Results Summary: Agile in the Enterprise

July 2019 (updated October 2019)

Thank you!

Thank you for participating in our Gartner Research Circle survey on Agile in the Enterprise.

We are pleased to share this summary of findings with you. We hope you will use the report to learn what your peers are doing and to get ideas on what you could be doing.

The input you and your peers provide is highly valued by Gartner analysts—and the results from this survey will be used in multiple research notes and presentations.

Thank you once again for your continuing contributions to our research!

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Analyst Research Lead

Bill Holz
VP Analyst
GTP Apps Practice
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- Bill Holz is Research Director on the Application Platform Strategies (APS) team in Gartner for Technical Professionals (GTP). Mr. Holz covers a range of technical topics, including software development methodologies (focus on agile) and web development.

- Mr. Holz has more than 30 years of industry experience mainly focused on web and mobile development projects and adoption of agile development methodologies. Prior to joining Gartner, Mr. Holz led the Application Development and Enterprise Architecture team at the Project Management Institute (PMI). During his tenure at PMI, he led the implementation of agile development practices, modernization of the application portfolio, delivery of PMI's first mobile application, formation of an enterprise architecture team, and acquisition of Gantthead (projectmanagement.com)

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Analyst Research Lead
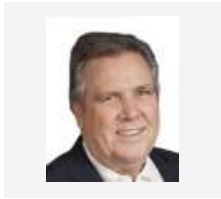
Mike West
Sr Director Analyst
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- Mike West covers the adoption, organizational impact and governance of agile, enterprise agile, and agile transformation. Previously, he was VP and Research Director at Gartner from 1991-1999. Prior to joining Gartner, Mr. West worked as a developer and manager in financial services (John Hancock and Fidelity Investments) and high-tech (Apple). He has extensive experience as a developer, as a manager, and as an analyst in application development tools, methods and platforms. And he has over a dozen years working as an analyst at Gartner.

- Mr. West has been an analyst since 1991, covering application development, information risk and cloud.

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We asked IT and IT/business professionals to tell us about their thoughts on agile within their enterprise

"Gartner defines **Agile** as a development approach that delivers software in increments by following the principles of the Agile Manifesto."

Manifesto for Agile Software Development

Individuals and interactions	Over	Processes and tools
Working software	Over	Comprehensive documentation
Customer collaboration	Over	Contract negotiation
Responding to change	Over	Following a plan

Source: Agile Manifesto (1999)

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Objective

Goal: Identify what processes and practices agile development organizations have adopted to achieve success. Examine how organizations approach and use agile techniques, the benefits they expected from their adoption and the stumbling blocks to their success.

Methodology

Gartner's Agile in the Enterprise survey was conducted via an online survey from June 3rd – June 25th 2019 with 130 Gartner Research Circle Members – a Gartner-managed panel comprised of IT and IT/business professionals.

Qualified participants included business end-users with either an IT or IT/business focus as a primary role. 87% of participants use Agile for at least some of their application development

The survey was developed collaboratively by a team of Gartner analysts and was reviewed, tested, and administered by Gartner's Research Data Analytics team

For additional queries on the data or survey instrument please contact anna.toncheva@gartner.com

Note: the results of this study are representative of the respondent base and not necessarily the market as a whole

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Key Takeaways

Planned Use and Current Use of Agile

- The majority of organizations **use or plan to use agile approaches** on the business side and for implementing enterprise software, significantly up from last year's survey

- Adoption of agile testing practices, **test-driven development and automated acceptance testing,** remain constraints to **DevOps and Continuous Delivery**

- **Agile technical practices will be in place** for DevOps with most participating organizations by 2020; longer timeline for others

- Most participants perceive their **organizations' reason for adopting agile have been successfully achieved**

- The **use of Kanban and Design Thinking continues to grow**

Scaling Agile to the Enterprise

- **Scaled Agile Framework, Customized Scrum of Scrums and Scrum@Scale** are the primary Enterprise Agile Frameworks implemented or considered

- An increased number of participants **(38%) have shifted to the Product Model**

Benefits & Challenges of Agile

- **Accelerated product delivery and better alignment** between IT and business are the top reasons to adopt agile

- Participating organizations cite **culture change** as one of the top challenges for adopting agile methodologies

- Shifting an organization's **culture from control to trust** is recognized as one of the top challenge for continued agile success. Now outpacing every other challenge by more than 20 percentage points

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Use of Agile Methodologies

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Nearly Half Use Agile for All or Most of their Application Development

Agile development in organizations

Percentage of Respondents

16%	We use agile **for all of our application development**
30%	We use agile **for most of our application development (50% or more)**
41%	We use agile **for some, but not all of our application development (less than 50%)**
7%	We only use agile in a **pilot implementation**
6%	We plan to adopt agile in the **next 12 months**

46%

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A Majority Use or Plan to Use Agile on the Business Side And for Implementing Enterprise Software

Usage of Agile Outside of Application Development
Percentage of Respondents

We already use agile on the business side of the house	43%
We plan to use agile on the business side of the house	20%

63% use/plan to use on the business side

We already use agile for implementing enterprise software packages	29%
We plan to use agile for implementing enterprise software packages	24%

53% use/plan to use for enterprise SW

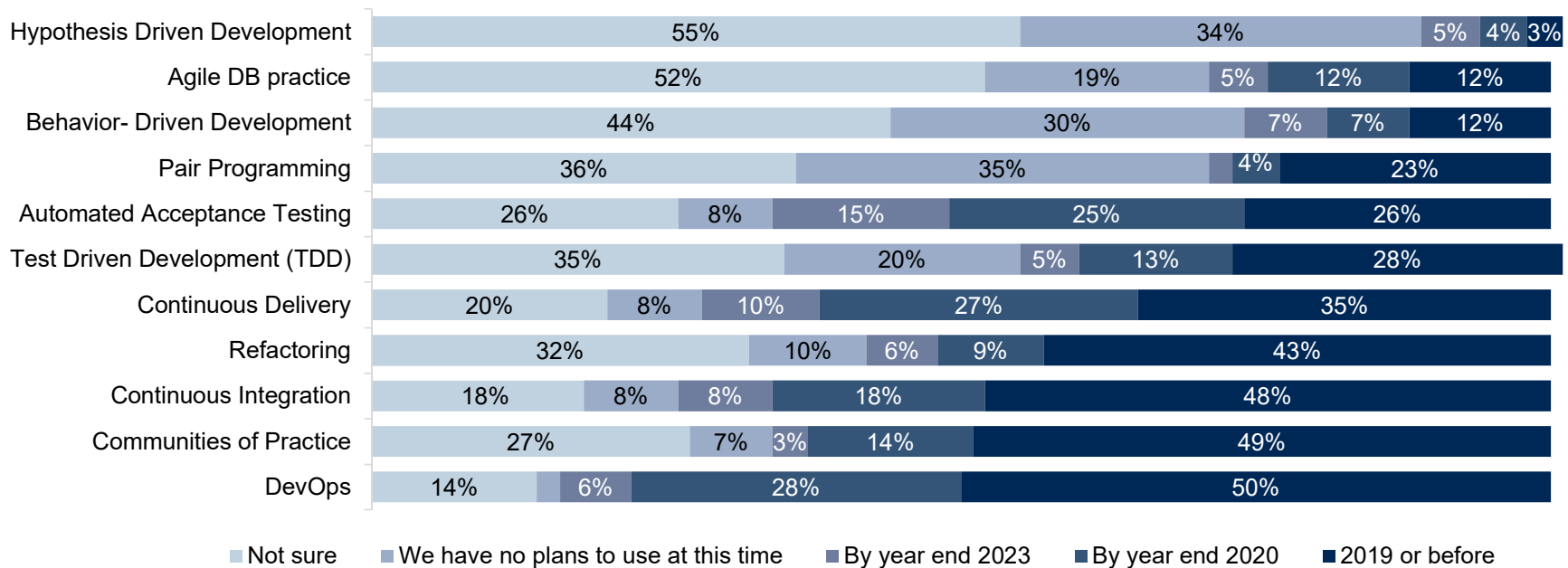|	
We use agile for the development of embedded software in hardware solutions	15%
We have no interest in using agile for the development of embedded software in hardware solutions	3%

Base: n=115 Gartner Research Circle Members; Excludes 'Not sure'
S03. Which of these best describes the use of agile outside of application development?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Agile Technical Practices Will Be in Place for Most by 2020

Beginning of Agile Enterprise Practices
Percentage of Respondents

Practice	Not sure	We have no plans to use at this time	By year end 2023	By year end 2020	2019 or before
Hypothesis Driven Development	55%	34%	5%	4%	3%
Agile DB practice	52%	19%	5%	12%	12%
Behavior- Driven Development	44%	30%	7%	7%	12%
Pair Programming	36%	35%		4%	23%
Automated Acceptance Testing	26%	8%	15%	25%	26%
Test Driven Development (TDD)	35%	20%	5%	13%	28%
Continuous Delivery	20%	8%	10%	27%	35%
Refactoring	32%	10%	6%	9%	43%
Continuous Integration	18%	8%	8%	18%	48%
Communities of Practice	27%	7%	3%	14%	49%
DevOps	14%	6%		28%	50%

Legend: ■ Not sure ■ We have no plans to use at this time ■ By year end 2023 ■ By year end 2020 ■ 2019 or before

*Note: "Other" not shown due to small base size
**Note: data labels less than 3% not shown
Base: n=130 Gartner Research Circle Members
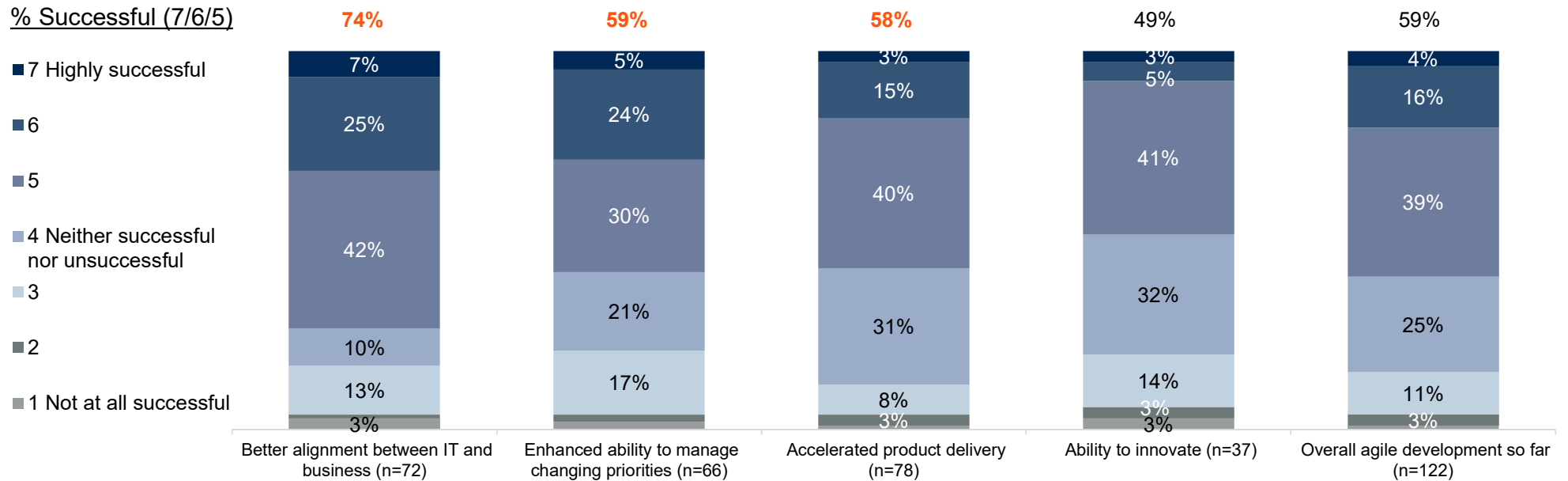Q09. When did/will your organization begin to use each of the following agile technical practices?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Most Respondents Report Their Agile Goals Have Been Achieved

Success of Achieving Agile Development Goals

Percentage of Respondents

% Successful (7/6/5)

	Better alignment between IT and business (n=72)	Enhanced ability to manage changing priorities (n=66)	Accelerated product delivery (n=78)	Ability to innovate (n=37)	Overall agile development so far (n=122)
% Successful (7/6/5)	**74%**	**59%**	**58%**	49%	59%
7 Highly successful	7%	5%	3%	3%	4%
6	25%	24%	15%	5%	16%
5	42%	30%	40%	41%	39%
4 Neither successful nor unsuccessful	10%	21%	31%	32%	25%
3	13%	17%	8%	14%	11%
2	3%		3%	3%	3%
1 Not at all successful				3%	

*Note: small base size not shown (<30)
**Note: data labels less than 3% not shown
Base: Gartner Research Circle Members using agile methods
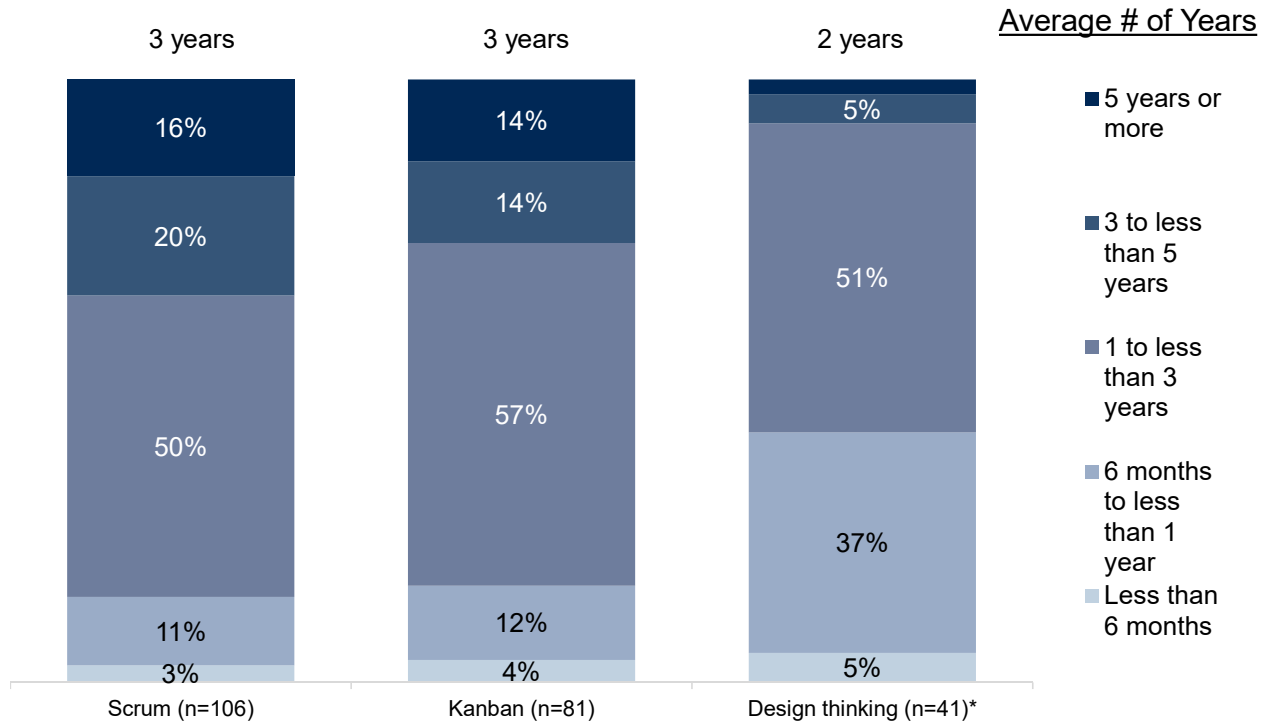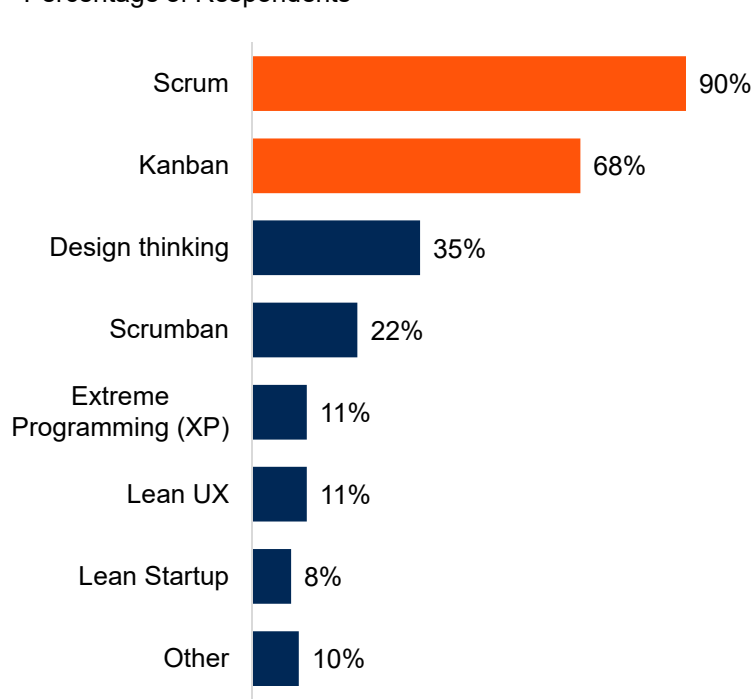Q07. How successful has your organization been in achieving each of these goals?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Scrum and Kanban Are Well-Established; Design Thinking Is Growing

Agile Methods Used, Duration of Agile Methods Used

Percentage of Respondents

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Implementation of Agile

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Use of Agile for Development Continues to Increase

Proportion of Development Based on Methodologies

Average, Percentage of Respondents
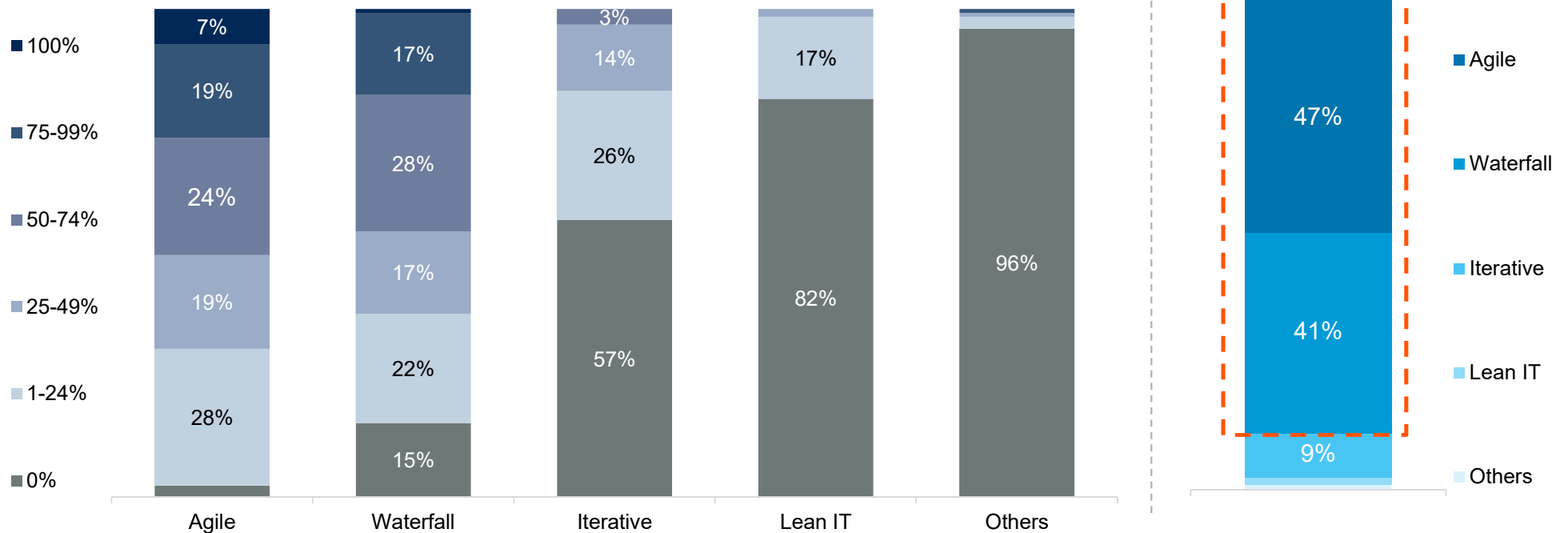
*Note: data labels less than 3% not shown
Base: n=125 Gartner Research Circle Members that use or plan to use agile development; Excludes 'Don't know'
Q02. What proportion of your organization's development/planned development is based on each of the following methodologies?
SOURCE: Gartner Research Circle Agile in the Enterprise

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SAFe and Scrum of Scrums are the Leading Frameworks

Enterprise Agile Framework Adoption

Percentage of Respondents
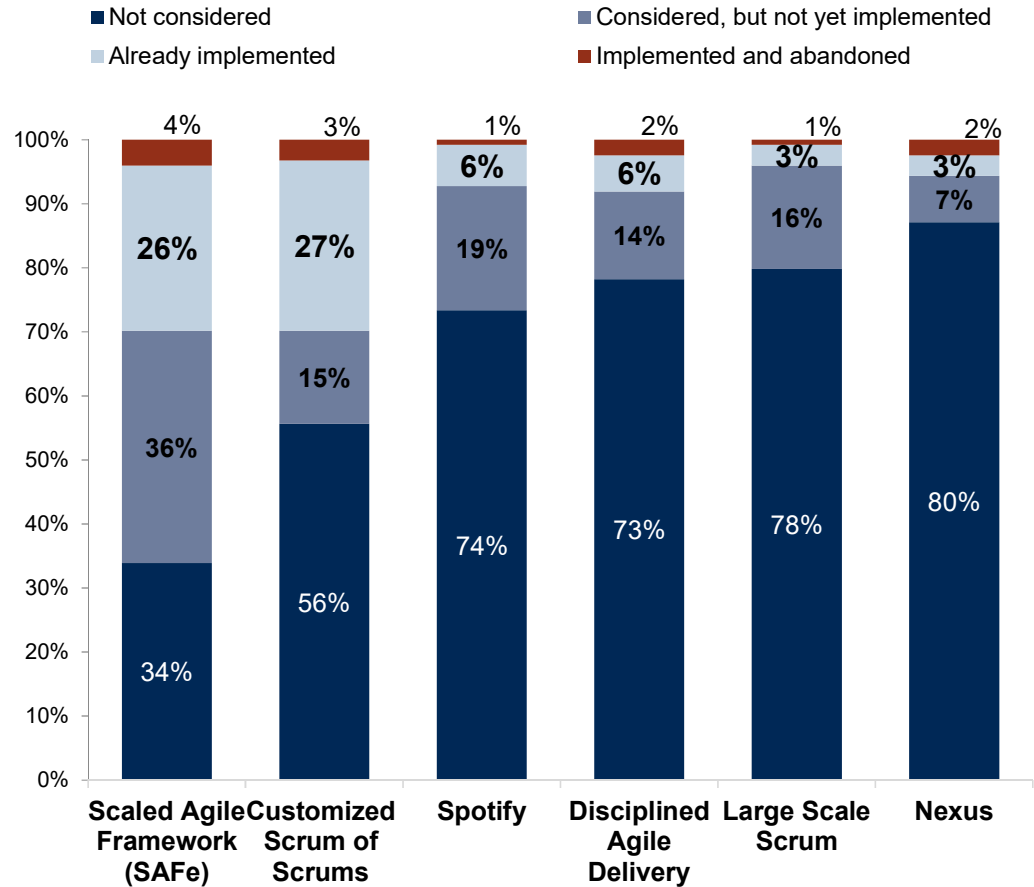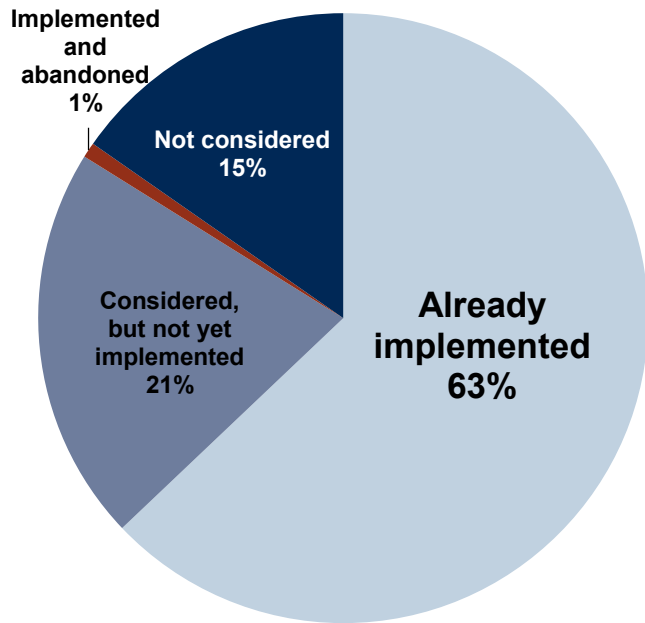
*Note: "Other" not shown due to small base size
Base: n=124 Gartner Research Circle Members Whose Organization's Development is Based on Agile, Iterative, or Lean IT;
Q04 What best describes the status of each Enterprise Agile Framework in your organization…
SOURCE: Gartner Research Circle Agile in the Enterprise

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Sprints Typically Take Two or Three Weeks to Complete, While Release Intervals Vary

Duration of Typical Sprint, Length of Release Intervals

Percentage of Respondents

Legend	
■ Deploy continuously ■ 1 week ■ 2 or 3 weeks ■ 4 or 5 weeks ■ 6 to 12 weeks ■ 12 weeks or longer ■ Varies by product	**Average time**

Duration of a Sprint
- 81%
- 9%
- 5%

Average time: 3 weeks

Length of Release Intervals
- 9%
- 4%
- 22%
- 17%
- 22%
- 9%
- 16%

Average time: 6 weeks
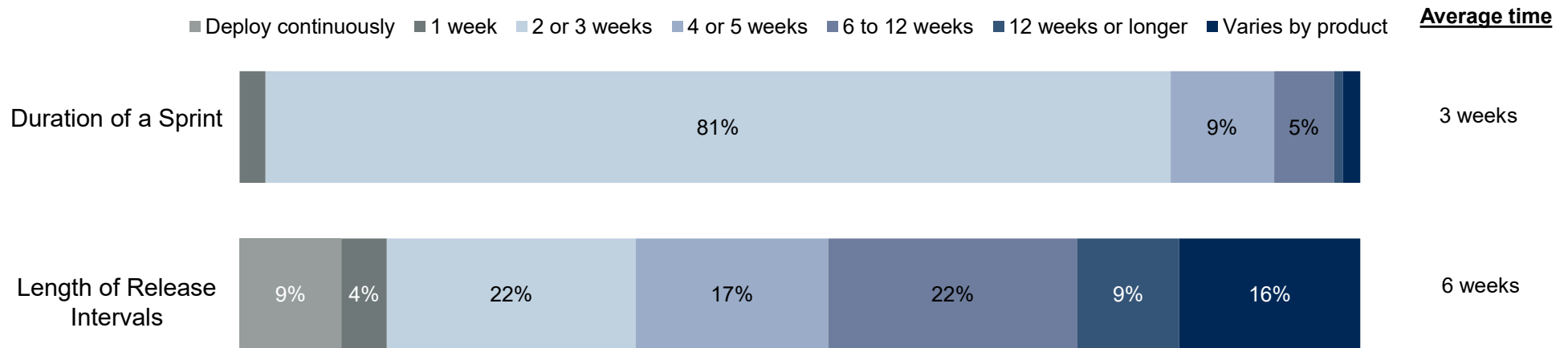
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38% Have Already Adopted a Product-Centric Model

Statement Agreement
Percentage of Respondents

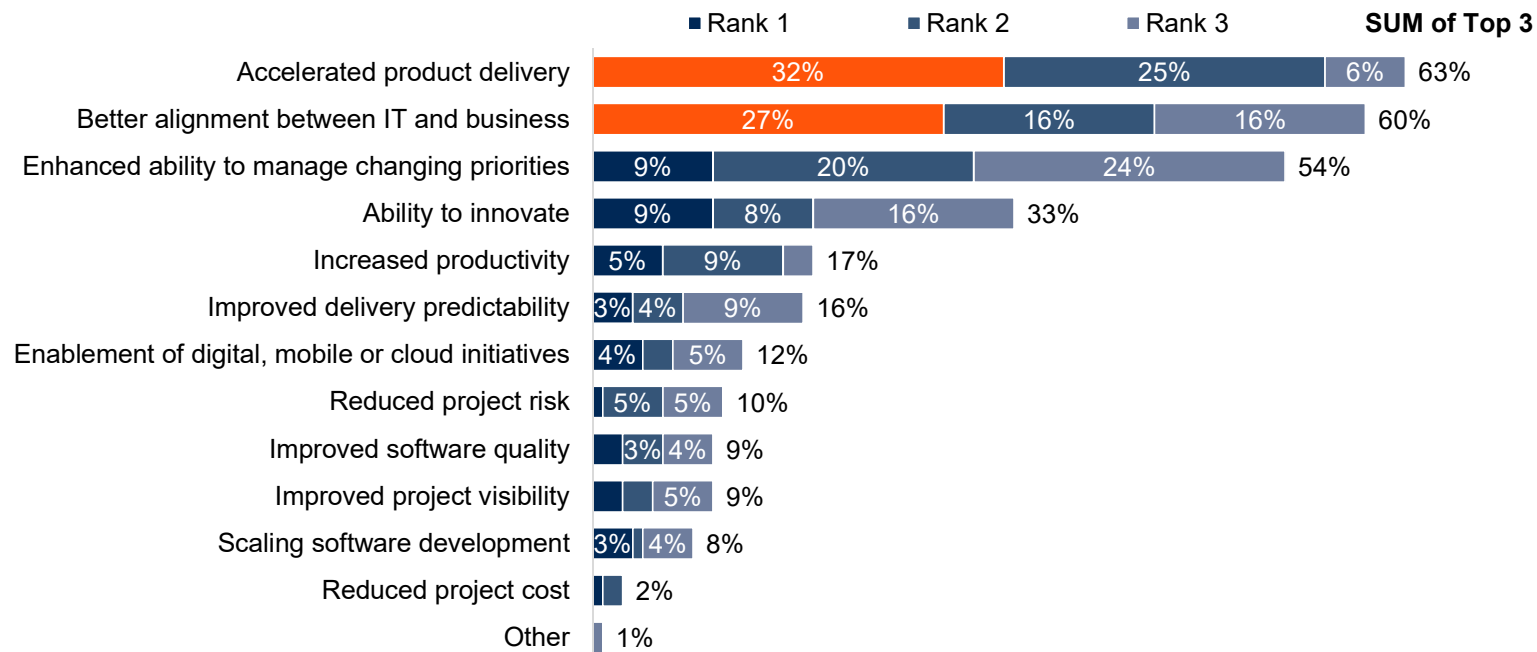| Left statement	Chart	Right statement
We have the same investment body approving funding regardless of delivery method	88% / 13% (n=120)	We have different governing bodies for agile and waterfall investments
We have changed to a product centric model	38% / 63% (n=120)	We are still using a project centric model
The agile business case is done differently from the waterfall	33% / 67% (n=120)	A business case is done for the entire project
We are tracking value by business outcomes and are able to identify efforts that fail fast	33% / 67% (n=114)	We are still tracking value as we did under waterfall
Our funding process under agile delivery has changed	24% / 76% (n=122)	There has been little change to the funding process
We are tracking cost by agile techniques and are using them to track labor capitalization	21% / 79% (n=118)	We have not changed our labor capitalization processes
We have moved to a flexible budgeting process to allow for agile delivery	11% / 89% (n=122)	We still are using the annual budgeting process to fund agile

Base: Gartner Research Circle Members; Excluding 'Don't know'
Q11. Which of the following opposing statements do you agree with most?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Benefits & Challenges

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Accelerated Product Delivery and Better Alignment between IT and Business Are the Most Popular Reasons for Adopting Agile

Top 3 Most Important Objectives for Adopting Agile Methodologies
Percentage of Respondents

■ Rank 1   ■ Rank 2   ■ Rank 3   **SUM of Top 3**

Objective	Rank 1	Rank 2	Rank 3	SUM of Top 3
Accelerated product delivery	32%	25%	6%	63%
Better alignment between IT and business	27%	16%	16%	60%
Enhanced ability to manage changing priorities	9%	20%	24%	54%
Ability to innovate	9%	8%	16%	33%
Increased productivity	5%	9%		17%
Improved delivery predictability	3%	4%	9%	16%
Enablement of digital, mobile or cloud initiatives	4%		5%	12%
Reduced project risk	5%	5%		10%
Improved software quality	3%	4%		9%
Improved project visibility		5%		9%
Scaling software development	3%	4%		8%
Reduced project cost				2%
Other				1%

*Note: data labels less than 3% not shown
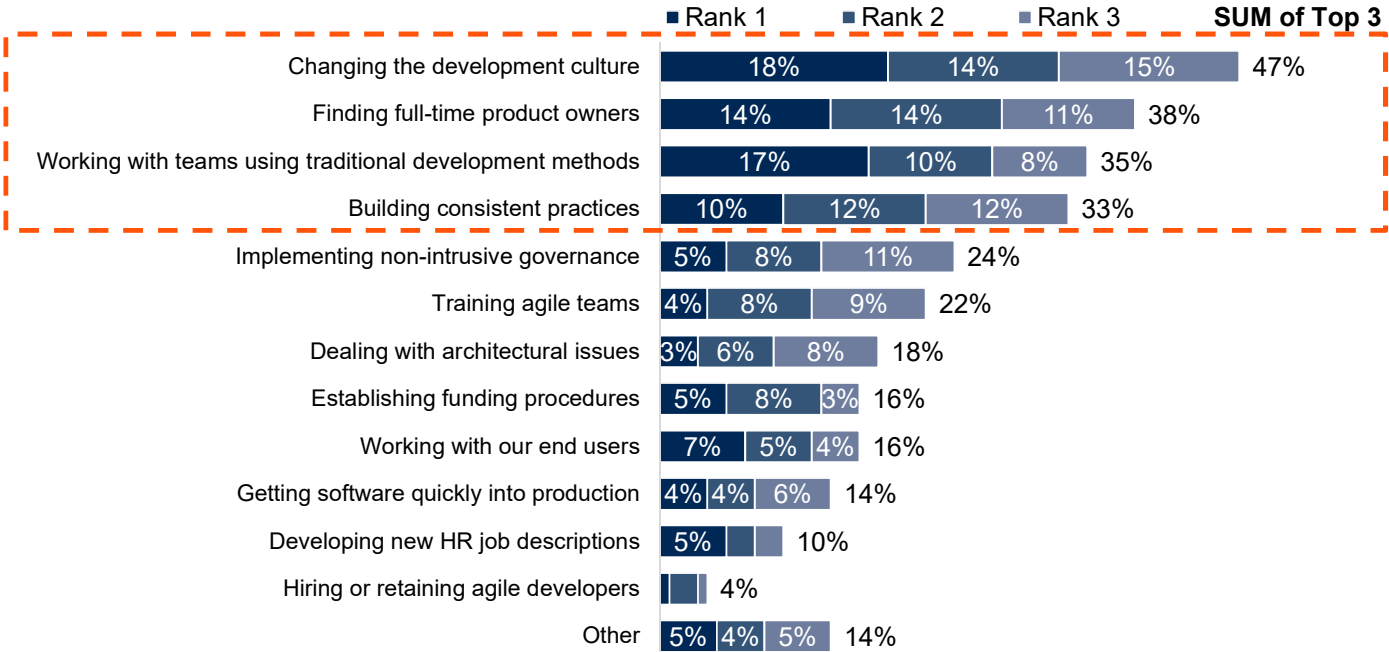Base: n=130 Gartner Research Circle Members; Excludes 'Not sure'
Q01. What are your organization's top 3 most important objectives for adopting agile methodologies?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Culture Change Continues to Be the Top Challenge in Adopting Agile

Top 3 Challenges Faced for Adopting Agile Development
Percentage of Respondents

■ Rank 1 ■ Rank 2 ■ Rank 3   **SUM of Top 3**

Challenge	Rank 1	Rank 2	Rank 3	SUM of Top 3
Changing the development culture	18%	14%	15%	47%
Finding full-time product owners	14%	14%	11%	38%
Working with teams using traditional development methods	17%	10%	8%	35%
Building consistent practices	10%	12%	12%	33%
Implementing non-intrusive governance	5%	8%	11%	24%
Training agile teams	4%	8%	9%	22%
Dealing with architectural issues	3%	6%	8%	18%
Establishing funding procedures	5%	8%	3%	16%
Working with our end users	7%	5%	4%	16%
Getting software quickly into production	4%	4%	6%	14%
Developing new HR job descriptions	5%			10%
Hiring or retaining agile developers				4%
Other	5%	4%	5%	14%

*Note: data labels less than 3% not shown
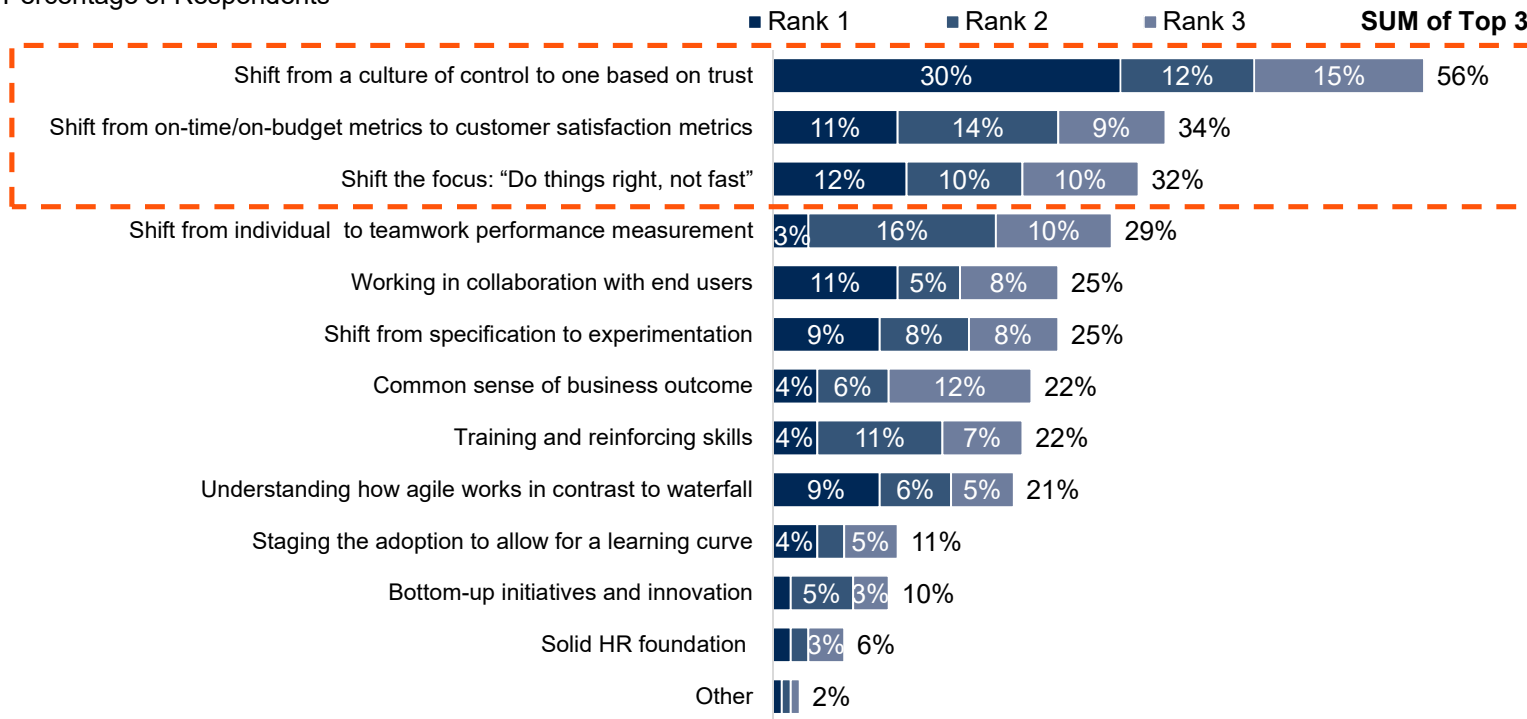Base: n=130 Gartner Research Circle Members
Q08. What are the top 3 challenges or obstacles your organization ahs faced in adopting agile development?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Shifting from Control to Trust Outpaces Every Other Challenge – By More Than 20 Percentage Points

Top 3 Challenges to Making Agile Development Successful

Percentage of Respondents

■ Rank 1   ■ Rank 2   ■ Rank 3   **SUM of Top 3**

Challenge	Rank 1	Rank 2	Rank 3	SUM of Top 3
Shift from a culture of control to one based on trust	30%	12%	15%	56%
Shift from on-time/on-budget metrics to customer satisfaction metrics	11%	14%	9%	34%
Shift the focus: "Do things right, not fast"	12%	10%	10%	32%
Shift from individual to teamwork performance measurement	3%	16%	10%	29%
Working in collaboration with end users	11%	5%	8%	25%
Shift from specification to experimentation	9%	8%	8%	25%
Common sense of business outcome	4%	6%	12%	22%
Training and reinforcing skills	4%	11%	7%	22%
Understanding how agile works in contrast to waterfall	9%	6%	5%	21%
Staging the adoption to allow for a learning curve	4%	5%		11%
Bottom-up initiatives and innovation		5%	3%	10%
Solid HR foundation		3%		6%
Other				2%

*Note: data labels less than 3% not shown
Base: n=130 Gartner Research Circle Members
Q10A. What are the top 3 challenges your organization needs to overcome to make agile development more successful?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Sample Makeup & Demographics

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Respondents Involvement with Agile Development Varies

Involvement in agile development within own organization
Percentage of Respondents
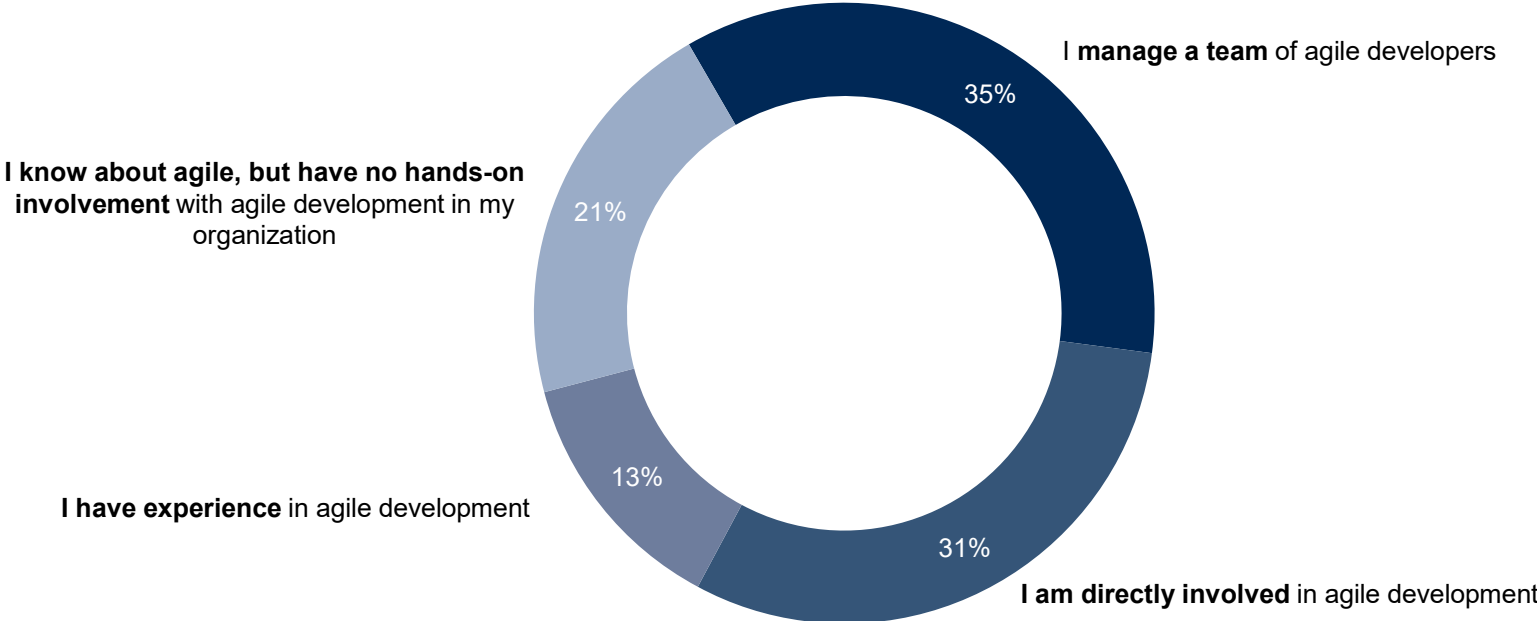
I **manage a team** of agile developers

35%

I **know about agile, but have no hands-on involvement** with agile development in my organization

21%

I **have experience** in agile development

13%

31%

I **am directly involved** in agile development

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Most Participants Have IT or Mixed Roles and Are Part of Organizations That Adopt Mainstream and New Technologies

Respondent Profile: Primary Role
Percentage of Respondents
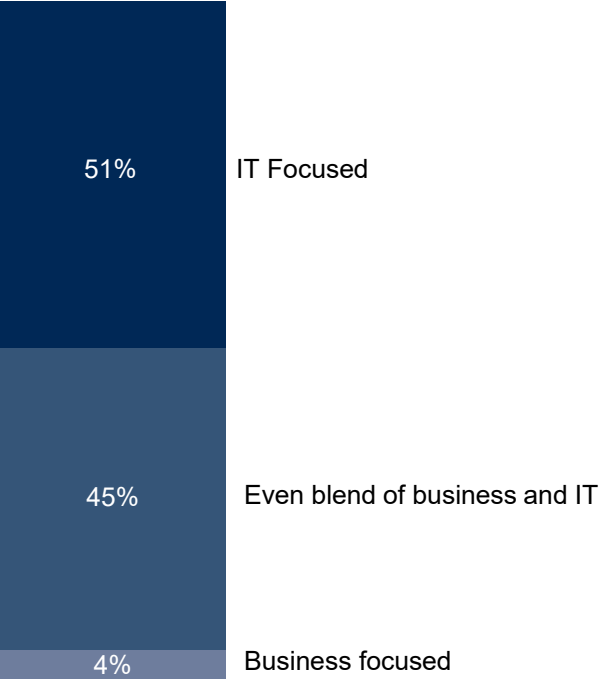
- 51% IT Focused
- 45% Even blend of business and IT
- 4% Business focused

Respondent Profile: Tech Adoption
Percentage of Respondents
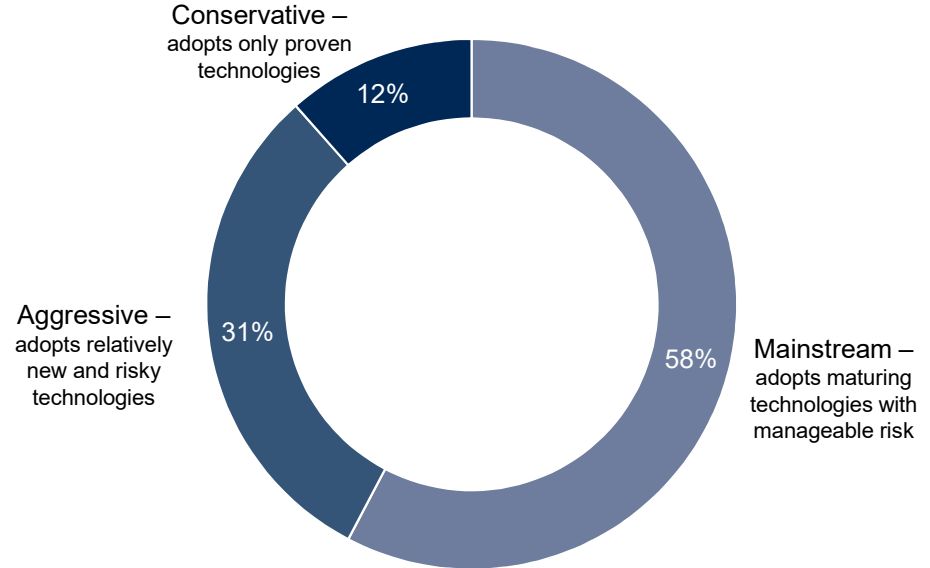
- Conservative – adopts only proven technologies — 12%
- Aggressive – adopts relatively new and risky technologies — 31%
- Mainstream – adopts maturing technologies with manageable risk — 58%

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Participants Represent Regions across the World, the Majority From North America

Respondent Profile: Region
Percentage of Respondents
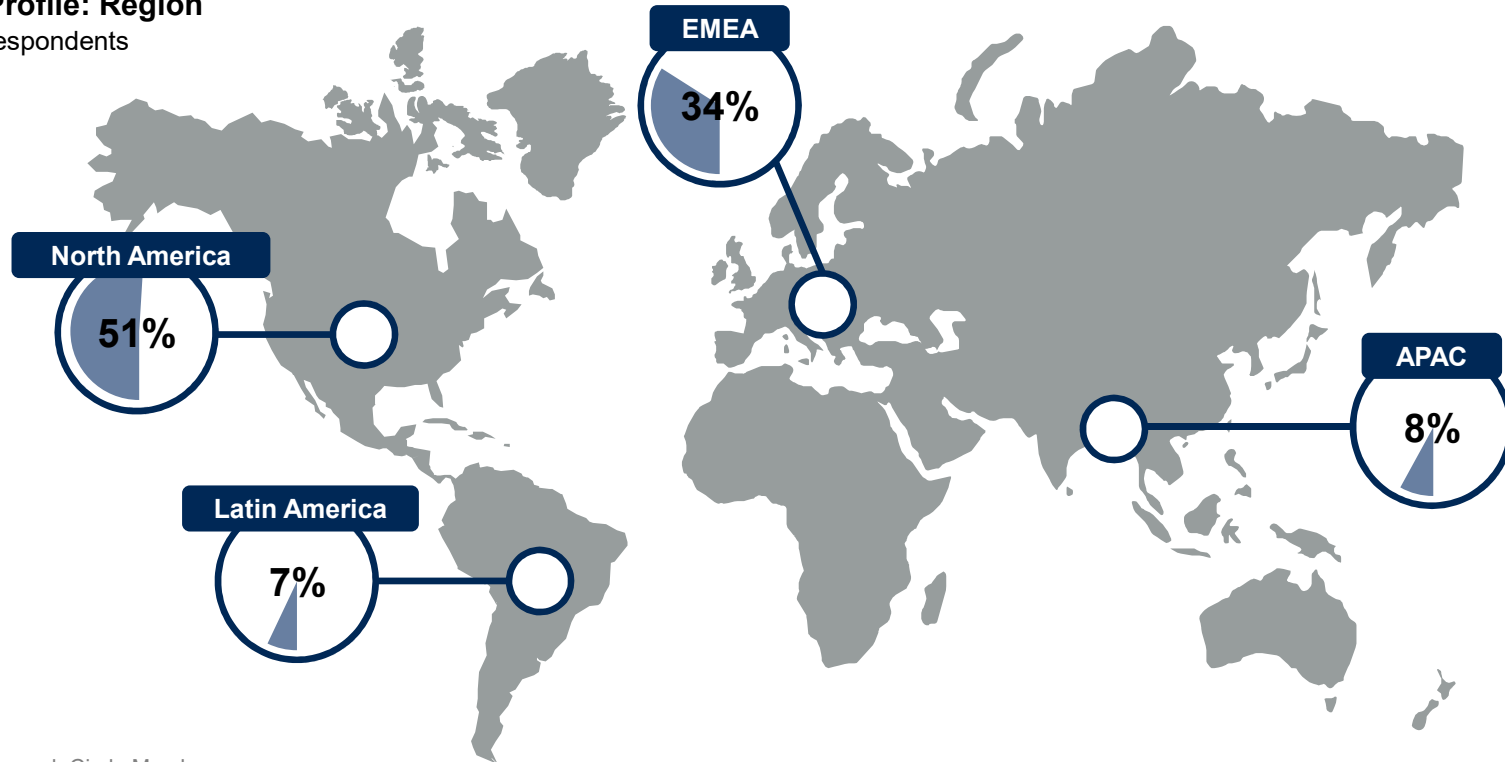
EMEA
34%

North America
51%

APAC
8%

Latin America
7%

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Participating Organizations Show a Mix of Industries and Company Size

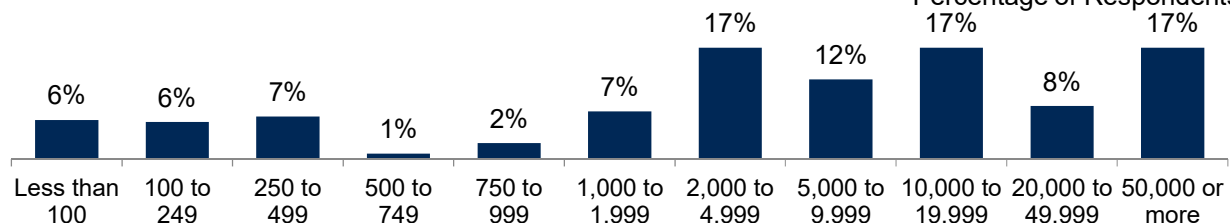## Respondent Profile: Primary Industry
Percentage of Respondents

Industry	%
Financial Services	17%
Government	17%
Education Provider	10%
MFG	10%
Insurance	6%
Retail	5%
Information Technology	5%
Healthcare	4%
Transportation	4%
Utilities	4%
Health Payer	3%
Services	3%
Energy	2%
Telecommunications	2%
Wholesale	2%
Natural Resources	1%
Other	6%
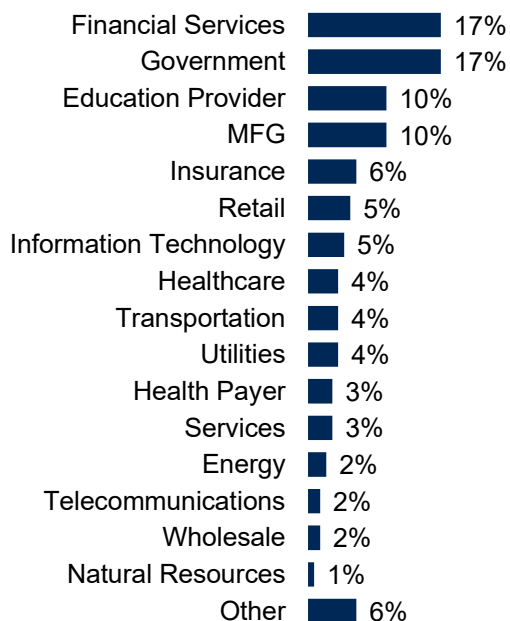
Respondent Profile: Annual Revenue
Percentage of Respondents

Category	%
Non-profit/Gov./Public Sector	25%
Less than $100M	6%
$100M to $250M	4%
$250M to $500M	6%
$500M to $1B	4%
$1B to $3B	22%
$3B to $5B	3%
$5B to $10B	10%
$10B or more	20%
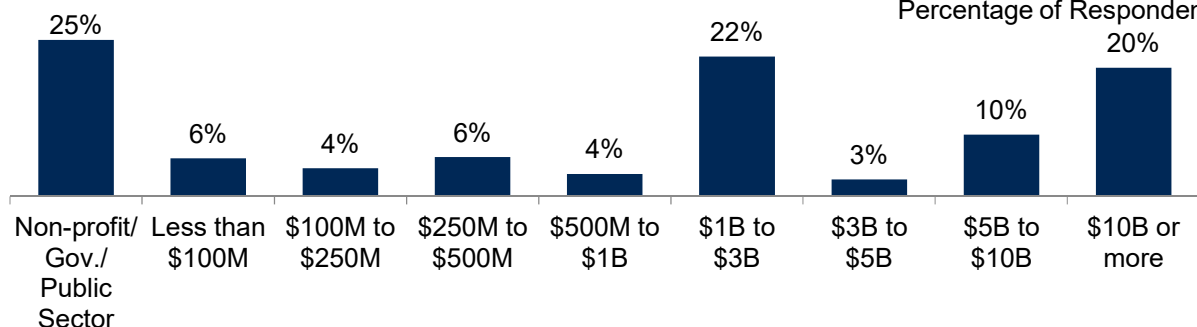
Respondent Profile: Employees Worldwide
Percentage of Respondents

Category	%
Less than 100	6%
100 to 249	6%
250 to 499	7%
500 to 749	1%
750 to 999	2%
1,000 to 1,999	7%
2,000 to 4,999	17%
5,000 to 9,999	12%
10,000 to 19,999	17%
20,000 to 49,999	8%
50,000 or more	17%

Base: n=130 Gartner Research Circle Members
RegQ12. Your organization's primary industry classification?
SOURCE: Gartner Research Agile in the Enterprise

Base: n=113 Gartner Research Circle Members; Excluding 'Don't know'
RegQ07. Your organization's enterprise-wide annual revenue in USD for the most recently completed fiscal year
Base: n= 123 Gartner Research Circle Members; Excluding 'Don't know'
RegQ06b. Number of full-time equivalent (FTE) employees who work in your organization within your country and worldwide
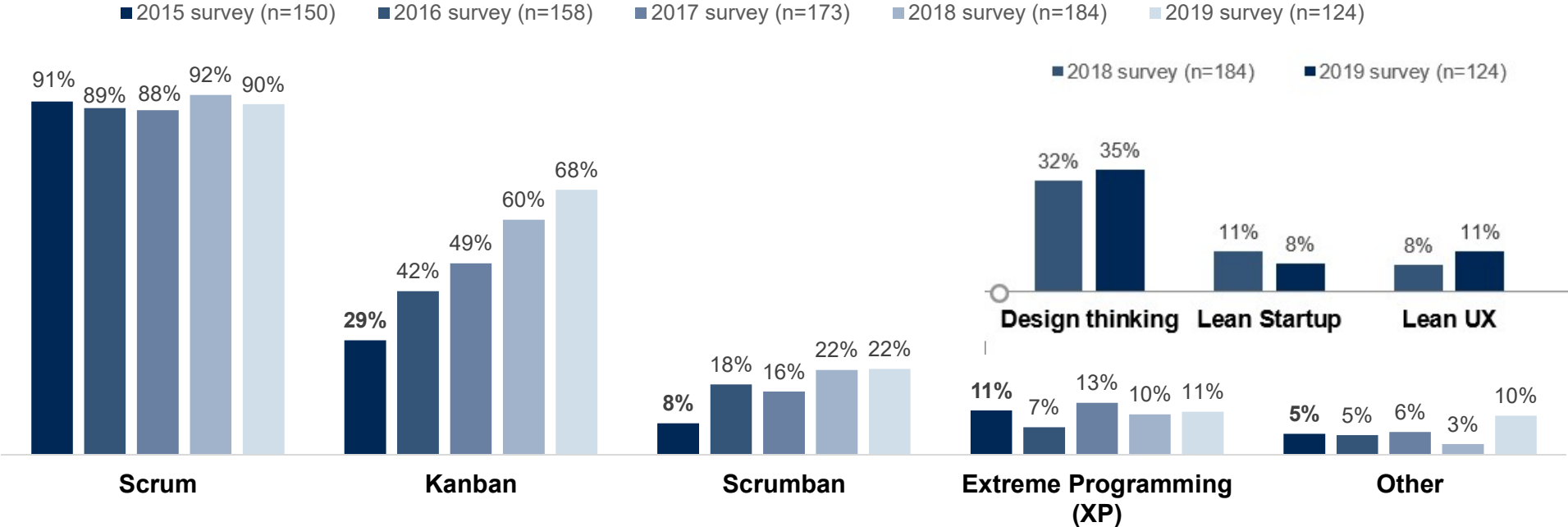SOURCE: Gartner Research Agile in the Enterprise

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APPENDIX

Trend Data

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Scrum and Kanban are well-established methods among participants

Agile Methods Used
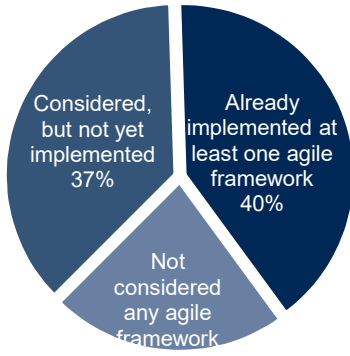
Percentage of respondents

Legend: ■ 2015 survey (n=150) ■ 2016 survey (n=158) ■ 2017 survey (n=173) ■ 2018 survey (n=184) ■ 2019 survey (n=124)
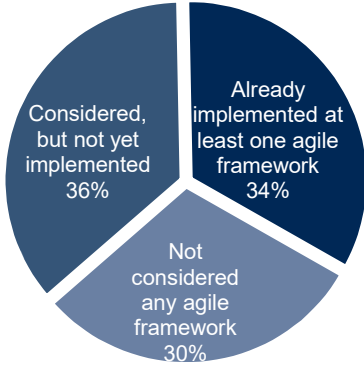
Inset legend: ■ 2018 survey (n=184) ■ 2019 survey (n=124)

Scrum
- 91%
- 89%
- 88%
- 92%
- 90%

Kanban
- 29%
- 42%
- 49%
- 60%
- 68%

Scrumban
- 8%
- 18%
- 16%
- 22%
- 22%

Extreme Programming (XP)
- 11%
- 7%
- 13%
- 10%
- 11%

Other
- 5%
- 5%
- 6%
- 3%
- 10%

Inset chart:

Design thinking
- 32%
- 35%

Lean Startup
- 11%
- 8%

Lean UX
- 8%
- 11%

Base: Gartner Research Circle Members. Base: Organization's development is based on "Agile", "Iterative" or "Lean IT" methodologies(Q02)
Q03A. Which of these agile methods are planned for use/used in your organization?   (Multiple responses allowed)
SOURCE: Gartner Research Circle Agile in the Enterprise

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Use of Enterprise Agile Framework

Status of Enterprise Agile Adoption
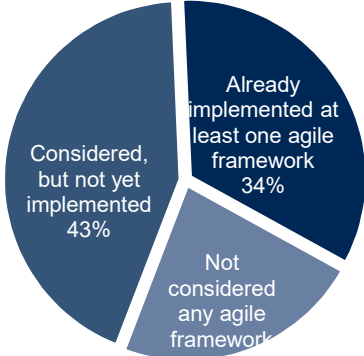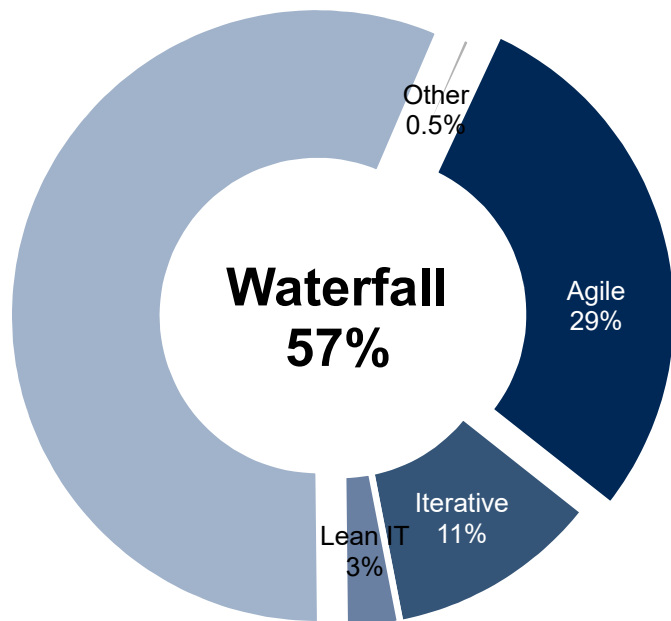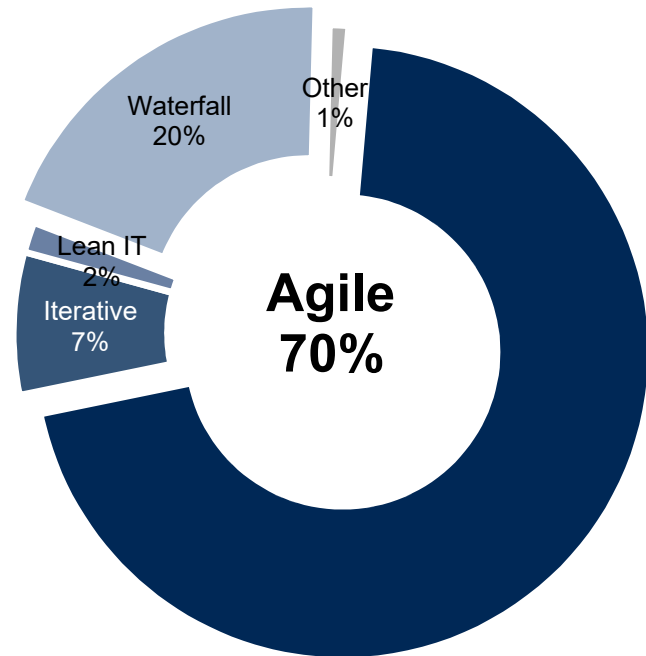
Percentage of respondents

2015 survey	2016 survey	2017 survey	2018 survey	2019 survey

2015 survey

Considered, but not yet implemented 31%

Already implemented at least one agile framework 31%

Not considered any agile framework 38%

(n=150)

2016 survey

Considered, but not yet implemented 36%

Already implemented at least one agile framework 34%

Not considered any agile framework 30%

(n=158)

2017 survey

Considered, but not yet implemented 37%

Already implemented at least one agile framework 40%

Not considered any agile framework

(n=173)

2018 survey

Considered, but not yet implemented 43%

Already implemented at least one agile framework 34%

Not considered any agile framework

(n=184)

2019 survey

Considered, but not yet implemented 63%

Already implemented 21%

Not considered 15%

Implemented and abandoned 1%

(n=124)

Base: Organization's development is based on "Agile", "Iterative" or "Lean IT" methodologies
Q04. What best describes the status of each Enterprise Agile Framework in your organization?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Scrum and Kanban are well-established methods among participants

Agile Methods Used
Percentage of respondents

Different view of previous slide's data

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APPENDIX

By level of Agile

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Proportion of organizations development methodology on average by use of agile

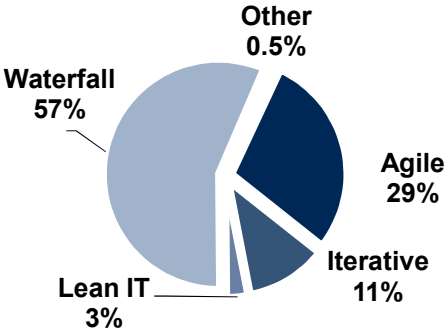**Organizations that use agile for <u>some</u> app development**
(Mean shown; n=50)

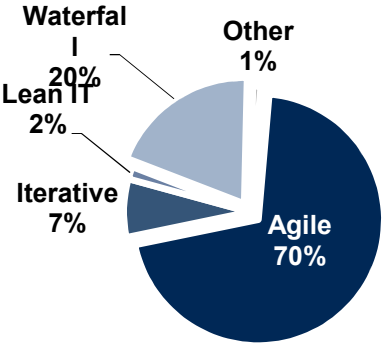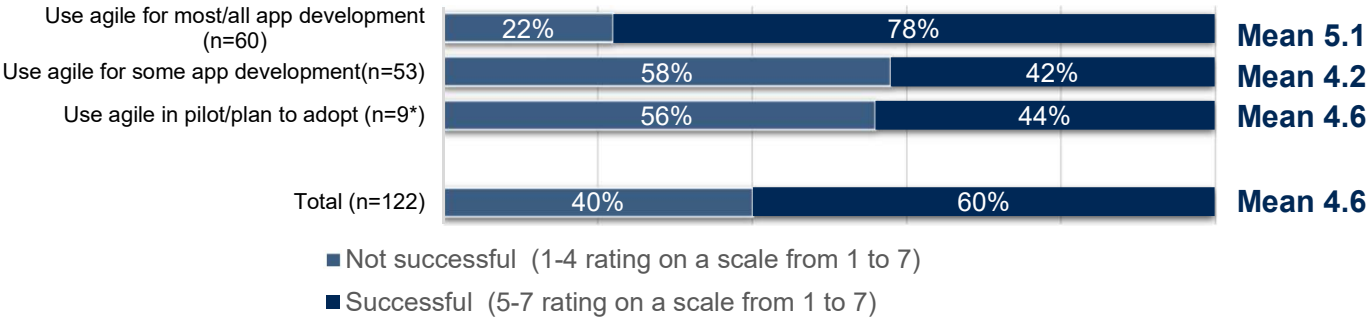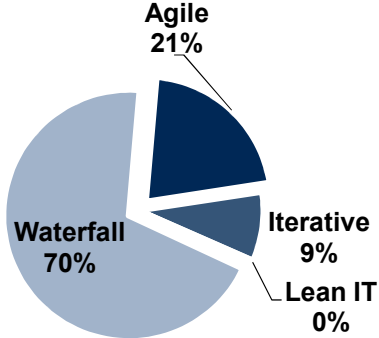**Organizations that use agile for <u>all/most</u> app development**
(Mean shown; n=58)

Other
0.5%

Waterfall
57%

Agile
29%

Iterative
11%

Lean IT
3%

Waterfall
20%

Other
1%

Lean IT
2%

Iterative
7%

Agile
70%

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Success with Agile Development by use of Agile

Organizations that use agile for <u>some</u> app development
(Mean shown; n=50)

- Other 0.5%
- Waterfall 57%
- Agile 29%
- Iterative 11%
- Lean IT 3%

Organizations that use agile for <u>all/most</u> app development
(Mean shown; n=58)

- Waterfall 20%
- Other 1%
- Lean IT 2%
- Iterative 7%
- Agile 70%

Organizations that use Agile in pilot/plan to adopt
(Mean shown; n=17)

- Agile 21%
- Iterative 9%
- Lean IT 0%
- Waterfall 70%

	Not successful	Successful	Mean
Use agile for most/all app development (n=60)	22%	78%	**Mean 5.1**
Use agile for some app development (n=53)	58%	42%	**Mean 4.2**
Use agile in pilot/plan to adopt (n=9*)	56%	44%	**Mean 4.6**
Total (n=122)	40%	60%	**Mean 4.6**

- ■ Not successful (1-4 rating on a scale from 1 to 7)
- ■ Successful (5-7 rating on a scale from 1 to 7)

Gartner

APPENDIX

By Success

Gartner

Two in three using agile report some degree of success with agile development so far

Overall success with agile development so far
Percentage of Respondents

report some degree of success

60%

Neither successful nor unsuccessful

25%

39%

16%

11%

4%

3%

Not at all successful ⟶ Highly successful

Base: Gartner Research Circle Members. Asked if currently using or piloting agile
Q07. How successful has agile development in your organization been so far?
SOURCE: Gartner Research Circle Agile in the Enterprise

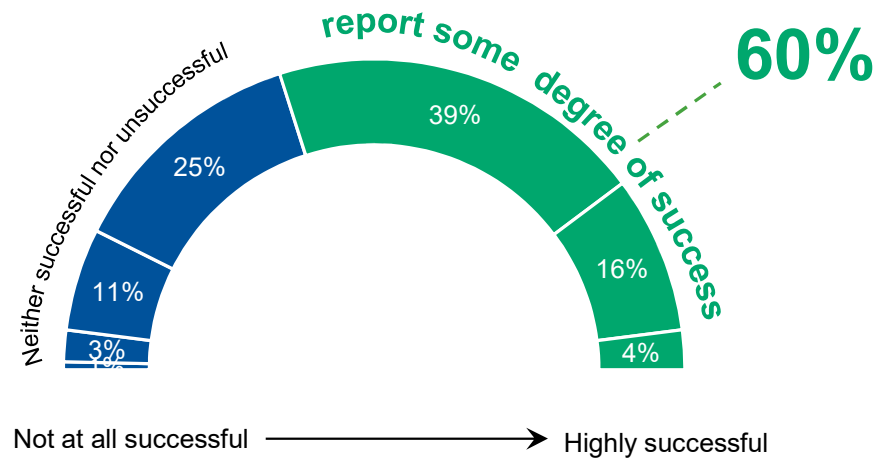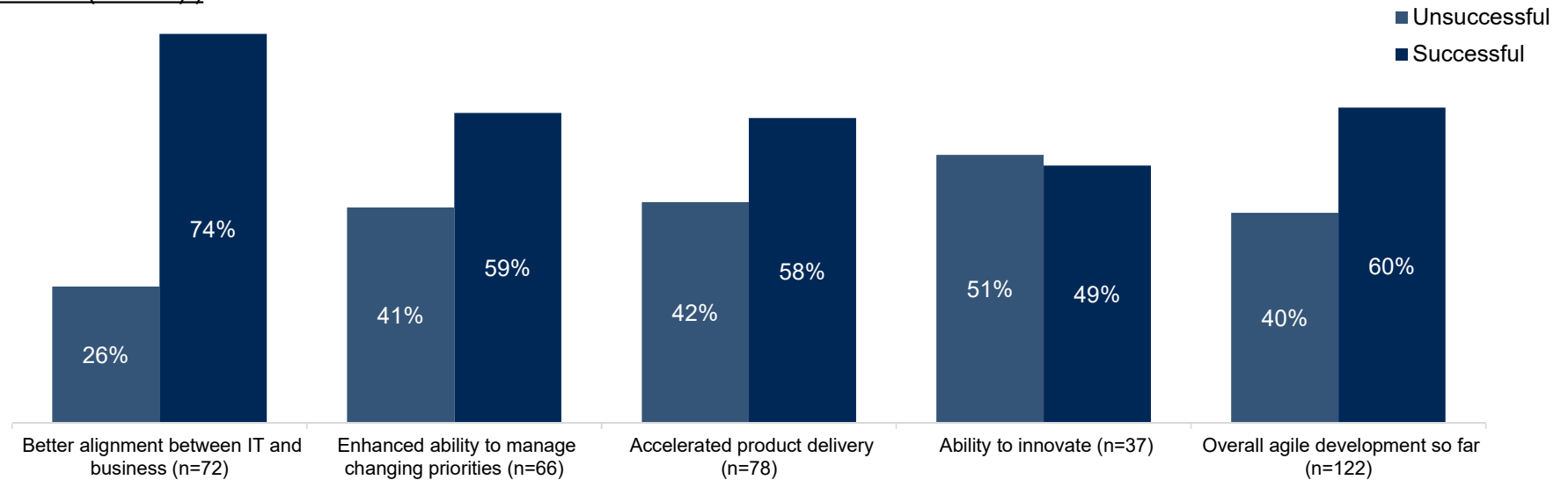Base: n=122 Gartner Research Circle Members. All Using Agile Development (S01)

Gartner

Most respondents report their Agile goals have been achieved

Success of Achieving Agile Development Goals
Percentage of Respondents

<u>% Successful (7/6/5) or</u>
<u>Unsuccessful (1/2/3/4))</u>

Legend:
- ■ Unsuccessful
- ■ Successful

Chart data:
- Better alignment between IT and business (n=72): Unsuccessful 26%, Successful 74%
- Enhanced ability to manage changing priorities (n=66): Unsuccessful 41%, Successful 59%
- Accelerated product delivery (n=78): Unsuccessful 42%, Successful 58%
- Ability to innovate (n=37): Unsuccessful 51%, Successful 49%
- Overall agile development so far (n=122): Unsuccessful 40%, Successful 60%

*Note: small base size not shown (<30)
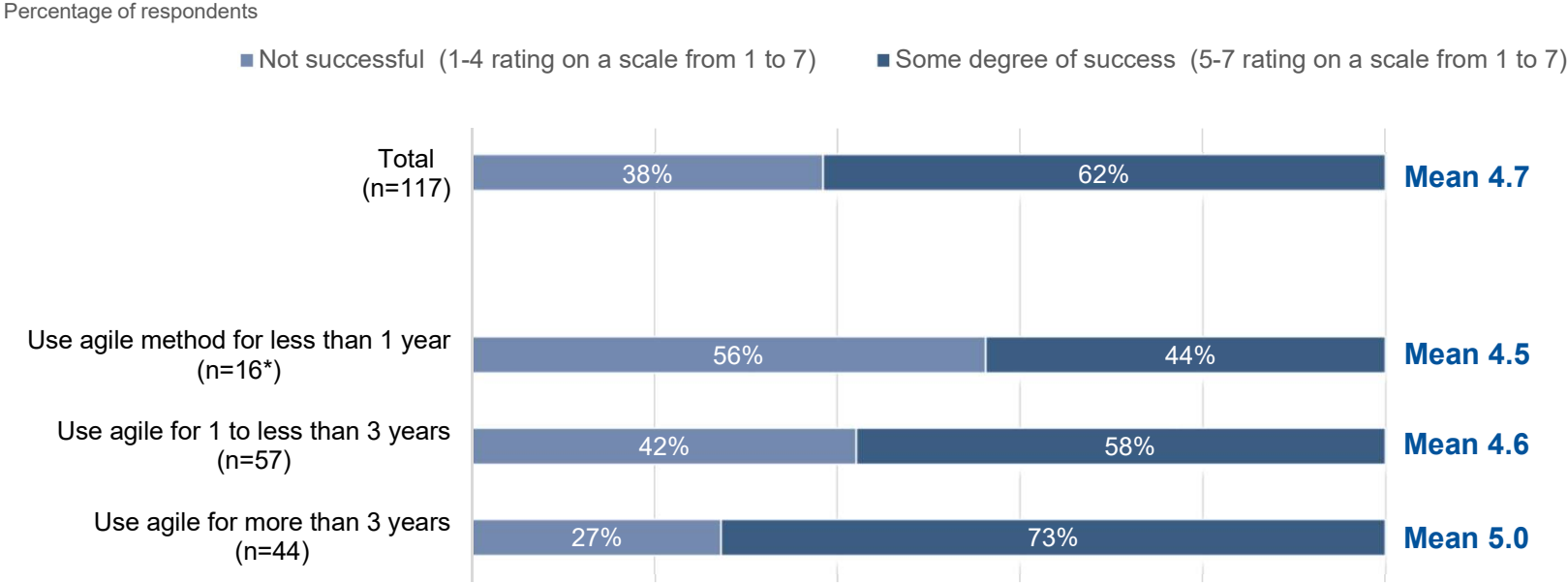**Note: data labels less than 3% not shown
Base: Gartner Research Circle Members using agile methods
Q07. How successful has your organization been in achieving each of these goals?
SOURCE: Gartner Research Circle Agile in the Enterprise 2019

Gartner

Success with agile by length of experience

Success with agile development by experience with agile

Percentage of respondents

■ Not successful (1-4 rating on a scale from 1 to 7)　　　■ Some degree of success (5-7 rating on a scale from 1 to 7)

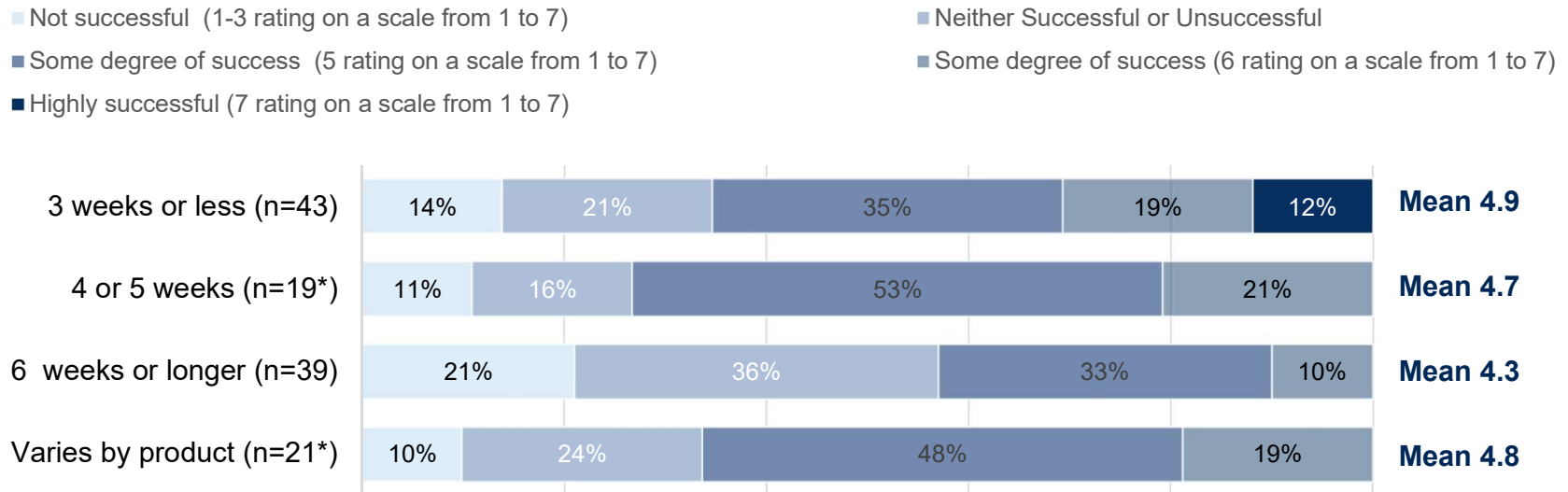|		
Total (n=117)	38%	62%	**Mean 4.7**
Use agile method for less than 1 year (n=16*)	56%	44%	**Mean 4.5**
Use agile for 1 to less than 3 years (n=57)	42%	58%	**Mean 4.6**
Use agile for more than 3 years (n=44)	27%	73%	**Mean 5.0**

*Caution: Base too low to report

Base: Gartner Research Circle Members. Asked if currently using or piloting agile
Q07. How successful has agile development in your organization been so far?
Q03B_NET.How long has your organization been using each of these agile methods?
SOURCE: Gartner Research Circle Agile in the Enterprise

Gartner

Organizations with more frequent release intervals more likely to experience success with agile development

Success with agile development so far
Percentage of respondents

- ▪ Not successful (1-3 rating on a scale from 1 to 7)
- ▪ Some degree of success (5 rating on a scale from 1 to 7)
- ▪ Highly successful (7 rating on a scale from 1 to 7)
- ▪ Neither Successful or Unsuccessful
- ▪ Some degree of success (6 rating on a scale from 1 to 7)

Release interval	Not successful	Neither	Success (5)	Success (6)	Highly successful	Mean
3 weeks or less (n=43)	14%	21%	35%	19%	12%	Mean 4.9
4 or 5 weeks (n=19*)	11%	16%	53%	21%		Mean 4.7
6 weeks or longer (n=39)	21%	36%	33%	10%		Mean 4.3
Varies by product (n=21*)	10%	24%	48%	19%		Mean 4.8

*Caution: Base too low to report

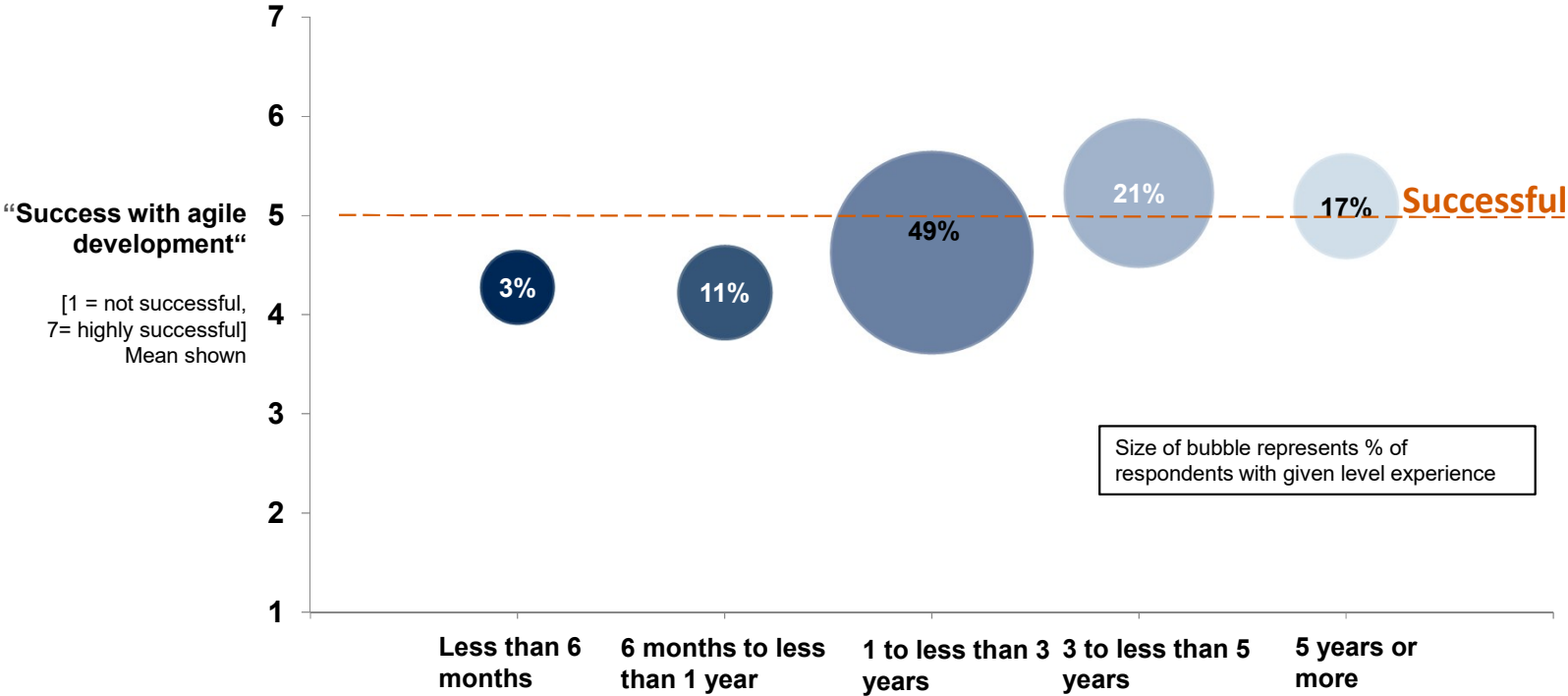Base: Gartner Research Circle Members.
Q06. How long are or do you expect your release intervals (Sprint plus Deployment to Production) to be?
Q07. How successful has agile development in your organization been so far?
SOURCE: Gartner Research Circle Agile in the Enterprise

Gartner

Success with agile development versus experience

Success with agile development by experience with agile

"Success with agile development"

[1 = not successful,
7= highly successful]
Mean shown

3%
11%
49%
21%
17%   Successful

Size of bubble represents % of respondents with given level experience

Less than 6 months

6 months to less than 1 year

1 to less than 3 years
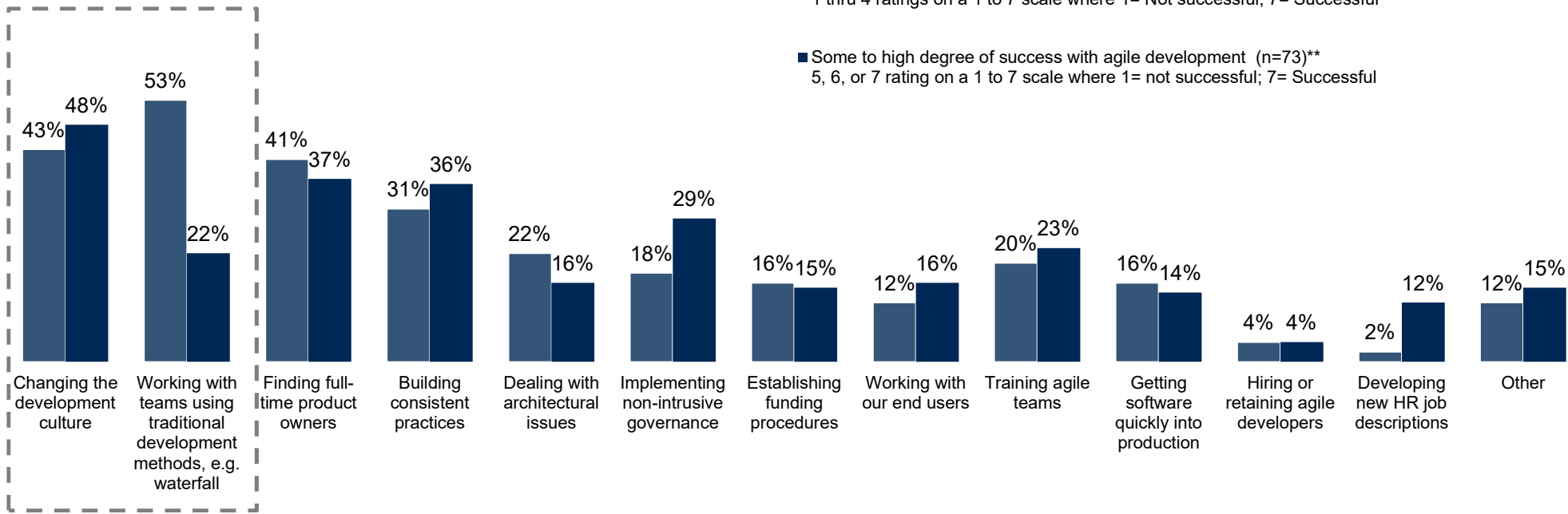
3 to less than 5 years

5 years or more

Base: n=117 ; Gartner Research Circle Members., currently using or piloting agile
Q07. How successful has agile development in your organization been so far?
Q03B. How long has your organization been using each of these agile methods?
SOURCE: Gartner Research Circle Agile in the Enterprise 2019

Gartner

Top challenges in adopting agile development

Summary of top 3 challenges faced by organization in adopting agile development

Percentage of respondents

■ Agile development unsuccessful (1-3) or neither successful nor unsuccessful (4) (n=49)*
1 thru 4 ratings on a 1 to 7 scale where 1= Not successful; 7= Successful

■ Some to high degree of success with agile development (n=73)**
5, 6, or 7 rating on a 1 to 7 scale where 1= not successful; 7= Successful

Gartner

Use of agile enterprise practices by success of agile development

Timeline for implementation of agile enterprise practices – 2019 or before
Percentage of respondents

■ Agile development unsuccessful (1-3) or neither successful nor unsuccessful (4) (n=49)*
1 thru 4 ratings on a 1 to 7 scale where 1= Not successful; 7= Successful

■ Some to high degree of success with agile development (n=73)**
5, 6, or 7 rating on a 1 to 7 scale where 1= not successful; 7= Successful

Practice	Unsuccessful	Successful	Delta
Pair Programming	16%	29%	+13ppt
Test Driven Development (TDD)	12%	40%	+28ppt
Behavior-Driven Development (BDD)	8%	16%	+8ppt
Refactoring	20%	63%	+43ppt
Continuous Integration	31%	62%	+31ppt
Automated Acceptance Testing	22%	32%	+10ppt
DevOps	29%	70%	+41ppt
Continuous Delivery	22%	47%	+25ppt
Communities of Practice	47%	53%	+6ppt
Hypothesis Driven Development (HDD)	2%	4%	+2ppt
Agile DB Practice	10%	15%	+5ppt
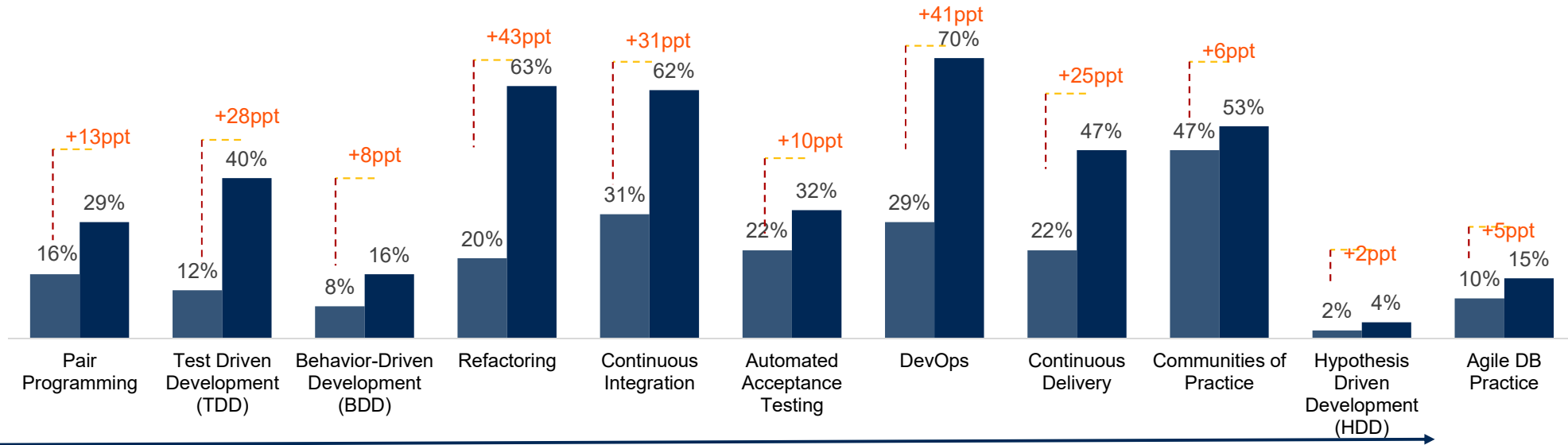
Agile Enterprise Practice Implementation

Base: Gartner Research Circle Members.
Q09. When did or will your organization begin to use each of the following agile enterprise practices?
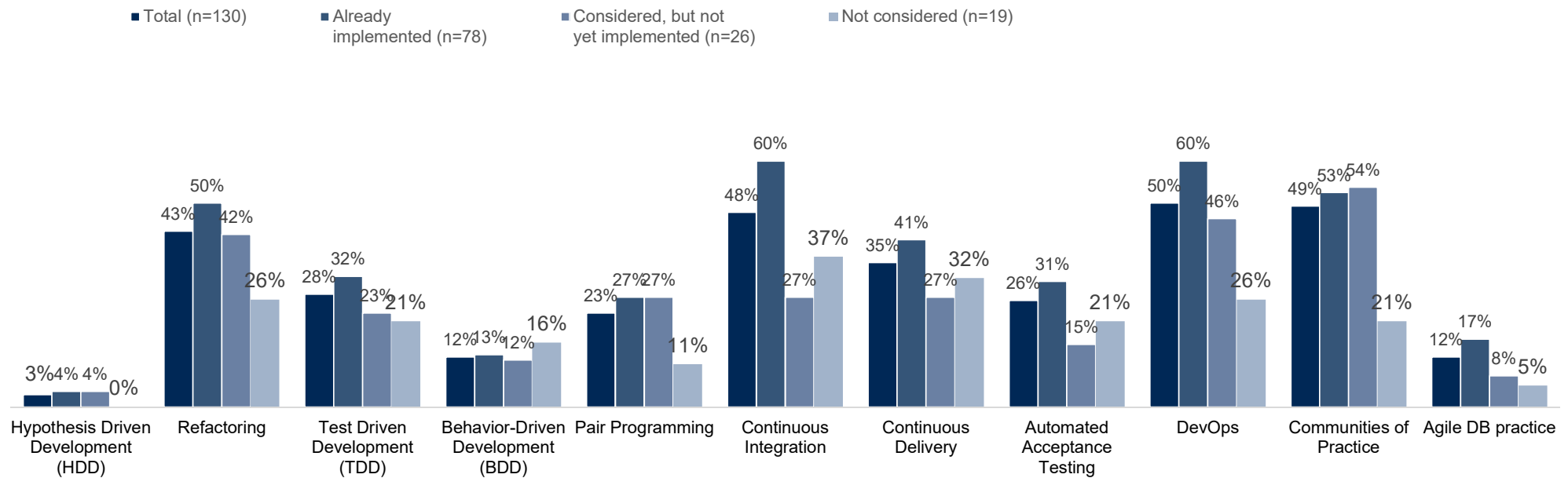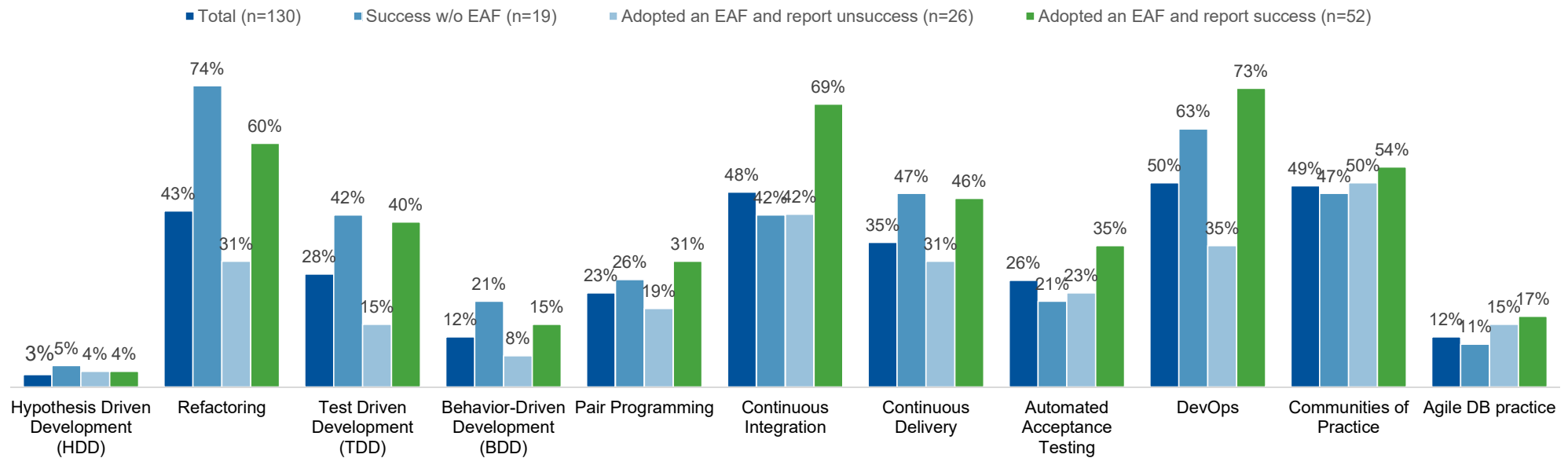Q07. How successful has agile development in your organization been so far?

SOURCE: Gartner Research Circle Agile in the Enterprise 2019

Gartner

Enterprise agile framework adoptees have high technical practice adoption

Timeline for implementation of agile enterprise practices – 2019 or before by EAF Adopters
Percentage of respondents

Legend:
- ■ Total (n=130)
- ■ Already implemented (n=78)
- ■ Considered, but not yet implemented (n=26)
- ■ Not considered (n=19)

Data by category:

Hypothesis Driven Development (HDD): 3%, 4%, 4%, 0%
Refactoring: 43%, 50%, 42%, 26%
Test Driven Development (TDD): 28%, 32%, 23%, 21%
Behavior-Driven Development (BDD): 12%, 13%, 12%, 16%
Pair Programming: 23%, 27%, 27%, 11%
Continuous Integration: 48%, 60%, 27%, 37%
Continuous Delivery: 35%, 41%, 27%, 32%
Automated Acceptance Testing: 26%, 31%, 15%, 21%
DevOps: 50%, 60%, 46%, 26%
Communities of Practice: 49%, 53%, 54%, 21%
Agile DB practice: 12%, 17%, 8%, 5%

*Small sample size; results are directional.

Base: Gartner Research Circle Members.
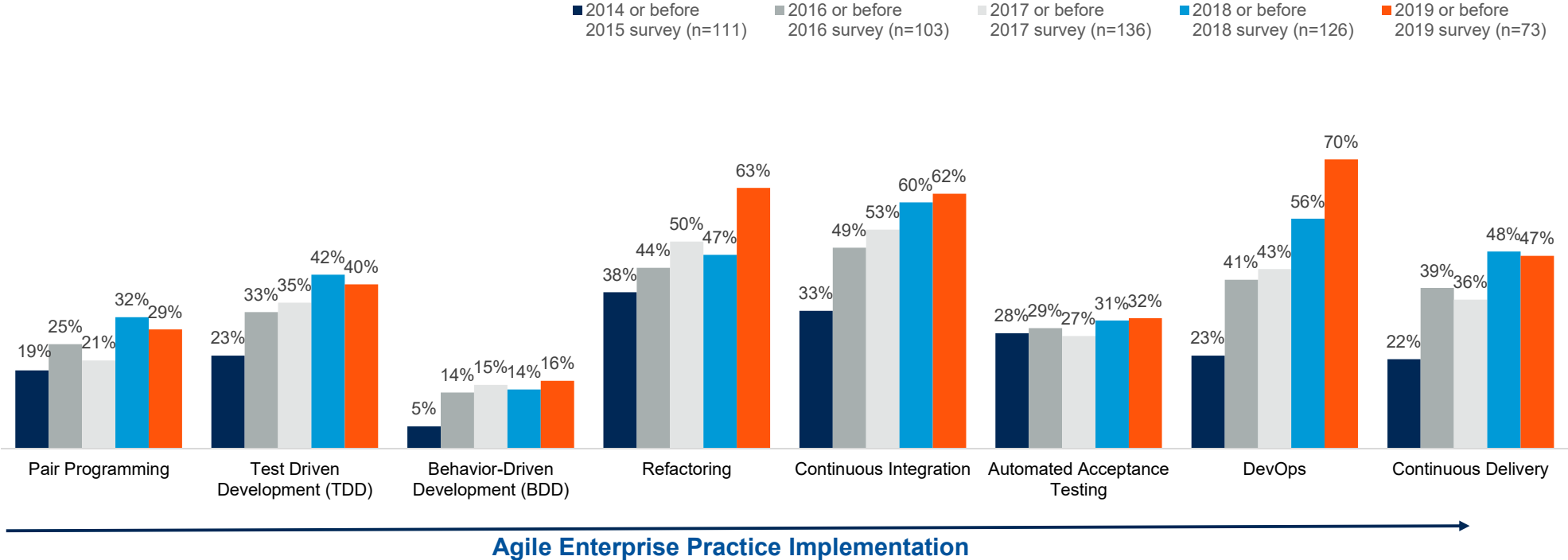Q09. When did or will your organization begin to use each of the following agile enterprise practices
Q07. How successful has agile development in your organization been so far?
SOURCE: Gartner Research Circle Agile in the Enterprise 2019

Gartner®

Enterprise agile framework adoptees have high technical practice adoption

Timeline for implementation of agile enterprise practices – 2019 or before by EAF Adopters

Percentage of respondents

Legend: ■ Total (n=130) ■ Success w/o EAF (n=19) ■ Adopted an EAF and report unsuccess (n=26) ■ Adopted an EAF and report success (n=52)

Categories and values:
- Hypothesis Driven Development (HDD): 3%, 5%, 4%, 4%
- Refactoring: 43%, 74%, 31%, 60%
- Test Driven Development (TDD): 28%, 42%, 15%, 40%
- Behavior-Driven Development (BDD): 12%, 21%, 8%, 15%
- Pair Programming: 23%, 26%, 19%, 31%
- Continuous Integration: 48%, 42%, 42%, 69%
- Continuous Delivery: 35%, 47%, 31%, 46%
- Automated Acceptance Testing: 26%, 21%, 23%, 35%
- DevOps: 50%, 63%, 35%, 73%
- Communities of Practice: 49%, 47%, 50%, 54%
- Agile DB practice: 12%, 11%, 15%, 17%

*Small sample size; results are directional.

Base: Gartner Research Circle Members.
Q09. When did or will your organization begin to use each of the following agile enterprise practices
Q07. How successful has agile development in your organization been so far?
SOURCE: Gartner Research Circle Agile in the Enterprise 2019

Gartner

Use of agile enterprise practices: successful organizations

Already implemented or expected to implement agile enterprise practices by year end – successful organizations
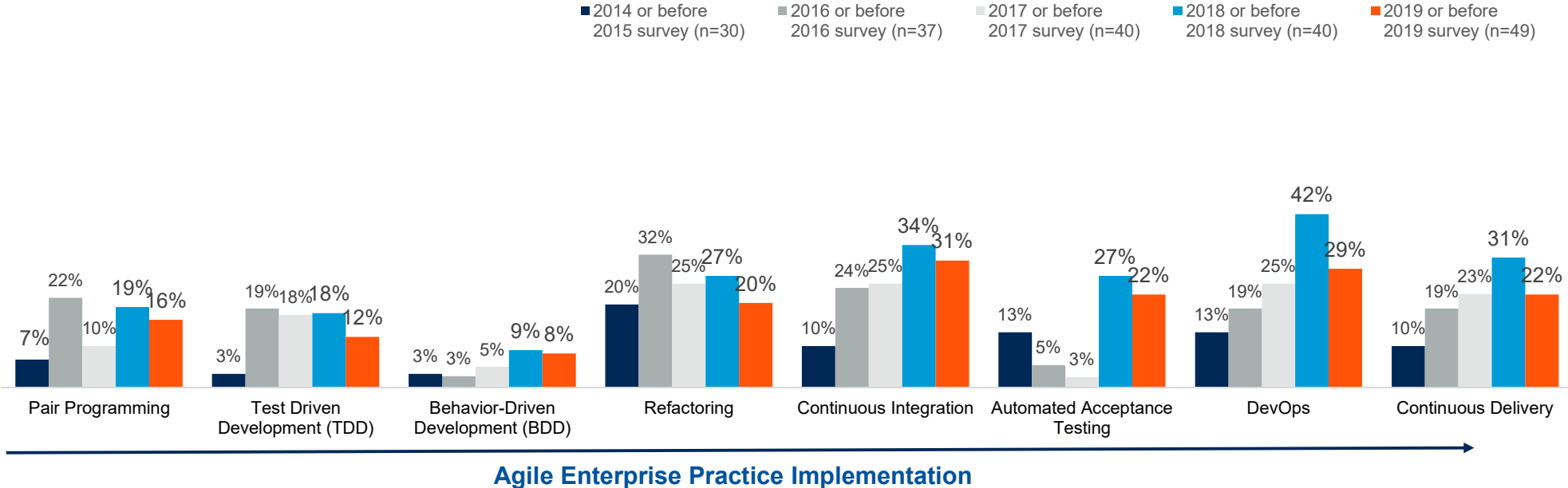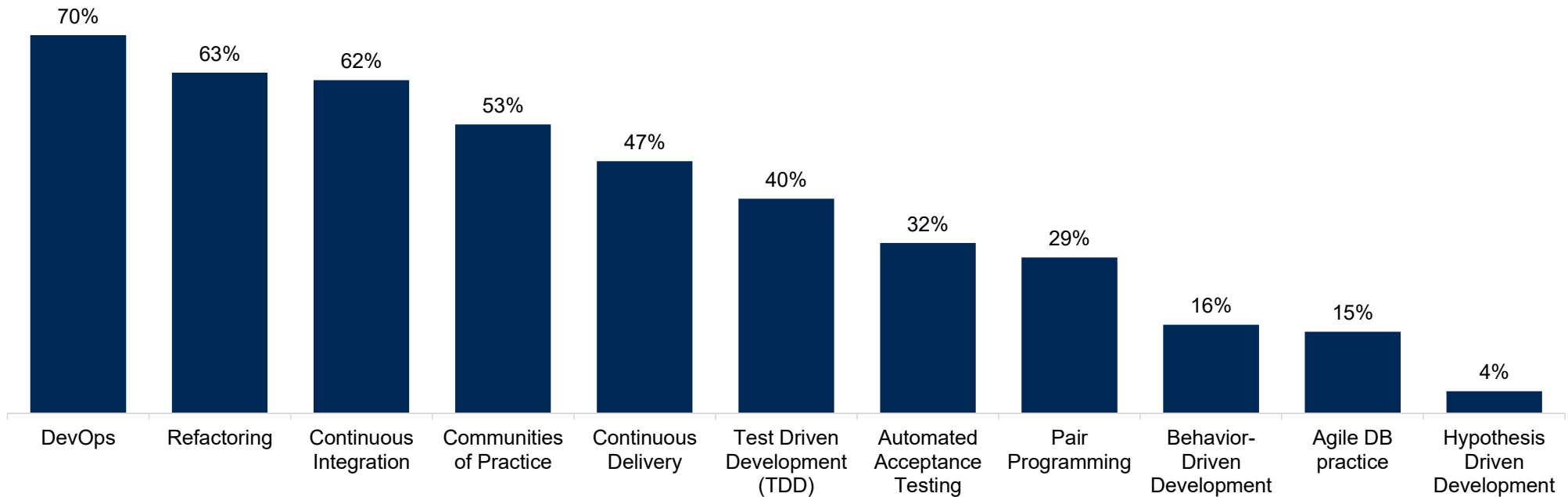
Percentage of respondents

- 2014 or before 2015 survey (n=111)
- 2016 or before 2016 survey (n=103)
- 2017 or before 2017 survey (n=136)
- 2018 or before 2018 survey (n=126)
- 2019 or before 2019 survey (n=73)

Agile Enterprise Practice Implementation

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Use of agile enterprise practices: unsuccessful or neither successful or unsuccessful

Already implemented or expected to implement agile enterprise practices by year end - unsuccessful or neither successful or unsuccessful
Percentage of respondents

Legend:
- 2014 or before 2015 survey (n=30)
- 2016 or before 2016 survey (n=37)
- 2017 or before 2017 survey (n=40)
- 2018 or before 2018 survey (n=40)
- 2019 or before 2019 survey (n=49)

Agile Enterprise Practice Implementation

Gartner.

Agile technical practices in successful organizations are already entrenched

Beginning of Agile Enterprise Practices (2019 or before)
Percentage of Respondents

Practice	%
DevOps	70%
Refactoring	63%
Continuous Integration	62%
Communities of Practice	53%
Continuous Delivery	47%
Test Driven Development (TDD)	40%
Automated Acceptance Testing	32%
Pair Programming	29%
Behavior-Driven Development	16%
Agile DB practice	15%
Hypothesis Driven Development	4%

Gartner

Success with agile development

Success with agile development by use of technical practices

Percentage of Respondents

■ Not successful (1-3 rating on a scale from 1 to 7)   ■ Neither Successful or Unsuccessful   ■ 5   ■ 6   ■ 7 Highly successful

Implemented both Automated Acceptance Testing (AAT) and DevOps (n=27*): 7% 19% 44% 26% 4% **Mean 5.0**

Implemented DevOps only (n=38): 3% 16% 50% 26% 5% **Mean 5.2**

Gartner.

Sprints Typically Take Two or Three Weeks to Complete, While Release Intervals Vary

Duration of Typical Sprint, Length of Release Intervals
Percentage of Respondents

■ Deploy continuously ■ 1 week ■ 2 or 3 weeks ■ 4 or 5 weeks ■ 6 to 12 weeks ■ 12 weeks or longer ■ Varies by product   **Average time**

Duration of a Sprint	3%	85%	7% 3%3%		3 weeks
Length of Release Intervals	12% 1%	25%	19%	19% 4% 19%	6 weeks

*Note: data labels less than 3% not shown
Base: n=73 Gartner Research Circle Members Some degree of success: from some to highly successful agile development (5 to 7 rating)
 Q05. How long are or do you expect your typical Sprint durations to be?
Q06. How long are or do you expect your release intervals (Sprint plus Deployment to Production) to be?
SOURCE: Gartner Research Circle Agile in the Enterprise

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Thank you

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