



***Optimising Revenue and Fleet Utilisation:
A Strategic Revenue Management
Framework for BuildMax Rentals***

Group 8 Consultancy

Agenda

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Who We Are: Meet Gr8 Consultancy

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BuildMax Rentals and Key Challenges

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Who We Are:
Meet Gr8 Consultancy

Meet the Team

Project Team



Rafaela Mauricio
Project Manager



Long Nguyen
Data Analyst



Qiyue Zhang
Data Analyst



Yifan Zhu
Data Analyst

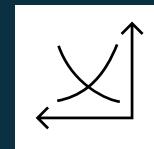


Ishleen Kaur
Data Engineer



Vudit Duggad
Data Analyst

Our Competencies and Expertise



Data Analytics, Engineering and
Visualisation



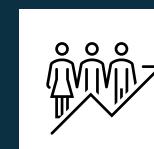
Optimisation and Revenue Management



Machine Learning and Forecasting



Construction, Supply Chain and
Network Optimisation

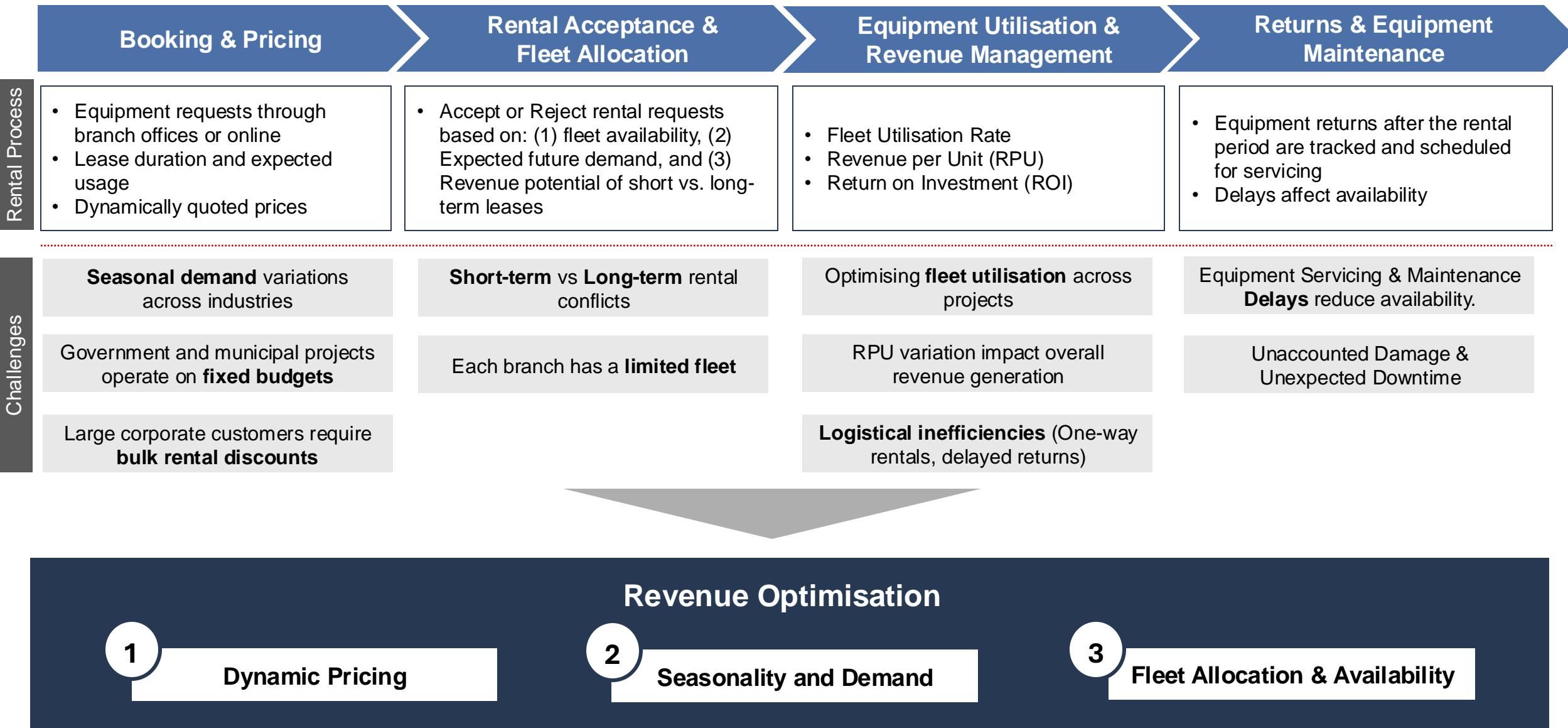


Business Strategy and Implementation



BuildMax Rentals and Key Challenges

BuildMax is facing challenges that require an advanced Revenue Management (RM) solution





Methodology

Data-driven optimisation to achieve an increase in Revenue and ROI

Linear Model Programming

Optimised existing dynamic pricing structure while factoring in the demand capacity and fleet balance considerations

Historical Data Analysis

Assessed rental performance, pricing trends and fleet utilisation patterns

1

Dynamic Pricing

- Short-term vs. Long-term pricing
- Historical revenue performance

2

Seasonality and Demand

- Demand fluctuations based on seasonal trends
- Short-term vs. Long-term demand patterns

3

Fleet Allocation & Availability

- Utilisation across equipment types
- Fleet utilisation rates
- Inventory allocation



Expected Outcomes

+11.22%

Increase in Total Revenue
From £160.47M to £178.48M

+15.47%

% Change in ROI
From 264.13% to 304.99%



Data Findings and Revenue Management Strategy

A deep-dive into the results: What growth potential can BuildMax unlock?

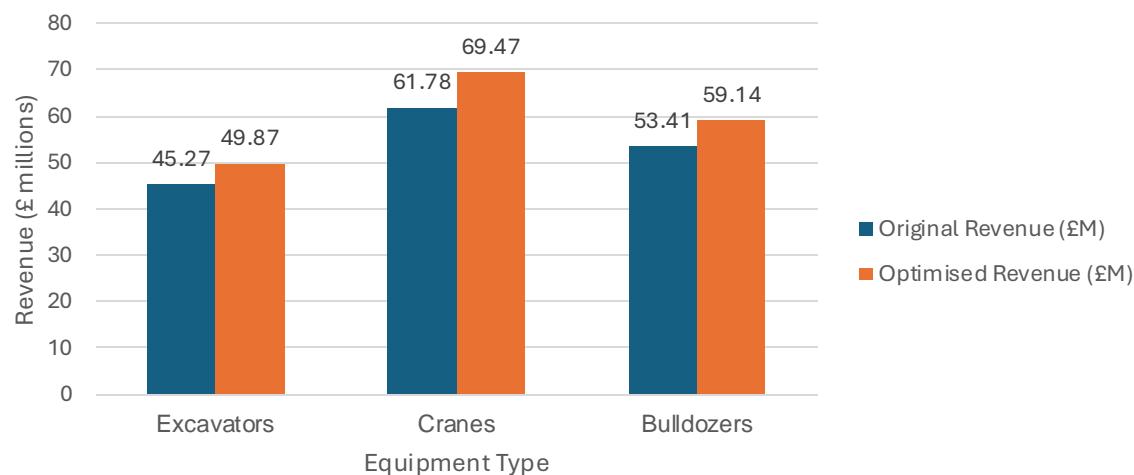
Revenue

Long-Term vs. Short Term

Demand Variability

Fleet Utilisation

Total Revenue Comparisons (Equipment Type)

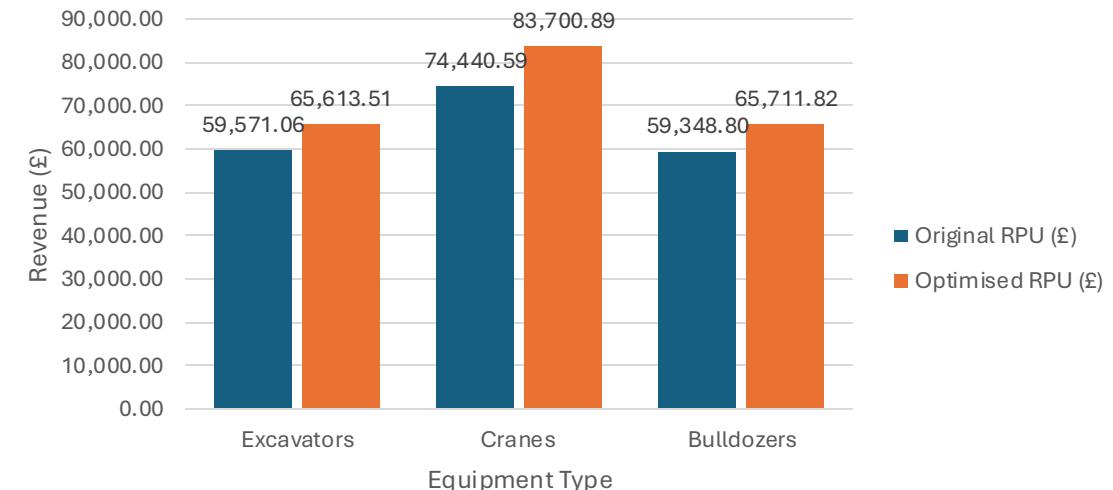


Overall Optimised Revenue increased by £18 million

Cranes experienced the highest absolute revenue increase

Attributed as the most profitable asset for this BuildMax Rentals branch

Revenue per Unit (RPU)



RPU increased across all types of equipment

Cranes had an RPU improvement of 12.44%

Considered as premium-value assets, cranes are mostly allocated to long-term rentals

Excavators and Bulldozers also experienced strong RPU growth

Pricing adjustments and response to demand resulted in +10.14% and +10.72% improvement

A deep-dive into the results: What growth potential can BuildMax unlock?

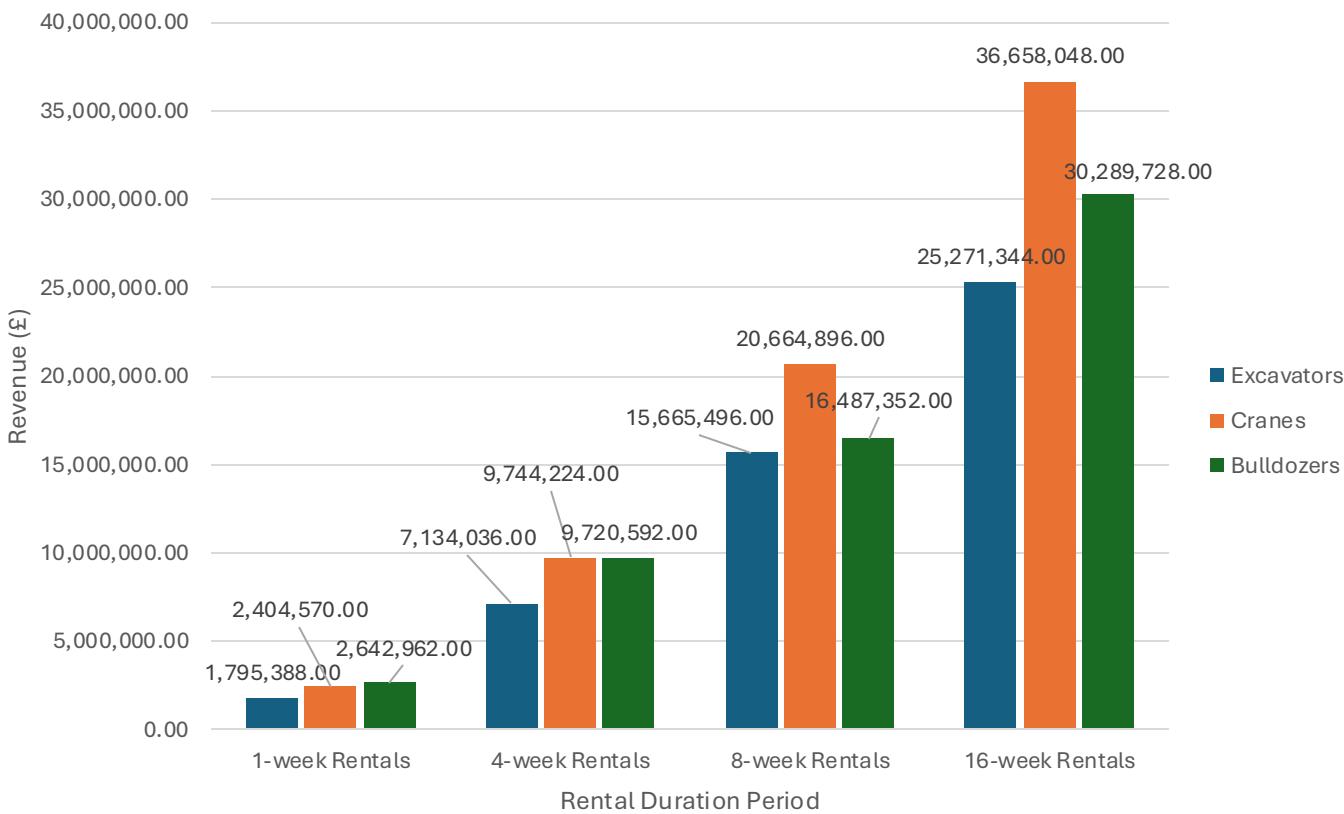
Revenue

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Fleet Utilisation

Revenue per Duration of Rental Period (£)



16-week rentals earn the most revenue due to stability and duration

Cranes consistently generate more revenue in long-term rentals

1-week rentals produce significantly lower total revenue

Long-term contracts and projects stabilise fleet utilisation, but limits allocation to short-term rentals

Cranes outperform Bulldozers by 21.05% and excavators by 45.14%

This suggests low demand or adoption due to leveraging on long-term rental periods

Considerations

- Adjust pricing strategies to encourage short-term rental adoption such as introducing corporate promotions or discounts
- Ensure equipment inventory availability for all rental durations

A deep-dive into the results: What growth potential can BuildMax unlock?

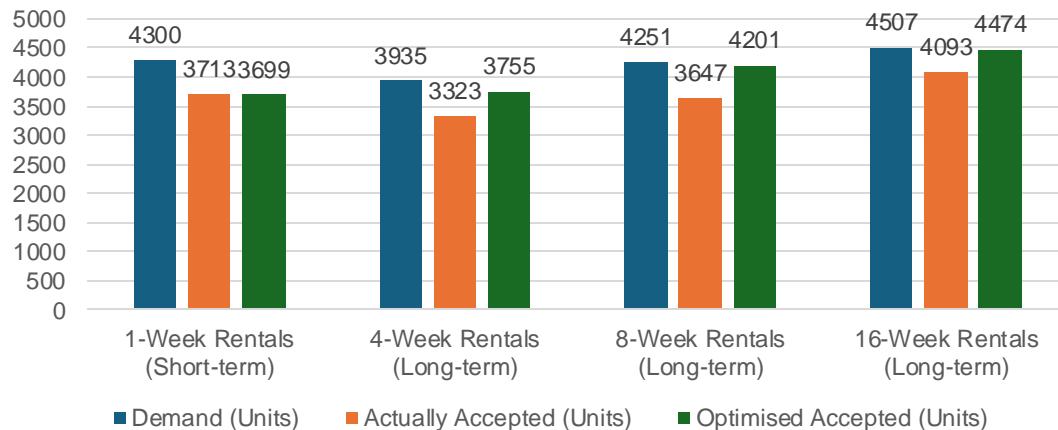
Revenue

Long-Term vs. Short Term

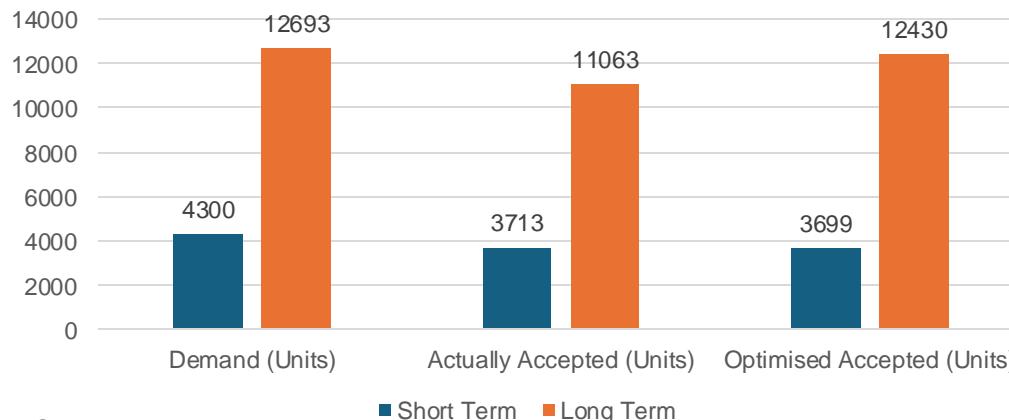
Demand Variability

Fleet Utilisation

Demand and Request Accepted by Rental Duration



Demand and Request Accepted by Rental Duration



Long-Term contracts drive stability but restrict flexibility

Revenue contributions were dominated by long-term rentals, as the **model increased acceptance rates by ~10%**

Short-term rentals remain underutilised

A minimal change of **-0.38%** in 1-week rentals, indicating limitations in fleet responsiveness

Considerations

- Establish a well-balanced fleet allocation system to improve short-term flexibility without disrupting long-term revenue stability

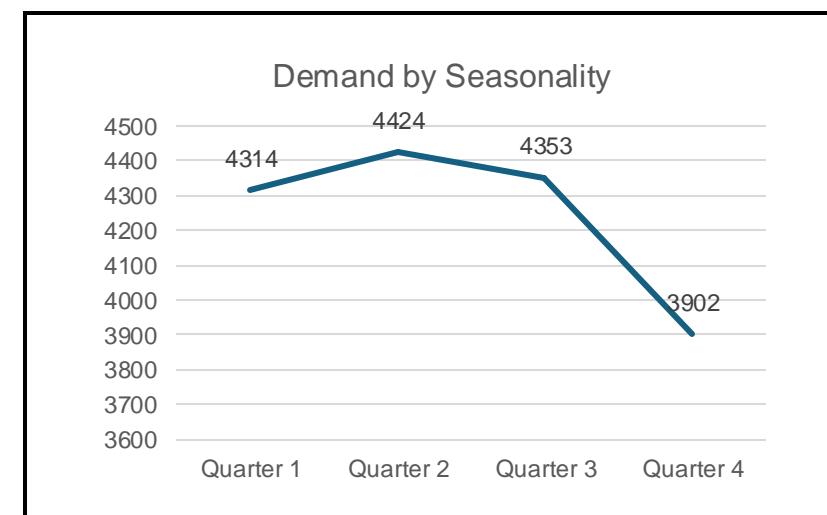
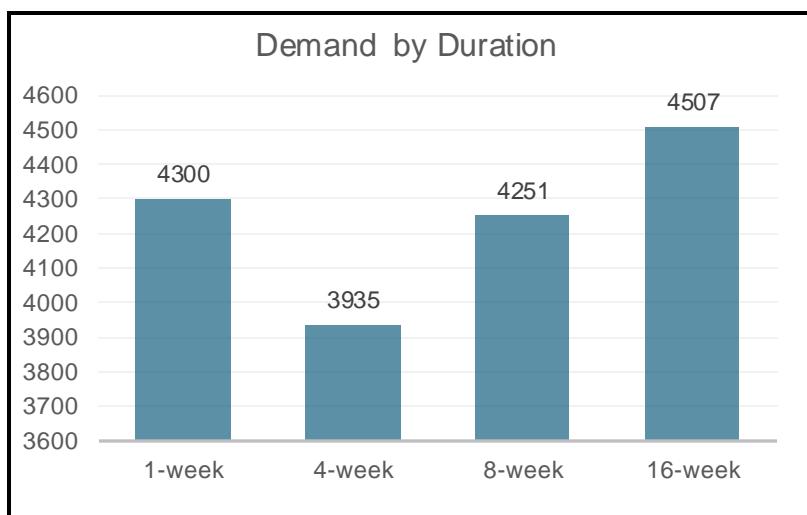
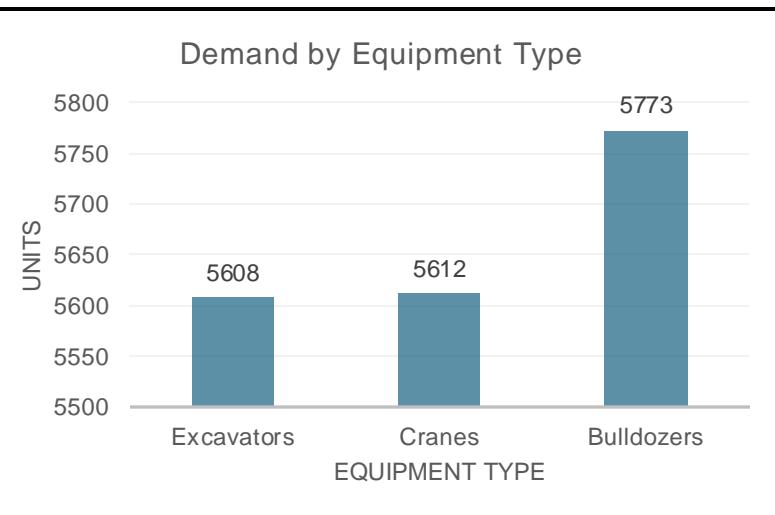
A deep-dive into the results: What growth potential can BuildMax unlock?

Revenue Generated

Long-Term vs. Short Term

Demand Variability

Fleet Utilisation



- Bulldozers have the highest demand among equipment types, while Excavators and Cranes have a similar amount of demand

- 16-week has the most demand, followed by 1-week rental durations
- Long-term rental periods are more favoured

- Evident Q2 and Q3 peaks, while the lowest is during the holiday and winter period

Considerations

- Fleet allocation as supply must match the demand.
- Opportunity to enhance pricing strategy (e.g. Bulldozers are the highest in demand, but they are not the highest in generating revenue)
- Leverage predictive demand forecasting and pricing based on duration and seasonality

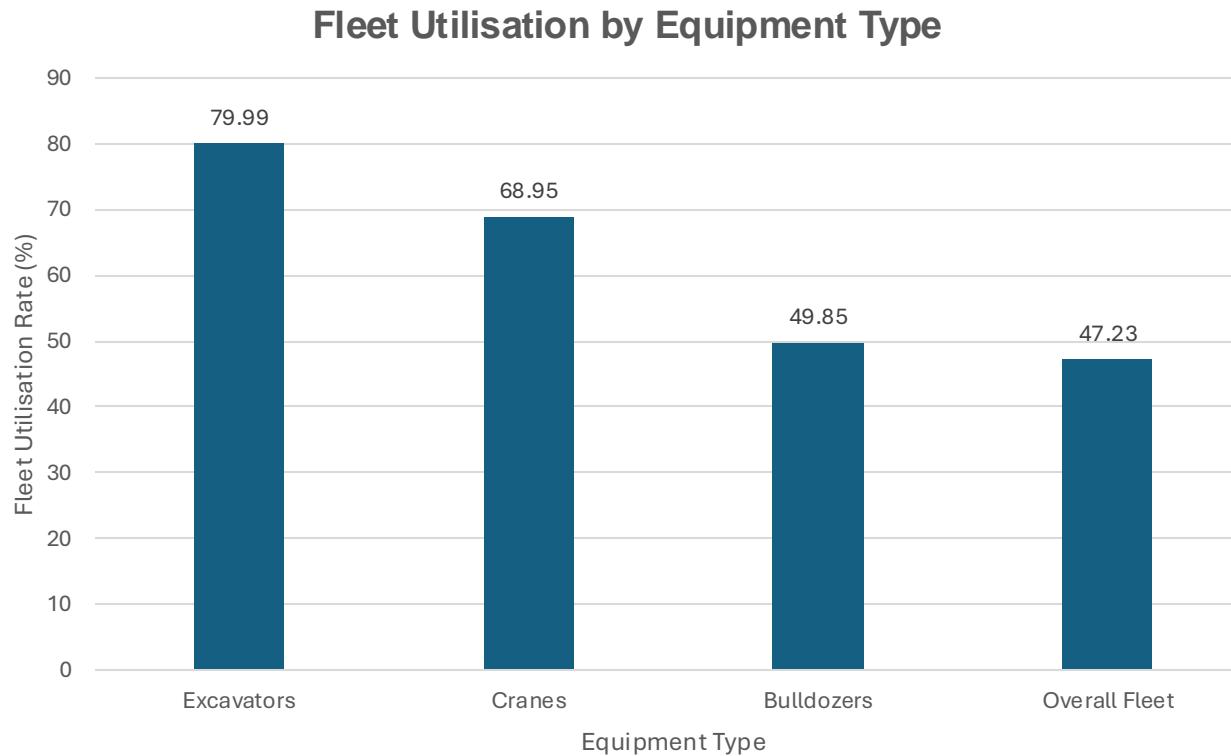
A deep-dive into the results: What growth potential can BuildMax unlock?

Revenue Generated

Long-Term vs. Short Term

Demand Variability

Fleet Utilisation



Excavators are the most in-demand and used equipment in the fleet

Cranes have a moderate utilization rate, but there's room for improvement in terms of usage.

Bulldozers are underutilised compared to Excavators, suggesting they are less in demand or their availability might not align well with rental needs.

Considerations

- Inventory reallocation
- Continue dynamic pricing practices
- Increase marketing for underutilised equipment
- Introduce promotions or incentives



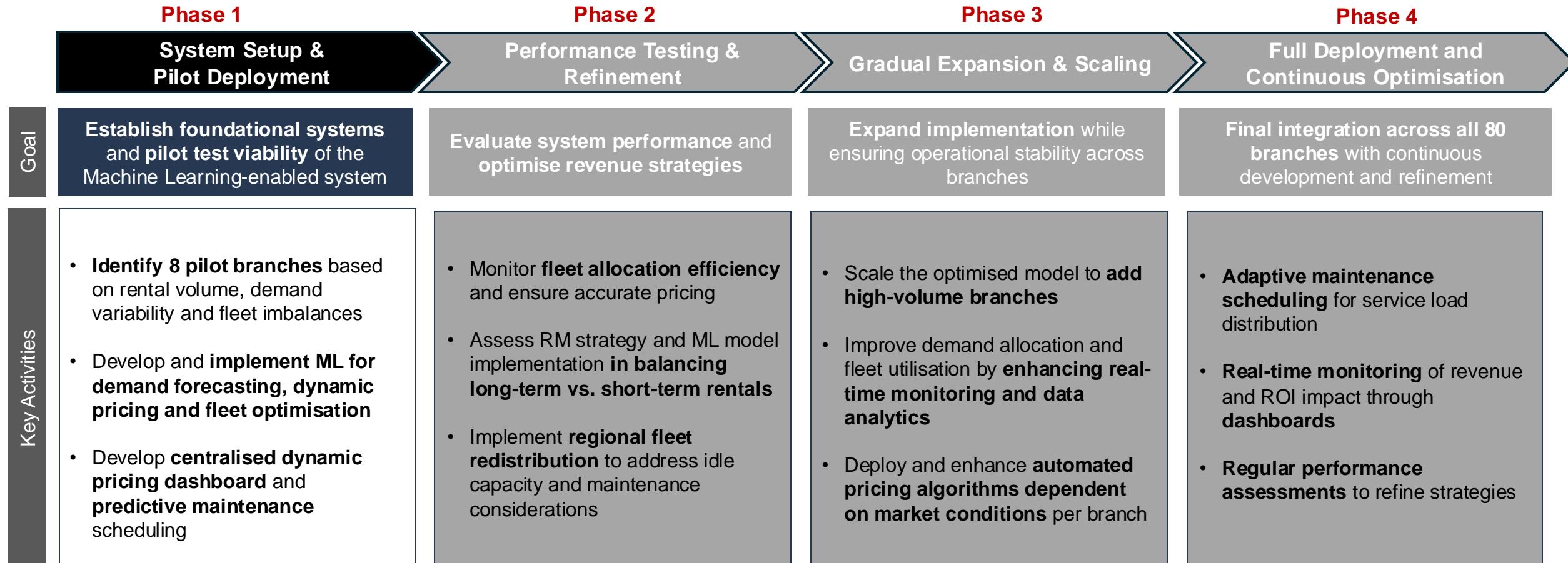
Project Implementation

Machine Learning Integration in Revenue Management

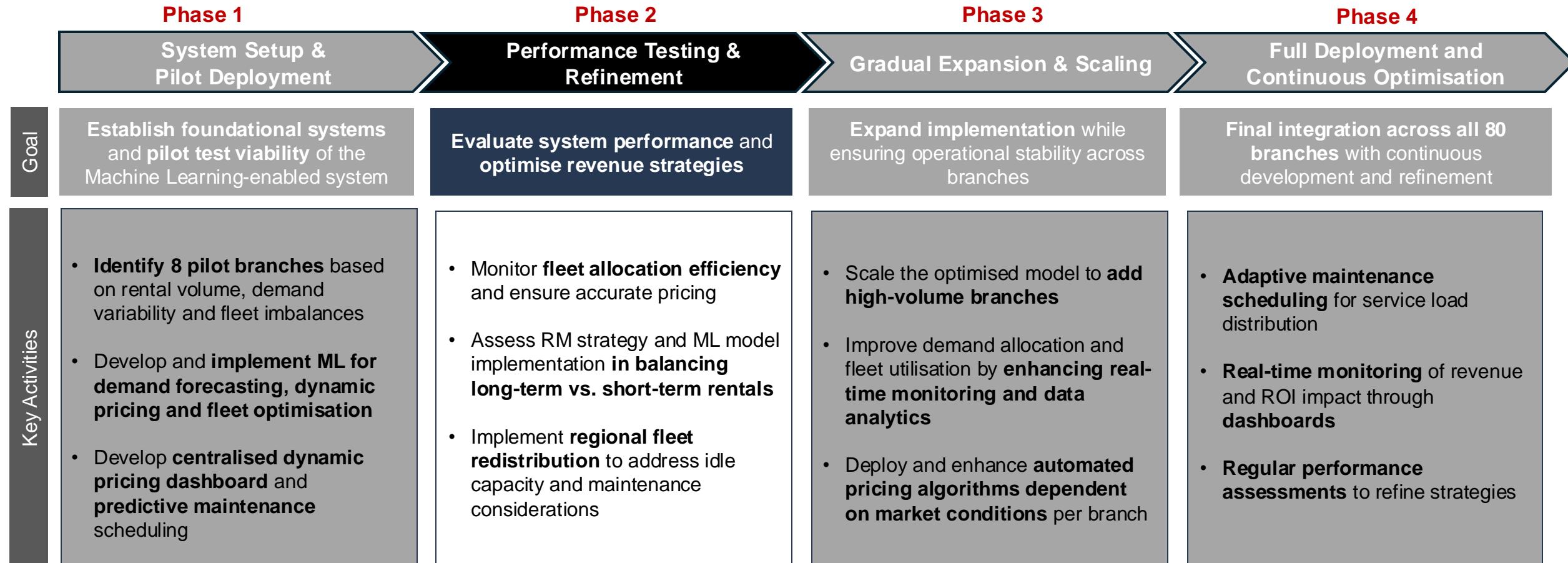
Challenges BuildMax might face adopting RM solution

- 1 Data & System Integration**
Current system may lack real-time data
- 2 Organisational Adoption**
Employees may be resistant to the new system (*pricing & allocation automation*)
- 3 Servicing Delays**
Downtime spikes
Unexpected late returns
Unwanted damage
- 4 Customer Reactions to Dynamic Pricing**
Some customers may push back against flexible pricing models
- 5 Demand Volatility & Forecasting Uncertainty**
Traditional forecasting methods struggle to capture fluctuations by seasonality, economic cycles, and external factors

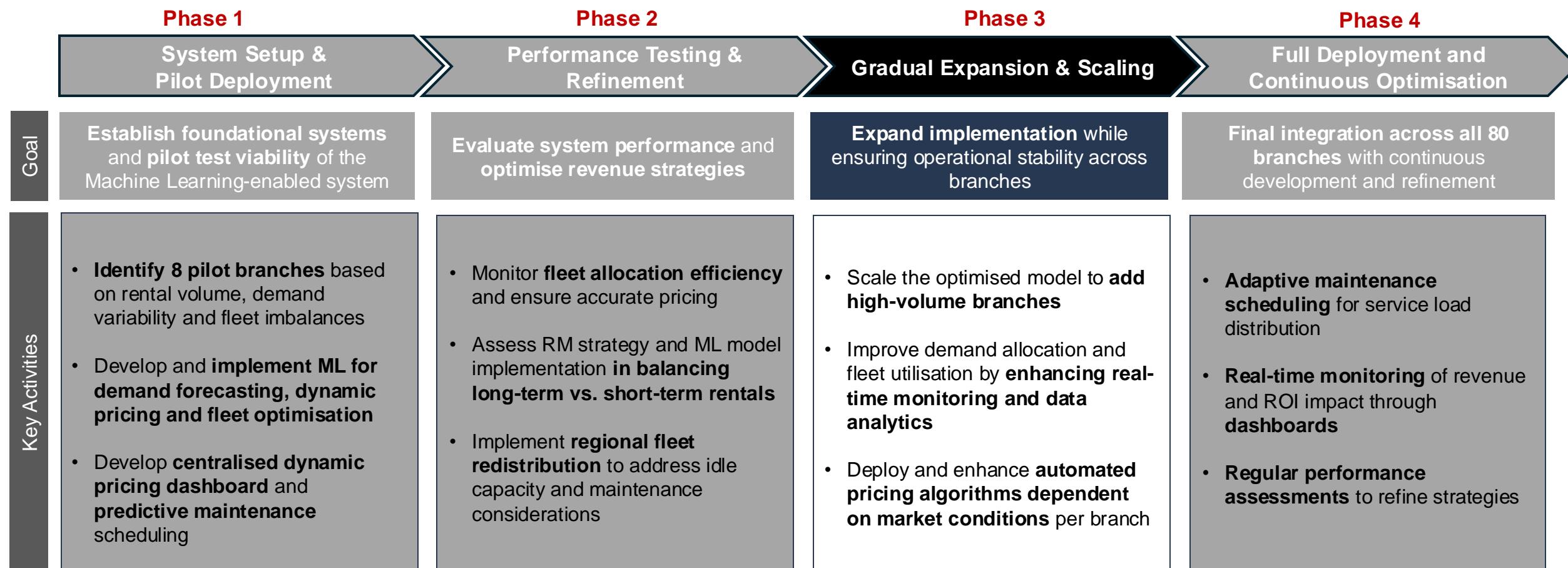
Implementation of the RM strategy proposed across 4 phases



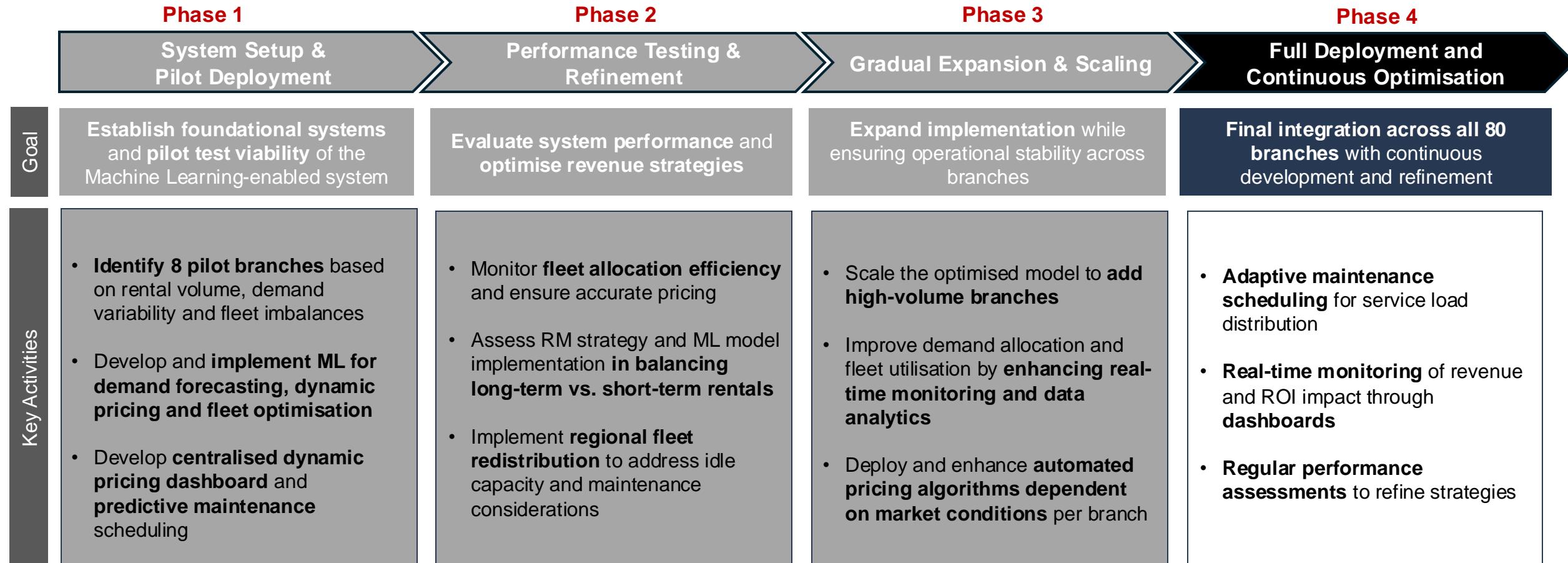
Implementation of the RM strategy proposed across 4 phases



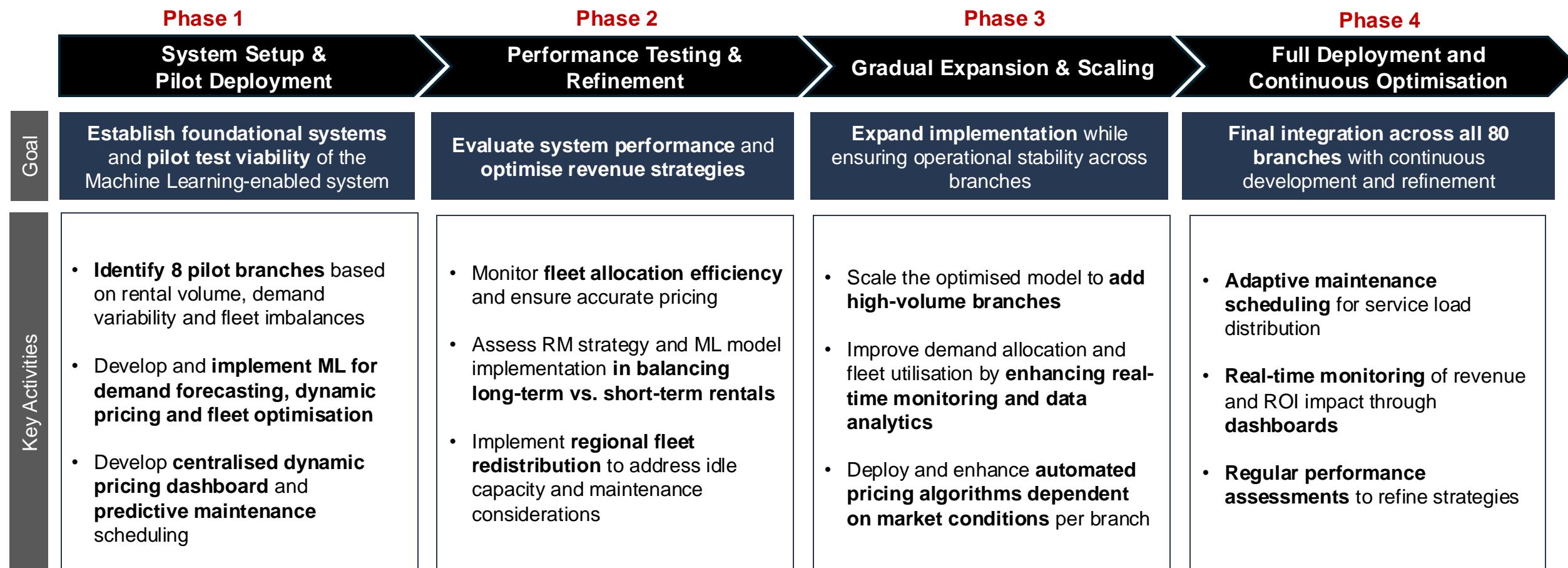
Implementation of the RM strategy proposed across 4 phases



Implementation of the RM strategy proposed across 4 phases



Implementation of the RM strategy proposed across 4 phases



Training, Assessment and Upskilling across the Organisation

Alignment Meetings and Feedback Loops

Continuous Data Gathering and Understanding



Thank You!