Scent of Revival

Team Members:

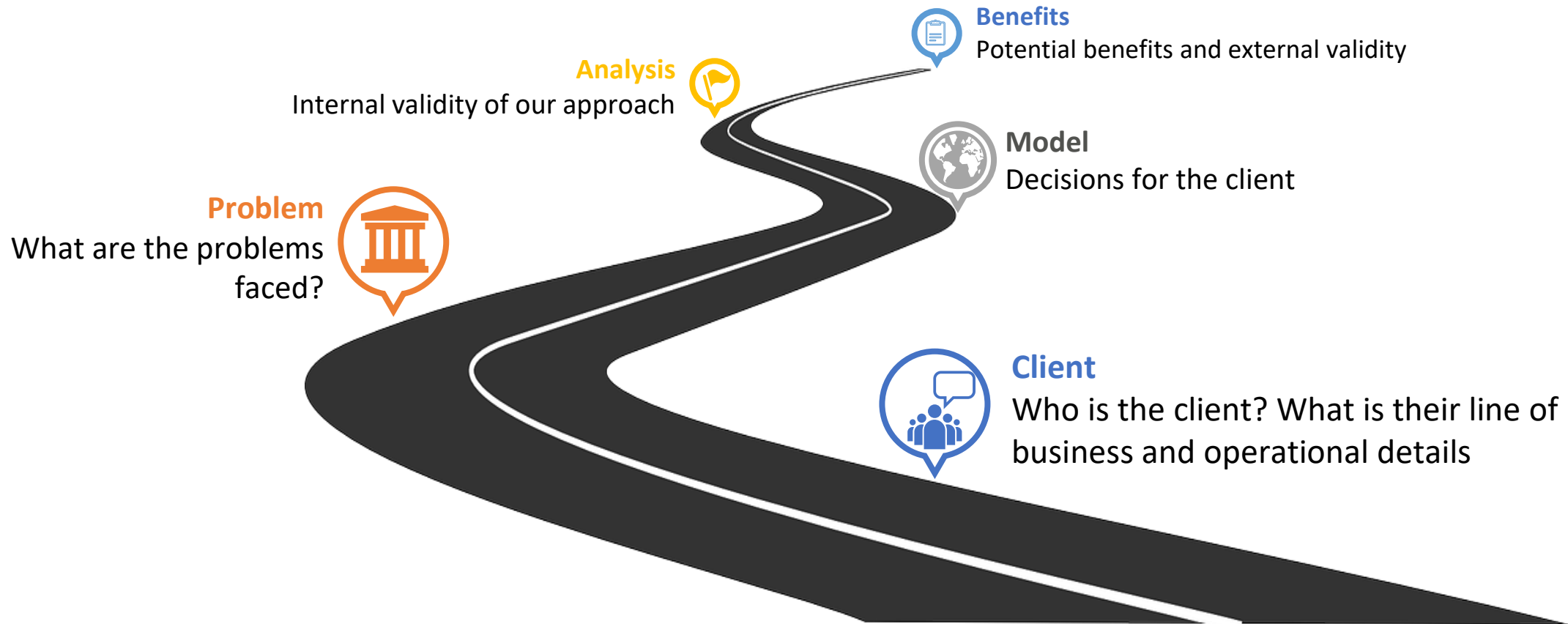**Elijah Tan**

Barry Seah

Trilliona Seow

Lynn Koh

Ervin Wee

Agenda

Analysis
Internal validity of our approach

Benefits
Potential benefits and external validity

Problem
What are the problems faced?

Model
Decisions for the client

Client
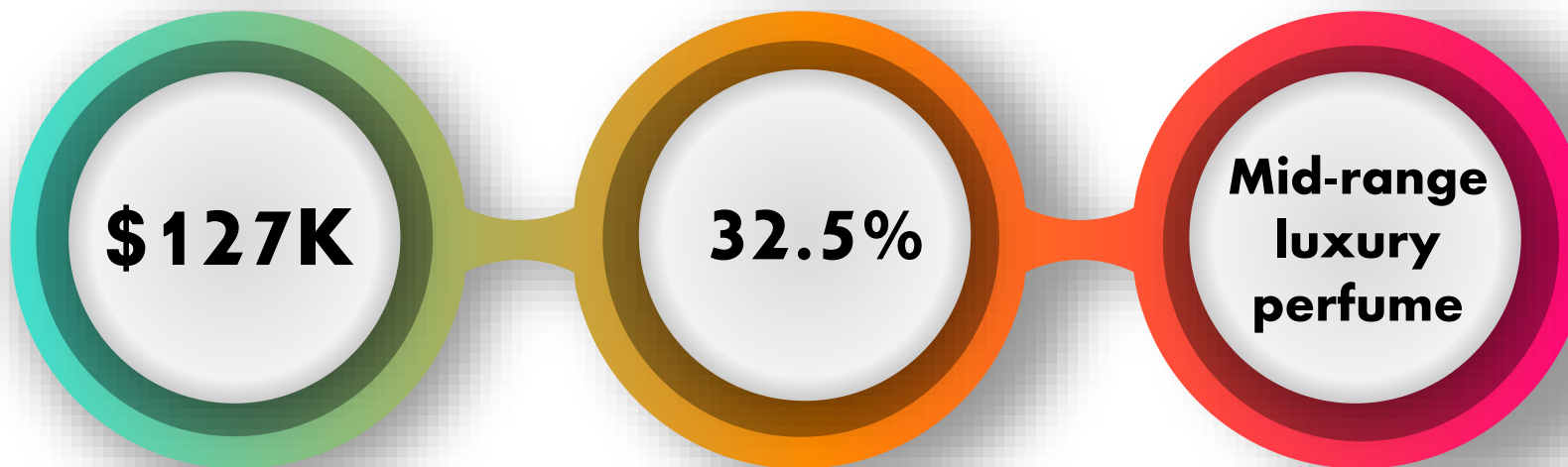Who is the client? What is their line of business and operational details

Client

Perfumery startup with their own patented technology that only produces **Eau De Parfum grade perfumes**.

REVENUE AND GEOGRAPHICAL FOCUS

$127K

32.5%

Mid-range luxury perfume

REVENUE
IN 2018

ANNUAL REVENUE
GROWTH RATE
(2014-2018)

TARGET MARKET

KEY FINANCIALS

Last valued at 5 million

Currently aiming to be valued 100 million by 2028

Positive growth and growing consumer conversion rate

Problem

01

Pricing

- **Prices need to be reoptimized and calibrated**
- **Competitive pricing against international brands**
- **Currently $63 for 30ml, too close for comfort with Chanel's $226 for 100ml (Eau De Parfum)**

02

Inventory

- **Stocks need to be updated periodically instead of once per month**
- **Signaling of stock quantity**
- **Inventory forecasting to meet demands**

03

Valuation

- **Long-term goal of having Venture Capital firms takeover at a higher premium**
- **Requires accurate forecasting and target to hit**

Model – Influence Diagram
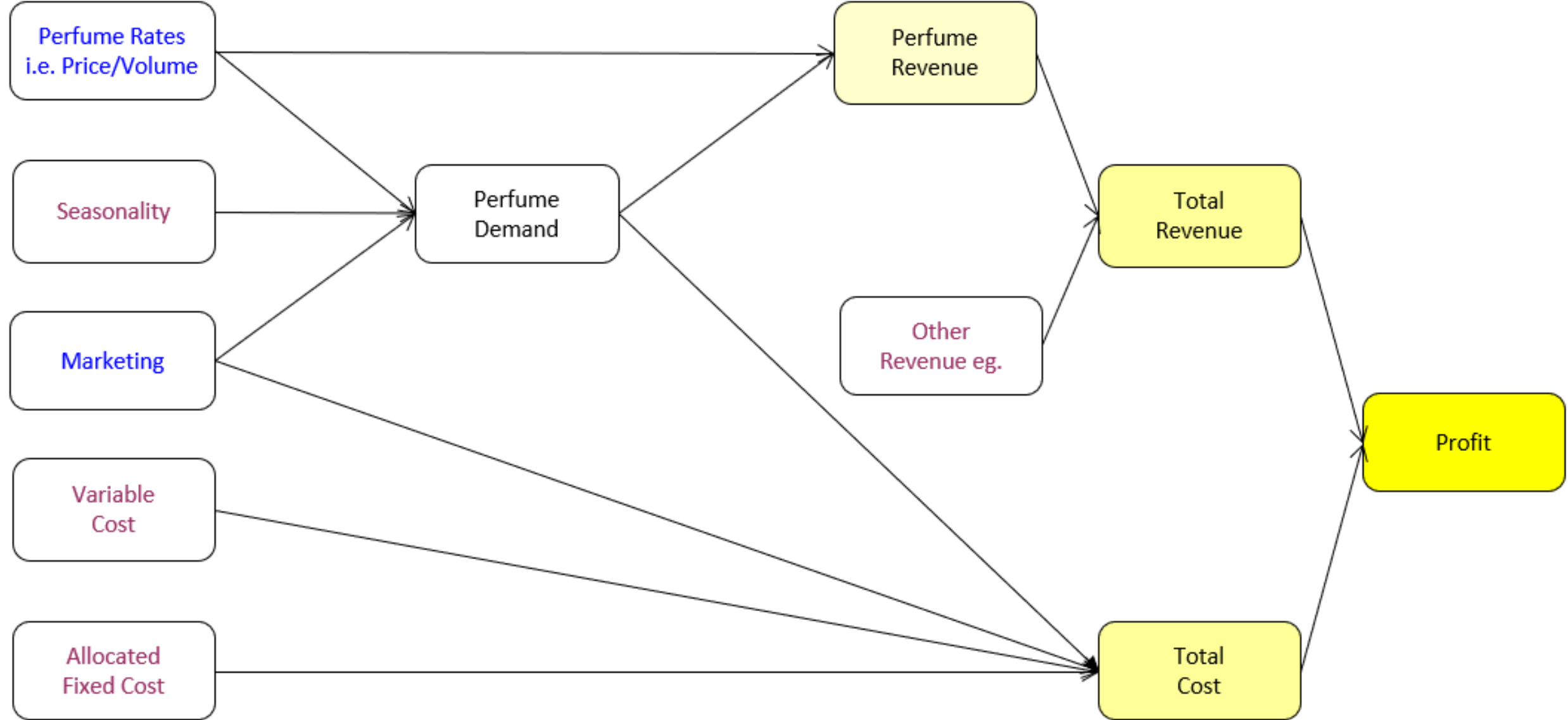
Model – Black Box Model

INPUT

Decisions (Controllable)
- Perfume Prices
- Marketing

Parameters (Uncontrollable)
- Allocated Fixed Cost
- Variable Cost
- Other Revenue
- Seasonality

OUTPUT

Performance Measures
- Profit
- Profit Margin %
- Revenue
- Cost

Consequence Variables
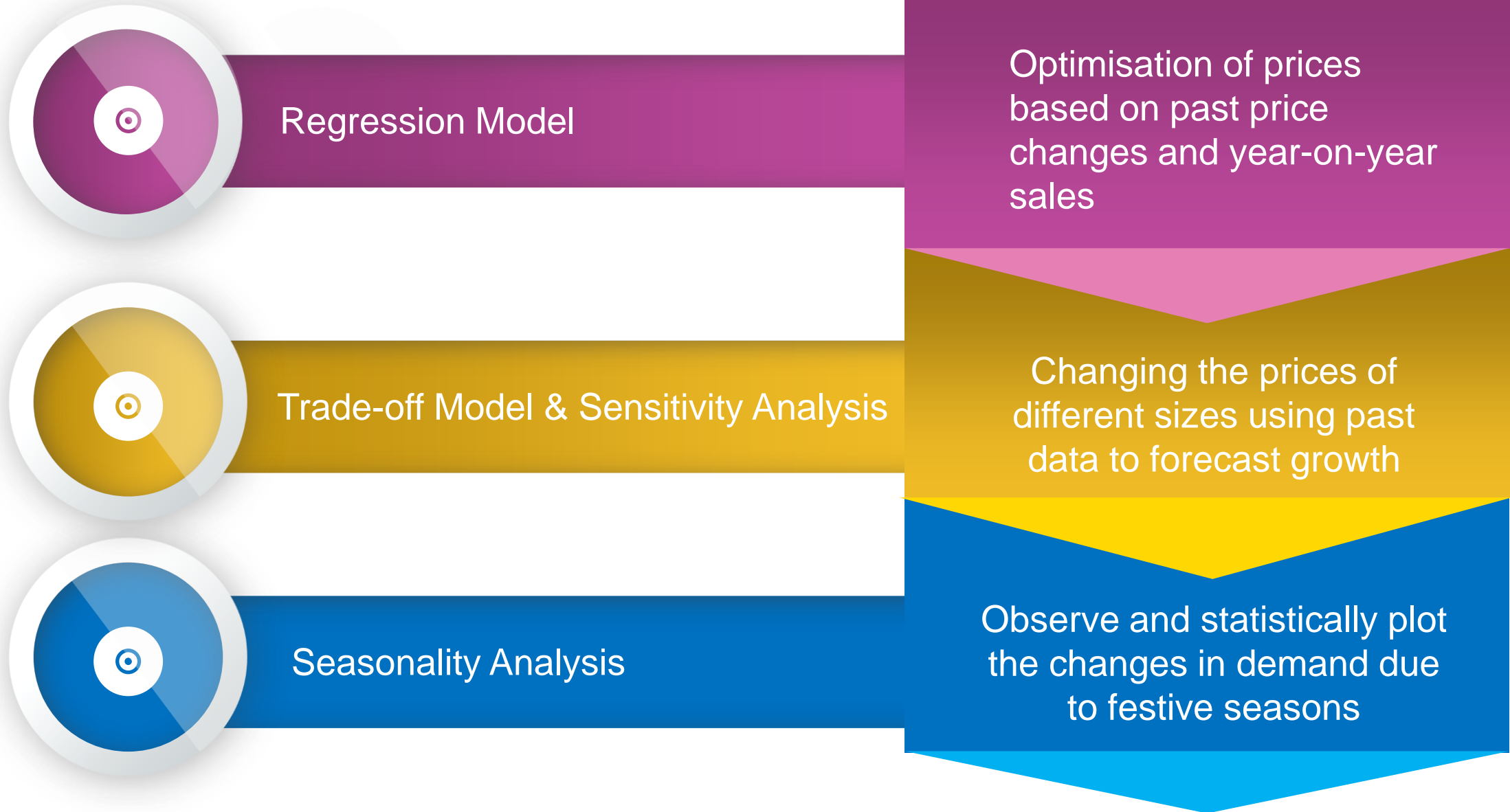- Perfume Demand
- Demand with different sizes

Solution to Issue 1: Price Optimisation

Regression Model

Optimisation of prices based on past price changes and year-on-year sales

Trade-off Model & Sensitivity Analysis

Changing the prices of different sizes using past data to forecast growth

Seasonality Analysis

Observe and statistically plot the changes in demand due to festive seasons

Client | Problem | Model | Analysis | Benefits

Solution to Issue 2: Inventory Management

Automation — Automatically updates inventory whenever stocks leave the store

Signalling — Warning when stocks are below a certain threshold

Forecasting — Predict the demand for items and prepare for it

Solution to Issue 3: Valuation
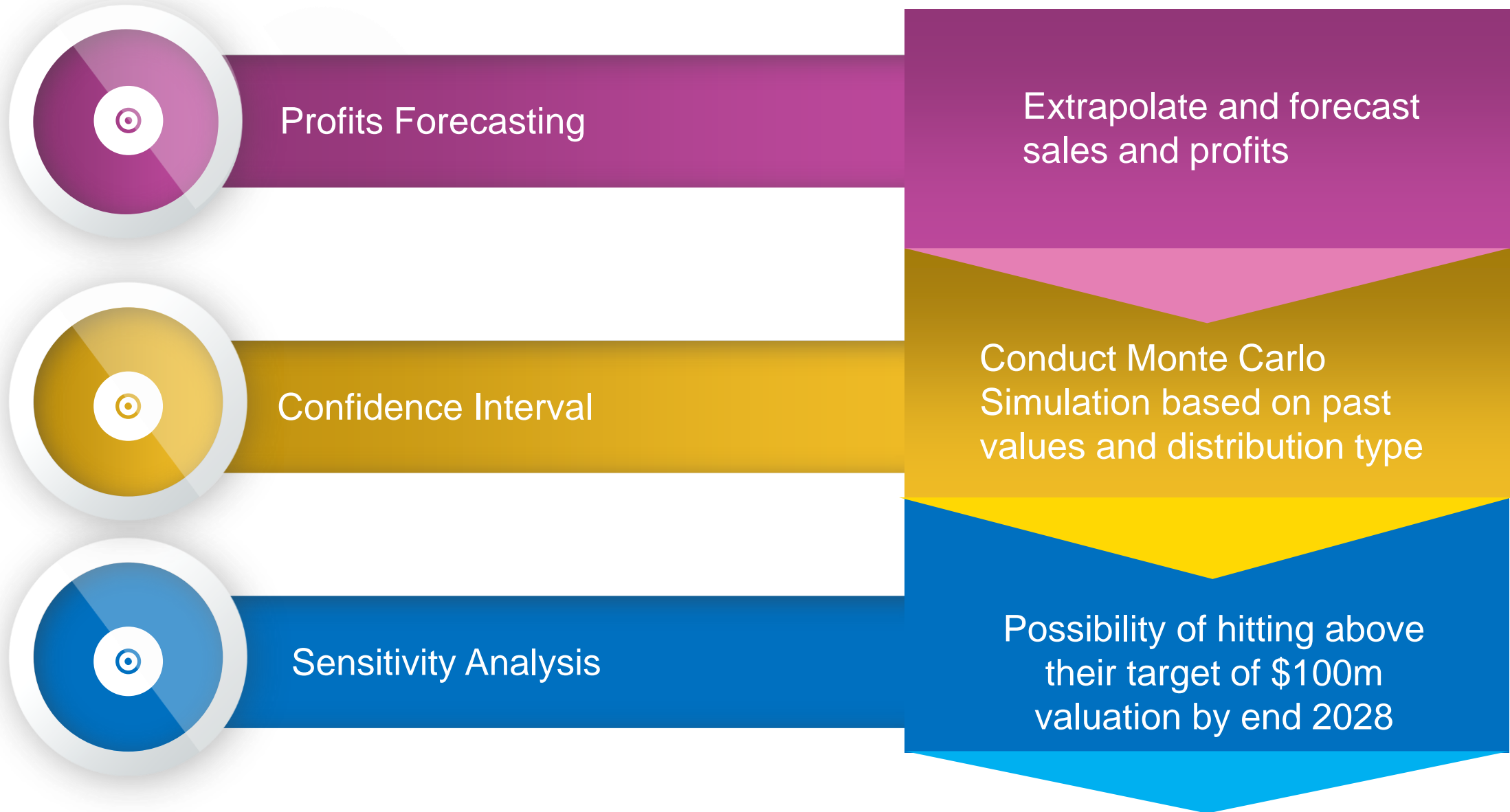
Profits Forecasting

Extrapolate and forecast sales and profits

Confidence Interval

Conduct Monte Carlo Simulation based on past values and distribution type

Sensitivity Analysis

Possibility of hitting above their target of $100m valuation by end 2028

Client | Problem | Model | Analysis | Benefits

Conclusion

Problem: Pricing
Solution: Optimisation and Sensitivity

Problem: Inventory Management
Solution: Automation, Signalling, Forecast

Problem: Valuation
Solution: Profit Forecasting and Simulation

THANK YOU!