



# FOYA

Facility of the Year Awards

## 2018 CATEGORY WINNER: PROJECT EXECUTION



**MMRC document number:**  
MMRC/BMN27/0247 –  
June/2018

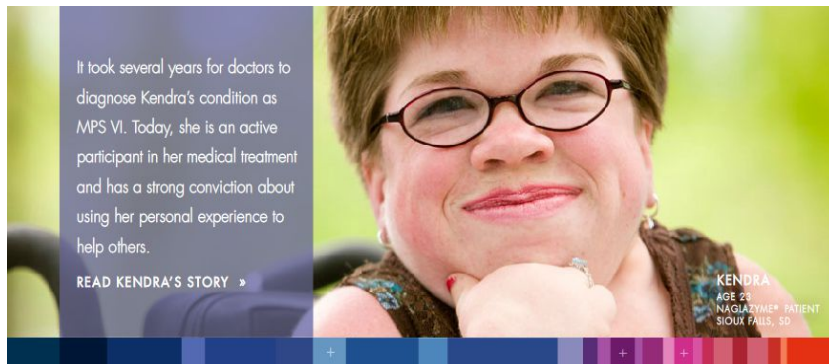
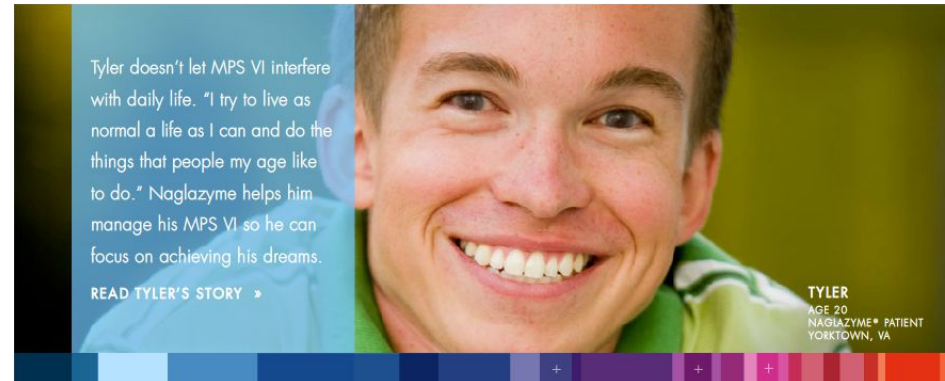
## Agenda

- Introductions to BioMarin and Speakers
- Intro to Project
  - Project Execution Plan
  - Overview of Overall Deliverable
- Execution Process
  - Design and Construction Approach
  - Concurrent Schedule
  - Contractors/Vendors truly part of a team
- Lessons Learned
  - Keys to Success
  - Improvement Opportunities
- Q&A

# BioMarin Pharmaceutical Inc.

**Founded: 1997**

**Corporate Headquarters:  
San Rafael, California USA**



**Employees: ~ 2700 Worldwide**

**Commercial Operations: > 70 Countries**

**Focus:  
Rare (Orphan) Genetic Diseases**

Products address markets for which no products are currently available, or current products have major deficiencies





## Proven Capabilities For Biologic Production

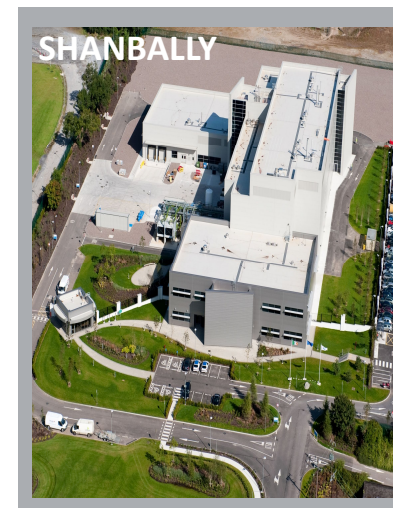


7 Approved Products

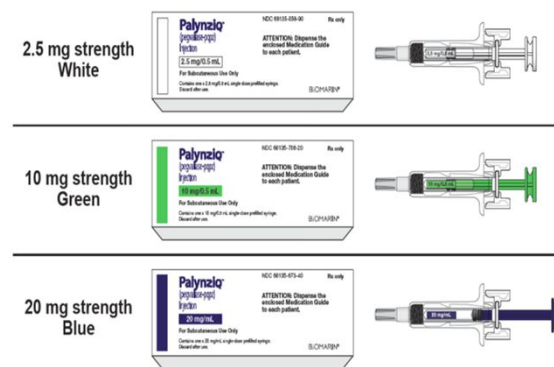
Distributed in 70 Countries

2 Licensed Biologic Facilities

Generating \$1.5B in Worldwide Sales

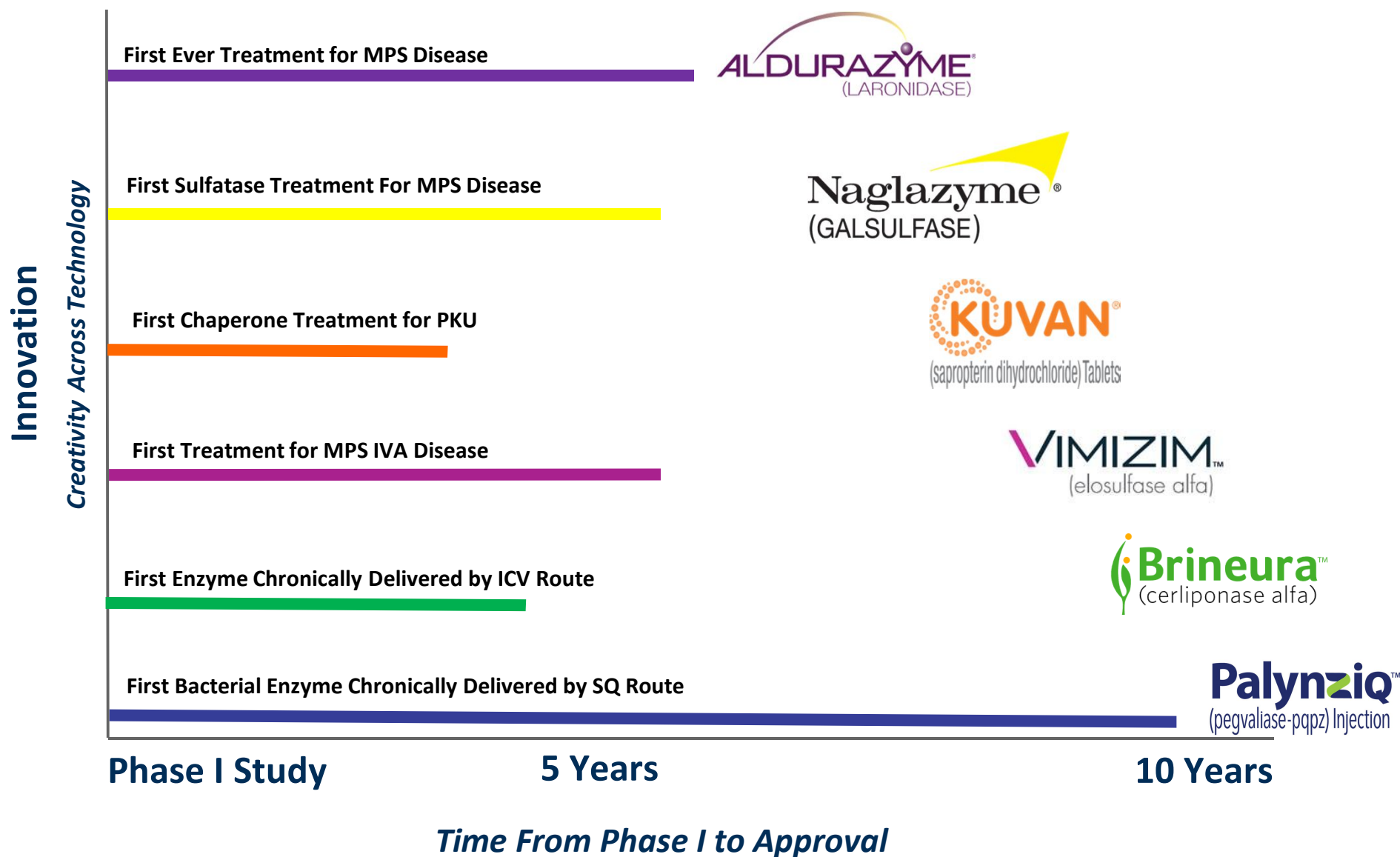


>70 GMP/GLP/GCP Inspections by  
FDA, EMA, MHRA, HPRA, AGES, ANVISA, PMDA, and TMMDA





## Leading the Industry in Rapid and Creative Innovation for Treatment of Devastating Diseases



## About the Speakers



Carl Albertson  
Project Director

Logan Kelley  
Senior Project Manager  
Design and Construction

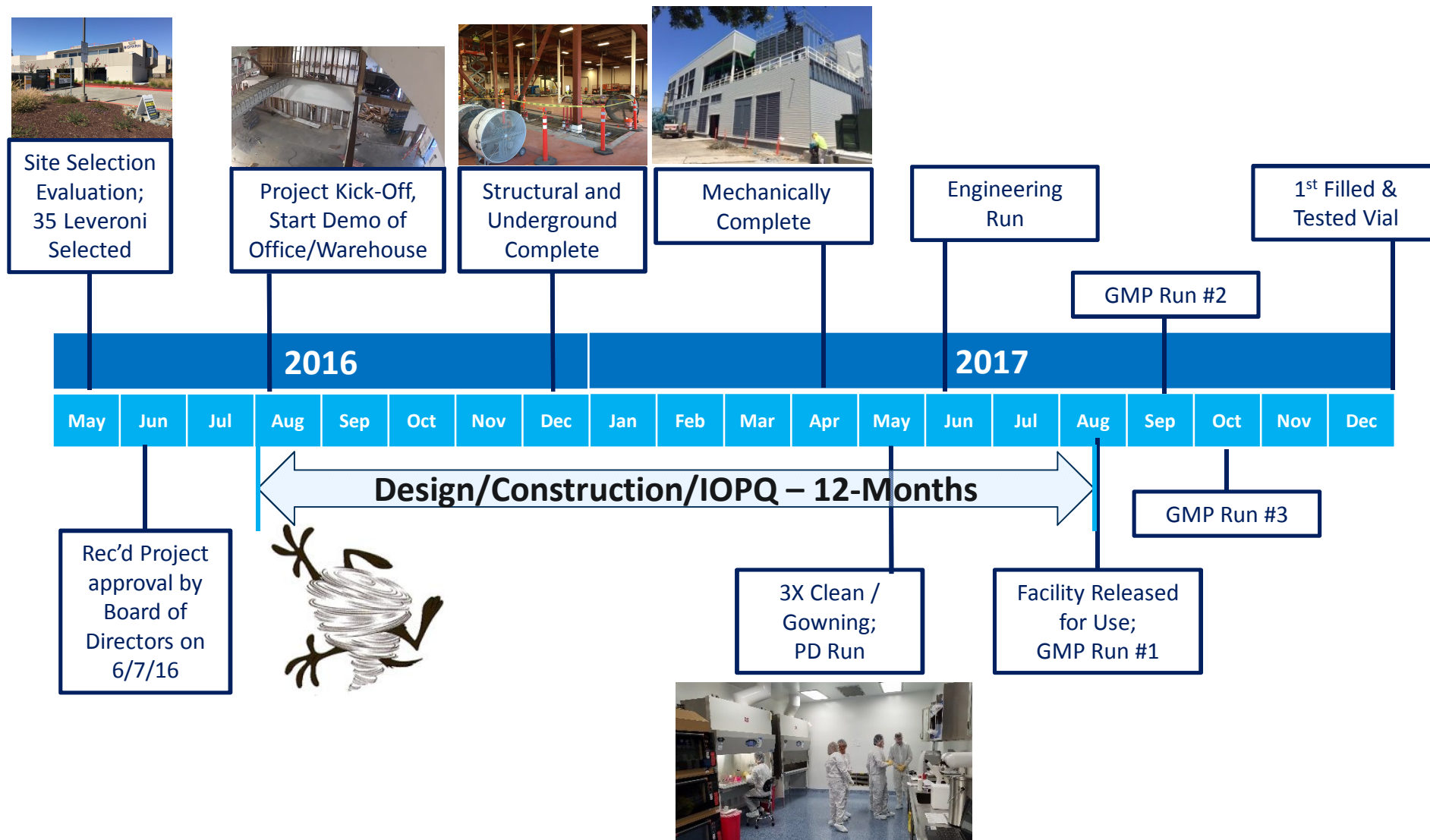


## June-2016: PEP Workshop – Objectives and Milestones





# 35 Leveroni Project History



August 4<sup>th</sup>, 2016 (2-days after project kick-off)



## August 2016 – 35L Demo Underway





## September 2016 – Underground Full Swing





## November 2016 – Underground Complete / Structural Reinforcement





## January 2017 – Hanging Duct





## January 2017 – Erecting Walls



## February 2017 – Ceiling Up





## February 2017 – Drywall Install





May 2017 – Nearly Complete



## August 2017 - Ribbon Cutting

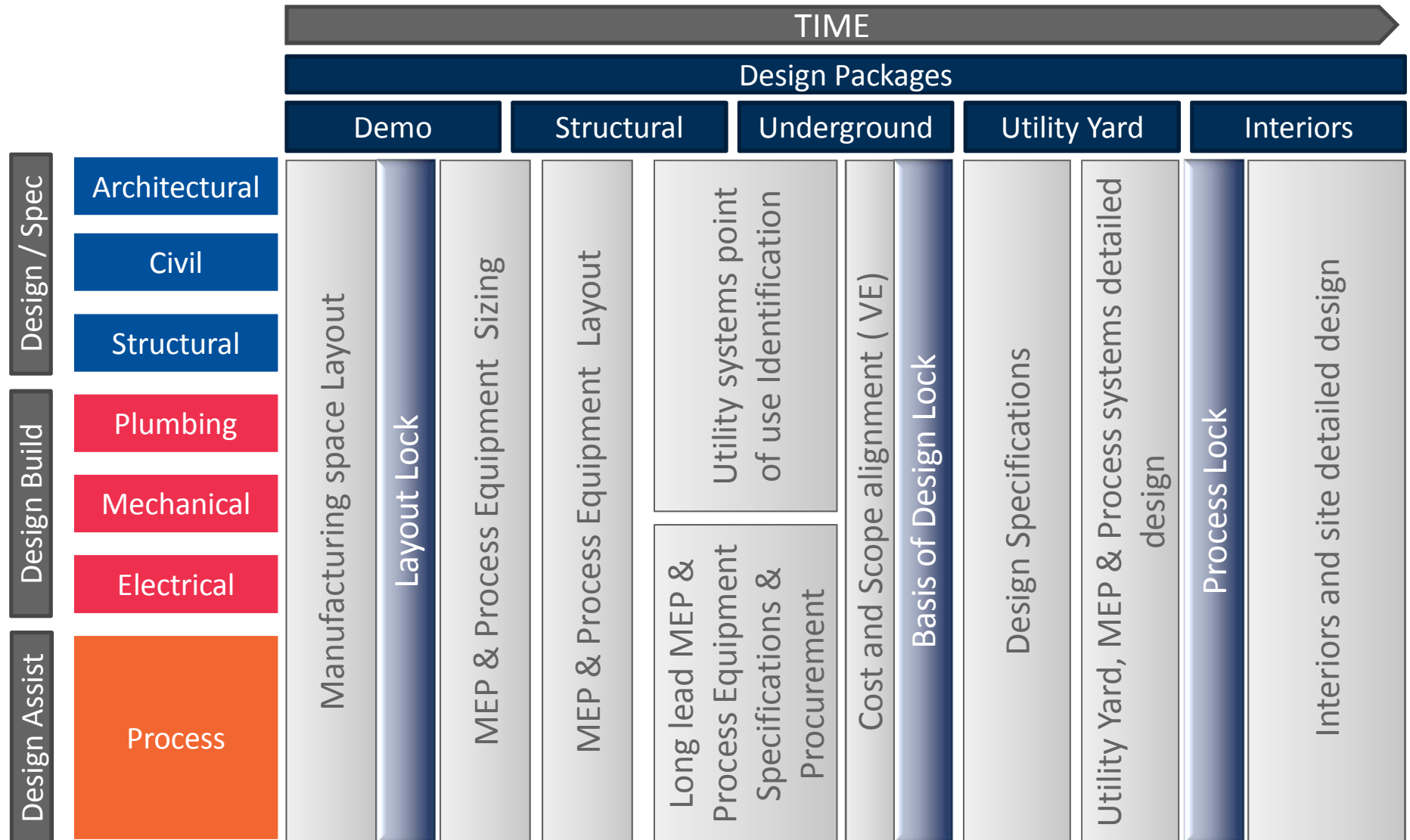




## August 2017 – Making Product

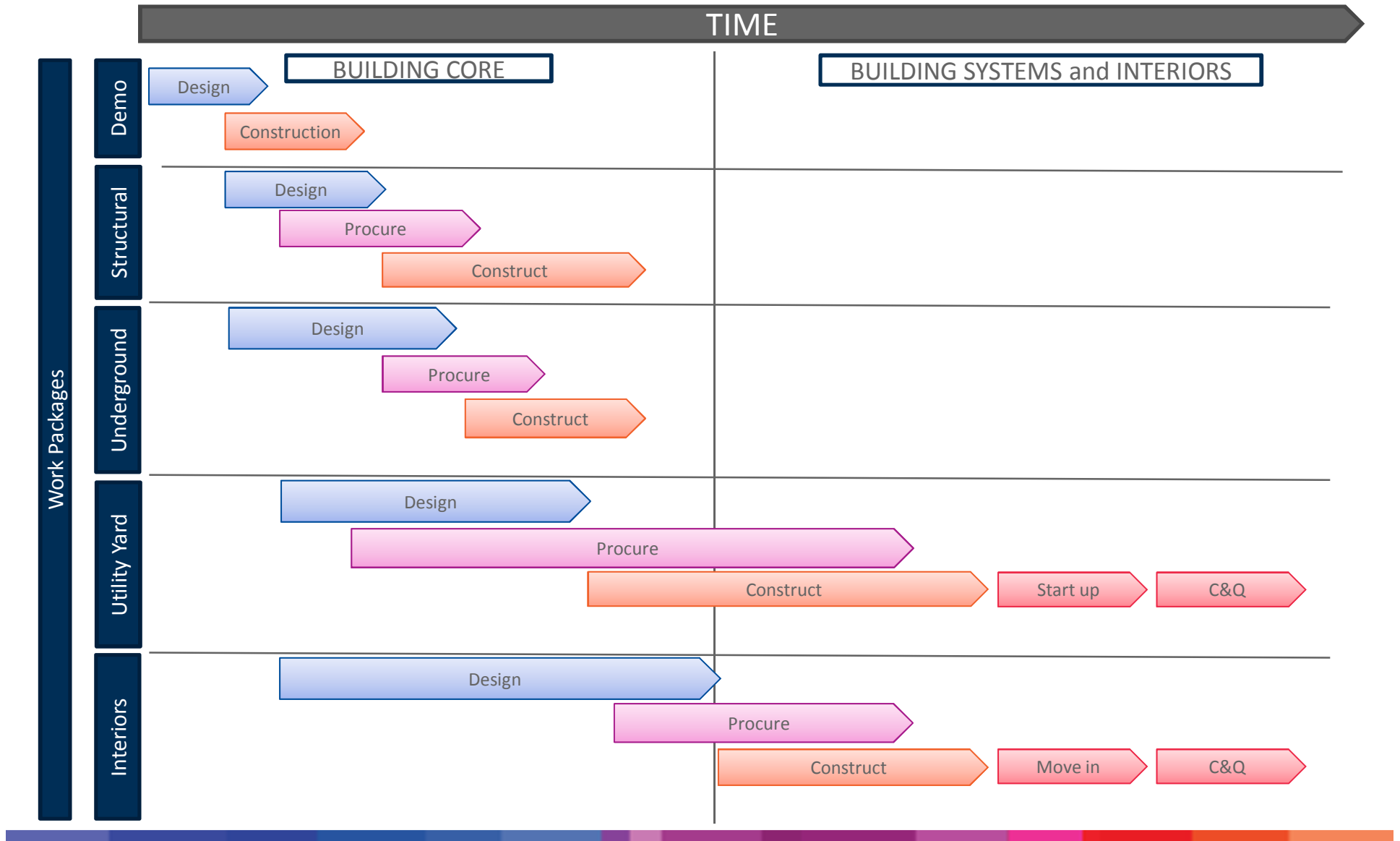


# Design Approach

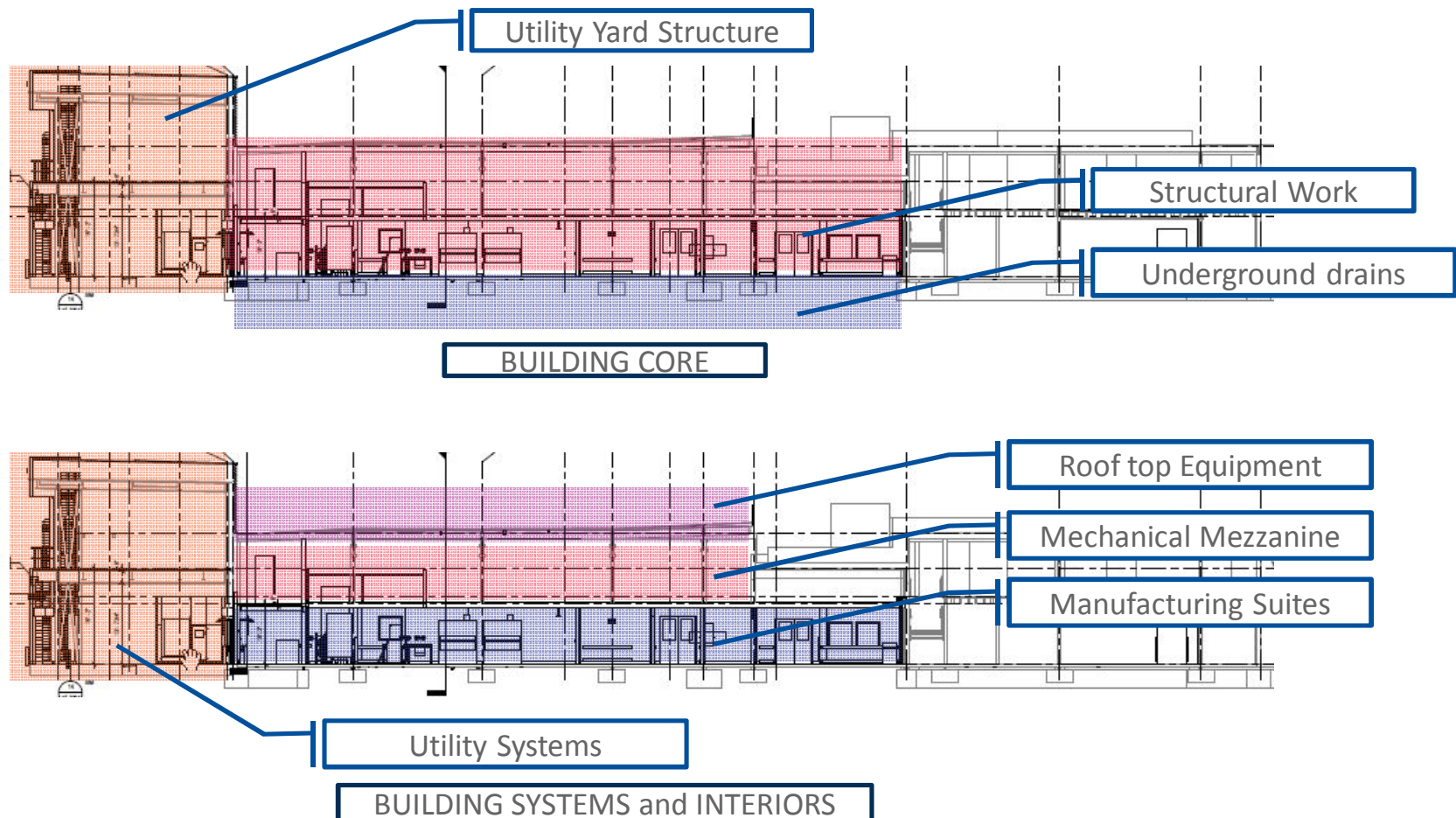




# Design and Construction Relationships

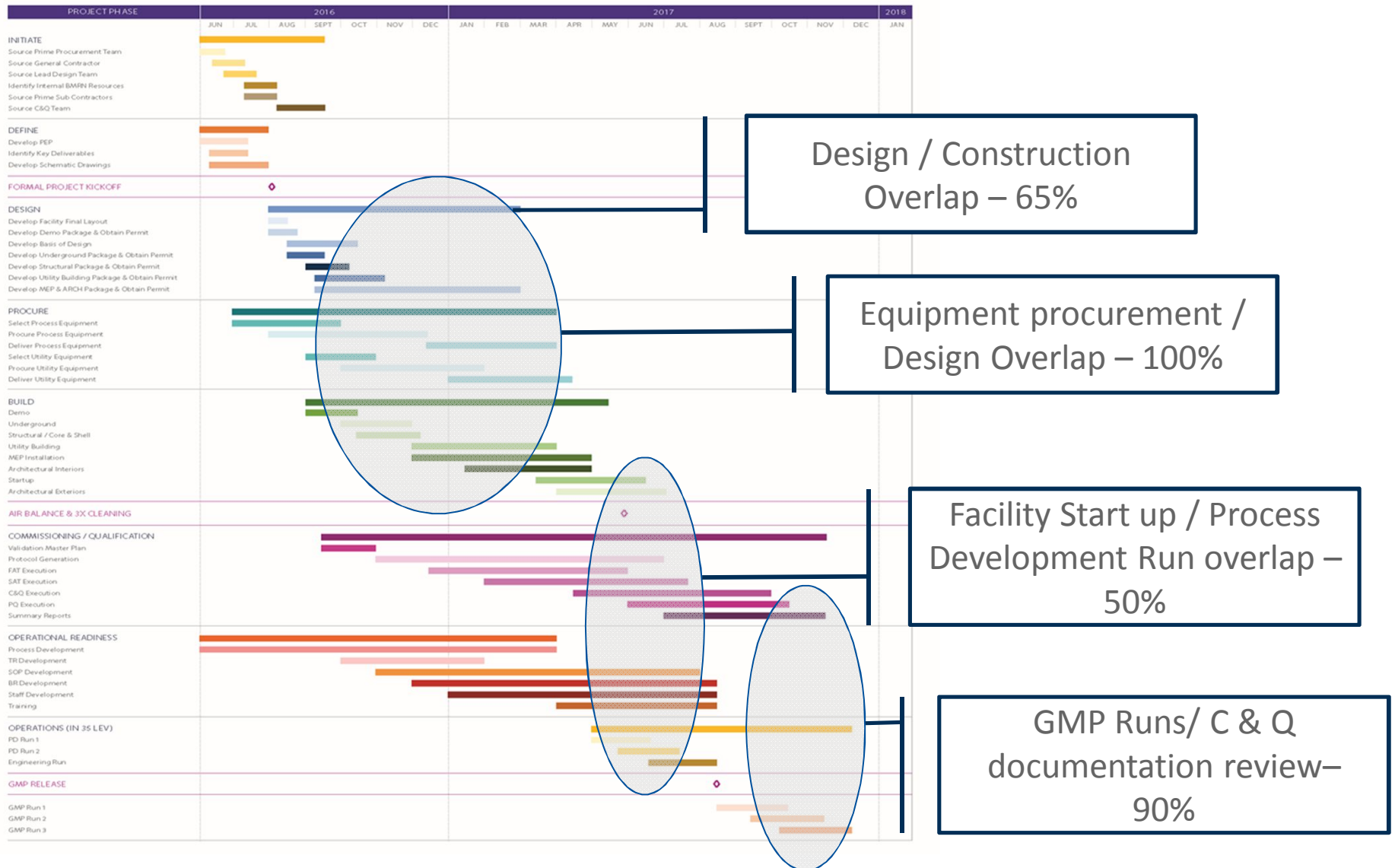


## Construction Zones



# Schedule

### ACTUALIZED PROJECT SCHEDULE BY PHASE







## Gene Therapy Manufacturing Facility Team Breakdown

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+ 50 BioMarin Employees dedicated to the project

~ 70 Design and Engineering personnel across 5 firms

Over 200 Construction contractors from ~ 40 construction companies

~ 30 Commissioning and Qualification engineers from 3 firms

# Owner / Vendor / Contractor Integrated Teams

Integrated Owner, Design,  
Construction leadership team

*Teams Organized by  
discipline – not by contract*

Team 1      Team 2      Team 3

Facilities / Manufacturing  
Operations



Facilities / Manufacturing  
Engineering & EHS&S



Architectural & Engineering  
firm



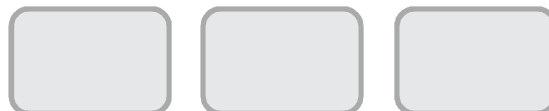
General Contractors



Design / Build Engineers

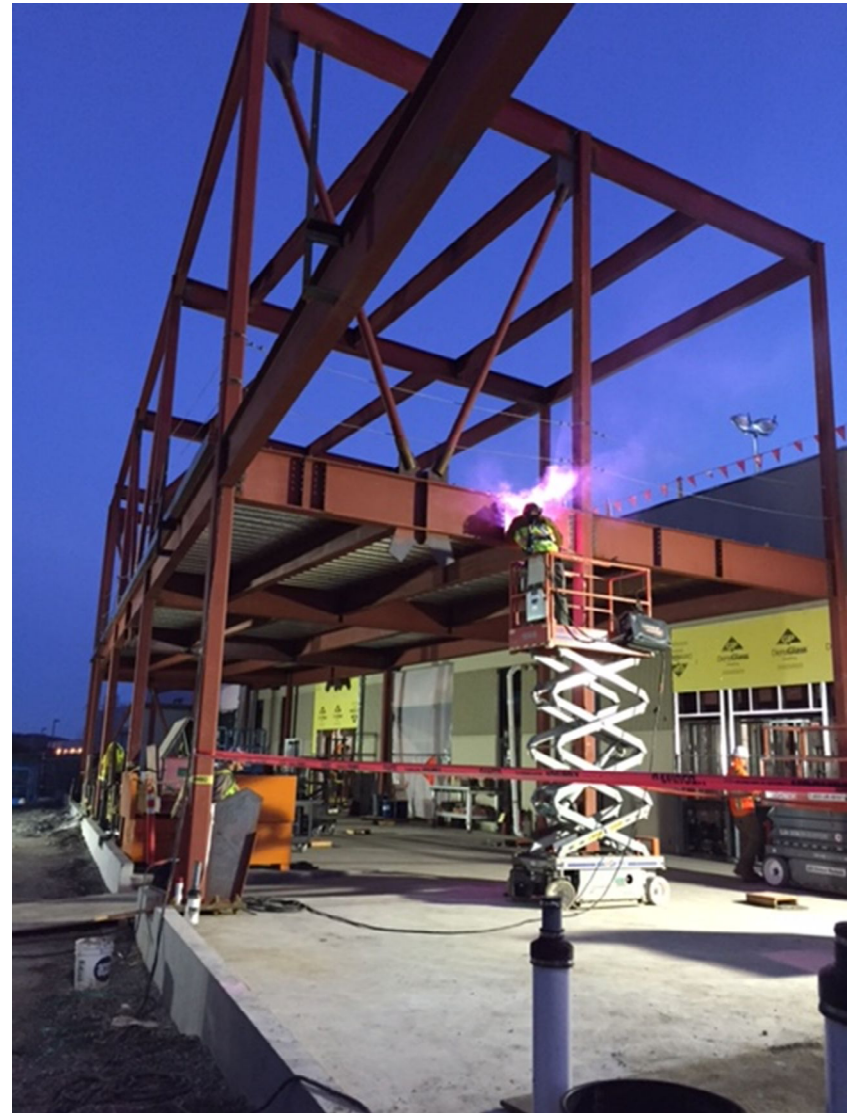


ASC / MEP Construction  
teams



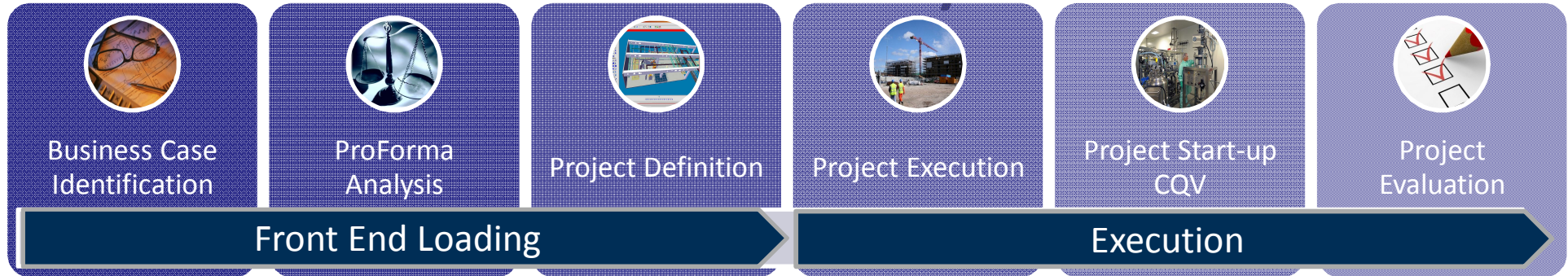


## Winter 2017 Exterior Construction





# Summary



## Foundational Elements for Success

- BEAM
- Clear Objectives / Defined PEP
- Dedicated/Co-Located Project Team
- Excellent Alternatives Analysis
- Well defined Basis of Design
- Robust Contract Strategy with proven partners (DB-DA)
- BMRN Resource Support
- Single Unilateral Vision from Senior Leadership
- Good communication & Coordination
- Early Start/Well Planned OPR/TT
- Maintaining Motivation

## Improvement Opportunities

- Project Team challenges
  - Senior Planner
  - C&Q Planning & PM alignment
  - Document Manager
- Fit-for-Purpose Schedule
- Procurement Workarounds
- Document Management
- Turnover Management  
MC-IV / Shakedown C-OV / CCC

## Motivation – Patients



# THANK YOU

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