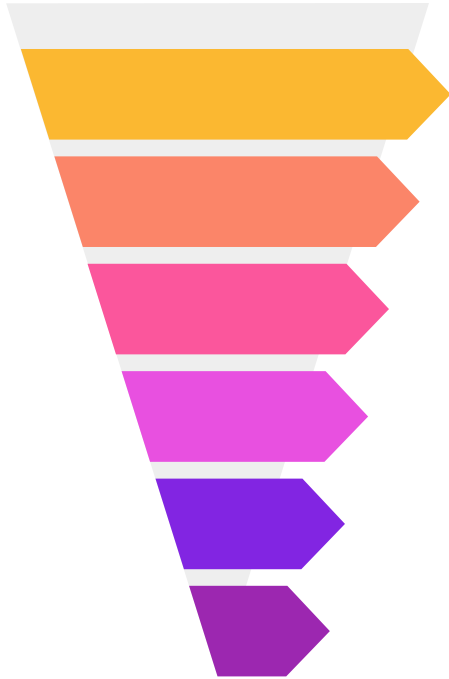


# CoatXR BPM Project

Mart Traagel

# Project introduction



**CoatXR**

Dutch company, area of coatings and paints

**Subsidiaries**

Purchase orders handled by CoatXR

**Process**

Grown in complexity, might affect performance

**Improvement**

Explore capabilities of process mining

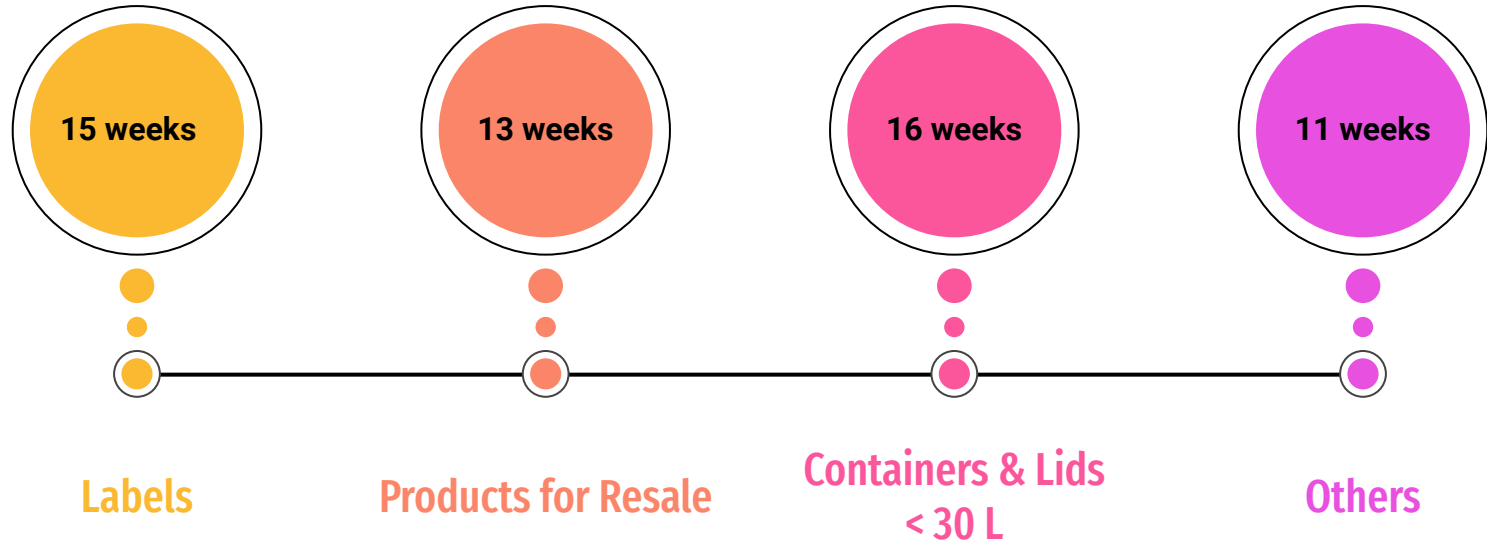
**10 vendors**

Analyse and provide insight to the process

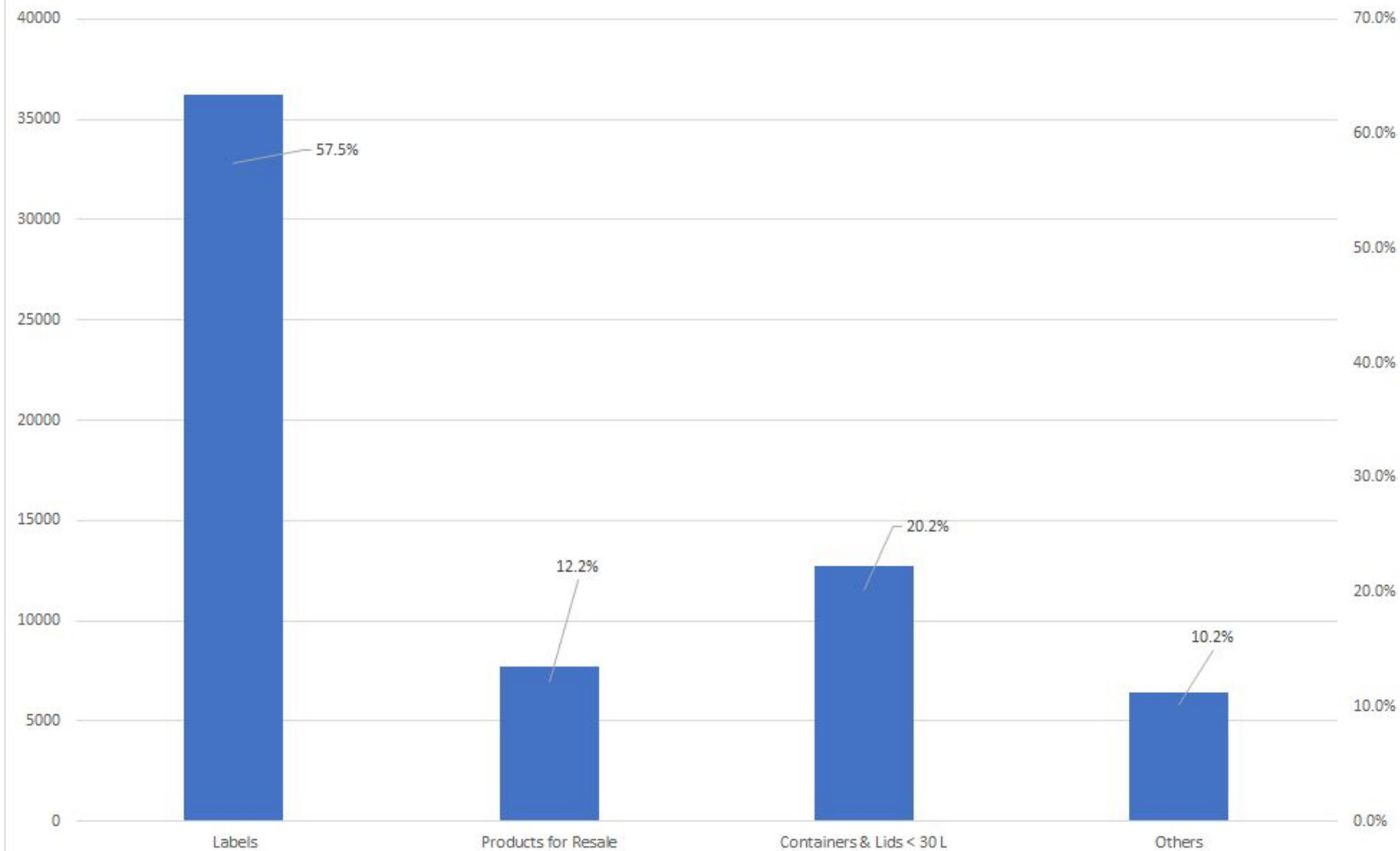
**Report**

Suggest ways to improve the process

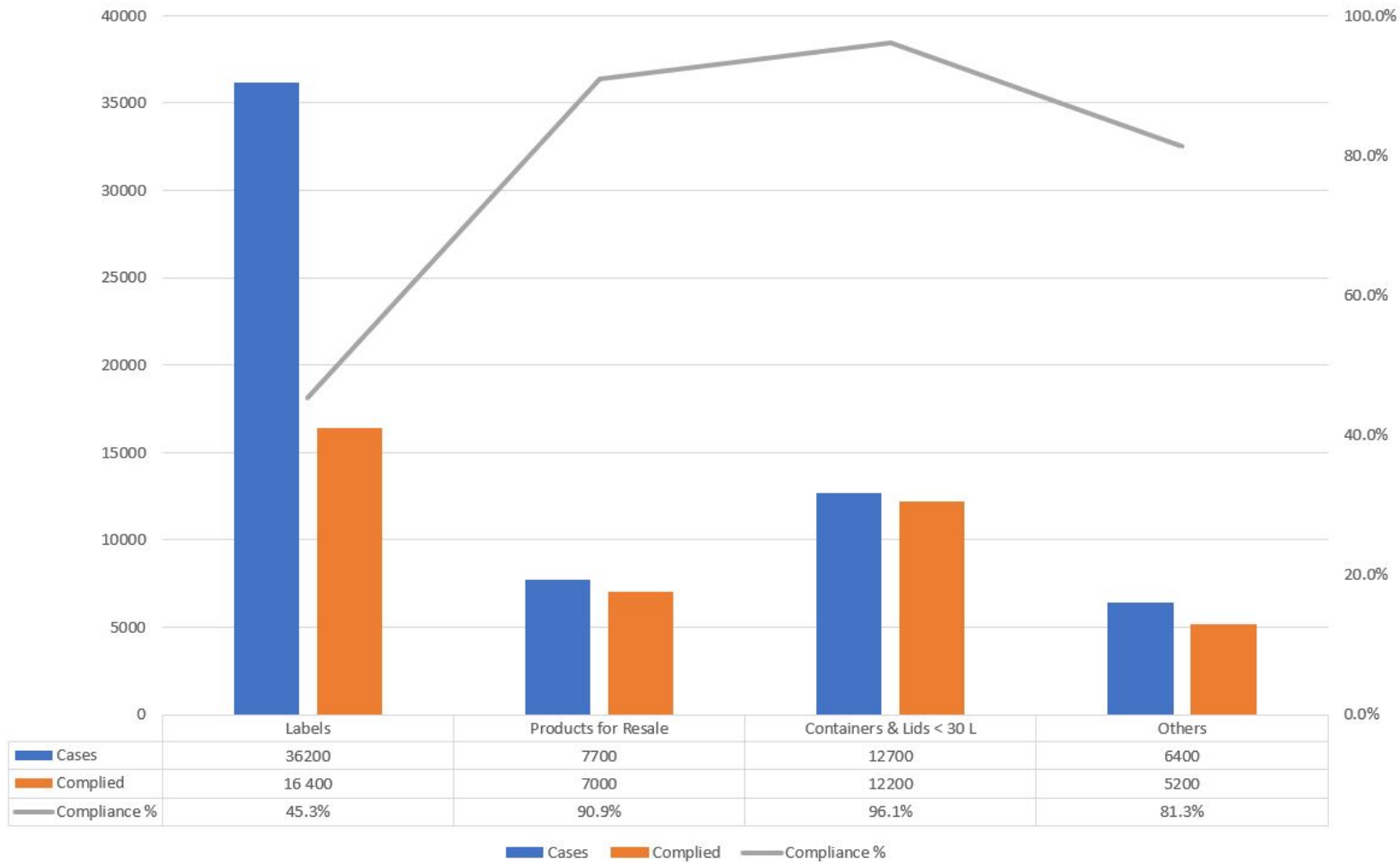
# Service-level agreement (SLA) Compliance



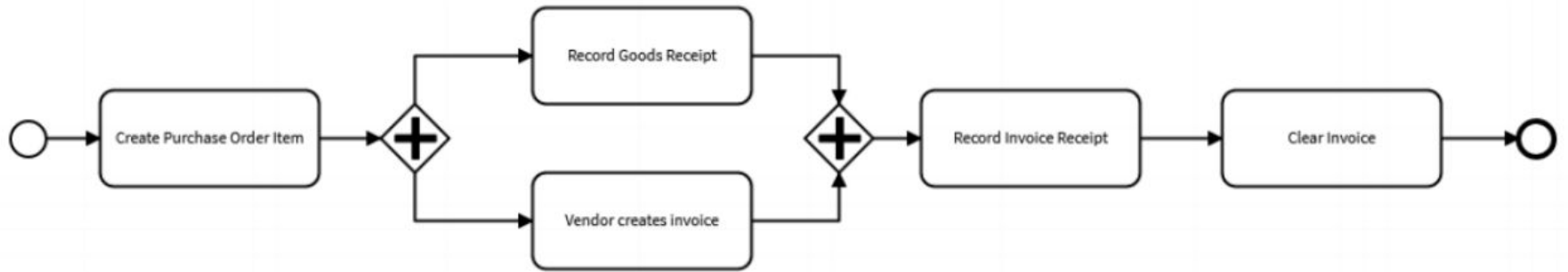
Distribution of Cases



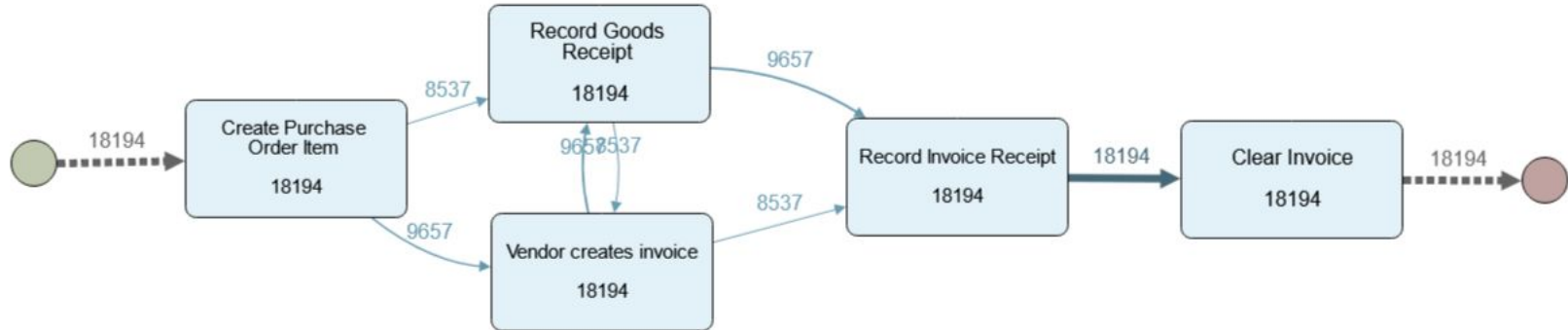
Compliance Ratio



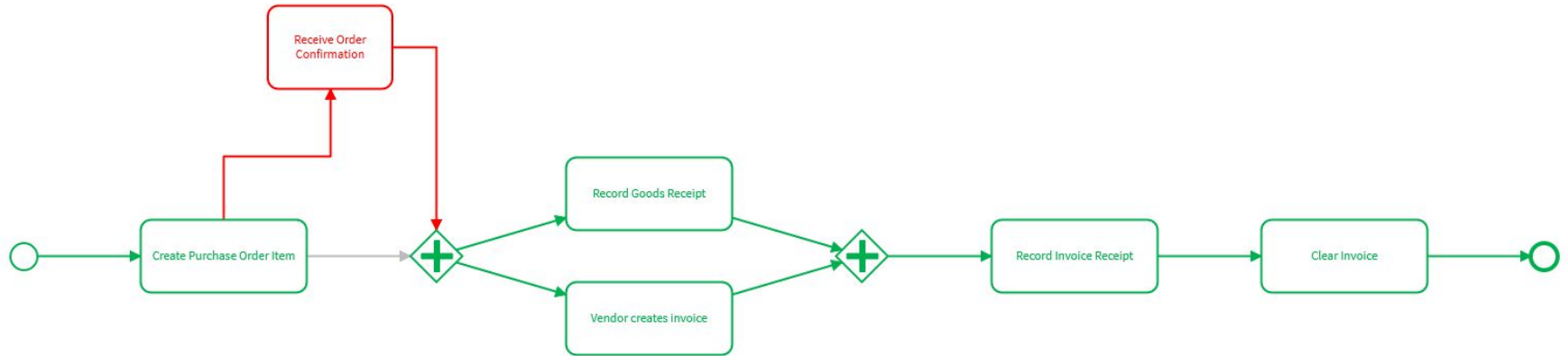
# Deviations from ideal flow



# 18194 Ideal cases (29%)

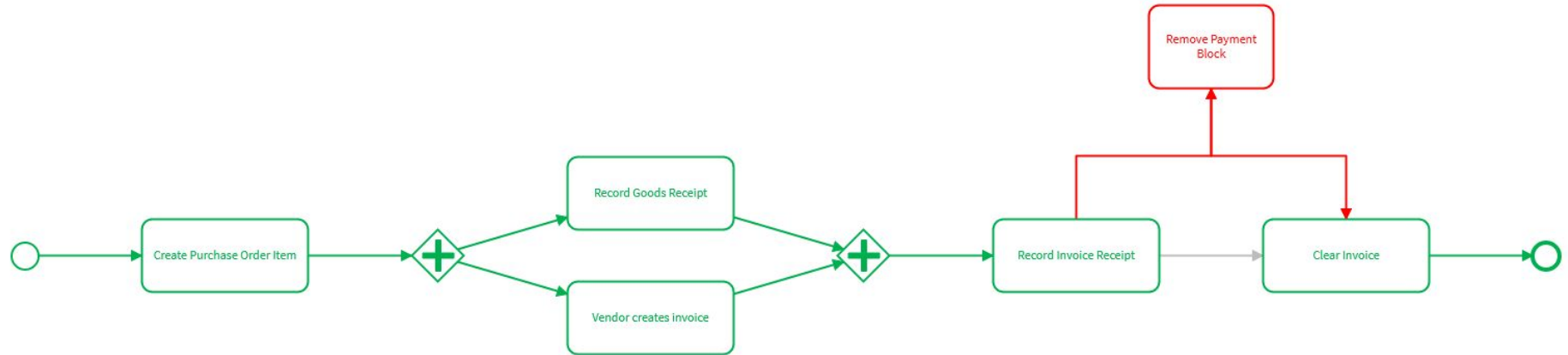


# Common deviations (1) - 6834

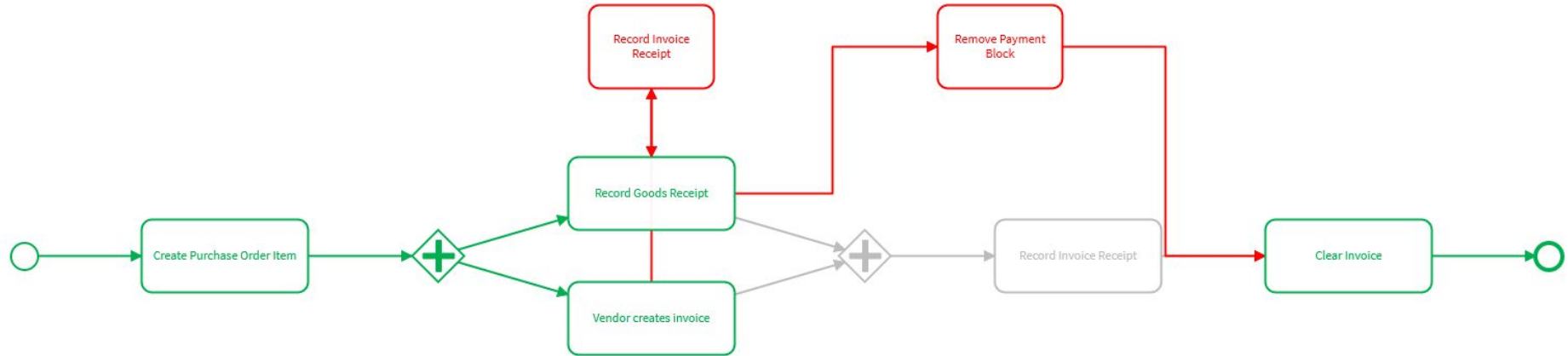




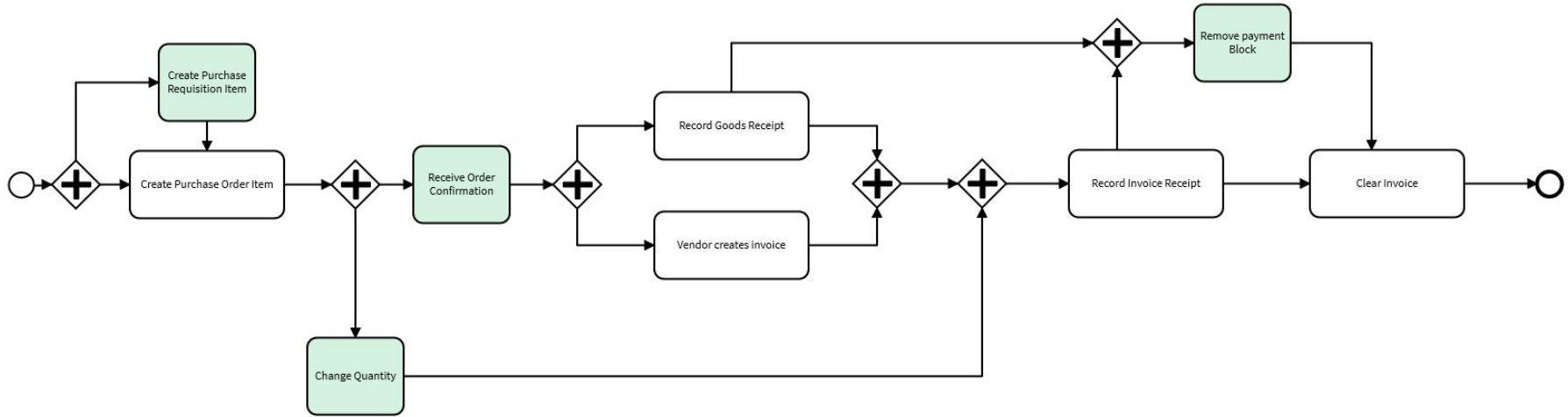
## Common deviations (2) - 3430



# Common deviations (3) - 2902

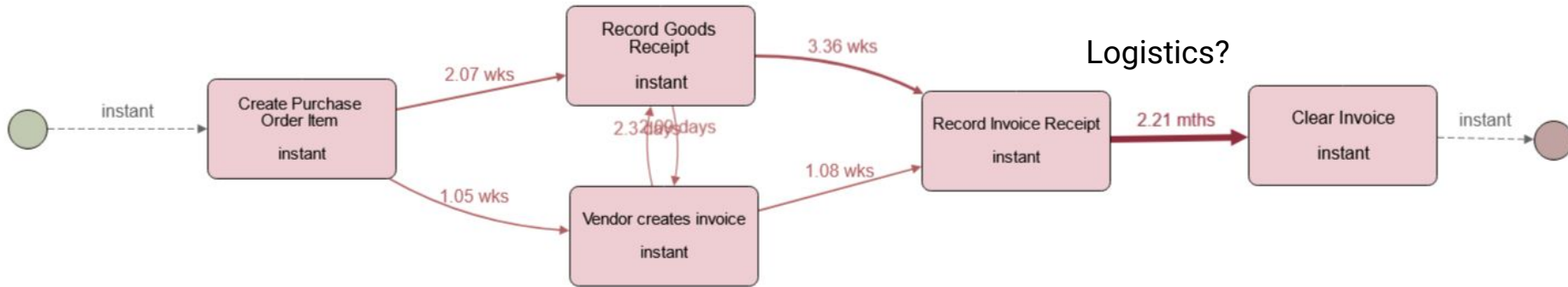


# Common deviations (4)

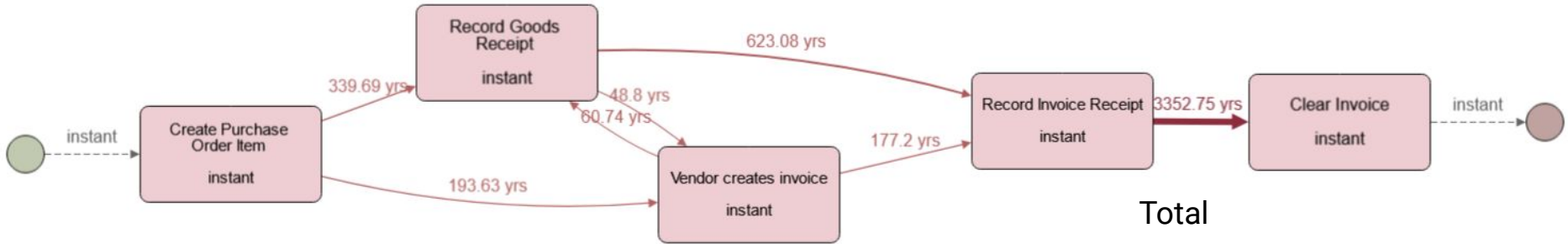


Reasonable cutoff: 1500+ cases (~2%)  
Covers 95%+ of cases ( $\pm 2\sigma$ )

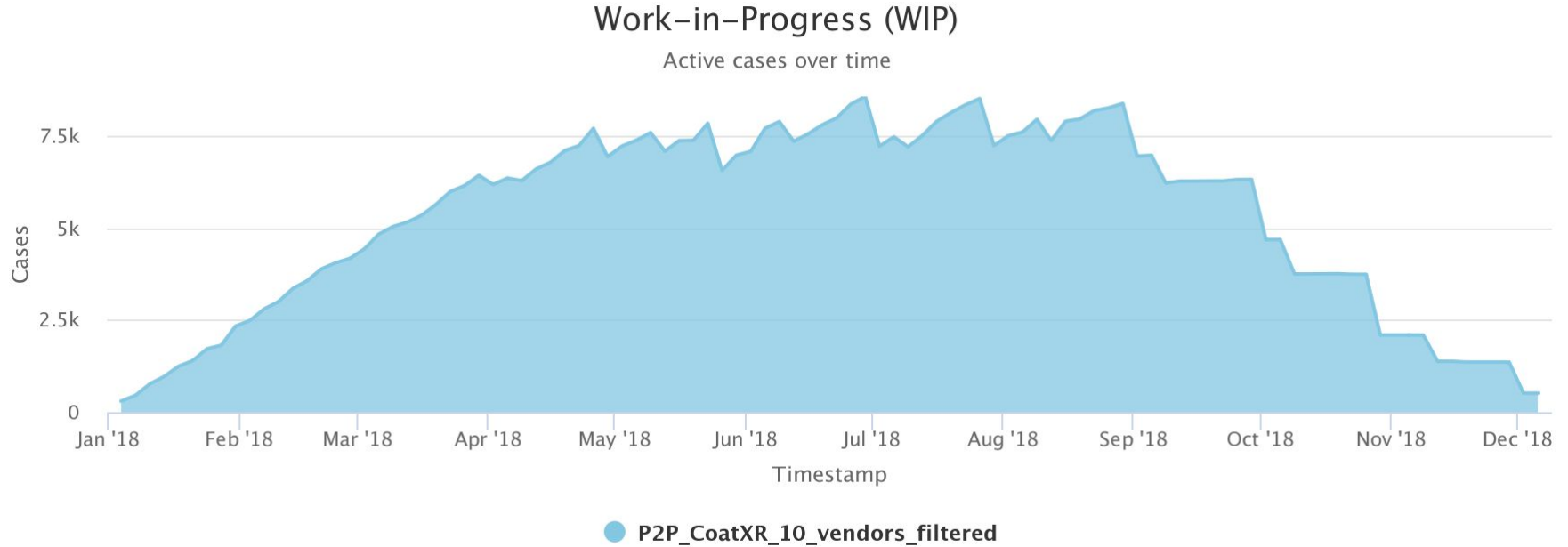
# Process Milestones (average phase length)



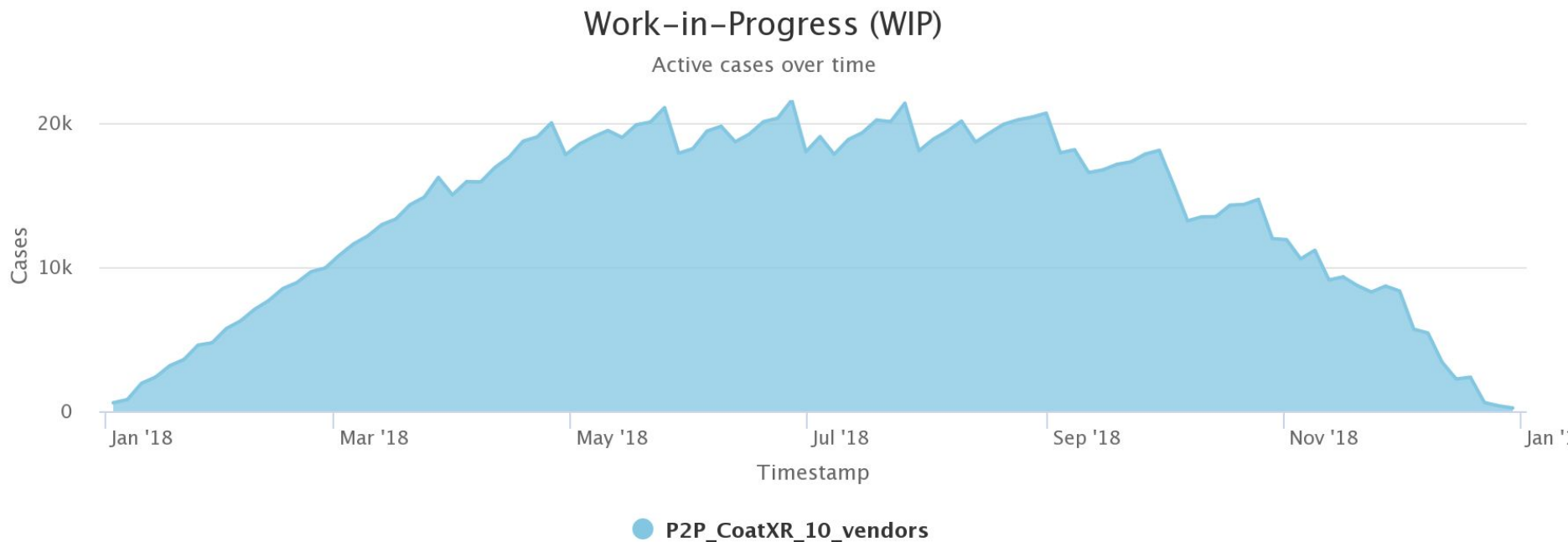
# Process Milestones (total phase length)



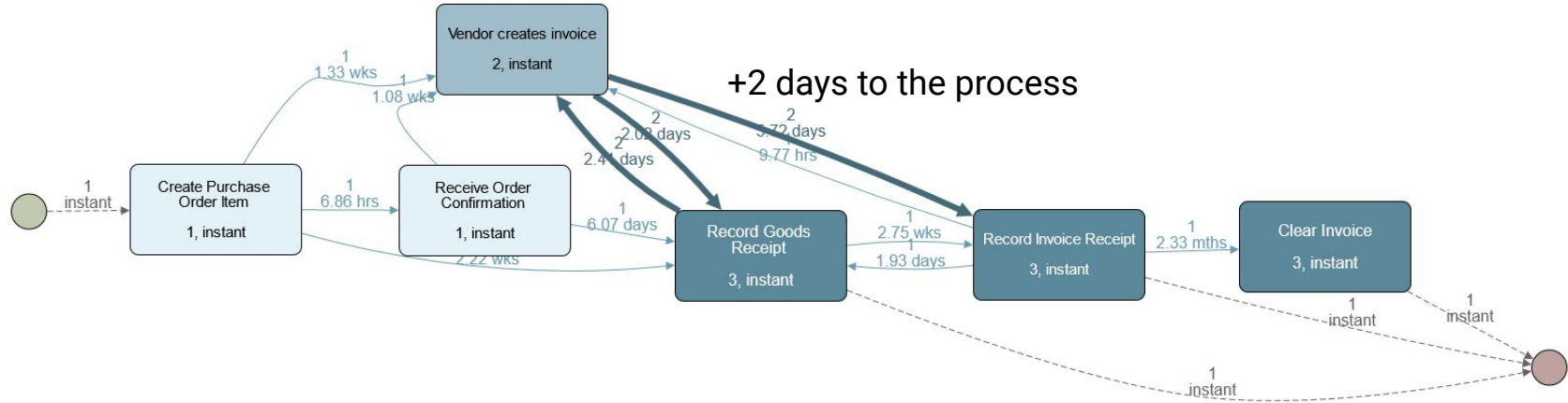
# Seasonality of the process (WIP) - Ideal Cases



# Seasonality of the process (WIP) - General Cases



# Rework-loops (1)

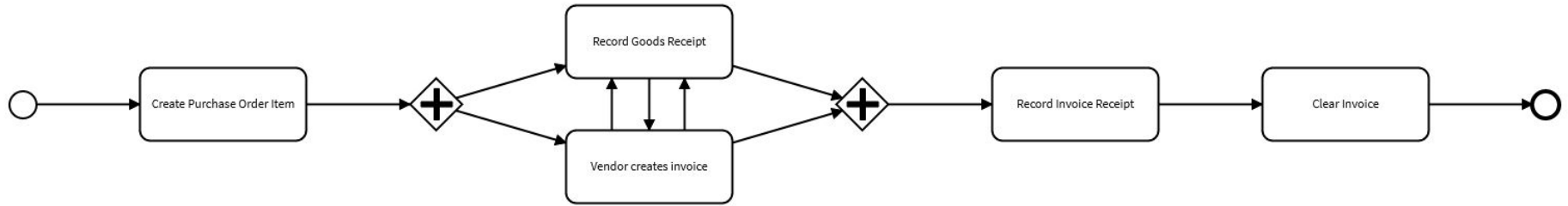


Mainly changes in quantity or price



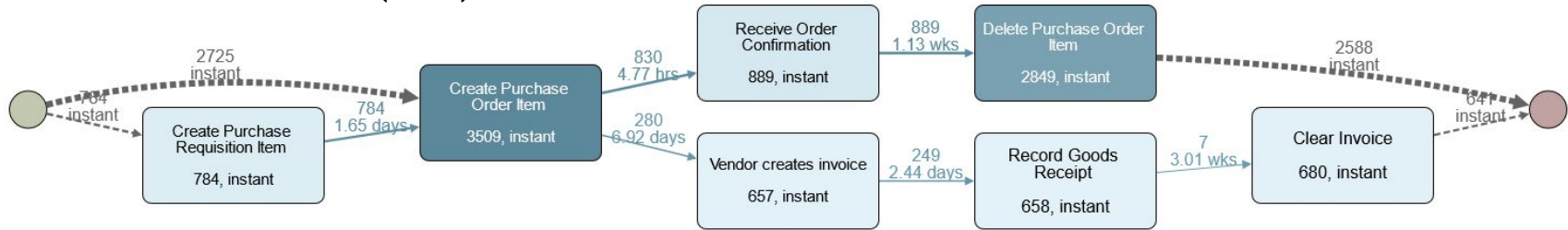
# Rework-loops (2)

Would benefit from a linear flow



# Effects of cancellations and deletions

- 3509 processes involved with cancellations and deletions
- 2588 (90%) deletions streamlined
- 53 (1.5%) reactivated



# Cancellation Insights

## Reasons ?

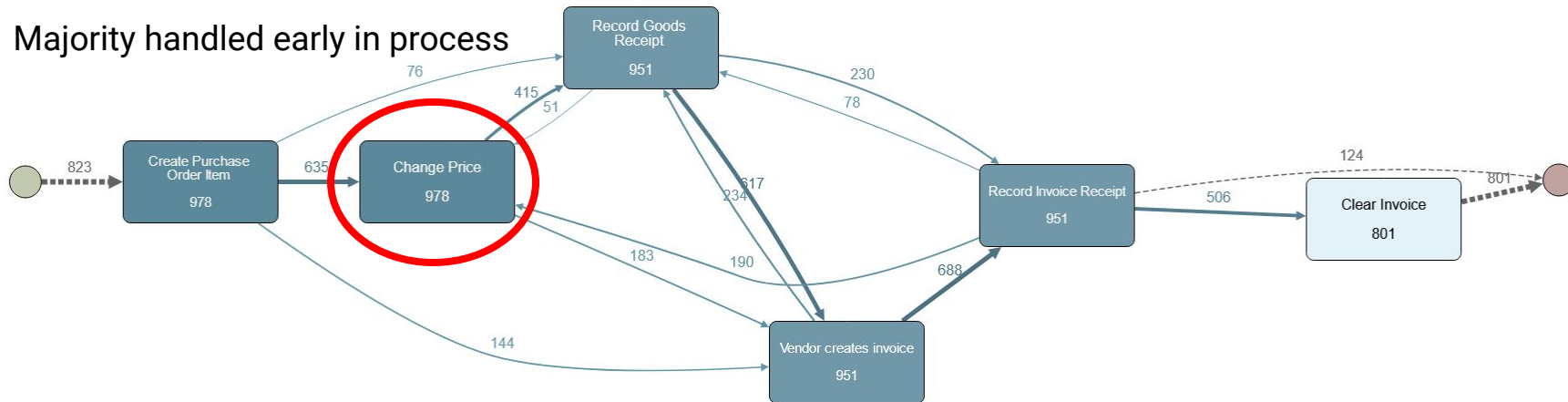
- Changes in order quantity and price
- Order confirmation ~8 days from order created
  - Long waiting time, found a new vendor?

## Improvements ?

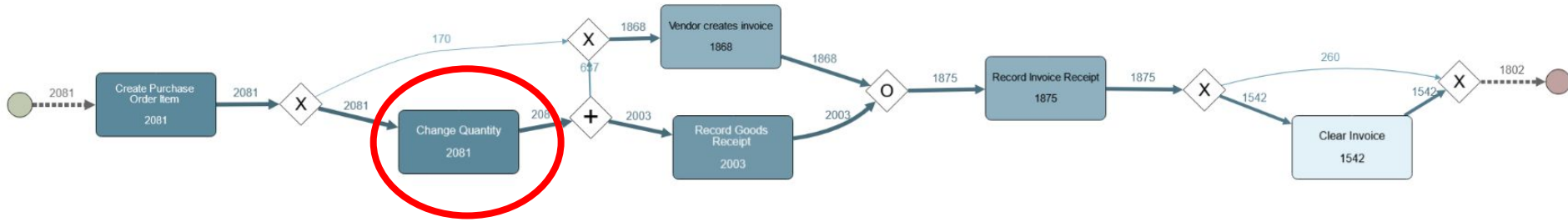
- 1920 (67.4%) cancellations straight from purchase order
  - 6 days wait in system, could be handled faster

# Effects of changes - price

Majority handled early in process

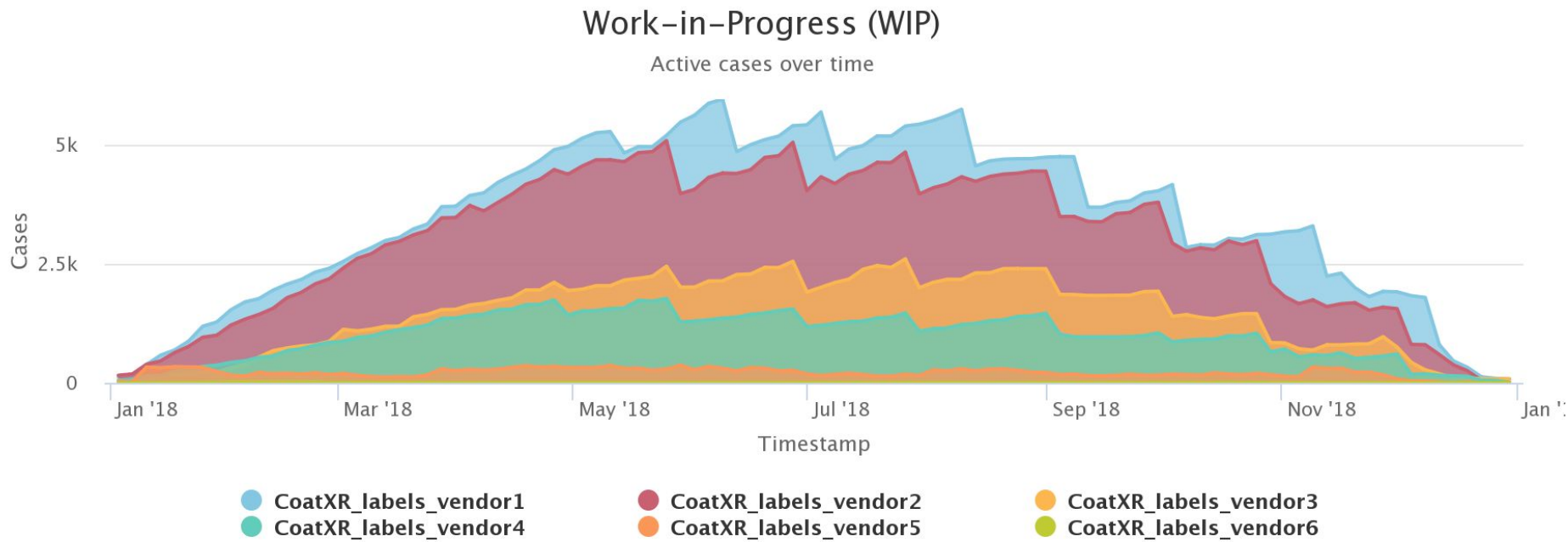


## Effects of changes - quantity

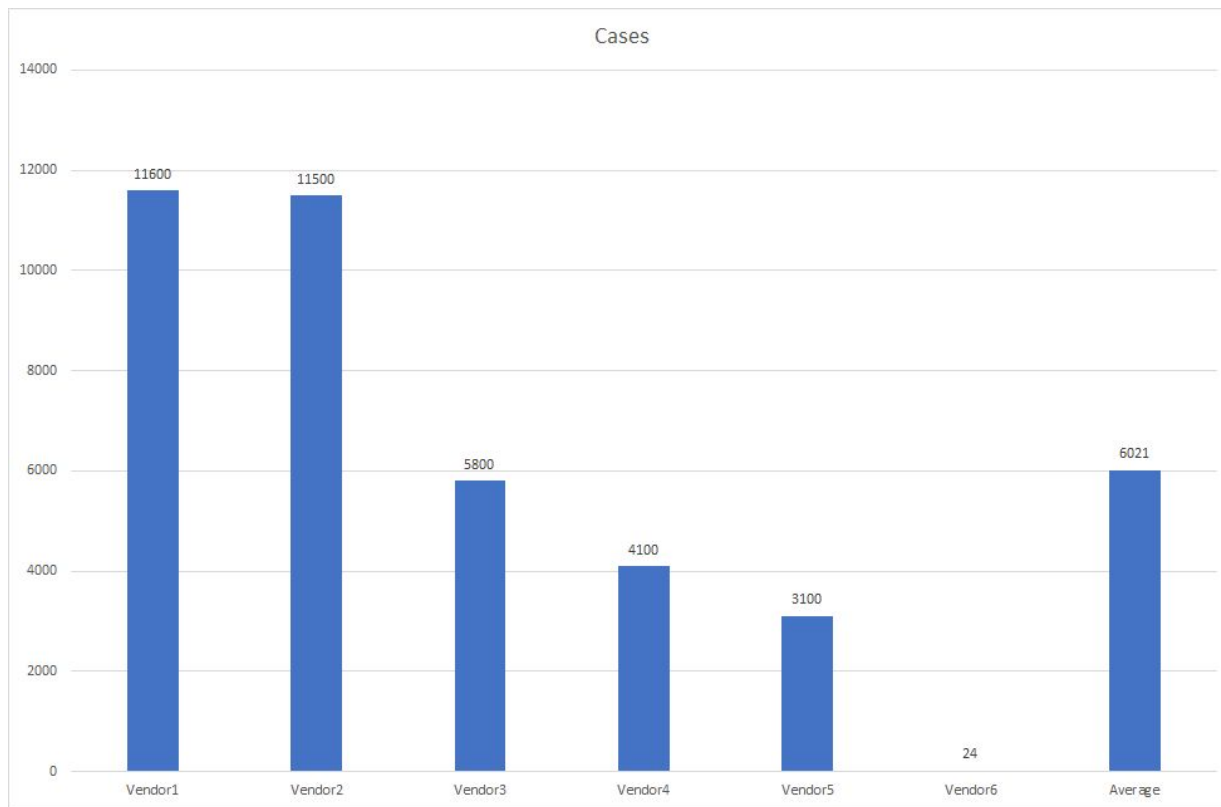


## Majority handled early in process

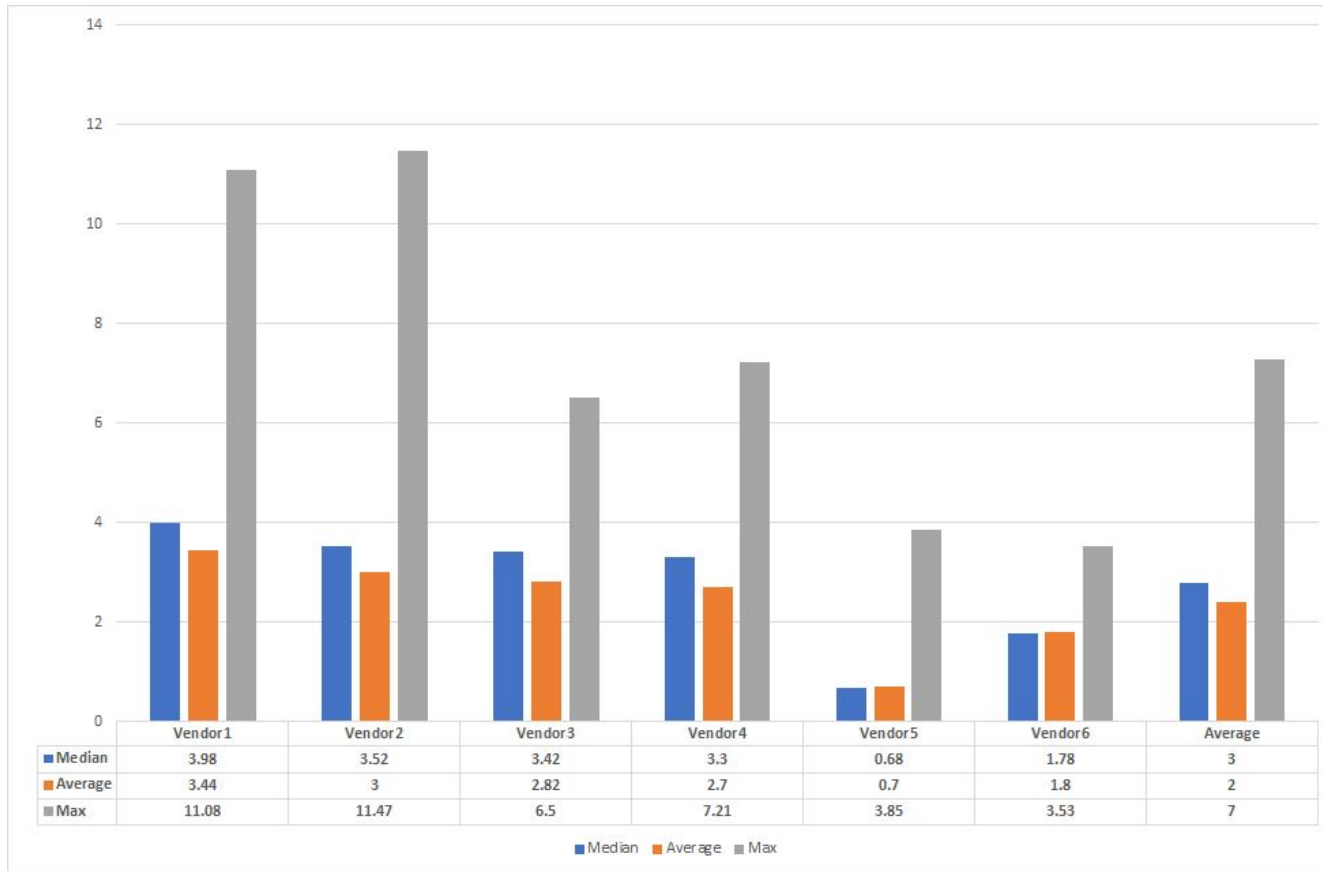
# Differences between vendors of labels



# Label cases by Vendor

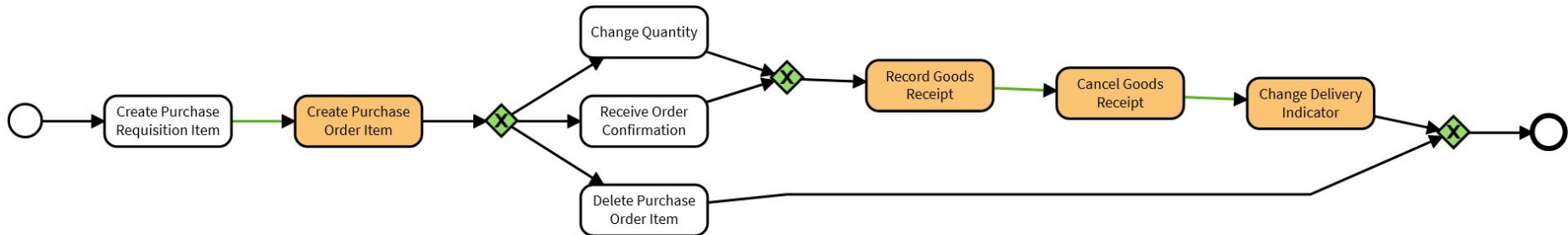
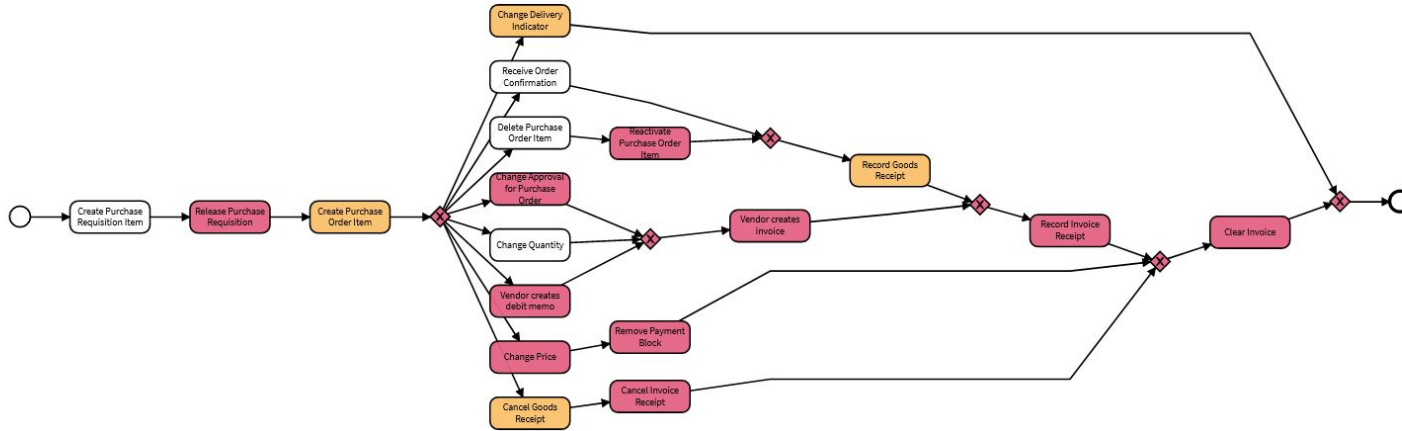


# Case duration by vendor (months)

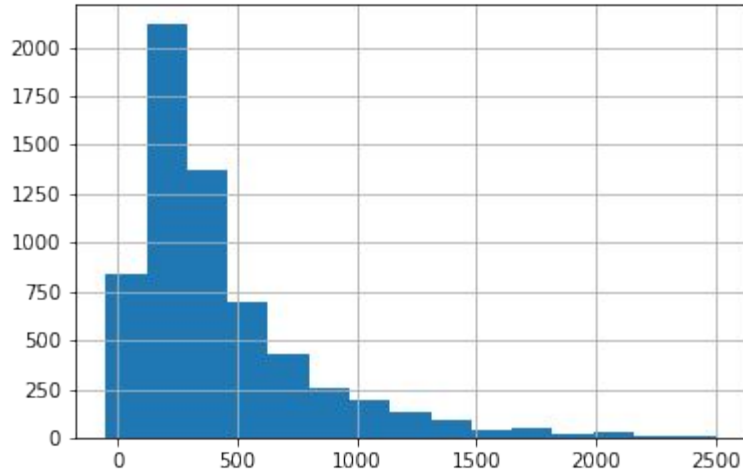




# Vendor 1 vs Vendor 5



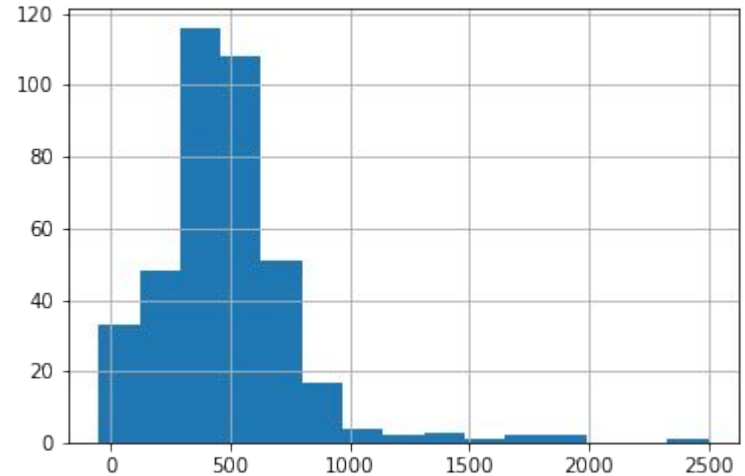
# Free-form analysis



Label

transaction price distribution (€)

4 142 408 €

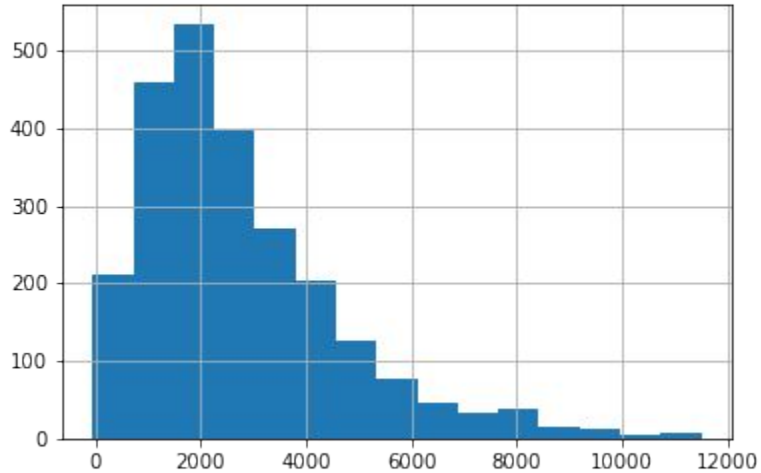


Products for resale

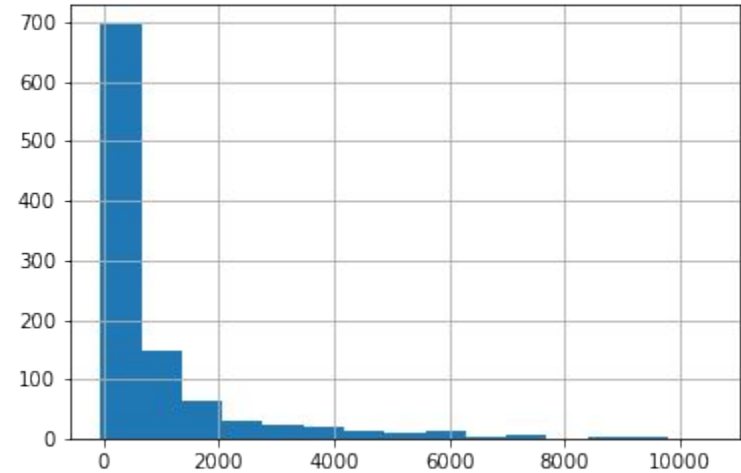
transaction price distribution (€)

211 582 €

# Free-form analysis 2

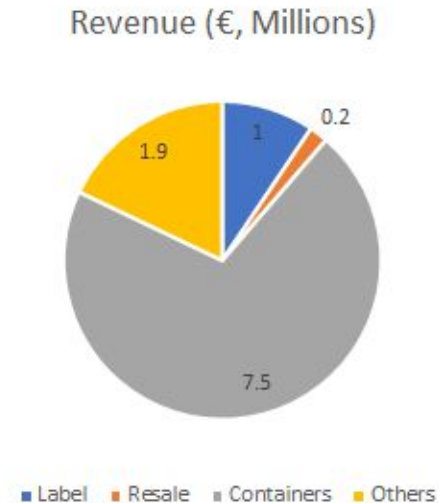
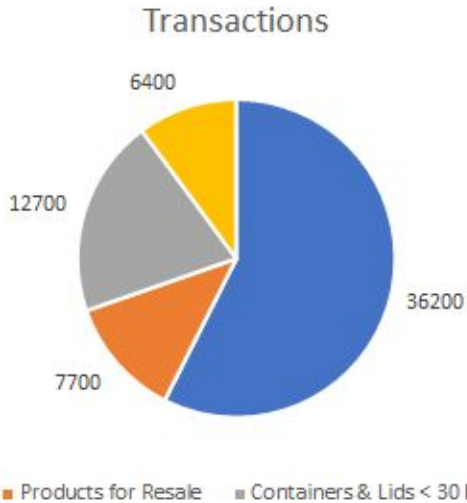


Containers < 30 L (Both)  
transaction price distribution (€)  
7 468 615 €



All others  
transaction price distribution (€)  
1 944 554 €

# Transactions vs Revenue



# Recap

## Equalize distribution

Optimize distribution  
between vendors to balance  
load

65% Cases

comply with SLA

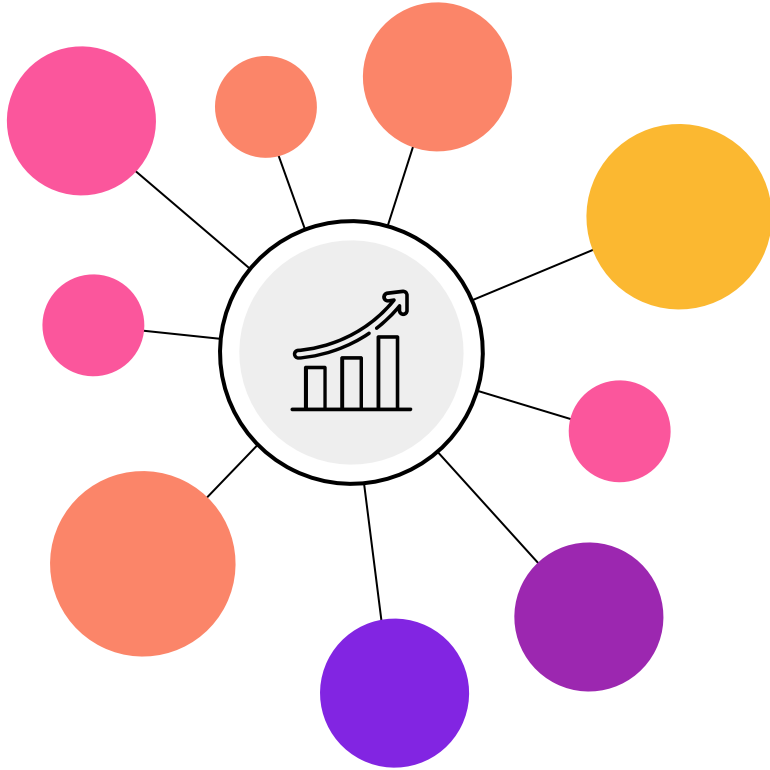
## A more linear process

Would reduce inherent  
loops and help optimize

29% Cases

follow ideal flow





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