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The power of AI

Reshaping business strategy and delivering massive impact: the power of AI

21 FEBRUARY 2025

Agenda

1. Executive Summary
2. Client Co's Pain Points
3. Identified Use Cases
4. Prioritization of Use Cases
5. AI-based Churn Prediction Model
6. Prototype Demo
7. Cost-Benefit Analysis
8. Implementation roadmap

Executive Summary

Client situation



Client Co's **performance is declining**, falling behind competitors that have better in e-commerce and AI strategies



ClientCo still **relies heavily on physical branches** and must embrace digitalization to catch up



ClientCo **lacks the AI-ready infrastructure** and skilled employees to support this transformation

What we recommend

Implement a **quick-win use case**:

AI-driven Customer Churn
Prediction Model



Identify **at-risk customers** and take **targeted actions** to improve retention

Impact



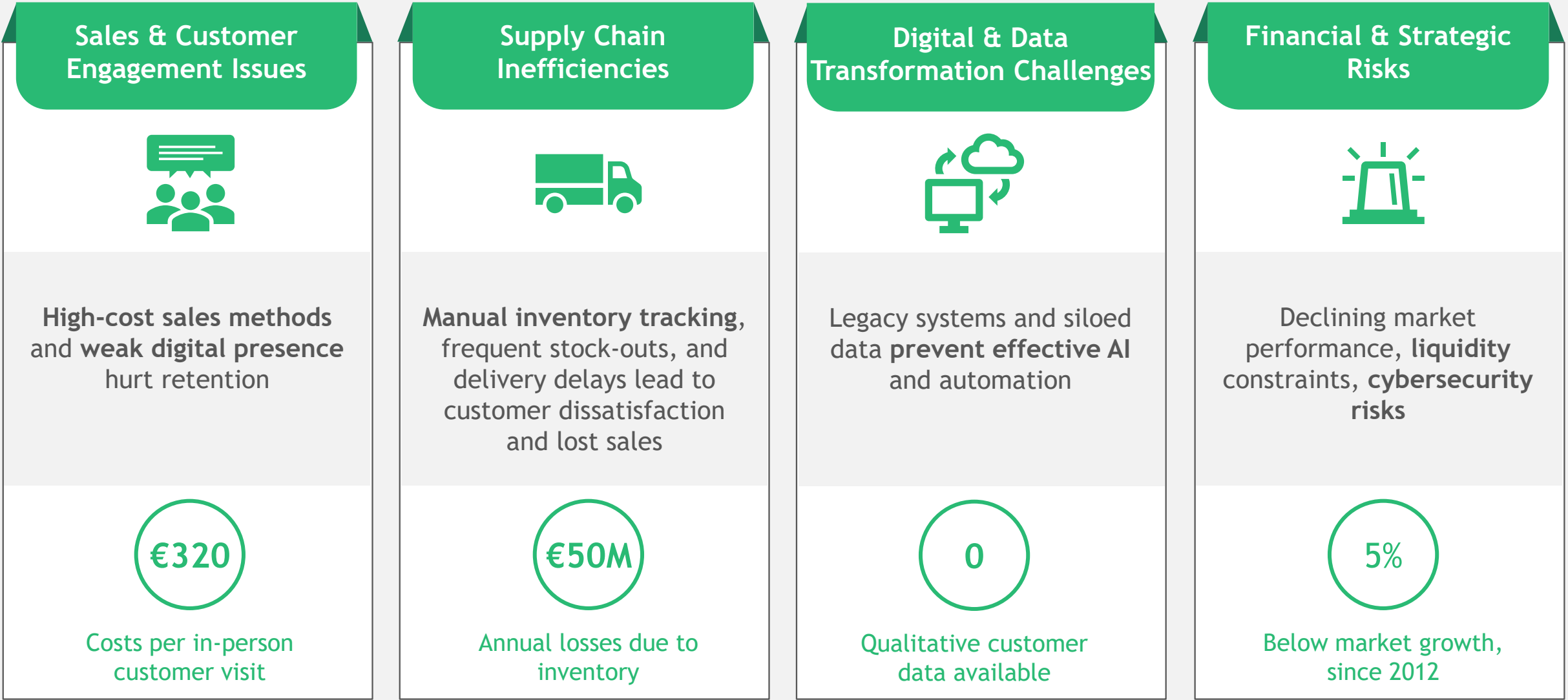
~50%

Increase customer retention rates

+€150M

Increase in sales through improved sales and marketing efficiency

Four critical pain points are limiting Client Co.'s ability to grow its business effectively



Source: Minutes of 8 expert interviews, Financial report of ClientCo, Financial reports of competitors, SWOT Analysis

Data & analytics can be leveraged in many ways to unlock business value and drive strategic growth at ClientCo

Sales & Customer Engagement	>>	1	Customer Churn Prediction	Uses historic data to predict which customers are likely to churn
		2	Multimodal data collection for customer segmentation	Determines customer profiles using speech-to-text AI, feedback analysis, and buying habits for better sales recommendations
		3	Dynamic Pricing	Adjusts prices in real time based on demand, competition, and inventory levels
Inventory & Supply Chain Inefficiencies	>>	4	Demand Forecasting	Forecasts product demand using past sales, seasonal trends, and customer behaviour
		5	Digital Warehouse	Uses RFID tracking and automation to improve stock accuracy and warehouse efficiency
		6	Delivery Routes Optimization	Optimises delivery routes using historical orders, traffic, and weather data
Digital and Data Transformation Challenges	>>	7	Streamlined dashboard for data visualization	Centralizes inventory, sales, and customer data into a single dashboard for insights
		8	Predictive Product Assortment	Analyses sales trends and market data to recommend the best product mix
Financial & Strategic Risks	>>	9	AI Cybersecurity Monitoring	Detects and responds to cyber threats in real time to protect systems
		10	Automated Sustainable Compliance Tracking	Tracks regulatory changes and sustainability metrics for compliance

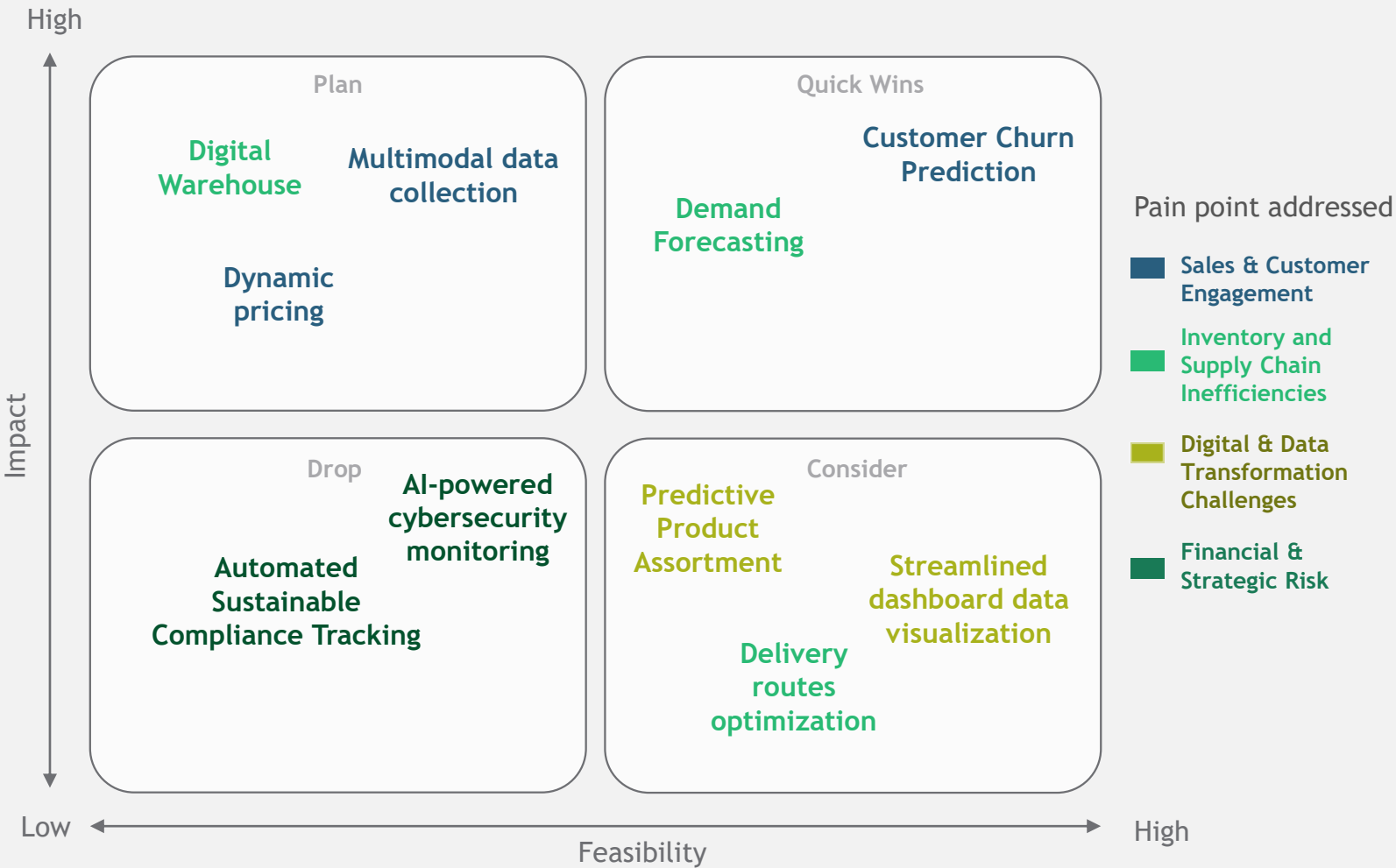
Source: Minutes of expert interviews, Team analysis

Use cases are evaluated based on business impact and ease of implementation to determine prioritization

Definition of dimensions

IMPACT	Operational Efficiency
	Customer satisfaction/acquisition
	Economic Benefit
	Scalability
	Strategic Fit
FEASIBILITY	Complexity of Implementation*
	Data availability & Quality
	Organizational readiness*
	Cost & Investment needed
	User friendliness

Impact Feasibility Matrix



* Complexity of Implementation as per technical requirements and time of implementation

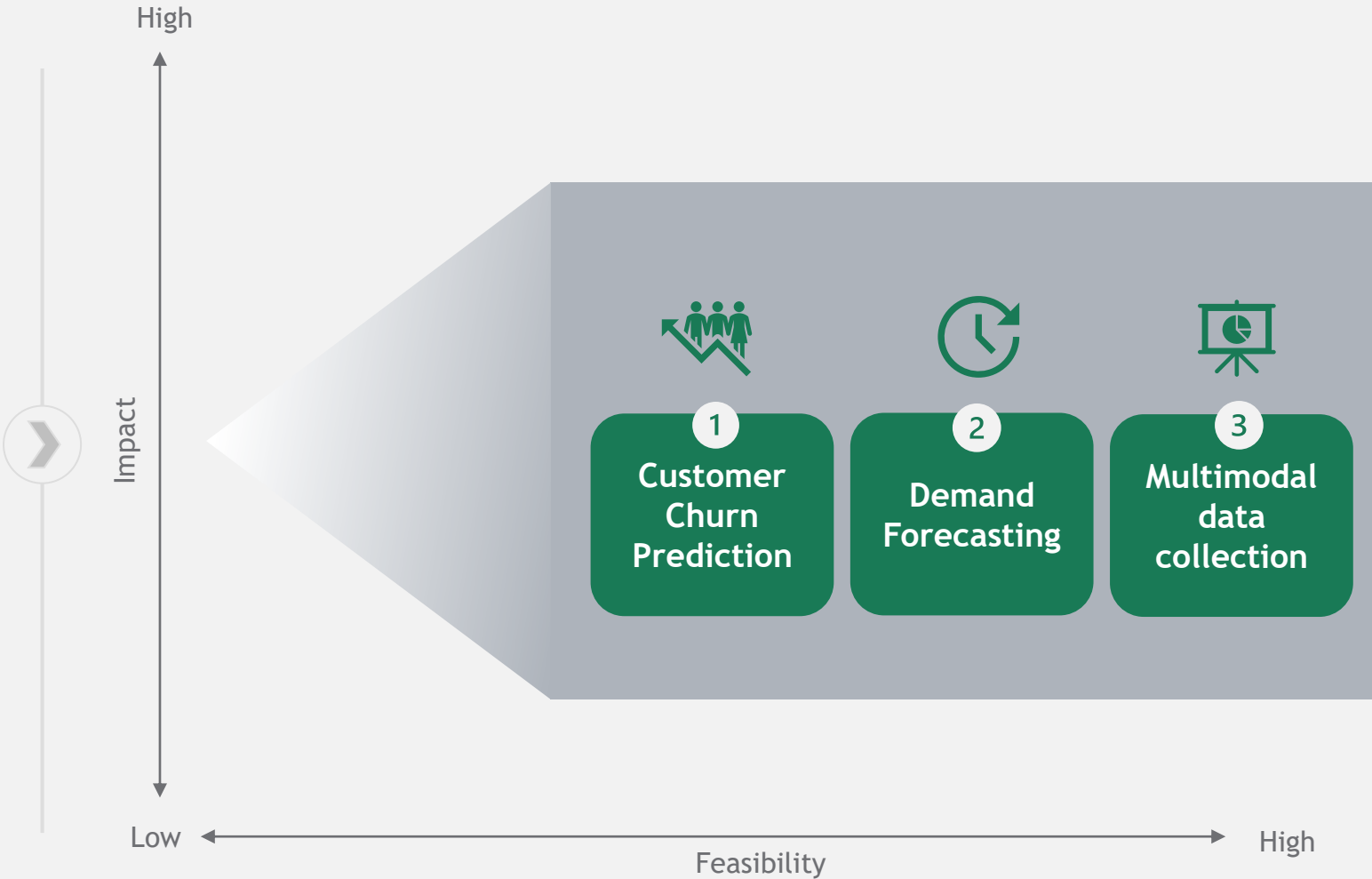
* Organizational readiness as per required training, onboarding and change management

Prioritizing Customer Churn Prediction, Demand Forecasting and Multimodal Data Collection as quick win use cases

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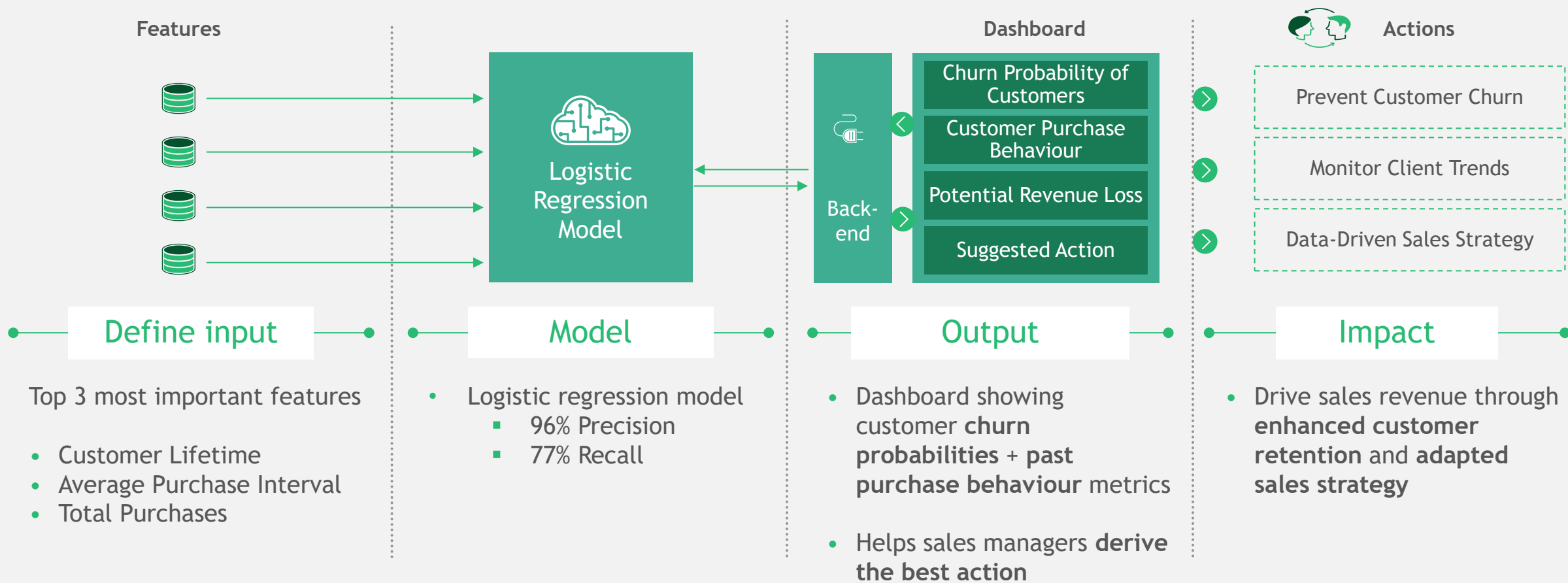
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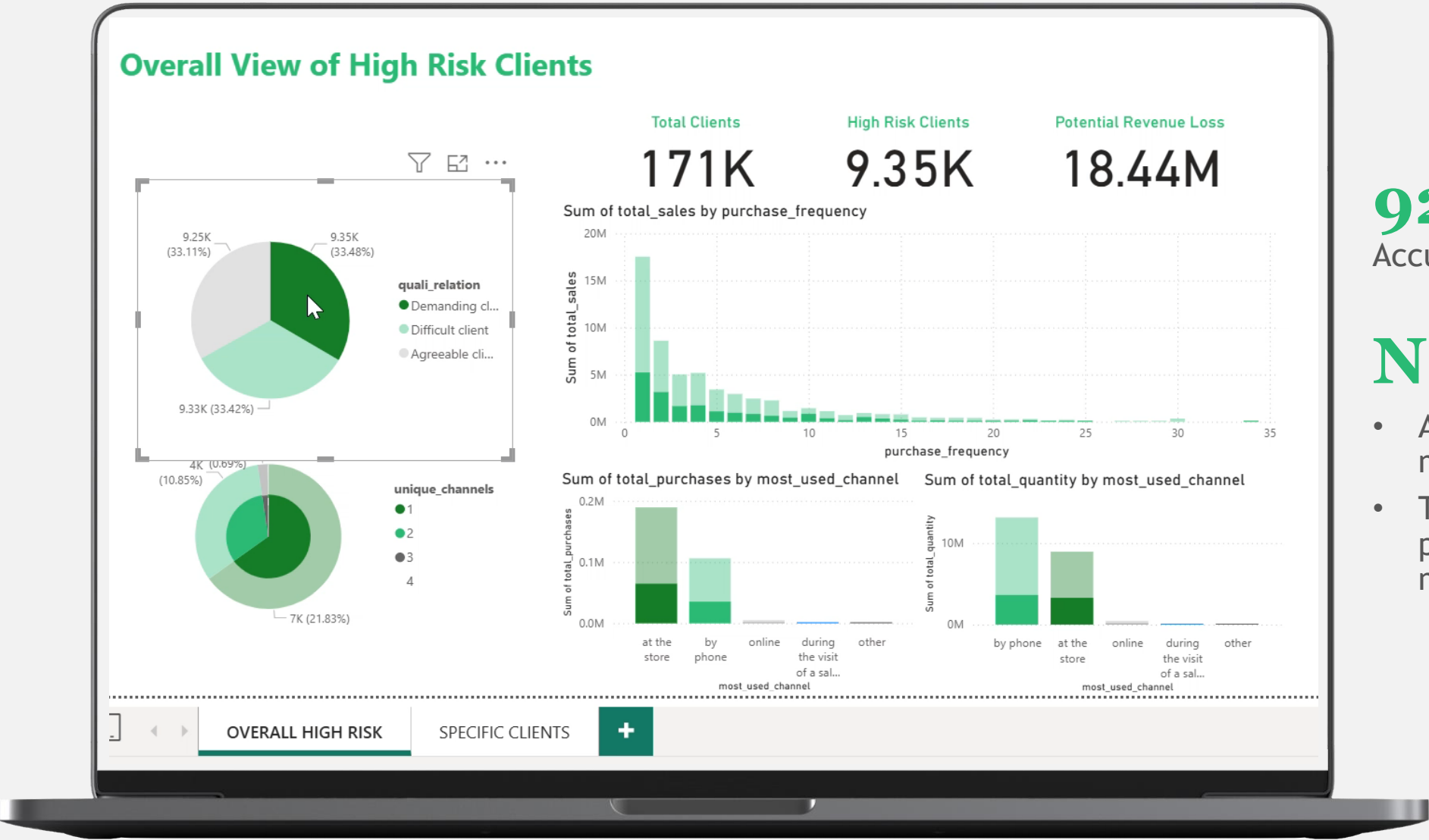
Customer churn model identifies high-risk clients with adaptable metrics, enabling proactive engagement to boost retention and sales efficiency

Customer Churn Definition

- (1) churned if their last purchase was **more than 6 months** before the most recent order in the dataset
- (0) had a purchase **within the last 6 months**



Churn prediction model prototype demo

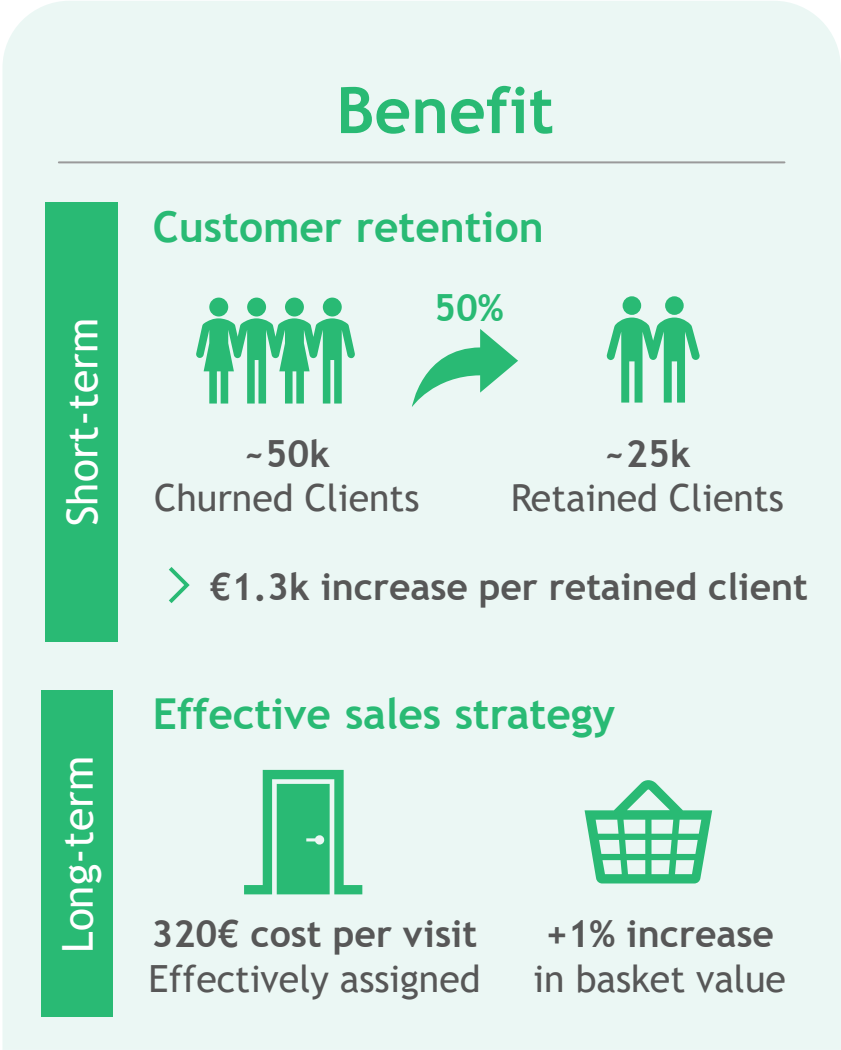
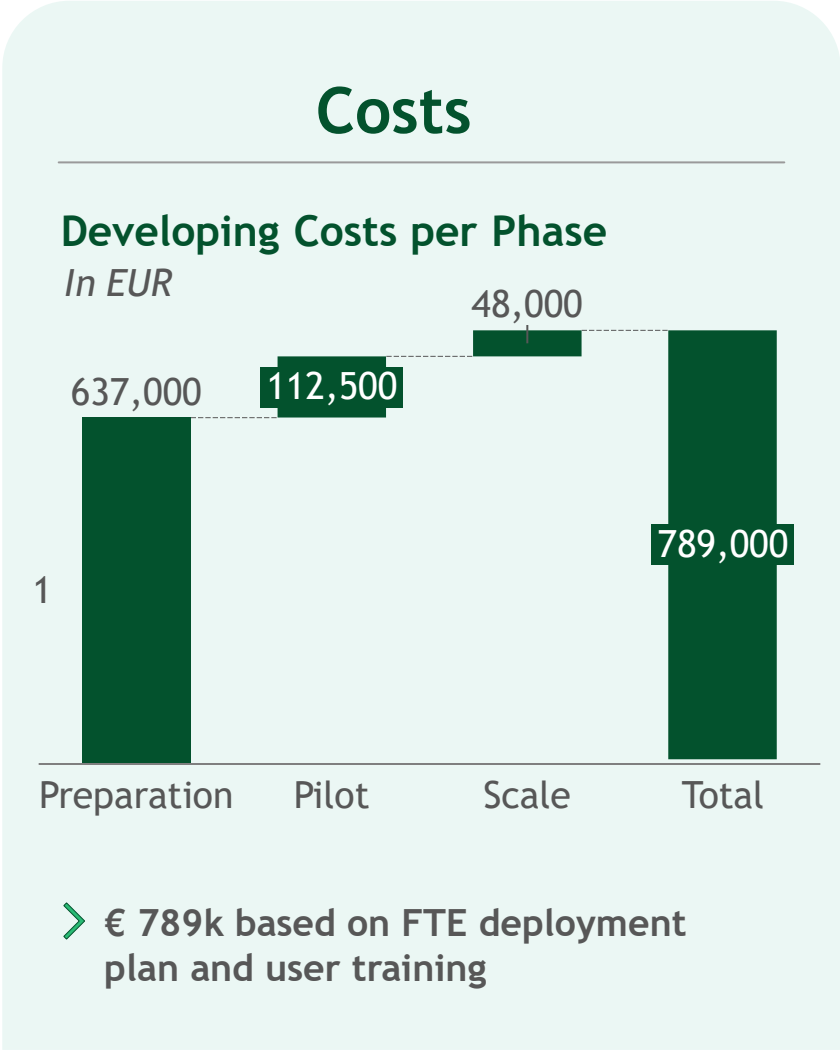


92.2 %
Accuracy at latest version

Next Steps:

- Add more features to the model
- Test and compare performance with different models

Low development costs achieving +€31M impact in year 1 demonstrate a quick win for ClientCo



Total Impact

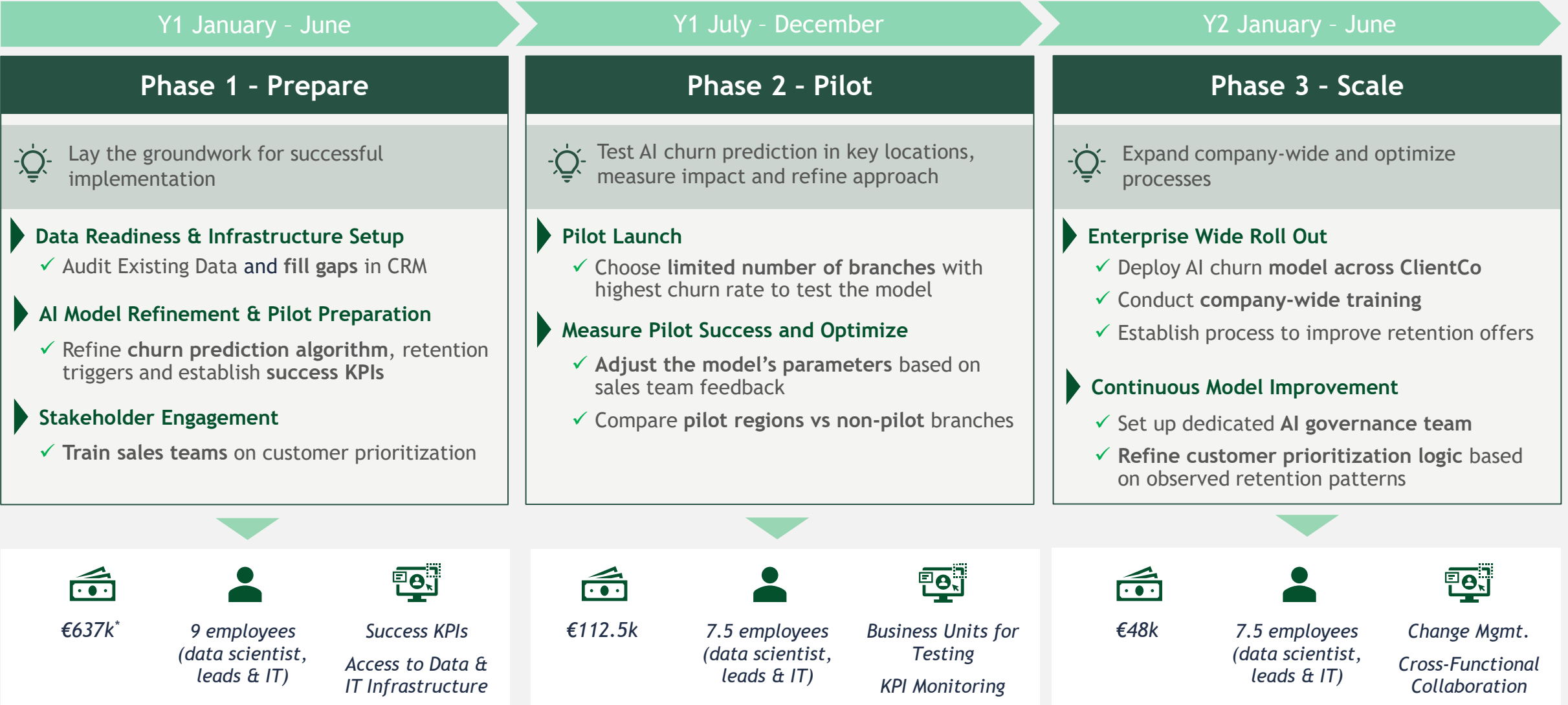
+ 25k
Customers retained in year 1

+ €31.7M
Revenues earned with retained customers in year 1

+ €150M
Increase in sales revenue estimated for 2030¹

Source: Minutes BCG Former client, reduced by 50% due to lack of qualitative data

ClientCo can reduce customer churn with an AI-driven prediction model implemented in three phases over one year and a half



Source: FTE deployment plan, *allocated budget, assigned FTEs for deployment, Resources needed from client

**Thank
you!**

Appendix 1: Customer retention revenue

Metric	Value	Unit
Churned Clients	50,240.0	Clients
Retained Clients	25,120.0	Clients
Avg. Purchase Sales (Lifetime)	1,850.0	USD
Customer Lifetime (Days)	534.0	Days
Annual Revenue per Client	1264.51	USD/Year
Total Annual Revenue	31,764,569.29	USD/Year

Appendix 2: FTE Cost revenue

Phase	Total Costs (€)	Total FTEs	Length in Months
Scoping	225,000.0	18.0	2
Prototyping	225,000.0	18.0	2
Validation	187,500.0	15.0	2
Rollout	112,500.0	9.0	6

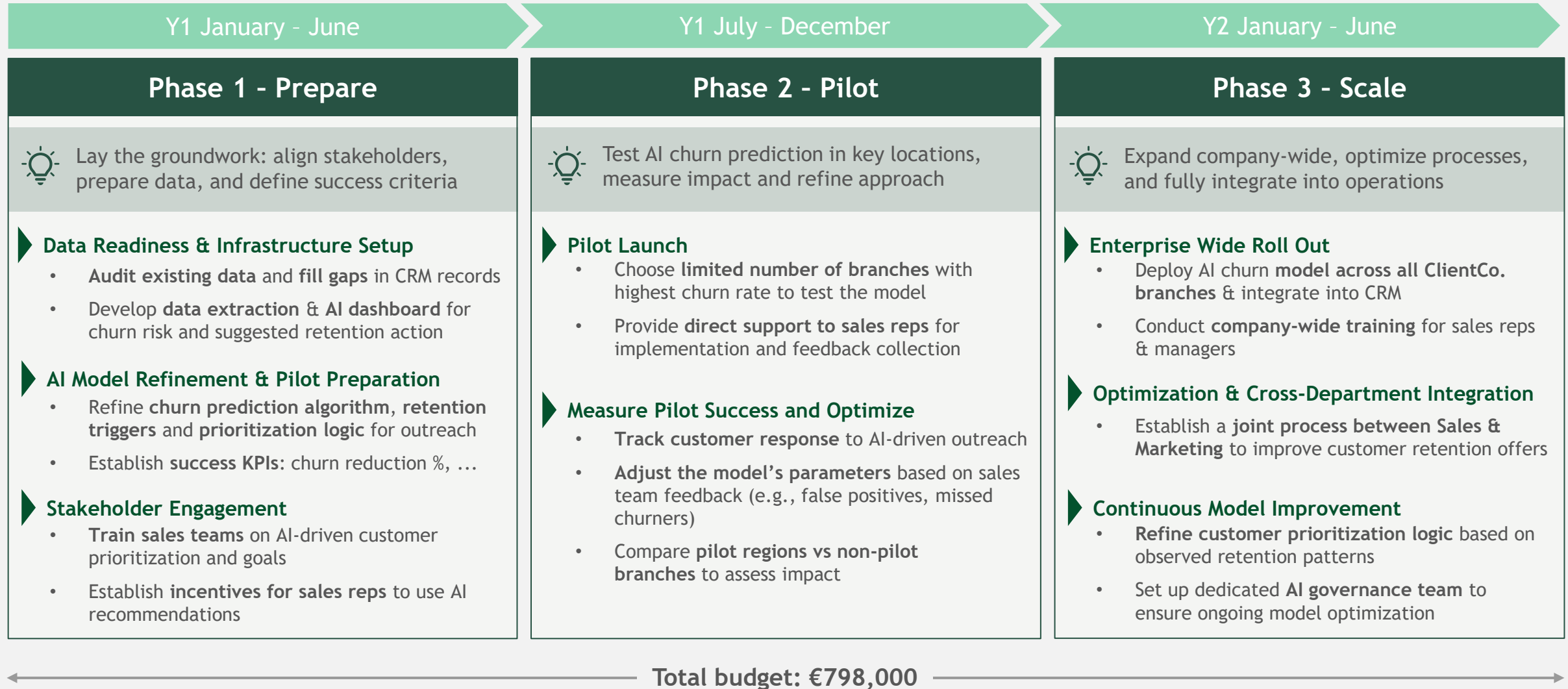
Number of Sales Reps	Hourly Rate (EUR)	Training Hours	Total Training Cost (EUR)
200	80	3	48,000.0

Preparation Phase = Scoping + Prototyping + Validation
 Pilot = Rollout
 Scaling = Training of all sales reps

Appendix 3: Churn Prediction Features

Feature Name	Description
total_purchases	Total number of orders made by the customer.
total_sales	Total revenue generated by the customer from all purchases.
total_quantity	Total quantity of products purchased by the customer.
most_used_channel	The most frequently used ordering channel by the customer.
quali_relation	Qualitative relationship indicator (demanding, difficult, agreeable).
customer_lifetime	The number of days since the customer's first purchase (loyalty indicator).
avg_purchase_interval	Average time (in days) between consecutive purchases made by the customer.
unique_products	Number of distinct products purchased by the customer.
unique_channels	Number of different sales channels the customer has used.

Appendix 4: ClientCo can reduce customer churn with an AI-driven prediction model implemented in three phases over one year and a half



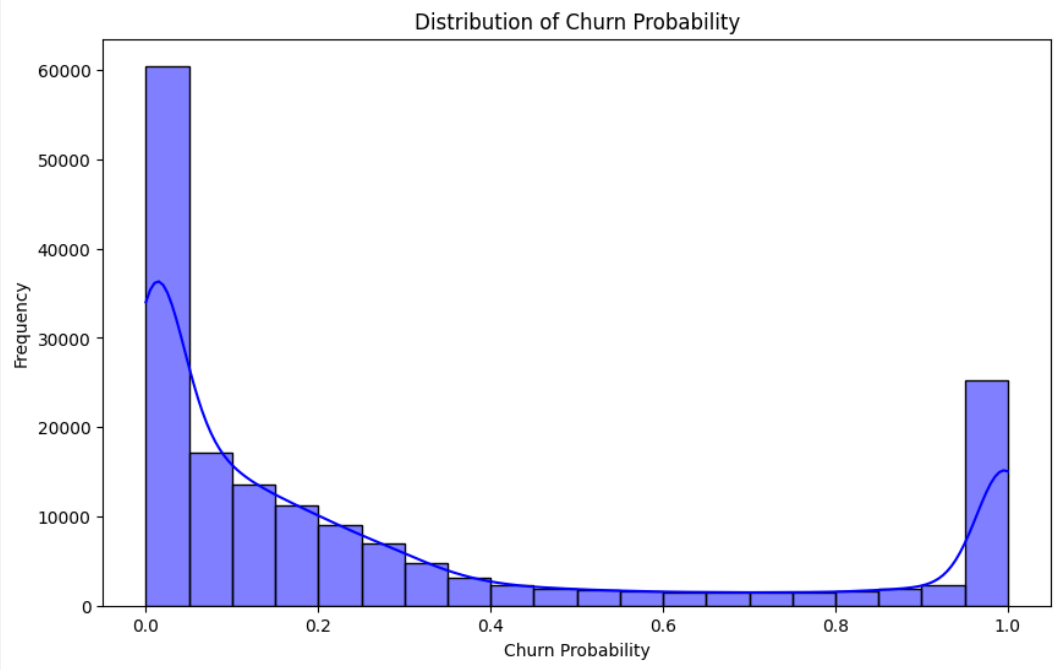
Appendix 5: Churn Prediction Model Performance

Model	Class	Precision	Recall	F1-Score	Accuracy
Logistic Regression	0	0.91	0.99	0.95	0.92
	1	0.96	0.77	0.85	
Decision Tree	0	0.86	0.94	0.89	0.84
	1	0.80	0.62	0.70	

Accuracy: Correctly classified **92%** of churners and non-churners.

Precision: When the model predicts a customer will churn, it is correct **96%** of the time.

Recall: The model correctly identifies **77%** of actual churners.



Note: Class 0 represents active clients, while Class 1 represents churned clients.

Appendix 6: ClientCo vs Avg Competitors Revenue Growth

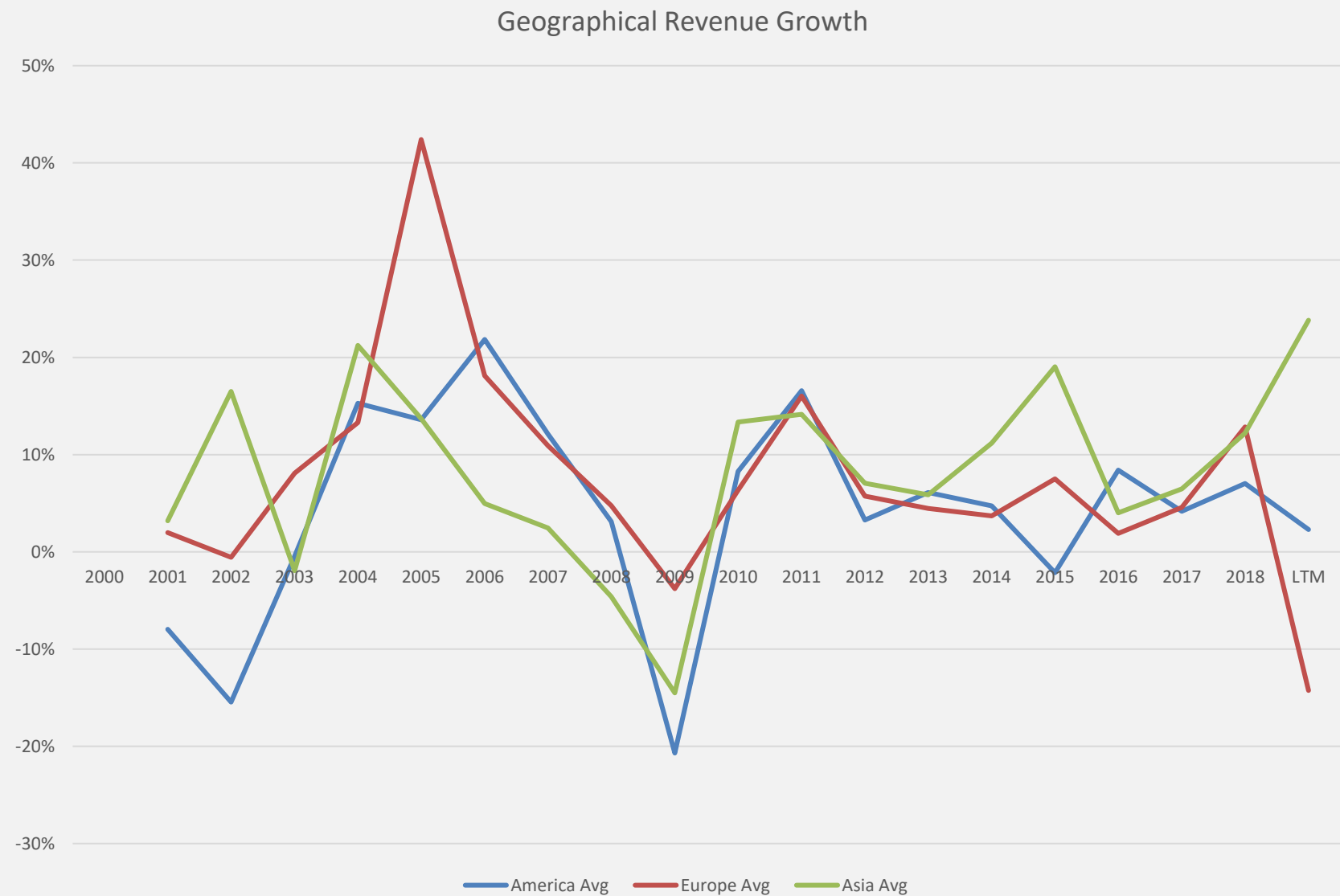
Since 2012 ClientCo has had approx. 5% below market revenue growth.

This is mainly due to their declining performance in Western Europe and Southeast Asia.

ClientCo vs Avg Competitor Revenue Growth YoY



Appendix 7: Geographical Revenue Growth



Source: Financial reports

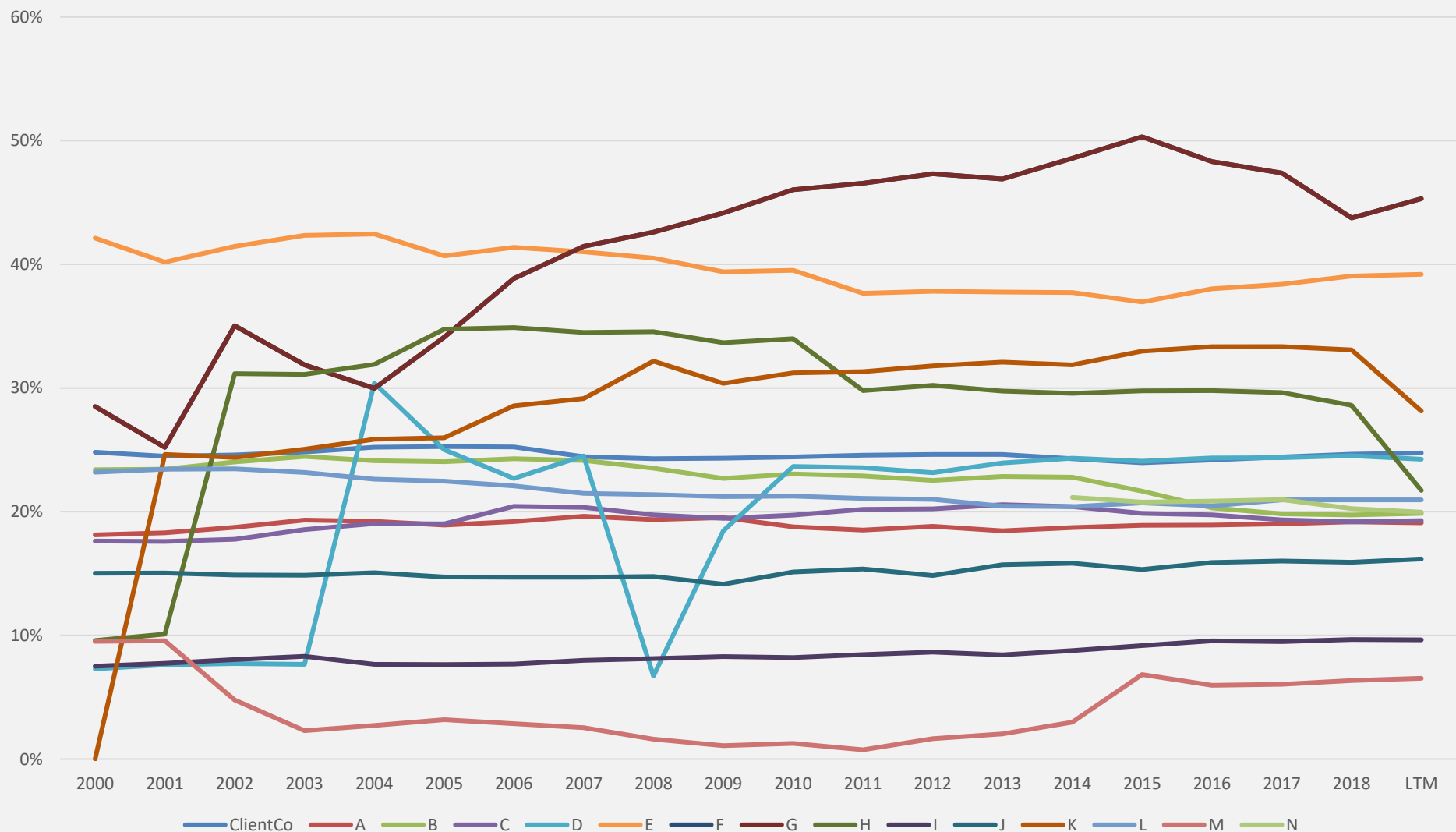
Companies are assigned to a geographical region based on where they are headquartered and not on where Sales were made.

Assuming companies make the majority of their sales where they are headquartered, this still gives us a good idea on how different Geographical markets are performing.

We see a huge increase in Asia's Revenue Growth with a decline in America's RG from 2018. This is likely due to the trade war between the US and China which started in January of 2018 when US started setting tariffs on Chinese goods.

Appendix 8: ClientCo vs Competitors Gross Margin Comp

ClientCo vs Competitors Gross Margin Comparison

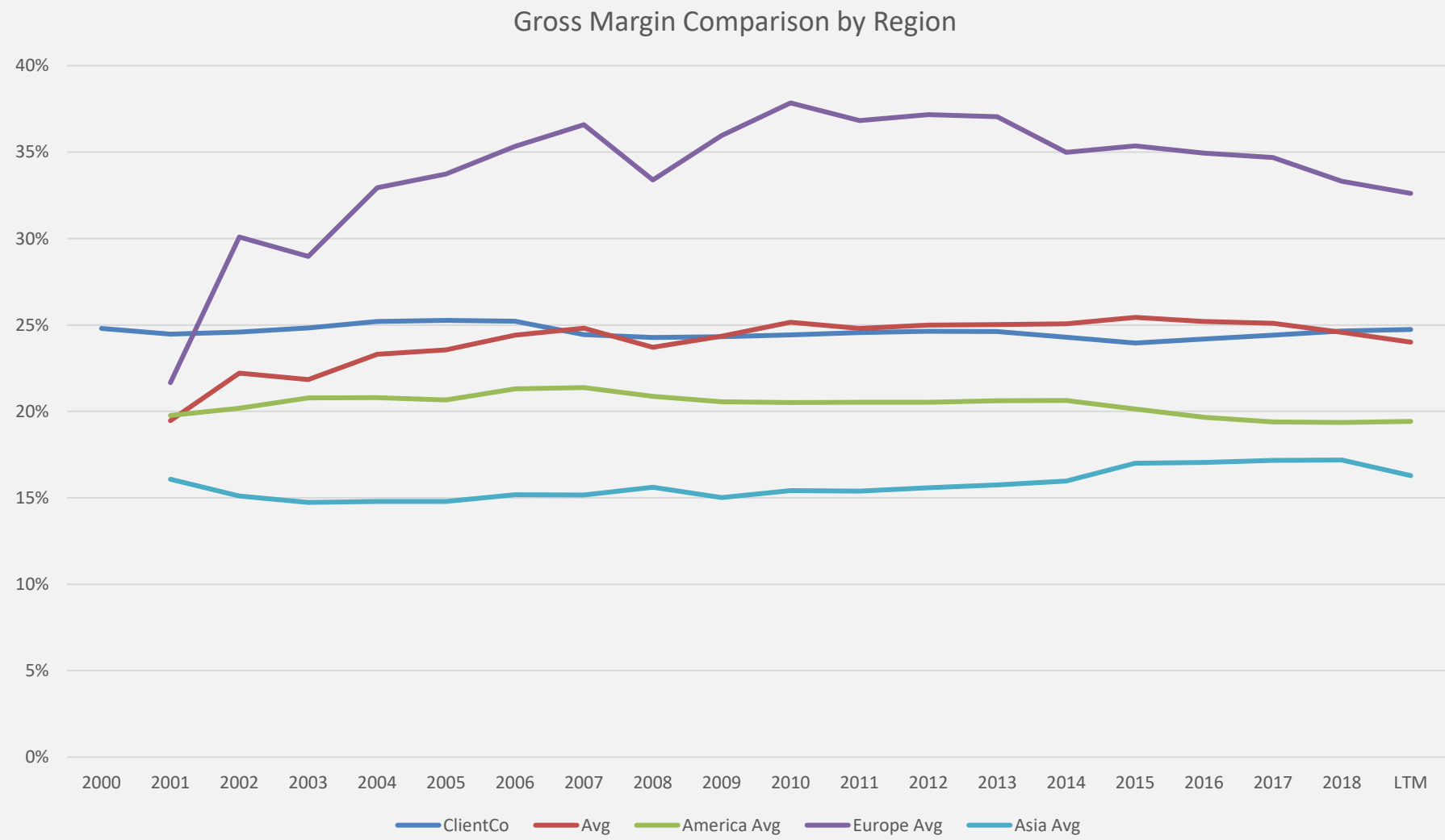


ClientCo is around middle of the pack for Gross Margin.

Very stable margins +/-2% across 20 years.

Source: Financial reports

Appendix 9: Gross Margin Comparison by Region



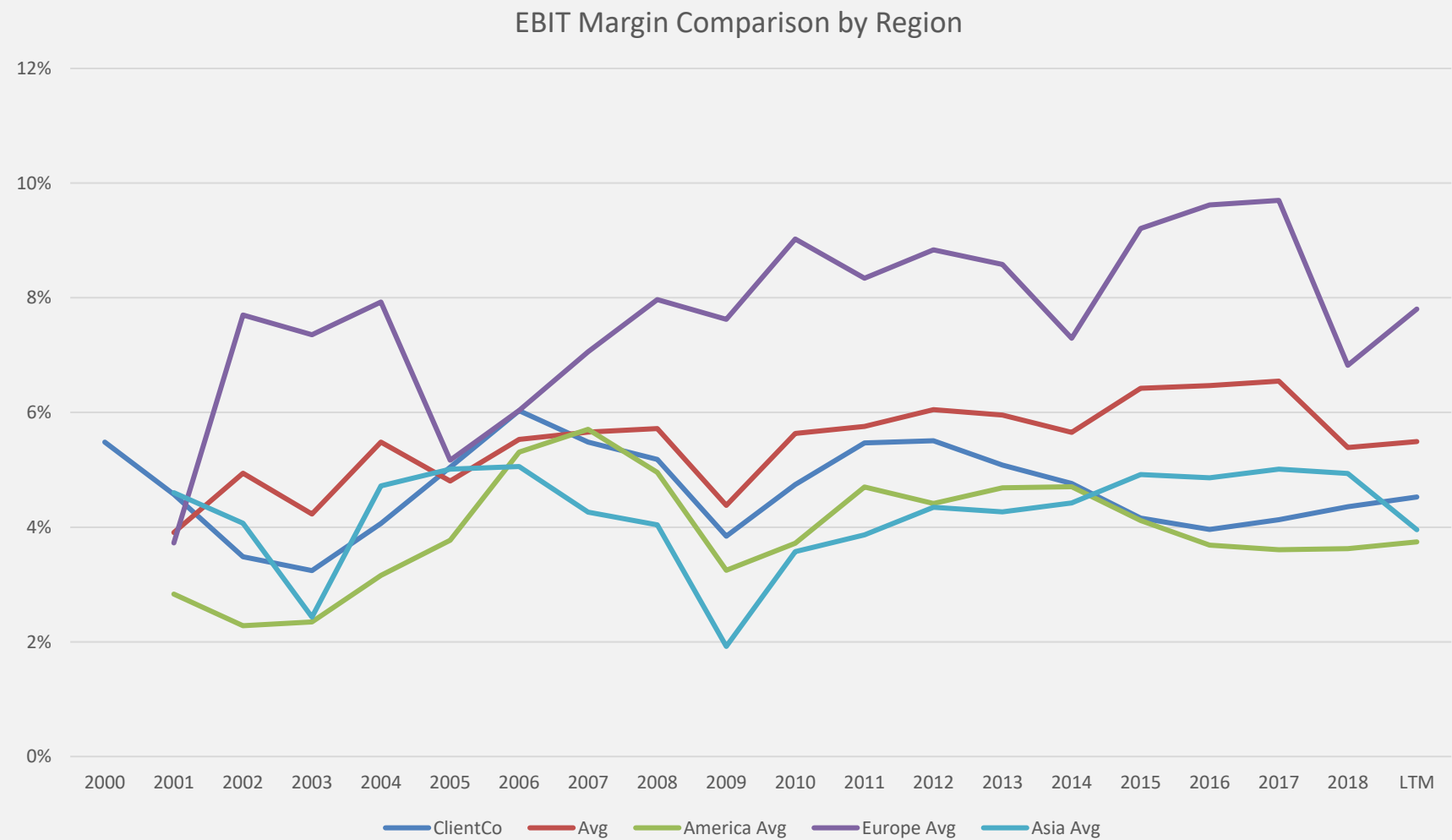
Europe has a large Cost Advantage over America and Asia.

ClientCo’s Gross Margin is around the market average however, it is quite low compared to the European Average.

They may not have the best relationship with suppliers.

However, it could also be that competitors produce the products themselves whereas ClientCo resells them.

Appendix 10: EBIT Margin Comparison by Region



EBIT Margin paints a similar picture to Gross Margin.

However, ClientCo’s EBIT Margin is around 1-2% below average.