

iPlan

v.3.6 - 2017

Reference Manual

Giorgio Di Maio & Paolo Landoni © 2014-2017
giorgiodimaio@gmail.com - paolo.landoni@polito.it



SIT
social innovation teams

iPlan v.3.6 – Reference Manual

July 2017

IPLAN STRUCTURE	3
1. ASSUMPTIONS (SECTION 1)	5
1.1. FINANCIAL ASSUMPTIONS	5
1.2. MARKETS VOLUMES.....	9
1.3. MARKETS REVENUES.....	11
1.4. OTHER TAXABLE REVENUES	12
1.5. NOT TAXABLE REVENUES.....	14
1.6. INVESTMENTS	15
1.7. FIXED COSTS.....	15
1.8. VARIABLE COSTS	16
1.9. FREEHAND.....	17
1.10. DIVIDENDS	17
1.11. TERMINAL VALUE.....	18
2. RESULTS (SECTION 2).....	20
2.1 CUMULATED OPERATING NET CASH FLOWS.....	20
2.2 FINANCIAL STATEMENTS AND INDICATORS.....	20
2.3 REVENUES AND NET EARNINGS CHART	23
2.4 MARKET VOLUMES	24
2.5 CASH BALANCE.....	25
3. COMPUTATIONS (SECTION 3).....	26
3.0 DISCOUNT FACTORS.....	26
3.1 TAXABLE REVENUES.....	26
3.2 DEPRECIATIONS	26
3.3 BANK OVERDRAFT.....	26
3.4 MORTGAGE.....	26
3.5 MORTGAGE CASH FLOWS	26
3.6 TAXATION DATA.....	27
3.7 INCOME STATEMENTS & TAXES.....	27
3.8 CASH FLOWS	27
3.9 OP. INCOME STATEMENTS & TAXES	27
3.10 OPERATING CASH FLOWS	27
3.11 NPV & IRR.....	27
3.11 NPV & IRR Monthly	29
3.12 CAPITAL.....	29
3.13 PERIODS	29
4. DO IT YOURSELF (SECTION 4).....	30

IPLAN STRUCTURE

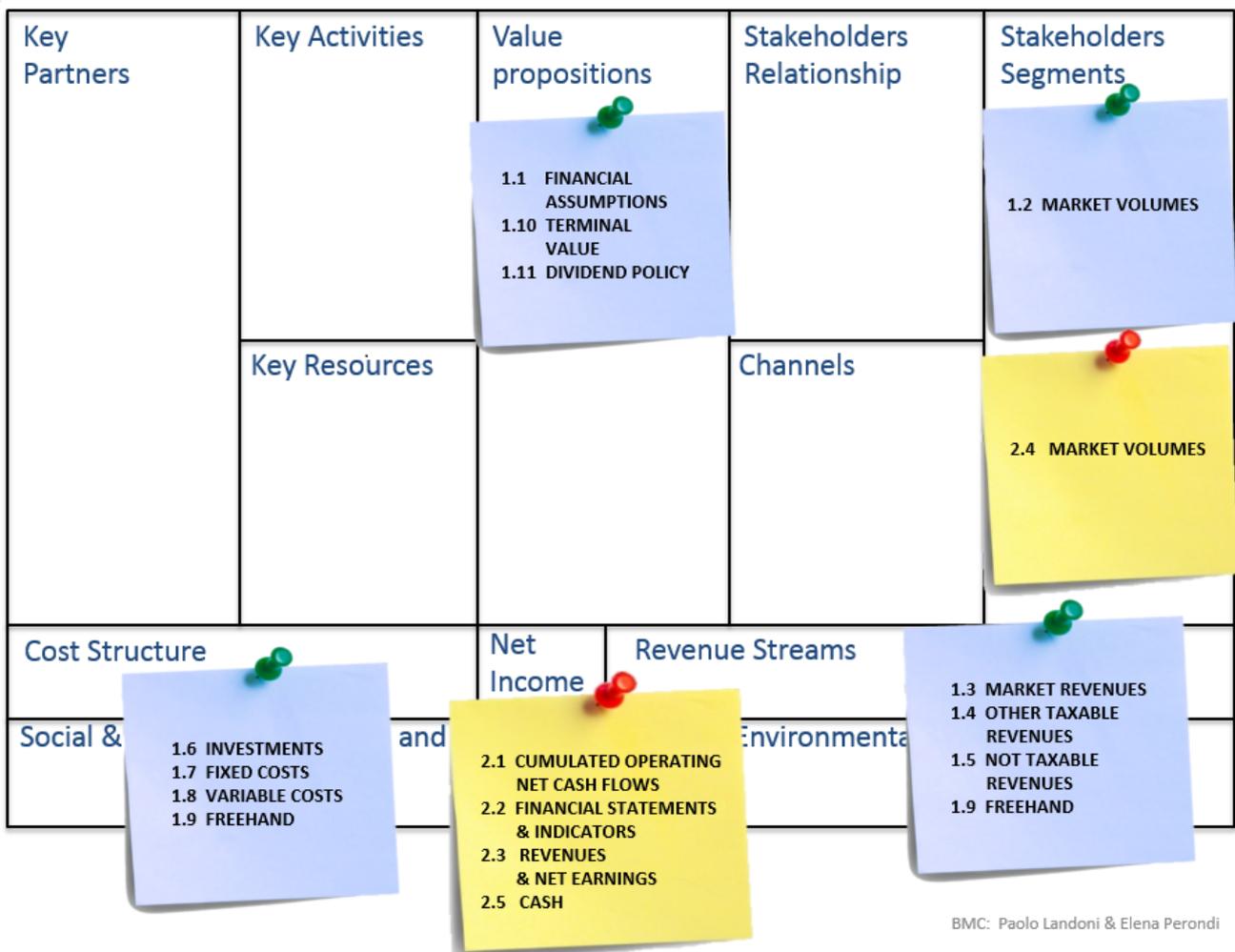
iPlan's worksheets, as shown in its first worksheet reported below, are organized in 3 sections:

- Section 1 - Assumptions - is the main section of iPlan, it contains the worksheets where you can insert your business plan's data in the cells with a white background;
 - for instance you have to insert the starting date and the time horizon, the investments, the estimation of the markets' volumes, the estimated revenues and costs;
- Section 2 - Results - contains the worksheets that show the outcomes of the business plan's assumptions both in terms of indicators and graphs
 - for instance you will see the financial statements, the financial and not financial indicators, and charts such as revenues and net income over time;
- Section 3 - Computations - contains the worksheets with the calculations. If you're not interested in checking the formulas used in iPlan and the intermediate results you can skip it completely.

iPlan		Giorgio Di Maio & Paolo Landoni © 2014-2017 giorgiodimaio@gmail.com - paolo.landoni@polito.it	iPlan is a tool to estimate market demand, financial and impact indicators of new organizations
	ASSUMPTIONS	RESULTS	COMPUTATIONS
Revenues	1.1 Financial Assumptions	2.1 Cumulated Operating Net Cash Flows	3.0 Discount Factors
	1.2 Markets Volumes	2.2 Financial Statement & Indicators	3.1 Taxable Revenues
	1.3 Markets Revenues	2.3 Revenues & Net Earnings	3.2 Depreciations
	1.4 Other Taxable Revenues	2.4 Market Volumes	3.3 Bank Overdraft
	1.5 Not Taxable Revenues	2.5 Cash Balance	3.4 Mortgage
	1.6 Investments		3.5 Mortgage Cash Flows
	1.7 Fixed Costs		3.6 Taxation Data
	1.8 Variable Costs		3.7 Income Statements & Taxes
	1.9 Freehand		3.8 Cash Flows
	1.10 Dividends		3.9 Operating Income Statements & Taxes
	1.11 Terminal Value		3.10 Operating Cash Flows
	Do It Yourself		3.11 NPV & IRR
			3.12 Capital
			3.13 Periods

The following figure shows the relationship between iPlan and the Sustainability Model Canvas (SMC), , i.e., a canvas that adapts the Business Model Canvas by Osterwalder et al. (2010) for organizations that care for sustainability and social impact.

For instance, worksheet 1.2 “market volumes” helps to quantify the stakeholder segments (customers, beneficiaries, etc.), worksheets 1.3 – 1.5 help to quantify the revenue streams and worksheets 1.6-1.8 help to quantify the cost structure. The results sections of iPlan (in yellow) provide indicators and graphs, for instance for market volumes (§2.4) and cash flows.



In the following, we describe the worksheets of the three sections of iPlan distinguishing in specific boxes the more advanced options and cases.

1. ASSUMPTIONS (Section 1)

Section 1 contains the worksheets where you have to insert the data of your business plan (assumptions).

Data can be inserted only in the cells with a white background. However iPlan includes also a Do It Yourself (DIY) section to personalize the financials if needed (Section 4).

There are five main types of data required:

- *Financial assumptions*, which you should input in worksheet 1.1;
- *Revenues*, which you can input in worksheets 1.2-1.6 (using only the sheets that you need);
- *Costs and investments*, which you can input in worksheets 1.7-1.8 (using only the sheets that you need);
- *Dividends*, which you can input in worksheet 1.10;
- *Terminal value*, which you can input in worksheet 1.11.

Worksheet 1.9, *freehand*, allows indicating in a less structured way *additional* revenues and costs, for instance of additional products and services offered.

Data should be inserted only once in iPlan. For instance, if you insert the revenues for one product in worksheet 1.3 (market revenues) you should not insert them again in worksheet 1.9 (freehand) or in another worksheet.

1.1. FINANCIAL ASSUMPTIONS

You have to put in this worksheet the key data of your Company, including the financial resources to start the Business.

Company

First of all you have to insert the **name** of your Company, and its **type**, choosing among for-profit, not-for-profit, and hybrid organizations. Hybrid organizations are organizations that explicitly pursue both profit and social (and/or) an environmental impact (e.g., social businesses, some cooperatives, B-corporations, benefit corporations). The type of organization impacts for instance on the tax rate, the expected financial returns and the type of indicators used to evaluate its development.



Company

Name

Type

Name

For-profit organization
Nonprofit organization
Hybrid organization

Business Plan's Time Horizon

You have to insert the starting **year** of the Business Plan, and the **time horizon** that you want to consider, i.e., the number of years for which you will provide data about revenues and costs. This time horizon can be at most 15 years, but normally it is 3 to 5 years because it is very difficult to produce detailed predictions for longer periods.

Business Plan's Time Horizon		
Start Year	(yyyy)	2018
Start Month	(mm)	1
Start Date		01/01/2018
Start Month	(mm/yyyy)	1/2018
Time horizon	Years	5
Last year in the business plan's time horizon		2022

Advanced setting - Currency

You can specify the **currency of reference** in the Business Plan (Home currency) and one foreign currency for revenues and purchases from abroad. For instance, you can select euro (EUR) as the home currency and United States dollar (USD) as the foreign currency.

In the other worksheets, you will be able to select one of the two currencies, item by item. iPlan will convert all amounts into the currency of reference based on the foreseen **exchange rate** between the home currency and the foreign currency (EUR/USD) that you have indicated.

Currency		
Home Currency		EUR
Foreign Currency		USD
Exchange Rates		1/2018
	How many EUR for one USD	EUR/USD
	How many USD for one EUR	USD/EUR
		0,9357
		1,0687

Taxation

You have to insert the **tax rate** on earnings (50% is a common approximation for for-profit organizations, a null tax rate can be applied for not-for-profit organizations). iPlan assumes that taxes are paid on December 31st of each year.

Taxation		
Tax Rate	%	50%
Tax Day	(dd/mm)	31/12

Capital Contributions

You have to insert the **initial capital**, invested at the beginning of the business plan's time horizon (T=0), and any subsequent **rounds of capital contribution**. iPlan allows the indication of a maximum of five rounds, including the payment of the initial capital.

Capital contributions		Amount	Period	
1 st Round - Initial capital	EUR	20.000,00	1/2018	T=0
2 nd Round	EUR	80.000,00	1/2019	
3 rd Round	EUR			
4 rd Round	EUR			
5 th Round	EUR			

Advanced setting - Debt

iPlan allows considering two types of debt: bank overdrafts and mortgages.

Debt

Use of the Bank Overdraft?	No
Use of the Mortgage?	No

For the bank overdraft, you have to indicate the amount and the annual interest rate.

Bank Overdraft

Amount	Euro	10.000,00
Interest Rate	%	5,00%

For the mortgage, you have to indicate: the amount, the opening expenses, the length, the frequency of installments, the disbursement date and the annual interest rate.

Mortgage

Amount	EUR	10.000,00
Opening expenses	EUR	200,00
Length	Years	5
Installment frequency	Months	6
Disbursement Date	(dd/mm/yyyy)	01/01/2018
Interest Rate	%	3,00%

The length of the mortgage cannot exceed the business plan's time horizon.

Financial need

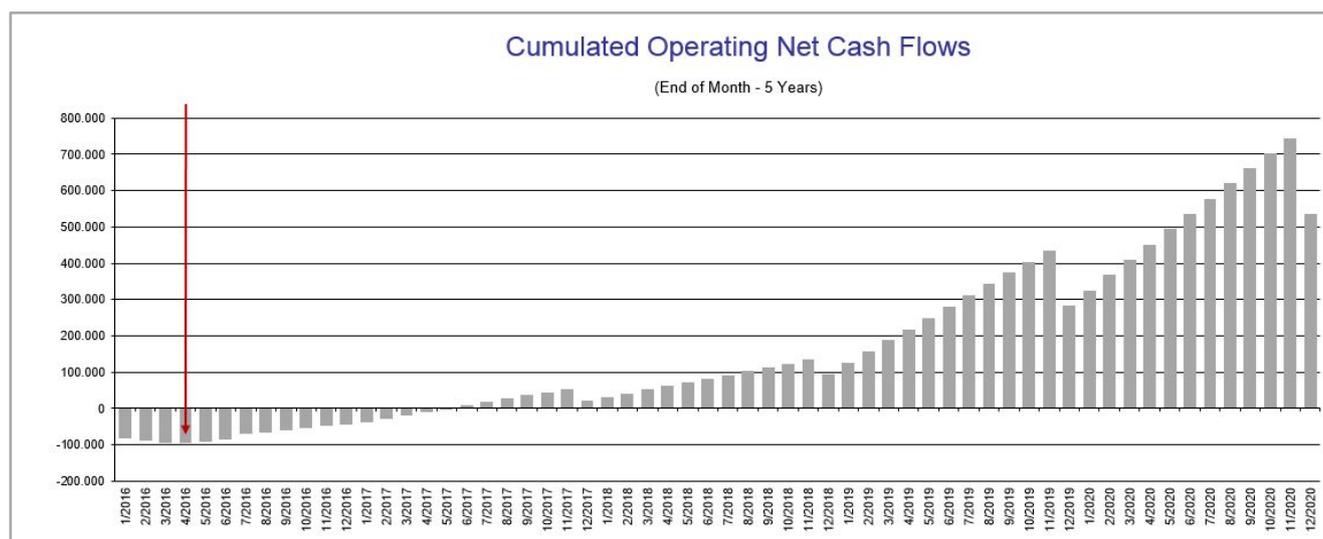
The Financial need indicates how much financing your organization needs. This financial need originates from the fact that normally, in the first months (years), the organization has more costs than revenues. Many costs are in the initial phase (e.g., investments in machines, software and marketing) and at the same in the beginning the revenues are low because there are only few clients. To survive a company must be able to pay all its expenses till the day in which the monthly revenues are higher than the monthly costs. For high growth companies it can take years and many rounds of capital contribution. All the costs incurred (minus the revenues obtained) till that day represent the Financial need of the organization: the funds needed to reach the turning point.

iPlan shows the Financial need of the company and thus allow to adjust the equity (Capital contributions) and debt resources to cover it.

iPlan, as illustrated in the figure below, presents four measures to manage this part of the financials.

Financial Need		
Financial Need	EUR	-94.125,00
Financial Need with Capital contributions	EUR	5.875,00
Financial Need with Capital contributions and Debt	EUR	5.875,00
Financial Need with Capital contributions, Debt and Dividends	EUR	5.875,00

The **Financial need** is calculated as the minimum value of the cumulative monthly operating cash flows, without considering the financial resources available in terms of capital and debt, and interest payments (see §3.10). A graphical representation of the financial need is provided in worksheet 2.1 (see example below).



There is a Financial need if the value shown is negative. If this is the case capital contributions and/or debt is needed to cover the Financial need.

The financial need **with capital contributions** is calculated as the minimum value of the cumulative monthly cash flows, including the financial resources available in terms of capital contributions. The **financial need**

with capital contributions and debt is calculated including also the financial resources available in terms of debt, and considering interest payments (see §3.8).

The comparison between the Financial need and the financial need with capital contributions and debt allows seeing how the provision of capital or recourse to debt meet the financial need arising from operations.

The financial need **with capital contributions and debt, and dividends** allows to check that the dividend policy (see §1.10) does not affect the *financial need with capital contributions and debt* (the distribution of dividend does not create financial - liquidity - problems).

To summarise, if there is a *Financial need* (the first value is negative) one has to insert, above in the same worksheet, a combination of capital contribution (equity) and debt to cover it. If the *Financial need with capital contributions and debt* is zero then the Financial need is “perfectly” covered. But this is risky, it is better if the *Financial need with capital contributions and debt* is positive. In this case there is a “financial surplus” instead of a “financial need”: a small “financial surplus” is advisable to cover financial risks (“small” could mean approximately 10% of the Financial need).

1.2. MARKETS VOLUMES

In this worksheet, it is possible to describe the trends in volumes for a maximum of five markets that you want to serve.

Starting with the Potential market volumes you can derive with this worksheet 1) the Available market, 2) the Served market and finally the Penetrated market volumes for each product. For instance your Potential market can be residents in Italy, your Available market could be the percentage of Italian women, the served market could be the % of young (18-29) Italian women and the Penetrated market could be the percentage of young Italian women that buy your product.

There are different possible interpretations of potential market, penetrated market, etc. however they all share the idea that not all potential customers will buy the product or service of your company; for instance because they don't have the means to, because you are not reaching them or because they prefer the product of a competitor.

If you already know the number of buyers of your product you can input this number of buyers in the Potential market box and set to 100% the percentage of the other markets (see description below to understand also how to include information on the growth of the number of buyers over time).

To calculate the number of buyers of your product in each month, first you have to input the name of the markets considered, for a maximum of five markets. Examples are geographical markets (Italy, USA, France, etc.) and product markets (wine, oil, bread, etc.).

Markets	
	Market Name
Market 1	Italian Market
Market 2	
Market 3	
Market 4	
Market 5	

Then, you have to indicate the annual **potential market** in volume for each product at the beginning of the time horizon considered.

Starting from the initial potential market you can outline, through the **growth rate**, the trend over time of the potential market, with a stepped profile: in each period, the potential market will have a value equal to that of the previous period increased by the rate of growth.

Note that you insert the annual market volume and that iPlan calculates the monthly volumes simply as a twelfth of the annual.

Market 1 - Italian Market				
Market 1 - Potential Market				
Period description	Growth rate	[by month]	(to month)	Annual Volume
1st year		1/2018	1/2019	50.000
2nd year	10,0%	1/2019	1/2020	55.000,00
3rd year	20,0%	1/2020	1/2021	66.000,00
4th year	30,0%	1/2021	1/2022	85.800,00
5th year	40,0%	1/2022		120.120,00

Starting from the potential market, you can describe the developments of the other markets entering the percentages:

- of the available market compared to the potential market;
- of the market served compared to the available market;
- of the penetrated market compared to the served market.

You can indicate different percentages for different intervals of time, with a maximum of 15 time intervals. The last time interval extends always from the month indicated to the end of the time horizon considered.

Market 1 - Available Market			
Period description	[by month]	(to month)	% of the Potential
All the time horizon	1/2018		50,0%

Market 1 - Served Market			
Period description	[by month]	(to month)	% of the Available
1st year	1/2018	1/2019	10,0%
2nd and 3rd years	1/2019	1/2021	30,0%
4th and 5th years	1/2021		50,0%

Market 1 - Penetrated Market			
Period description	[by month]	(to month)	% of the Served
January-March of the first year	1/2018	4/2018	0,0%
Since April of the first year onward	4/2018		30,0%

This worksheet produces as output the monthly volume for each penetrated market.

You can see a graph of the annual market volumes in worksheet 2.4.

1.3. MARKETS REVENUES

In this worksheet, it is possible to describe the trend in revenues for a maximum of five markets that you want to serve, based on the trend in volumes described in the previous worksheet.

First, you have to enter the **starting revenues** for each market.

Starting Revenues per Unit			
	Market	Revenues per Unit	Currency
Market 1	Italian Market	150,00	EUR
Market 2			
Market 3			
Market 4			
Market 5			

You can then describe the trend of these prices on each market over a maximum of 15 periods, inserting the **revenues per unit growth rate** for each period.

Market 1 - Italian Market				
				Monthly Volumes
Revenues per Unit				
Period description	Growth Rate	[by month]	(to month)	Revenues per Unit
1st year		1/2018	1/2019	150,00
2nd year	-10,0%	1/2019	1/2020	135,00
3rd year	-10,0%	1/2020	1/2021	121,50
4th year	-10,0%	1/2021	1/2022	109,35
5th year	-10,0%	1/2022		98,42

The output of this worksheet are thus the monthly revenues for each market, calculated in each month as a product of the volumes of the penetrated market for their revenues per unit.

You will find these revenues in the worksheet 3.1, which summarizes all the taxable revenues.

1.4. OTHER TAXABLE REVENUES

This worksheet allows you to add to the revenues calculated considering markets other revenues subject to taxation:

- Fixed revenues with a due date or one-off, which are revenues of which you know the date of receipt and the amount;
- Fixed periodic revenues, which are revenues of which you know the frequency, the starting month of collection, the starting date of the collections and the amount.
- Other revenues with a driver.

You can add up to 10 **fixed revenues with a due date**, entering for each one its date of receipt and amount.

Fixed Revenues with a due date				
Description	Due date	Amount	Currency	XRT
1st revenue with a due date	01/01/2016	5.000,00	EUR	EUR/EUR
2nd revenue wit a due date	01/02/2016	10.000,00	USD	EUR/USD

You can insert here, each with its due date, the annual revenues, i.e., payment received every year in the same day.

You can add **periodic revenues** with a frequency higher than once a year in the next table.

You can add up to 20 fixed periodic revenues, entering for each one its frequency, the starting month of collection in each year, the starting date of the collections and the amount.

Note that for the periodic revenues, for example:

- A *frequency* of 1 indicates a monthly revenue, 2 bimonthly, 3 quarterly, 4 four-monthly, and 6 semiannual.
- A *starting month* of 1 indicates that the first month in which the revenue is collected each year is January, 2 February, 3 March, 4 April, 5 May, and 6 June.
- A frequency 2 and a starting month 2 indicate therefore that you will receive the payment in February, April, June, etc. A frequency 6 and a starting month 6 indicates that you will receive the payment in June and December.

- A *starting date* of 01/07/2016 indicates that you will receive the first payment in July 2016: the starting date thus indicates when you will begin to receive the payments with the frequency and in the months indicated with the frequency and the starting month.

The next figure shows the following examples:

1. Monthly revenue (starting month: 1) of 500 euro collected starting on 01/01/2016;
2. Bimonthly revenue of 1.000 euro collected in even months (starting month: 2) starting on 01/06/2016;
3. Quarterly revenue of 1.500 euro collected in March (starting month: 3), June, September, and December, starting on 01/06/2016.
4. Semiannual revenue of 2.000 euro collected in April (starting month: 4) and October, starting on 01/04/2016;

Fixed Periodic Revenues					
Description	Frequency	Starting month	Starting date	Amount	Currency
Monthly revenue	1	1	01/01/2016	500,00	EUR
Bimonthly revenue	2	2	01/06/2016	1.000,00	EUR
Quarterly revenue	3	3	01/06/2016	1.500,00	EUR
Semiannual revenue	6	4	01/04/2016	2.000,00	EUR

You can check the periodic revenues computed by iPlan in the cells to the right of those where you input the data.

1/2016	2/2016	3/2016	4/2016	5/2016	6/2016	7/2016	8/2016	9/2016	10/2016	11/2016	12/2016
500,00	500,00	500,00	500,00	500,00	500,00	500,00	500,00	500,00	500,00	500,00	500,00
0,00	0,00	0,00	0,00	0,00	1.000,00	0,00	1.000,00	0,00	1.000,00	0,00	1.000,00
0,00	0,00	0,00	0,00	0,00	1.500,00	0,00	0,00	1.500,00	0,00	0,00	1.500,00
0,00	0,00	0,00	2.000,00	0,00	0,00	0,00	0,00	0,00	2.000,00	0,00	0,00

Then you can add other *revenues with a driver*. You can add up to 20 revenues depending on a maximum of 3 drivers.

First, you have to describe, in the revenues driver section of the worksheet, the trend of each driver, indicating its value in maximum 15 periods within the time horizon of the Business Plan.

Revenues Drivers

Revenues Driver 1

Tickets

Period description	[by month]	(to month)	Value
Period 1	1/2018	1/2019	5
Period 2	1/2019	1/2020	15
Period 3	1/2020	1/2021	20
Period 4	1/2021		25

Then you can describe the trend of the revenues depending on these revenue drivers, indicating the revenues per unit in each period.

Revenues with a Driver

Description	Driver	[by month]	(to month)	Revenues per unit	Currency
Revenues 1	1	1/2016	6/2016	80,00	EUR
Revenues 2	1	6/2016	9/2016	90,00	EUR
Revenues 3	1	9/2016	12/2016	100,00	EUR

The iPlan thus calculates the monthly revenues with a driver multiplying the revenues per unit for the value of the corresponding driver in each period.

1	2	3	4	5	6	7	8	9	10	11
2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
1/2016	2/2016	3/2016	4/2016	5/2016	6/2016	7/2016	8/2016	9/2016	10/2016	11/2016
800,00	800,00	800,00	800,00	800,00	0,00	0,00	0,00	0,00	0,00	0,00
0,00	0,00	0,00	0,00	0,00	900,00	990,00	990,00	0,00	0,00	0,00
0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1.100,00	1.100,00	1.100,00

You will find these revenues in worksheet 5, which summarizes all the taxable revenues.

1.5. NOT TAXABLE REVENUES

This worksheet allows you to add revenues not subject to taxation - for example, grants, or donations.

It has the same structure of the "other taxable revenues" worksheet (see §1.4).

Note that a sponsorship, in the case of a for-profit company, normally is a *taxable* revenue.

1.6. INVESTMENTS

This worksheet allows to enter up to 30 *investment* items, each with its *amount*, its *date of payment*, and its *depreciation coefficient*.

An investment is the purchase of tangible properties, such as buildings, machinery, vehicles, furniture, and equipment, or intangible properties, such as patents, that can be depreciated.

Depreciation is an annual income tax deduction that allows you to recover the cost of certain property over the time you own the property. It is an allowance, determined by the law, for the wear and tear, deterioration, or obsolescence of the property. However, depreciation does not depend on the actual use of the purchased item in the business operations. Moreover, an item fully depreciated can still have a value and be used advantageously in the business operations.

Depreciation coefficients determine the annual income tax deduction related to the purchasing cost of a given item. For instance, a 20% depreciation coefficient determines an annual income tax deduction equal to a fifth of the purchasing cost. Therefore, the money spent to buy the investment item can be recovered in five years.

Italian depreciation coefficients are listed in Decreto Ministeriale 31 dicembre 1988¹.

You can consider any investment less than or equal to 500 euro to have a 100% depreciation coefficient, i.e., the purchasing cost is fully considered as a cost in the year in which the investment is done.

Investments				
Description	Date	Depreciation coefficient	Amount	Currency
Photoshop licenses	01/02/2016	100%	4.000,00	EUR
Digital video camera and photo camera	01/02/2016	30%	4.500,00	EUR
Scooter	01/04/2016	25%	5.000,00	EUR
Laptops	01/02/2016	20%	2.000,00	EUR
Table for the meeting room	01/03/2016	15%	3.000,00	EUR

1.7. FIXED COSTS

In this worksheet, you can specify the *fixed costs*.

As in other worksheets, you can specify fixed costs to be incurred on a fixed term or periodic or variable in time in dependence of some drivers (e.g. fixed costs related to personnel).

It has the same structure of the “other taxable revenues” worksheet (see §1.4).

Note that since the driver indicates an amount per month, also the cost per unit must be monthly. For example, if the driver is the number of employees in each month, the monthly cost will be for instance the gross monthly salary.

¹ <http://www.gazzettaufficiale.it/eli/id/1989/02/02/088A0017/sg>

Note that the gross monthly salary must include all the costs related to the employees such as taxes, contributions, severance indemnities (i.e., in Italy the Trattamento di Fine Rapporto - TFR), and so on, because iPlan does not allow for a separate indication of such costs as liabilities.

Because some of these costs are usually paid in subsequent periods - for instance, the severance indemnities are usually paid when the employees leave the company - iPlan gives in this respect a conservative estimate of the company's cash flows and profitability.

1.8. VARIABLE COSTS

In this worksheet, you can specify the variable costs.

In the first part of the worksheet, **costs variable with markets volumes**, you can enter those variable costs based on the volume of sales in each market determined in the worksheet 1.2.

Note that iPlan assumes that the company pays these costs variable with market volumes in the same period in which the corresponding revenues are collected, i.e., there are no stocks of raw materials, work in progress or finished products.

Costs Variable with Markets Volumes					
Description	Market	[by month]	(to month)	Cost per unit	Currency
Variable cost 1	1	1/2016	12/2016	10,00	USD
Variable cost 2	1	1/2016		5,00	EUR

In the second, **other variable costs drivers**, you can add other cost drivers and describe their trend.

Other Variable Costs Drivers			
Variable Costs Driver 1	Tickets		
Period description	[by month]	(to month)	Value
1st period	1/2018	7/2018	5
2nd period	7/2018	12/2018	10
3rd period	12/2018	1/2019	15
4th period	1/2019		20

Finally, in the third part of the worksheet, **variable costs with other drivers**, you can describe the trend of the variable costs dependent on those drivers.

Variable Costs with a Driver

Description	Driver	[by month]	(to month)	Costs per unit	Currency
Variable cost 1	1	1/2016	12/2016	10,00	EUR
Variable cost 2	1	1/2016		20,00	USD
Variable cost 3	1	1/2016		10,00	EUR

1.9. FREEHAND

In this worksheet, you can freely specify, for 20 products, the quantity bought and sold in each period, and the related purchasing costs and revenues.

NOTE that this worksheet enables considering other products or services than those considered in the markets' worksheets 1.2 and 1.3, this worksheet should not be a duplicate of them.

These additional products and services may be complementary to those previously considered or independent from them.

Indeed, you can even fill in just the markets' worksheets or the freehand worksheet alternatively, based on your business plan's assumptions.

Item 1	Wires for 3D printers (Kg)	6/2016
Sales per month (units)		200,00
Selling Currency	EUR	
Revenues per unit (EUR per unit)		55,00
Revenues per month (EUR)		11.000,00
Exchange rate	EUR/EUR	
Revenues per month (EUR)		11.000,00
Purchases per month (units)		200,00
Purchases Currency	USD	
Purchases price (USD per unit)		40,00
Purchases per month (USD)		8.000,00
Exchange rate	EUR/USD	
Purchases per month (EUR)		6.504,06
Margin (EUR)		4.495,94

1.10. DIVIDENDS

In this worksheet, you can specify your dividend policy, i.e., the amount of money given to the shareholders (owners) of the company each year (column **Dividend** in the figure below).

Dividend Policy

Financial Need with Capital contributions and Debt	25.875,00
Financial Need with Capital contributions, Debt and Dividends	25.875,00

Year	Retained earnings at the end of the previous year	Net Earnings of the year	Max Dividend of the year	Dividend of the year	Payment Date	Retained earnings at the end of the year
2018		-50.453,00	0,00		31/12/2018	-50.453,00
2019	-50.453,00	45.112,50	0,00		31/12/2019	-5.340,50
2020	-5.340,50	54.913,50	49.573,00	45.000,00	31/12/2020	4.573,00
2021	4.573,00	188.211,28	192.784,28	190.000,00	31/12/2021	2.784,28
2022	2.784,28	259.094,26	261.878,54	261.878,54	31/12/2022	0,00

Each year you can distribute the **Net Earnings** (third column) of that year and the **Retained earnings** (first column) of the previous year(s). In other words, the dividend distributed in one year cannot be greater than the sum of the net earnings of that year and of the retained earnings of the previous year. This means that you cannot distribute with dividends the capital of the company, and that any loss must be covered before distributing dividends.

Normally, during the first years, no money are available for distribution to the shareholders (**Max Dividend** very low or null – fourth column). Indeed, in the first years, if there are net earnings, they are used for expanding the activities of the organization (e.g. investments in better products, advertising, hiring, etc.) and as a cushion for unexpected events or opportunities.

*As a standard policy, you can distribute every year the maximum dividend, if this does not change the financial need of the business. In other words you can copy the amount in the **Max Dividend** column in the **Dividend** column.*

The worksheet assumes that the dividends are paid at the end of each year (**Payment Date** column).

The worksheet allows checking that the dividend policy does not change the financial need of the business. For instance if you have a Net Profit in the first year and you distribute it, but in the second year you need to do an investment (e.g., in a new machine) you could cause a new financial need in the second year. In these cases iPlan will show you an error message.

Dividend Policy

Financial Need with Capital contributions and Debt	25.875,00	
Financial Need with Capital contributions, Debt and Dividends	-22.215,72	ERROR: THE DIVIDENDS ARE EXCESSIVE!

1.11. TERMINAL VALUE

iPlan allows indicating what happens to the company beyond the time horizon of the business plan in the section “Terminal Value”.

iPlan uses the information entered in this section for the calculation of the Net Present Value and the Internal Rate of Return (see §2.2).

Business operations beyond the Business Plan's time horizon and final selling or liquidation of the business activity

Last year in the business plan's time horizon	2020
Terminal year (at the end of this year, the business activity is sold or liquidated)	2021
Number of years between the last year of the business plan's time horizon and the terminal year	1
Net earnings in the last year of the business plan's time horizon, 2020	251.564
Constant annual growth rate of the net earnings in the period 2021-2021	0%
Selling price or liquidation value of the business activity at the end of 2021	105.000

In this section, you can indicate the net earnings of the company in the years between the end of the business plan's time horizon and the last year considered, i.e., the terminal year.

When the terminal year is the last year of the business plan's time horizon, iPlan considers only the years in the business plan's time horizon. When the terminal year is beyond the business plan's time horizon, iPlan assumes that the business operations continue until the terminal year. In this case, iPlan also assumes that in these years the net earnings grow at a constant annual rate, which applies to the net earnings of the last year in the business plan's time horizon, and that the company distributes all the net earnings as dividends each year.

The user can also indicated the value of the company at the end of the terminal year.

Advanced setting – Terminal Value

The *terminal value* may simply be the revenues of selling the company at the end of the terminal year, or a more complex estimation of the company's value at the end of the terminal year.

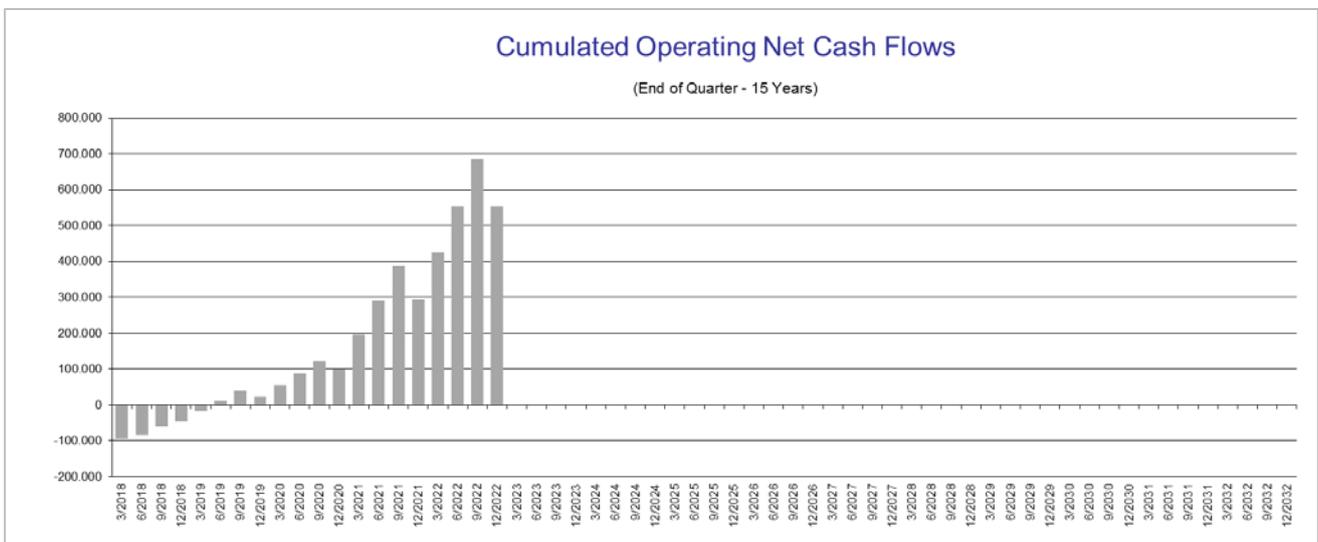
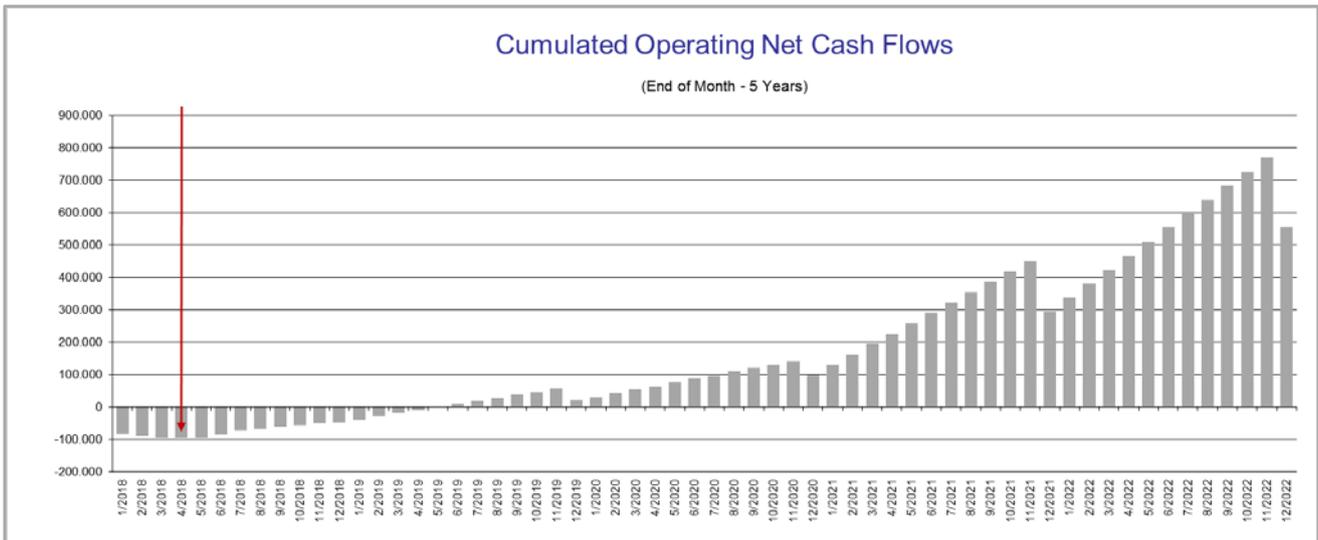
The company's value is usually estimated considering the value of its assets and liabilities, and the prospective cash flows.

Assets that are usually considered are cash, buildings, plant and equipment, and credits. Liabilities that have to be considered are the debts.

2. RESULTS (Section 2)

2.1 CUMULATED OPERATING NET CASH FLOWS

This worksheet contains two charts of the cumulative net cash flows concerning the operations, i.e., excluding financial management (interest payment and loan repayment). The charts, based on the data entered in the Business Plan, consider a time horizon of 5 years and 15 years respectively. In the first chart the Financial need can be identified.



2.2 FINANCIAL STATEMENTS AND INDICATORS

This worksheet contains the financial statements of the business, i.e., the balance sheet, income statement and statement of cash flows for the business plan's time horizon. The financial statements also covers the period beyond the business plan's time horizon, until the selling or liquidation of the business activity.

Note that the balance sheet does not consider commercial credits and debts (e.g. delayed payments). All purchases and all sales are considered paid when they are made.

All prices (i.e., both sales and costs) are considered net of the value added tax (VAT). Indeed, usually companies collect monthly VAT on sales higher than the VAT they pay on purchases, but they don't keep this difference, they pay it to the Treasury in the following months.

All salaries paid to employees are considered to include taxes and social security contributions.

Financial statements

Balance Sheet						
	2016	2017	2018	2019	2020	2021
LIABILITIES						
Capital	100.000	100.000	100.000	100.000	100.000	100.000
Retained Earnings	0	0	0	0	0	0
Equity	100.000	100.000	100.000	100.000	100.000	100.000
Bank Overdraft	0	0	0	0	0	0
Mortgage	0	0	0	0	0	0
Debt	0	0	0	0	0	0
TOTAL LIABILITIES	100.000	100.000	100.000	100.000	100.000	100.000
ASSETS						
Gross Fixed Assets (Plant & Equipment)	76.000	76.000	76.000	76.000	76.000	76.000
Accumulated Depreciation	-22.800	-45.600	-68.400	-76.000	-76.000	-76.000
Net Fixed Assets	53.200	30.400	7.600	0	0	0
Bank & Cash	46.800	69.600	92.400	100.000	100.000	100.000
TOTAL ASSETS	100.000	100.000	100.000	100.000	100.000	100.000

Income Statement						
	2016	2017	2018	2019	2020	2021
Taxable Revenues	167.375	334.125	360.855	703.667	886.621	
Not Taxable Revenues	5.000	0	0	0	0	
REVENUES	172.375	334.125	360.855	703.667	886.621	
Costs and Expenses	-140.028	-224.700	-235.536	-330.772	-383.493	
EBITDA	32.347	109.425	125.319	372.895	503.127	
Depreciations & Amortizations	-22.800	-22.800	-22.800	-7.600	0	
EBIT	9.547	86.625	102.519	365.295	503.127	
Interests	0	0	0	0	0	
EARNINGS BEFORE TAXES	9.547	86.625	102.519	365.295	503.127	
Taxes	-2.274	-43.313	-51.260	-182.648	-251.564	
NET EARNINGS	7.274	43.313	51.260	182.648	251.564	251.564

Cash Flow Statement

	2016	2017	2018	2019	2020	2021
CASH FLOWS FROM OPERATING ACTIVITIES						
Net Earnings	7.274	43.313	51.260	182.648	251.564	251.564
Depreciation	22.800	22.800	22.800	7.600	0	0
Net cash provided by operating activities	30.074	66.113	74.060	190.248	251.564	251.564
CASH FLOWS FROM INVESTING ACTIVITIES						
Investments (Plant & Equipment)	-76.000	0	0	0	0	0
Net cash provided by investing activities	-76.000	0	0	0	0	0
CASH FLOWS FROM FINANCING ACTIVITIES						
Initial Capital	100.000					
Dividends	-7.274	-43.313	-51.260	-182.648	-251.564	-251.564
Bank Overdraft						
Mortgage						
Net cash provided by financing activities	92.727	-43.313	-51.260	-182.648	-251.564	-251.564
NET INCREASE IN CASH IN THE YEAR	46.800	22.800	22.800	7.600	0	0
CASH AT THE END OF THE YEAR	46.800	69.600	92.400	100.000	100.000	100.000

Financial indicators

Financial indicators are usually calculated to assess the feasibility and the profitability of an investment.

Net Present Value (NPV) and Internal rate of Return (IRR) are two financial indicators widely used in valuating alternative investment options.

NPV and IRR are measurements of the profitability of the investment. NPV measures the economic value created (if $NPV > 0$) as the difference between the present value of cash inflows and the present value of cash outflows.

The IRR is the rate of return (or discount rate) that makes the Net Present Value of all cash flows from the investment equal to zero. When two alternative investments have the same risk, it is preferable the investment with the higher NPV and IRR.

To calculate the NPV you have first to insert the **discount rate** or **weighted average cost of capital - WACC** (10% is a common approximation for industrial projects, 60% is a common approximation for start-ups).

Discount Rate	%	60%
---------------	---	-----

iPlan computes and shows in this worksheet the values of NPV and IRR calculated assuming the perspective of the shareholders, that is considering the capital contributions (see §1.1), the distributed dividends (see §1.10), and the terminal value (see §1.11).

Shareholders' perspective

Shareholders' Net Cash Flows: capital contributions, dividends, and terminal value

NET PRESENT VALUE (NPV)	40.704	EUR	See details
INTERNAL RATE OF RETURN (IRR)	85%		

The NPV and IRR according to the Company's perspective are shown [Here](#)

iPlan also computes and shows the values of NPV and IRR according to the Company's perspectives, i.e., considering its net cash flows. Worksheet 3.11 NPV & IRR (see §3.11) shows the details of the calculation of the NPV and IRR according to the two perspectives.

An IRR above 60% is a common request when investors evaluate the convenience of financing start-ups. Impact funds investing in social enterprises usually ask a return around 10%.

iPlan also shows the values of the Return on Equity (ROE) and Return on Investment (ROI) indices over time. The ROE is the ratio between net earnings (profits) and equity (the capital invested by the shareholder), the ROI is the ratio between net earnings and total assets (total liabilities).

Social performance indicators

In the *social performance indicators* section of the worksheet, you can insert the values of three indicators assumed as the social impact indicators of the business, in terms of efficacy (e.g. number of disadvantaged people employed).

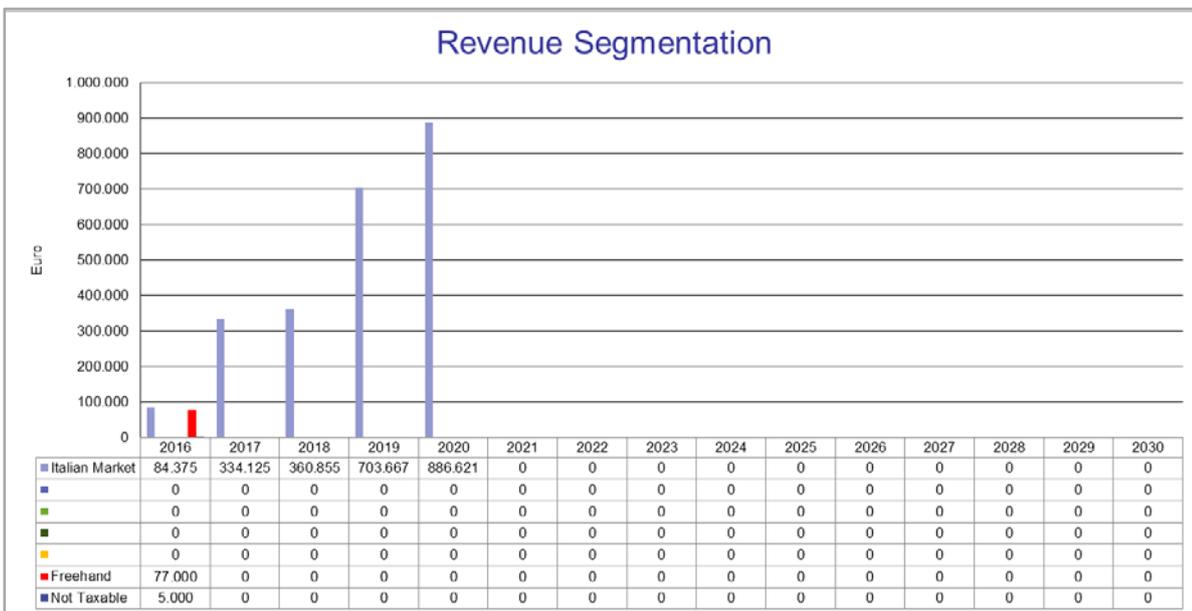
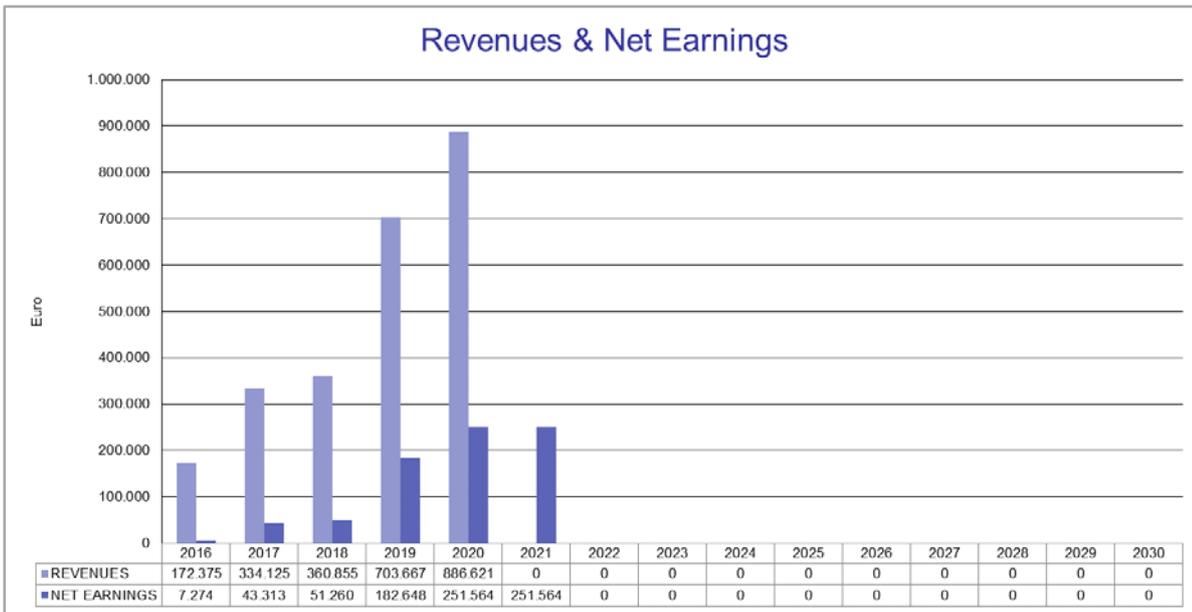
iPlan also computes the ratio between revenues or cost and expenses or investments of the organization and the social impact indicators inserted above. These ratios can be considered indicators of the efficiency of the organization in achieving its social results.

For instance, if an organization's aim is finding jobs to unemployed people belonging to disadvantaged categories, the number of the persons employed is a natural social impact indicator for this organization. If a public body funds the organization and this contribution is the only source of revenues, the ratio between these revenues and the number of persons employed is a natural indicator of the organization's efficiency in achieving its social purpose.

2.3 REVENUES AND NET EARNINGS CHART

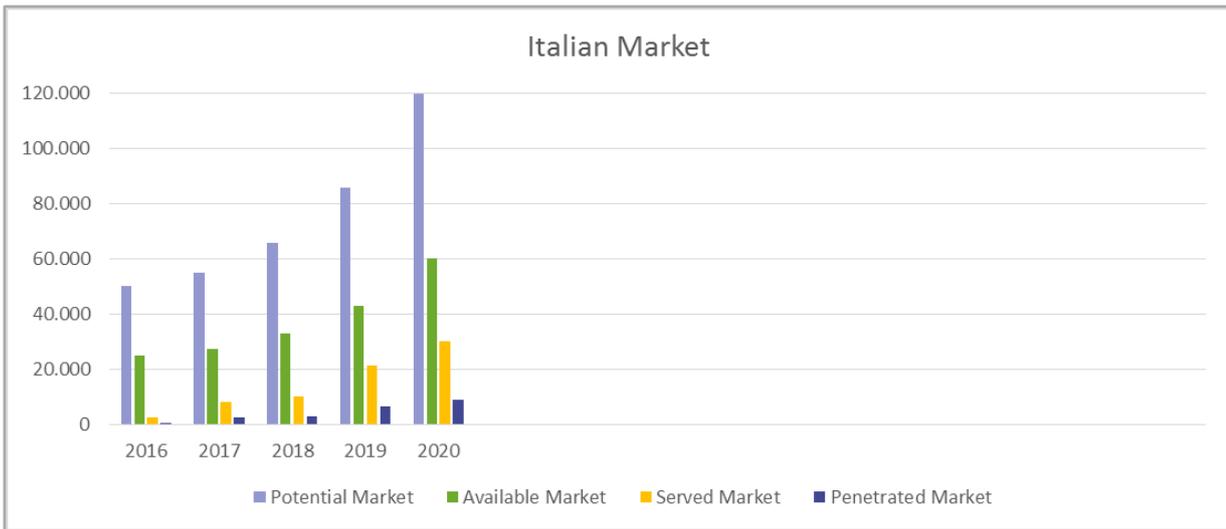
This worksheet contains two charts.

The first chart shows the revenues and the net earnings of the business over the time horizon of the business plan. The second chart shows the revenue segmentation.



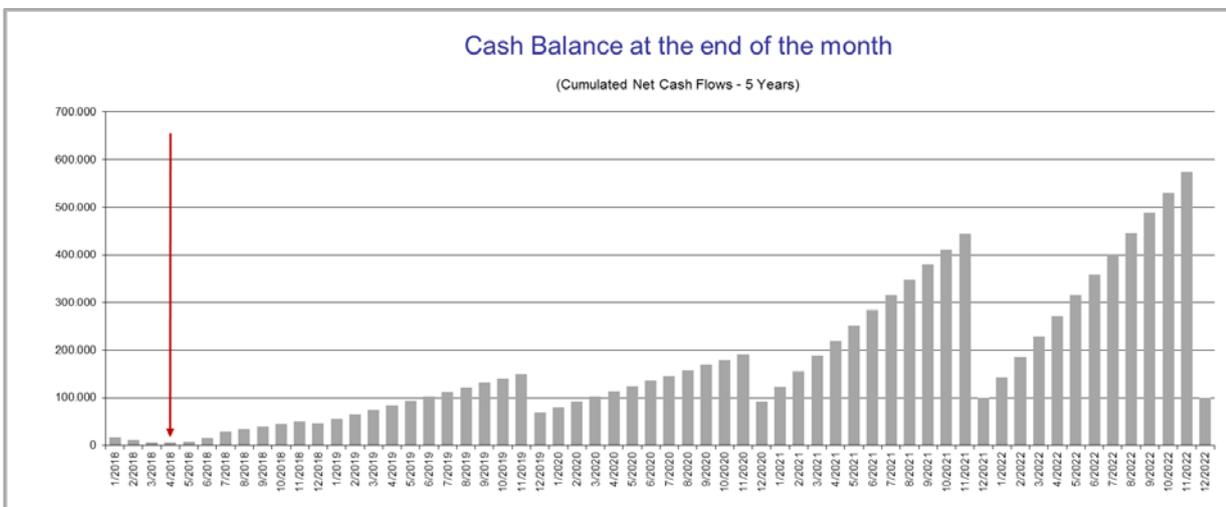
2.4 MARKET VOLUMES

This worksheet describes the market volumes with both charts and data. For each market, the worksheet shows one chart and the data of the potential market, available market, served market, and penetrated market based on data inserted in worksheet 1.2.



2.5 CASH BALANCE

This worksheet shows the cash available at the end of each period using two charts. The first chart shows the cash available at the end of each month on a 5-years period, the second chart shows the cash available at the end of each quarter over a 15-years period. Note that a possible bank overdraft is not considered.



3. COMPUTATIONS (Section 3)

3.0 DISCOUNT FACTORS

This worksheet shows the values of the discount factors over time depending on the discount rate applied.

3.1 TAXABLE REVENUES

This worksheet summarizes the *taxable revenues* indicated in the previous sheets: those both related to the market, calculated in the worksheets 1.2 and 1.3, and those revenues one-time or recurring or dependent on the driver described in the worksheet 1.4.

This worksheet summarizes also the revenues indicated in the “freehand” worksheet.

3.2 DEPRECIATIONS

This worksheet calculates the annual depreciation using the information included in the investments sheet (§1.6).

3.3 BANK OVERDRAFT

This worksheet calculates the use of bank overdraft and related interest, based on the information entered into the worksheet data and the trend of cash flows.

The worksheet calculates the amount of the credit line used in each month, based on the cash flows trend, and the related interest, applying the rate of interest specified in worksheet 1.1.

The worksheet capitalizes and charges interest quarterly, in January, April, July and October.

3.4 MORTGAGE

This worksheet calculates the rate of repayment of the loan and related interest.

The installments are constant, assuming that the interest rate is fixed.

The worksheet calculates the on a monthly basis, and therefore they differ slightly from those calculated on banking days.

3.5 MORTGAGE CASH FLOWS

This worksheet calculates the monthly cash flows and annual disbursement and repayment of the loan (principal and interest).

3.6 TAXATION DATA

This worksheet calculates the annual amounts of the elements that determine the taxable profit: taxable revenues, fixed and variable costs, depreciation, interest.

The iPlan assumes that all fixed and variable costs are relevant for tax purposes.

3.7 INCOME STATEMENTS & TAXES

This worksheet calculates the annual taxes, considering the financial management (i.e., interest payments), and attributes the payment to the month corresponding to the Tax Day specified in worksheet 1.1.

3.8 CASH FLOWS

This worksheet calculates the monthly net cash flows and the cumulative net cash flows considering both the operations and the financial management (i.e., capital contributions, debt, and interest payments).

Thus, this worksheet determines the financial need **with capital contributions**, and **with capital contributions and debt** indicated in worksheet 1.1. Note that this worksheet assumes that net earnings are not distributed.

This worksheet also calculates the annual net cash flows and the cumulative annual net cash flows.

3.9 OP. INCOME STATEMENTS & TAXES

This worksheet calculates the annual tax, considering only the operations and not the financial management (i.e., interest payments).

3.10 OPERATING CASH FLOWS

This worksheet calculates the operating monthly net cash flows, the operating cumulative net cash flows and the financial need considering only the operations and not the financial management (i.e., capital contributions, debt and interest payments).

Thus, this worksheet determines the **financial need** indicated in worksheet 1.1.

3.11 NPV & IRR

This worksheet calculates the Net Present Value (NPV) and Internal Rate of Return (IRR) assuming the Shareholders' perspective, and considering:

- the discount rate,
- the initial capital,
- the net earnings in the business plan's time horizon distributed as dividends,

- the dividends in the years in which the business operations will continue beyond the business plan's time horizon, and
- the selling price or liquidation value of the business activity at the end of the last year.

Shareholders' perspective							
	T=0	2016	2017	2018	2019	2020	2021
Business Plan's time horizon							
Capital Contributions	-20.000	-80.000					
Dividends		7.274	43.313	51.260	182.648	251.564	
Continuation of the business operations beyond the Business Plan's time horizon							
Dividends = Net Earnings							251.564
Selling price or liquidation value of the business activity at the end of 2021							
Terminal Value							105.000
Shareholders' net cash flows	-20.000	-72.727	43.313	51.260	182.648	251.564	356.564
t	0	1	2	3	4	5	6
Discount factor	1,00	0,91	0,83	0,75	0,68	0,62	0,56
Present Value	-20.000	-66.115	35.795	38.512	124.751	156.201	201.271
NET PRESENT VALUE (NPV)		470.416					
INTERNAL RATE OF RETURN (IRR)		83%					

This worksheet also calculates and shows the NPV and IRR considering the Company's perspective, i.e. the organization's cash flows. This can be useful to calculate the NPV of industrial projects (e.g. investments in new machines).

Company's perspective						
	2018	2019	2020	2021	2022	2023
Investments (Plant & Equipment)	-76.000,00					
Net Earnings	7.273,50	45.112,50	54.913,50	188.211,28	259.094,26	
Net Earnings beyond the BP's time horizon						259.094,26
Depreciations & Amortizations	22.800,00	22.800,00	22.800,00	7.600,00		
Terminal value not considered						
Net Cash Flows	-45.927	67.913	77.714	195.811	259.094	259.094
t	0	1	2	3	4	5
Discount factor	1,00	0,63	0,39	0,24	0,15	0,10
Present Value	-45.926,50	42.445,31	30.356,84	47.805,49	39.534,65	24.709,15
NPV	138.925					
IRR		189%				

3.11 NPV & IRR Monthly

This worksheet calculates the Net Present Value (NPV) and Internal Rate of Return (IRR) according to the Shareholder's perspective, using monthly cash flows rather than yearly.

3.12 CAPITAL

This worksheet calculates the capital available in each period considering the initial capital and any subsequent round of funding.

3.13 PERIODS

This worksheet calculates the time references used in other worksheets starting from the data entered regarding the starting date and the time horizon of the Business Plan.

4. DO IT YOURSELF (Section 4)

This section, composed of three worksheets, allows to enter any kind of additional useful information or computation for the determination of operating costs and revenues.

The first two worksheets have a green label and are called *DIY Monthly* and *DIY Quarterly*. Here you can put in the rows any useful information and the calculations necessary to determine operating costs and revenues.

The first column, i.e., “Description”, allows you to describe verbally the contents of the row.

The second column, i.e., “To be considered (if any) as:”, allows you to indicate to iPlan those rows that contain the revenues and operating costs that must be considered in the business plan. When the cell in the second column is empty, the values in the row are not considered.

The following columns indicate the periods, months in the first worksheet and quarters in the second one.

Any operating cost or revenue indicated in this section, i.e., when the second column is filled by selecting “Revenues – Not taxable”, “Revenues - Taxable”, or “Operating Costs”, is added to those inserted in the other sections of iPlan.

The third worksheet, *DIY Summary*, shows for each month the total of revenues and operating costs.

Note that the quarterly operating costs and revenues, inserted in the worksheet *DIY Quarterly*, are shared equally in the months of each quarter.

Note that in the first two worksheets you can use “only” the first 300 rows (with a white background) if you want them to be recognized in the *DIY Summary* worksheet.