

BIOPHARMACEUTICALS

What the Data Tells Us About Digital Transformation, by Industry



The key findings for biopharma companies

Less than 20% of biopharma companies have successfully executed a digital transformation (well below the 35% cross-industry average), and although most demonstrate leadership commitment, many fall short on agile governance, having an integrated strategy, and effectively monitoring progress.

Initiatives such as novel delivery mechanisms, digital therapeutics, and using digital tools to train sales reps are more prominent among successful transformers than in the broader industry.

The top ongoing transformation priorities are evenly divided: digital ecosystems and partnerships, sales and marketing acceleration, and digitizing support functions.

ESG is becoming more important, with social initiatives topping the biopharma agenda.

Priorities for the future are digitizing R&D—especially predictive modeling across R&D activities of discovery and development—and digitizing supply chains, with demand forecasting, investment planning, and batch tracking also seen as important.

Employee health and safety and personalized training are likely to receive the most attention, but data privacy, cyber resilience, and the use of analytics for emissions reduction are rising in importance.

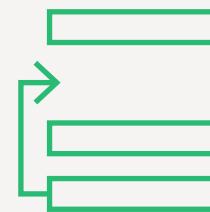
The data in more depth



**Rates of success
in digital
transformation**



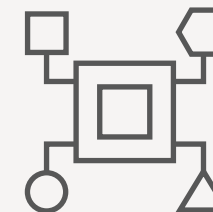
**Topics of focus
for biopharma
companies**



**Top priorities for
the future**



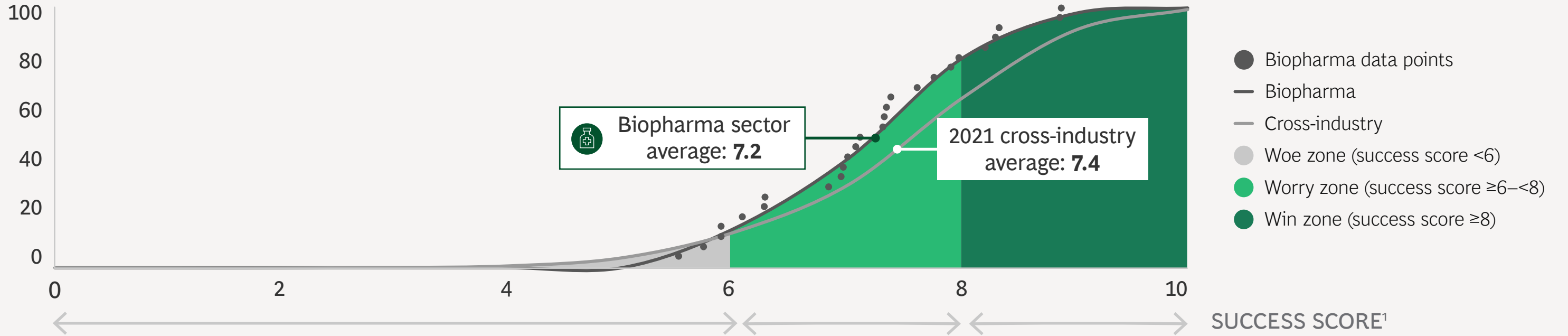
**The critical
human and
tech enablers**



**The role of ESG
in digital
transformation**

The number of digital transformation winners in biopharma lag the cross-industry average, while biopharma's worry zone is 1.3 times larger

CASES BELOW SUCCESS SCORE (%)



2021 BCG Global Digital Transformation Survey overall

13%

52%

35%

Biopharma sector

15%

65%

19%

Limited value created (<50% of target); no sustainable change

Value created but total targets not met; limited long-term change

Target value met or exceeded; sustainable change created

1.3x companies in the worry zone, compared with cross-industry average

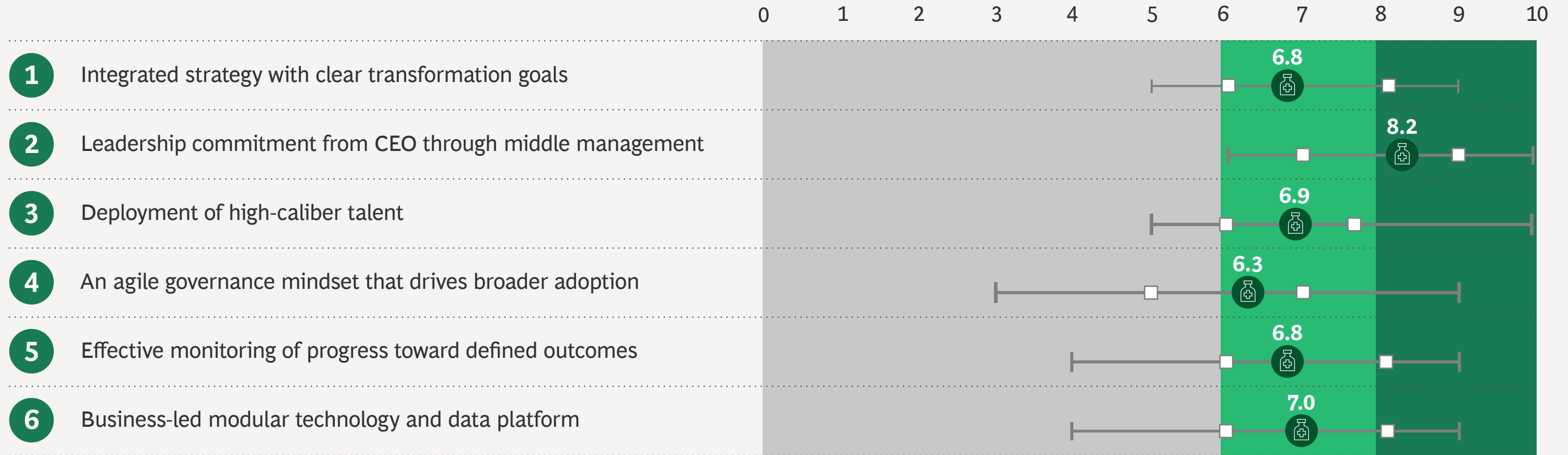
Source: 2021 BCG Global Digital Transformation Survey.

Note: Survey question: "Across the following dimensions, please rate your organization's digital transformation experience to date on a scale of 1 to 10, using the guidelines in the table below."

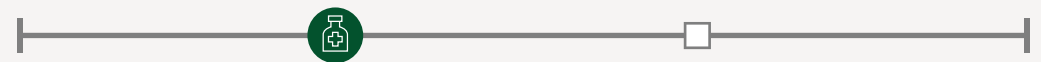
¹Success score is calculated from respondents' answers on six dimensions of transformation: strategy; leadership; talent; agility; monitoring; and tech and data.

Biopharma companies show leadership commitment but struggle with developing an integrated strategy and an agile governance mindset

DISTRIBUTION OF SUCCESS SCORES ON INDIVIDUAL KEY FACTORS¹



Lower extreme Biopharma average Upper or lower quartile Upper extreme



● Woe zone (success score <6) ● Worry zone (success score ≥6–<8) ● Win zone (success score ≥8)

Source: 2021 BCG Global Digital Transformation Survey.

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Biopharma companies' transformation priorities include digital ecosystems and partnerships, sales and market acceleration, and digitizing support functions

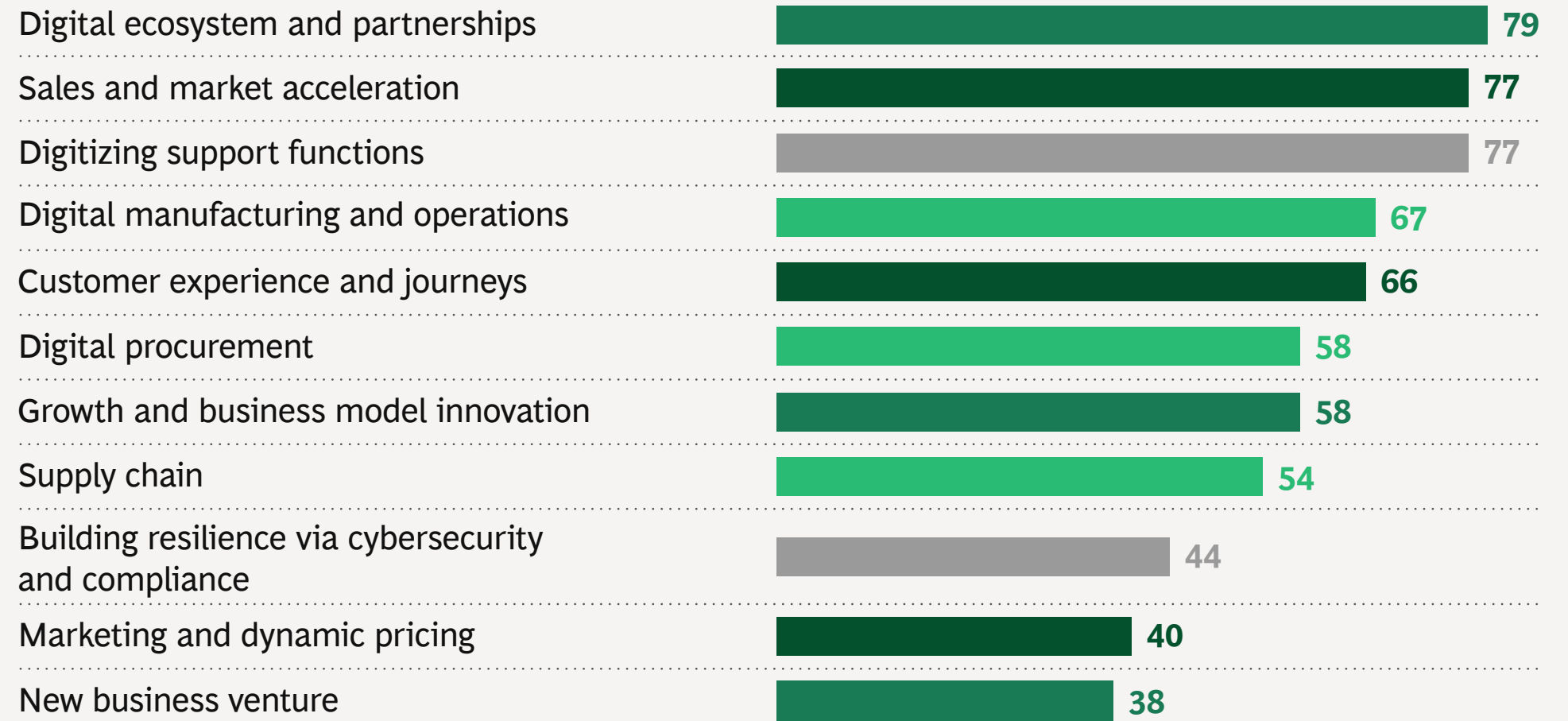
Strategic objectives

SHARE OF RESPONDENTS (%)



Scope of digital transformation¹

SHARE OF RESPONDENTS (%)

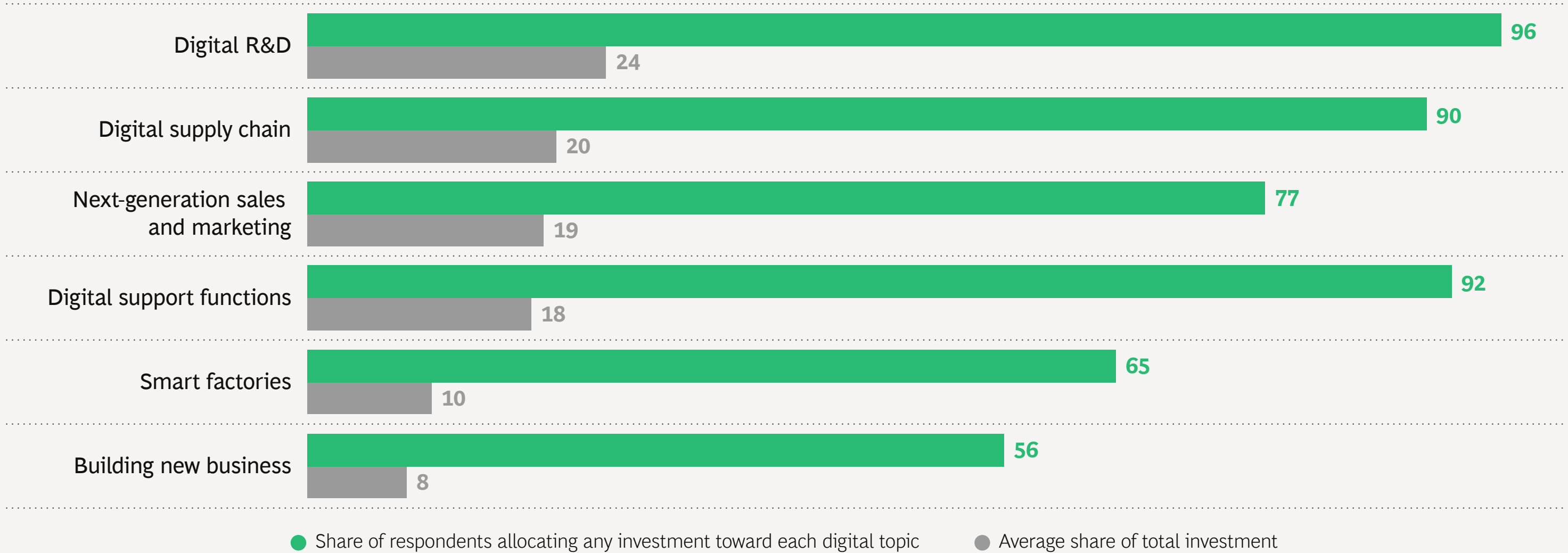


Source: BCG Global Digital Transformation Survey, 2021, n = 48.

¹Respondents were asked to select all priorities that applied.

Almost all biopharma companies plan to dedicate about one-fourth of their spending to digital R&D

PLANNED SHARE OF WALLET SPENDING ALLOCATED ACROSS DIGITAL TOPICS IN THE NEXT TWO TO THREE YEARS (%)¹

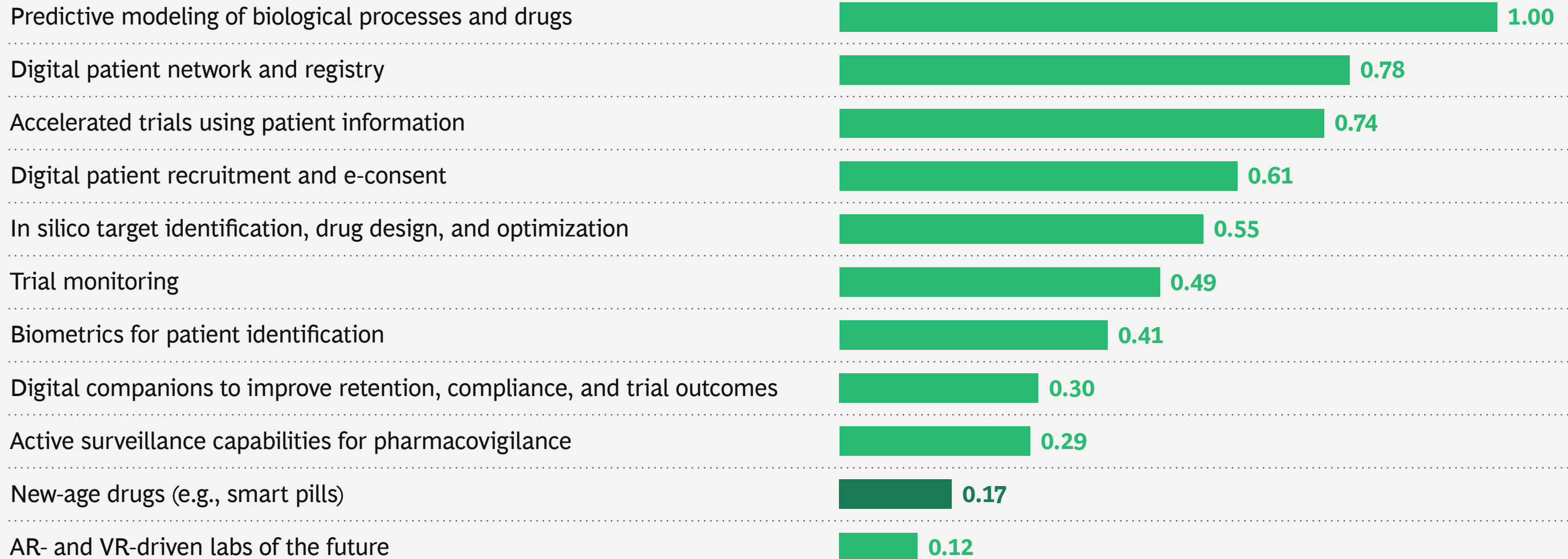


Source: 2021 BCG Global Digital Transformation Survey.

¹For example, the uppermost pair of bars can be read as “96% of biopharma respondents plan to invest in digital R&D, allocating an average 24% of total digital investment.”

Biopharma companies' digital priorities: Digital R&D

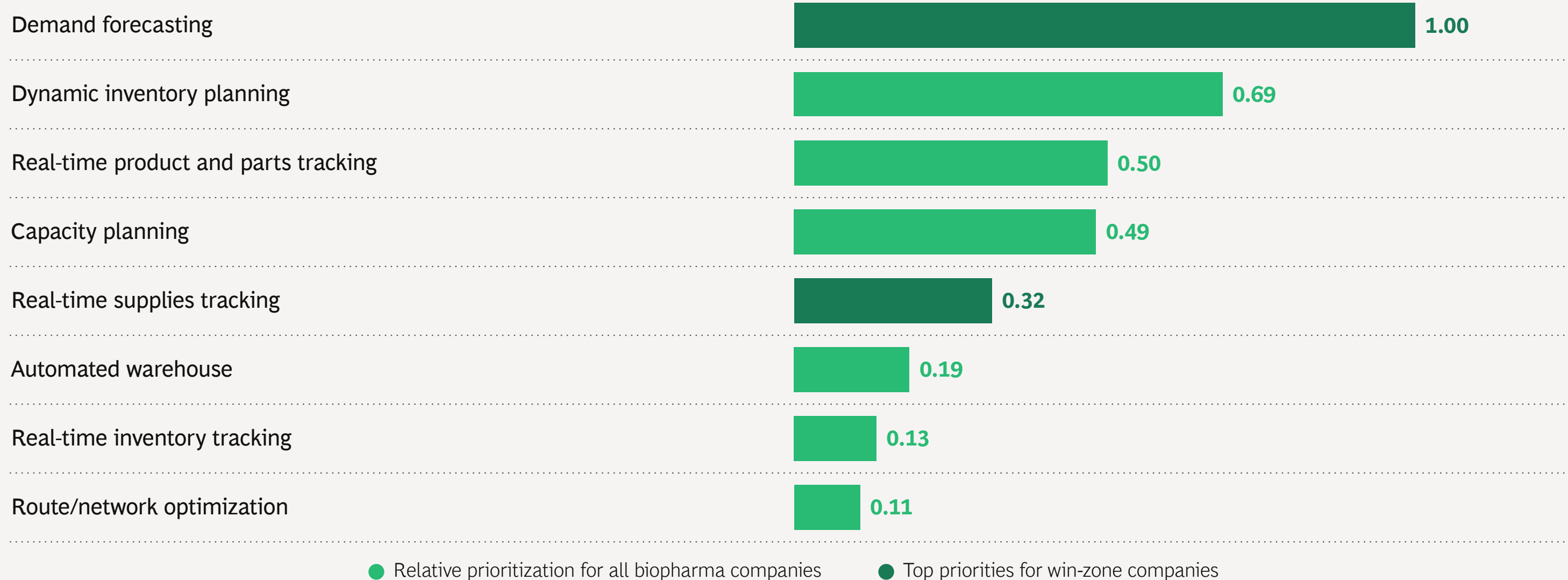
Digital initiatives (bars indicate relative prioritization of initiatives)



● Relative prioritization for all biopharma companies ● Top priorities for win-zone companies

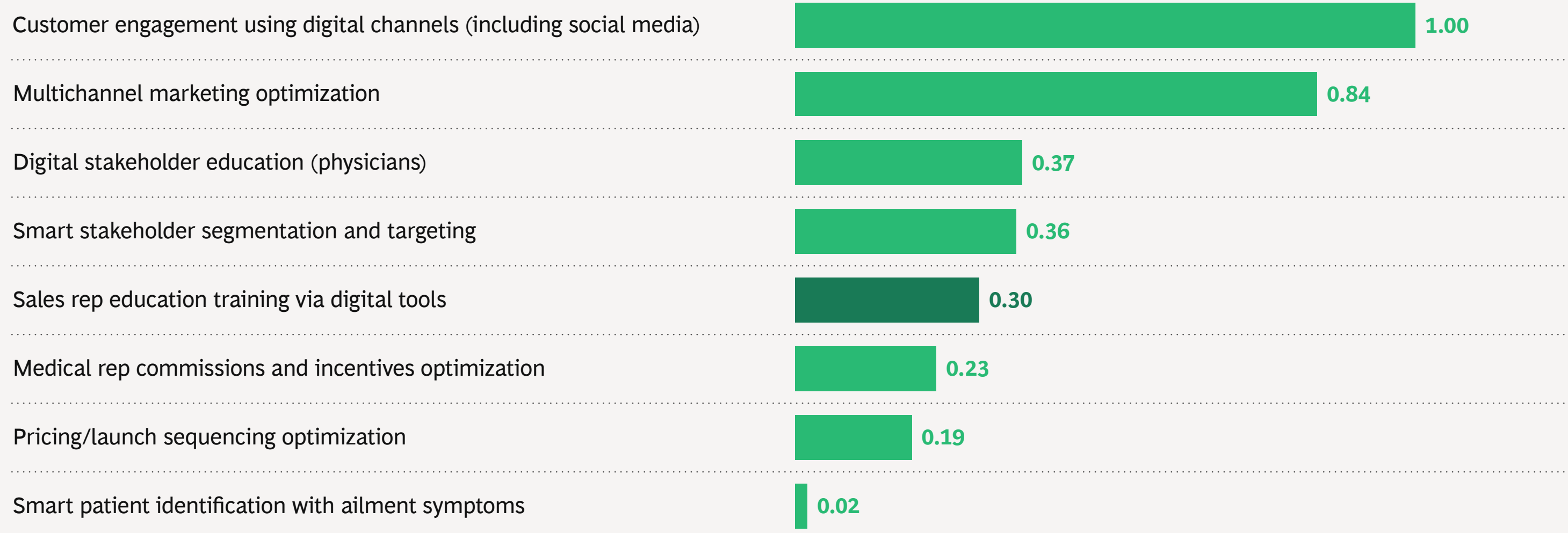
Biopharma companies' digital priorities: Digital supply chain

Digital initiatives (bars indicate relative prioritization of initiatives)



Biopharma companies' digital priorities: Next-generation sales and marketing

Digital initiatives (bars indicate relative prioritization of initiatives)

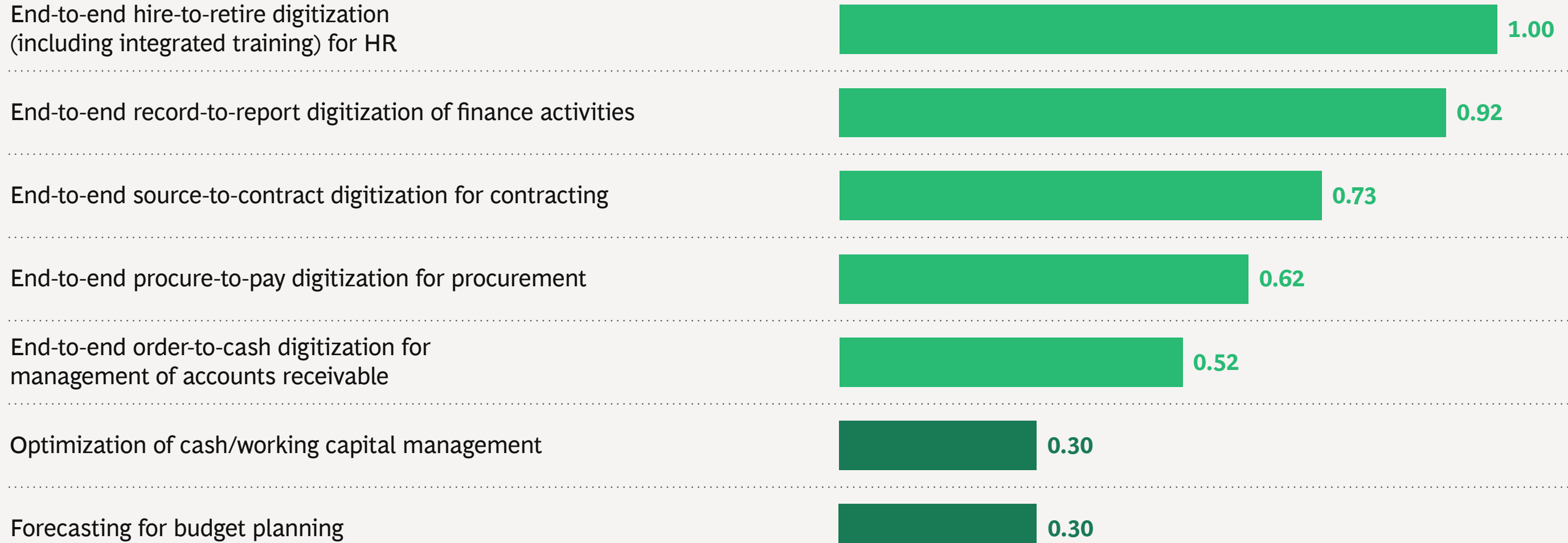


● Relative prioritization for all biopharma companies ● Top priorities for win-zone companies

Source: 2021 BCG Global Digital Transformation Survey, n = 48.

Biopharma companies' digital priorities: Digital support functions

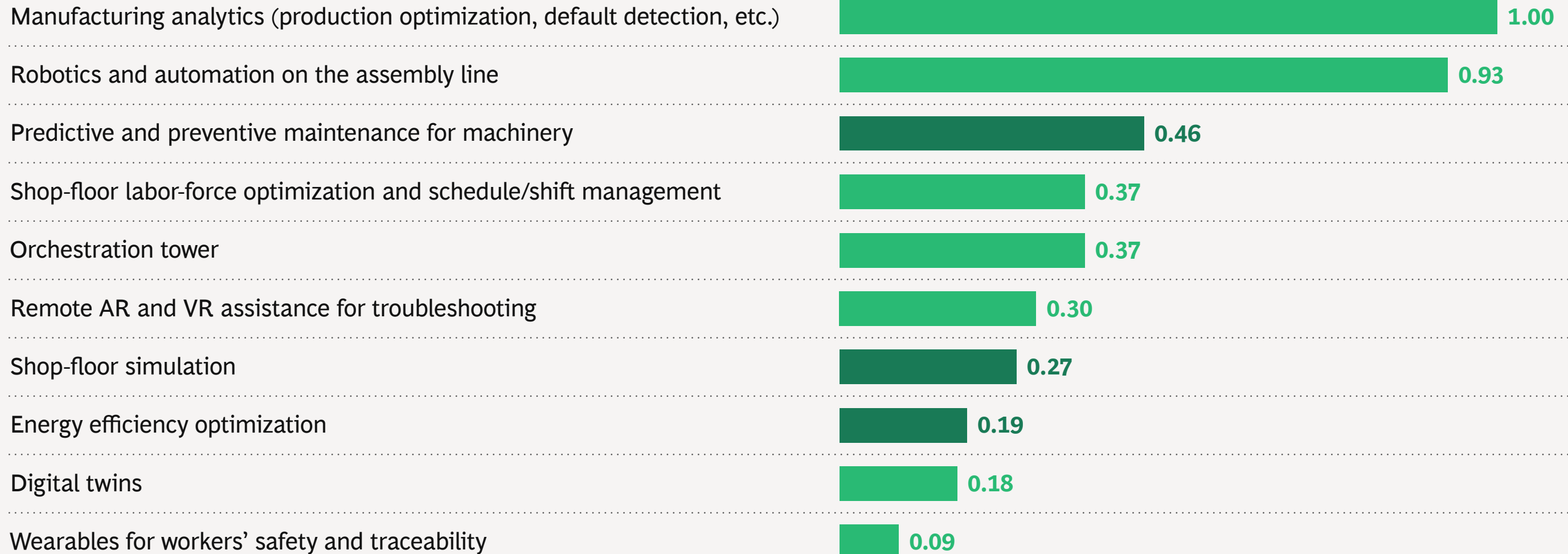
Digital initiatives (bars indicate relative prioritization of initiatives)



● Relative prioritization for all biopharma companies ● Top priorities for win-zone companies

Biopharma companies' digital priorities: Smart factories

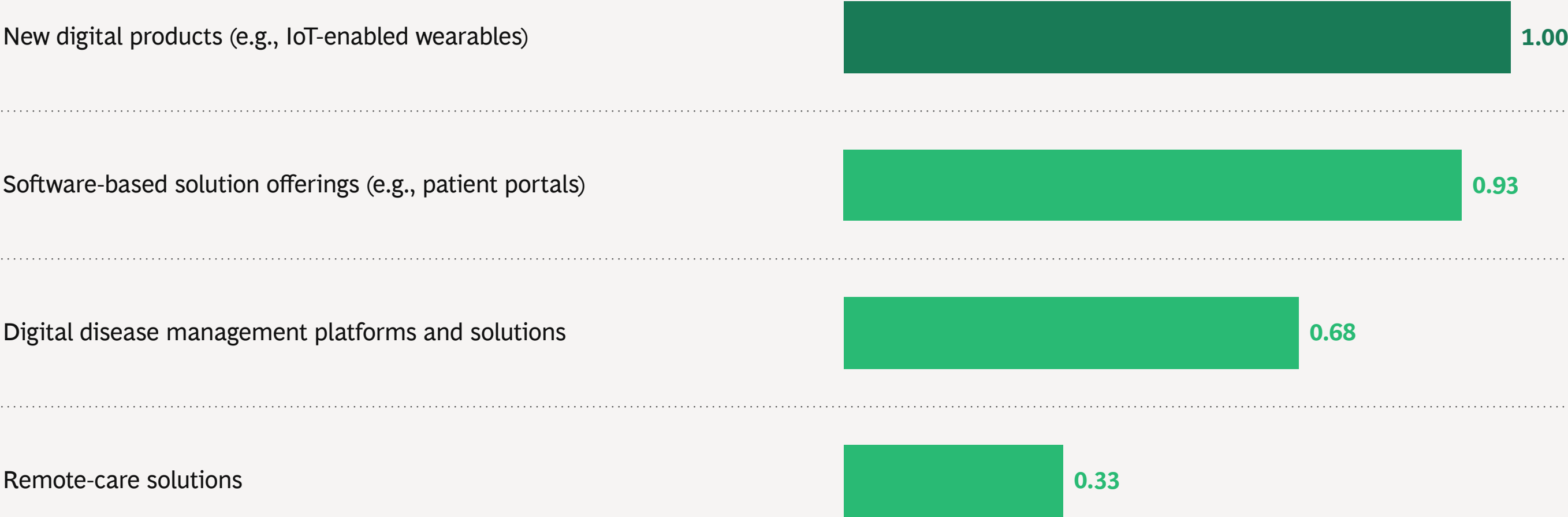
Digital initiatives (bars indicate relative prioritization of initiatives)



● Relative prioritization for all biopharma companies ● Top priorities for win-zone companies

Biopharma companies' digital priorities: Building new business

Digital initiatives (bars indicate relative prioritization of initiatives)



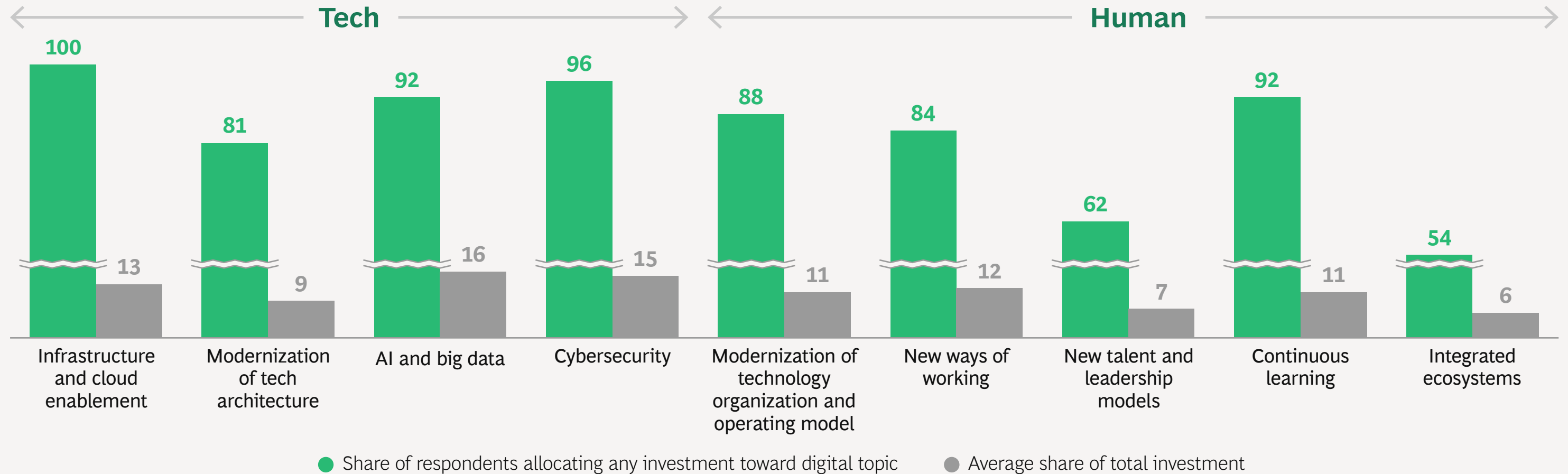
● Relative prioritization for all biopharma companies ● Top priorities for win-zone companies

Source: 2021 BCG Global Digital Transformation Survey, n = 48.

Biopharma companies intend to invest across a broad range of tech and human enablers

Nine out of ten biopharma companies plan to invest in infrastructure and cloud enablement, AI and big data, cybersecurity, and continuous learning, allocating about 55% of total digital enablers spending to these areas

PLANNED SHARE OF WALLET SPENDING ALLOCATED ACROSS ENABLER DIGITAL TOPICS IN THE NEXT TWO TO THREE YEARS (%)¹

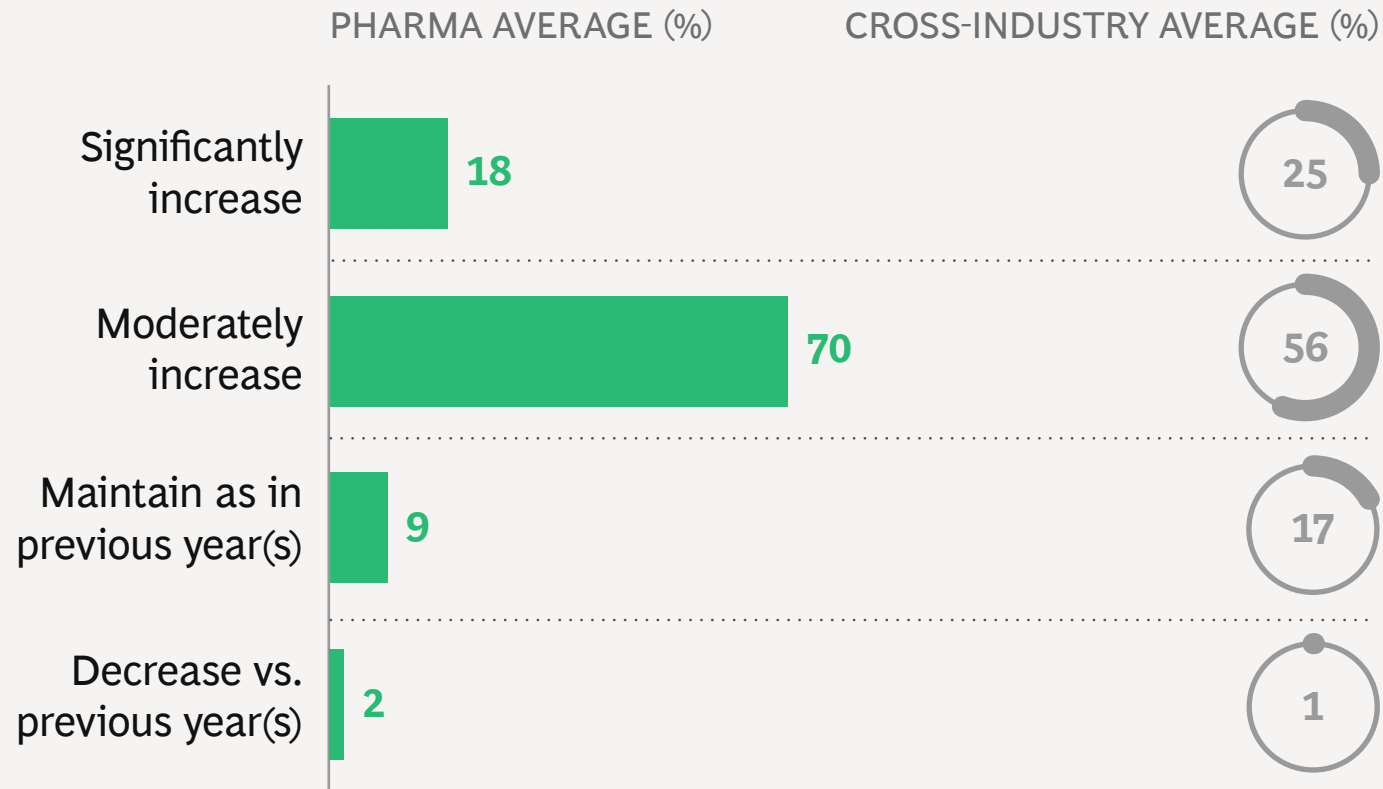


Source: 2021 BCG Global Digital Transformation Survey, n = 48.

¹For example, the leftmost pair of bars can be read as “100% of biopharma respondents plan to invest in infrastructure and cloud enablement, allocating an average 13% of their total digital enablers spending.”

About 88% of biopharma companies plan to increase ESG investments, above the cross-sector average

Share of respondents planning to increase/decrease/maintain investment toward ESG in coming years



... with greater emphasis on S and G

Leading digital initiatives being prioritized to support E, S, and G goals



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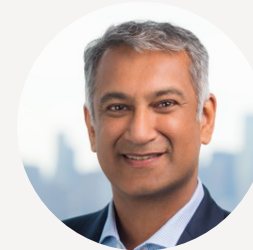


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