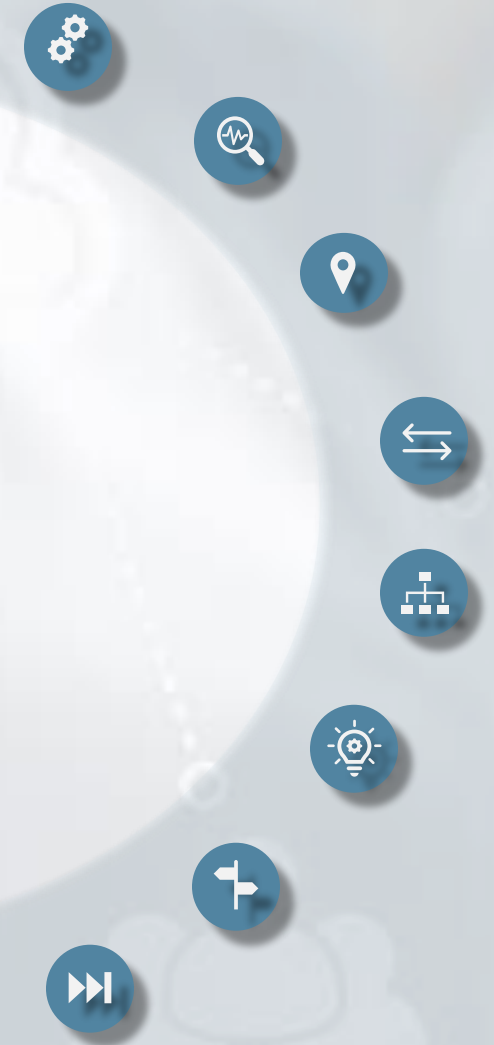


# DEMAND AND SALES IMPROVEMENT ANALYTICS 楽

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# BUSINESS PROBLEMS



## OVERVIEW (2003-05)



1.12 million products and 3,932 quantities of 2 categories are ordered.



USA and Spain are the leading countries in demand and sales generation throughout the period.



Total sales during the span of 2 years is \$380K where motorcycles have contributed heavily towards sales generation as compared to classic cars.



## KPIs



No. Of Orders



Sales By Country



Quantity Ordered By Product Category



Quantity Ordered By Region

## PROBLEMS ?

- Understanding the principal cause behind decreasing sales in majority of the countries.
- Understanding the principal cause behind decrease in demands in majority of the countries.
- Key solutions to find out the ways to increase demands and sales in the target countries.



## DEMAND



- Overall demands has been varying in all the countries with respect to time, while Spain beating USA in generating maximum demand in the year 2004-05.
- An observation on changing demand parameters in Spain will give a better insight.
- Insights on changing demand patterns will help in ensuring quality services.

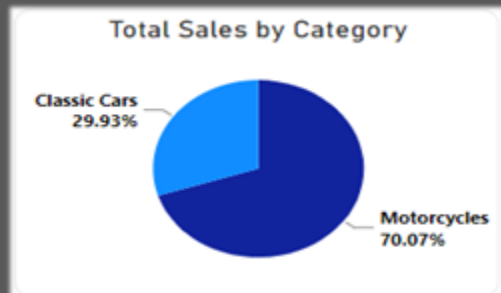
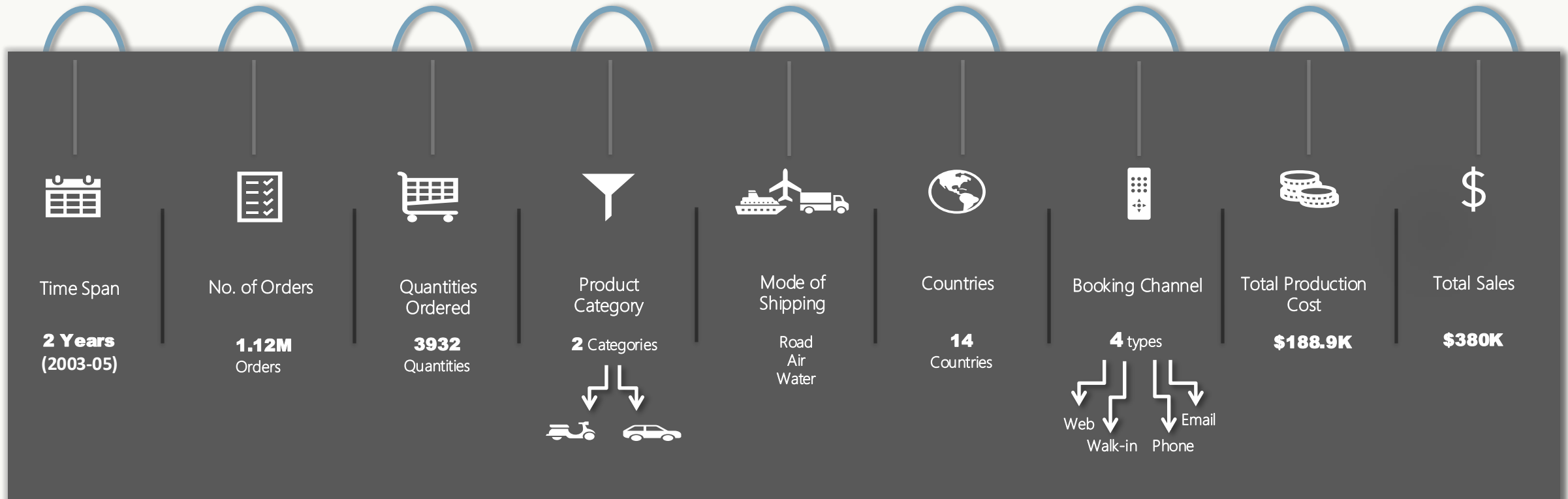


## SALES



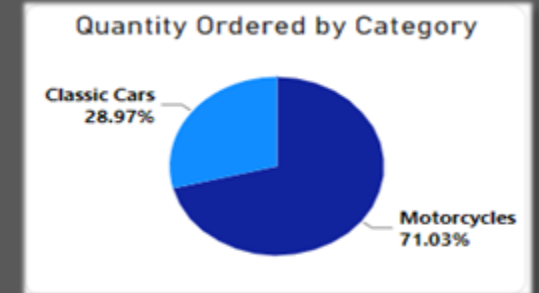
- Increasing annual sales by 15-20% (approx.) for classic cars.
- Increasing annual sales by 14-20% (approx.) with respect to regions.
- Insights on changing demand patterns will help in ensuring quality services.





## OVERVIEW

- In a span of **2** years, **1.12** million products and **3,932** quantities of **2** categories are ordered.
- The orders received are from **14** countries and **42** cities.
- Customers used **4** channels to book the tickets.
- **3** types of mode of shipping are used to deliver the products.
- The total production cost of these products is **\$188K**.
- The total sales generated is **\$380K**.



# DATA UNDERSTANDING – CRITICAL AREAS



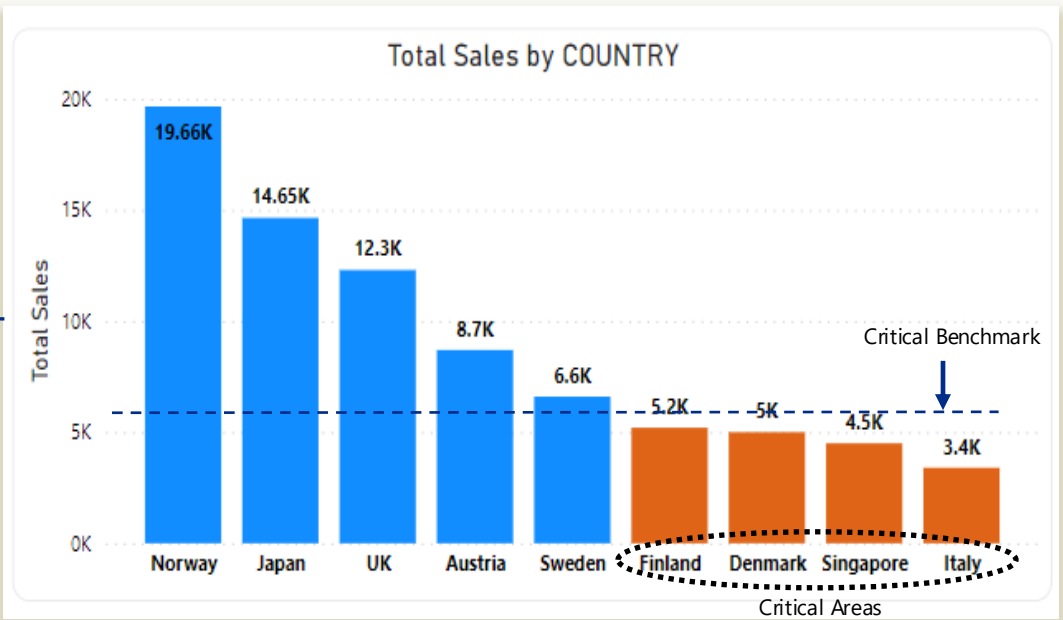
## Critical Areas

(Those areas where sales is < 6K)

- Here the graph represents 14 areas with different values of sales generated in 2003-05, where 4 out of 14 areas are critical areas (as per the assumption).



- These 4 areas are below the critical benchmark and thus require more attention and thorough analysis for increasing sales and therefore, profit.



- The mentioned critical areas have generated their own sales, which are not up to the critical benchmark and thus require some insights to cross the critical point.



- Among these 4 areas, an approximate increase of 78% in sales in Italy, 50% in Singapore, 25% in Denmark and Finland each will bring the sales above the critical benchmark.



- In these areas, annual sales sums up to a sum of \$380.5K. An approximate increase of 18% will bring it up to \$449.07K.



# DATA TRANSFORMATION ⇌



- Loaded the data and transformed the data for analysis



- Run a check for null values and replaced those values with '0' as instructed



- Grouped delivery days for better clarity on delivery services in the format: (9-13), (18-21), (23-33)



- Created hierarchies in the time period in the format: year, quarter, month, days



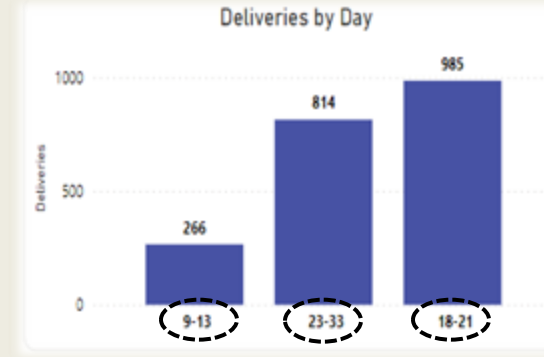
- Created custom columns for calculation of further parameters



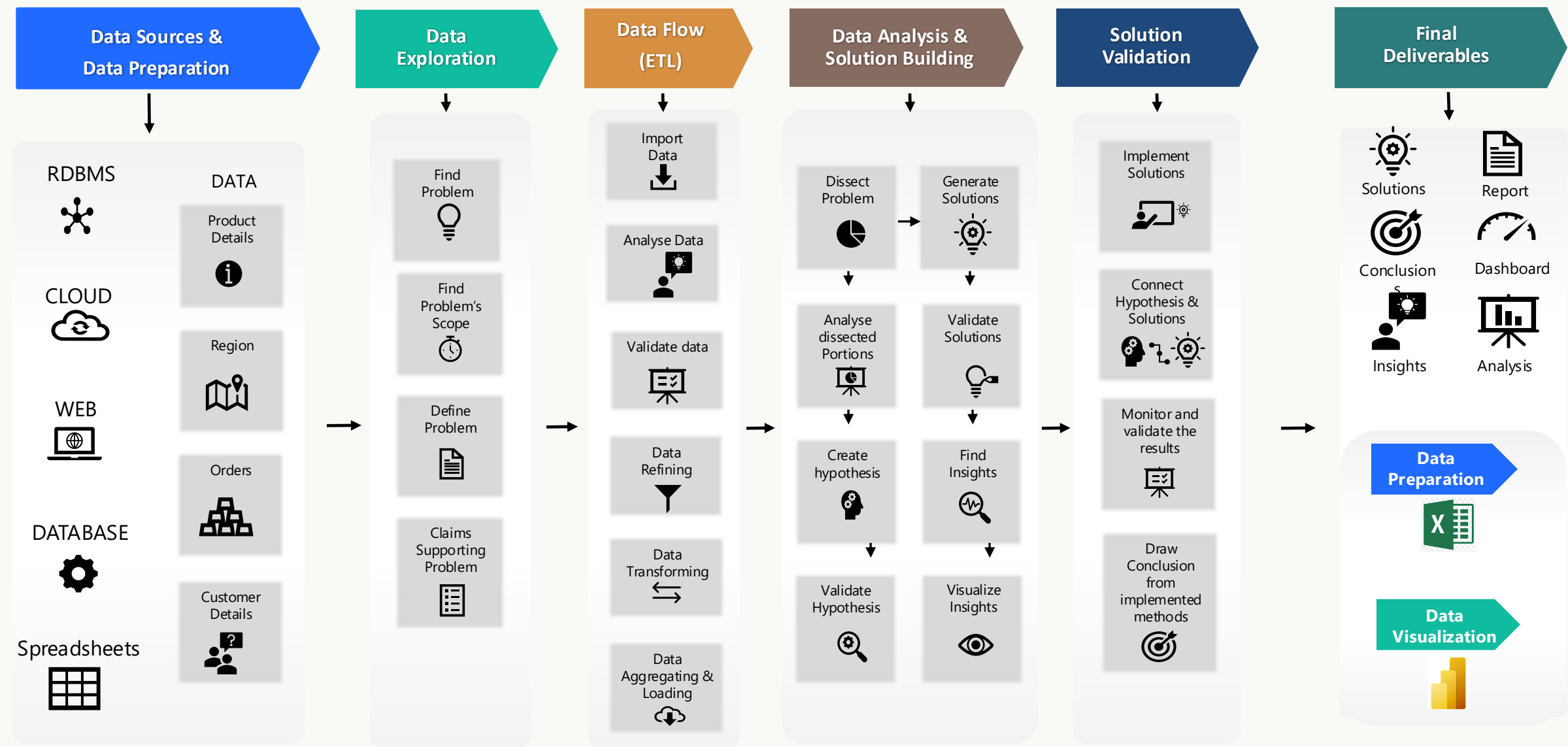
Here, the delivery days for orders are mentioned for the year 2003-04. The deliveries are shown with respect to days time the product takes to deliver.



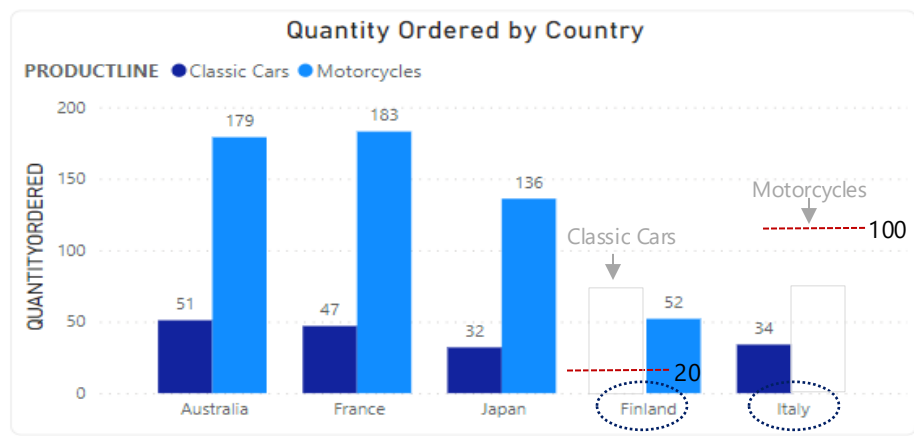
TRANSFORMATION →



Here, the delivery days have been categorized to check the delivery services.  
**(9-13) days–Good**  
**(23-33) days–Poor**  
**(18-21) days–Average**



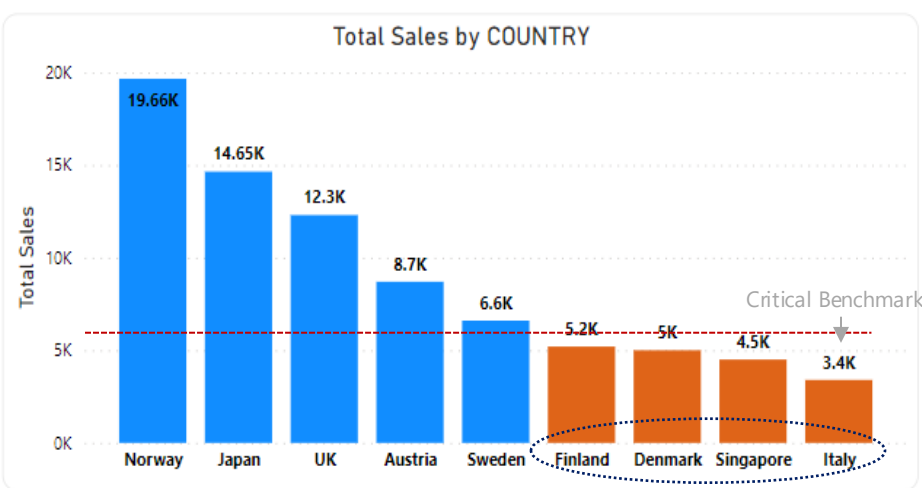
# SOLUTIONS – Sample Case: Demand & Sales in Critical Areas<sup>(2003-05)</sup>



- The critical benchmark for Classic Cars is >20 and for Motor Cycles is >100.
- Italy and Finland are the critical areas.



- Here, the graph represents quantity ordered in the different regions w.r.t critical areas during the span of 2 years.
- The quantity ordered in non-critical areas for both the categories has crossed the critical benchmark and thus have contributed heavily in demand generation.
- **Finland and Italy** has ordered the least Classic Cars & Motorcycles, respectively.
- Therefore, a potential increase in demand for Classic Cars in Finland and Motorcycles in Italy would help the areas to cross the critical mark, and contribute towards demand generation.



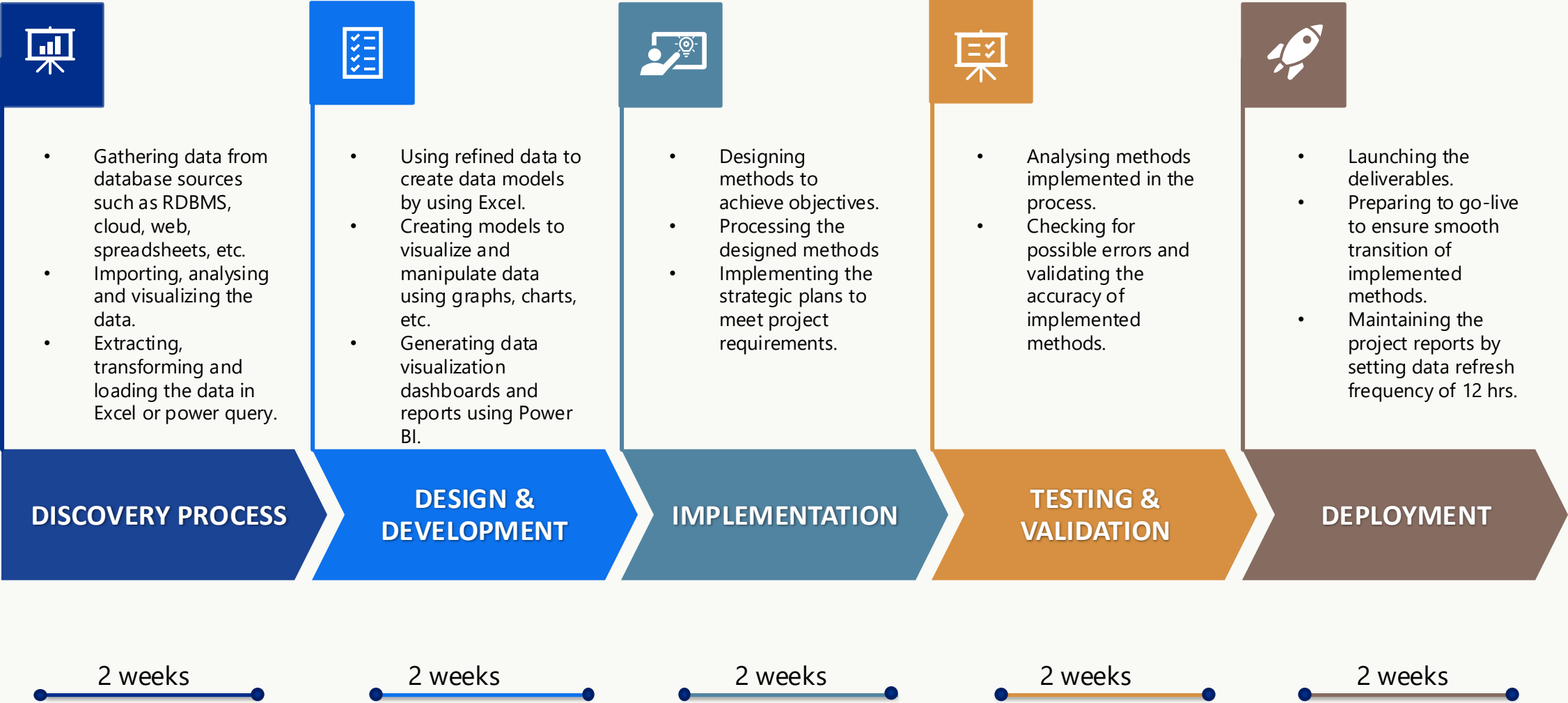
- The critical benchmark for the span of 2 years for Sales per region is >6K.



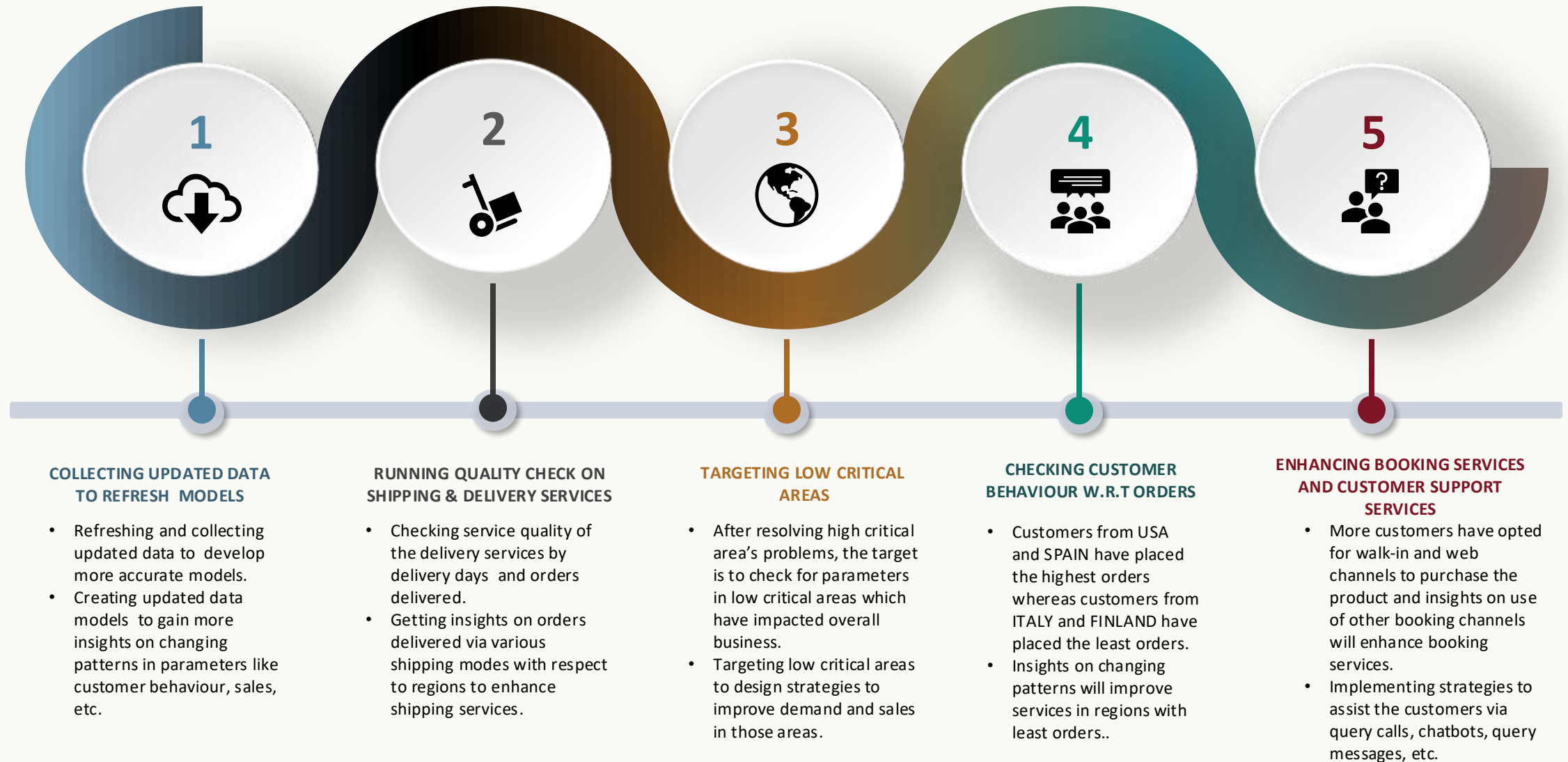
- Here, the graph represents sales generated from various regions during the span of 2 years.
- Italy, Singapore, Denmark and Finland have experienced decline in sales and have contributed less to sales generation.
- Therefore, an approximate increase of 78% in sales in Italy, 50% in Singapore, 25% in Denmark and Finland each will bring the sales above the critical mark.
- Overall, annual sales sums up to **\$340.5K**. An approximate increase of **18%** will bring it up to **\$401.4K**.



# ROADMAP



# NEXT STEPS ►►



A top-down view of a desk with various business items. In the top right, a laptop is open, displaying a calendar or scheduling app. To its left is a large, light-colored calculator. Above the calculator is a small potted plant in a square container. To the left of the plant is a cup of dark coffee. In the bottom left, a newspaper is open, with the word "BUSINESS" visible in large letters. In the bottom center, a hand is writing on a small, light-colored notepad with a pen. A watch is visible on the wrist of the hand. The entire scene is overlaid with a semi-transparent white layer, and the text "THANK YOU!" is centered in the middle.

**THANK YOU!**