

Technology Plan

ASSIGNMENT 3

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Technology Plan of Our Business Idea

The technological plan is a tool that allows ICT to be included in the strategic plan to take advantage of them to achieve the objectives of the corporation. Given that ICTs are currently having great importance in the value chain and creating a competitive advantage, this has become a specific point within the domain of the strategic plan.

The development of a technological plan opens the doors to effective management of ICT resources and to identification of technological opportunities that can give a complete advantage. It also facilitates the interrelation of our value chain with the value chains of suppliers, distribution, and customers, obtaining mutual benefits in competitive advantage and value.

In addition, improvement of communication and the relationship between ICT services and the rest of the company reduces the effort and money required throughout the life cycle of ICT systems and solutions.

Now that the importance of a technological plan has been introduced, the necessary process for a good definition of a technological plan will be described.

To properly define a technological plan, it is important to know the current state of the company, analyse the current strategic plan, its goals and strategies followed, how technology is currently being managed, etc.

In parallel, it is also important to know where you want to be in the future. It is necessary to be clear about the place in which it should be in accordance with the present strategic plan, analysing what can happen along the way and the existing technological gaps.

All this information will be collected and analysed throughout the different phases of the definition of a technological plan. The phases necessary to complete are the following:

1. Vision
2. Analysis
3. Management
4. Recommendations

Vision

The vision phase begins the process of development and planning of the plan, and the great part of the success and efficiency in the development of the Plan will depend on it. During this phase, special attention should be paid to aspects such as the current state of the sector and the company (such as values, objectives, milestones, and priorities), as well as what is expected to be achieved with this Technology Plan.

The different tasks to complete in this phase are the following:

- **Project initialization:** Task focused on the definition of the objectives to be achieved, the identification of key resources, roles, and responsibilities.
- **Evaluation of the situation and vision of the company:** Task whose objective is to review the current strategic plan, vision, mission, and values of the company, as well as its organizational structure, priorities and personnel involved.
- **Documentation and concretion of the analysis of the company:** Task focused on documenting the current situation of the company, the objectives, technological trends of the sector as well as the impact that these may have on the company and finally the strengths, weaknesses, opportunities, and threats.

Analysis

Phase whose function is the study of the ICT environment inside and outside the company.

Throughout this phase it will be necessary to analyse the human resources of the ICT services, their responsibilities, and workloads at the level of people as well as each of the tools, in addition to the study of how the sector works from the point of view of ICT, as well as possible competitors, focusing on the way in which they make use of these technologies.

The tasks to be completed in this phase are the following:

- **Study ICT situation in the company:** Task focused on the analysis of the current ICT state of the company. Where ICT infrastructures, tools, ICT protocols and their costs are studied.
- **Analysis of the ICT situation:** Phase that focuses on the study of the sector from the point of view of ICT, where ICT trends in the sector must be explored, such as the ICT tools used by competitors, the company's own processes and ICT applications (including human resources), and the analysis of possible scenarios, in order to create an ICT SWOT of the company.
- **Development of scenarios, recommendations, solutions, and alternatives:** Throughout this task, a set of recommendations for infrastructures, processes, protocols, applications and solutions should be developed.

Based on this, it will be possible to know the strengths, weaknesses, opportunities, and threats of the company's ICT environment.

Management

The objective of this phase is to determine how can ICT help the company to achieve its objectives and generate competitive advantage. In this phase, the specific projects to be addressed and the necessary infrastructures must be determined. Also, what changes and substitutions must be addressed, how the ICT will be structured, and what economic and human resources will have to be determined at this stage.

In addition, in this phase, it will be defined which services will use outsourcing or other alternative options. Likewise, it will be necessary to set the priorities of the different projects and the execution of infrastructures.

The tasks to be carried out in this phase are:

- **Development vision and management ICT:** Task in charge of developing the ICT vision and ICT mission of the company, the definition of ICT objectives and the strategies to be followed to achieve them. As well as the development of the metrics to evaluate if the achievements are being obtained.
- **Development of the Technology Plan:** Task where the technological plan will be developed. This will define the applications and solutions plan and the infrastructure plan, the ICT service management process.
- **Identification of ICT projects:** Task in which the different projects of the technological plan will be identified. Throughout the task, application, infrastructure, process, and organization projects will be identified. Based on these projects, the costs and benefits offered to the company will be estimated and finally a prioritization process will be carried out.

Recommendations

Phase that is based on the documentation of the roadmap of the technological plan, where the metrics and evaluation methodologies are defined, the follow-up of the forecasts and the fulfillment of the Plan. The development of the "business case", where the actions, benefits and commercial impact of the company are explained.

The tasks to be carried out in this phase are:

- **Roadmap:** Task where the roadmap of the technological plan will be defined, it will summarize the costs and financing, the study of the impact on the company, as well as the identification of risks and their proposals to mitigate them.
- **Development of the "business case":** Task whose function is the study of the benefits and commercial impact of the company. Throughout this task it will also be necessary to develop a communication plan and the process of permanent review and planning.
- **Communication plan:** Task whose objective is to close the process of defining the technological bread, in which the final document will be made and prepared for its presentation and delivery.

Summary of The Technology Plan of Our Company

Before starting with the four phases of developing the Technology Plan, it is necessary to identify where the company is internally and externally, considering the company's current strategy, goals, mission, and vision.

Internally, the company intends to follow a reorientation strategy by developing a new product, finding ways to provide more coverage with the application, and achieving more self-sufficiency regarding the use of providers. In the ICT department, even though the developers' personal computers are mostly not outdated, there is a clear lack of resources to compete against established companies.

Externally, the sector of mobile apps is booming, with platforms allowing to create apps without coding gaining popularity and lowering the skill barrier needed to access the market. There has also been a very recent increase in the popularity of AI tools available for free or for a very small price online, which can further lower the skill barrier and increase the threat of entering competitors.

After considering the current situation, the next step is identifying where do we want the company to be in the future.

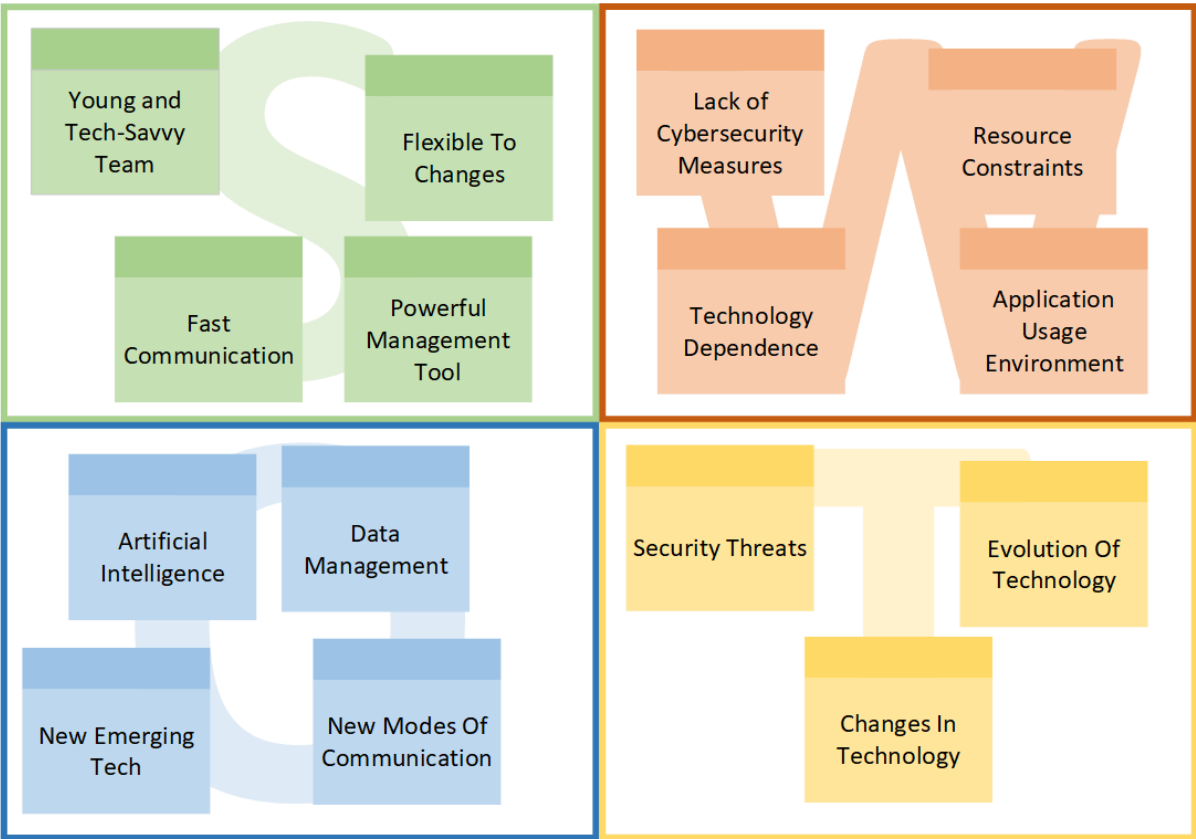
In the mission and vision of the company, the most seen concepts are efficient and simple technical solutions, optimize work and leaders in innovation. To achieve the concepts in our statements will not be an easy task that can go in many ways, and all these scenarios must be considered, for example, what if new technologies change the way humans communicate completely? Or, what if we need to rely on technologies that do not reach the level we expected?

However, all scenarios have in common the fact that there is a technological gap between our current situation and a good outcome in these scenarios. To fill this gap, the company would need more resources, such as servers or more powerful development tools, to develop more products for users and provide better quality of service in their products.

Then, in the Vision step, after the lengthy process, the company would have a result defining the projects of the company, such as developing a new product, expanding coverage, and achieving self-sufficiency. Analysing the state of the company, it would come to the conclusion that the resources are limited for the required goals, and that without better resources, the company would be defeated by the competition.

The Analysis step, which consists in the study of the ICT environment, would culminate in the ICT SWOT and strategy plan in the next section, which would follow a reorientation strategy consisting of providing cybersecurity to the company's projects and its customers, researching the use of AI tools in the sector, and finally, providing the app's service in areas with less or no cell phone coverage.

Finally, the summarized result of the last two steps, Management and Recommendations, can be seen in the Activities and Resources section and in the Costs and Earnings section. In these sections, there are recommendations on which technology to use to achieve the proposed strategic lines in the Strategic Plan, and how these recommendations can create a benefit for the company.



ICT SWOT

- Strengths

- Young and Tech-Savvy team: With a team of these characteristics, it can provide greater creativity, efficiency, and productivity.
- Flexible to changes: The company can adapt to new technologies because its projects are suitable for it.
- Fast communication: ICT enables fast and efficient communication between the company and customers around the world, allowing for greater collaboration and productivity.
- Powerful management tool: The corporation of a customizable management tool that allows managing most of the processes that the company has.

- Weaknesses

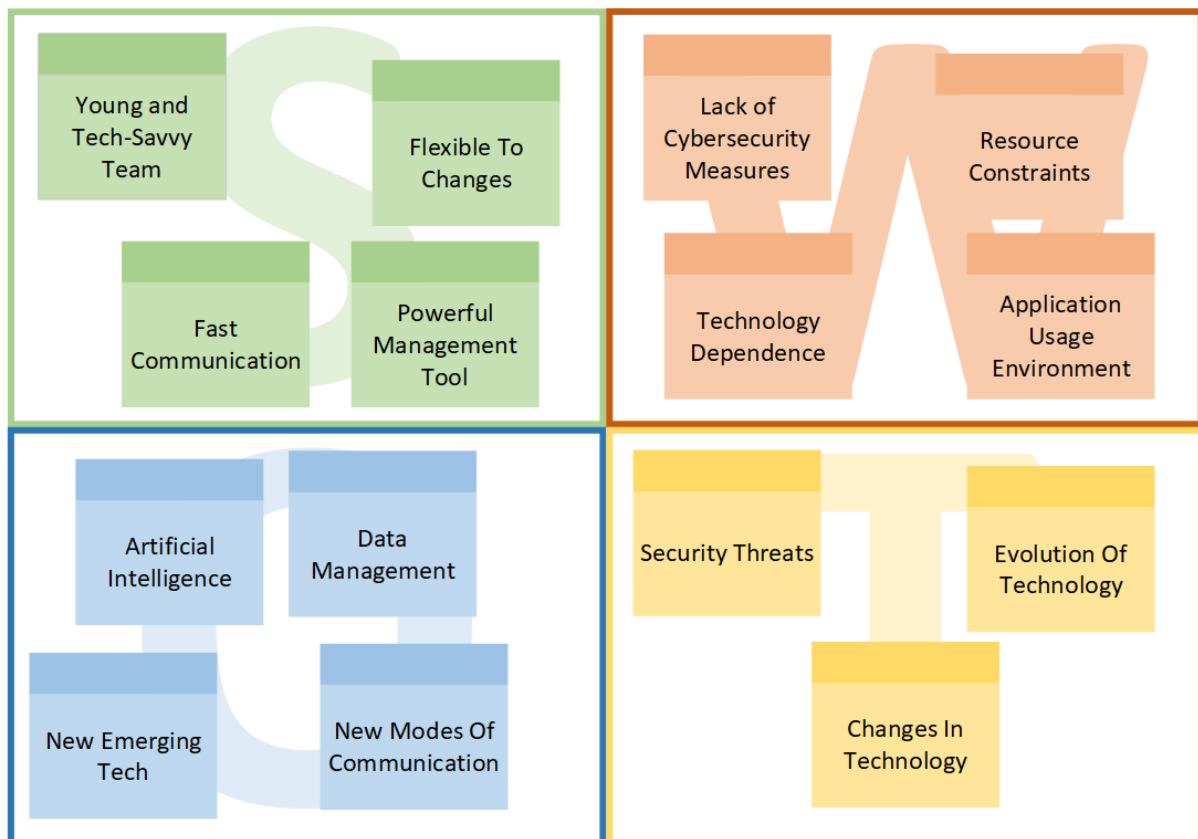
- Lack of Cell Phone Coverage in Mountain Areas: When using the current product in camps, it is possible that there is no coverage, and they cannot access some functionality.
- Resource Constraints: Due to our limited budget, there are technological resources that we still cannot access or use and therefore the software development is slower.
- Dependence on technology: The great dependence on technology makes it vulnerable to system or software failures.
- Null mechanisms in cybersecurity: There is no security mechanism for the company and customers.

- Opportunities

- Increase in AI quality and availability: Taking advantage of the growth and potential of this technology, we can have more resources and thus compete with large companies fairly.
- New technologies: The company can enhance the capabilities of their app and offer a more robust and streamlined experience for their users.
- New modes of communication: New or different modes of communication (without the need for mobile phone coverage) such as Bluetooth, 5G or satellite communication can supply the use of the application in areas without mobile coverage.
- Data management: The data generated in the application can be analysed and processed to obtain valuable information and help in decision making.

- Threats

- New technologies or modes of communication may not reach expectations: If new technologies are used that are not fully functional or reliable, they may not meet user expectations, which can have a negative impact on user satisfaction, user engagement, and reduced profit.
- Security threats and cyber-attacks: As the company grows, it will need to invest in strong security measures and protocols.
- The constant evolution of technology: it makes it change quickly and it is difficult to keep up to date.



The Strategy

For the current technological situation, a reorientation strategy would be chosen. While it is true that we have a set of strengths that could be exploited, there is a set of weaknesses that opens doors to dangerous threats that can affect the survival of the corporation. In addition, taking advantage of existing technological opportunities offers the possibility of taking a competitive advantage and making a difference with possible competitors that may appear. It should also be noted that some of the threats are strongly related to company weaknesses, so eradicating these weaknesses can help reduce many threats.

This strategy will be followed from different strategic lines. One of the most notable weaknesses is the null implementation of security mechanisms, which means that both clients and the company are exposed to cyber-attacks, therefore it is important to investigate and implement the relevant security mechanisms. In this way it is also possible to considerably reduce the threat of attacks.

Another weakness is the one that is related to one of the main problems that the current product has. It is an application designed for summer camps, the application requires a constant Internet connection, and many of the summer camps in the area carry out their activities in camps in the Pyrenees, where there is often no mobile coverage. So, you want to use new forms of mobile communication such as 5G to provide the service also in areas with less coverage or use new technologies to provide more functions that do not require the Internet.

It must also be considered that not all weaknesses can be eradicated at this time. An example of this can be the case of dependence on some specific technologies which may have some type of failures that do not depend on the company or also the case of the provision of a very limited portfolio that restricts the use of some technology. This last point is not a complete limitation since in future revisions it may even be removed due to the growth of the corporation.

Regarding the opportunities, the advances of AI open the doors to the exploitation of these in the sector. In this way, together with the management of the data generated by the products, the use of artificial intelligence can be exploited (for example, creating systems that allow organizations to anticipate or personalized recommendation systems for each user, etc.), being able to Make a Difference.

In summary, the strategic lines that the company will take are:

- Investigation and Implementation of cybersecurity mechanisms. This issue will be dealt with after the release of the app, in about six months.
- Use emerging technologies, communication or otherwise, to provide our service in locations where it cannot currently be used satisfactorily. We are going to solve this problem within two years, once the new technologies have been implemented.
- Study and implementation of Artificial Intelligence applications in the sector. We are going to consider the implementation of artificial intelligence in about three years, once the technology has evolved and is ready for effective use.

Activities and Resources

Info to management	Infrastructure HW/SW	Info to control	Name	Project	Tempo	Cost	Dept. Affected
Strategic Line 1: Take advantage of the new niche and market expansion to create a new product or application with which to obtain a new line of income, which must be used to obtain more resources.							
Strategic Action 1.1: Identify potential new niches and markets that align with the vision and mission of the company. Research trends, consumer needs, and potential competitors to gain insights into new opportunities for product development.							
List of markets aligned with the vision of the company	Social Media Tools for Customer surveys Computers	Markets in which it is profitable to act Customer needs and preferences	Market research	New product development	6 months	25.000€	Sales
Strategic Action 1.2: Search for clients with needs to cover, who can collaborate by contributing their knowledge in the area, with the aim of being able to cover that need effectively.							
Potentials collaborator list Needs of the collaborators	Presentation Tools Communication tools (Email, videoconference, etc.)	List of valid collaborators	Collaborator search	New product development	6 months	25.000€	Marketing

Strategic Action 1.3: Development of new product							
Product requirements	Computers Software licenses DDBB Servers Software development control tools		New Product	New product development	1,5 years	50.000€	Development, IT support

Info to management	Infrastructure HW/SW	Info to control	Name	Project	Tempo	Cost	Dept. Affected
Strategic Line 2: Use emerging technologies, communication or otherwise, to provide our service in locations where it cannot currently be used satisfactorily.							
Strategic Action 2.1: Develop partnerships with telecommunications companies or other technology providers to expand our service coverage in areas where it is currently unavailable or unreliable.							
Partnership agreements with telecom companies or tech providers	Telecommunications equipment, software	Service coverage expansion	Service Expansion Partnership	Expand coverage service	3 years	50.000€	Service Delivery, Technology
Strategic Action 2.2: Identify and evaluate emerging technologies that could be used to deliver our service in new locations, such as satellite internet or mobile data networks.							
Emerging technologies for service delivery in new locations	Satellite internet, mobile data networks	Technology evaluation and implementation	New communications	Emerging communication technologies	3 years	50.000€	Service Delivery, Technology

Info to manage	Infrastructure HW/SW	Info to control	Name	Project	Tempo	Cost	Dept. Affected
Strategic Line 3: Use new technologies and market expansion, along with increased resources, to stop relying on single vendors.							
Strategic Action 3.1: Establish clear criteria for vendor selection that prioritize vendor diversity, quality, reliability, and cost-effectiveness.							
Vendor selector criteria	N/A	Vendor selection process	Vendor selection	New criteria for vendor selection	3 months	3000€	Finance, Development
Strategic Action 3.2: Research and evaluate alternative vendors for key goods and services to identify options that offer comparable quality and reliability to current vendors.							
Alternative vendors for key goods and services	N/A	Vendor research and evaluation	Alternative Vendor Evaluation	Alternative vendor	6 months	6000€	Finance, Development

Info to manage	Infrastructure HW/SW	Info to control	Name	Project	Tempo	Cost	Dept. Affected
Strategic Line 4: Investigation and Implementation of cybersecurity mechanisms.							
Strategic Action 4.1: Implementation of protocols and information security mechanisms							
ICT elements that can be breached Security standards Legislature	Firewall VPN Networks elements Enterprises computers	Security actions taken Enterprise members responsibilities	Security Implantation	Security	2 years	80.000€	IT
Strategic Action 4.2: Annual cybersecurity audits.							
List extern enterprises that offer these services	All ICT elements of the company that can be breached	The results and the security issues to fix	cybersecurity audits	Security	Permanent	5.000€	IT

Info to manage	Infrastructure HW/SW	Info to control	Name	Project	Tempo	Cost	Dept. Affected
Strategic Line 5: Study and implementation of Artificial Intelligence applications in the sector							
Strategic Action 4.1: Study of the artificial Intelligence applications							
State of the art of the IA applications in the sector	Computers Documentation tools	Team members in charge Valid technologies for use for the current situation of the corporation	AI SOA study	IA applications	3 months	4000€	IT
Strategic Action 4.2: AI features implementations in the project							
Features to implement IA technologies valides	Computers Computation Platforms to train some AI algorithms Software development control tools	Team members in charge. Computational resources Features development status	AI features	IA applications	2 years	70.000€	IT, Development

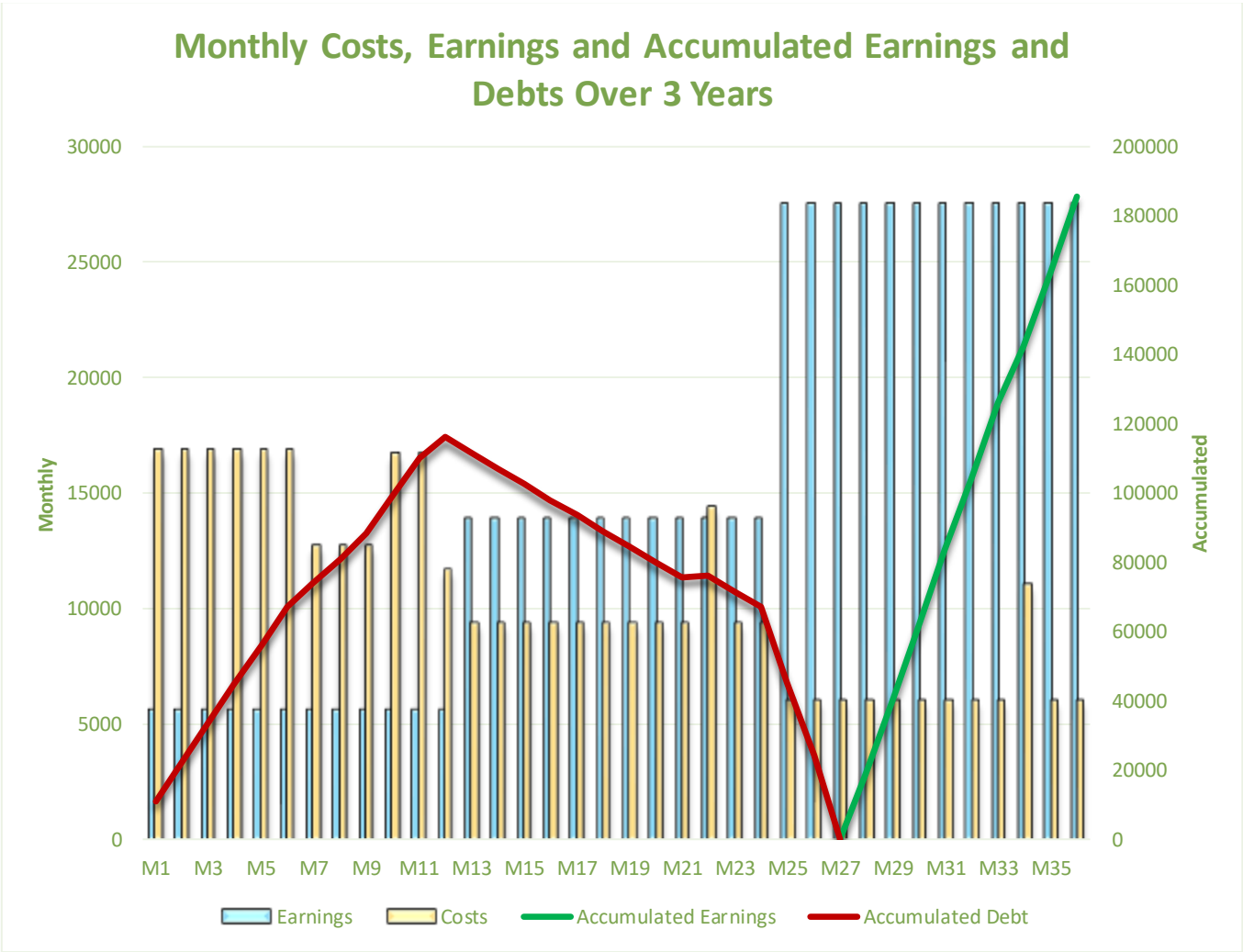
Costs And Earnings

The list of the corporation's costs estimated in this plan have been distributed based on the list of activities previously described. Also, these have been broken down three-year horizon view.

In terms of income, they are broken down by three channels, to start with the income generated by subscriptions to the current product in which the average income per subscriber is 15 euros per month (where it is estimated that 30 organizations will have the first year, 50 the second and 70 the third).

On the other hand, there is the estimated cost of the new product developed, which will initially be based on the same subscription system as the current product (15 euros per month, with an estimate of 10 clients the first year and 30 the second).

Finally, custom customer service, which due to the great demand that the team can be, is charged outside the subscription at the price of 520 euros per month (bearing in mind that there is the possibility of personalization of the product, approximately 50% of the cost of product development is taken). For this service it is estimated to have 10 clients the first year, 25 the second and 35 the third.

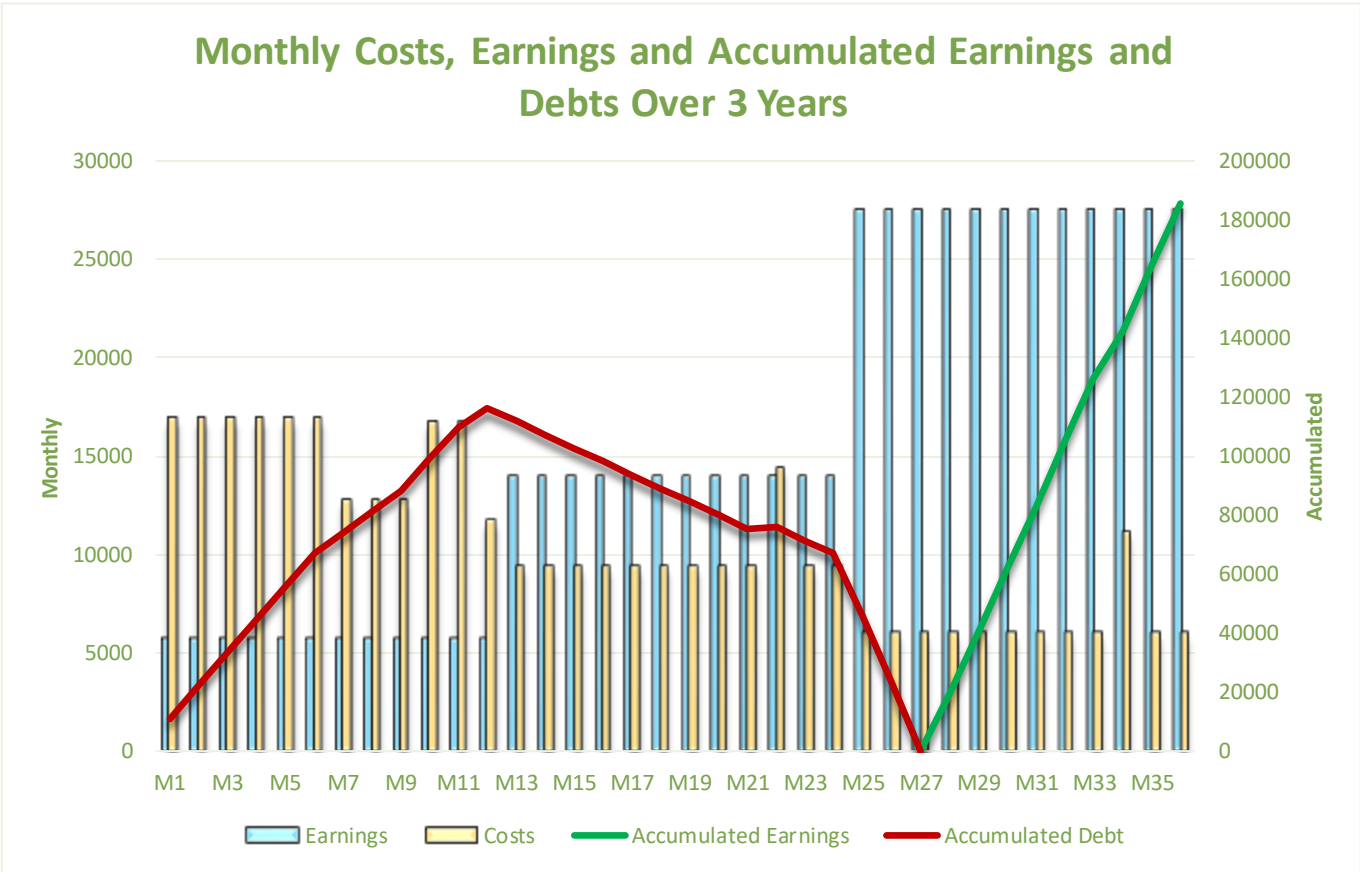


Costs	Year 1	Year 2	Year 3	Total
Market research	25.000,00 €	0,00 €	0,00 €	25.000€
Collaborator search	25.000,00 €	0,00 €	0,00 €	25.000€
New Product	25.000,00 €	12.500,00 €	12.500,00 €	50.000€
Service Expansion Partnership	25.000,00 €	12.500,00 €	12.500,00 €	50.000€
New communications	25.000,00 €	12.500,00 €	12.500,00 €	50.000€
Vendor selection	3.000,00 €	0,00 €	0,00 €	3.000€
Security Implantation	40.000,00€	40.000,00€	0,00€	80.000,00€
Cybersecurity audits	5.000,00€	5.000,00€	5.000,00€	15.000,00€
AI SOA study	5.000,00€	0,00 €	0,00 €	5.000,00€
AI features	0,00 €	35.000,00€	35.000,00€	70.000,00€
Earnings	Year 1	Year 2	Year 3	Total
Camp Manager	5.400 €	9.000 €	12.600 €	27.000 €
New Product	0 €	1.800 €	5.400 €	7.200 €
Customer Service	62.400 €	156.000 €	218.400 €	296.400 €

Executive Summary

The objective of this document is to analyse the technological plan of the CampManager company to study how to use ICT to achieve the objectives of the company defined in the strategic plan.

For this, the internal and external ICT situation of the company has been analysed, concluding that more technological resources are needed to give a better version of the company’s products. With this, the ICTSWOT is obtained and to achieve more value for the company it is necessary to use the reorientation strategy. Using this strategy, which consists of solving the weaknesses by exploiting opportunities, some strategic lines are obtained such as the use of cybersecurity mechanisms, the use of new communication methods and the exploitation of AI. After this process, the lines obtained have been analysed to know how to deal with them and identify the different resources that will be affected.



A month-to-month forecast of the company’s costs and earnings reveals that the company would place itself in debt until the third year’s second trimester, due to overhead costs on tasks such as research and security implementation, necessary if the company wants to survive any kind of expansion. At the start of the second trimester, a great increase in clients using our priciest customer service would finally make the company break even and start earning benefits at a fast pace.

The data in detail can be visualized in the separate PDF document.

Conclusions

At present it has been possible to see the importance of the technological plan within the strategic plan of the company. Discovering how a good approach can help to make the most of ICT to achieve the company's objectives and add value.

Throughout the analysis carried out during the development of this plan, it has been possible to expand and refine the strategic plan. In addition, thanks to the breakdown of the different activities, it has been possible to appreciate the large number of resources to manage that from an initial point of view was unthinkable.

In parallel, thanks to this breakdown, it has also been possible to delve into the structure of costs and profits that the company can have throughout the first years of the company's life.