Vino Botics

VinoBotics Growth Plan

think-cell Case Competition

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Today's growth proposal for VinoBotics was developed by an experienced and multi-disciplinary team of management consultants

Team overview

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Agenda

1. Market Overview
2. Growth Plan
3. Financial & Operational Feasibility
4. Timeline & Risks

The growth plan at hand would increase VinoBotics' annual sales to $129M by 2030 and transform it into a key industry solution provider with international presence

Executive Summary

Market overview

- The global wine market offers attractive growth potential for VinoBotics, especially, as VinoBotics is not yet present in the ten largest wine producing markets
- Several new technology trends in the wine market pave the way for new market participants, VinoBotics is in a good position to scale its unique solution

Growth plan

- VinoBotics should follow a step-wise growth approach eventually transforming it into a global crop management leader while leveraging its expertise in winemaking in the short-run
- VinoBotics should target tech-savvy wine producing countries first, establishing a local footprint while implementing support for multiple grape types predominantly produced in those markets
- VinoBotics should connect their robots to a cloud software platform to increase overall sales, lock customers in, and lay the foundation for further technological innovation
- VinoBotics should connect their robots to a cloud software platform to increase overall sales, lock customers in, and lay the foundation for further technological innovation

Financial & operational feasibility

- Implementing the proposed growth initiatives would add $370M in incremental sales over 5Y from diversified revenue streams from multiple countries and customer types
- Implementing the growth initiatives would require a cumulative capital commitment of $12M in CAPEX and $174M in OPEX and lead to significant expansion across all business areas
- A sequenced market entry approach and partially outsourcing R&D projects can help mitigate VinoBotics' largest internal barriers to implement the 5Y growth plan

Timeline & risks

- An ambitious yet realistic timeline ensures timely implementation and revenue growth to support VinoBotics overall financial growth plans
- Key risks arise from VinoBotics limited experience in market entries and new product development, seeking partnerships with selected customers can mitigate the impact of risks

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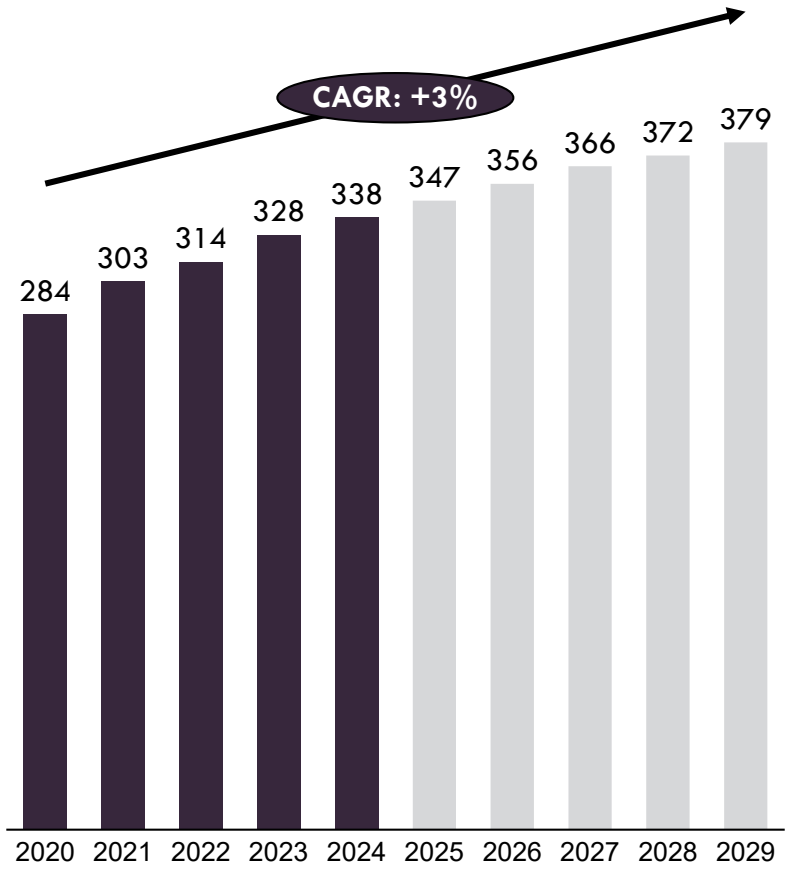
The global wine market offers attractive growth potential for VinoBotics, especially, as VinoBotics is not yet present in the ten largest wine producing markets

Wine market overview

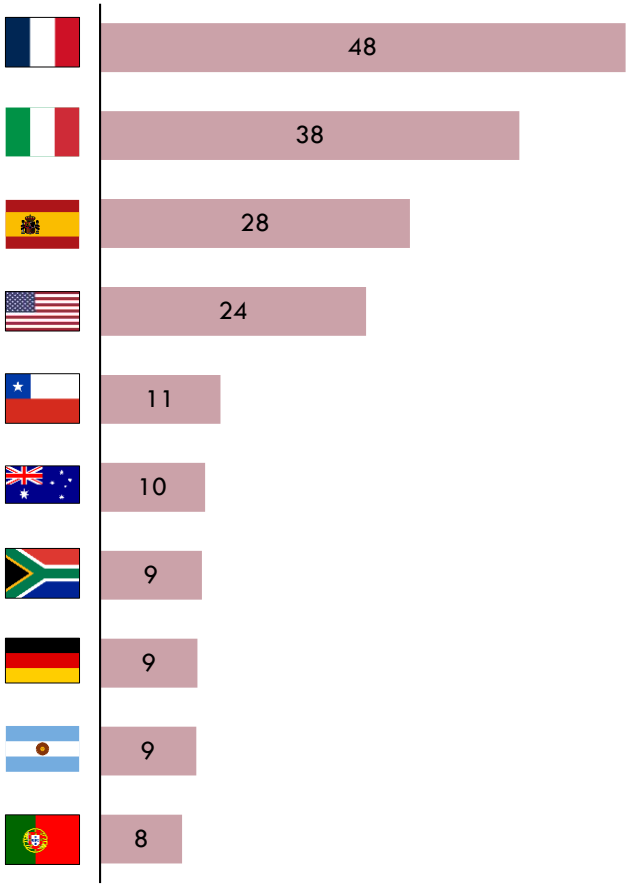
Global wine market development

in bn US$



Wine production per country

in million hectoliters, data for 2023



Market assessment

Solid market growth outlook

The global wine market is experiencing steady growth, creating significant opportunities not only for producers but also for specialized production service providers like VinoBotics to expand their offerings.

New Zealand not part of the Top 10

VinoBotics currently serves customers exclusively in New Zealand, a country that, while renowned for certain premium wine varieties, is not among the top 10 wine-producing nations globally.

Substantial potential for VinoBotics

Combining the overall market outlook with the untapped potential in larger established wine-producing countries, there is substantial opportunity for VinoBotics to expand its customer base and achieve significant growth.

Source: OIV (2023), Statista (2024)

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Several new technology trends in the wine market pave the way for new market participants, VinoBotics is in a good position to scale its unique solution

Market Trends

Major technology trends

Precision Viticulture	Collecting and analyzing data to make informed decisions on how to manage different parts of a vineyard based on their unique characteristics
Machine Learning and AI	Optimizing fermentation processes, monitoring quality in real time, and predicting ideal blending and aging strategies
Biotechnology and Genomics	Enabling the development of custom yeast strains, improving grape disease resistance, and enhancing flavor profiles through precise genetic insights
Smart Packaging and IoT	Enabling real-time monitoring of storage conditions, ensuring quality control, and improving traceability from vineyard to bottle
Blockchain Technology	Improving wine production by ensuring transparent, tamper-proof tracking of the entire supply chain, enhancing authenticity, and preventing fraud

Selected competitors

PeK automotive

Slovenia

Offers the Slopehelper, an autonomous electric robot for steep vineyard terrains

2

Competitive Threat

naïo Technologies

France

Provides electric, autonomous vineyard robots like Ted and Jo for tasks such as weeding and pruning

3

Competitive Threat

AIGRO technology architects

Netherlands

Develops AI-driven robotic solutions for efficient and sustainable vineyard management

1

Competitive Threat

SITIA

France

Sells the TREKTOR, a hybrid autonomous tractor designed for vineyard tasks like spraying and mowing

2

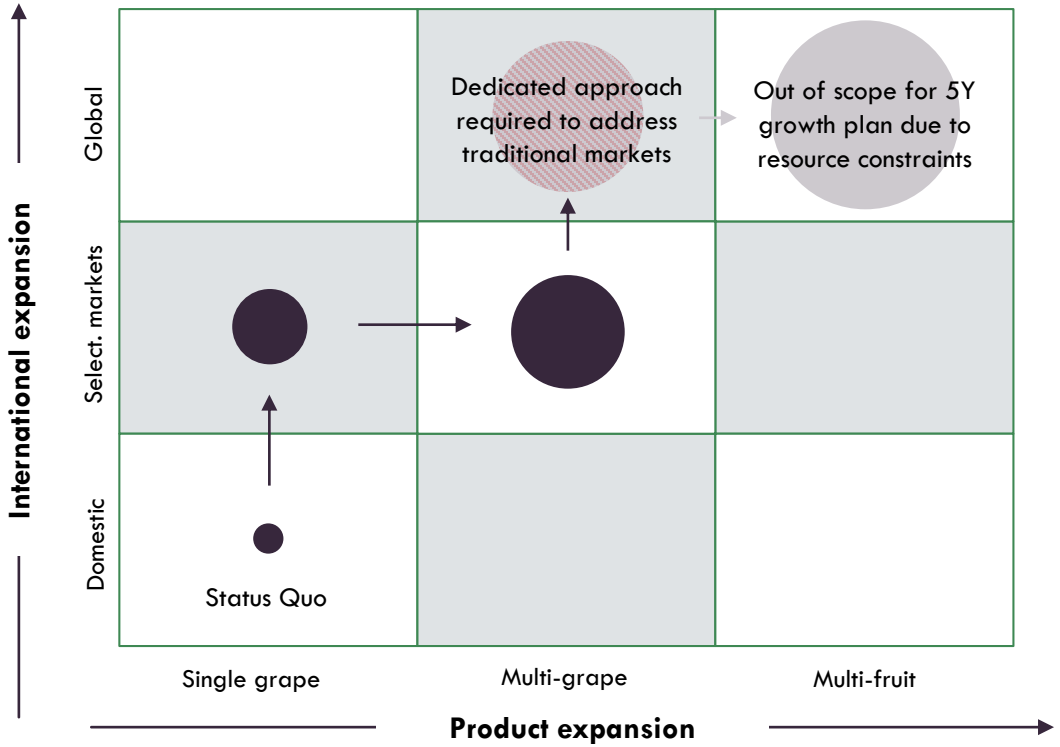
Competitive Threat

Legend: AI = Artificial Intelligence // IoT = Internet of Things // Competitive Threat: 1) Negligible 2) Low 3) Moderate 4) Severe
Ranking is based on public information and indicative only; detailed competitor analysis is out of scope for this presentation

VinoBotics should follow a step-wise growth approach eventually transforming it into a global crop management leader while leveraging its expertise in winemaking in the short-run

Growth strategy

Growth in market presence



Bubble size directionally represents simulated $-value of growth opportunity over 5Y horizon

- First wave of expansion
- Second wave of expansion building on learnings in previous wave
- Out of scope for 5Y growth plan due to resource constraints

Legend: 5Y = 5-Year // SW = Software

Implicit growth levers

VinoBotics should follow a step-wise growth approach, balancing each incremental growth opportunity with their current competencies and limited R&D and financial resources while focusing on the following levers.

1

Geo. expansion and multi-grape integration

VinoBotics should establish a presence in all key markets covering all key grapes in the long-run while gradually expanding markets and grapes supported beginning with tech-affine markets.

2

Flexible pricing model

VinoBotics current pricing only allows targeting a market niche, flexibilizing its pricing would allow entering the more price sensitive mass market while securing recurring revenues.

3

Cloud software and IoT solution

VinoBotics should enhance their SW capabilities to increase share of wallet from existing customers from SW subscriptions and lock-customers in using a proprietary vineyard and data management tool.

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VinoBotics should target tech-savvy wine producing countries first, establishing a local footprint while implementing support for multiple grape types predominantly produced in those markets

1 Geo expansion and multi-grape integration

Target markets

First expansion wave to progressive markets

- **Approach:** Targeting progressive winemaking countries that grow similar grape types as quick wins for VinoBotic's first wave of international expansion
- **Markets:** Given their technology affinity, **Chile/Argentina and South Africa should be prioritized as primary expansion markets**
- **Grapes:** Supporting **Cabernet Sauvignon, Shiraz, Chardonnay, and Merlot** allows VinoBotics to address a high share of winemakers locally

Second expansion wave to semi-progressive markets

- **Approach:** Targeting semi-progressive winemaking countries that grow a limited number of predominant grapes specific to their country only
- **Markets:** Assuming their high technology adoption, **the US, Germany, and Spain should be prioritized as secondary expansion markets**
- **Grape types: Zinfandel, Riesling, Müller-Thurgau, Tempranillo, Garnacha** are must-haves to enter these markets

Dedicated approach for traditional wine countries

VinoBotics should **target France and Italy last** and build on the experiences and insights gained in semi-progressive markets to develop a dedicated market entry approach and apply relevant modifications to the product targeting traditional winemakers.

Source: OIV (2023, 2017)
Legend: mhcl = million hectoliters // Cab. = Cabernet // [1]These are grapes that mainly grow in a single country and have a high relevance locally, e.g. Riesling (DE), Zinfandel (US), Tempranillo (ES)

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The development of additional software functionalities paired with more flexible pricing models would allow VinoBotics to target mass market wine producers and increase share of wallet

2 Flexible pricing model

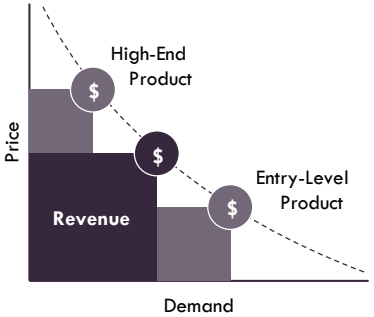
Limitations of current pricing approach

Upfront cost barrier limits growth
The high upfront cost does not allow addressing the mass markets and limits VinoBotics to the relatively small Premium market segment only (estimated to be 15%)

High product fit for mass market
The mass market segment is characterized by low operating margins, making efficiency and utilization gains a critical factor to achieve profitability

Risk of competitive move
Only focusing on a niche market segment with a highly relevant product innovation poses the risk that competitors develop a lower cost solution for the mass market

Future flexible pricing options

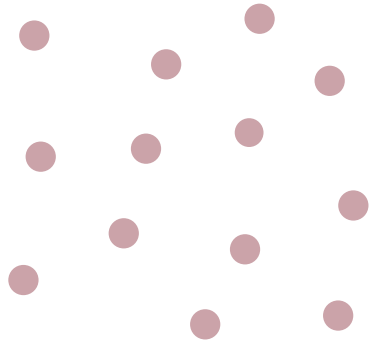
	Unlocking value through leasing	Leveraging tiered pricing for growth
		
Rationale	Increase market share by targeting mass market customers in economy segment with financial constraints	Increase share of wallet and capture customers' willingness to pay for advanced product features
Barriers addressed	Financial constraint of customers for upfront investment	Customer or market-segment specific customer needs
VinoBotics implication	Increase market share by targeting mass market customers in economy segment with financial constraints	Increase in solution attractiveness Consultative sales approach recommended to identify, and capture differentiated customer needs

Note: Charts only for illustration purposes // NZ = New Zealand // AUS = Australia // CLV = Customer Lifetime Value

VinoBotics should connect their robots to a cloud software platform to increase overall sales, lock customers in, and lay the foundation for further technological innovation

3 Cloud software and IoT solution

Software landscape



Market lacks a comprehensive viticulture software that combines health, yield, & climate data

VinoBotics' digital strategy

Enhance internal software with better data collection tools (e.g., harvest metrics, health indicators

Enables data-driven decision-making across vineyard operations

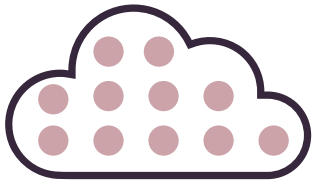
Develop plug-in architecture for different grape varieties as a subscription model

Unlocks recurring revenue streams and scalable business model

Integrate external data: satellite weather, soil moisture sensors, drone imagery

Improves prediction accuracy and vineyard responsiveness to climate events

Cloud solution



Centralizes operations in a single cloud platform for multi-site vineyard management

Takeaways

- Enhancing the current robot with IoT tools and cloud for vineyard management makes the overall solution more attractive and adds an important differentiator
- Managing customer's vineyard data is likely to generate a lock-in effect, increasing customer lifetime value and overall loyalty
- State-of-the-art software tools help position VinoBotics as the technology leader and will lay the ground for future solution development and innovation

Implementing the proposed growth initiatives would add $370M in incremental sales over 5Y from diversified revenue streams from multiple countries and customer types

Revenue impact

Growth lever	Value drivers	Impact of growth initiatives (*Estimated cummulative 2030 revenue impact m$*)	ROI [%]
Baseline	Continue with current product in current market	98	
Geo expansion Multi-grape integration	Expand to progressive countries with single grape support	29	98
	Starting with key grapes in target expansion markets	259	
Flexible pricing models	Implementation of flexible pricing to target mass market	49	158
	Customized solution building blocks	9	
Cloud software IoT solution	Development of cloud solution as vineyard management tools	8	34
	Enhancements of hardware to support IoT features	17	
Total		468	**99**

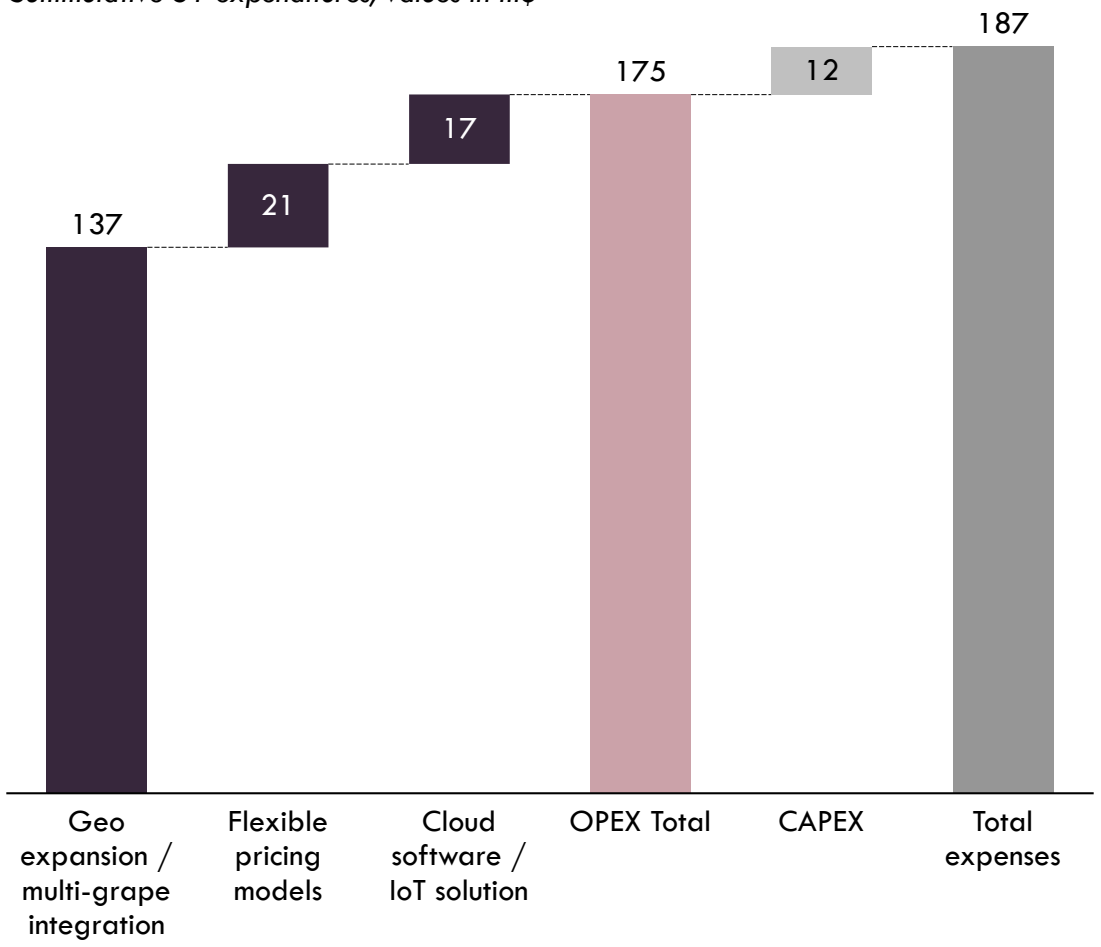
Note: ROI = Return on investment // See detailed calculation in the backup

Implementing the growth initiatives would require a cumulative capital commitment of $12M in CAPEX and $174M in OPEX and lead to significant expansion across all business areas

Cost impact

Total cost of implementation

Cummulative 5Y expenditures, values in m$



Note: See detailed calculation in the backup

Breakdown of key cost drivers

Production facilities
Expansion of production facilities and warehouse in New Zealand gradually increasing yearly output to 840 robots by 2030. Simplifying processes by reducing vertical production range through deeper integration with strategic suppliers.

Number of employees
Increase in number of full-time employees to 329 by 2030. Due to the specific knowledge and high level of specialization required, VinoBotics needs to develop a long-term oriented talent management approach.

Global presence
Establish regional hubs in US, Germany, and Chile to act as showrooms and service/repair centers and represent the brand in local markets. Sales and local admin functions do not require office presence but can work remotely.

Corporate functions
Transforming current management systems and corporate processes in Finance, Accounting, Legal, and Tax is required to prepare for international presence and overall growth and increase in complexity of the organization.

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A sequenced market entry approach and partially outsourcing R&D projects can help address VinoBotics' largest internal barriers to implement the 5Y growth plan

Enablers and operationalization

Barriers to implementation

Readiness of internal enablers[1]

Corporate-level

Financial resources	●
Management Bandwidth	◕
IT Systems	◕
Regulatory & Compliance	●
Scalability of production	◕

Project-specific

R&D capacity/know-how	◔
Commercial execution	◔
Service execution	◑

◔ Major gaps ◑ Moderate gaps
◕ Minor gaps ● No gaps

[1] selected only

Addressing scarcity of R&D resources and lack of international sales experience

Sequenced market entry

Seeding through Key Opinion Leaders (KOL)
Contract with local wine makers that are willing to test the product and enter a corporation to promote VinoBotics locally on e.g. tradeshows, industry conventions etc.

Scale through regional hubs in selected markets
Open regional hubs to act as showrooms and service/repair centers. Support KOL sales approach with VinoBotics sales reps and implementation specialists.

Expand sales channels through local dealers
Addressing limited presence of VinoBotics regional hubs,, VinoBotics should expand its sales channels to local wine production equipment and technology dealers to increase market presence.

Partial outsourcing of R&D work

Creation of a strategic R&D roadmap
VinoBotics must implement a more thorough customer insights process, informed by user-generated data, to inform the future strategic R&D roadmap and feature needs.

Development of multi-grape integration
As multi-grape integration is a key part of the product, VinoBotics should opt for in-house development with existing hardware R&D teams to retain knowledge in the long-run.

Development of cloud and IoT platform
Outsource development of technological backbone (e.g. cloud computing, generic platform features) while keeping development of features for vineyard management in-house.

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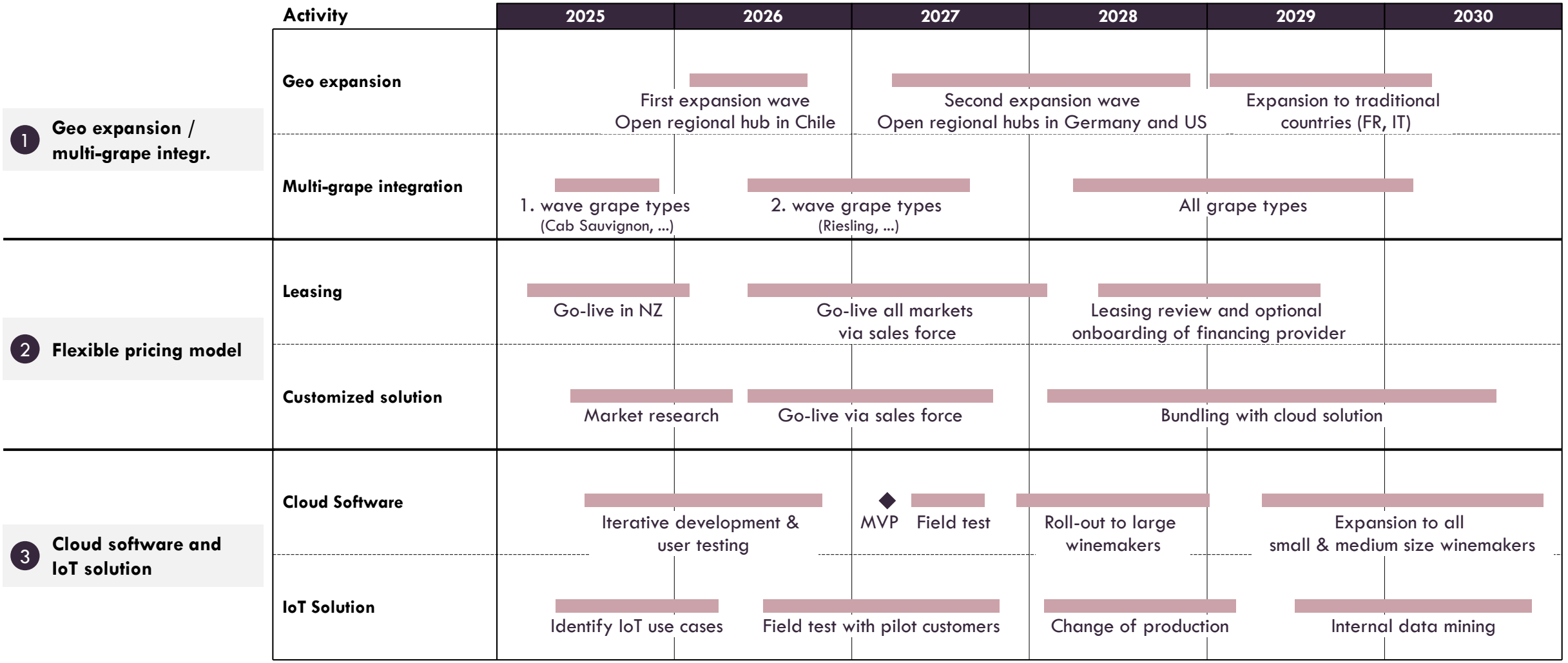
An ambitious yet realistic timeline ensures timely implementation and revenue growth to support VinoBotics overall financial growth plans

Timeline



Legend: MVP = minimum viable product // NZ = New Zealand // FR = France // IT = Italy

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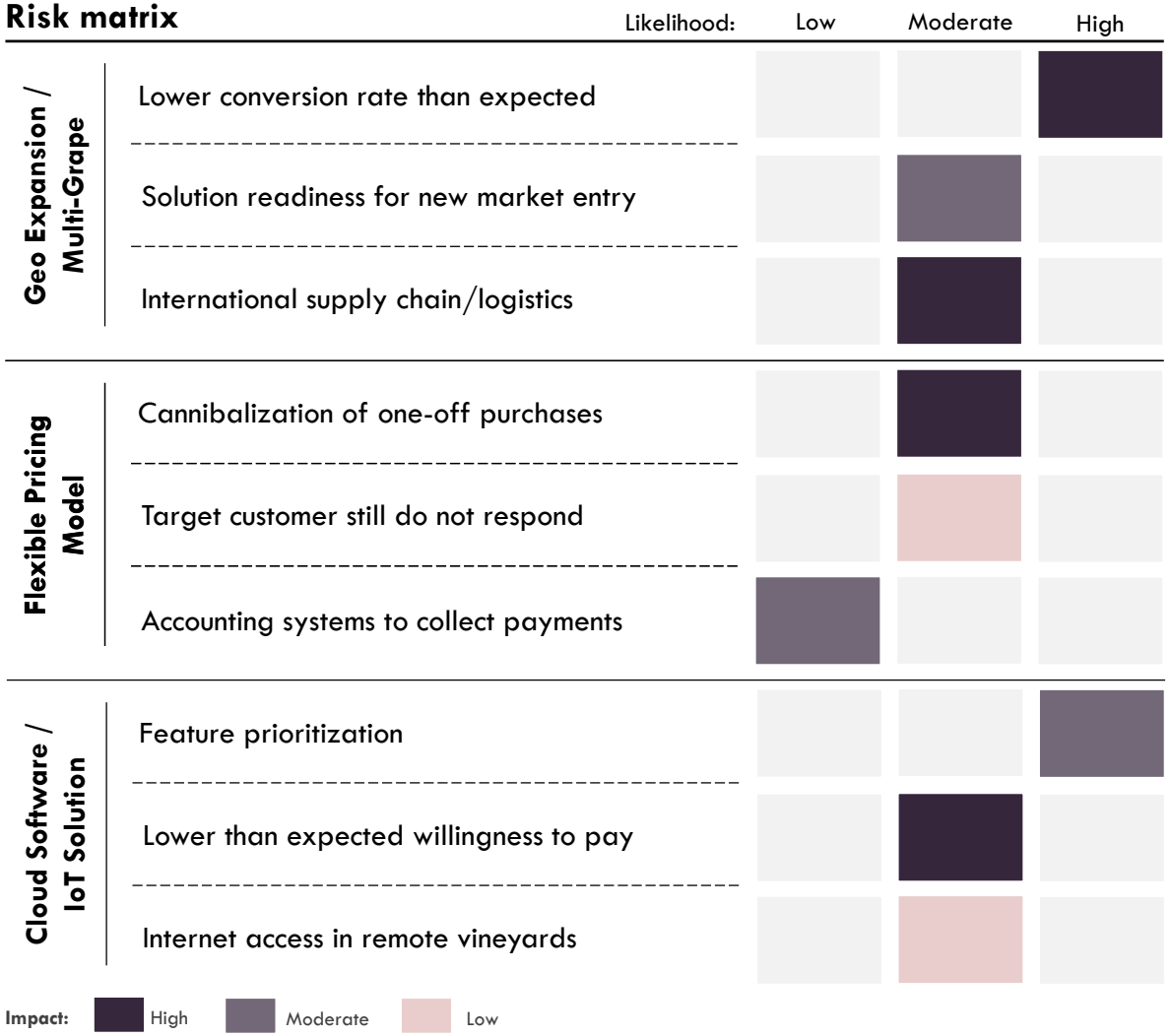
Key risks arise from VinoBotics limited experience in market entries and new product development, seeking partnerships with selected customers can mitigate impact of risks

Risks and mitigation

Risk matrix



Mitigation

Enter new markets by partnering with customers
VinoBotics should build partnership with selected local winemakers to help prepare for the market entry. These customers can provide insights into the solution attractiveness/readiness in a given market and are more tolerant towards smaller hick-ups that may occur in the early market entry phase, such as delivery delays.

Promote flexible financing models in a targeted approach
Through their sales teams, VinoBotics should aim for a balanced mix of one-off purchase customers and leasing customers to grow requiring external borrowing to cover short-term liquidity needs. In case of high leasing take-rate, VinoBotics should offer the leasing model via external financing providers at potentially higher cost.

Conduct market research to understand potential for cloud
Given the fragmentation of customer segments and the highly differing customer needs towards a cloud solution, VinoBotics should carry out extensive market research and focus their development efforts on larger winemakers where vineyard management tools likely yield the highest added value for customers.

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From New Zealand to the World

The 2030 Vision for VinoBotics

Rooted in Expertise,
Cultivating VinoBotics' Next Stage

Backup

Base Case Growth Assumptions

Base Case

Category	2025 F	2026 F	2027 F	2028 F	2029 F	2030 F
Revenue Base Case						
Units	85	94	103	113	124	137
Revenue	12.750.000	14.025.000	15.427.500	16.970.250	18.667.275	20.534.003

Rationale

- Assuming no implementation of growth initiatives and continue operation with single-grape support in Australia/New Zealand only
- Historic growth rate was 66%, but is not a useful future growth indicator due to low absolute growth base in early company stage
- CAGR from 2025 to 2030 is estimated to be 10%, assuming high market potential to penetrate domestic market
- Base Case growth not significantly driven by second unit or replacement sales to existing customers

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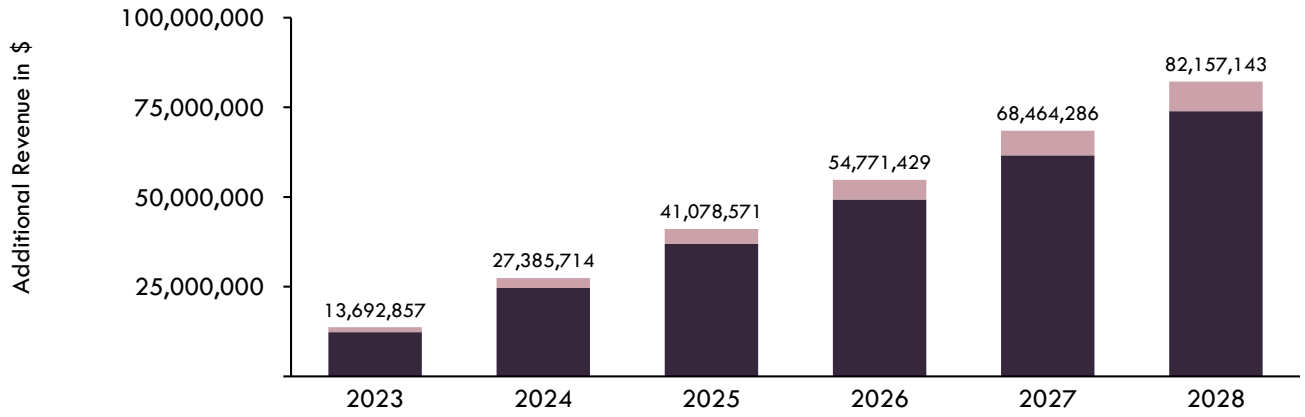
Revenue Projection: Geo Expansion and Multi-Grape Integration

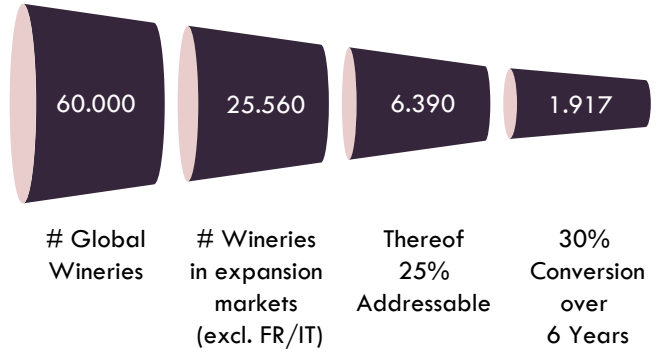
Growth Case 1

Category	2025 F	2026 F	2027 F	2028 F	2029 F	2030 F
Revenue Base Case						
Units	85	94	103	113	124	137
Revenue	12.750.000	14.025.000	15.427.500	16.970.250	18.667.275	20.534.003
Revenue Growth Case						
Units	91	183	274	365	456	548
+ Additional Revenue 1	1.369.286	2.738.571	4.107.857	5.477.143	6.846.429	8.215.714
+ Additional Revenue 2	12.323.571	24.647.143	36.970.714	49.294.286	61.617.857	73.941.429



Legend: F = Forecast // Back to revenue impact

Rationale



1 Expand to progressive countries with single grape — 10% of Revenue

2 Further step-wise market expansion to all key markets — 90% of Revenue

Split-up over 6-years

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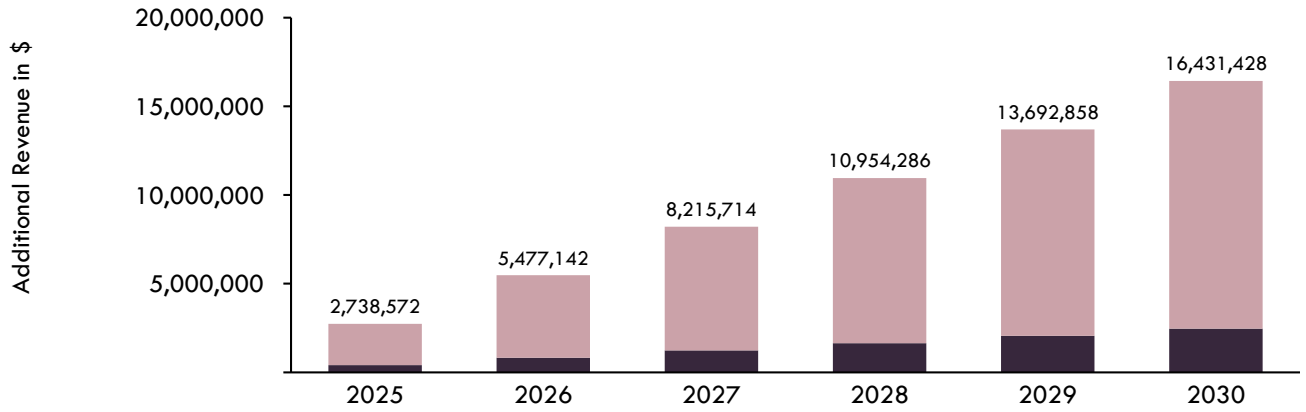
Revenue Projection: Flexible Pricing Models

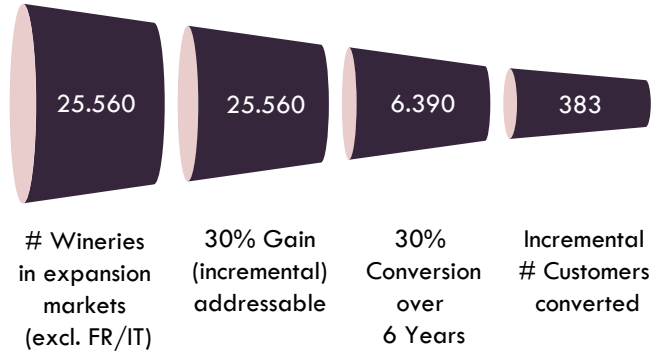
Growth Case 2

Category	2025 F	2026 F	2027 F	2028 F	2029 F	2030 F
Revenue Base Case						
Units	85	94	103	113	124	137
Revenue	12.750.000	14.025.000	15.427.500	16.970.250	18.667.275	20.534.003
Revenue Growth Case						
Units	18	37	55	73	91	110
+ Additional Revenue 1	2.327.786	4.655.571	6.983.357	9.311.143	11.638.929	13.966.714
+ Additional Revenue 2	410.786	821.571	1.232.357	1.643.143	2.053.929	2.464.714



Legend: F = Forecast // Back to revenue impact

Rationale



1	Implementation of flexible pricing to target mass market	85% of Revenue
2	Customized solution building blocks	15% of Revenue

Split-up over 6-years

Finance lease type: Leasing revenues can be recognized in full in first period, cash inflow is deferred and stretched over period

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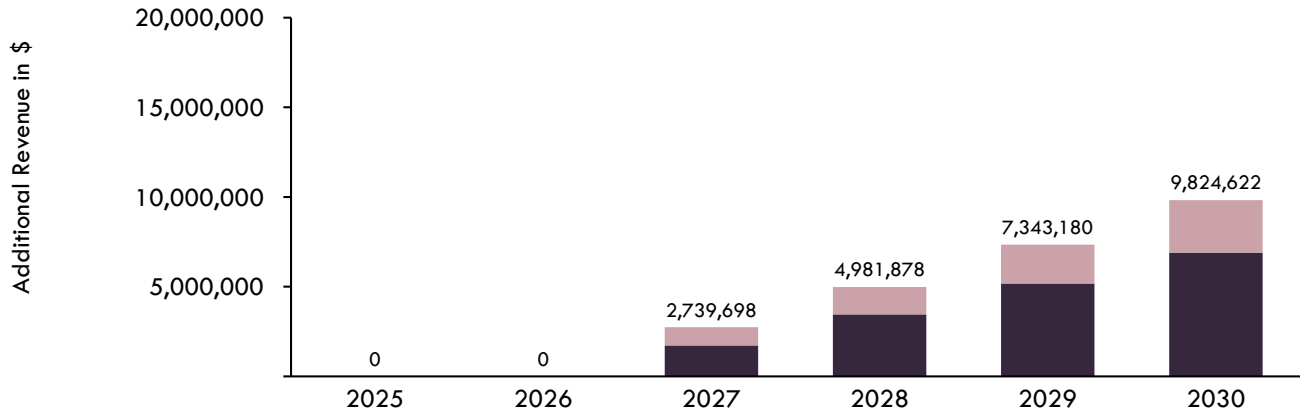
Revenue Projection: Cloud Software and IoT Solution

Growth Case 3

Category	2025 F	2026 F	2027 F	2028 F	2029 F	2030 F
Revenue Base Case						
Units	85	94	103	113	124	137
Revenue	12.750.000	14.025.000	15.427.500	16.970.250	18.667.275	20.534.003
Revenue Growth Case						
Units	-	-	12	23	35	46
+ Additional Revenue 1	-	-	1.014.398	1.531.278	2.167.280	2.923.422
+ Additional Revenue 2	-	-	1.725.300	3.450.600	5.175.900	6.901.200



Legend: F = Forecast // Back to revenue impact

Rationale

Cloud solution adoption
30% of cumulative installed base
$250 subscription/month

Incremental robot sales
5% increase in conversion rate (from 25% to 30%) due to higher product attractivity

1	SW subscription fees	30% of Revenue
2	Incremental robot sales due to IoT features	70% of Revenue

Split-up over 4-years

Revenues first expected in 2027 due to development efforts and market entry promotions in early stage of product.

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Incremental Cost Projection

All Growth Cases

Category	2024	2025 F	2026 F	2027 F	2028 F	2029 F	2030 F
Costs (Fixed)							
Overhead (Rent, IT, Admin, ...)	120.000	1.504.370	1.964.634	2.399.583	2.823.458	3.241.120	3.654.805
Salaries	4.500.000	11.443.697	16.046.339	20.395.834	24.634.579	28.811.195	32.948.049
Employees	50	114	160	204	246	288	329
R&D Expenses	750.000	4.000.000	4.000.000	4.000.000	4.000.000	10.000.000	10.000.000
Total Fixed Costs	**5.370.000**	**16.948.067**	**22.010.972**	**26.795.418**	**31.458.037**	**42.052.315**	**46.602.854**
Costs (Variable)							
Production Cost per Unit	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Sales & Marketing (CAC)	0	10.000	10.000	10.000	10.000	10.000	10.000
Total Variable Costs	**2.125.000**	**3.834.000**	**7.668.000**	**11.904.570**	**16.141.140**	**20.377.710**	**24.614.280**
Total Costs	**7.495.000**	**20.782.067**	**29.678.972**	**38.699.988**	**47.599.177**	**62.430.025**	**71.217.134**

Note: Values in US$ // Back to cost impact

Rationale

- Expected total expenses associated with each project (assumptions based on expected growth in volume and project-based cost, such as increased R&D efforts, or one-off cost, such as procurement of tools)
  - Geo Exp/Multi-Grape Integration: $145M
  - Flexible Pricing Models: $22.3M
  - Cloud Software/IoT Solution: $18.6M
- OPEX (salaries, rent, ...): $173.9M / CAPEX (production facility, warehouse, ...): $12M
- Assumptions behind figures
  - Overhead: Rent for three regional hubs is $30k per month, admin cost/employee increases to $10k
  - Employees: Total revenues per employee increase from $0.26k (2025) to $2.6M (2030) due to scale effects
  - Average salary in period 2025-2030 is $100k
  - Customer Acquisition Cost (CAC) is $10k per unit sold due to professionalization of sales and marketing activities
  - R&D expenses cover cost for tooling, cloud contracts, and external R&D project resources and increase to $4M to cover first and second expansion wave and cloud solution development. Spike to $10M due to market launch in FR/IT and expansion to all grape types.
  - Production cost is flat, efficiency gains are offset by feature enhancements, such as IoT/multi-grape functionality that increase production steps

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Sources

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OIV. (2017). Distribution of the world's grapevine varieties.

Statista. (November 6, 2024). Revenue of the wine industry worldwide from 2019 to 2029 (in million U.S. dollars) [Graph]. In Statista. Retrieved April 13, 2025, from https://www.statista.com/statistics/922403/global-wine-market-size/

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Winning team: HHL Leipzig Graduate School of Management

Awards ceremony | June 2025 | Berlin, Germany

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