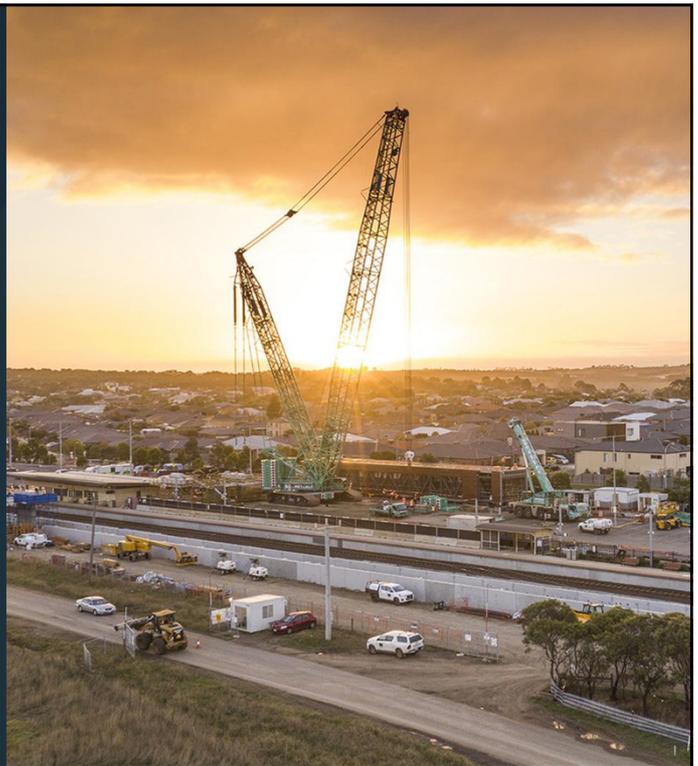




# How AI-powered forecasting and risk management is being implemented on major projects in Australia today

Toby Buchanan & Taylor Burns



## What is nPlan?

Major projects mean big delays and cost overruns

### Crossrail needs extra £450m and delayed until 2022

4 hours ago 607



The railway, from Berkshire to Essex via central London, was due to open fully in December 2016, but repeated delays have pushed it back.

London's Crossrail project has been hit with fresh delays and might need an extra £450m, its board has said.

The route - known as the Elizabeth Line - was initially due to open in December 2016 but has faced numerous delays.

### How \$4 billion blowout puts Sydney's transport plans on the line

By Matt O'Sullivan February 8, 2020 - 12:00pm

Buried deep below Sydney's tallest buildings, giant caverns have been churned out of sandstone and other rock. On the streets above, tens of thousands of people go about their daily lives, oblivious to the work underground on this mega transport project.

Twin tunnels spanning more than 15 kilometres in each direction from Chatswood in the north to Sydenham in the south, link these underground cathedrals. They will become the train stations for the second stage of Sydney's automated metro train network.

#### TODAY'S TOP STORIES

##### SPORTS NEWS

Government will 'carefully consider' scrapping super guarantee rise, PM

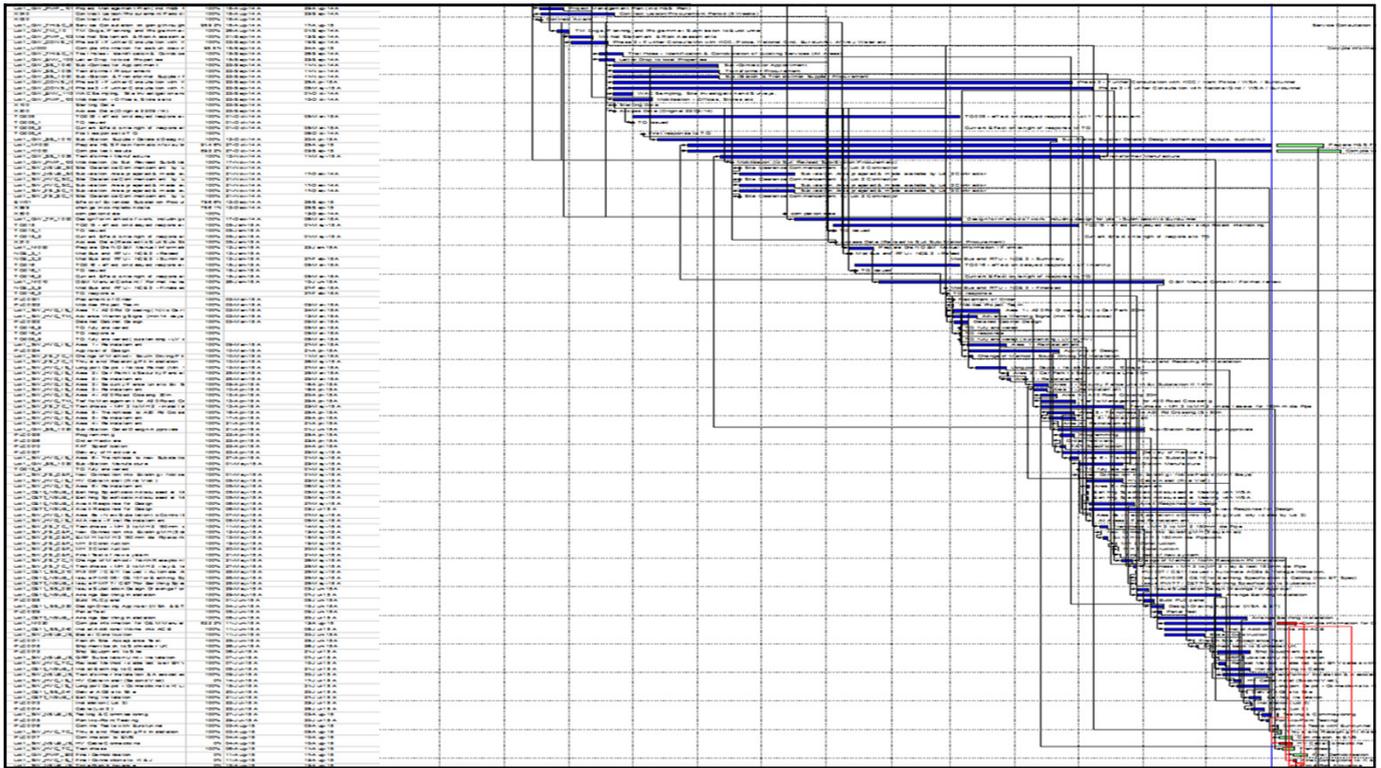
##### NEW WEATHER

Cold fronts and winds could bring coldest day of the year for NSW

##### INDUSTRIAL RELATIONS

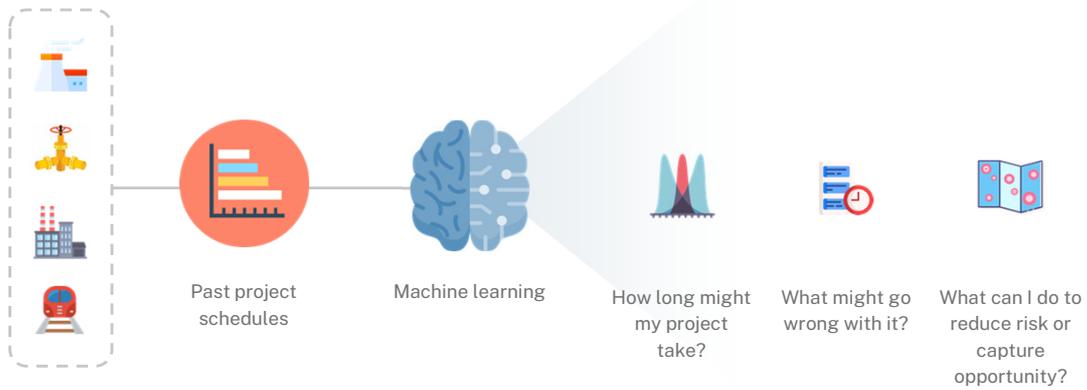
Employers face huge back pay





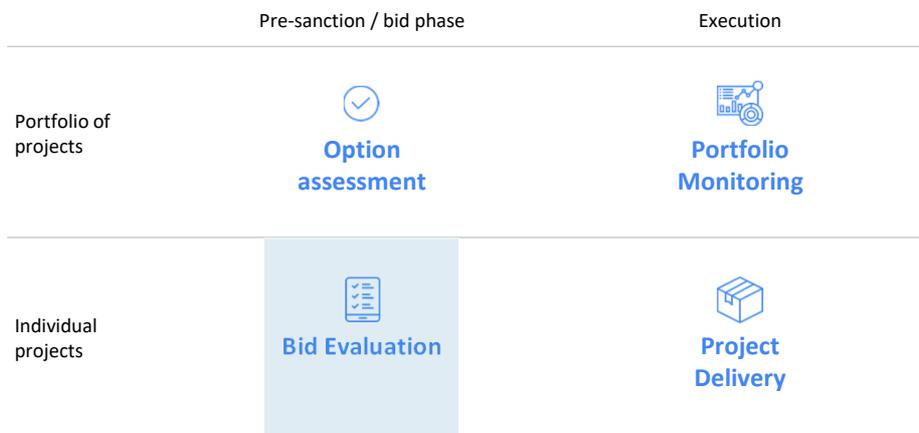
What is nPlan?

So we built an AI to learn how projects perform



What is nPlan?

And we support project teams through different use cases



**nPlan**

Founded in the **UK** in 2017

**Our Purpose:** to inspire the world to forecast correctly & empower it to tackle risk

Taking cognitive biases out of the equation with the ambition to solve the problem of delayed projects

Customers include:

- COSTAIN
- Shell
- hs2
- KIER
- NetworkRail
- Google
- SKANSKA

World-class team with a mix of industry experience, fresh perspectives, and technical excellence in ML and software

Team of **50**

Across APAC, NA, EMEA

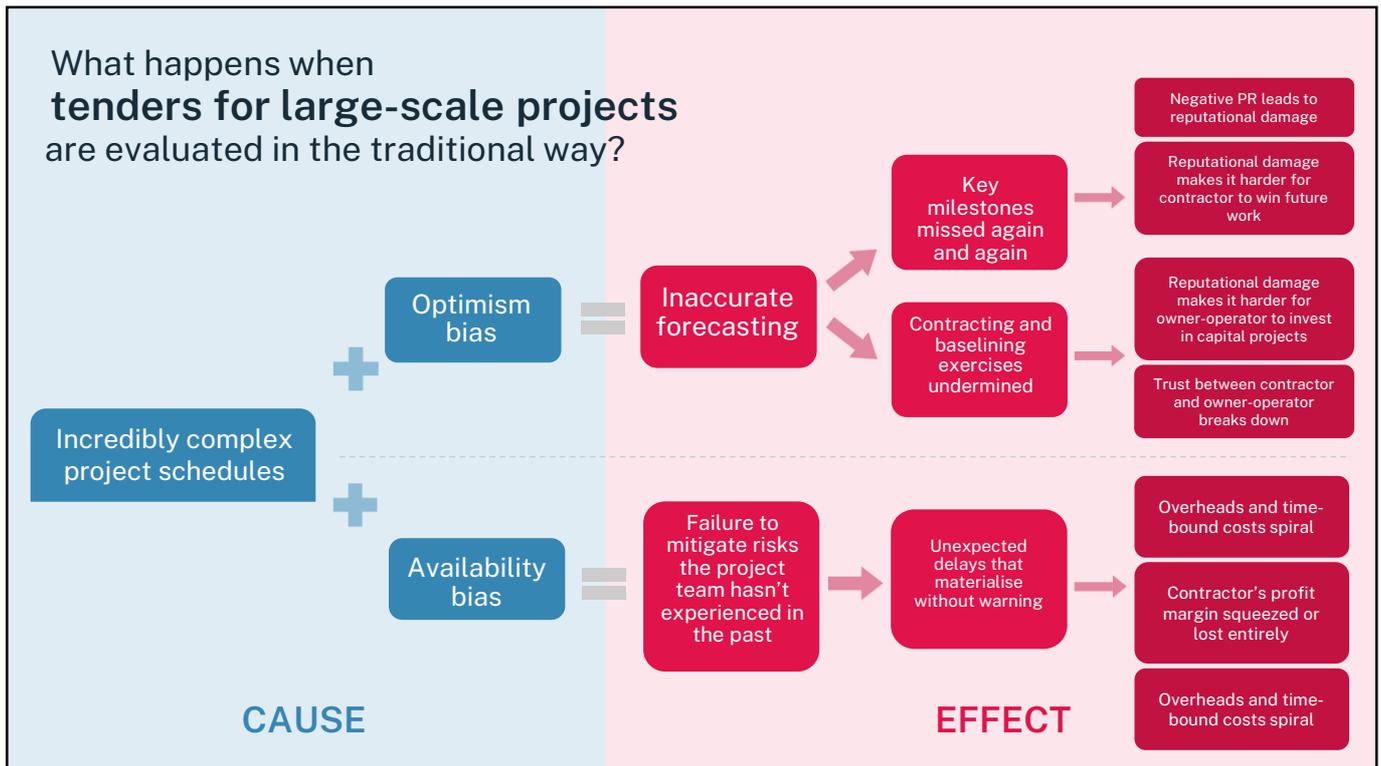
Has amassed over **740,000** Construction schedules creating the biggest dataset of its kind in the world

7

**nPlan**  
CASE STUDY

**RAIL PROJECTS VICTORIA**

How Rail Projects Victoria used AI-powered forecasting and risk management to choose the best tender for its South Geelong to Waurin Ponds Duplication Project



## It's 2023 and the tendering process for large-scale projects is still **BROKEN**

**nPlan**



Contractors are incentivised to make overly **optimistic assessments** of timescales and capabilities



"Unknown Unknown" risks are often left that way, **hidden within thousands of other activities**



Contractors **can't afford time to develop rigorous schedules** with high % chance of success and appropriate contingency



Bidding process **does not build trust** between owner-operator and contractor



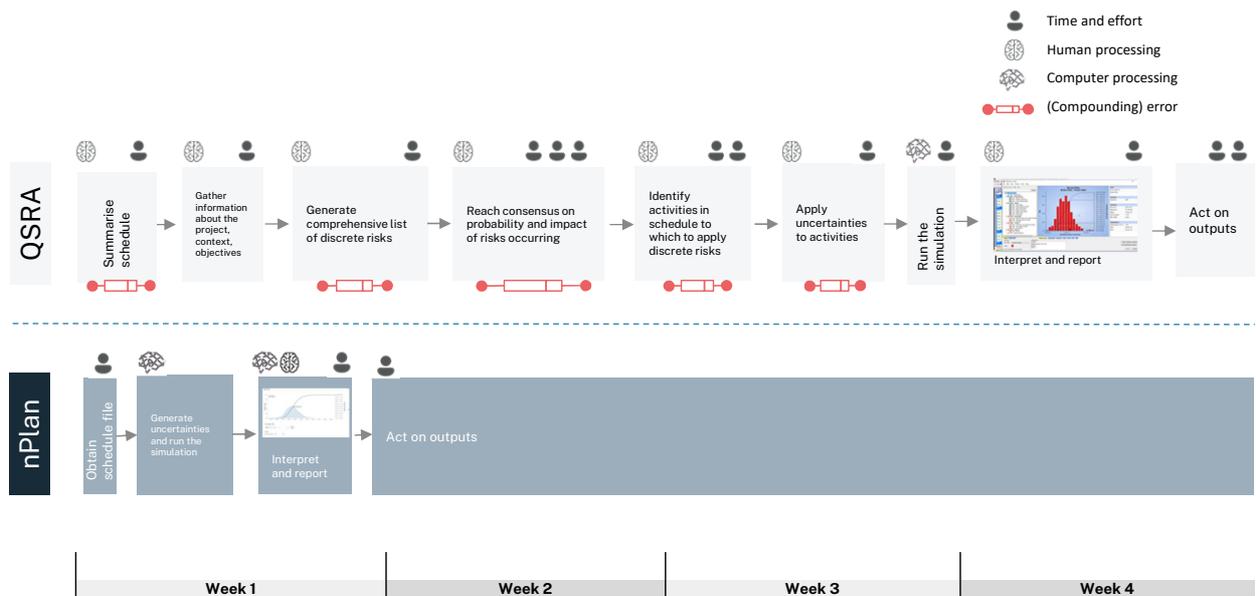
**No objective way** of comparing bid schedules

## About the Project

Project Name: South Geelong to Waurn Ponds Duplication  
 Project Type: Railway construction  
 Project Value: ~\$900M AUD  
 Works started: Late 2022



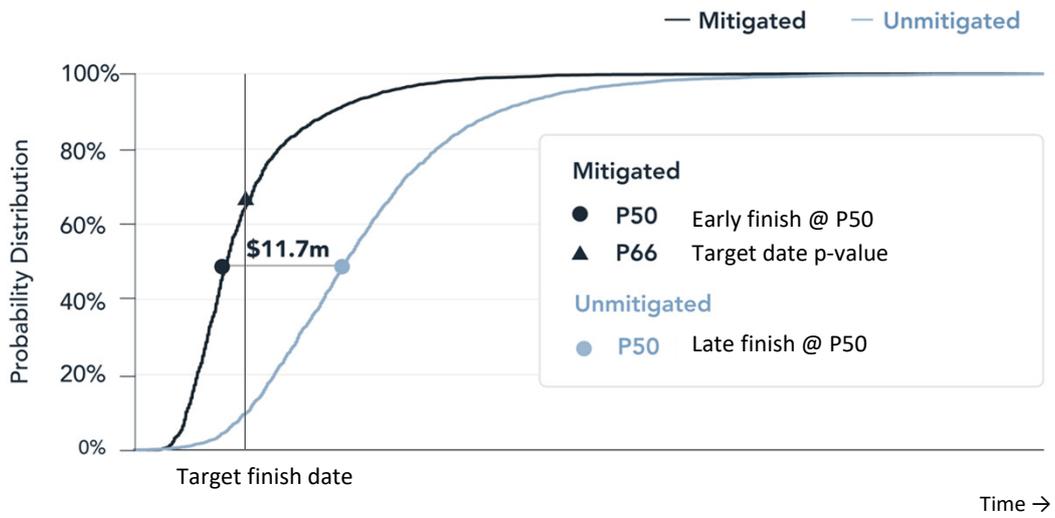
## How nPlan worked with RPV

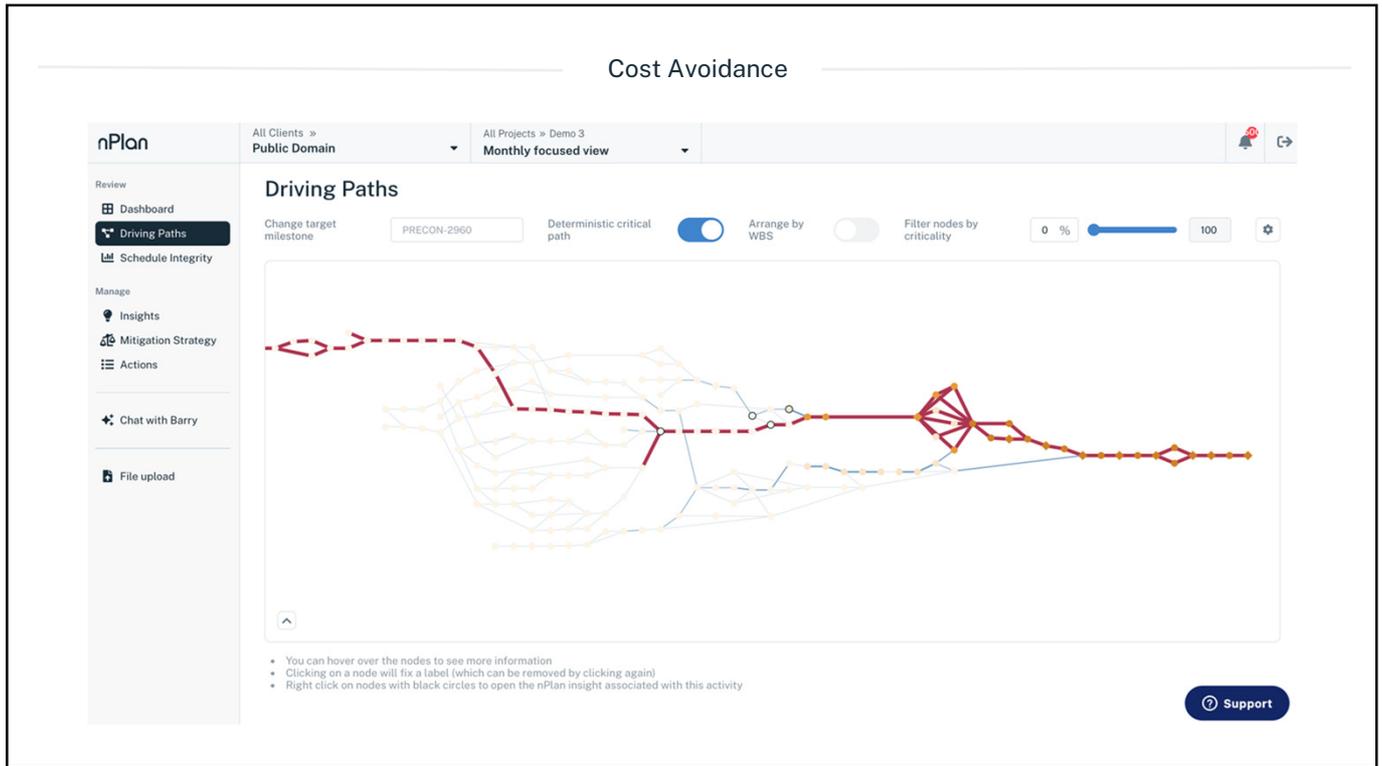


Data in the side-by-side analysis provided by nPlan



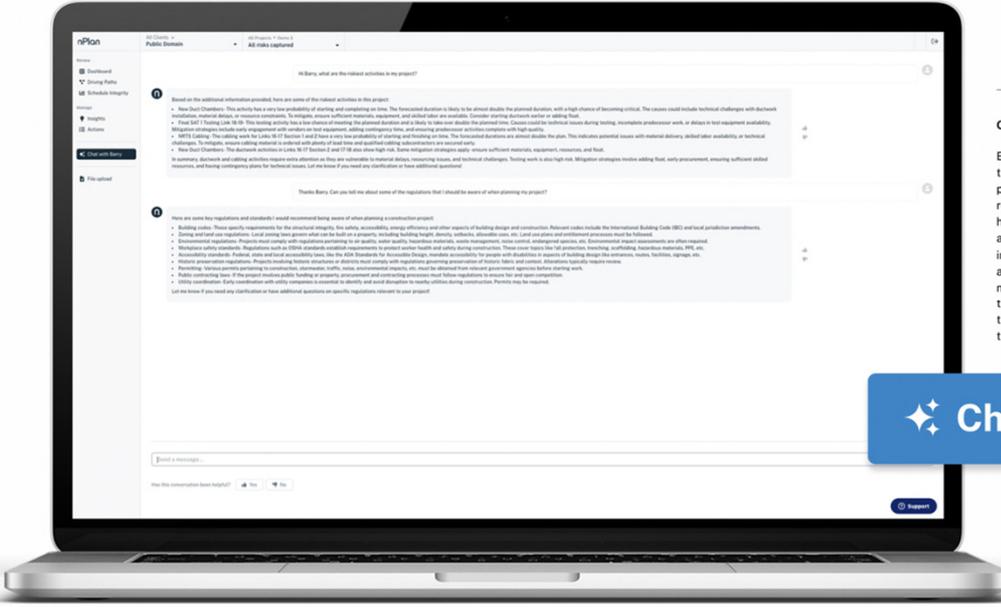
### Cost Avoidance





RAIL PROJECTS VICTORIA		RAIL PROJECTS VICTORIA	
Benefits for Rail Projects Victoria		Benefits for chosen contractor	
✓ Easily assess whether schedules are realistic	✓ Compare bid schedules with quantitative data	✓ Rewarded for developing a rigorous, realistic schedule	✓ Start negotiation phase with a de-risked schedule
✓ Develop risk mindset from the tender phase	✓ Quantify project risk contingency	✓ Receive ongoing insights from nPlan to help with identification of risks	✓ Start project from position of trust with owner-operator

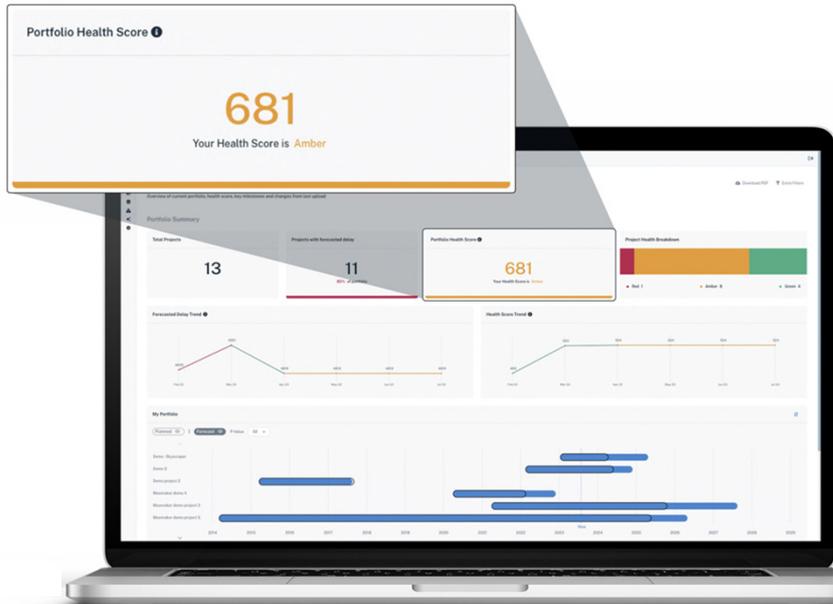
### Future of nPlan



#### Chat with Barry

Every project is unique. Because of this, we believe that our users should be able to provide their project's specific context to make nPlan's AI-driven results more relevant to them. To enable this, we have developed our own generative AI models and made them available via a chat interface. This interface can be used to query results, provide additional context or brainstorm potential risks and mitigation plans. Even better, risk managers can find their own creative ways to interact with the AI, so they can spend less time analysing data and more time taking action.

### Future of nPlan





<https://schedule.nplan.io/>

**Q&A... and a gift for you**

**nPlan**

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