INNOSALE

# **Price Forecasting**

**Demag Usecase** 



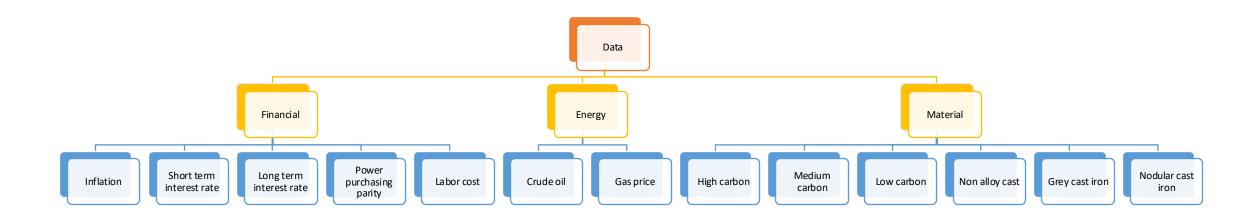
01.

## **Data Exploration**

(2004 - 2021)

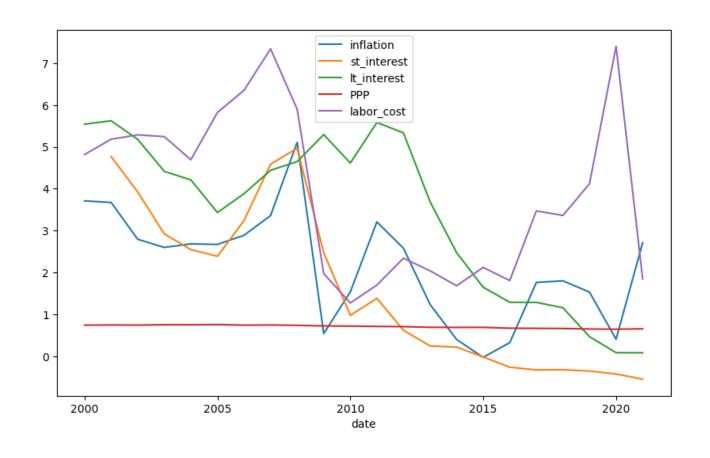


### **Dataset Hierarchy**





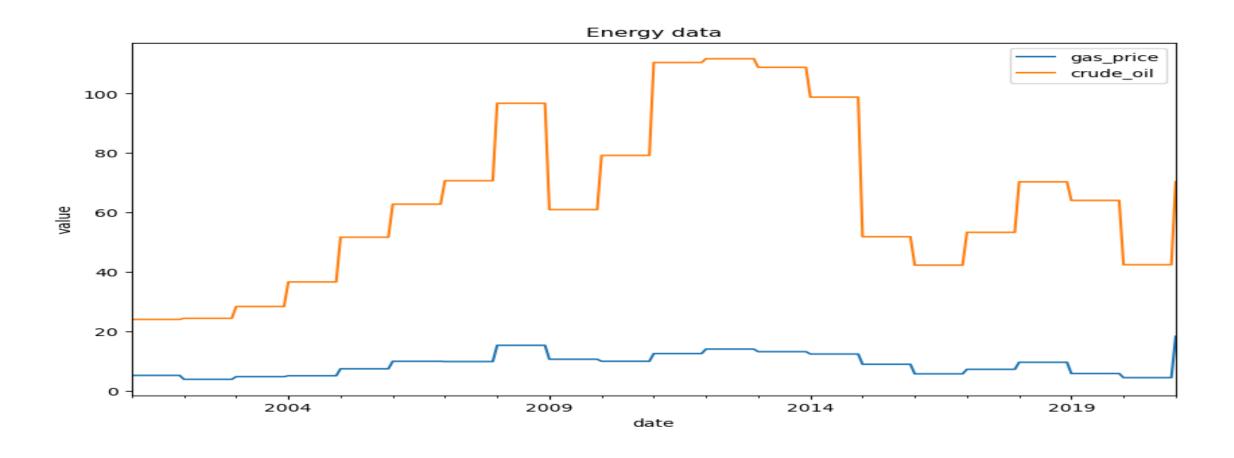
#### Financial data plot



 Purchasing power parity value varies between 0.74 and 0.65

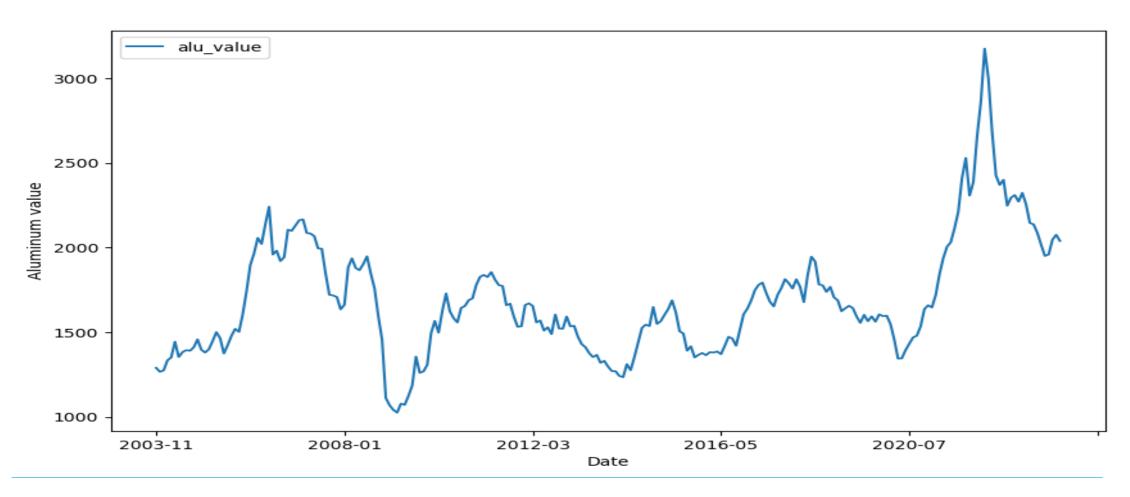


## **Energy data plot**



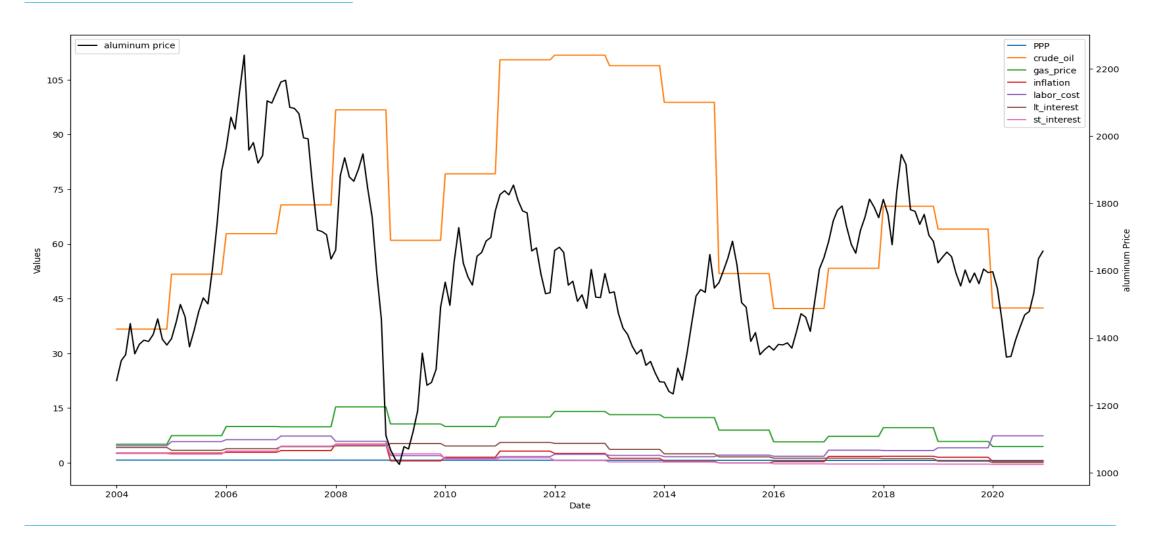


#### Material data plot



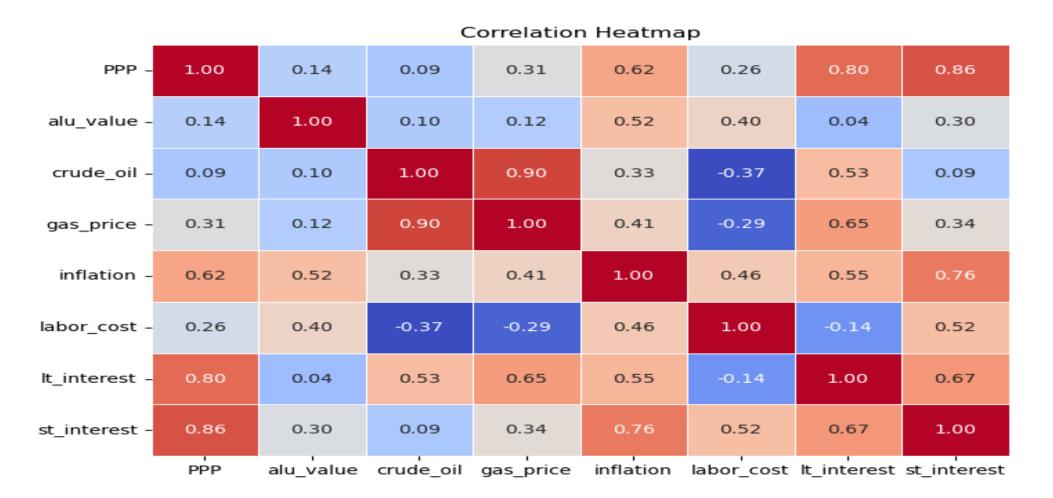


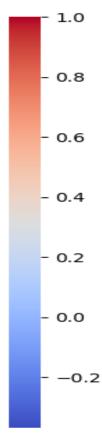
#### Accumulated price change across time





#### **Correlation Heatmap between features**

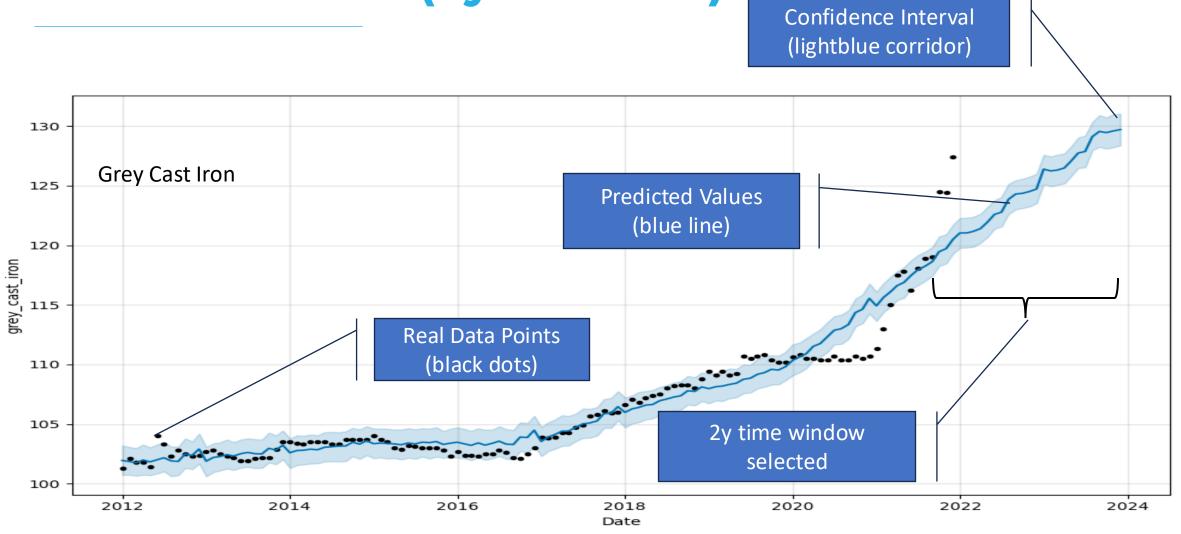




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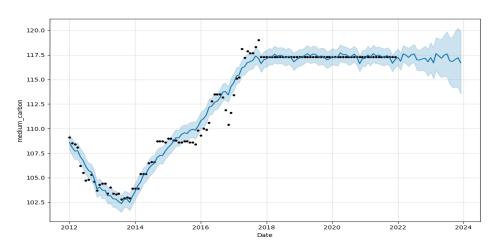
# Prophet

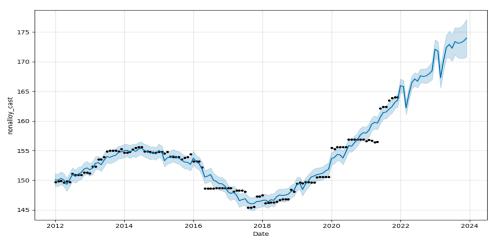




#### **Alloy Predictions**

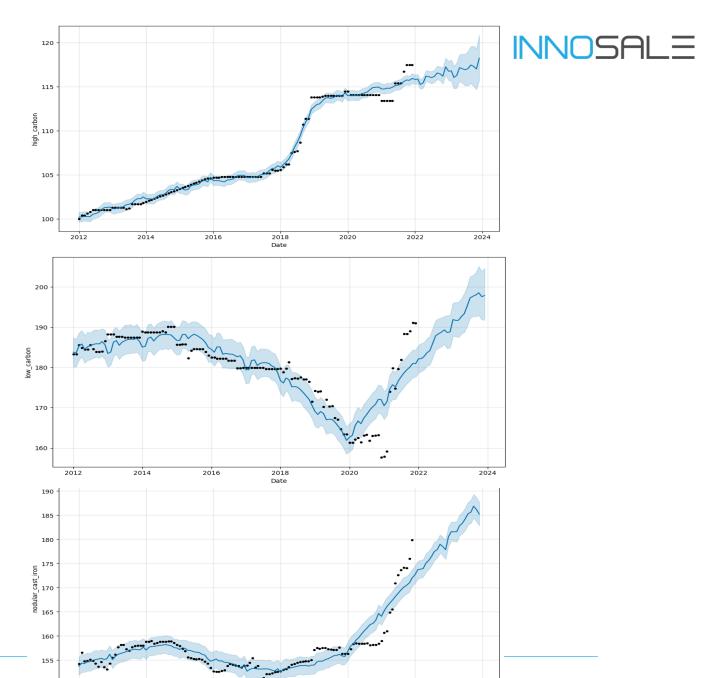
#### 2y forcasting window













### **Aluminum forecasting**



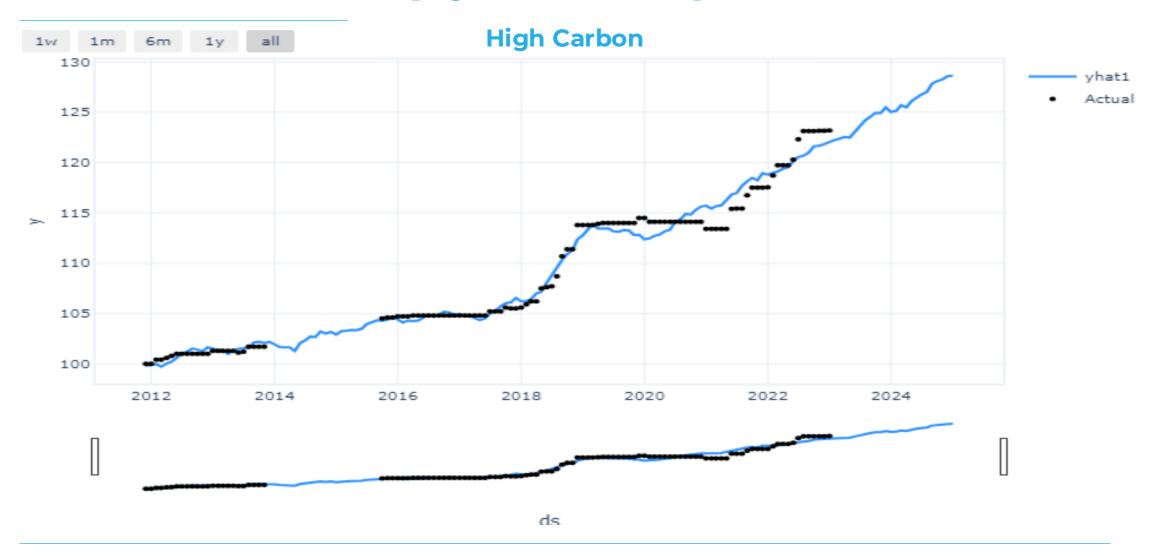
- Bad generalization fitting from the prophet model
- Need more fine tunning



01.

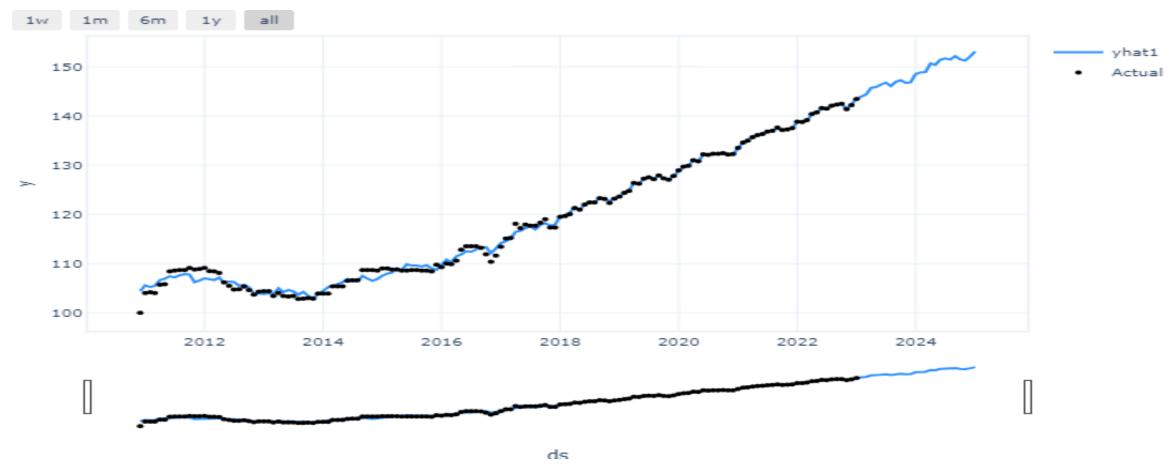
# **Neural Prophet**





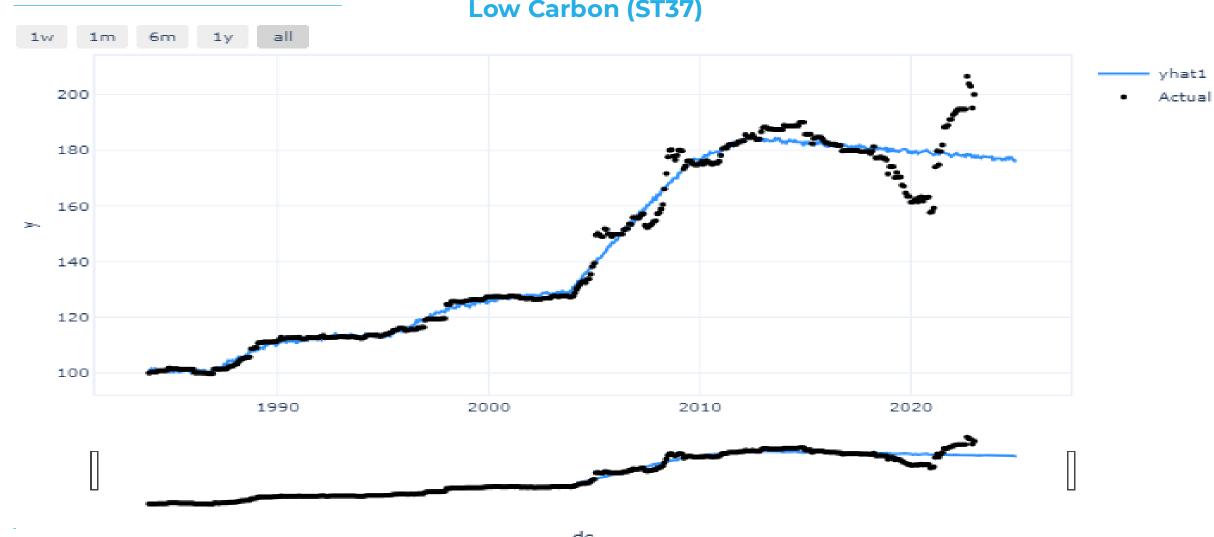




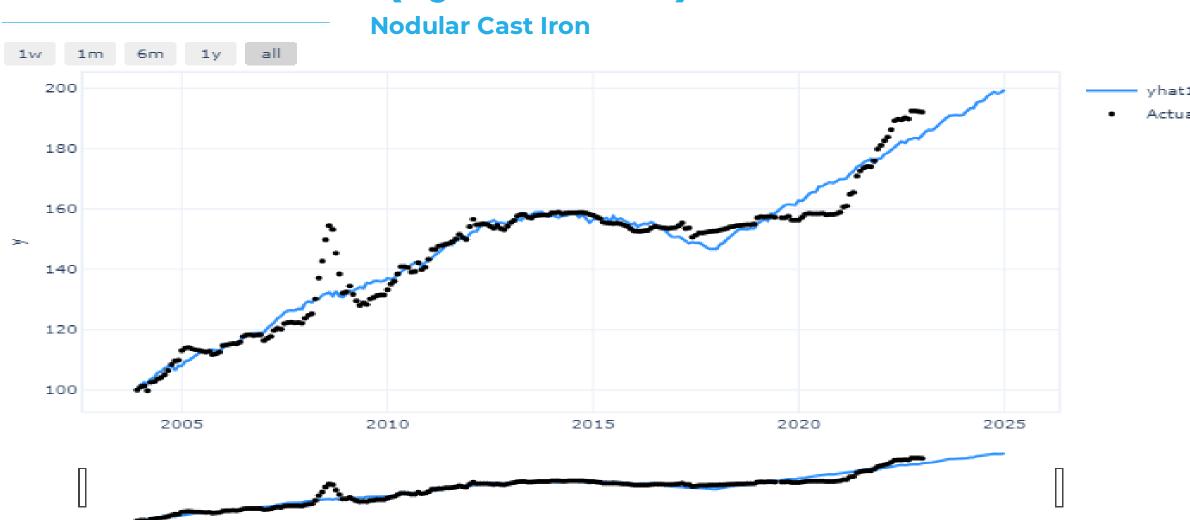




Low Carbon (ST37)







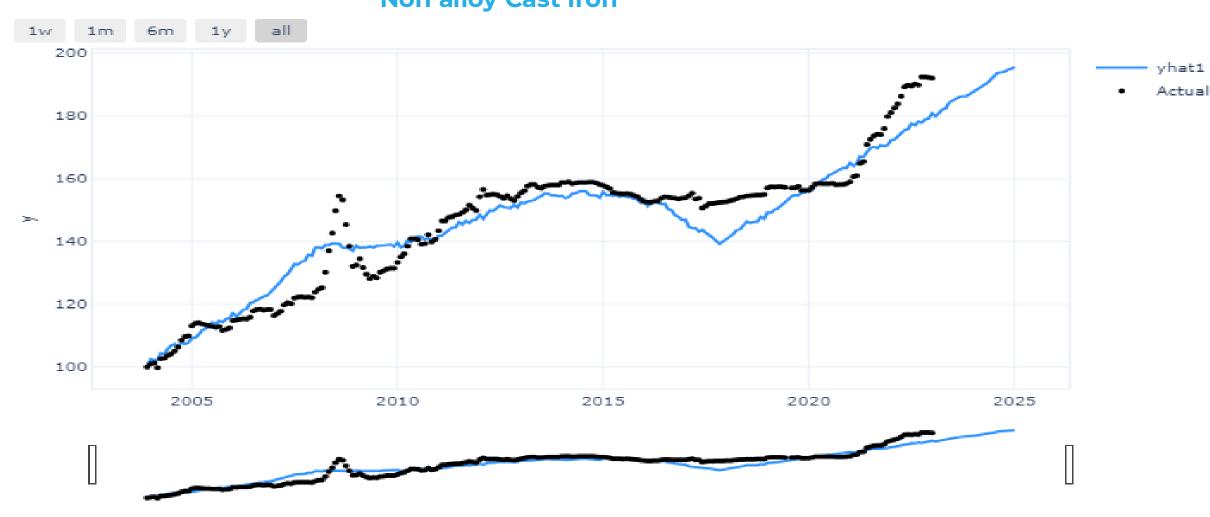




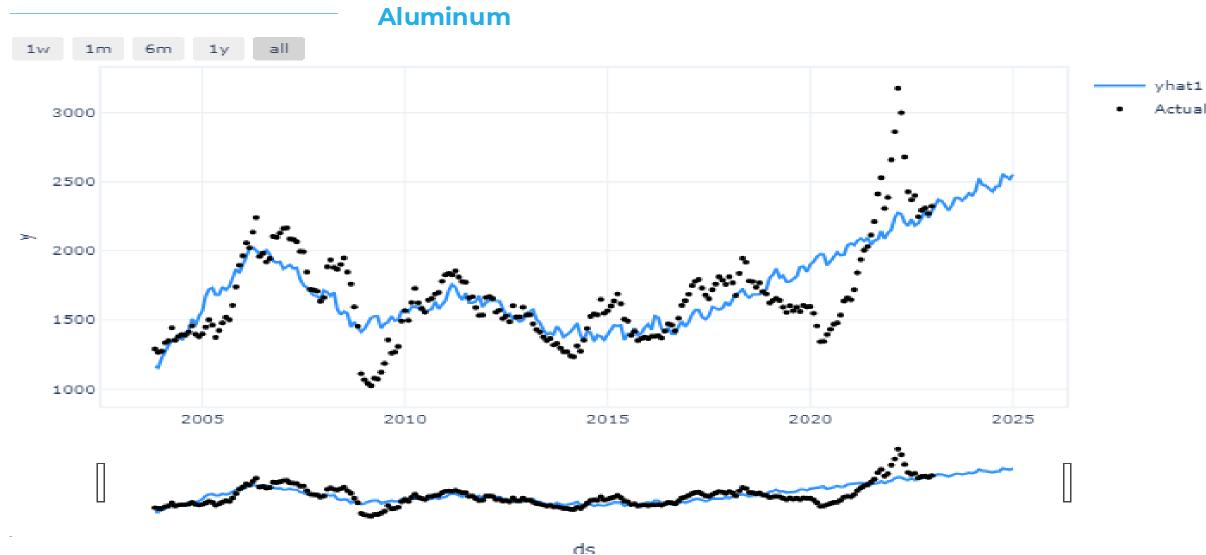




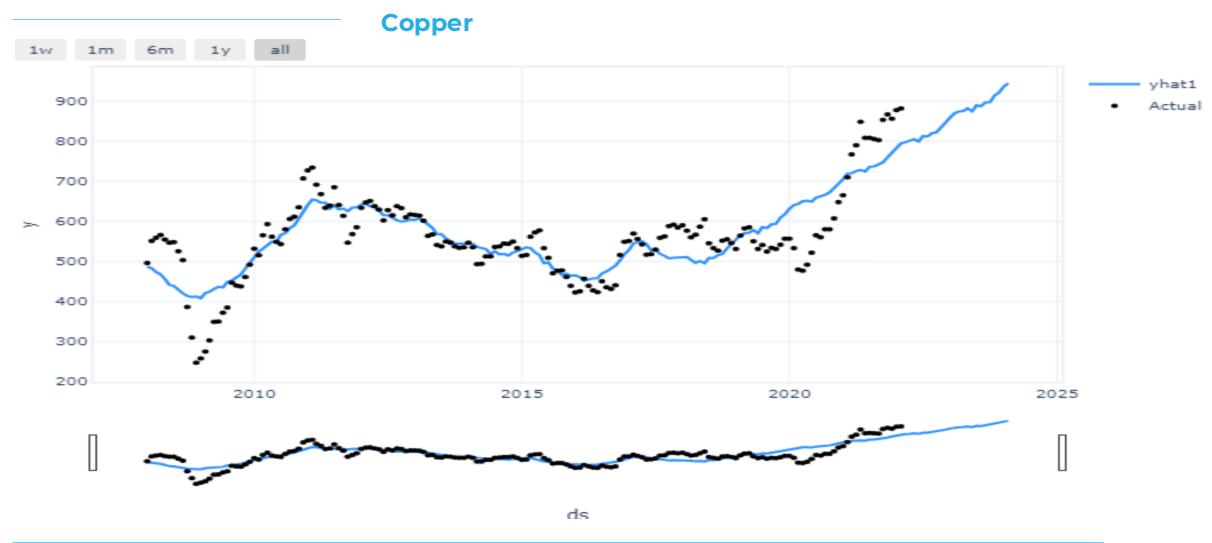














#### **ACKNOWLEDGEMENT**

This project has received funding from:









Under the umbrella of:



The authors thank all the INNOSALE partners for their common work and contributions:







