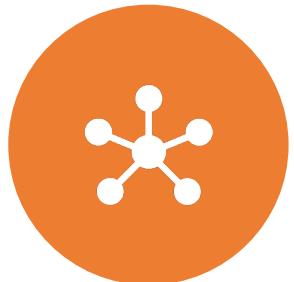


Super-X Case Study Sales

Ayreen Japutri, Gesara Halili, Dustin
Schwarz, Elias Brummund

Content



Business Requirements &
ME/R Diagram



Data Quality Analysis &
ETL Process



Business
Recommendations

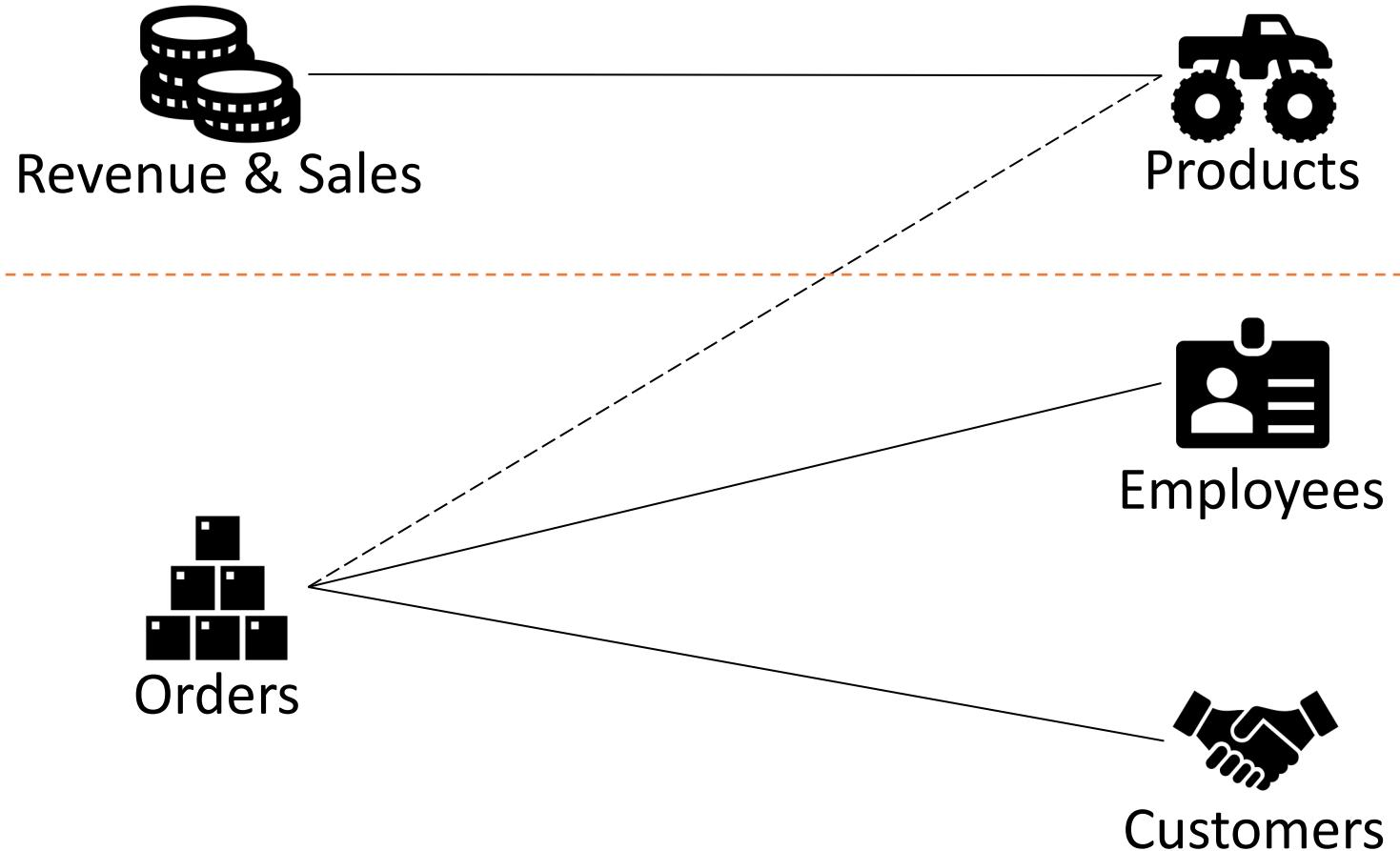
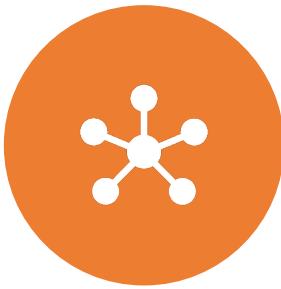


Project Reflection

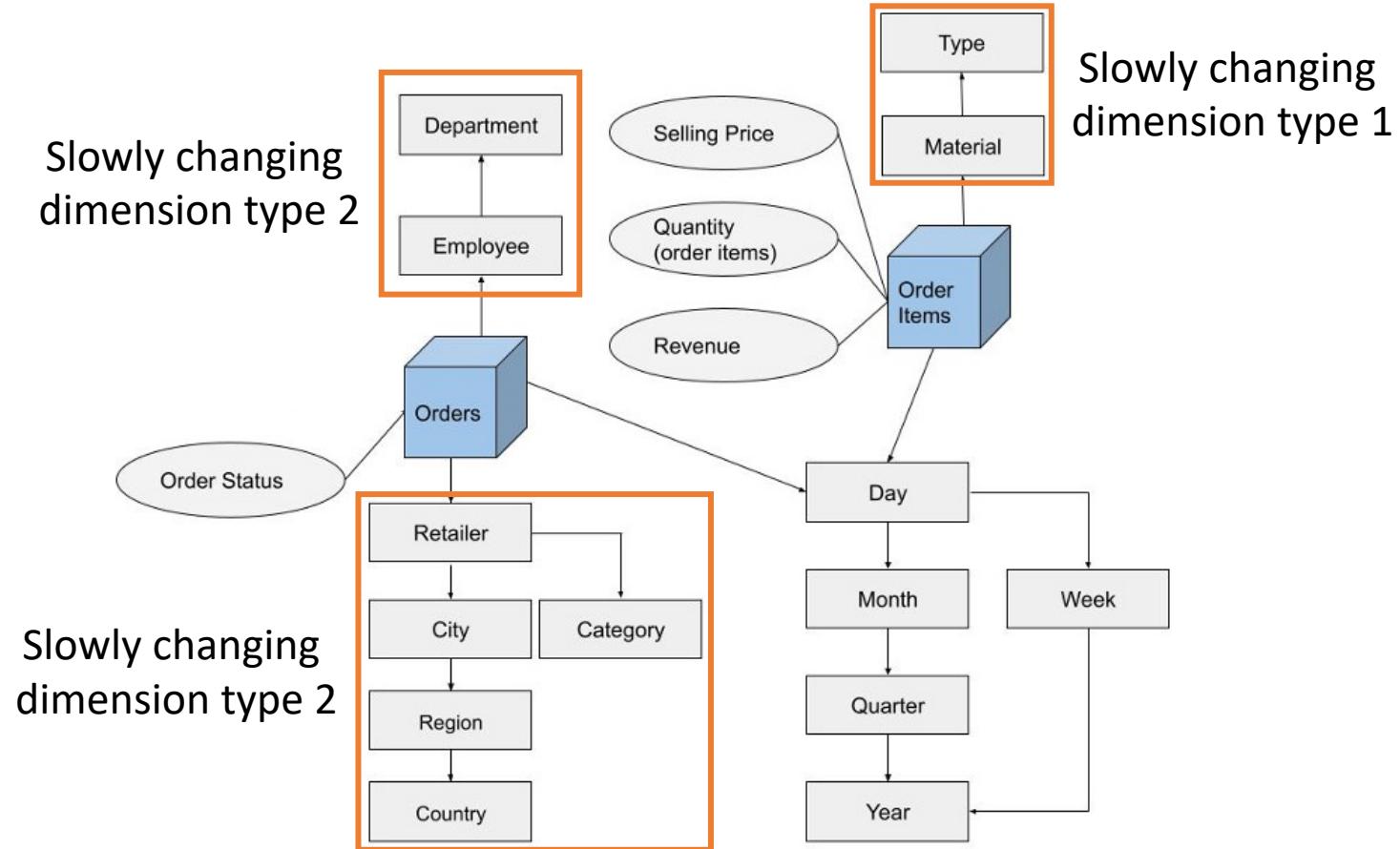
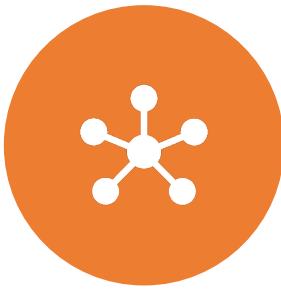
Business Requirements & ME/R Diagram

Building an environment to gather data for performance indicators.

Business Requirements & ME/R Diagram



Business Requirements & ME/R Diagram





Data Quality Analysis & ETL Process

Analyzing quality of raw data and transforming it into the new data mart.

Data Quality Analysis & ETL Process



retailers

employees

order items

orders

extra orders

event logs



Overall structural analysis

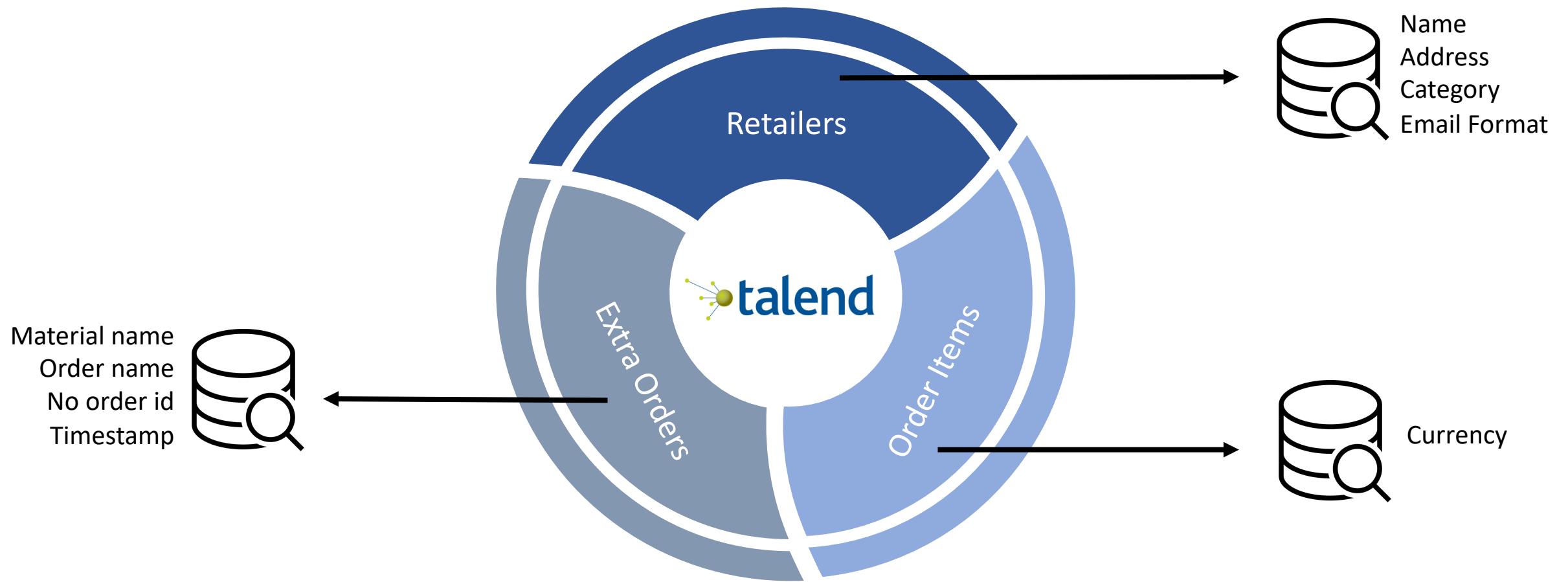
Cross table redundancy analysis

Functional Dependency Analysis

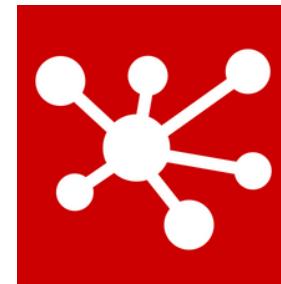
Matching Analysis

Column Analysis

Data Quality Analysis & ETL Process



Data Quality Analysis & ETL Process

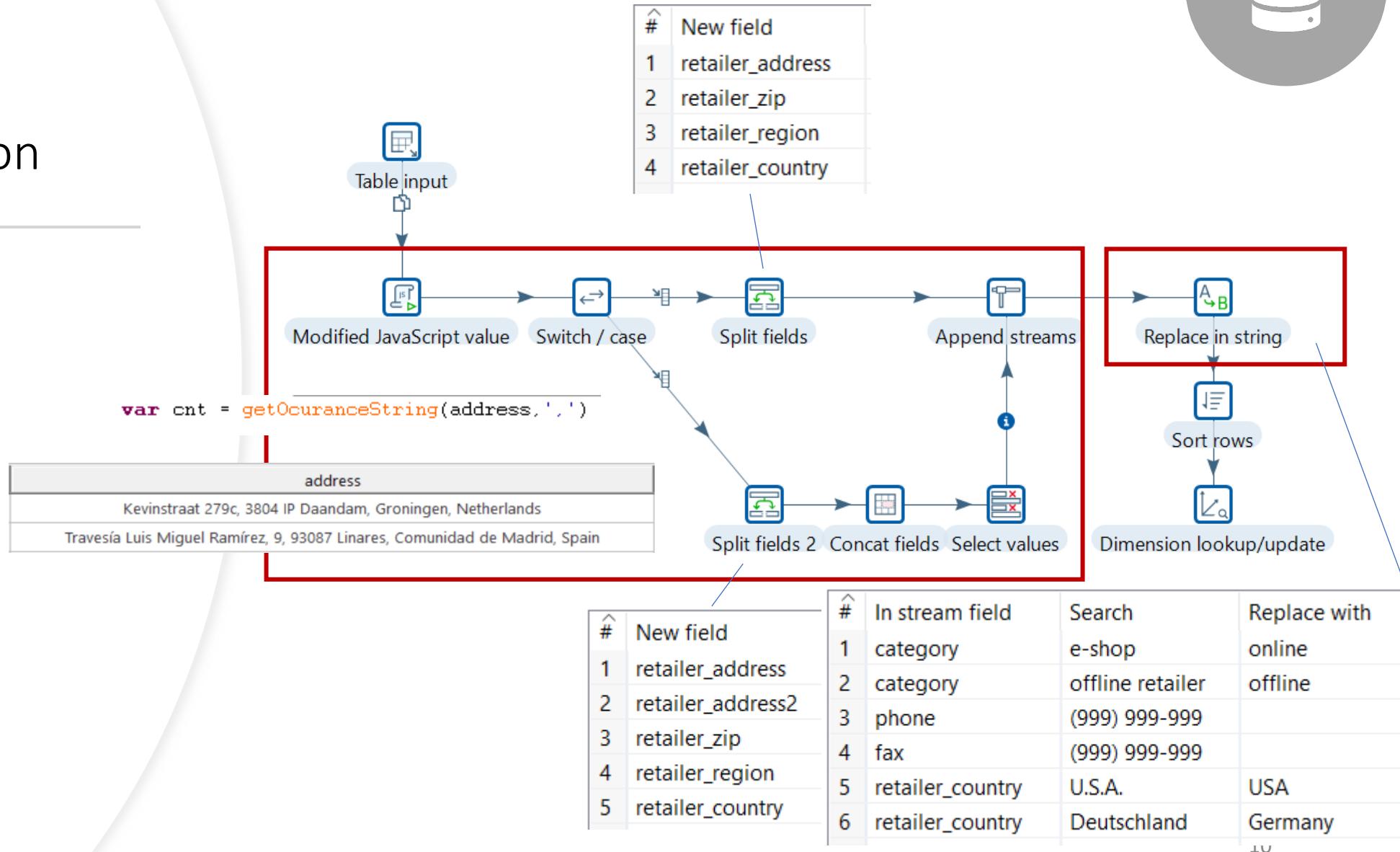


- Dimension tables transformation
- Extra orders transformation
- Fact tables transformation
- Jobs to load data



ETL Process – Retailer dimension

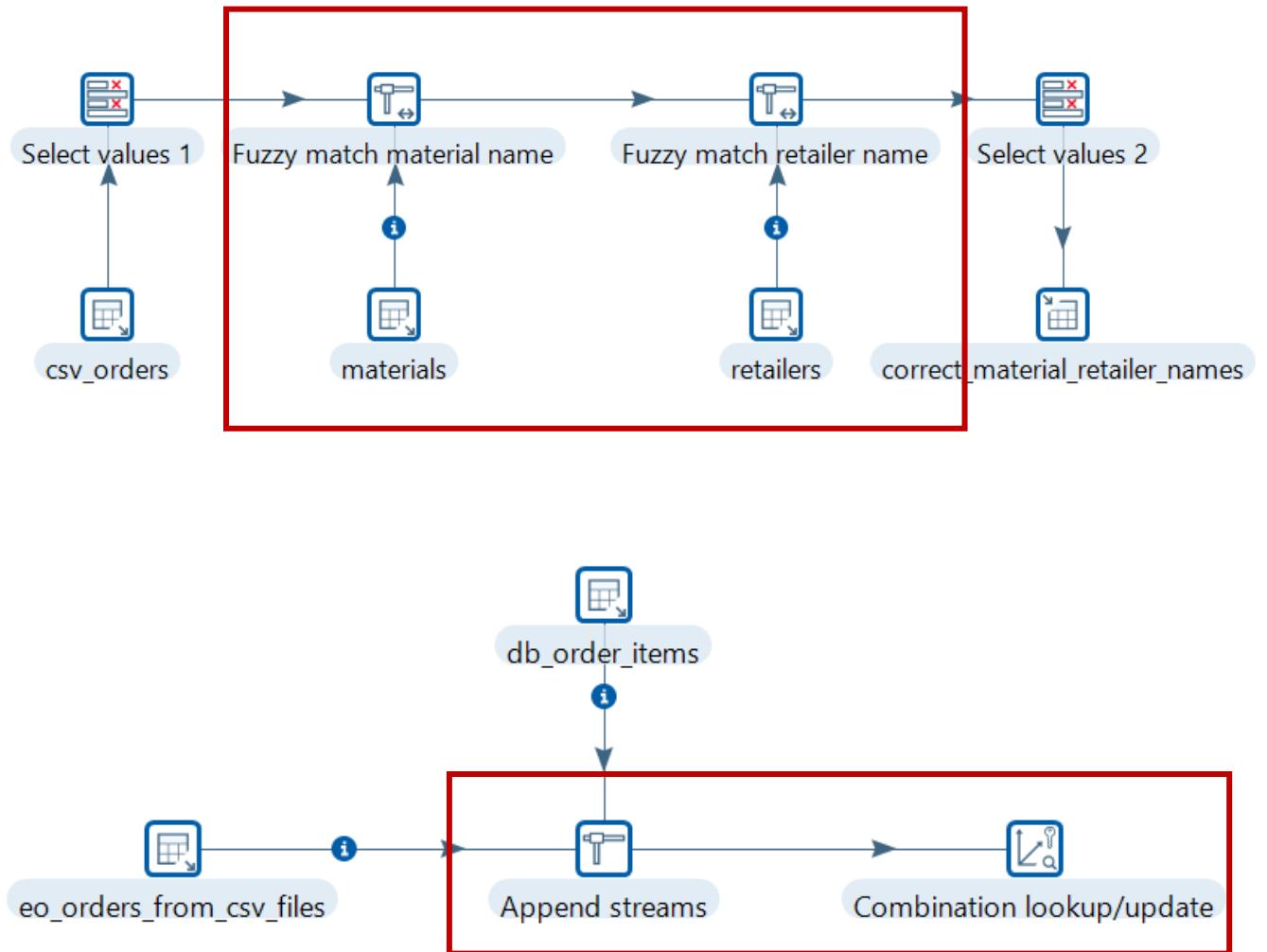
- Retailer address
- Retailer category





ETL Process – Extra Order

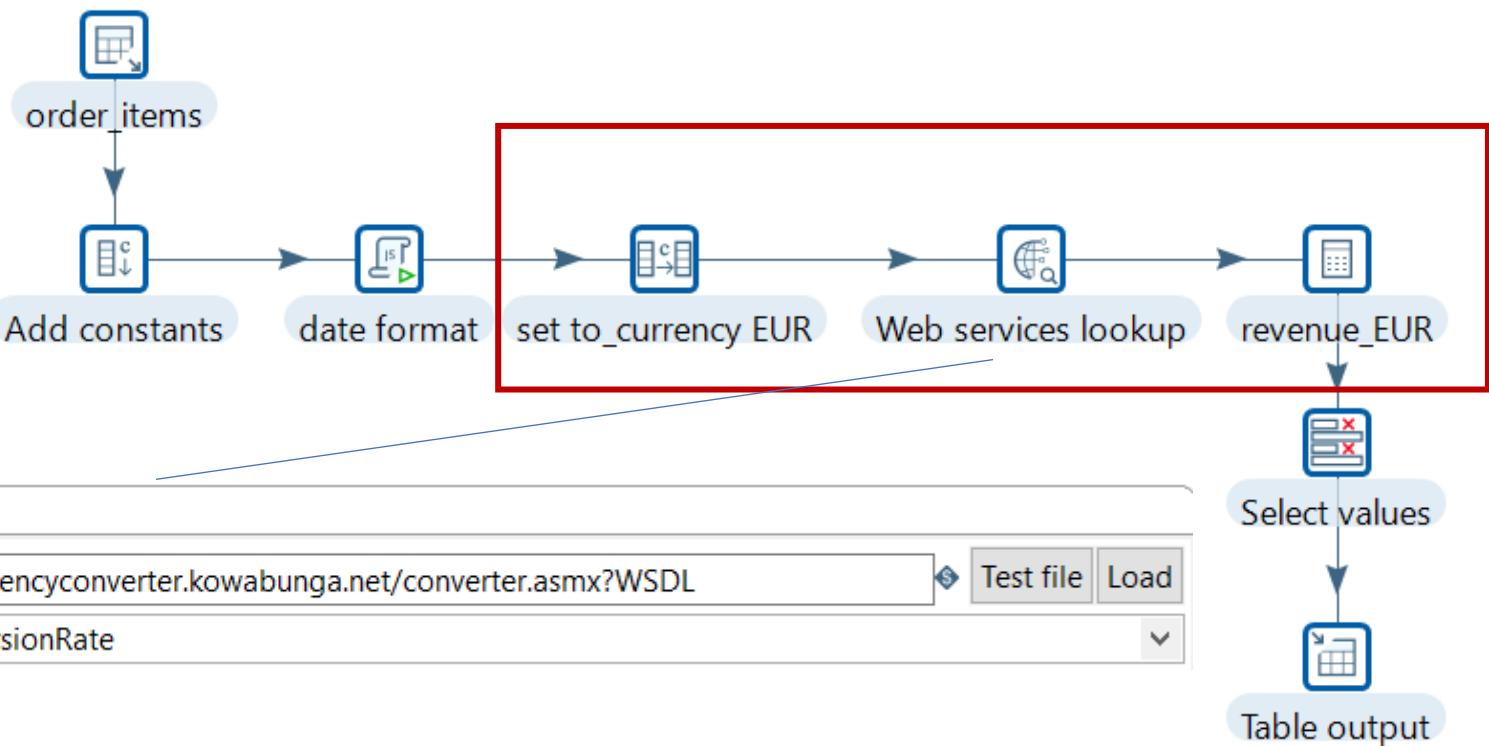
- Retailer name
- Material name
- Order id





ETL Process – Fact Order Items

- Revenue calculation
- Current currency rate



Web Service in GetConversionRateResult

URL <http://currencyconverter.kowabunga.net/converter.asmx?WSDL>

Operation GetConversionRate

Web Service in GetConversionRateResult

#	Name	WS Name	WS Type
1	currency	CurrencyFrom	string
2	to_currency	CurrencyTo	string
3	date_currency	RateDate	dateTime



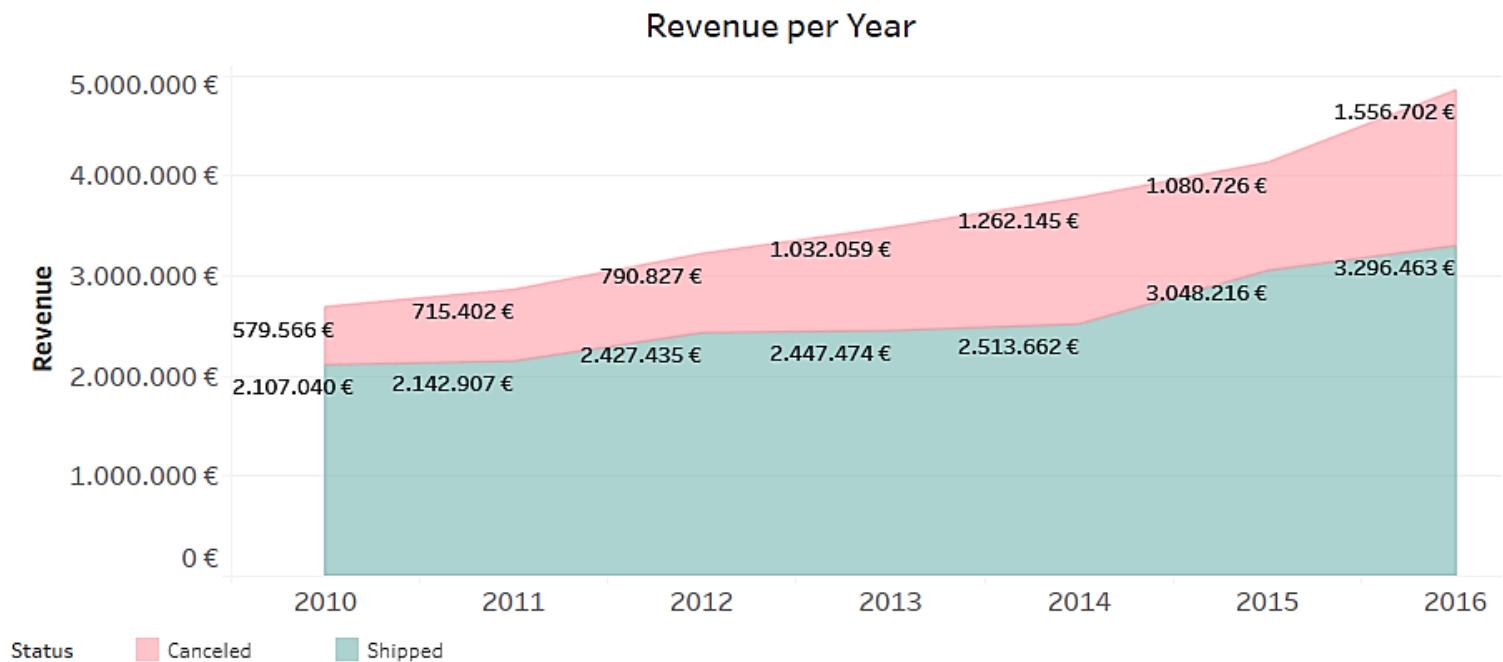
Findings and Recommendations

Identifying business recommendations based on process mining and KPIs.



Findings and Recommendations

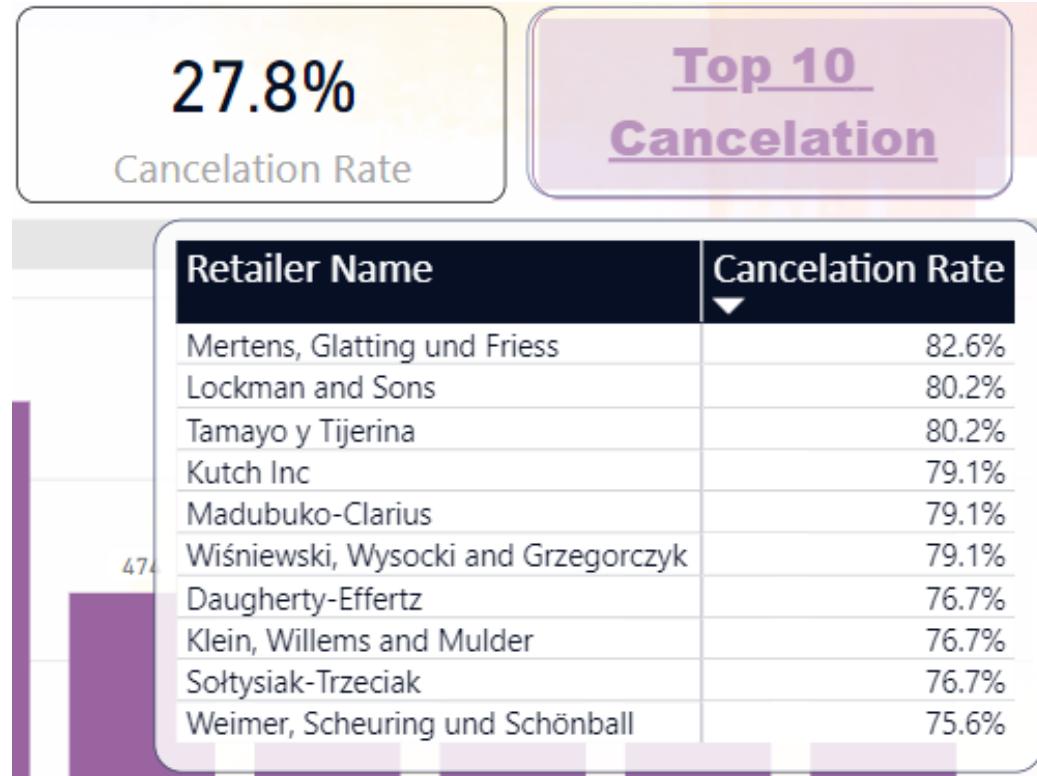
- 8% annual growth rate
- More revenue generated by their own products than OEM products
- Increase in cancellation rate





Findings and Recommendations

- 27.8% overall cancellation rate
- High cancellation rate per retailer

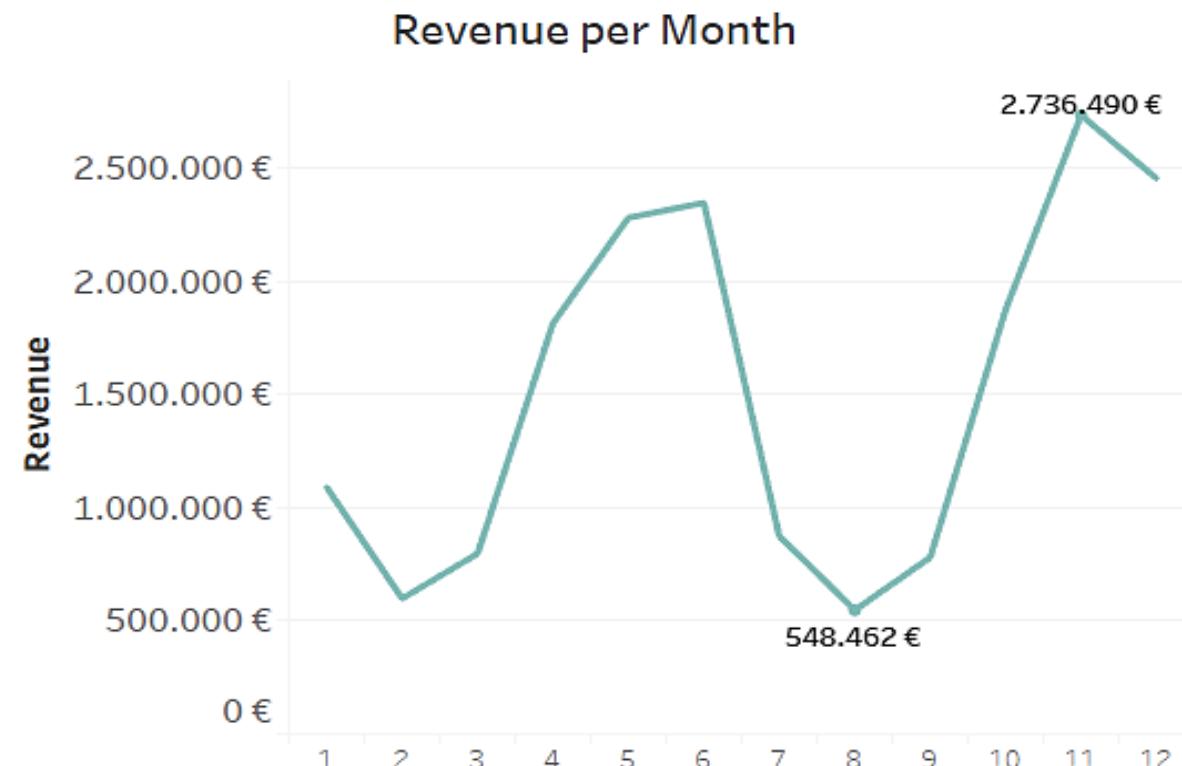


► Eliminate cancellation rate reasons



Findings and Recommendations

- The existence of low and high seasons
- The most revenue made in November
- The least revenue made in February and August



Hire contract workers for high seasons



Findings and Recommendations

- More quantity sold out from OEM products than their own products
- Two main products whose sales are constantly dropping

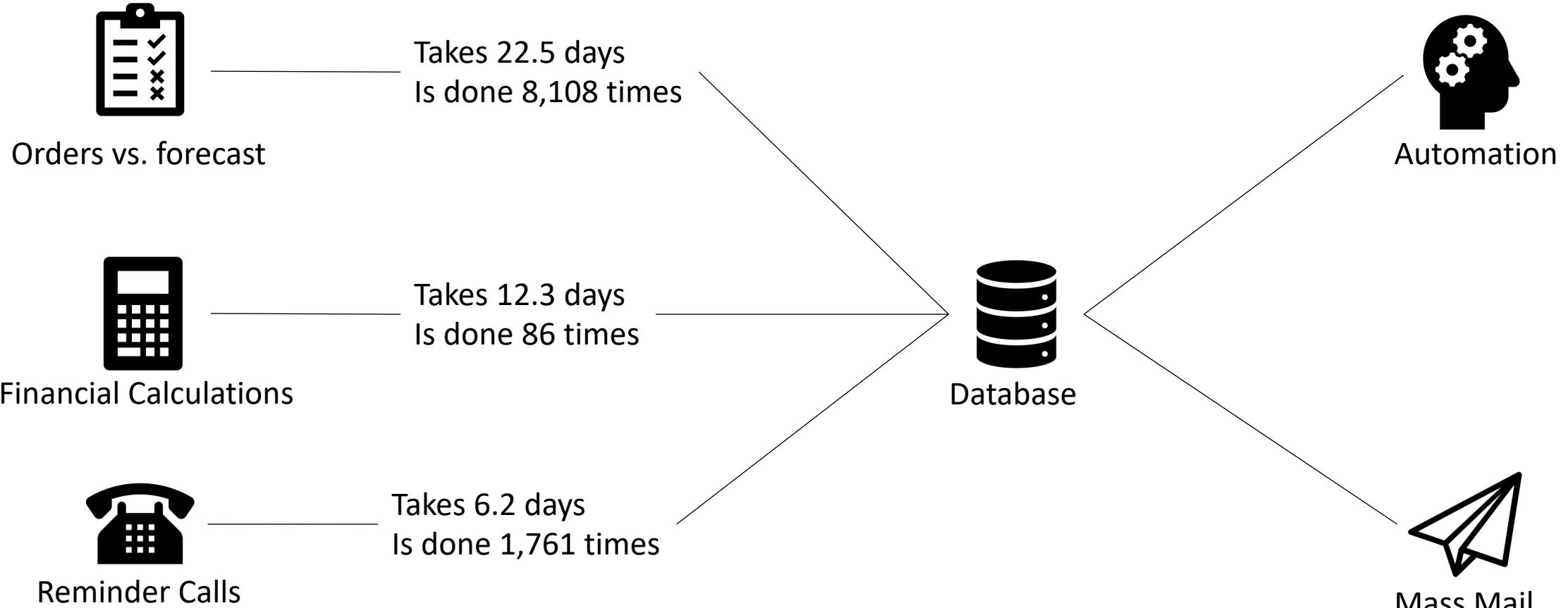
Sales per Product

Material Name	2010	2011	2012	2013	2014	2015	2016	2017	F
Super-X Booster Beast	4.088	4.474	5.530	6.036	6.579	8.319	9.704	668	
Motor 12V	3.567	3.907	4.480	4.804	4.822	5.719	6.514	475	
Super-X Buggy Champ	3.773	4.207	4.741	4.998	5.536	6.361	7.326	456	
Booster Beast Logo Stickers	3.569	3.711	4.121	4.391	4.386	5.302	5.626	387	
Remote Controller 2-Channel 2MHz	3.462	3.260	3.609	3.667	3.710	4.084	4.455	335	
Receiver 2-Channel 2MHz	3.070	3.098	3.478	3.514	3.455	3.955	4.141	324	
Receiver Channel 1MHz	3.250	3.248	3.454	3.490	3.530	4.011	4.283	320	
Super-X Monster Truck	2.998	3.066	3.365	3.329	3.175	3.662	3.847	290	
Ni-Cd Battery 12V 300mAh	3.007	2.968	3.082	3.052	2.902	3.210	3.322	245	
Remote Controller 1MHz	2.818	2.793	2.953	2.895	2.788	3.071	3.086	218	
Tire 20 mm	2.944	2.762	2.973	3.168	2.912	3.324	3.308	212	
BIPM Experts Logo Stickers	2.818	2.575	2.595	2.454	2.266	2.439	2.441	183	
Monster Truck Logo Stickers	2.932	2.585	2.628	2.357	2.139	2.246	2.205	177	
Super-X BIPM Expert Racer	2.862	2.608	2.550	2.394	2.087	2.210	2.183	173	
Offroad Logo Stickers	2.714	2.350	2.343	2.295	1.982	2.028	2.012	149	
Buggy Logo Stickers	2.573	2.247	2.064	1.939	1.642	1.723	1.618	142	
Super-X Offroad Car	2.125	1.850	1.713	1.417	1.212	1.296	1.150	61	



Reconsider the products whose sales are decreasing

Findings and Recommendations



Findings and Recommendations



In 100% of the cases production could not meet the demands!



The background of the slide features a complex, abstract design. It consists of a grid of numerous white candlestick charts of varying sizes, set against a dark gray gradient background. A bright yellow glow is positioned on the left side, casting a shadow and illuminating some of the candlesticks. A dotted line forms a curved path across the top right, while a solid black arrow points downwards from the center towards the bottom right.

Project Reflection

Our thoughts about the project.

Project Reflection



- 1 Granularity of fact tables
- 2 Data quality of extra csv files
- 3 Calculating revenue with different exchange rates
- 4 Tableau vs. Power BI
- 5 Finding a case ID for process mining
- 6 Teamwork made the dream work