Valuation Report of Groasis with CapEx

As of 2019-07-01

Report generated on 6 Aug, 2019

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Company summary

Groasis

Franseweg 9, 4651 PV Steenbergen

The Netherlands

Industry: **Water & Related Utilities**
Business Activity: **Water Supply & Irrigation Systems**

We operate in the nexus of food, water, land degradation and climate change.

www.groasis.com

Founders: **2**
Employees: **4**
Started in: **2003**
Incorporated: **Yes**
Year of incorporation: **2013**
Commited capital: **€17,000,000**

Opportunity

Business model: **B2B**
Scalable Product: **Yes**
Exit strategy: **Multiple exit opportunities**

Current Operations

Stage of development: **Expansion stage**
Employees (excluding founders, interns and freelancers): **4**
Profitability: **Not breakeven yet**

Latest operating performance

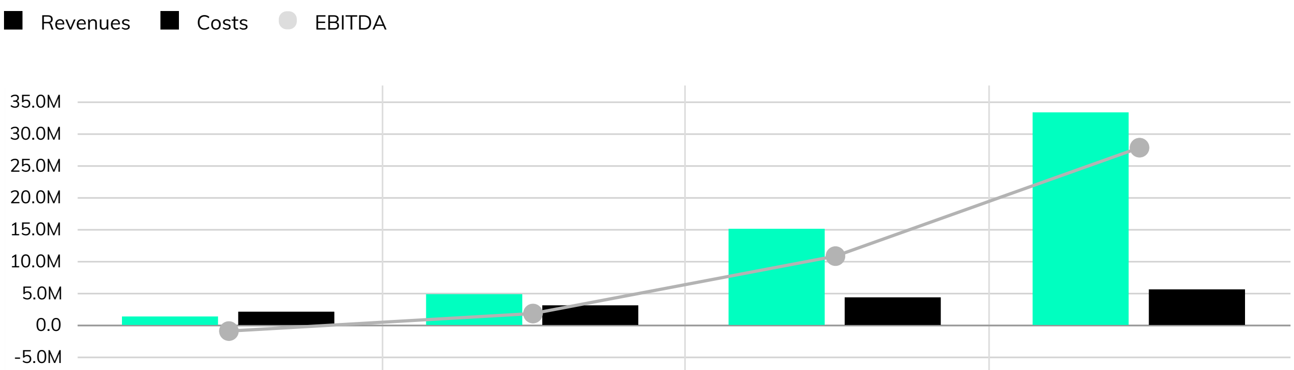
	07/2018 - 06/2019
Revenues	**1,190,824**
EBITDA	**-45,176**
Ebitda margin	-3 %
EBIT	**-45,176**
Ebit margin	-3 %
Cash in hand	**10,855**

All numbers in €

/// More information on the history, milestones, team, etc., (e.g. pitchdeck) can be requested from the company.

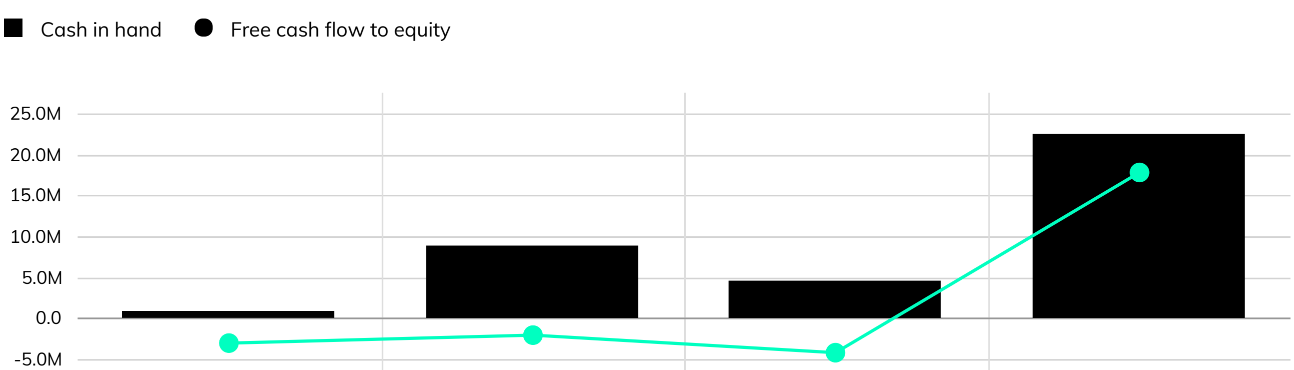
Forecasts summary

Future profitability



07/2019 - 06/2020	07/2020 - 06/2021	07/2021 - 06/2022	07/2022 - 06/2023
€ 1,156,404	€ 4,711,804	€ 15,023,989	€ 33,225,923
€ 2,042,078	€ 3,071,211	€ 4,214,552	€ 5,433,591
-€ 885,674	€ 1,640,593	€ 10,809,437	€ 27,792,332

Cash forecast



07/2019 - 06/2020	07/2020 - 06/2021	07/2021 - 06/2022	07/2022 - 06/2023
€ 837,215	€ 8,786,332	€ 4,557,929	€ 22,396,244
-€ 2,973,640	-€ 2,050,883	-€ 4,228,403	€ 17,838,315

/// Full profit and loss and cash flow forecast at page 14.

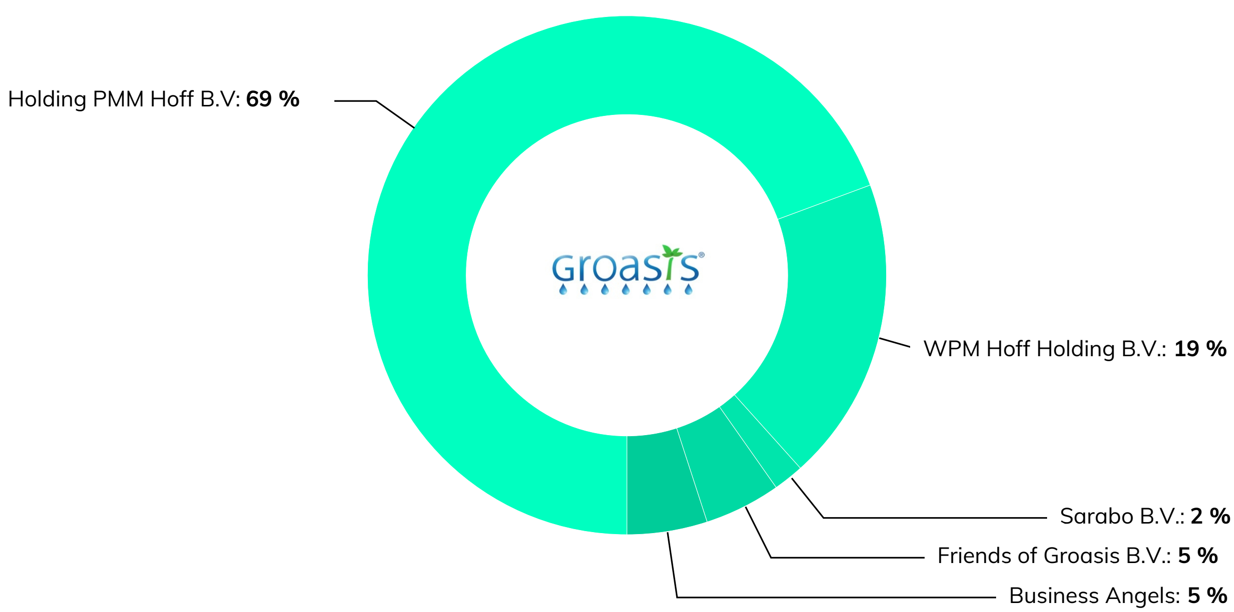
Past funding rounds

Here is an overview of the past funding rounds and valuations of the company.

Date	Amount raised	% of Equity	Post-Money Valuation
06-30-2019	**€ 262,200**	**0.80%**	**€ 32,470,588**
04-01-2019	**€ 510,000**	**5.00%**	**€ 10,200,107**
12-31-2018	**€ 127,500**	**0.20%**	**€ 67,105,263**
12-31-2017	**€ 261,000**	**0.50%**	**€ 51,837,140**
09-21-2017	**€ 167,500**	**9.50%**	**€ 1,763,157**
10-18-2016	**€ 60,000**	**1.90%**	**€ 3,157,893**
09-30-2016	**€ 123,000**	**9.50%**	**€ 1,294,736**
07-18-2013	**€ 100**	**69.40%**	**€ 144**

Current ownership

Here is an overview of the current shareholders in the company. More information on type of shares, unassigned shares, and in general a detailed cap table can be requested to the company in question.



Valuation

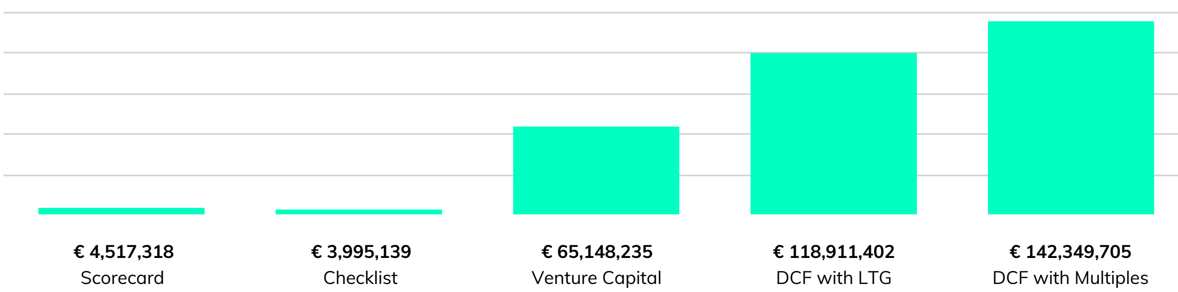
The pre-money valuation displayed below is the result of the weighted average of different methods. The use of several methods is a best practice in company valuation, as looking at the business from different perspectives results in a more comprehensive and reliable view.
These methods are compliant with IPEV (International Private Equity Valuation) Guidelines and each of them will be explained in more detail in the following pages of the report.
More information on the weights can be found in the Appendix.

Low Bound
€ 86,832,000

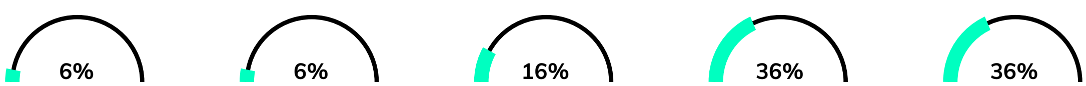
Pre-money valuation
€ 104,988,464

High Bound
€ 123,145,000

5 Valuation Methods



Method weights



Current funding round

Please find below the amount of capital currently needed and the consequent percentage of equity based on the valuation of previous page as a starting point for the negotiations.
Groasis envisages that there will be a future funding round in the next 24 months to support the exponential growth of the company in order to fulfill expected market demand. This has been included in the financial evaluation carried out by Equidam.

Low Bound
€ 86,832,000

Pre-money valuation
€ 104,988,464

High Bound
€ 123,145,000

4.19%

Capital needed
€ 3,800,000

3.49%

2.99%

Low Bound
€ 90,632,000

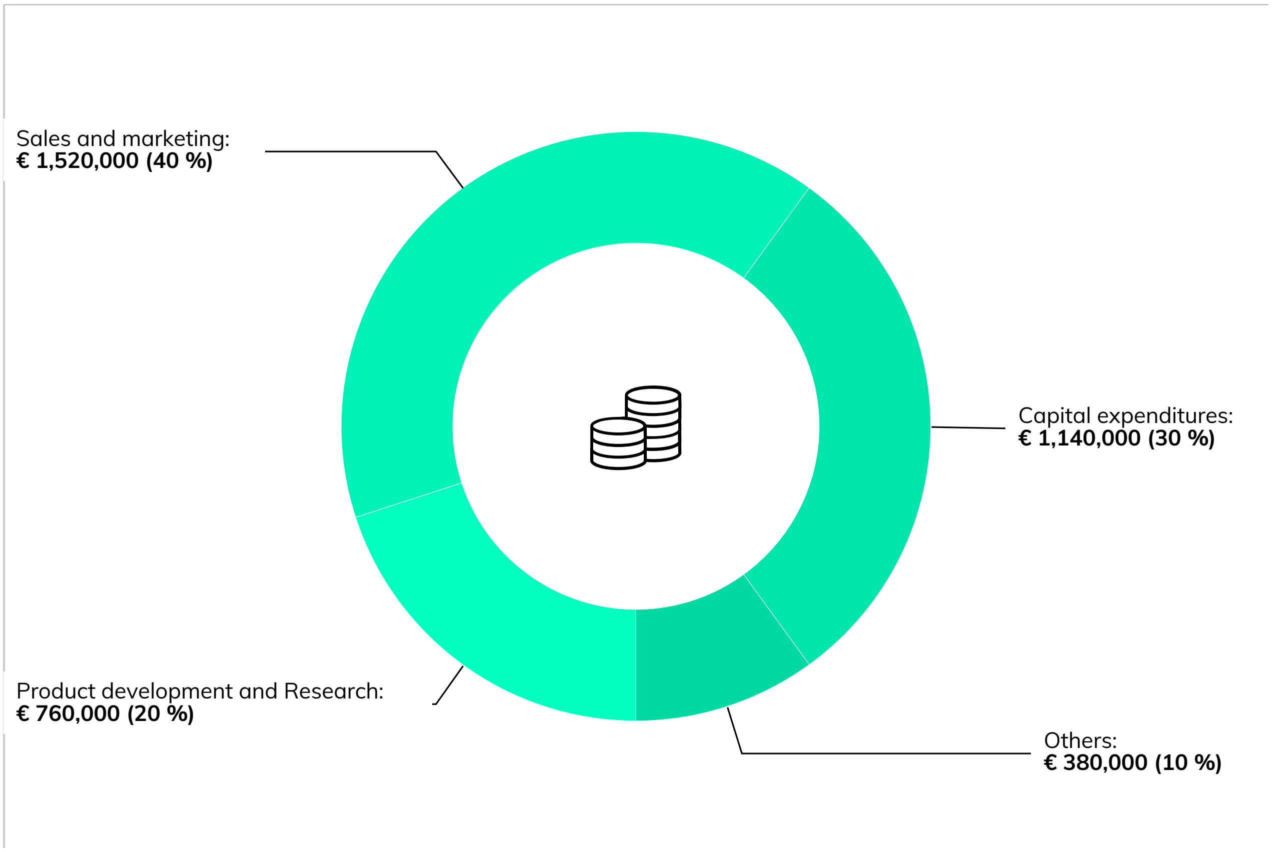
Post-money valuation
€ 108,788,464

High Bound
€ 126,945,000

Starting from the post-money valuation of the company, the equity percentage that relates to the investment is calculated as investment/post-money valuation. Keeping the investment amount fixed, the lower the pre-money valuation, the higher the equity stake, and vice versa.

Use of funds

Here is a breakdown on how the company will use the capital raised.



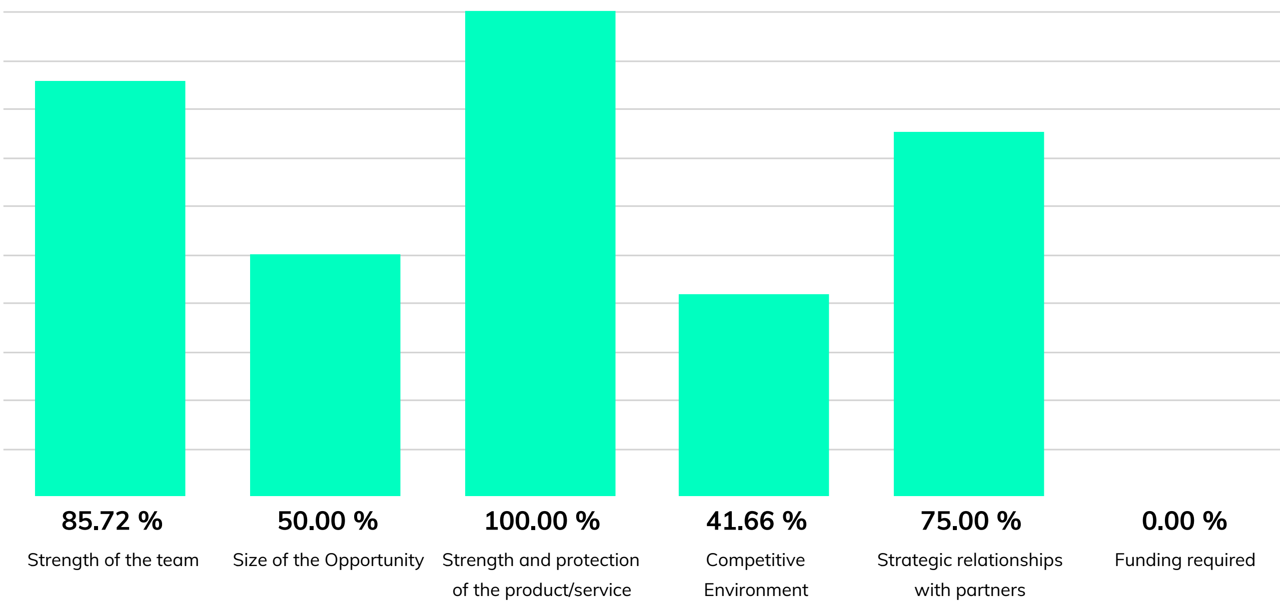
Qualitative methods

Scorecard Method: € 4,517,318

This method was conceived by William H. Payne of Ohio TechAngels group and endorsed by the Ewing Marion Kauffman Foundation. The valuation of the startup depends on how different this is from the assumed average of a set of comparable companies from the same region.

Startups' qualitative traits are divided in 6 criteria, compared with the assumed traits of the average company, and given a score according to whether it over- or under-performs the assumed average company. These scores are multiplied by weights that represent the impact of the criteria on the valuation. The sum of these weighted scores multiplied by the average valuation leads to the company's pre-money valuation.

Normalized scores of the company for each criteria



Parameters

Average valuation (The Netherlands): **€ 2,417,294**

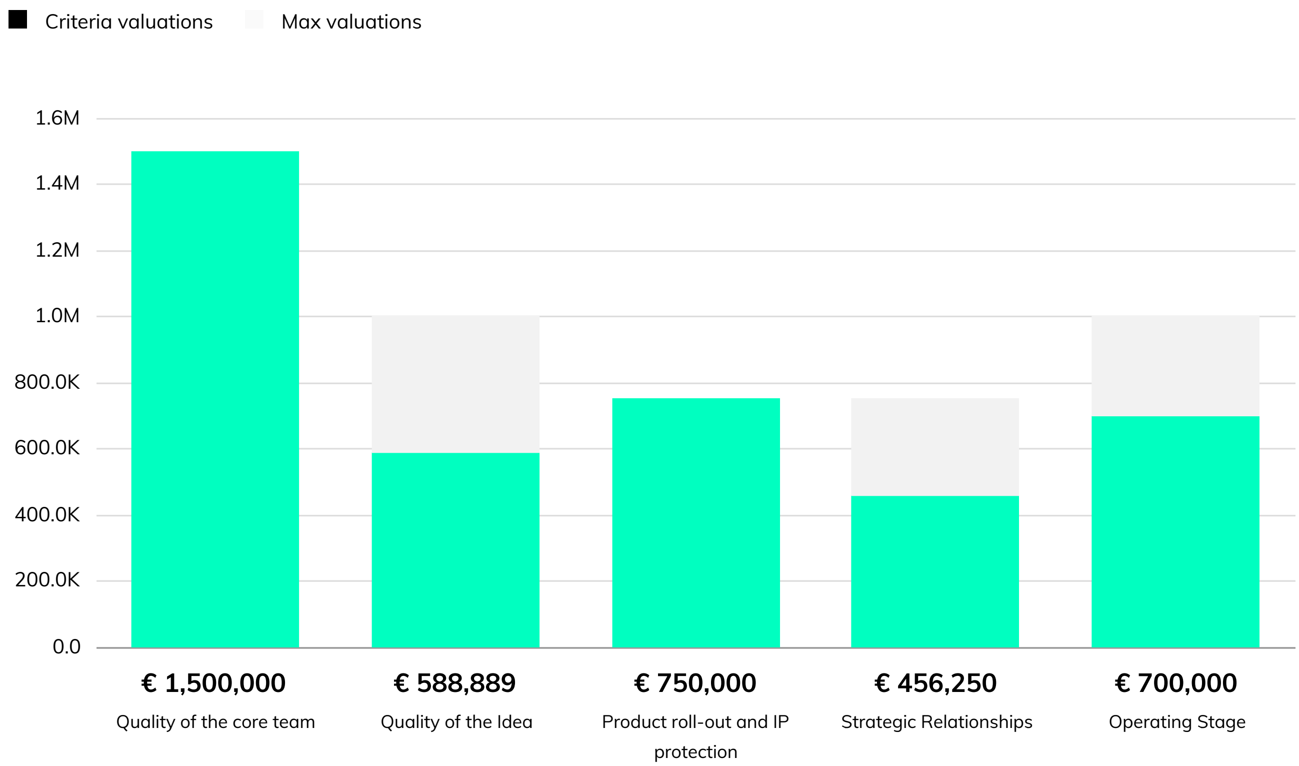
Weights of the criteria

Strength of the team: **30%**
Size of the Opportunity: **25%**
Strength and protection of the product/service: **15%**
Competitive Environment: **10%**
Strategic relationships with partners: **10%**
Funding required: **10%**

/// Please see appendix for data sources, defaults, and breakdown of the traits

Checklist Method: € 3,995,139

The creator of the method is Dave Berkus, one of the most prominent Californian angel investors. The valuation of the startup consists of intangible building blocks that sum up to the assumed maximum pre-money valuation.
The maximum pre-money valuation is split in 5 criteria according to their weight. The startup obtains portions of these maximum criteria valuations according to how close its qualitative traits are to the most desirable ones. Their sum is the startup pre-money valuation.



Parameters

Maximum valuation (The Netherlands): **€ 5,000,000**

Criteria maximum valuations

Quality of the core team: **€ 1,500,000 (30%)**
Quality of the Idea: **€ 1,000,000 (20%)**
Product roll-out and IP protection: **€ 750,000 (15%)**
Strategic Relationships: **€ 750,000 (15%)**
Operating Stage: **€ 1,000,000 (20%)**

/// Please see appendix for data sources, defaults, and breakdown of the traits

Qualitative traits summary

Below a summary of the traits at the basis of the scores for the two qualitative methods. Please see appendix for detailed breakdown of which trait is used in which method.

Team

Founders
Time commitment: **Full time**
Average age: **Between 35 and 45**
Founded other companies before: **Yes, with successful exit(s)**

Core team skills and expertise
Working together for: **More than 5 years**
Years of experience in the industry: **60**
Business and managerial background: **Top-tier management experience**
Technical skills: **All technical skills inhouse**

Network

Board of advisors: **Advisors not organized in a board**
Legal consultants: **Yes**
Current shareholders: **Friends and Family, Crowdfunding, Business angel**

Market

Total Addressable Market (TAM): **€ 8,500,000,000**
Annual growth rate of the market: **9.60 %**
Demand validated: **Yes**
Internationalization: **Local focus now, international expansion planned**

Product

Product roll-out: **Already to Market**
Feedback received: **Mainly positive**
Loyalty to the product/service: **High retention**
Partners: **Contracts with key strategic partners signed**

Competition

Level of competition: **Negligible competition**
Competitive products are: **On the same level**
Differentiation from current solutions: **We innovate in terms of marketing proposition/USP**
We have a better product (increased functionality, improved implementation and results), and strategic partnerships with various customer groups.
International competition: **Established**

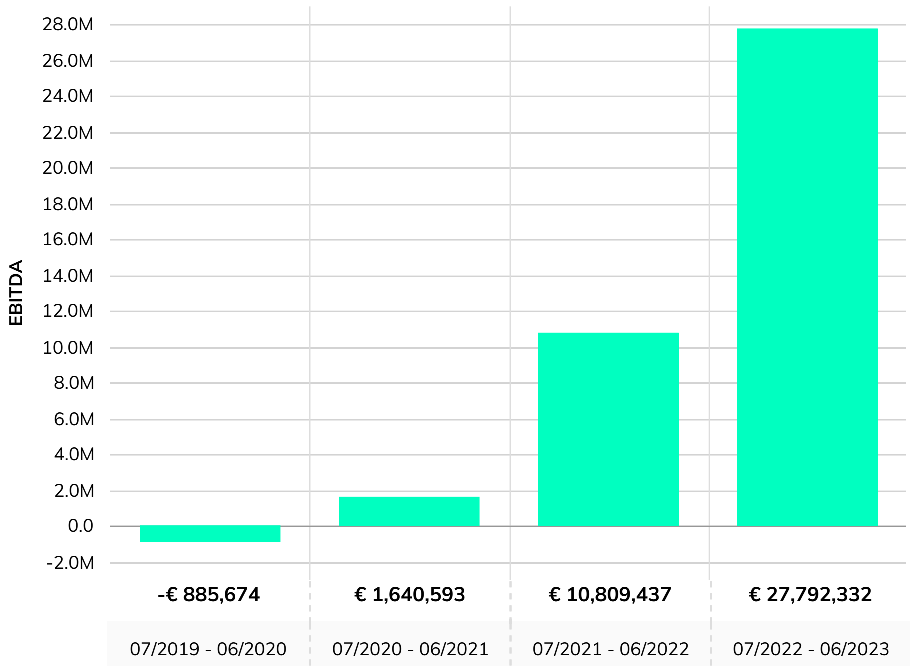
Protection

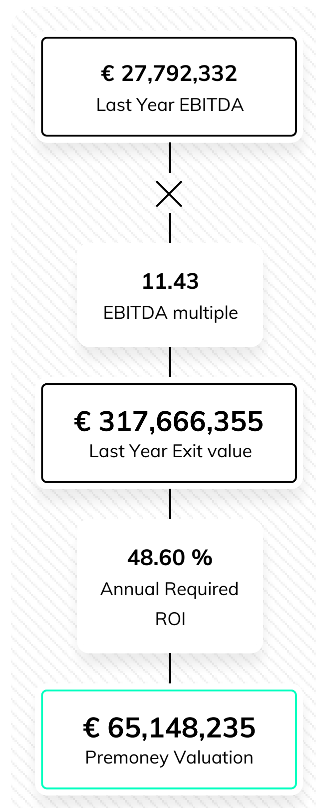
Barriers to entry of the market: **Modest**
Applicable IP: **Patent**
Current IP protection: **IP protection secured at global level**

VC Method

Premoney Valuation: € 65,148,235

The VC (Venture Capital) method is one of most common approaches among financial practitioners in the private company market. The startup is given the valuation that will grant investors a predetermined return at the exit.
The potential exit value of the company is computed with an industry-based EBITDA multiple. The valuation is equal to this value discounted by a required ROI (Return On Investment). This depends on the startup's stage of development, higher for early stage riskier companies, lower for more mature ones. It is the minimum rate that will allow investors to have positive returns from portfolios where most companies fail and gains come from a selected few.





Parameters

Industry Multiple: **11.43**

Annual Required ROI: **48.60 %**

/// Please see appendix for data sources and defaults

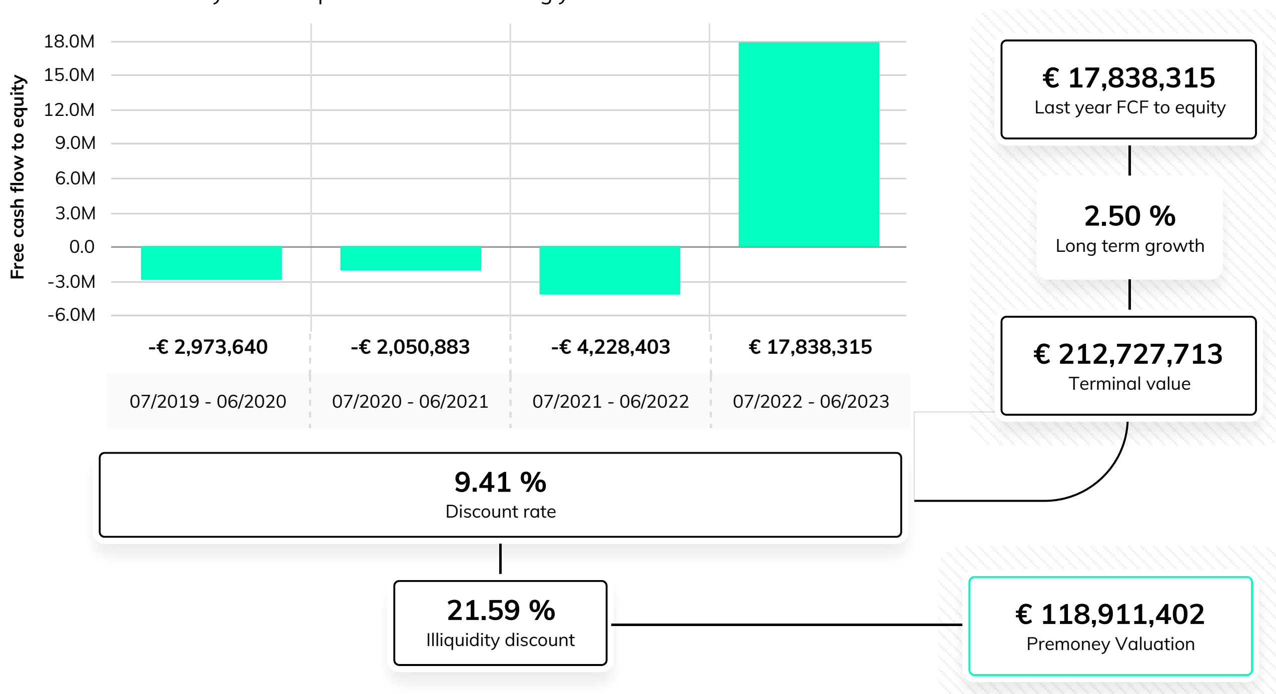
DCF Methods

The DCF (Discounted Cash Flow) methods represent the most renowned approach to company valuation, recommended by academics and a daily tool for financial analysts. The valuation is the present value of all the free cash flows the startup is going to generate in the future, discounted by its risk.

These methods weight the projected free cash flow by the probability the startup will survive. Then, the flows are discounted to present by a rate that represents risks related to industry, size, development stage and profitability. Lastly, an illiquidity discount is applied to the sum of the discounted cash flows to compute the valuation.
The value of cash flows beyond the projected ones is represented by the TV (Terminal Value) and the way it is calculated is the difference between the following two methods.

DCF with LTG: € 118,911,402

The DCF with LTG (Long Term Growth) assumes the cash flows beyond the projected ones will grow forever at a constant rate based on the industry and computes the TV accordingly.



Parameters

Long term growth: **2.50 %**
Illiquidity discount: **21.59 %**

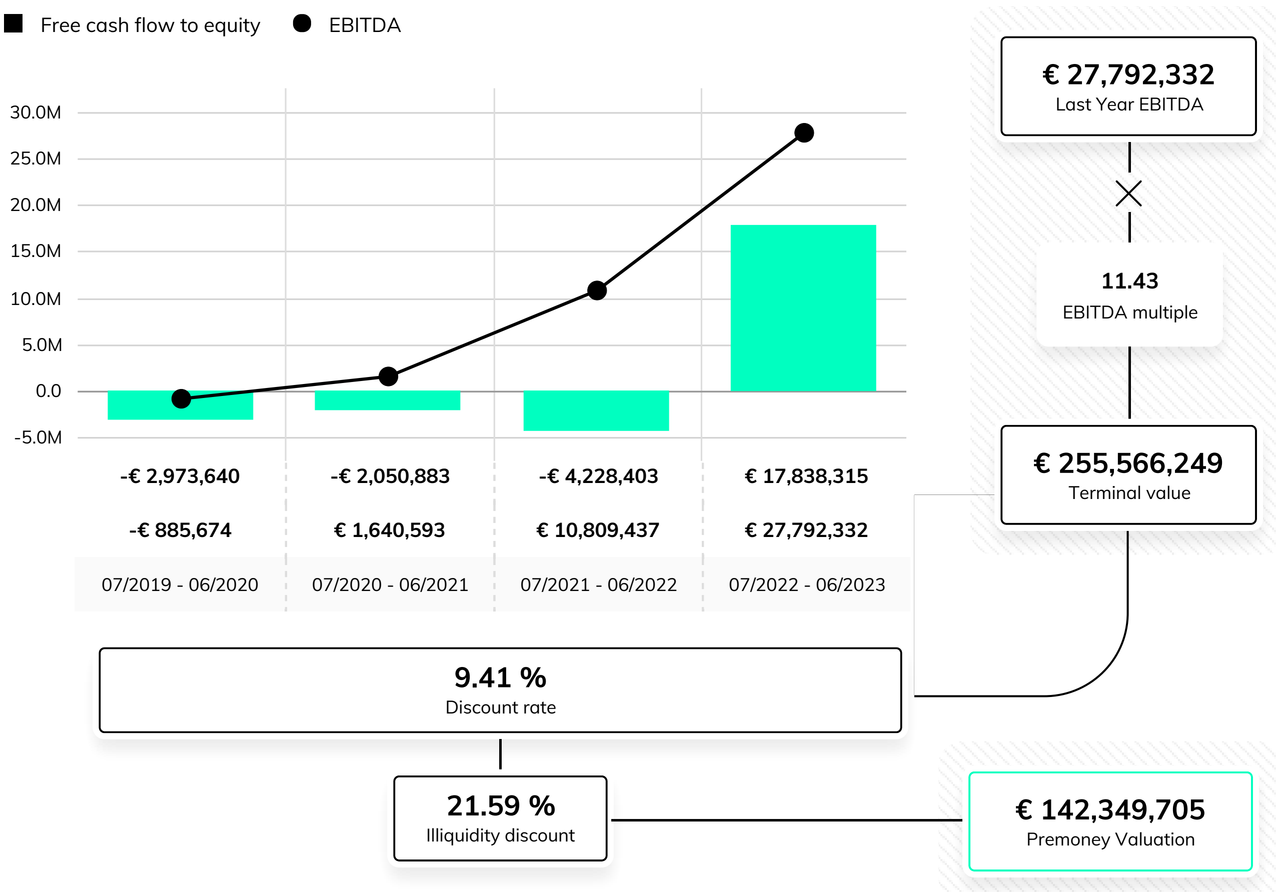
Discount rate
Risk free rate: **0.01 %**
Beta: **1.58**
Market Risk Premium: **5.96 %**

Survival rates
Year 1: **93.94 %**
Year 2: **88.81 %**
Year 3: **84.37 %**
Year 4: **80.45 %**

/// Please see appendix for data sources and defaults

DCF with Multiples: € 142,349,705

The DCF with Multiple assumes the TV (Terminal Value) is equal to the exit value of the company computed with an industry-based EBITDA multiple.



Parameters

EBITDA multiple: **11.43**
Illiquidity discount: **21.59** %

Discount rate
Risk free rate: **0.01** %
Beta: **1.58**
Market Risk Premium: **5.96 %**

Survival rates
Year 1: **93.94 %**
Year 2: **88.81 %**
Year 3: **84.37 %**
Year 4: **80.45 %**

/// Please see appendix for data sources and defaults

Financial Projections

Profit & Loss

The profit & loss projections are displayed below. Data about revenues and operating costs are provided by the company. Depreciation and amortization, interest, and taxes are either provided by the company or estimated by Equidam. Please consult our methodology document for more details.

	07-2018 - 06-2019	07-2019 - 06-2020		07-2020 - 06-2021		07-2021 - 06-2022	
Revenues	1,190,824	1,156,404	-3%	4,711,804	+4X	15,023,989	+3X
Cost of Goods Sold	227,000	294,659	+30%	324,447	+10%	442,012	+36%
Salaries	389,000	771,635	+98%	1,367,045	+77%	1,820,102	+33%
Operating Expenses	620,000	975,784	+57%	1,379,719	+41%	1,952,438	+42%
EBITDA	-45,176	-885,674	-1861	1,640,593	-	10,809,437	+7X
Ebitda margin	103 %	176 %		65 %		28 %	
D&A	-	-		-		-	
EBIT	-45,176	-885,674	-1861	1,640,593	-	10,809,437	+7X
Ebit margin	103 %	176 %		65 %		28 %	
Interest	1	202,343	>100>	170,418	-16%	99,000	-42%
EBT	-	-1,088,017		1,470,175	-	10,710,437	+7X
Taxes	-	-		-		1,265,695	
Nominal tax rate	-	25 %		25 %		25 %	
Effective tax payable	-	-272,004		367,544		2,677,609	
Deferred tax assets	-	272,004		-95,540		-1,507,454	
Net profit	-45,177	-1,088,017	-2308	1,470,175	-	9,444,742	+6X
Net profit margin	103 %	194 %		68 %		37 %	

All numbers in €

Profit & Loss

	07-2022 - 06-2023	
Revenues	**33,225,923**	+2X
Cost of Goods Sold	**1,449,243**	+3X
Salaries	**2,100,160**	+15%
Operating Expenses	**1,884,188**	-4%
EBITDA	**27,792,332**	+3X
Ebitda margin	*16 %*	
D&A	**-**	
EBIT	**27,792,332**	+3X
Ebit margin	*16 %*	
Interest	**-**	
EBT	**27,792,332**	+3X
Taxes	**4,246,777**	+3X
Nominal tax rate	*25 %*	
Effective tax payable	**6,948,083**	
Deferred tax assets	**-4,208,760**	
Net profit	**23,545,555**	+2X
Net profit margin	*29 %*	

All numbers in €

Cash Flow

The cash flow projections are displayed below. Capital expenditure, debt at the end of the year, and equity fundraising are provided by the company. Account payables, account receivables, inventory and D&A are either provided by the company or estimated by Equidam based on the average percentage of revenues for public companies in the company's industry.

	07/2018 - 06/2019	07/2019 - 06/2020		07/2020 - 06/2021		07/2021 - 06/2022	
Net profit	-45,177	-1,088,017	-2308	1,470,175	-	9,444,742	+6X
Change in Working Capital	-	-		-		-	
Working capital	-	-		-		-	
Account Payables	-	-		-		-	
Account Receivables	-	-		-		-	
Inventory	-	-		-		-	
D&A	-	-		-		-	
Capital expenditures	1,630,000	1,254,523	-23%	2,834,858	+2X	12,597,212	+4X
Change in outstanding debt	-	-631,100		-686,200		-	
Debt at the end of the year	2,393,233	1,762,133	-26%	1,075,933	-39%	-	
Free cash flow to equity	-	-2,973,640		-2,050,883	+31%	-4,228,403	-106%
Equity fundraising	-	-		10,000,000		-	
Free cash flow	-	-2,973,640		7,949,117	-	-4,228,403	-
Beginning of the year cash	-	3,810,855		837,215	-78%	8,786,332	+10X
End of the year cash	-	837,215		8,786,332		4,557,929	

All numbers in €

Cash Flow

	07/2022 - 06/2023	
Net profit	**23,545,555**	+2X
Change in Working Capital	**-**	
Working capital	**-**	
Account Payables	**-**	
Account Receivables	**-**	
Inventory	**-**	
D&A	**-**	
Capital expenditures	**5,707,240**	-55%
Change in outstanding debt	**-**	
Debt at the end of the year	**-**	
Free cash flow to equity	**17,838,315**	-
Equity fundraising	**-**	
Free cash flow	**17,838,315**	-
Beginning of the year cash	**4,557,929**	-48%
End of the year cash	**22,396,244**	

All numbers in €

Conclusion
Legal Notes

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Appendix
Weights of the methods

The default weight of each method is determined by Equidam based on the stage of development, and they are shown below.

Default weights of the 5 methods

Stage of development	Checklist Method	Scorecard Method	VC Method	DCF with LTG	DCF with Multiples
Idea stage	38%	38%	16%	4%	4%
Development stage	30%	30%	16%	12%	12%
Startup stage	15%	15%	16%	27%	27%
Expansion stage	6%	6%	16%	36%	36%

Groasis stage of development: **Expansion stage**

These are determined according to the following principles:

- Qualitative information is more important in early stage companies, where performance uncertainty is extremely high, so qualitative methods are weighted in more
- The investors' view is equally important across all stages, so the weight of the VC method does not change
- Quantitative information is more reliable in later stages, when a company already has a proven financial track record. Therefore, it is possible to use the DCF methods more extensively as projected results get founded in past performance

Qualitative methods

Default average and maximum valuations data sources

Dataset: Pre-money market valuations from transactions in the last 30 months of companies in all industries, all countries, and at seed funding stage

Datasource: Crunchbase

Usage: Computation of average and maximum (net of outliers) pre-money valuations in given geographic areas for the qualitative methods (Scorecard and Checklist respectively)

Update: Biannual

Average valuation (Scorecard Method) in The Netherlands: **€ 2,417,294**

Maximum valuation (Checklist Method) in The Netherlands: **€ 5,000,000**

Scorecard Method

Default weights of the criteria and breakdown in their traits

Strength of the team — **30%**

Time commitment of the founders
Number of employees
Team spirit and comradeship
Years of industry experience of the core team
Business and managerial background of the core team

Size of the Opportunity — **25%**

Estimated revenues in the third year according to the stage of the development
Estimated size of the market in three years
Geographical scope of the business

Competitive Environment — **10%**

Stage of the product/service roll-out
Degree of loyalty of customers
Type of IP protection applicable
IP protection in place (if any)

Strength and protection of the product/service — **15%**

Level of competition in the market
Quality of competitive products/services
Competitive advantage over other products/services
Barriers to entry of the market
Threat of international competition

Strategic relationships with partners — **10%**

Strength of the relationships with key strategic partners

Funding required — **10%**

Capital required according to the stage of development

Checklist Method

Default weights of the criteria and breakdown in their traits

Quality of the core team analyzes: Average age of the founders Presence in the team of serial, successful entrepreneurs Time commitment of the founders Team spirit and comradeship Years of industry experience of the core team Business and managerial background of the core team Technical skills of the core team	**30%**
Quality of the idea analyzes: Validation of the demand for the product/service Feedback received by early adopters/industry experts Level of competition in the market Competitive advantage over other products/services Geographical scope of the business Threat of international competition Degree of loyalty of customers	**20%**
Product roll-out and IP protection analyzes: Stage of the product/service roll-out Type of IP protection applicable IP protection in place (if any)	**15%**
Strategic relationships analyzes: Presence of an advisory board and number of advisors Presence and type of current shareholders Relationship with legal counselors Strength of the relationships with key strategic partners	**15%**
Operating stage Stage of development Current profitability	**20%**

VC method

Below we have listed the sources of the valuation parameters used in the VC Method: EBITDA Multiple and Annual Required ROI, and their default values provided by Equidam eir

EBITDA multiple

Description: Enterprise value on EBITDA multiples computed over a dataset of global, publicly listed firms organized by industry

Datasource: Prof. A. Damodaran, NYU Stern School of Busines

Update: Annual

Notes: We favor the use of EBITDA multiple, as we believe revenue multiples fail to capture the ability of startups to generate cash flow, i.e. the ultimate determinant of value.

Groasis industry: **Water Supply & Irrigation Systems**

Water Supply & Irrigation Systems EBITDA multiple: **11.43**

Annual Required ROI

The default annual required ROI rates are determined by Equidam based on the returns investors require for companies at different stage of development, and are shown below. They can be manually adjusted by the company.

Stage of development	Discount/Required ROI
Idea stage	135.93%
Development stage	111.47%
Startup stage	89.12%
Expansion stage	48.60%

Groasis stage of development: **Expansion stage**

DCF Methods

Below we have listed the sources of the valuation parameters used in the VC Method: EBITDA Multiple and Annual Required ROI, and their default values provided by Equidam

Discount rate

Risk Free Rate

Description: 10Y government rates

Datasource: Trading Economics (tradingeconomics.com), various public databases

Update: Bi-annual (but more frequent if macroeconomic conditions are more volatile)

Notes: For the Eurozone we apply the German 10Y Bond rate

Groasis country: **The Netherlands**

The Netherlands risk free rate: **0.01%**

Industry betas

Description: Industry beta computed over industry specific portfolios of global, public listed companies (same as in EBITDA multiple)

Datasource: Prof. A. Damodaran, NYU Stern School of Business

Update: Annual

Groasis industry: **Water Supply & Irrigation Systems**

Water Supply & Irrigation Systems default beta: **1.58**

Market Risk Premium

Description: Country based total equity risk premium as implied in the previous 12 trailing months.

Datasource: Prof. A. Damodaran, NYU Stern School of Business

Update: Biannual

Groasis country: **The Netherlands**

The Netherlands default market risk premium: **5.96%**

Survival Rate

Dataset: Country-level survival probabilities of the latest cohort of companies with three years of data available.

Datasource: European Office of Statistics (http://ec.europa.eu/eurostat), U.S. Bureau of Labor Statistics (https://www.bls.gov/), specific academic research and public offices of statistics for different countries.

Update: Annual

Groasis year of incorporation: **2013**

Default survival rate Year 1: **93.94%**

Default survival rate Year 2: **88.81%**

Default survival rate Year 3: **84.37%**

Default survival rate Year 4: **80.45%**

Default survival rate Year 5: **76.95%**

Illiquidity discount

The default illiquidity discount is assigned based on current profitability and projected revenues, according to the approach suggested by William L. Silber.

Groasis illiquidity discount: **21.59%**

DCF with LTG

Long term growth

Dataset: Global, publicly listed companies organized by industry (same as in EBITDA multiple)

Datasource: Prof. A. Damodaran, NYU Stern School of Business

Update: Annual

Notes: The value is winsorized over a 0% - 2.5% range. We do not want the long term growth to be above world GDP growth expectations, as it would mean the company is going to overgrow world economy at some point in time

Groasis industry: **Water Supply & Irrigation Systems**

Water Supply & Irrigation Systems default long term growth: **0.03**

DCF with Multiples

EBITDA multiple

Dataset: Global, publicly listed companies organized by industry

Datasource: Prof. A. Damodaran, NYU Stern School of Business

Update: Annual

Notes: We favor the use of EBITDA multiple, as we believe revenue multiples fail to capture the ability of startups to generate cash flow, the ultimate determinant of value.

Groasis industry: **Water Supply & Irrigation Systems**

Water Supply & Irrigation Systems default EBITDA multiple: **1.58**

Last Available Balance Sheet

Below the simplified, last available balance sheet of the company.

	07/2018 - 06/2019
Cash and equivalents	**10,855**
Tangible assets	**722,930**
Intangible assets	**733,290**
Financial assets	**494,977**
Deferred tax assets	**-**
Total Assets	**1,962,052**
Debts due within one year time	**588,239**
Debt due beyond one year time	**2,393,233**
Equity	**-588,940**
Total Liabilities	**2,392,532**

All numbers in €