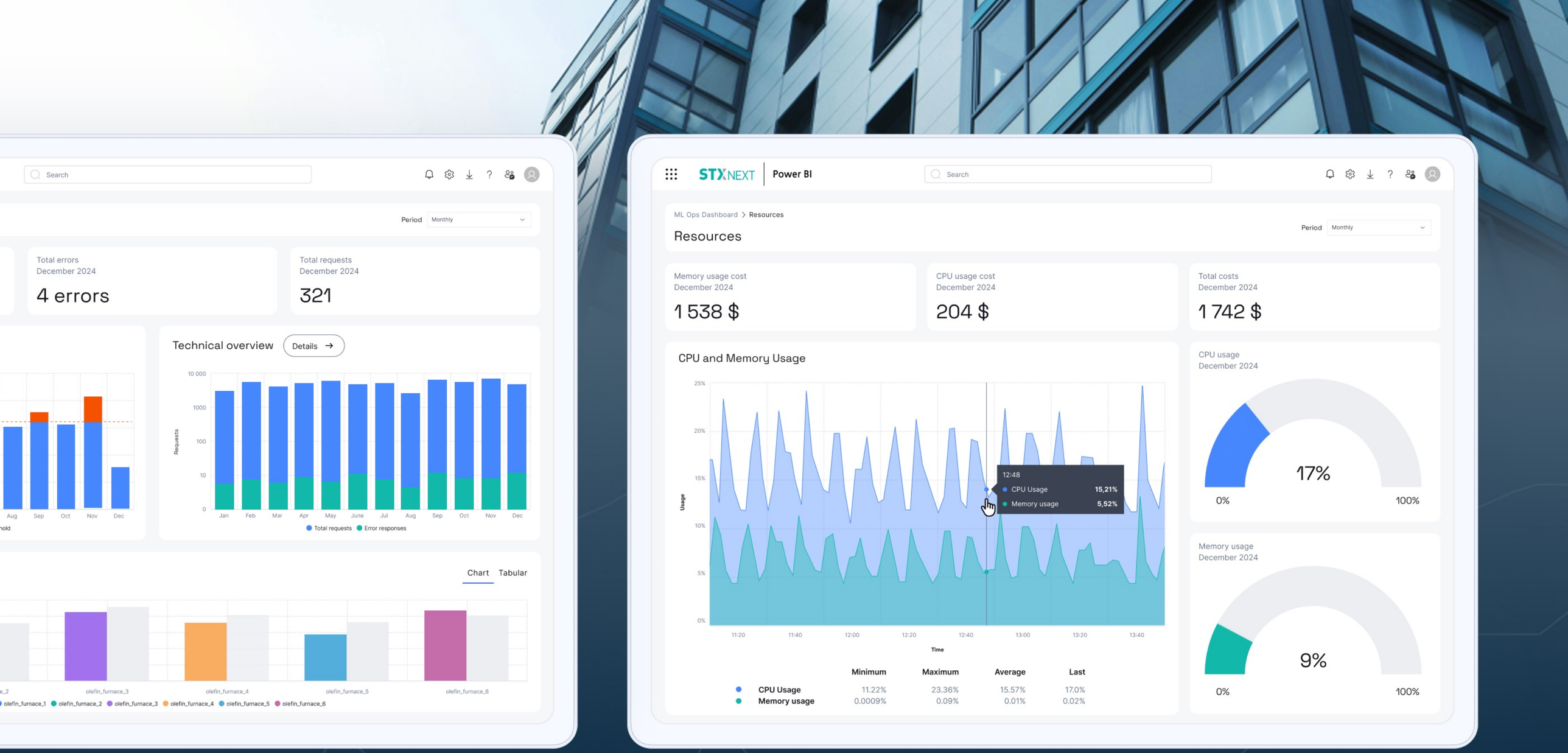
# Supercharging ML Ops insights with customized Power BI Dashboard


Search
Period
Monthly
Total errors
December 2024
4 errors
Total requests
December 2024
321
Technical overview
Details
Requests
Total requests
Error responses
Chart
Tabular
STX NEXT
Power BI
Search
ML Ops Dashboard > Resources
Resources
Period
Monthly
Memory usage cost
December 2024
1 538 $
CPU usage cost
December 2024
204 $
Total costs
December 2024
1 742 $
CPU and Memory Usage
Usage
Time
12:48
CPU Usage 15,21%
Memory usage 5,52%
Minimum
Maximum
Average
Last
CPU Usage 11.22% 23.36% 15.57% 17.0%
Memory usage 0.0009% 0.09% 0.01% 0.02%
CPU usage
December 2024
17%
0%
100%
Memory usage
December 2024
9%
0%
100%

# Navigating Power BI

MAIN OBJECTIVE

**Leveraging Power BI's capabilities while providing designers with flexible tools to customize and adapt.**

Knowing the Power BI framework was crucial. By diving into documentation to comprehend its functionality, focusing especially on the customization of themes. This foundational knowledge allowed integrating Power BI’s capabilities seamlessly into our design process.

### What is Power BI?

OVERVIEW

What is Power BI?

What is Power BI Desktop?

What is the Power BI service?

Comparing Power BI Desktop and the service

### What's new?

CONCEPT

What's new in Power BI?

The new experience in the Power BI service

The new Format pane in Power BI Desktop

### Get started with Learn

TRAINING

Create and use analytics reports

Get data with Power BI Desktop

### Lice

Sign

Feat

DESIGN CHALLENGE

# Limited Customization Options

Predefined visuals with sparse set of personalization options.

Layout control that highly restricts alignment and spacing.

Narrow branding possibilities caused by limited choices of fonts and styles.

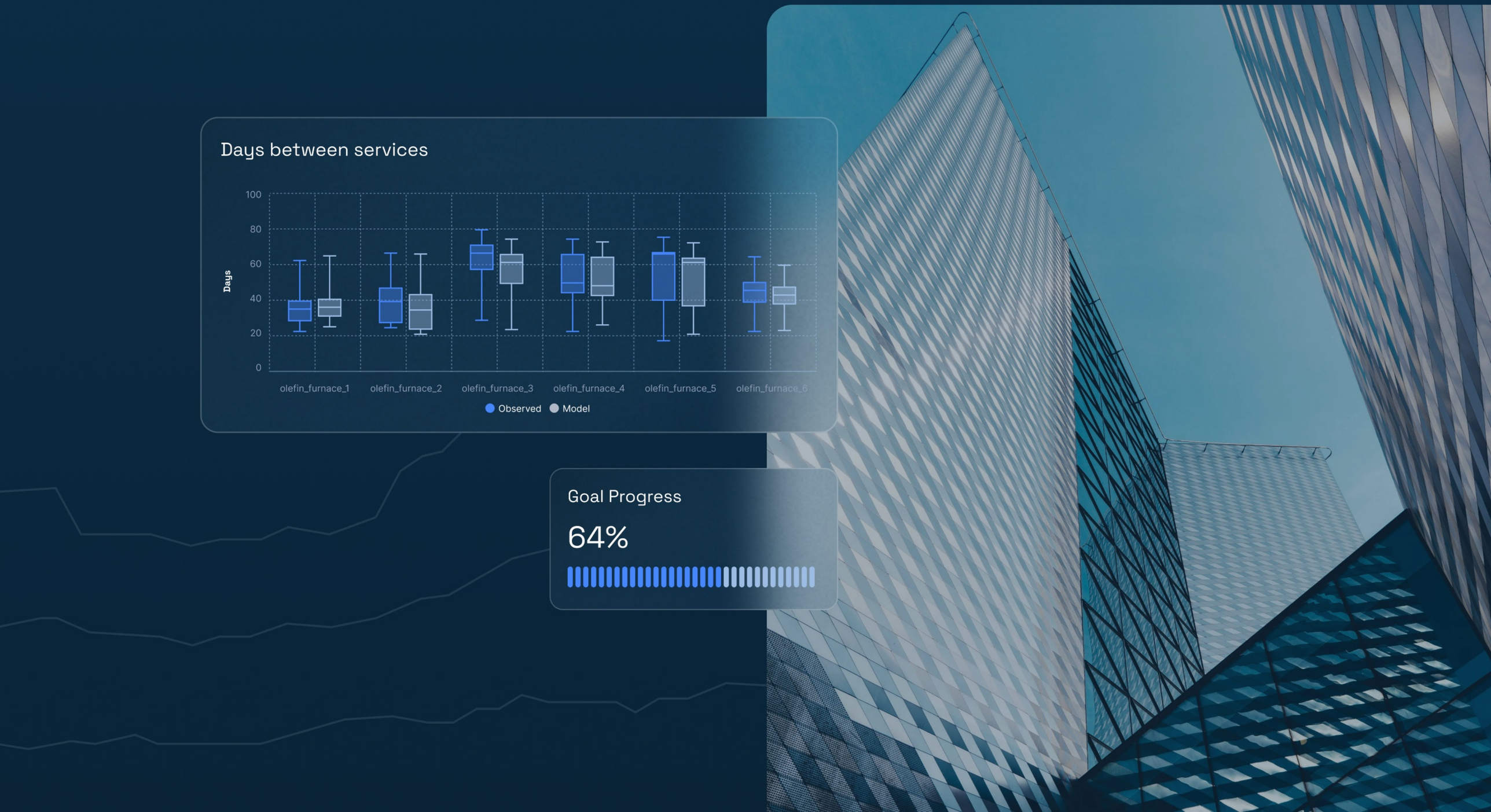
DESIGN CHALLENGE

# User Experience Issues

Performance problems with large or complex reports that may lag.

While interactivity is a strength, excessive use (e.g., too many slicers or drill-throughs) can confuse users without clear guidance.

Linear navigation which makes storytelling or presenting data difficult. Users may find navigating complex reports challenging.


Days between services
100
80
60
40
20
0
Days
olefin_furnace_1
olefin_furnace_2
olefin_furnace_3
olefin_furnace_4
olefin_furnace_5
olefin_furnace_6
Observed
Model
Goal Progress
64%

# A Strategic Approach to Data Visualization

As organizations strive to harness the full potential of their data-driven strategies, building intuitive and insightful dashboards plays a crucial role in facilitating informed decision-making.

DESIGN PRINCIPLES

By aligning our approach with industry standards and innovative methodologies, we aimed to create a tool that not only enhances operational efficiency but also empowers stakeholders with actionable insights.

During this process we leveraged the best practices of data visualization and dashboard construction.

## KEEP IT SIMPLE

Less visual elements, black background

## DESIGN FOR A TARGET

You need to define the goal of the dashboard

## BE CONSISTENT

If the chart is the right one use it and don’t look for another one just to make dashboard more “interesting”

## HIGHLIGHT WHAT’S IMPORTANT

Not all the numbers are the same.  There are always some  data that is more important

## PICK THE RIGHT CHARTS

Choose the right visualisation

## BE CLEAR

Add legend, explain what you’re showing

## CHOOSE THE RIGHT COLORS

We don’t see colors in the same way.

## BE CONSISTENT

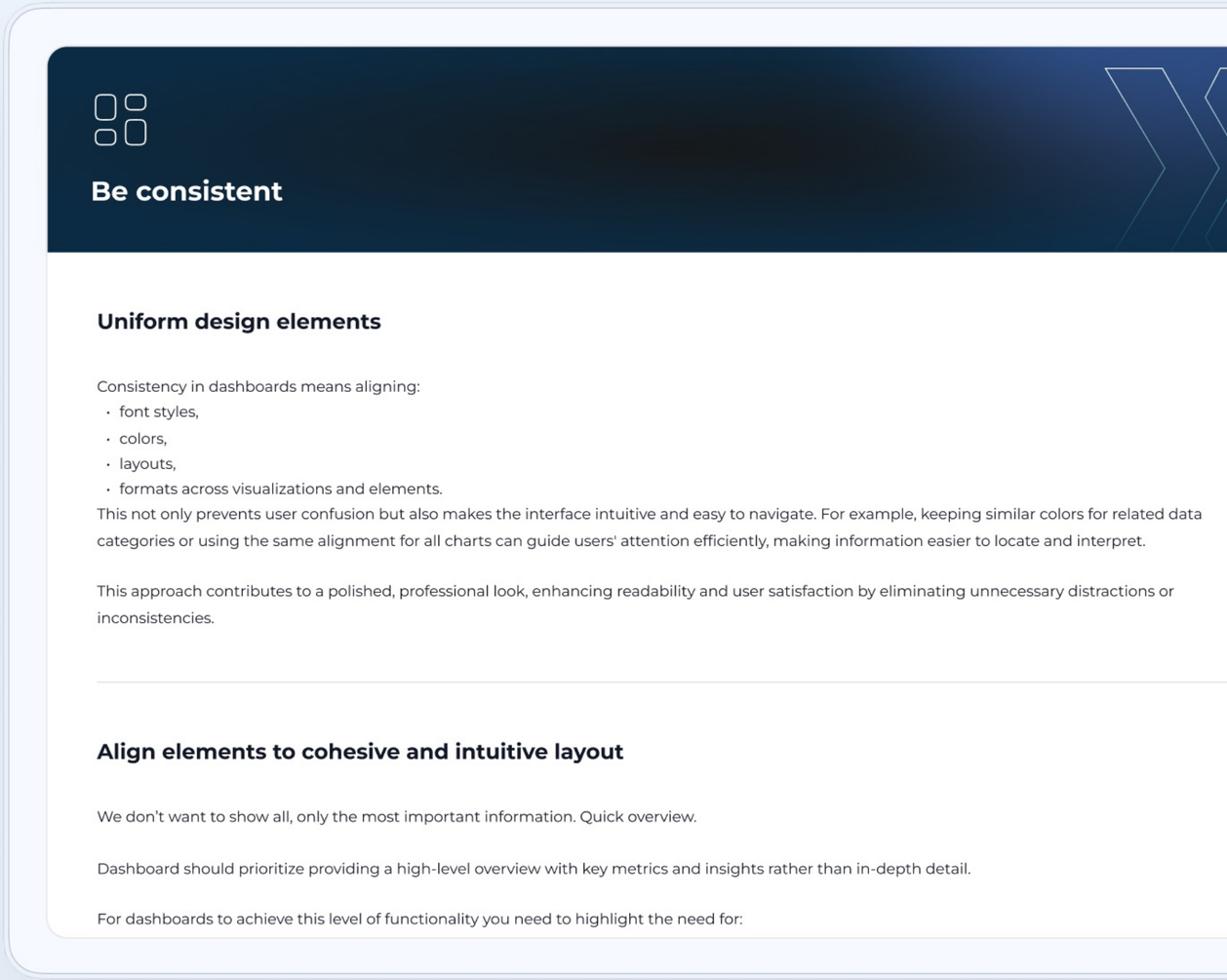
Use uniform design elements and a cohesive layout for easy navigation and consistent visual hierarchy

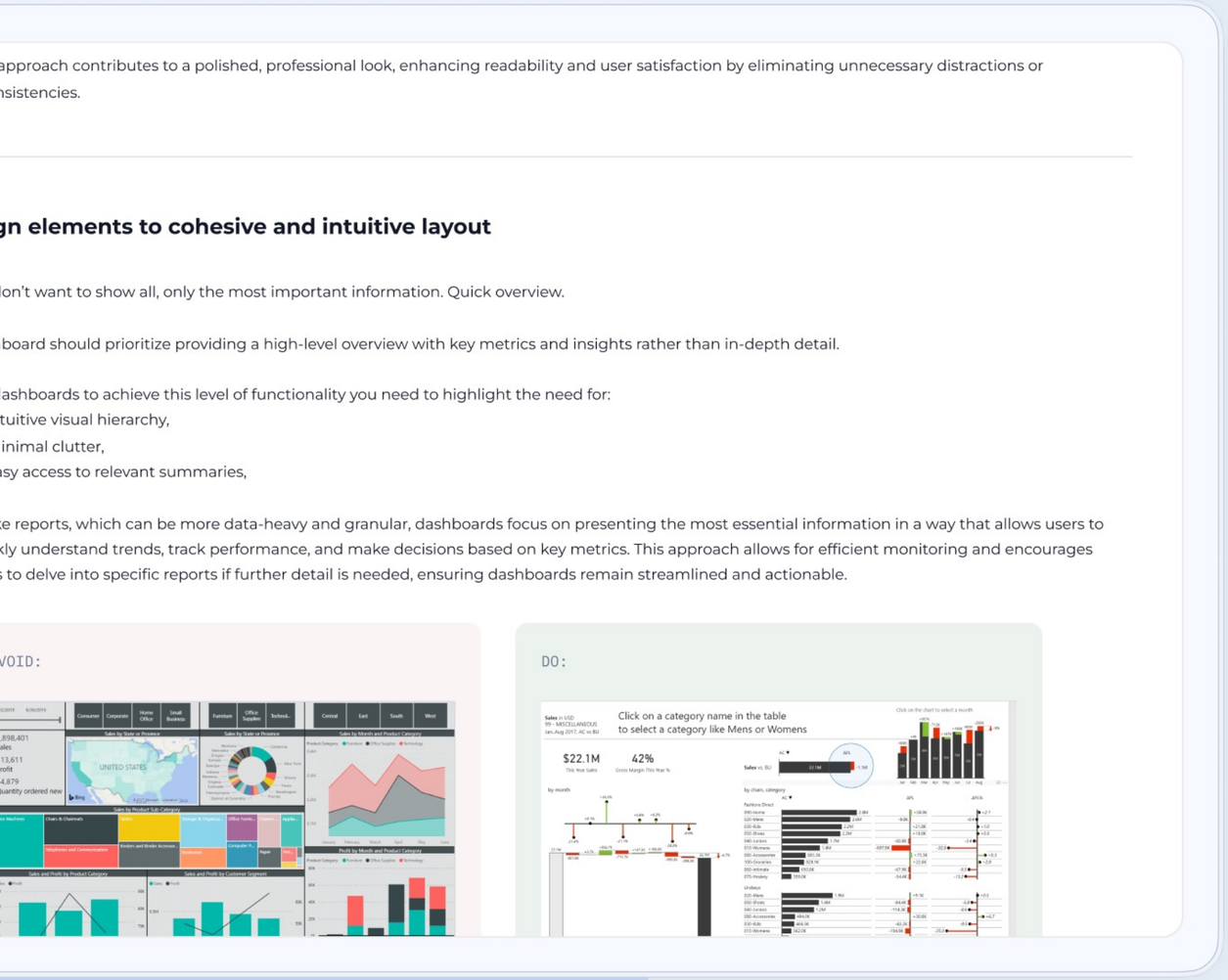
## HIGHLIGHT WHAT'S IMPORTANT

Highlight key data points to clearly show trends and relationships

## BE CLEAR

Emphasize key insights for quick recognition






## PICK THE RIGHT CHARTS

Choose charts that align with the data pattern and analysis goals

## CHOOSE THE RIGHT COLORS

Select an accessible color palette that conveys the message effectively, including for users with color vision deficiencies

## DESIGN FOR A TARGET

Structure data and choose relevant visualizations to align with user tasks and needs, ensuring the dashboard supports decision-making effectively

STX NEXT | Power BI

Search

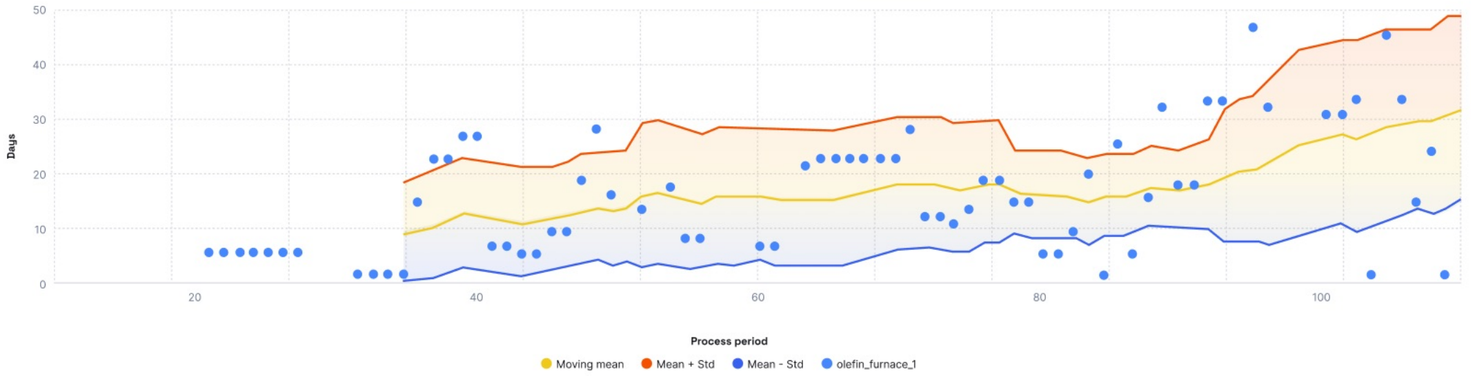
ML Ops Dashboard > Technical

# Technical

Period: Monthly

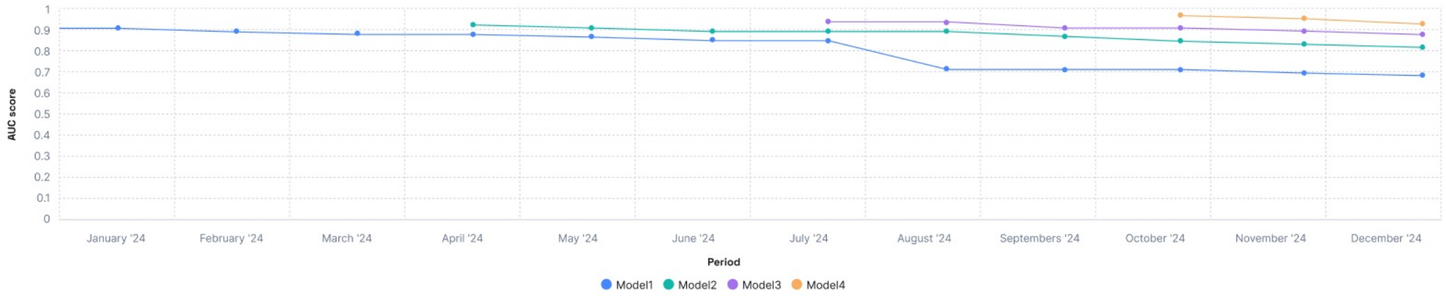
## Days between services

Furnace: olefin_furnace_1 | olefin_furnace_2 | olefin_furnace_3 | olefin_furnace_4 | olefin_furnace_5 | olefin_furnace_6




## Model drifts

Quarters



# Streamlining Implementation

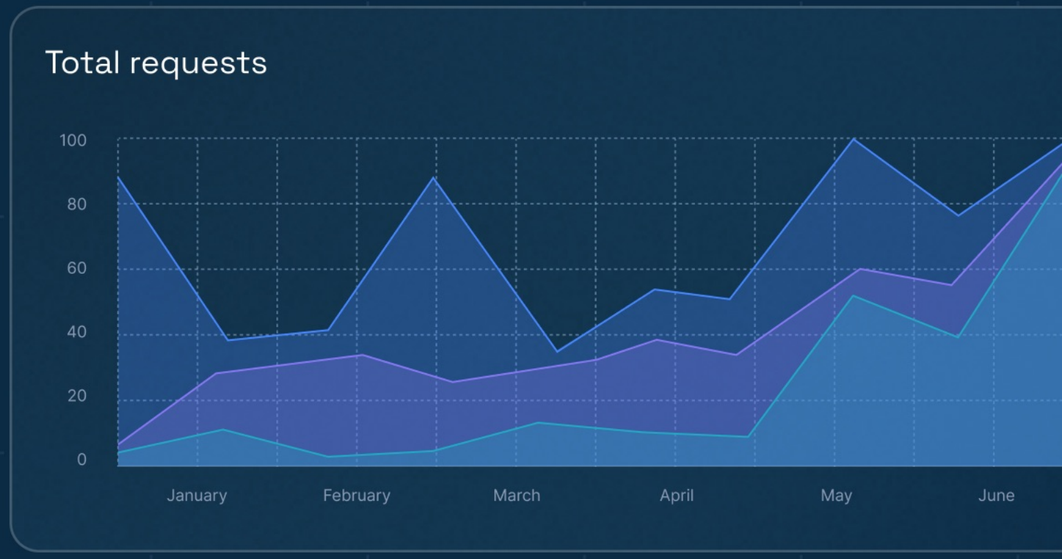
DELIVERABLES

**This crucial phase requires precise communication to ensure that the design vision is faithfully translated into a functional product.**

In our project, we created a comprehensive Figma handoff file which meticulously structured variables that mirror the structure of JSON files used to create custom themes in Power BI.

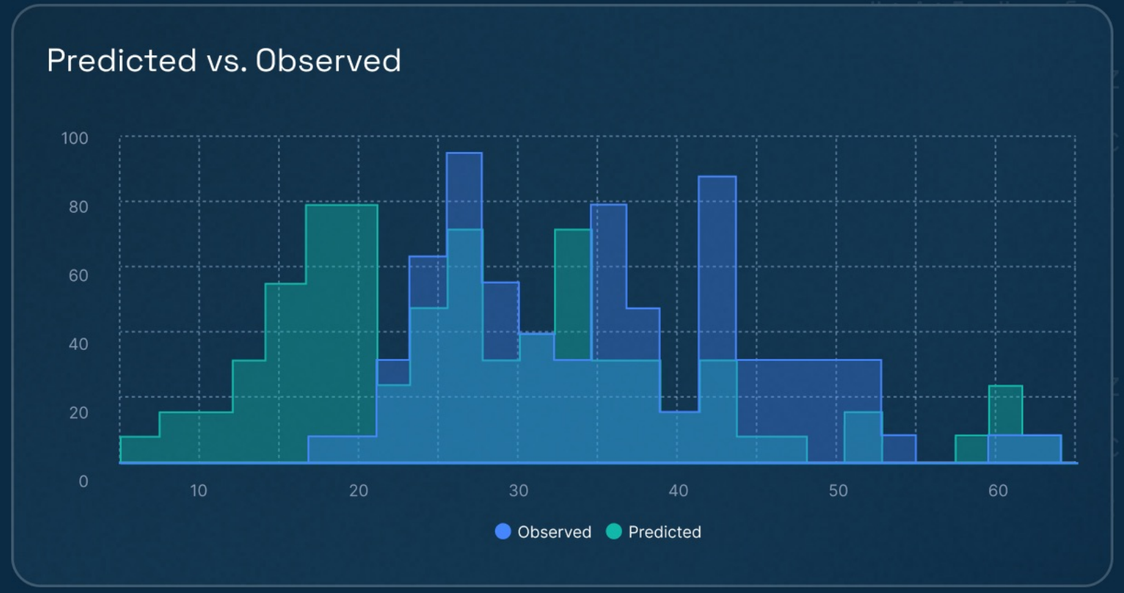
DESIGN HANDOFF

# Collection of essential Power BI visuals

DESIGN HANDOFF

# Documentation




| Primary class | Secondary classes | JSON class name | Default setting |
|---|---|---|---|
| Callout | N/A | callout | DIN<br>#252423<br>45 pt |
| Header | N/A | header | Segoe UI Semibo<br>#252423<br>12 pt |
| Title | - | title | DIN<br>#252423<br>12 pt |
| - | Large title | largeTitle | 14 pt |
| Label | - | label | Segoe UI<br>#252423<br>10 pt |
| - | - | semiboldLabel | Segoe UI Semibo |
| - | - | largeLabel | 12 pt |

STX NEXT | Power BI

Search

# ML Ops Dashboard

Period: Monthly

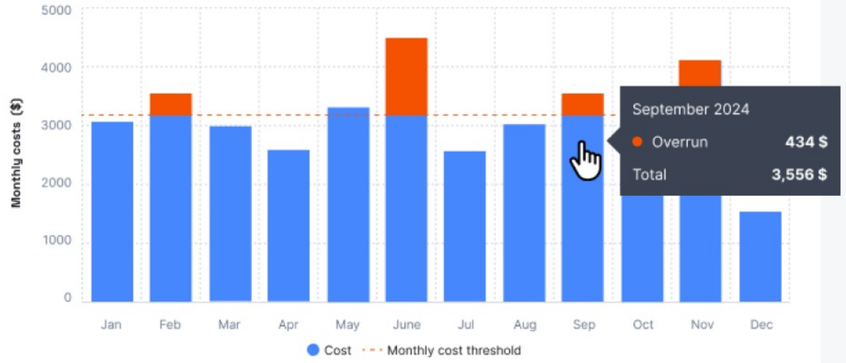
Current cost
December 2024
**1 742 $**

Total errors
December 2024
**4 errors**

Total requests
December 2024
**321**

## Resources

Details →




## Technical overview

Details →


## Machine uptime prediction

Chart | Tabular