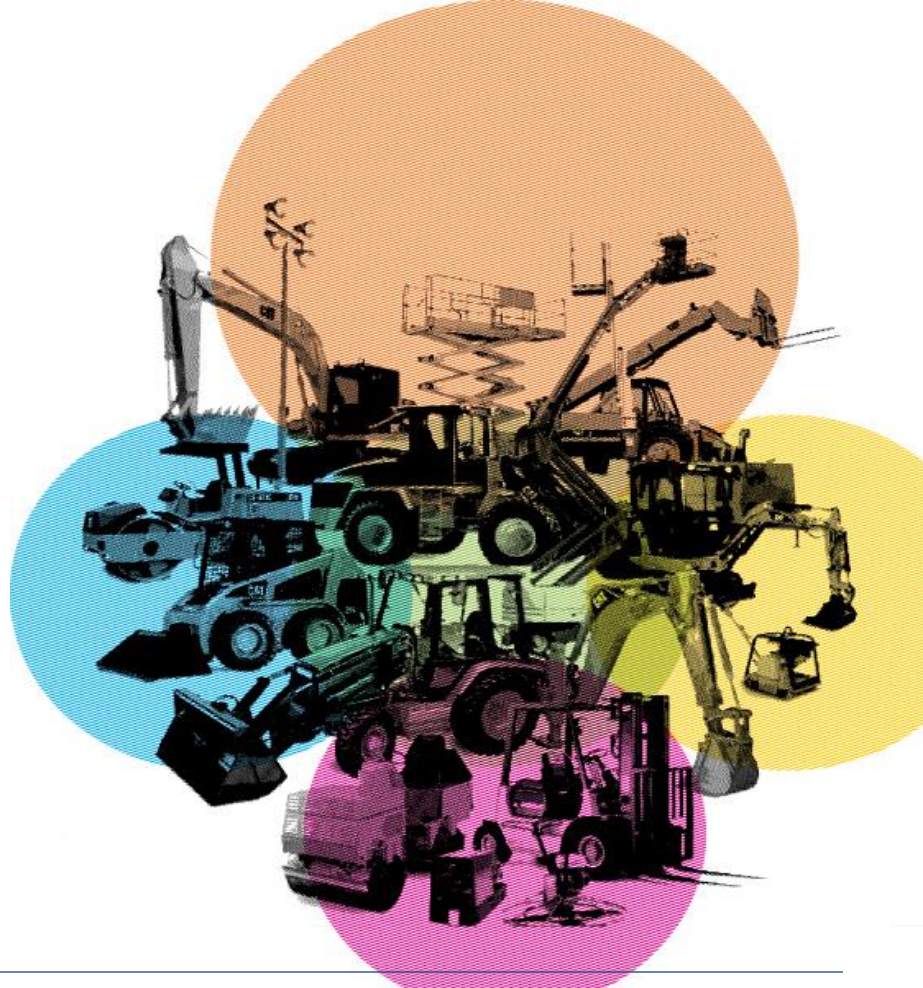
EUROPEAN
RENTAL
ASSOCIATION

Reinventing Construction

A route to higher productivity

David Rockhill

McKinsey&Company



ERA Convention 2018, "TOMORROW'S CUSTOMERS", Vienna, 23 and 24 May

McKinsey is a leading advisor along the full rental value chain....

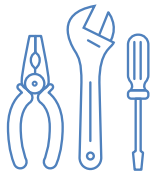
We are a global consultancy...

9,500	consultants
88	years of experience
61	countries
80%	McKinsey serves more than 80% of Fortune magazine's list of the Most Admired Companies ¹
2,000+	clients in the past 5 years, including 93 of the top 100 corporations worldwide
\$400+M	invested in knowledge annually

...with unrivaled experience serving the full rental value chain on a wide range of topics



Leading advisor to more than 15 of the largest global construction equipment OEMs



Strategic advisor to 10 of the largest equipment rental players

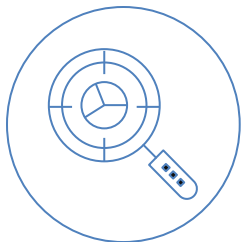


Served 70+ E&C companies globally last 5 years



- Corporate strategy
- Equipment portfolio optimization
- Fleet management
- Lean operations
- Procurement and TCO

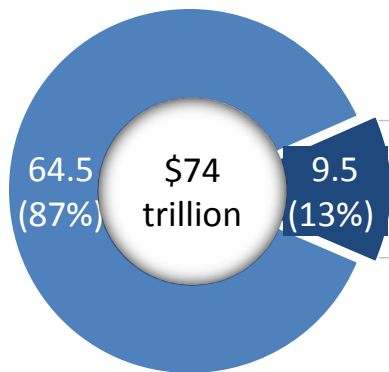
... and we invest \$400+M in knowledge every year



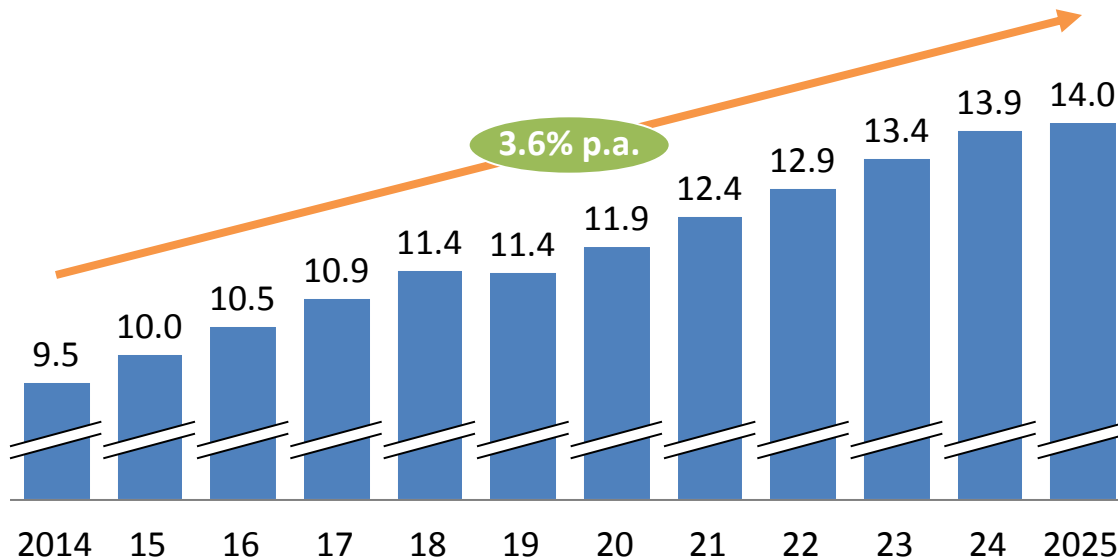
Construction matters: Construction related spending accounts for 13 percent of global GDP

\$ trillion

Global GDP



Construction industry spending



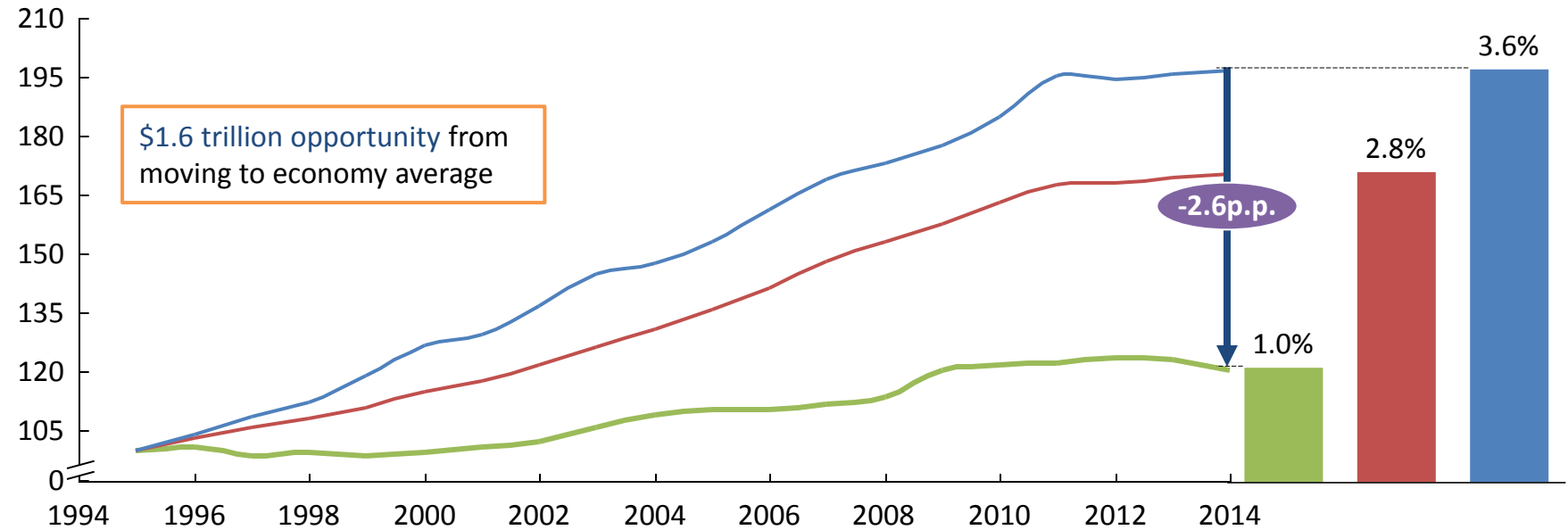
Many sectors have transformed and achieved quantum leaps in productivity; construction has changed very little

	Circa 1940s	Circa 2016	Key advances	Productivity Growth ¹
Agriculture			<ul style="list-style-type: none"> Land assembly and automation for scale Advanced bioengineering to increase yields 	1,512
Manufacturing			<ul style="list-style-type: none"> Entirely new concepts of flow Modularized and standardized designs Aggressively automated to increase production 	760
Retail			<ul style="list-style-type: none"> Utilized scale advantages and cutting edge logistics to provide affordable goods to the masses 	699
Construction			<ul style="list-style-type: none"> Limited improvements in technological capabilities, production methods, and scale 	6

The construction industry could unlock \$1.6 trillion potential with increased productivity

Global productivity growth trends

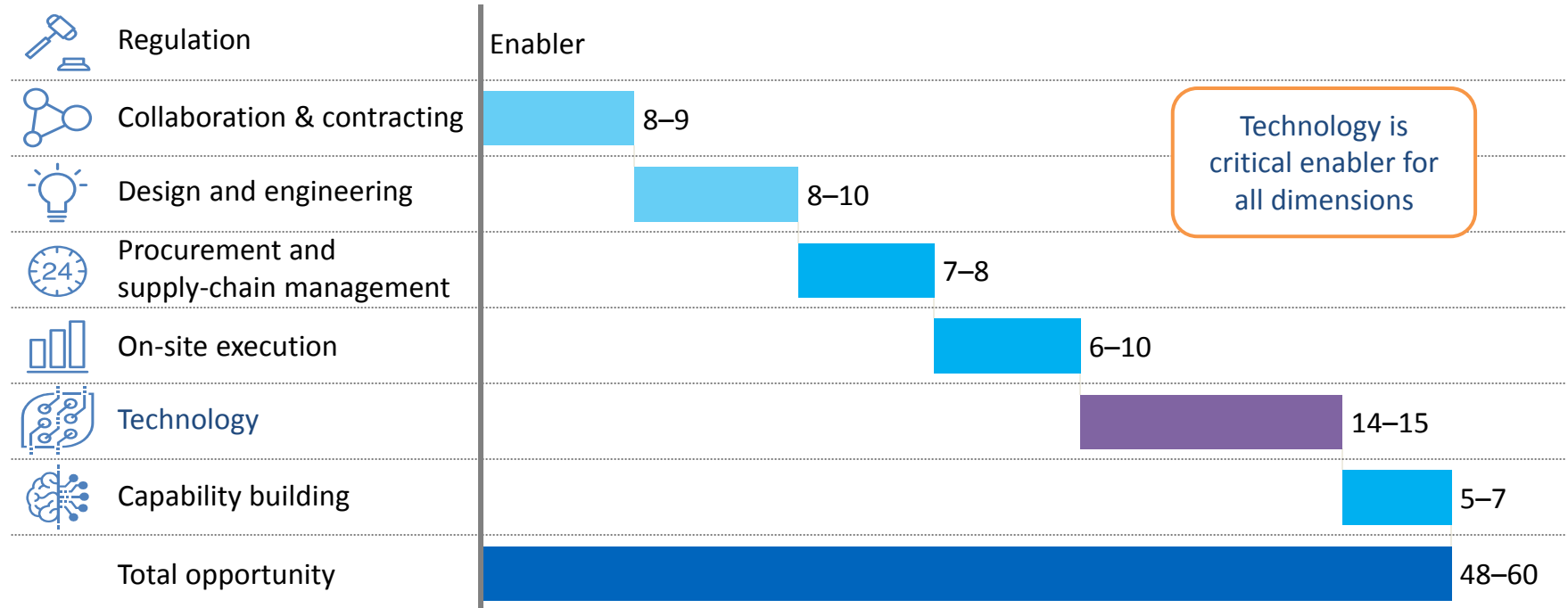
Real (2005 \$) gross value added per hour worked by persons engaged, indexed 1995 = 100; 20-year compound annual growth rate (CAGR)



Technology is the most promising lever for productivity improvement ...

Potential global productivity improvement from implementation of best practices¹

Impact on productivity (%)



... but construction is least digitized with low investment in R&D and IT

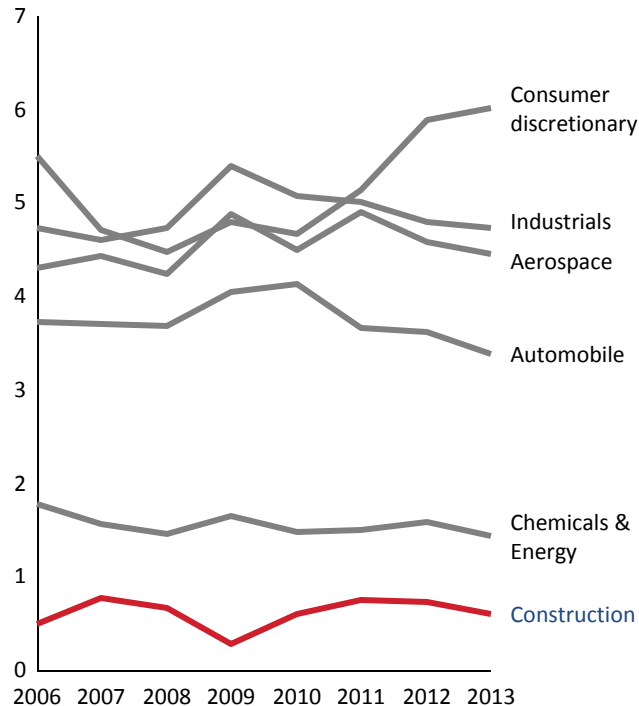
Level of digitization

MGI industry digitization index,
2015 or latest available data



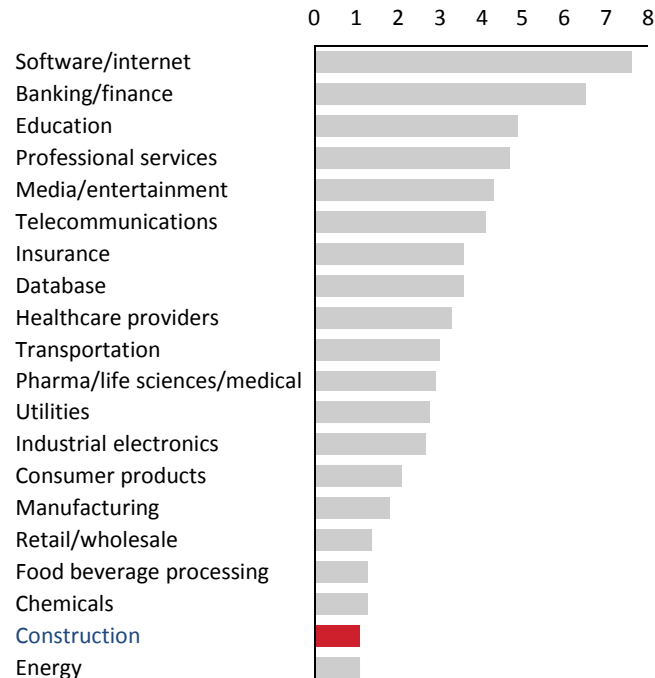
R&D investment

% of revenue spent on R&D



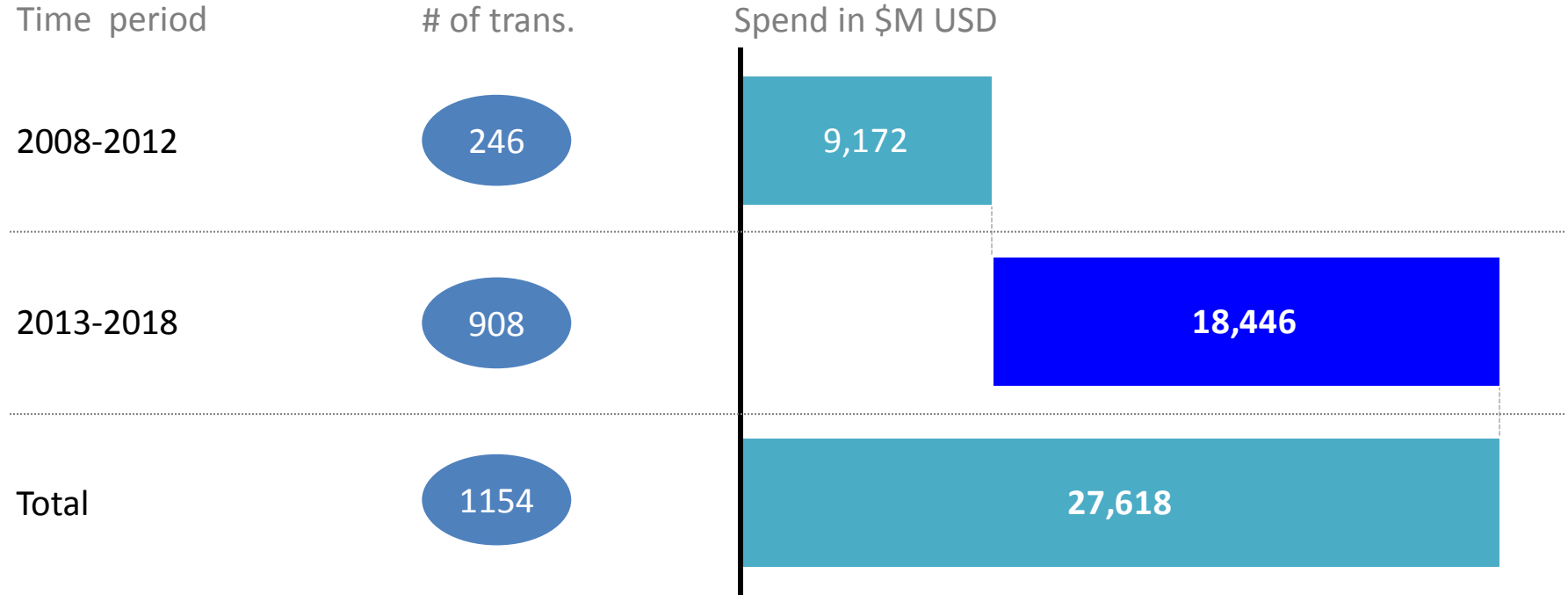
IT spending

% of revenue spent on IT







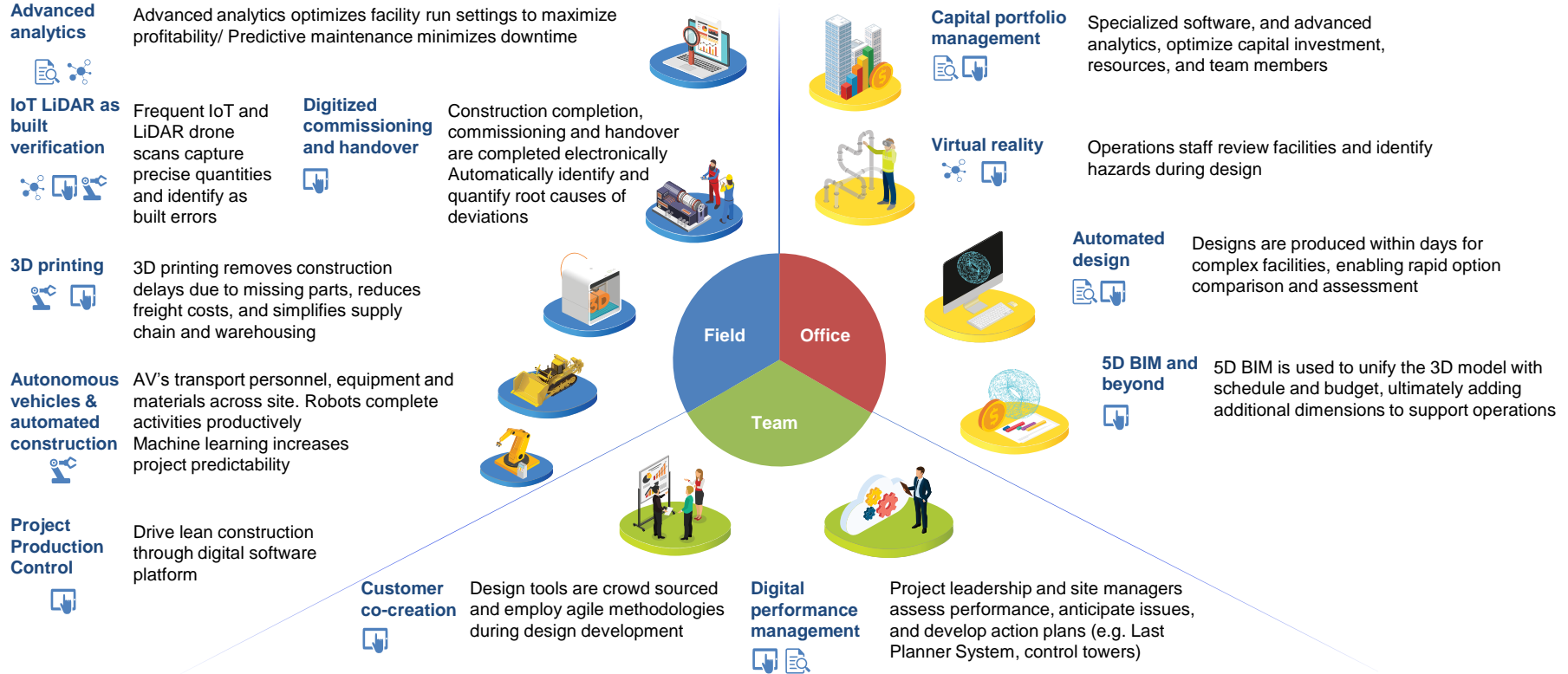
Things are starting to change: investment in construction technology has doubled over the past decade

Investment in construction technology over time

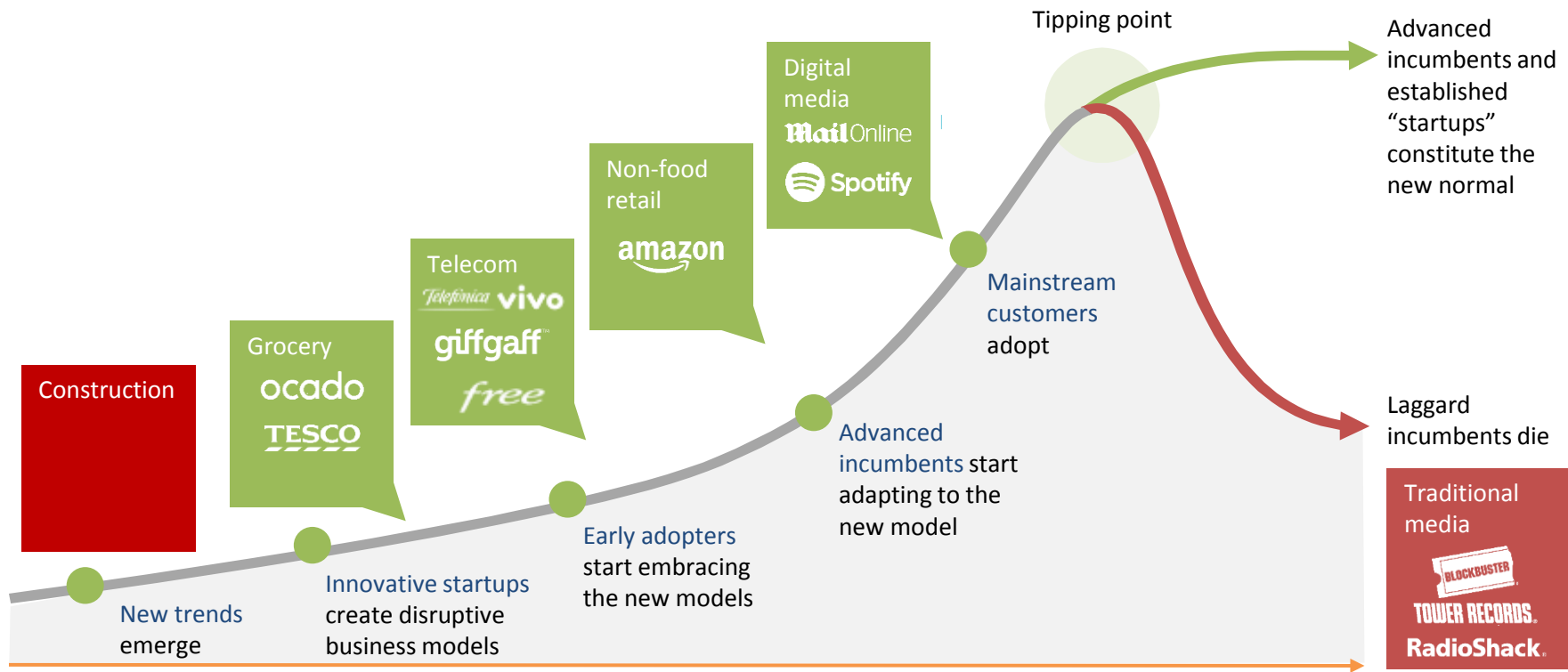


The capital project of the future will incorporate many new technologies and operate very differently from today

 Connectivity and sensing
  Process digitization
 Robotics and automation
  Advanced analytics



Every industry will reach a tipping point where digital capabilities become a matter of survival



7 'hard truths' about digital transformation that we have learnt from other industries

- 
- 1 Digital transfers disproportionate economic value to customers
 - 2 Platforms are breaking down the barriers between industries
 - 3 Winner-takes-all dynamics will spread as scale and network effects escalate
 - 4 Companies must stop looking to their competitors for 'where to play' and look instead at how the economics of supply and demand are changing
 - 5 Fast-following is becoming too slow
 - 6 Traditional trade-offs are obsolete as transaction costs are going to zero
 - 7 Digital natives attack fast, but incumbents can respond at scale

Construction equipment will be a key enabler of productivity growth through three emerging trends – incumbents must decide how to respond

Emerging trend

Considerations for incumbents



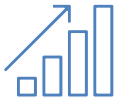
Massive technology shifts (electrification, telemetry, automation...)

- How will customer preferences change and how will I evolve my fleet?
- How will new entrants disrupt the market?
- How will I manage repairs and increase uptime?



Total connectivity

- Who will own the data, and how will they monetize it?
- Who will my customers be?
- How fast will customers evolve?



New business models

- Where do I want to play? Rental as a service vs traditional equipment rental vs peer-peer sharing
- Who should I partner with and where should I invest in R&D?
- Who should I employ and where will I find them?



Thank you

David Rockhill

McKinsey & Company – Capital Projects & Infrastructure

David.Rockhill@mckinsey.com