

# IPD: Performance, Expectations, and Future Use

A Report On Outcomes of a University of Minnesota Survey

September 25<sup>th</sup>, 2015

# Contents

Overview

Key findings

Challenges and Needs

Description of data set

Performance / Expectations / Likelihood (all responses)

Performance / Expectations / Likelihood (by stakeholder group)

Survey Still Open!

Acknowledgements



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# Overview

Effective project delivery meets or exceeds owner's expectations for schedule, cost and quality. There is an emerging body of research that shows more collaborative/integrated delivery is more likely to lead to successful outcomes and high-level team performance. Within that context, this survey takes a snapshot of current perceptions of effectiveness on projects using multiparty agreements, the most formal and contractually binding of the integrated delivery methods.

Conducted by the University of Minnesota and sponsored by Canada's Integrated Project Delivery Alliance, the goal of this survey was to understand the current state of Integrated Project Delivery (IPD).

This goal was pursued through use of a broad-based comparative survey. Each survey response collected data for one IPD project from one respondent's experience. If the respondent had multiple IPD project experience, they could take the survey multiple times, entering data for one project each time. Individual stakeholders on the same project could be matched by project name during the data analysis. For the purpose of this survey, IPD was defined as a multi-party agreement.

The survey was short and required no preparation. With one specific IPD project in mind, respondents began the survey by verifying the use of a multiparty agreement (those with other types of agreement were thanked and survey ended). For those who confirmed multiparty, survey gathered basic demographic data about the respondent and their project, followed by three questions:

- Comparison of this IPD experience with non-IPD project experience
- The meeting of expectations on this project
- Likelihood of future use of IPD

# Key Findings

## Significantly Positive

- Responses are significantly positive, strongly supportive of IPD as a superior delivery method.
- Distribution of responses is weighted heavily toward the most positive possible answers, not clustered around the neutral point.
- The overwhelmingly positive response is consistent across all demographics: stakeholder type, project type, project progress, project averages, and past respondent experience.

## Owner Expectations

- Owners' expectations were met or exceeded more than architects, contractors, or others. When owners compare their expectations of IPD at the start of the project to the project outcomes, they overwhelmingly say their expectations were met, exceeded, or significantly exceeded.

## Choosing IPD

- Reasons for choosing IPD are varied but seem to be most important where there is a desire for more team integration, a challenging budget, and/or where the owner requires the use of IPD.

## Diverse Data Set

- The 108 response / 59 project data set represents a broad cross-section of building type, project location, project scope, project progress, and stakeholder background. BIM and Lean tools were used to varying degrees on almost all projects.

## For Consideration

- Positive survey outcomes may reflect interest, engagement, and approval of early adopter owners and AEC professionals, and may additionally be influenced by project teams constructed of skilled and motivated practitioners.

# Challenges and Needs

Respondents had an opportunity to comment on their experience. Some comments reflect challenges and needs:

## Challenges IPD teams face

- Unwillingness to fully embrace IPD, its hard to let go of traditional roles
- Understanding of what is IPD (and what it takes to succeed) is uneven in the industry
- Negative performance by any single stakeholder can disrupt the whole team
- Changes in personnel can have a large negative impact

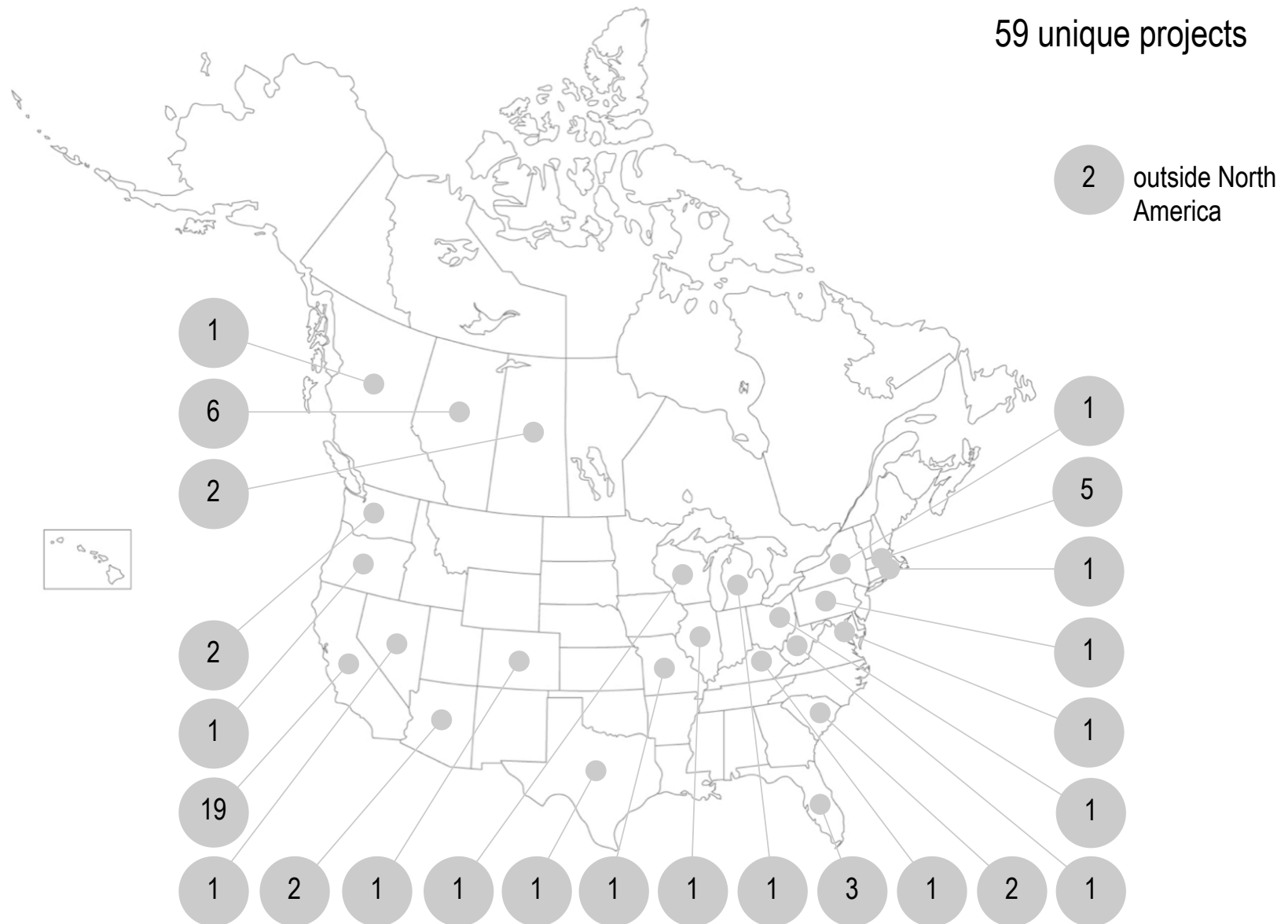
## IPD Teams have particular need for:

- Alignment and commitment across the team
- Strong owner involvement
- Strong leadership
- Having the right people involved at the right time
- Increased and earlier planning
- Careful attention to fees/time
- Maintaining focus on key project goals
- Accountability among team members.



# Projects | Distribution

59 unique projects



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# Projects | Breakdown

| Location             | Type                              | Scope              | Progress     | Year |
|----------------------|-----------------------------------|--------------------|--------------|------|
| Arizona              | 1 Health Care                     | \$10-\$25 million  | Completed    | 2014 |
|                      | 2 Industrial                      | over \$50 million  | Completed    | 2014 |
|                      | 3 Government/Civic                | under \$10 million | Completed    | 2015 |
|                      | 4                                 |                    | Completed    | 2010 |
|                      | 5                                 |                    | Completed    | 2014 |
|                      | 6                                 | under \$10 million | Completed    | 2012 |
|                      | 7                                 |                    | Completed    | 2014 |
|                      | 8                                 |                    | Completed    | 2015 |
|                      | 9                                 |                    | Completed    | 2015 |
|                      | 10                                |                    | Completed    | 2010 |
| California           | 11 Health Care                    | \$10-\$25 million  | Completed    | 2008 |
|                      | 12                                |                    | Completed    | 2014 |
|                      | 13                                | over \$50 million  | Construction |      |
|                      | 14                                |                    | Construction |      |
|                      | 15                                |                    | Completed    | 2014 |
|                      | 16                                | over \$50 million  | Completed    | 2013 |
|                      | 17                                |                    | Completed    | 2014 |
|                      | 18                                |                    | Completed    | 2013 |
|                      | 19 Industrial                     | \$10-\$25 million  | Completed    | 2015 |
|                      | 20                                | \$25-\$50 million  | Design       |      |
| Colorado             | 21 Other                          | under \$10 million | Construction |      |
|                      | 22 Education (college/university) | over \$50 million  | Completed    | 2008 |
| District of Columbia | 23 Cultural                       | over \$50 million  | Design       |      |
|                      | 24 Health Care                    | under \$10 million | Completed    | 2015 |
| Florida              | 25 Other                          | over \$50 million  | Construction |      |
|                      | 26 Recreational                   | over \$50 million  | Design       |      |
| Illinois             | 27 Education (college/university) | \$25-\$50 million  | Completed    | 2014 |
| Kentucky             | 28 Health Care                    | \$25-\$50 million  | Design       |      |
| Massachusetts        | 29 Mixed Use                      | \$10-\$25 million  | Construction |      |
|                      | 30                                |                    | Design       |      |
|                      | 31 Office                         | \$10-\$25 million  | Construction |      |
|                      | 32                                |                    | Design       |      |
|                      | 33                                | \$25-\$50 million  | Design       |      |
| Michigan             | 34 Education (college/university) | \$10-\$25 million  | Completed    | 2014 |
| Missouri             | 35 Health Care                    | \$10-\$25 million  | Completed    | 2008 |
| Nevada               | 36 Health Care                    | \$25-\$50 million  | Construction |      |
| New York             | 37 Other                          | over \$50 million  | Completed    | 2015 |
| Ohio                 | 38 Health Care                    | over \$50 million  | Completed    | 2015 |
| Oregon               | 39 Other                          | over \$50 million  | Design       |      |
| Pennsylvania         | 40 Utilizes/Power/Water/Sewer     | \$10-\$25 million  | Completed    | 2013 |
| Rhode Island         | 41 Education (college/university) | \$10-\$25 million  | Completed    | 2013 |
| South Carolina       | 42 Health Care                    | under \$10 million | Completed    | 2012 |
|                      | 43                                | over \$50 million  | Design       |      |
| Texas                | 44 Office                         | \$25-\$50 million  | Completed    | 2013 |
| Washington           | 45 Health Care                    | \$10-\$25 million  | Completed    | 2014 |
|                      | 46                                | over \$50 million  | Completed    | 2010 |
| West Virginia        | 47 Utilizes/Power/Water/Sewer     | \$10-\$25 million  | Completed    | 2012 |
| Wisconsin            | 48 Education (college/university) | over \$50 million  | Completed    | 2011 |
| Alberta              | 49 Education (K-12)               | over \$50 million  | Completed    | 2017 |
|                      | 50                                |                    | Construction |      |
|                      | 51 Government/Civic               | under \$10 million | Completed    | 2015 |
|                      | 52 Mixed Use                      | \$25-\$50 million  | Design       |      |
|                      | 53 Multi-family Residential       | under \$10 million | Design       |      |
| British Columbia     | 54 Office                         | under \$10 million | Completed    |      |
|                      | 55                                | under \$10 million | Completed    | 2010 |
| Saskatchewan         | 56                                | over \$50 million  | Completed    | 2015 |
|                      | 57 Health Care                    | over \$50 million  | Design       |      |
| New South Wales      | 58 Single-family Residential      | under \$10 million | Completed    | 2015 |
| Jordan               | 59 Health Care                    | over \$50 million  | Construction |      |

## 59 unique projects

- 48 in U.S.
- 9 in Canada
- 2 outside of North America

## Project Types

- Education (K-12) 1
- Education (college/university) 5
- Health Care 28
- Cultural 1
- Recreational 1
- Office 5
- Industrial 3
- Mixed Use 3
- Government/Civic 3
- Single Family Residential 1
- Multi-Family Residential 1
- Utilities Power/Water/Sewer 2
- Other 5

## Project Scopes

- Under \$10M 15
- \$10M to \$25M 16
- \$25M to \$50M 7
- Over \$50M 21

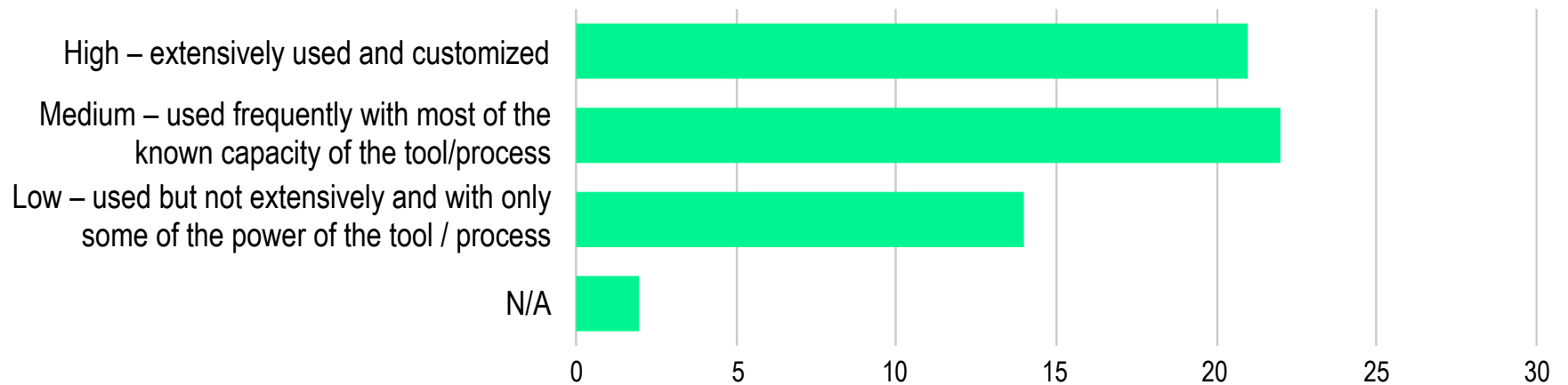
## Project Status

- Design 12
- Construction 9
- Complete 38

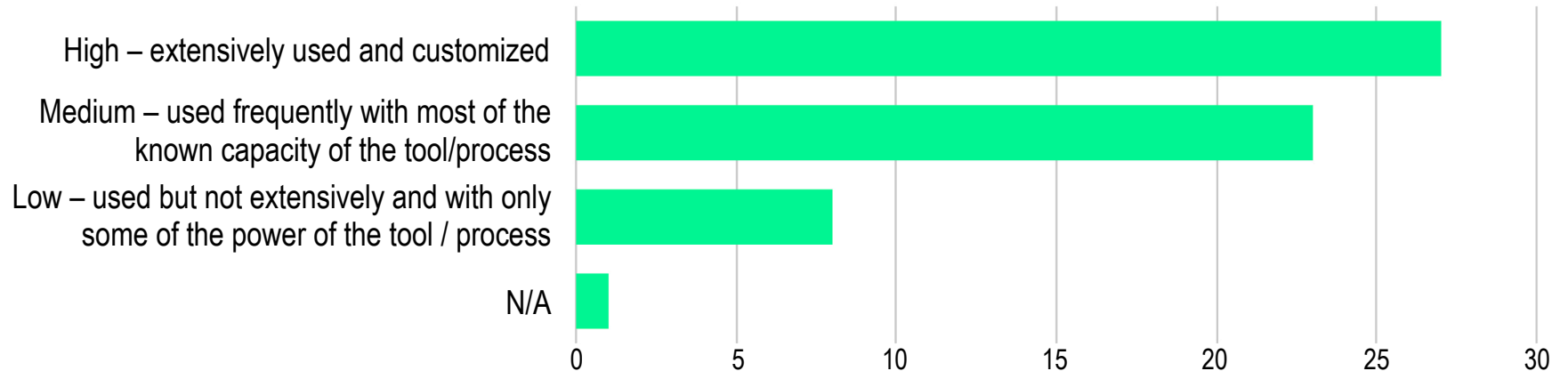


# Projects | Use of BIM and Lean

BIM tools and processes utilized on this project (n=59)

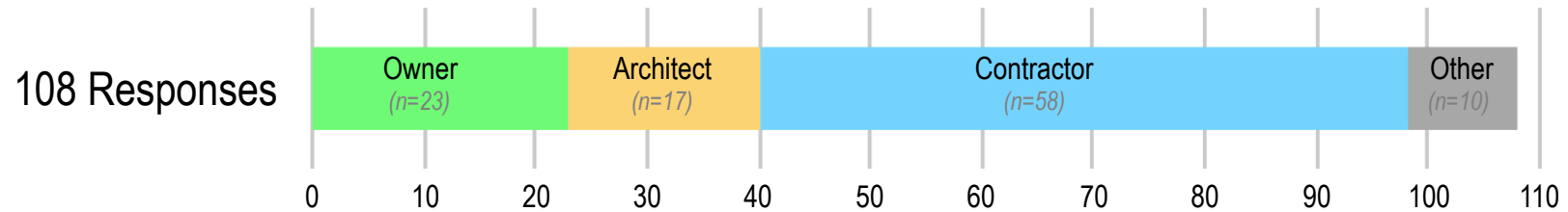


Lean tools and processes utilized on this project (n=59)

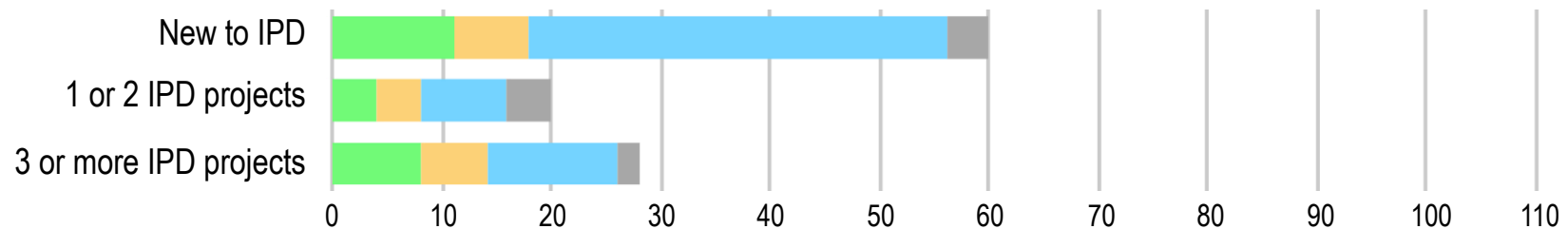




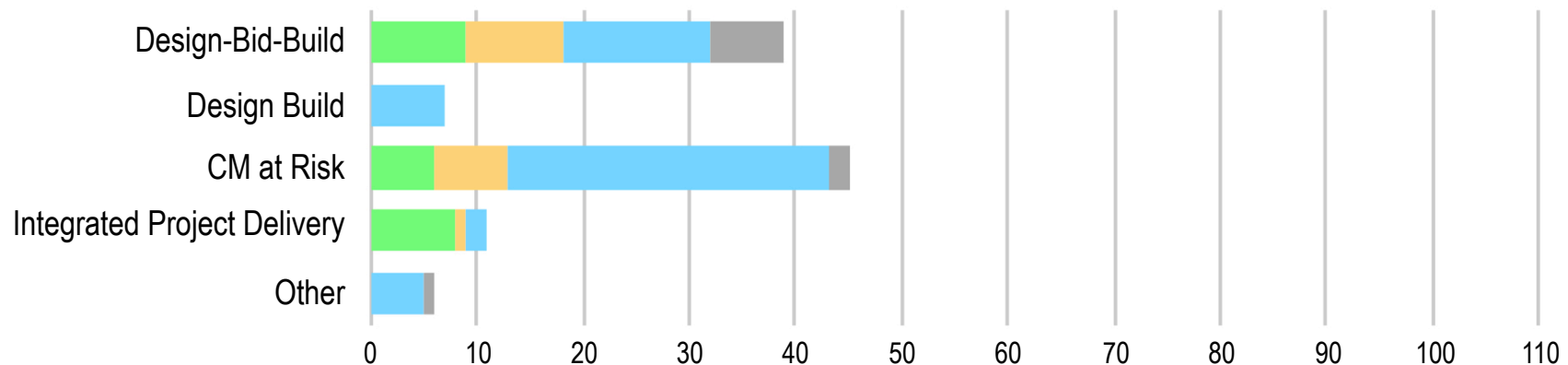
# Respondents | Past Experience



## Stakeholder experience in IPD for this project:

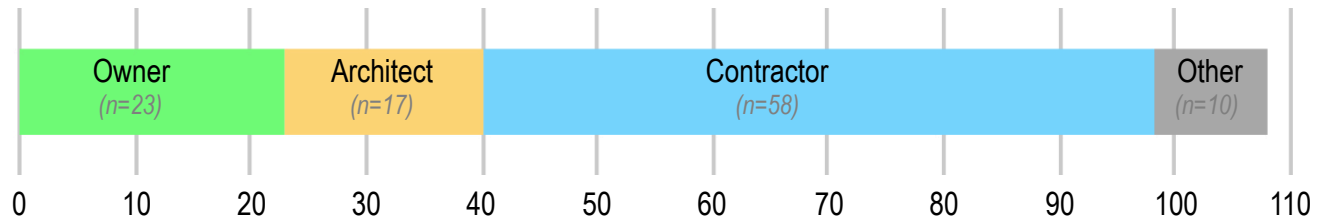


## Outside of this project, the majority of my project delivery experience is in:

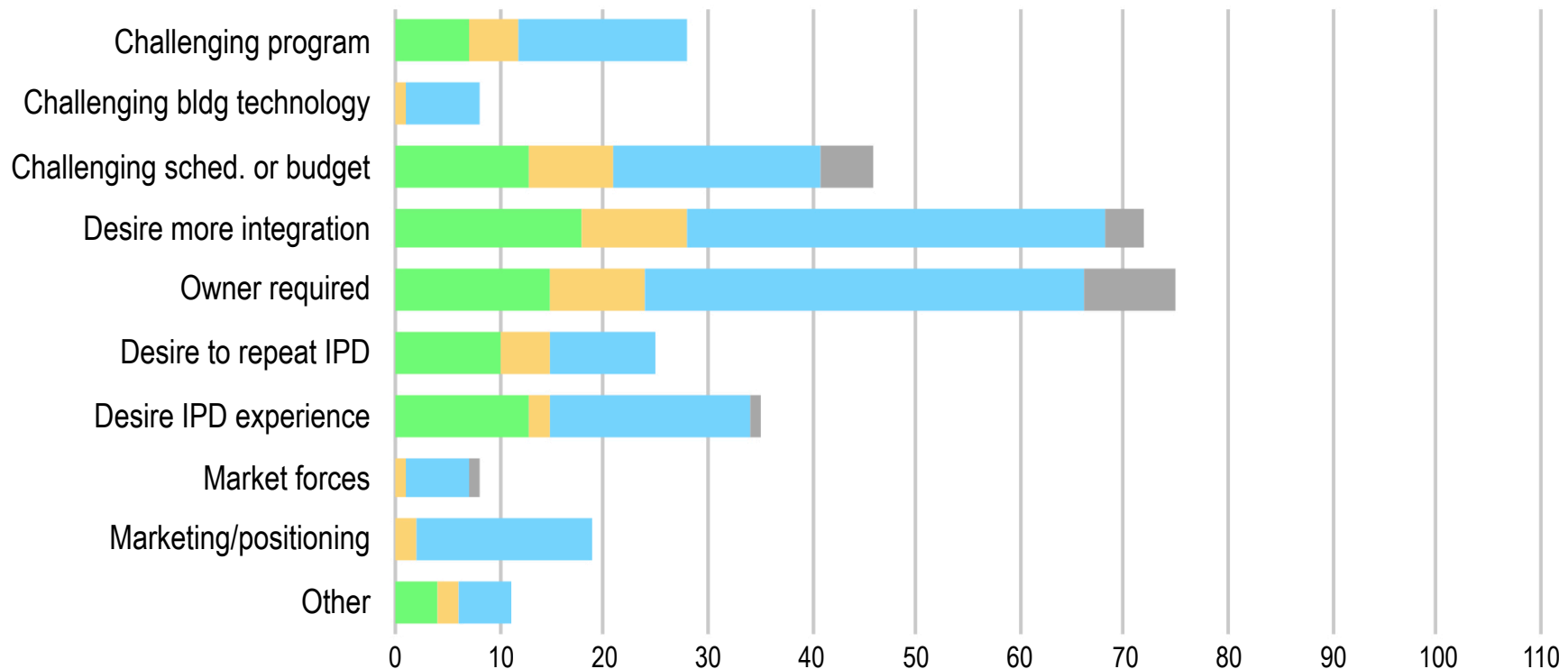


# Respondents | Why IPD?

108 Responses

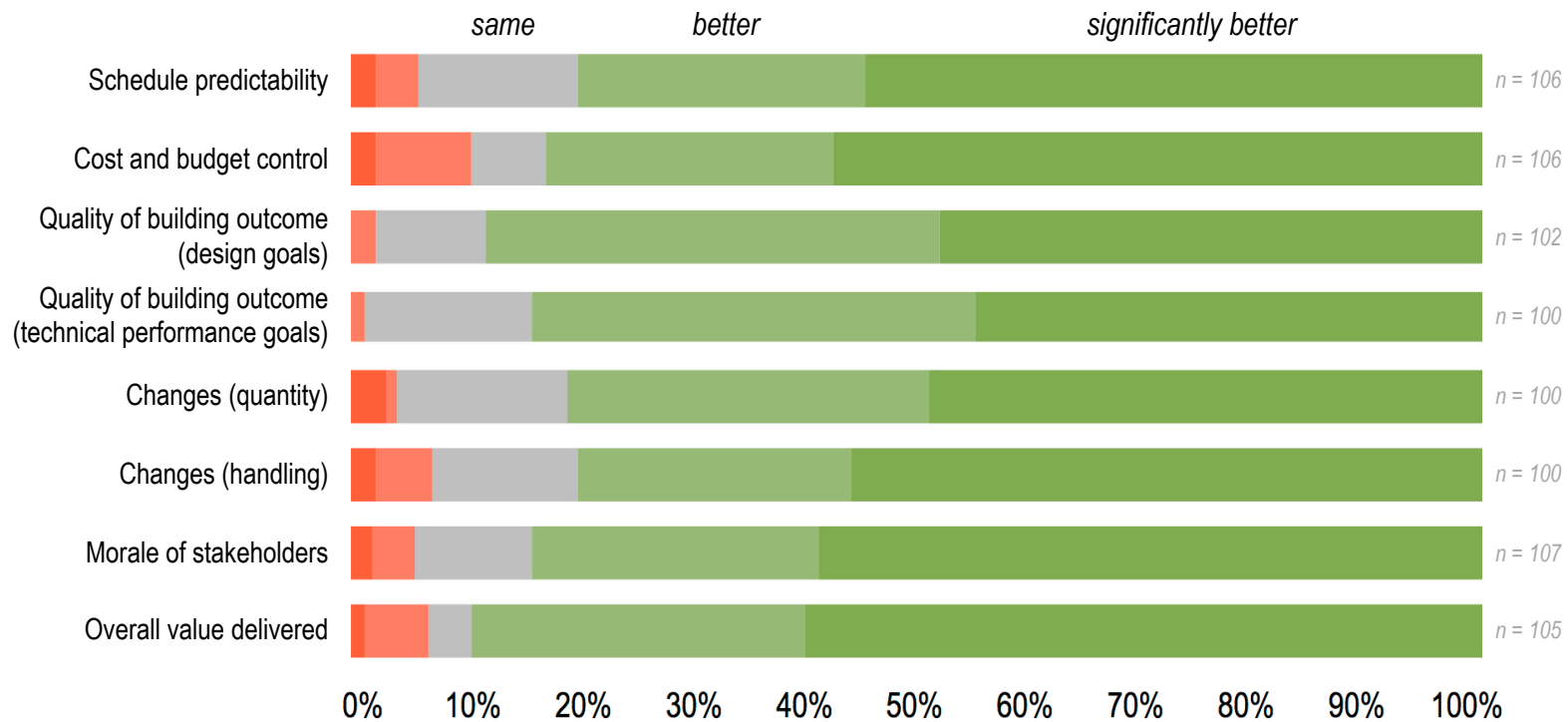


The reason(s) we chose IPD were:



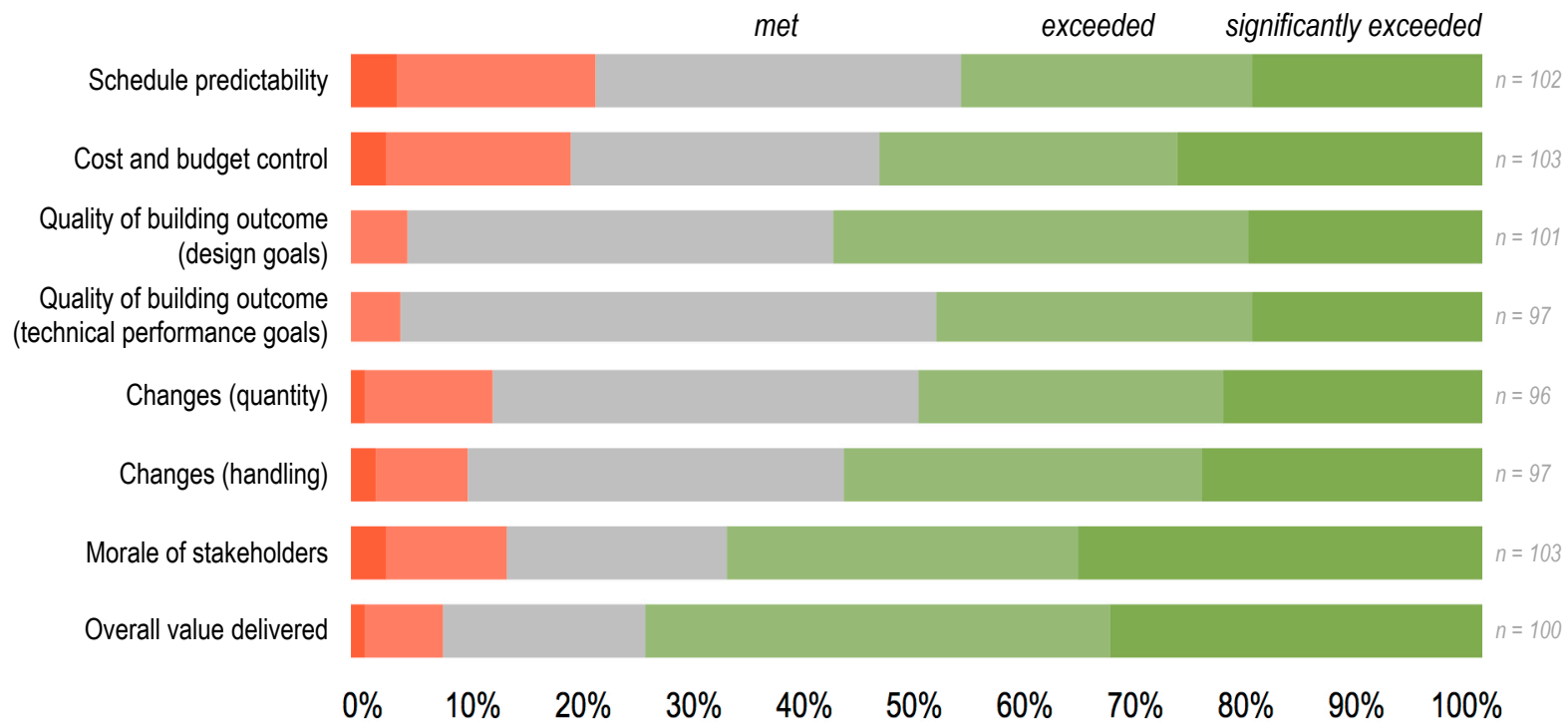
# Performance | All Responses

Compared to your experience on non-IPD projects, rate your impression of the performance of this project in each of the categories below.



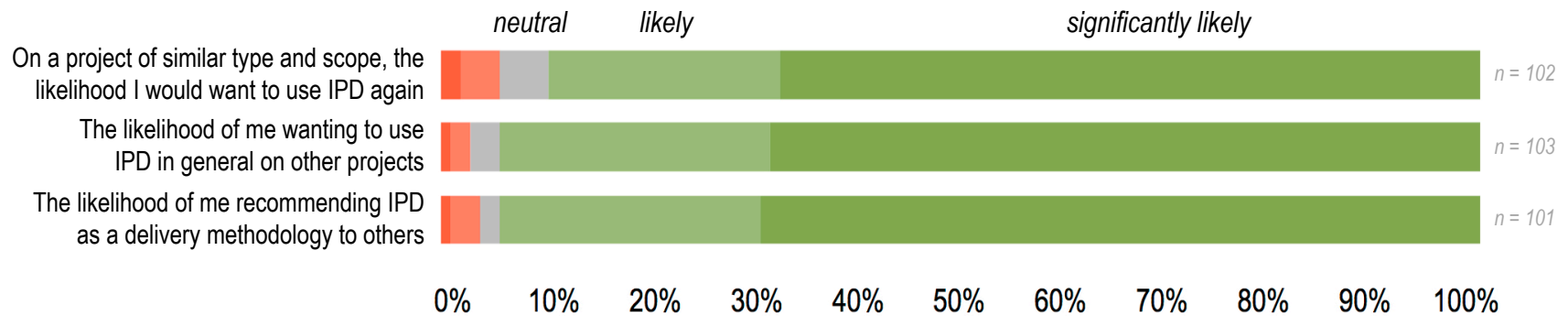
# Expectations | All Responses

Considering your expectations at the start of this project, rate the outcomes of this project in each of the categories below.

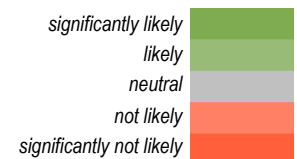


# Likelihood | All Responses

Identify the likelihood for each of the following statements:

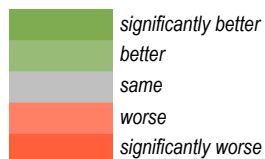
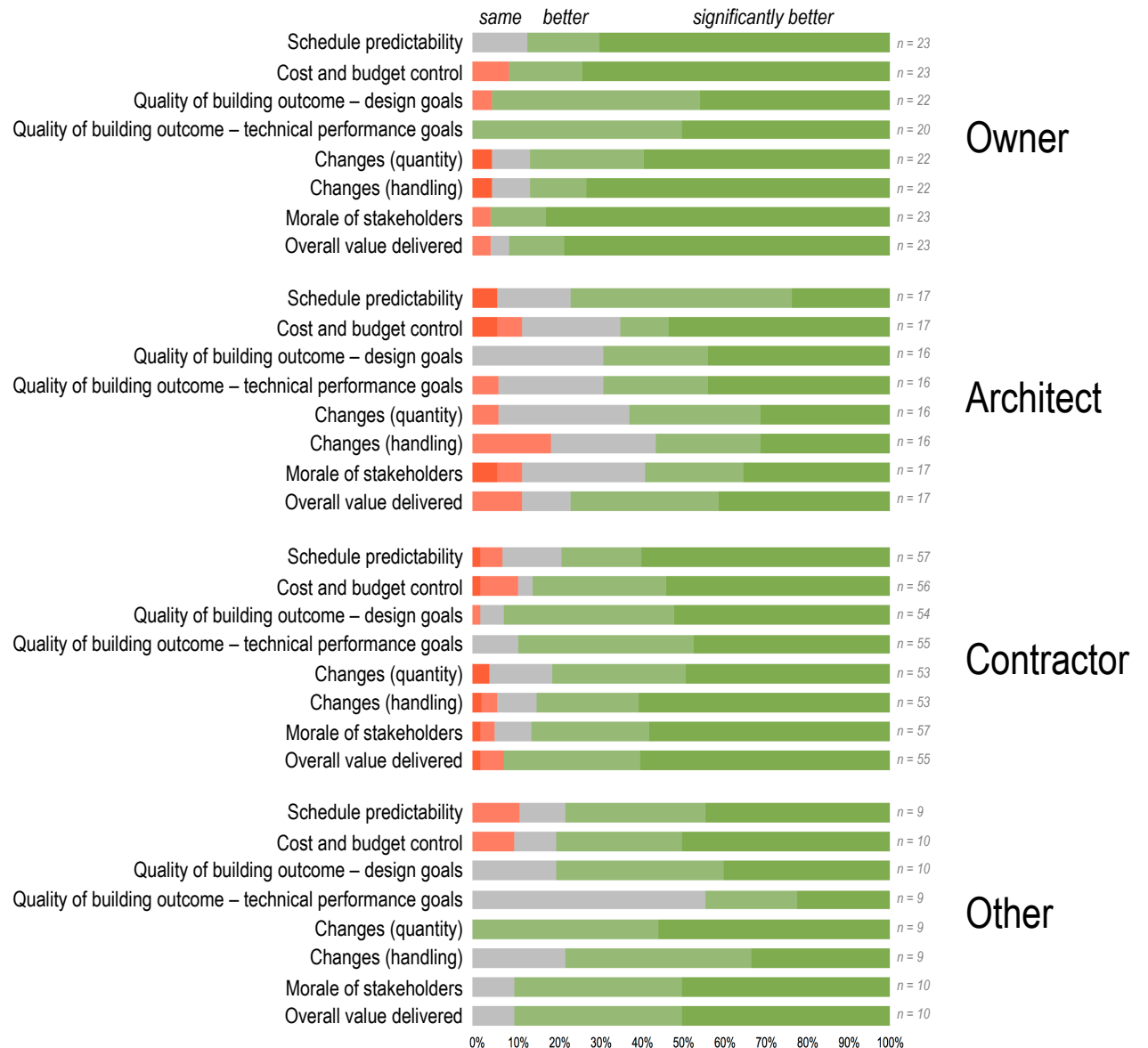


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# Performance | Stakeholder

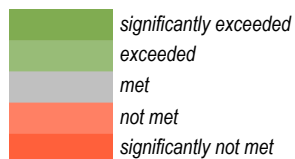
Compared to your experience on non-IPD projects, rate your impression of the performance of this project in each of the categories below.



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# Expectations | Stakeholder

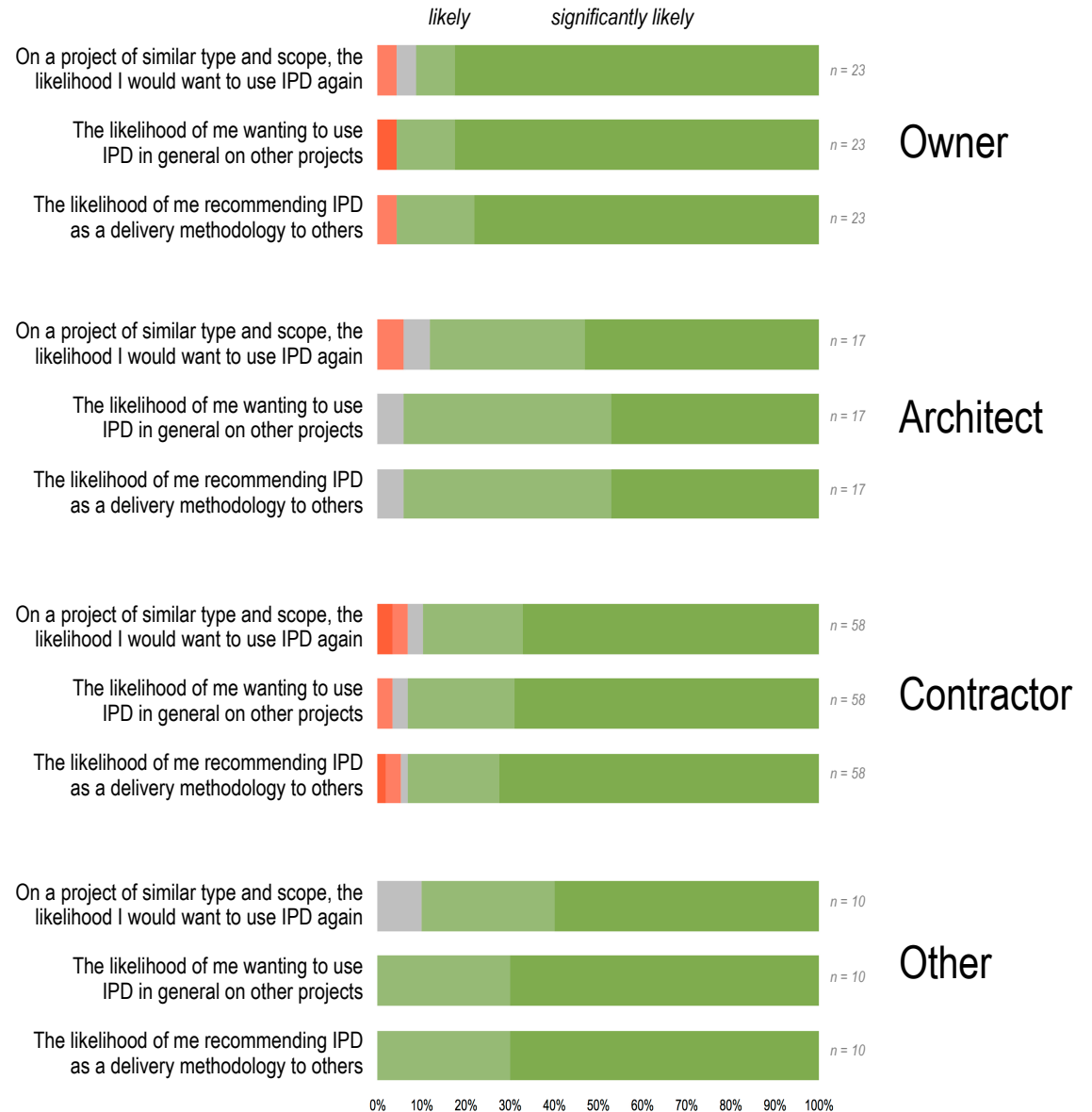
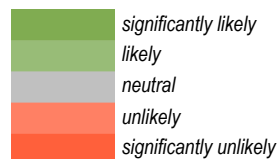
Considering your expectations at the start of this project, rate the outcomes of this project in each of the categories below.



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# Likelihood | Stakeholder

Identify the likelihood for each of the following statements:



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# Survey Open Through September 2016!

The data in this report was collected between July 9<sup>th</sup> and September 15<sup>th</sup> 2015. We recognize that many stakeholders on past or current projects did not have the chance to participate and as such their experiences are not represented in this data set.

To increase the robustness of the report, the survey will remain open until September 15<sup>th</sup> 2016, followed by a revised report.

If you have worked on or are currently working on an IPD project, please take the survey here:

[http://survey.az1.qualtrics.com/jfe/form/SV\\_5uPcumvO8xJu9CZ](http://survey.az1.qualtrics.com/jfe/form/SV_5uPcumvO8xJu9CZ)

# Acknowledgements



This work was funded by the Integrated Project Delivery Alliance.

The Integrated Project Delivery Alliance (IPDA) is a group of organizations that seek to advance integrated project delivery (IPD) as a delivery method in Canada. The mission of the IPDA is to promote best practices that enhance IPD.

[www.ipda.ca](http://www.ipda.ca)

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