



# The 2023 State of Life Sciences Capital Project Development

35°NORTH

# Introduction

Over the last few years, the life sciences industry has led the nation in capital project investments, fueled by high demand for new laboratory and research and development space. Even as funding to certain industry segments cools down, emerging trends like the onshoring of active pharmaceutical ingredient manufacturing will perpetuate the need for new capital developments.

35 North, a leader in developing sophisticated life sciences facilities, wanted to better understand the trends, technologies, opportunities, and challenges that affect project owners as they build the next generation of world-class life sciences facilities.

**We surveyed over 300 capital projects owners to better understand:**


- Their most pressing construction and programming challenges
- Perceptions of and attitudes toward working with an owner's representative
- Emerging trends and priorities anticipated for 2024 and beyond







# Key Findings



Having a partner is critical—if you can source the right one. **86 percent** of project owners say that hiring a qualified owner's rep is key to a successful project, but **79 percent** say finding the right owner's rep can be challenging.

User requirements can make or break project outcomes. **89 percent** of project owners say that defining user requirements for a project is key, but only **38 percent** are sure they're accurately defining the scope.

Capital project complexity is on the rise. **81 percent** of project owners say their capital project goals will be more ambitious in 2024 compared to 2023.

Getting more done, cost efficiently. Project owners' top objectives for **2024 and beyond** are lowering the cost per square foot and increasing the number of completed projects.

# Capital Projects Plans & Risks

Despite the very real risks of schedule delays and cost overruns, a new wave of life sciences capital projects is expected to crest over the next six to 12 months. Step one in these initiatives—**defining user requirements**—is often the most fraught, and where project owners need critical support.

## Facilities are high-risk projects



of project owners say that the design and construction of a new life sciences capital project can become a serious financial risk to their company if it goes over budget and schedule

## New capital projects are important in the short term



of project owners say beginning a new capital project initiative is one of their company's top priorities in the next **6-12 months**



# Capital Projects Plans & Risks (continued)

## DEADLINE DELAYS ARE HIGHLY COMMON

**88%** of project owners have experienced significant to moderate deadline delays on their projects

## DEFINING USER REQUIREMENTS IS CRUCIAL BUT ELUSIVE

**89%** of project owners say that defining user requirements for a project is key, but only **38%** are sure they're accurately defining the scope

## COST OVERRUNS ARE FREQUENT AND SIGNIFICANT

**84%** of project owners have experienced significant to moderate cost overruns on their projects

# Project Owners' Top Financial Concerns

Myriad challenges can derail a capital project, but at the end of the day it's the **financial impact of those challenges** that matters most. In the current economic climate, labor shortages and surging costs of materials pose the greatest threat to project success.

## COST OVERRUNS ARE THE MOST PROBLEMATIC ISSUE FOR PROJECT OWNERS



### The top pain points for project owners are:

- Cost overruns
- Delays in permitting
- Lack of qualified contractors
- Delays in construction
- Managing change orders

## LABOR COSTS CAN DERAIL A PROJECT FOR OWNERS



### The top risks that project owners face are:

- Changes in labor costs
- Changes in materials costs
- Unforeseen weather conditions
- Delays in permitting
- Changes in labor availability

## MATERIAL AND LABOR COSTS ARE THE MOST COMMON DRIVERS OF BUDGET OVERRUNS



### The top five reasons for budget overruns are:

- Changes in materials costs
- Changes in labor costs
- Delays in construction
- Unrealistic preliminary budget
- Delays in permitting



# Owner's Rep Perceptions

Strategic support from an external owner's rep can be the deciding factor between a delayed, over-budget project and an on-time, successful facility turnover. **The most in-demand owner's reps** offer end-to-end expertise in every stage of the project life cycle—but finding the right partner takes effort.

Finding the right **owner's rep** is a challenge

**86%** of project owners say that hiring a qualified owner's rep is key to ensuring a successful project, but **79%** say finding the right owner's rep can be challenging



**A SUCCESSFUL OWNER'S REP INTEGRATES EVERY ASPECT OF A PROJECT**

**88%** of project owners say that having an owner's rep who integrates every aspect of project delivery from concept to operational readiness is vital to the success of the project

**MAJORITY OF PROJECT OWNERS LIKELY TO USE OWNER'S REPS AS FIRST POINT OF CONTACT FOR NEW PROJECTS**

**88%** of project owners who began capital projects with an owner's rep on previous projects say they want to work with another one on future projects

A wide-angle photograph of a clean, modern laboratory or pharmaceutical manufacturing facility. The room is brightly lit with a grid of recessed ceiling lights. The floor is a highly reflective, light-colored material. On the left, a worker in a white protective suit and blue shoe coverings stands near a large piece of equipment with glass doors. In the center, there are several metal tables and a white cabinet. On the right, two more workers in similar protective gear are visible, one of whom is standing near a piece of equipment. A red circle is drawn around the lower leg of the worker on the right.

# Owner's Rep Perceptions (continued)

## **COST CONTROL IS THE MAIN BENEFIT OF WORKING WITH OWNER'S REPS**

**The top benefits of working with an owner's rep according to project owners:**

- Cost control
- Consistency and standardization
- Project schedule management
- Quality assurance
- Scope development assistance and management

## **OWNER'S REPS WITH A PROVEN PROCESS ARE MOST IN DEMAND**

**The top qualities project owners seek in an owner's rep partner include:**

- Proven process for integrated project delivery
- In-house capabilities of program, project, and construction management, as well as commissioning and operational readiness
- Clear and streamlined stakeholder communication



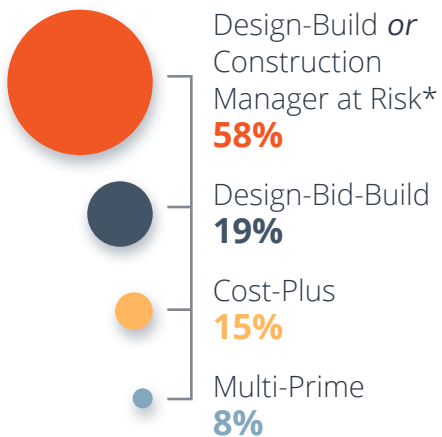
# Delivery Methods

Pulling in outside help mid-project, and distributing work across multiple parties, puts capital projects at greater risk of time and cost overruns.

Most project owners **want a partner who can support design-build delivery from day one.**

## DESIGN-BUILD AND CMAR ARE PREFERRED DELIVERY METHODS

The preferred delivery method of life sciences capital project owners is:



\*Tied for top method, each at 29%.



## CONSULTANT-LED DESIGN-BUILD DELIVERY IS A PROJECT BOOST

**85%** of project owners who have used a consultant-led design-build delivery method say it saved them time, budget, and stress

## DESIGN-BUILD PROJECT DELIVERY SIMPLIFIES PROJECTS

According to **86%** of project owners, having a highly technical, end-to-end service partner that offers one contract, one point of contact, and one price is key to simplifying their project

# Top Challenges of Programming and Design to Construction, Cx, & Operational Readiness

Preconstruction activities, namely budgeting and scheduling, are the **most complicated parts** of facility programming—yet the most critical to get right.

## INITIAL BUDGETING PROVES TO BE MOST COMPLEX PART OF FACILITY PROGRAMMING

The most challenging aspects of programming for a new facility:

PRELIMINARY BUDGET

OPERATIONS GENERATION

PRELIMINARY SCHEDULE

PRELIMINARY PROGRAM AND SCOPE

SITE SELECTION

## COST CONTROLS ADD THE MOST COMPLEXITY TO NEW CONSTRUCTION

The most challenging aspects of construction for a new facility:

- Cost control
- Quality control
- Schedule control
- Safety
- Construction management

## BUDGET AND SCHEDULING ARE THE MOST COMPLEX DESIGN ASPECTS

The most challenging aspects of design for a new facility:

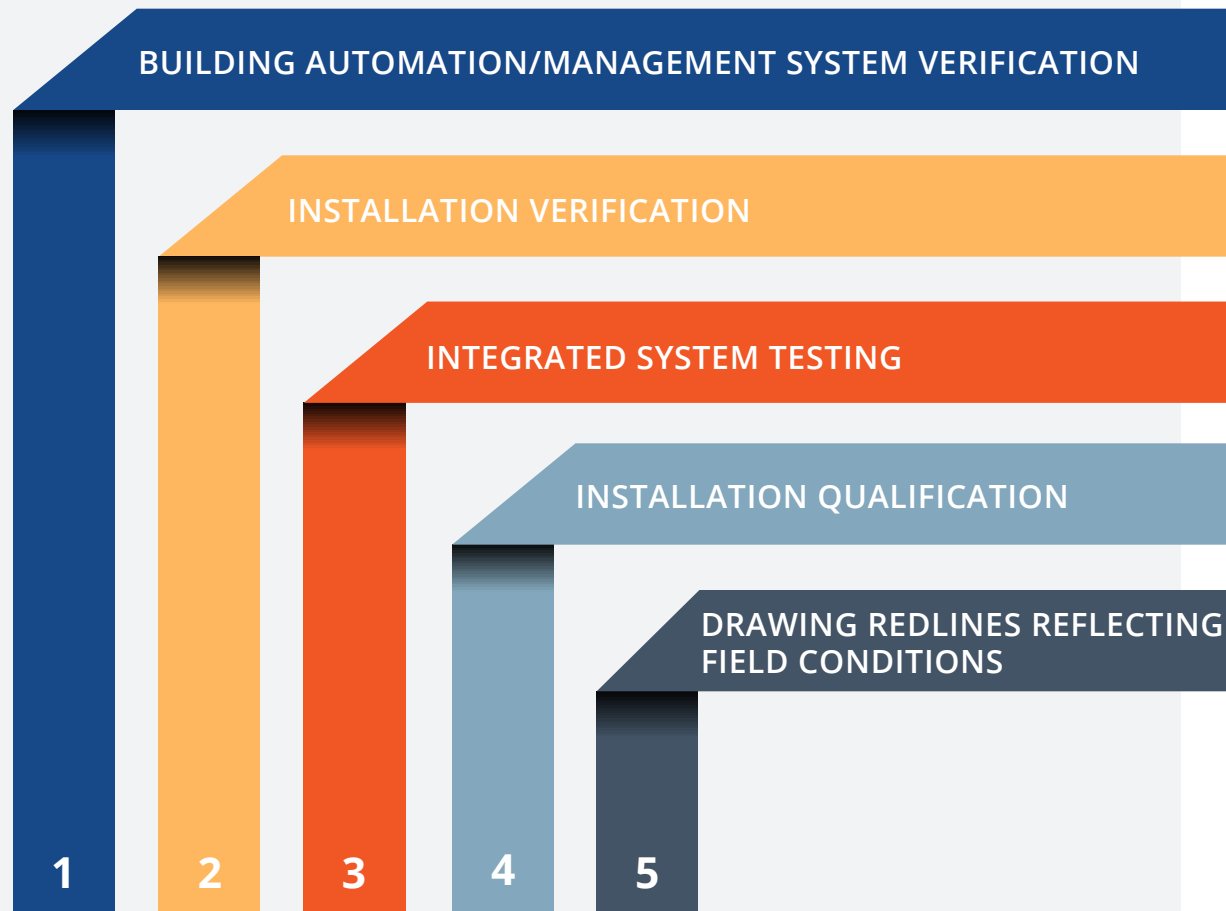
- Budget/Schedule
- Basis of design
- Development of user requirements
- Project controls
- Design program and scope



# Top Challenges of Programming and Design to Construction, Cx, & Operational Readiness (continued)

## BUILDING AUTOMATION IS A CHALLENGE FOR NEW FACILITY COMMISSIONING

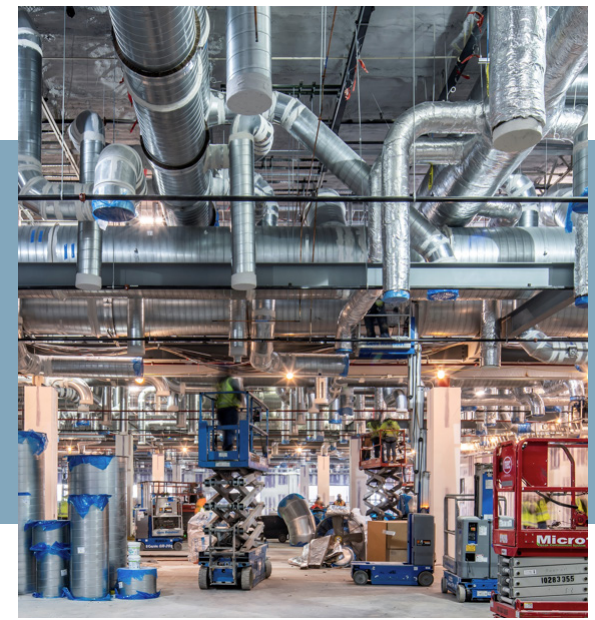
The most challenging aspects of commissioning for a new facility:



## PREDICTIVE/PREVENTATIVE/CORRECTIVE MAINTENANCE IS THE GREATEST CHALLENGE FOR OPERATIONAL READINESS

The most challenging aspects of operational readiness for a new facility:

- Predictive/Preventative/Corrective maintenance
- Calibration programs
- Maintenance program SOPs
- Final data verification
- Spare parts and inventory identification



# A Look Ahead To 2024 And Beyond

A photograph of two scientists, a man and a woman, in a laboratory setting. They are both wearing white lab coats and safety glasses. The man is in the foreground, looking through a microscope. The woman is slightly behind him, also looking through a microscope. The background is filled with various laboratory equipment, including beakers, flasks, and other scientific instruments. The lighting is soft and focused on the scientists.

Despite funding challenges and an uncertain macroeconomic climate, the outlook for the life sciences sector is still promising. Aging populations are driving demand for advanced treatments, and the [U.S. clinical trials market is expected to swell](#) from \$26 billion in 2023 to nearly \$40 billion by 2032. But these positive indicators don't eliminate the need for life sciences organizations to adapt.



# A Look Ahead To 2024 And Beyond (continued)

2024 is lining up **to be bigger than 2023.**



81%

of project owners say their capital project goals  
**will be more ambitious in 2024 compared to 2023.**

## LOWERING THE COST PER SQUARE FOOT AND INCREASING NUMBER OF PROJECTS ARE TOP OBJECTIVES OF PROJECT OWNERS

### How goals are defined:

- Lower cost per square foot
- Increasing the number of projects to be completed
- Increasing budgets to manage
- Better budget management (Efficiencies)
- Faster speed to market

## BIOTECH WILL BE THE MOST ACTIVE INDUSTRY FOR CONSTRUCTION OVER THE SHORT TERM

### The top life sciences facilities being built within the next 3 years:

- Biotech
- Research and development
- Clinical research
- Pharmaceutical
- Medical device

## BIOTECH WILL BE THE MOST ACTIVE INDUSTRY FOR RENOVATION OVER THE SHORT TERM

### The top life sciences facilities being renovated within the next 3 years:

- Biotech
- Medical device
- Pharmaceutical
- Clinical research
- Research and development

# A Look Ahead To 2024 And Beyond (continued)

Better strategic planning is  
**how project owners plan to  
overcome setbacks**

**The top ways project owners are solving  
their toughest challenges:**

- Improved planning and strategy
- Improved communication and technology
- Working with an owner's rep as a first point of contact
- Improved progress monitoring
- Working with a full-service design-build firm

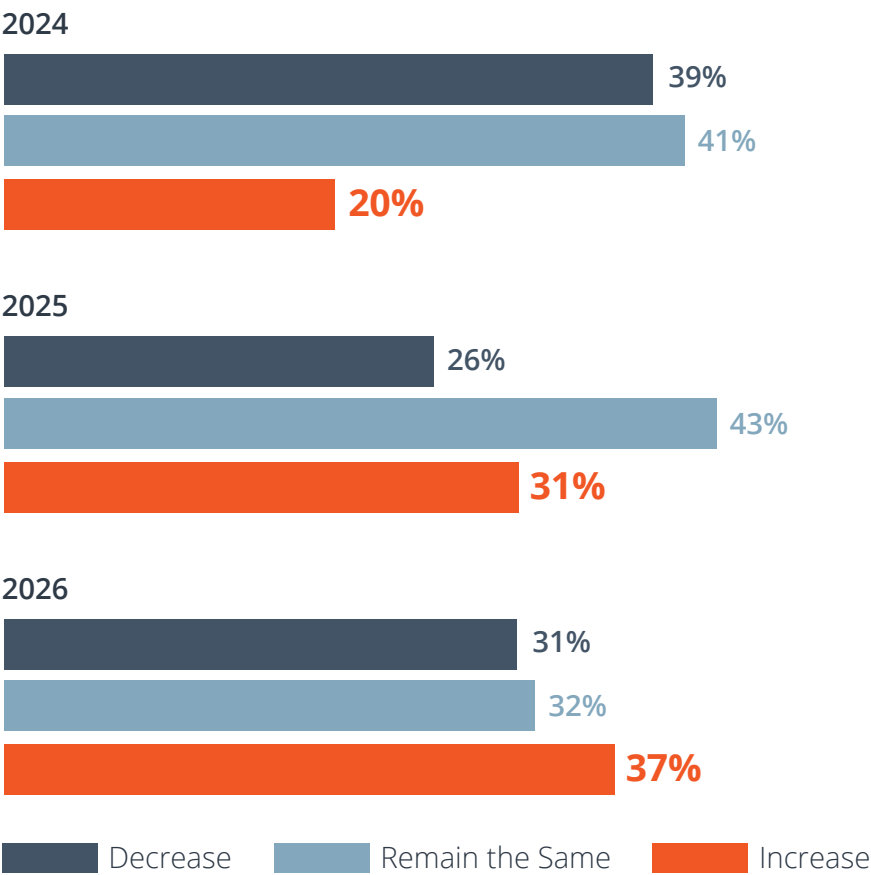




# A Look Ahead To 2024 And Beyond (continued)

## CAPITAL BUDGETS ARE EXPECTED TO RISE STEADILY OVER THE SHORT TERM

**20 percent** of project owners say their capital budgets will increase in 2024, a number that grows to **31% in 2025** and **37% in 2026**.



## MORE EXPENSIVE MATERIALS IS SET TO BE A LARGE ISSUE OVER THE LONGER TERM

The biggest challenges to project owners over the next 5 years will be:

- Rising cost of materials
- Increasing complexity of life sciences facilities
- Supply chain delays
- Shortage of skilled labor
- Changing regulatory environment



# Conclusion

**Building a large-scale life science facility is a significant investment, one prone to incredible risk and uncontrollable external factors. But the process does not have to be intimidating.**

As project owners anticipate even more initiatives launching in 2024—while facing the always-on pressure of maintaining cost efficiency—external, expert support will be non-negotiable. Project owners have many options when it comes to simplifying this work, but it takes skills, experience, and the right guidance to get it right.

The ability to successfully turnaround new facilities is becoming a competitive differentiator for life sciences firms. With the right support (engaged at the right time), project owners can move from construction to operational readiness faster and with fewer surprises.

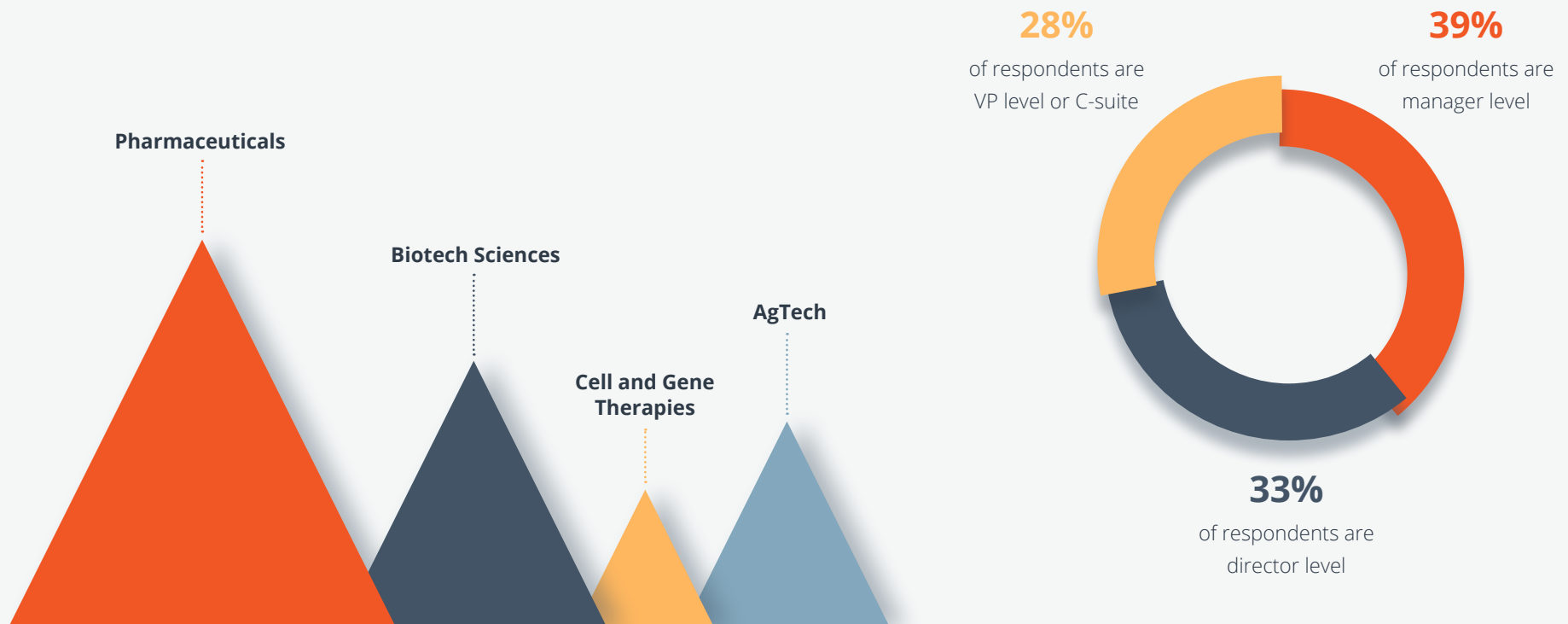
Challenges like funding, supply chain delays, and labor shortages will always be somewhat outside of project owners' control. However, lining up the right resources and partners from the start is not.



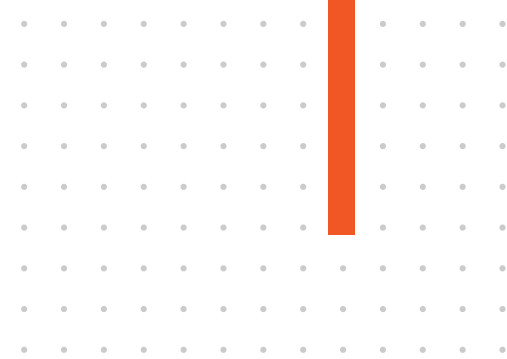
# Research Methodology

**35 North** commissioned an independent market research study of **328 capital project** owners and leaders working in life sciences facility development about the trends, opportunities, challenges, and new solutions that affect their success. All respondents are responsible for the planning or construction of facilities for their life sciences organization.

## Respondent Breakout by Industry



The margin of error for this study is +/-5.5% at the 95% confidence level.



# About **35 North**

35 North is a construction services consulting firm that specializes in developing life sciences capital projects. Partnering with project owners, we provide the technical expertise and ability to streamline projects as an owner's representative, by customizing a combination of services, or by providing end-to-end services – from idea to operational readiness.

Design-Build Integrated  
Project Delivery

Program & Project  
Management

Construction  
Management

Cost  
Estimating

Commissioning &  
Operational Readiness

## **35 North**

4601 Creekstone Drive, Suite 130  
Durham, NC 27703  
(919) 747-4544  
35N.com  
info@35N.com

