DEMOWARE

Deliverable 8.4
Online tools to help SMEs develop business exploitation plans
Tool description report

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Abstract	The principle objective of this report is to present the EWRA website tool for business vision creation, developing market insights, adapting products to markets, product positioning and market entry, access to finance, partnership strategy and business development monitoring and evaluation.

Versioning and Contribution History

Version	Date	Modified by	Modification reason
v.01	01/10/2016	Fernando Casado	Initial draft
v.02	31/10/2016	Fernando Casado, David Smith	Adoption of DEMOWARE template and various edits
V.03	31/12/2016	Fernando Casado	Provided changes after comments of Xavier Martínez and Rita Hochstrat

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Executive summary

The present Tool Description Report pretends to be a guide for entrepreneurs and SMEs that aim to improve and increase their skills in the water reuse sector. Along its pages the Tool Description Report will show and explain a wide range of tools especially designed to guide anyone who wants to set up its own business in the sector. Given that the aim is to help entrepreneurs and SMEs, we have adopted a results-based approach, taking into consideration the final user.

More concretely, this Tool Description Report and the online platform with the tools designed serve to achieve the following goals:

- To determine the best way to meet the needs of SMEs, while taking into consideration the economic, environmental and social impact.
- To facilitate implementing a feasible business idea
- To assist Water Managers and SMEs that are looking to implement a new water reuse scheme.
- To help Water Managers and SMEs to gain a greater understanding of the financial gaps they face and the financing options open to them.
- To facilitate strategic planning and project management, while gaining an understanding of the organisational capacity gaps.
- To gain insights into water reuse schemes already in use around the world

The tools presented in this Tool Description Report were designed and determined through an in-depth analysis of available reports on SMEs and the water reuse sector, recent publications from the European Commission, data obtained through a survey of SMEs in the field, and other primary and secondary research on key issues affecting SMEs in Europe.

To ensure that entrepreneurs improve their competitiveness in the water reuse sector, the group has presented 18 tools designed to support SMEs in each one of the proposed phases: identification; design and incubation; life cycle management; and post user.

This division helps to apply an integrated and innovative management model addressing issues such as validation of the idea, to the creation of satisfaction surveys, or the creation of a logical framework matrix, among others.

In that sense, an online platform providing readily accessible and easy to use tools can help SMEs in the water reuse sector to overcome the knowledge gap and can lead to better performance results. The shown tools are exhaustive and tackle the major knowledge gaps of SMEs.

For these reasons this Tool Description Report and the consequent online platform acts as a one stop shop for SMEs to find all the tools they need to be successful. This Tool Description Report and online platform will save time for the user offering the necessary resources for the SME, found in a unique knowledge centre. The way this platform is perceived is to adopt a continuous learning approach and a self-improving platform based on the use SMEs provide of the tools. Therefore, this is considered to be the First Version of the platform and it is expected to improve in the structure and contents of the tools as well as in the number of tools that the platform will provide.

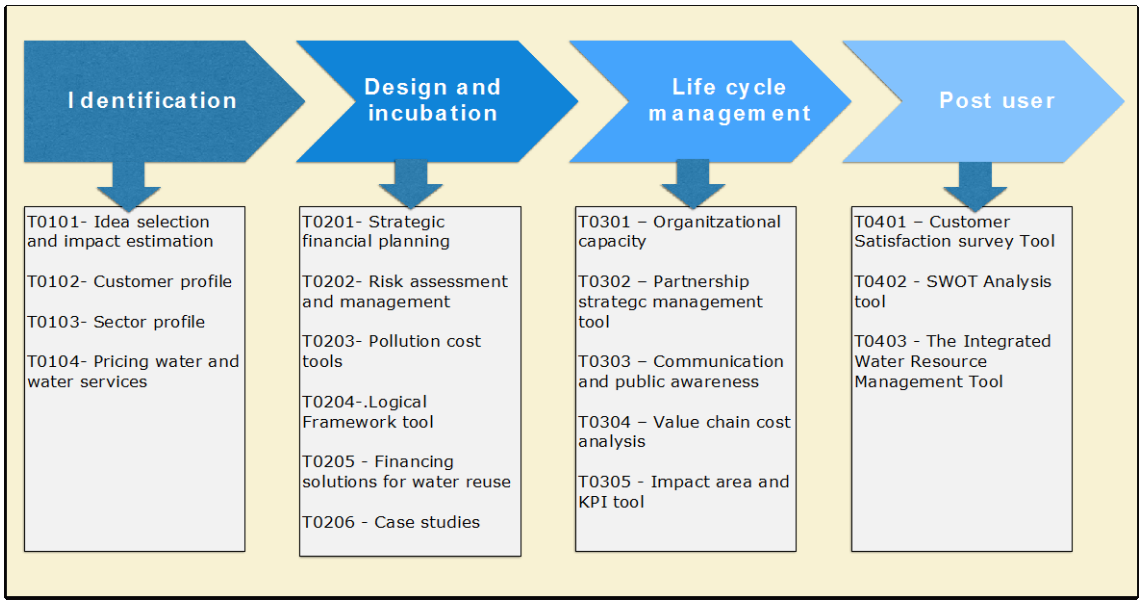


Figure 1 Summary of tools included in the online platform

It is expected that SMEs use the platform according to their needs, choosing the tools they find the most useful or basic versus the more advanced tools; choosing among the different areas of tools creating their own path of training, learning and improving their knowledge on the most natural way.

In conclusion, this toolkit (the present Tool Description Report and the online platform) aims to become a reference in the training of SMEs in the water reuse sector in Europe solving all the existing learning gaps in the sector and boosting those businesses to succeed in any market.

1 Introduction

1.1 Objectives of the report

The principal objective of T8.4 is to create an online knowledge platform tool form SMEs in the water sector with the aim of helping them incubate new projects and/or diversify the current ones, manage more effectively their business areas, as well as promote and accelerate the impact of their activities. Such objectives have been addressed by evaluating the methodological needs that SMEs of the water reuse sector have in different value chain areas, and designing a series of selected tools oriented to improve vision creation and idea selection, development of market insights, adapting product design and selecting more appropriate markets, improving access to finance, enhancing the partnership strategy and developing better business development monitoring and evaluation systems.

The specific tools designed in each one of the four key areas of the value chain have been the following:

Identification phase

- T0101 - Idea selection and impact estimation
- T0102 - Customer profile
- T0103 - Sector profile
- T0104 - Pricing water and water services

Design and incubation phase

- T0201 - Strategic financial planning
- T0202 - Risk assessment and management
- T0203 - Pollution cost tools
- T0204 - Logical Framework tool
- T0205 - Financing solutions for water reuse
- T0206 - Case studies

Life cycle management phase

- T0301 – Organizational capacity
- T0302 – Partnership strategic management tool
- T0303 – Communication and public awareness
- T0304 – Value chain cost analysis
- T0305 - Impact area and KPI tool

Post-user phase

- T0401 – Customer satisfaction survey tool
- T0402 - SWOT Analysis tool
- T0403 - Integrated water resource management tool

All tools have been programmed to be used through an online platform in an interactive way, programming automatic aggregation of results in visual format to ease the decision making process of SMEs. The website assigned for the use of tools is the following: www.knowledg-eonlineplatform.com (see Figure 2).

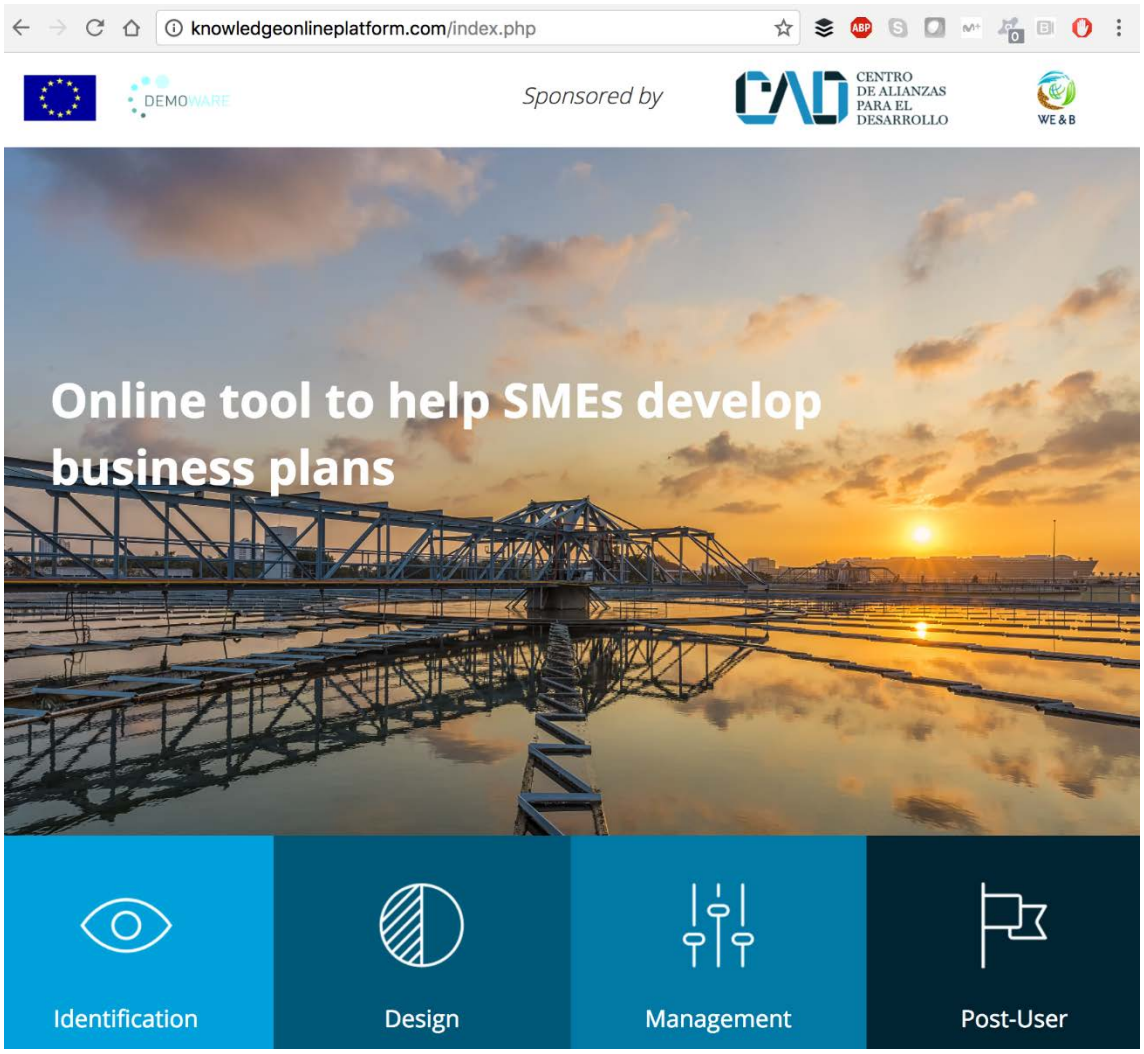


Figure 2 Knowledge Online Platform with the tools provided by Demoware WP8.4 outputs

The way this platform is perceived is to adopt a continuous learning approach and a self-improving platform based on the use SMEs provide of the tools. Therefore, this is considered to be the First Version of the platform and it is expected to improve in the structure and contents of the tools as well as in the number of tools that the platform will provide.

1.2 The importance of SMEs in the economy

SMEs play a key role in the European economy - not only in terms of services provided and goods produced (output), thereby adding to a countries' gross domestic product (GDP), but also in terms of job creation and social stability.

According to the European Commission's Annual Report on European SMEs 2014/2015, almost 99% of enterprises in the non-financial business sector are SMEs. The European SMEs employ 90 million people, representing 67% of total employment and they generate 58% of sector's value added of the non-financial sectors. The majority of SMEs (93%) are micro SMEs with less than 10 employees and about 75% of European SMEs are situated in the one of the following five sectors (European Commission, 2015):

- Wholesale and retail trade
- Manufacturing

- Construction
- Business services
- Accommodation and food services

When compared to the USA or Japan for example, it can be appreciated how EU has the largest number of SMEs (more than 22 million) and posts the highest level of SME employment among the three regions (European Commission, 2015).

In addition, EU Member States show a broad heterogeneity in terms of the contribution of SMEs to sector employment and value added. In contrast, across the 28 Member States, the SME sector accounts for between 99.5% and 99.9% of all enterprises in the non-financial business sector (see Figure 3).

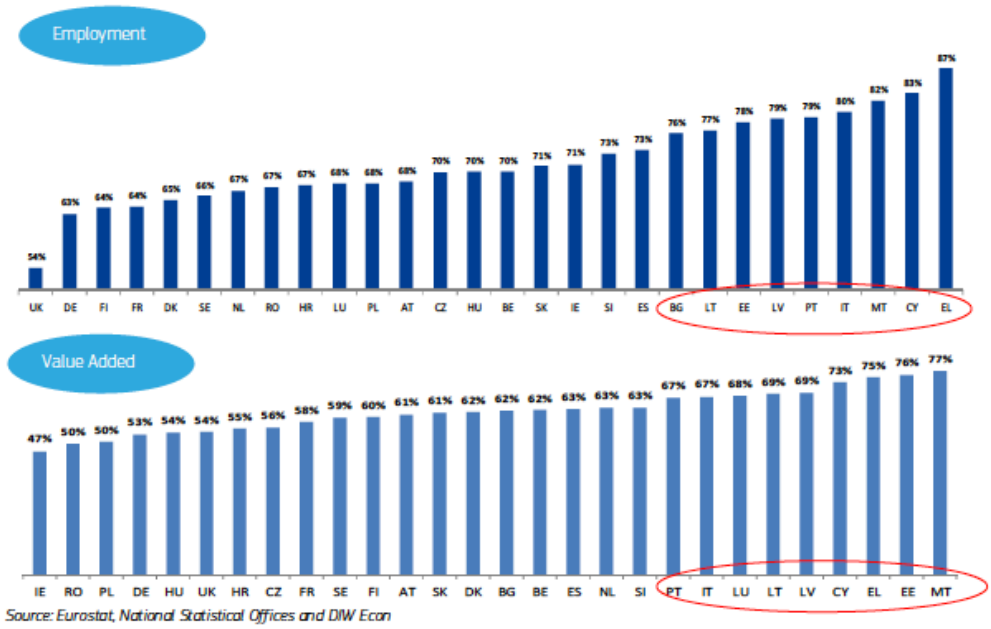


Figure 3 Share of SME employment and value added in total employment

On the other hand, it is relevant to highlight that while SMEs account for practically the same share of the overall number of enterprises in the EU Member States, the number of SMEs per EUR million of valued added generated ranged from 2 in Luxembourg to 27 in Bulgaria (Figure 4).

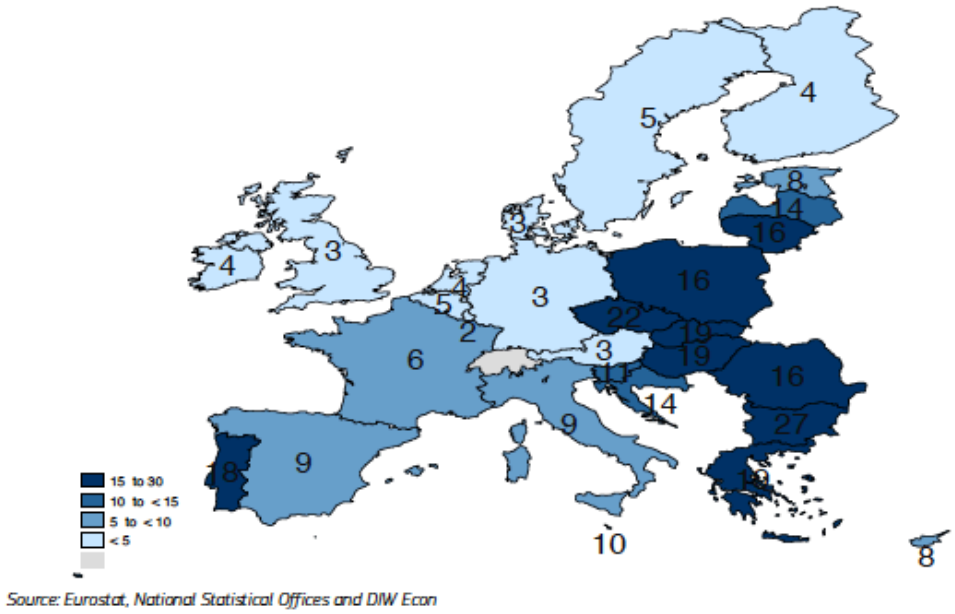


Figure 4 Number of SMEs per EUR million of value added in the non-financial business sector

1.3 SME's and their main characteristics

1.3.1 SME definition

The European Commission considers SMEs and entrepreneurship key to ensuring economic growth, innovation, job creation, and social integration in the EU. Although there are many definitions of what a small and medium-sized enterprises (SMEs) is, for this report we will use the specifications determined by the European Union (European Union, 2009).

According to the EU the main factors determining whether an enterprise is an SME are (see Figure 5) (European Commission, 2016):

1) staff headcount and
2) either turnover or balance sheet total.

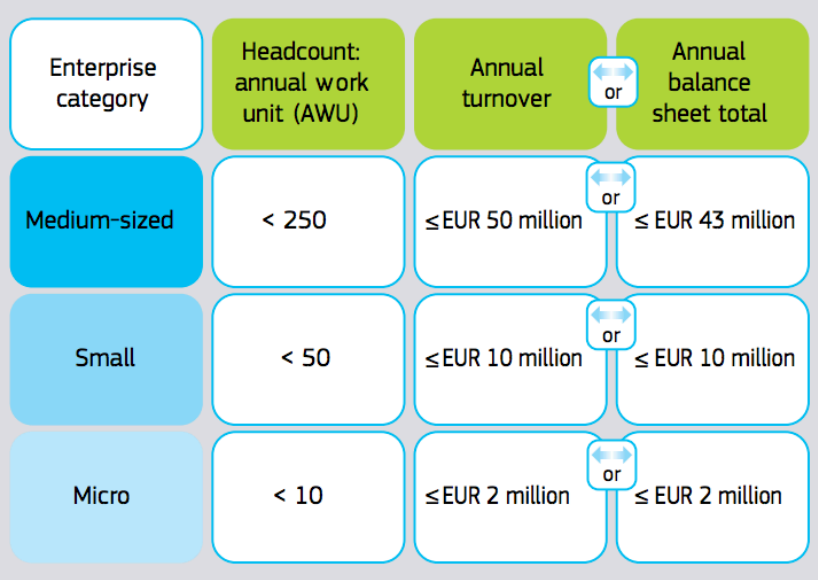


Figure 5 The Main factors to determine if a company is an SME
Source: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

Therefore, SMEs are defined as businesses which employ less than 250 staff members and have an annual turnover of less than EUR 50 million, and / or their balance sheet total is less than EUR 43 million. By comparing the characteristics of an SME with the thresholds for the three criteria, an enterprise can determine whether it is a micro, small or medium-sized enterprise by fitting in with the following three definitions:

- Micro-enterprises are defined as enterprises that employ fewer than 10 persons and whose annual turnover or annual balance sheet total does not exceed EUR 2 million.
- Small enterprises are defined as enterprises that employ fewer than 50 persons and whose annual turnover or annual balance sheet total does not exceed EUR 10 million.
- Medium-sized enterprises are defined as enterprises that employ fewer than 250 persons and either have an annual turnover that does not exceed EUR 50 million, or an annual balance sheet not exceeding EUR 43 million.

1.3.2 SME main characteristics

When working with SMEs it is appropriate to account for the main characteristics that define them. The most relevant ones are the following:

Technology & Product Landscape: The SME market landscape is becoming more complex as services (and providers) have evolved in recent years:

- Ecosystem participants are creating new SME programs.
- Infrastructure & access to technology are accelerating change.
- SME Ecosystem: The SME market is supported by many stakeholder groups that approach the market in many different ways:
- Financial Institutions
- Other Industry Players
- Development Organisations
- Governments

- NGOs

Variables & Segments: SME presence and development needs vary by three factors:

- Maturity – SMEs have specific needs related to their size, demographics & growth ambitions.
- Region – SMEs in emerging markets have the biggest gaps.
- Industry – SME requirements & support differ by industry.

Access to Finance & Capital: SMEs are frequently in need of access to financial products (such as deposits and loans) and financial services (such as insurance and equity products). The lack of financial access limits the range of services and credits for companies, jeopardizing the benefits of accelerating economic growth, intensifying competition and boosting demand for labor.

Some of the key constraints on SME access to finance are the following (OECD, 2016):

- SMEs are regarded by creditors and investors as high-risk borrowers due to insufficient assets and low capitalization, vulnerability to market fluctuations and high mortality rates.
- Information asymmetry arising from SMEs' lack of accounting records, inadequate financial statements or business plans makes it difficult for creditors and investors to assess the creditworthiness of potential SME proposals.
- High administrative/transaction costs of lending or investing small amounts do not make SME financing a profitable business.

While microfinance has addressed some SME capital needs, remaining financial gaps are increasingly tied to information and education for both SMEs and Financial Institutions (FIs).

Access to Markets & Networks: The progressive globalization and easiness at having access to new international environments for SME exports had broaden the opportunities for companies and the process of world economic integration has involved a broadening and deepening of interrelationships between international trade and foreign investment flows. In fact, access to markets and networks increases opportunities and provides a global pool of new technologies, skills, capital, markets and hence faster export growth and profits than ever before.

However, this implies SMEs have to adjust also to higher standards, a more competitive environment and several new challenges related to international taxes, prices and competitive conditions. Technology and private value chains are changing how SMEs identify and engage with customers. Furthermore, government policies are currently struggling to account for digital businesses.

Skill Development & Workforce Management: SMEs also face continuing challenges to developing and maintaining human resources. Given the economies of scale and structural capacities of SME constitution, training & skills development of employees is significantly lower in SMEs than in large enterprises and SMEs often find it difficult to support formal learning activities due to their small size. General SME capability and capacity inform a SME's ability to access finance and markets; while more learning resources are available, the skill gap is still growing.

Technology & Infrastructure: Infrastructure investments, such as the ones related to transportation, telecommunications, energy, water and sanitation, enhance SME activity and it's considered essential to enhance the ability to access local, regional and global markets. Furthermore, the quality of available infrastructure has a significant and direct influence on SME competitiveness and its bad quality or poor management affects dramatically its business (via power cuts, roads swept away by floods, absence of port and railway facilities or technological obsolescence).

Therefore, SMEs are confronted with a unique set of issues compared with other enterprises. One of the main issues is market failure. SMEs normally face failures in the market they operate within while competing with other players. Such failures occur in areas such as finance, research, innovation or environmental regulations. Furthermore, they also tend to face further barriers that they have to overcome, such as the lack of management and technical skills, rigidities in labour markets or a limited knowledge of opportunities for international expansion.

In general, the challenges SMEs face are manifold, where the most relevant ones are the following:

- Adherence to the legal framework: SMEs struggle to adhere to the often complex legal framework such as environmental regulations, taxation, local labour law, etc.
- Limited financial resources: SMEs have only limited financial resources available. Hence, they have to use their resources wisely. As a consequence, activities, especially the ones that do not generating direct revenue, are often left behind. One such activity is research and innovation – an area highly important for further development and growth for a business venture.
- Lack of knowledge in business management: Many SMEs are missing the necessary skills, especially with regards to business management – e.g. managing your finances, managing expansion, etc. Due to limited financial resources, they are often not able to invest in the required resources.

2 Analysis of SMEs from the water reuse sector in the EU

2.1 Introduction

Globally around 1.2 billion people face conditions of water scarcity, defined by the UN as less than 1000 m3 per capita per year (UN-Water & FAO, 2007). Although Europe may have been seen as a relatively water secure region, many countries are in a state of water stress, dealing with less than 1700 m3 per capita per year (Bixio et al., 2006). Climate change coupled together with population growth and water mismanagement is set to exasperate the problem of water stress, not just in Europe but globally.

To combat this problem, water reuse presents a viable and relatively cheap alternative to augment European water resources. Water reuse also presents a viable business opportunity for water companies and especially SMEs targeting the water reuse sector. Water reuse contributes to the broader water sector, which is a key component of the EU eco-industrial landscape. According to the European Commission, the world water market is growing rapidly, where it is estimated to reach 1 trillion € by 2020 (European Commission 2012). For this reason, water reuse also encompasses significant potential in terms of the creation of green jobs in the water-related industry, where it is estimated that a 1% increase in the rate of growth of the water industry in Europe could create up to 20.000 new jobs.

At present, around 1 billion cubic meters of treated urban wastewater is reused annually in Europe, which accounts for approximately 2.4% of the treated urban wastewater effluents and less than 0.5% of annual EU freshwater withdrawals. However, the potential for reuse in the European member states is much higher, estimated to be around six times the current volume at 6 billion cubic meters. Southern and Northern European members states present huge potential for further uptake of water reuse schemes due to their increasing water stress.

However, barriers to the uptake of water reuse schemes are numerous with one of the main barriers as identified by the EIP Water as the diffusion of innovation including the widespread reluctance of water utilities to trial new technologies (EIP Water, 2014). This is partly because of their heavy investment in existing, long-lasting technologies, with maintenance or renovation of this equipment claiming a large portion of current budgets (Krozer et al., 2010; EIP Water, 2014). Other barriers include a high cost of installing new technologies, a particular problem for small or medium sized enterprises (SMEs) (Science for Environment Policy, 2015).

According to the EIP Water (2014), many SMEs are innovative and develop excellent products and services. In their innovation process when a prototype is developed they are often confronted with a lack of financial resources for further development, customization, demonstration and commercialization. Due to little or no access to funds, R&D programs or other financial resources, and therefore further development, stops.

Compounding this problem for SMEs is that water treatment companies that are implementing water reuse schemes often do not price their product correctly and therefore cannot turn a profit which allow them to invest in new products, processes or technologies that innovative SMEs are producing. Therefore water pricing presents a further barrier to the uptake of water reuse where effective water pricing can stimulate new innovations if it reflects true financial, environmental and resource costs (Hrovatin & Bailey, 2002).

The DEMOWARE tools will aid the water reuse sector in Europe, and especially SMEs, to overcome these barriers. The DEMOWARE tools help to envisage "what if" scenarios, market strategies, financing options, sustainable water reuse prices, amongst others that remove certain risk in the implementation of water reuse schemes in Europe.

2.2 Surveying the European Water Sector SMEs

In order to design the online tool platform for SMEs, CAD performed an in-depth survey to understand the needs from the potential target audience (SMEs and corporations). The survey was sent to a total of 80 companies within Europe and 20% of them replied (a total of 16 companies from different European countries). The results from the survey analyses have been described based on a) sector representativeness; b) information about the companies: mission, main products and customers; and c) analysing the engagement of companies through the Business Model Value Chain.

2.2.1 Sector representativeness

The SMEs represented in the study are from the sectors related to wastewater treatment and management (see Figure 6).

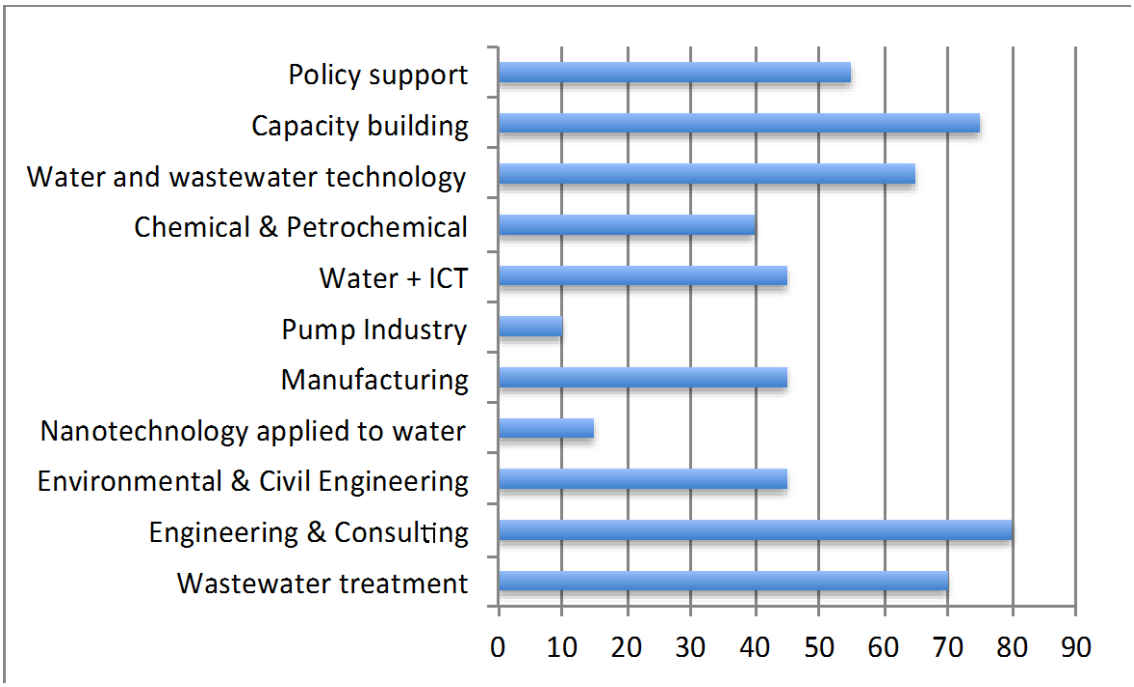


Figure 6 Main sectors represented by companies engaged in the study (%)

Among the companies selected, half of them were recently set-up, indeed 50% were created after 2010. However, around 25% were created before 1990, with 12% before 1900 (see Figure 7).

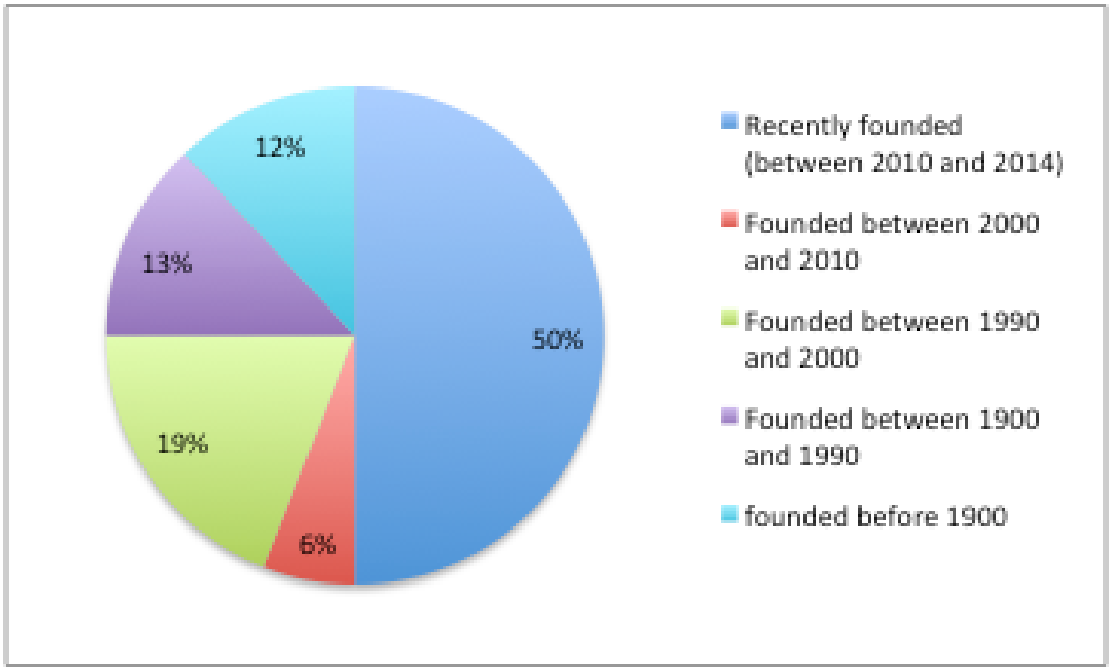


Figure 7 Year of formation of the companies surveyed

Based on the type of organisation and the type of constitution we observe that 93,8% of companies are 100% private companies and the rest (a total of 6,7%) are public-private companies (see Figure 8).

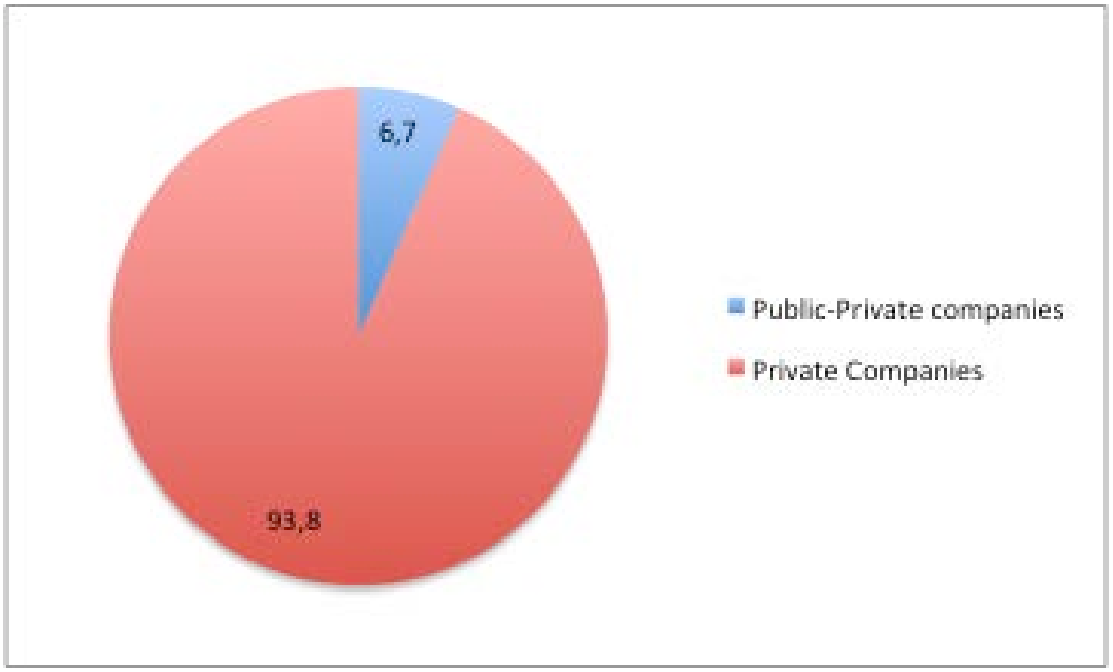


Figure 8 Private and public constituencies of companies analysed

Furthermore, in relation to the SME size according to the number of employees, around 60% have 50 employees or less, and are therefore considered at the lower range of the SMEs, and 18,8%

have more than 500 employees, who according to the European Commission definition are not considered to be SMEs formally (see Figure 9).

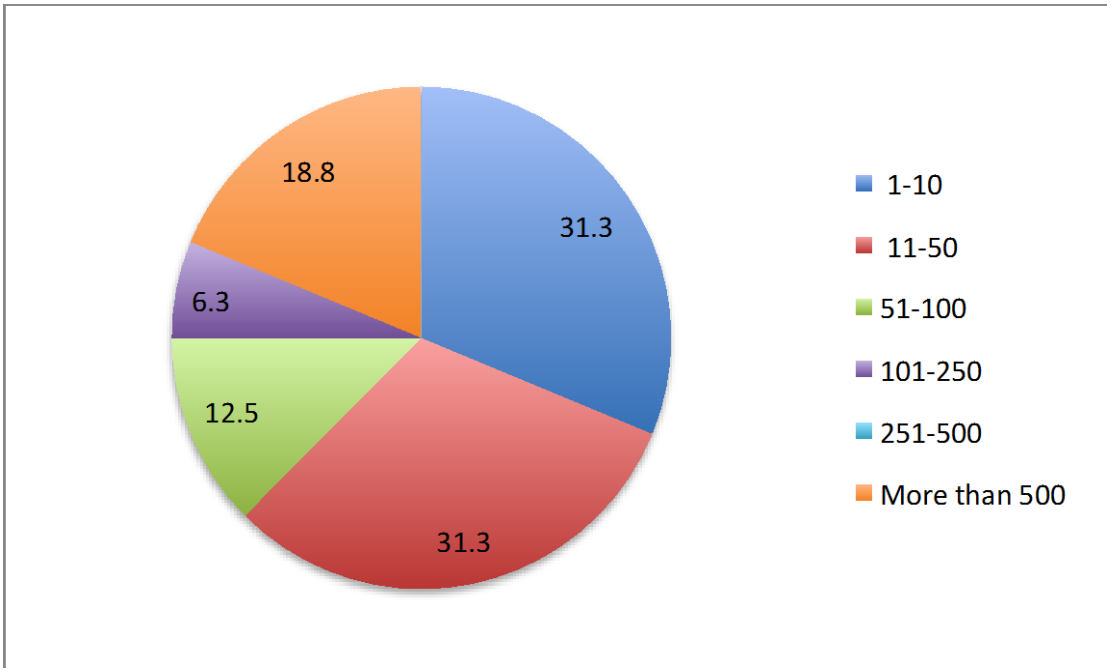


Figure 9 The Number of Employees for each of the companies analysed

In relation to the annual turnover, 46,7% of the companies surveyed had a turnover less than 1 million euros, while 20% had a turnover of more than 25 million euros (see Figure 10).

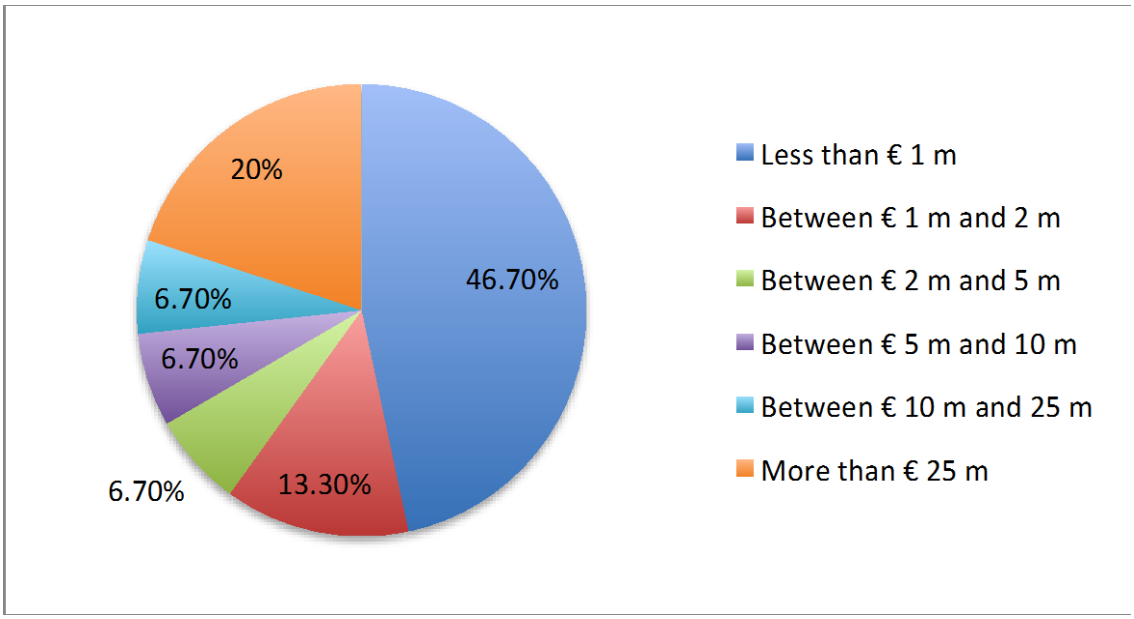


Figure 10 The Annual Turnover of Companies Analysed

In terms of the countries where the companies undertake their business activities, most companies work within and outside Europe (a total of 75%) while 12% work only inside Europe (see Figure 11).

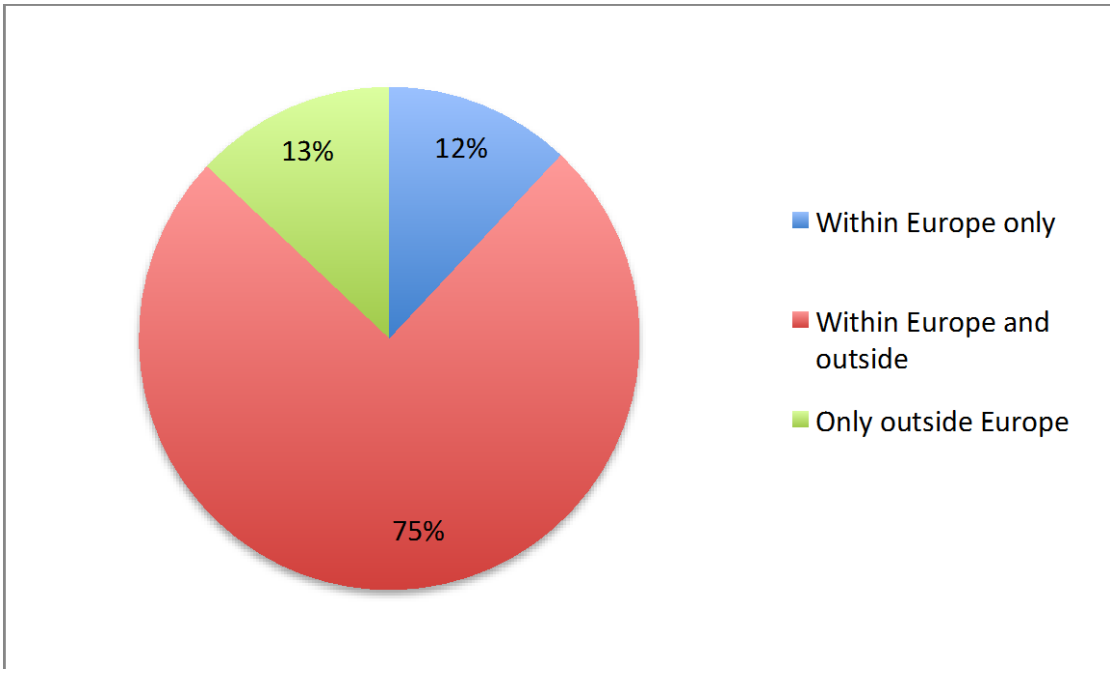


Figure 11 Regions of business activities of companies analysed

2.2.2 Information regarding the companies: Their mission, main products and customers

Regarding the company's missions: Most of the companies see their mission with regards to the bigger picture and their goal is to provide sustainable solutions for the world´s growing water demand and the growing water shortage. Some companies focus on optimizing their specific product/service, such as capacity building or pump manufacturing.

Regarding their main products: The main products provided by the companies analysed are:

- Technology providers to wastewater treatment plants
- Researchers to develop new technologies for the water sector in general
- Providers of consultancy services, which included feasibility studies, capacity building, project development and project management for water projects in general.

Regarding their main customers in the sector: The most common principle customers of the companies analysed are:

- Public administration and private companies
- Utility companies, wastewater treatment plant owners and operators (public & private)
- Water Engineering Firms, Industrial Wastewater Producers
- Innovation providers
- Products/services for different industries (aviation, mining, energy, infrastructure, etc.)

2.2.3 Analysing company engagement through the Business Model Value Chain

When considering the analysis of companies and their relation to the business model value chain, the following strategic areas have been considered for the study:

- Potential areas/phases of the value chain for the business model where companies need more assistance

- Structure of funding activities in different phases of the value chain
- Tools and methodologies for business model innovation used by companies
- Analysis of new tools used by companies

Concerning the potential areas and phases of the value chain for the business model, companies have stated the areas where they would need more assistance in the exploration and identification of future markets (of Phase I of the value chain, product research and development); both areas of Product Development of Phase II (development of products and services and procurement and supply chain); as well as the distribution strategy and post-user services framed under the third phase of the value chain (see Figure 12).

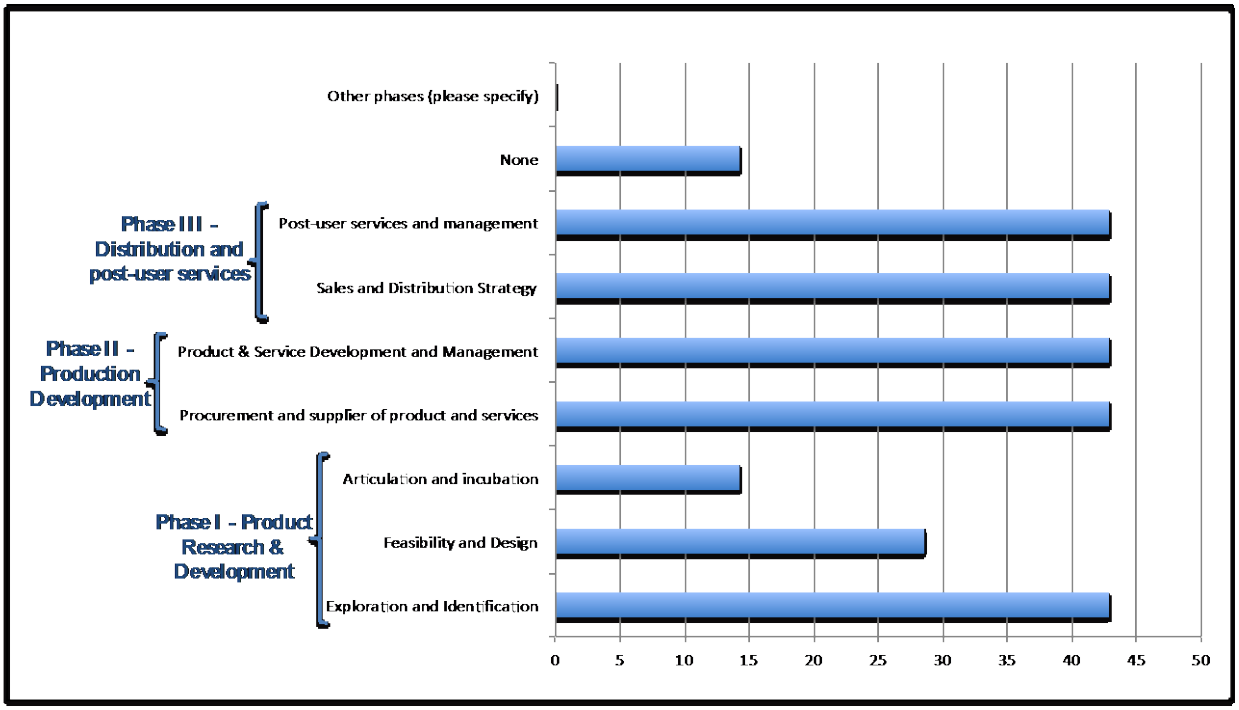


Figure 12 Areas of the value chain where companies have expressed need for support (%)

In terms of funding, the funding structure companies use to develop projects and services is mainly through self-funding (a total of 70%), combined with international funding programs (60%) and public funding from national and local governments (see Figure 13).

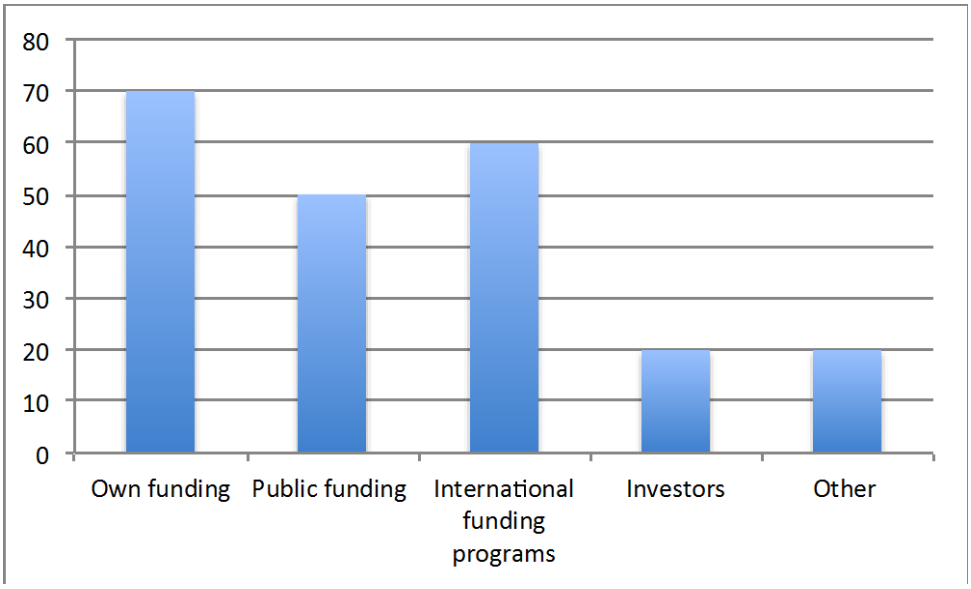


Figure 13 Funding structure of projects by companies (%)

In relation to tools used by companies for the Business Model Innovation, companies have expressed to know and use the following tools (see Figure 14).

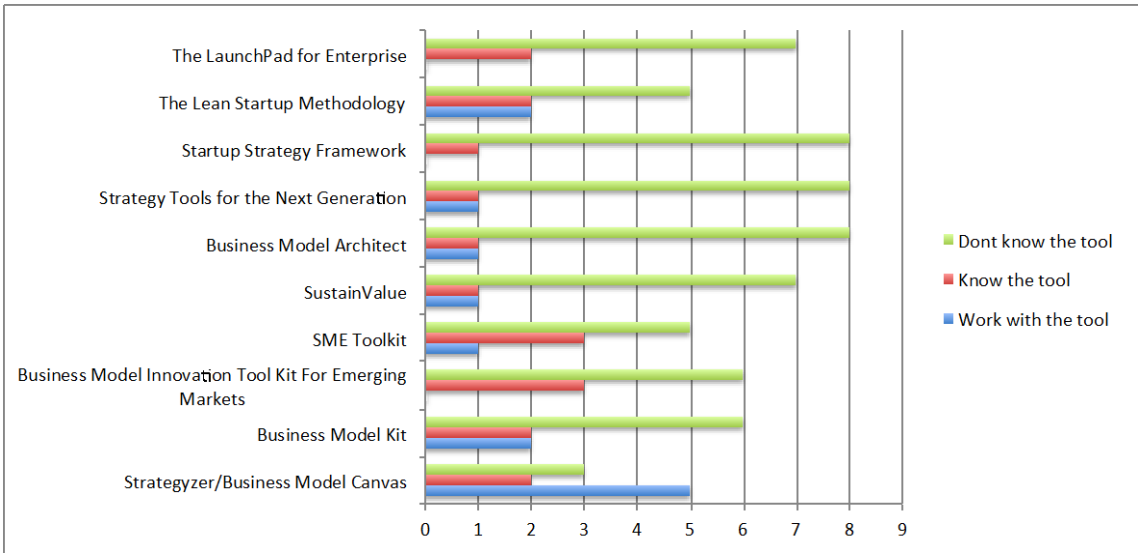


Figure 14 Degree to which companies have expressed to use the tools analysed

2.3 Conclusions on SME tool and methodological need analysis

Given the challenges that SMEs face, there is a need to provide tools through an online platform that contain readily available and easy to access management systems. These tools would provide the required assets to a valuable source of information for SMEs and a source of knowledge generation and management oriented to improve their life cycle value chain. After a thorough research of SMEs and academic experts, four main drivers stand-out as key factors that will enable SMEs to become more successful in an ever increasing competitive environment:

Driver one - Enable a partnership strategy with the ecosystem: In an international marketplace dominated by large corporations, local partners can help SMEs compensate for their lack of size.

According to a survey performed by Oxford Economics, more than half of the SME respondents (out of 2,100 surveyed) are forming partnerships with local suppliers outside their borders, and they are driving innovation and growth by collaborating via online business networks and platforms. Therefore, as the conclusions of the report states, partnering appears to pave the way to success on the global stage, as more than two-thirds of both the largest and most profitable SMEs are engaging in these deals.

Driver two - Leveraging technology for competitiveness: It is clear the important role technology plays in SME success on the global stage. As stated in the Oxford Economics survey, nearly one-third (32%) of surveyed SMEs identified increase their competition from firms with superior technology capabilities as a key challenge, and a similar number pointed to the difficulty of determining the right mix of technology investments.

This evidence helps explain the strong focus of SMEs on business management software (BMS) and knowledge management platforms (KMP). Half of all surveyed respondents of the Oxford Economics survey actually listed BMS as a top investment priority, well ahead of the next biggest priority, analytics (43%) (Oxford Economics, 2013). As the survey concludes, this indicates a recognition among SMEs that they must establish a strong technology foundation if they are to sustain global growth.

Driver three - Enhancing market expansion: As the European Commission's Directorate General for Enterprise and Industry website states, "SMEs need to be able to confront increasing competition from developed and emerging economies and to plug in to the new market opportunities these countries will provide (European Environment Agency, 2010)." It's apparent that access to markets is a priority for SMEs across geographies and industries. Regardless of the sector focus, having access to global markets is essential to acquire the scale and dimension needed for long-term success. In order to excel in these competitive markets, it will be necessary to embrace transformation and innovation on the whole business life cycle.

Driver four – Excelling in business development: SME managers today have to navigate in a complex world obliged to make daily decisions that will affect every aspect of their management. In order to do this they need to understand the different KPIs of the firm and what are the major aspects that affect its development. Adopting an integral perspective on all factors and having a holistic view on business indicators is therefore crucial for managing the business successfully.

A number of products and programs target the SME ecosystem providing tools and business management methodologies to provide solutions that one way or another affect the four main drivers described. These normally fall into two main categories: learning and network/access focused (see Figure 15).

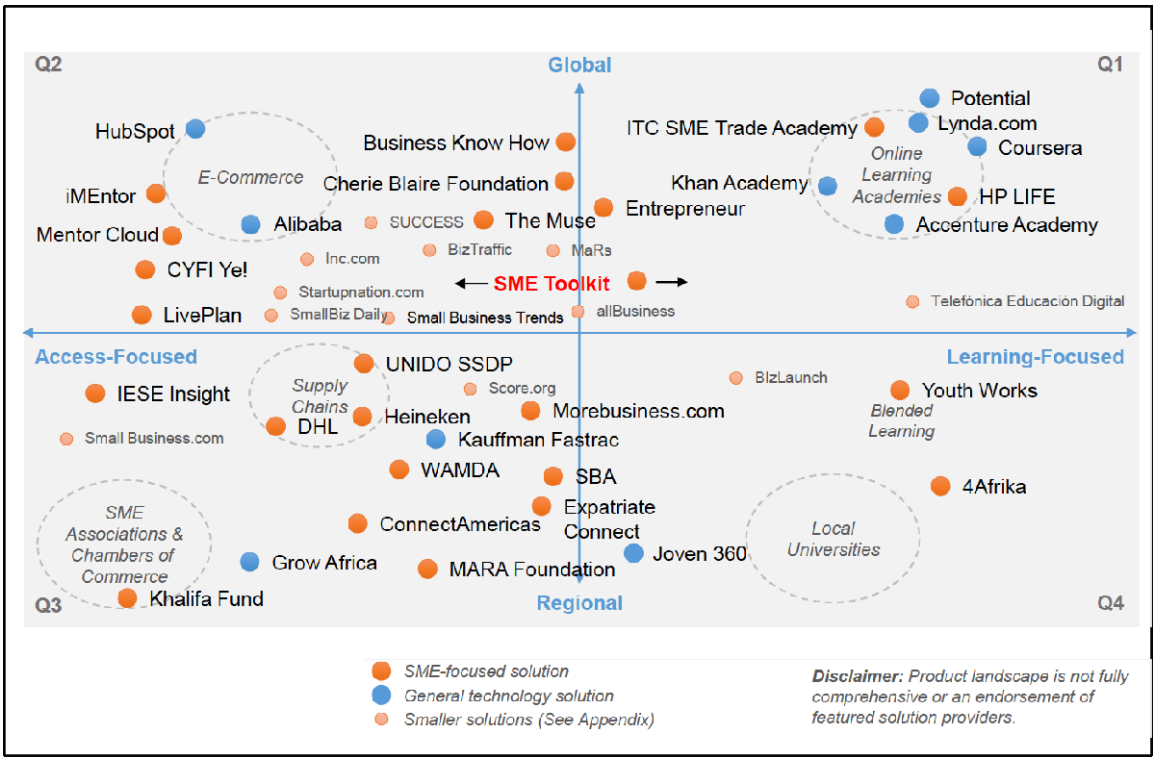


Figure 15 SME knowledge management ecosystem (Source: IFC-SME Toolkit (2016))

However, none of these online platforms provide specific tools that address the entire value chain of SMEs in the areas of identification, design, life cycle and post-user approach.

3 Description of the tools

3.1 Methodological description of tools designed

Therefore, the key objective of this Tool Description Report is to guide entrepreneurs and SMEs that would like to improve and increase their business in the water reuse sector. Given that the aim is to help entrepreneurs and SMEs, we have adopted a results-based approach, taking into consideration the final user.

This Tool Description Report serves to achieve the following goals:

- To determine the best way to meet the needs of SMEs, while taking into consideration the economic, environmental and social impact.
- To facilitate implementing a feasible business idea
- To assist Water Managers and SMEs that are looking to implement a new water reuse scheme.
- To help Water Managers and SMEs to gain a greater understanding of the financial gaps they face and the financing options open to them.
- To facilitate strategic planning and project management, while gaining an understanding of the organisational capacity gaps.
- To gain insights into water reuse schemes already in use around the world

Obtaining the above-mentioned goals requires a clear and systematic methodological approach. The tools presented in this Tool Description Report were designed and determined through an in-depth analysis of available reports on SMEs and the water reuse sector, recent publications from the European Commission, and other primary and secondary research on key issues affecting SMEs in Europe.

To ensure that entrepreneurs improve their competitiveness in the water reuse sector we present 18 tools designed to support SMEs in each one of the proposed phases: identification; design and incubation; life cycle management; and post user (see Figure 16).

This division helps to apply an integrated and innovative management model addressing issues such as validation of the idea, to the creation of satisfaction surveys, or the creation of a logical framework matrix, among others.

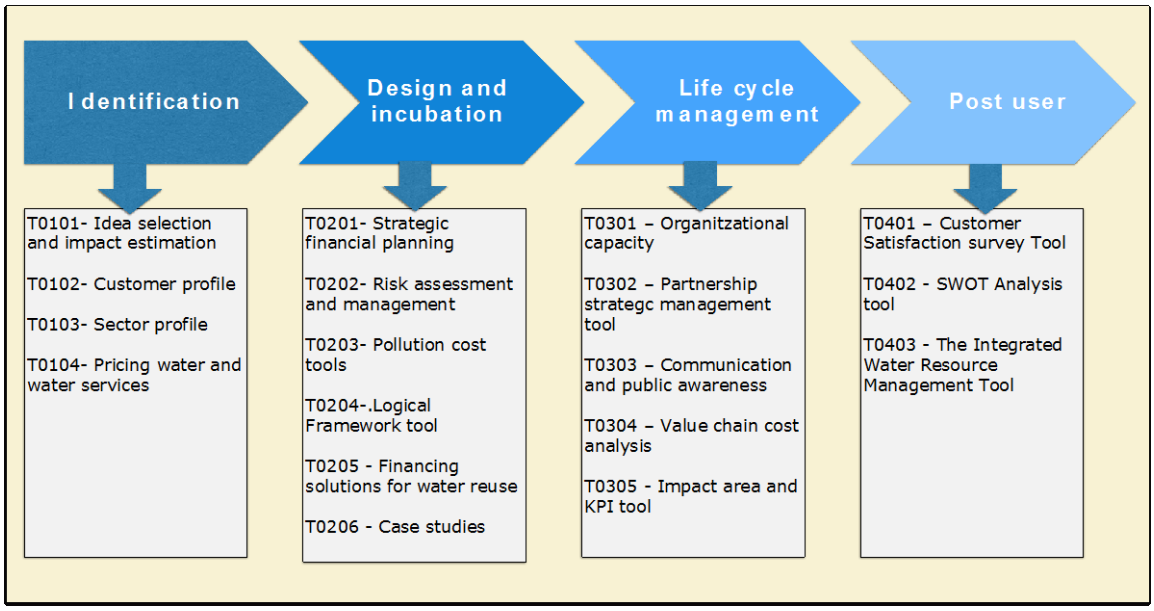


Figure 16 Overview of the Tools to Strengthen SME Competitiveness in the Water Reuse Sector

3.2 Identification

The objective of the identification phase is to ensure adequate planning for the project or for a business initiative. This phase takes place at the beginning of the entrepreneurship phase, when possibilities are to be explored and decisions need to be made on whether the initiative will take place and what would be the next phases of implementation.

Consequently, it is needed to check the feasibility of the project, but also to ensure that the company is on the right track concerning its social impact. For SMEs directing their products to the water reuse sector, impact is a key issue, and therefore, the identification phase and the exploration of its viability is a critical factor. The tools presented in this phase will help prevent the development of false expectations of the impact and resources needed for the initiative. Many misunderstandings and frustrations arise because parties involved in the projects fail to take the identification phase sufficiently into account.

SMEs have limited resources and thus, it is necessary to be very selective on the endeavours to be assumed as they can deviate the organisation from its core business and jeopardize its development.

Therefore, in this first phase of identification, SME managers need to ensure that the idea proposed is viable and worthwhile developing. It is important to make a conscious decision prior to embarking oneself in developing the business entrepreneurship.

Questions that need to be addressed to acknowledge the validity of the initiative would be the following:

- Q1 - Do you have a business idea that is worthwhile exploring?
- Q2 - What do you want to achieve through your initiative (economic profit, social impact, environmental compensation, etc.)?
- Q3 - Are you knowledgeable of potential markets and clients you want to access?
- Q4 - What kind of added value and level of product/service differentiation has your initiative in comparison with the competition?
- Q5 - What would be the costs associated to implementing such business initiative?

In addition, it is important to acknowledge that the development of the project needs to be based on a thorough understanding of the ecosystem and the possibilities it provides. In this regard it is vital to ensure that the project fits the customers' needs and the company's expectations.

When exploring such viability, it is also needed to determine the information required to be collected to reach the objective and how such information will be collected and analysed. Generally speaking, there are three main types of information gathering:

- Primary Research: Data collection process carried out to acquire data first-hand, rather than through published sources.
- Secondary Research: Research based on secondary data analysis of published sources.
- Combined Research: Research process described as developing combined research analysis, primary and secondary.

Through primary market research the data is collected from its source by asking customers and competitors directly or by organizing focus groups to develop first hand data gathering process from combined groups that have specific expertise.

In order to help SME managers make such decisions, the following identification tools have been provided:

- T0101- Impact estimation: The objective is to facilitate users to come up with a mature and feasible business idea. This tool will be useful for selecting an idea and estimating its impact from a personal perspective. A good business idea is crucial for success when embarking on a new project.
- T0102- Customer profile tool: The objective is to define and identify an ideal customer profile.
- T0103- Sector profile tool: This tool is used to enable users to know their most suitable client for their product or service and the best market in which to set it up.
- T0104- Pricing water and water services tool: This tool aims to assist on the one hand wastewater treatment managers that are looking to implement a new water reuse scheme, while on the other hand it offers assistance to SMEs with new products and services they would like to sell in the water (reuse) sector.

3.2.1 T0101- Impact estimation tool

Objective	To facilitate the user to overcome self-confidence barriers to inclusive business with a mature and feasible business idea that helps to properly define the goals to set up a new SME.
Target group / Users	Anyone interested in starting a new project / SME in the water reuse sector
Description	
This tool will help practitioners in the water reuse sector and entrepreneurs and SMEs interested in starting a new project to select an idea and estimate its impact. A good business idea is crucial for success when embarking on a new project. However, we usually forget to evaluate the efficacy of the idea in terms of its impact on the business ecosystem. An idea could be unique and well planned and even this could not be sufficient as the predicted generated social impact is not what is desired. One of the principal objectives of	

the water reuse sector is to provide environmental, social and economic benefits, therefore evaluating an idea in terms of its impact is indispensable.

The aim of this tool is to select a business idea and to evaluate the level of effort needed to develop it. To use this tool, the company should have a few ideas in mind as it will help to select an idea from your list, this tool, however, is not helpful to come up with ideas. The tool is set-up in 3 phases.

The 1st Phase: Setting impact goals

An idea needs to be selected first to be certain of what the company would like to achieve. In order to understand what the company wants it is important to set the priorities, if the priorities are not set, the easiest option tends to be followed, which is not necessarily the best for the companies' interests. This first phase will help the user to select the business areas and the social challenges they aim to focus on. Therefore, users are required to define their most relevant business areas, and to define the social challenge that they are targeting. The second stage is to prioritise the selection and to come up with the most important areas/social challenges.

The 2nd Phase: Selecting an idea

Continuing with the results of the previous phase, the user will develop the ideas that will contribute to enhancing the main social challenge or business areas identified in the first phase. First, users are encouraged to brainstorm their ideas, the tool can be used with a preselected idea, however the user is encouraged to make every possible effort to come up with between 5 to 10 ideas. The second stage of the phase is to prioritize the ideas according to their potential impact. To do that, users will evaluate the ideas regarding their potential impact on the preselected economic drivers and social challenges. Users will conclude this phase with 3 ideas that will contribute to enhancing the previously selected economic drivers and social challenges.

The 3rd Phase: Idea validation

The implementation of an idea will have impact on certain aspects, such as the environment, oblige users to engage in certain personal activities, and will require many resources that users must evaluate. The three main ideas that user choose will be evaluated in terms of their Ecosystem Impact (society, customers, employees, investors, environment and personal) and their Resource requirements (human resources, economic, infrastructure, communication and knowledge). At the end of this phase, the user will be provided with a full picture of each and every one of these selected ideas.

How does it improve the decision-making process?	The tool allows users to come up with the most relevant business areas and social challenges by themselves and shows the main factors to be considered for the business plan development. At the end of the process, users will be able to make a decision regarding the significance of their ideas based on reason and facts. One of the main added values of the tool is that the evaluation of the ideas is undertaken through integrating emotional aspects, which help to implement the idea in the future in a more effective way.

Core aspects and added value of the tool

- Brings social and economic impacts of the business to the forefront of business idea selection.
- Allows the user to test ideas according to impact and resources required and to select an idea according to these parameters.
- Incorporates emotional aspects to the decision making process

3.2.2 T0102- Customer profile tool

Objective	To define the ideal target customer for the business in order to properly define the objective client.

Target group / Users	Anyone interested in start a new project/SME

Description

Identifying a target audience of consumers is among one of the most crucial elements for a new business to consider. Without knowing the target market, the company cannot realistically expect the business venture to be a success. Furthermore, business owners who learn how to identify target audiences of consumers stand a better chance of convincing investors to support them. Learning to distinguish between different audiences makes it easier to determine what segments of consumers truly support your business and whether they are going to become more than "one-purchase customers".

SMEs cannot afford to target everyone. Small businesses can effectively compete with large companies by targeting a niche market.

Targeting a specific market does not mean to exclude those ones that do not fit the company criteria. Rather, target markets allow the company to focus on marketing policies and actions on those specific customers who are more likely to buy or use the offered products and services from the SME instead of the ones of the competence. Through targeting specific markets, the user finds a much more affordable, efficient, and effective way to reach potential clients and generate business.

Therefore, this tool aims to offer to any practitioners of the reuse water sector or anyone interested in starting a new project, a guide to define and identify an ideal customer for its product/service. This tools is broken down into 2 phases.

The 1st Phase: Define your ideal customer

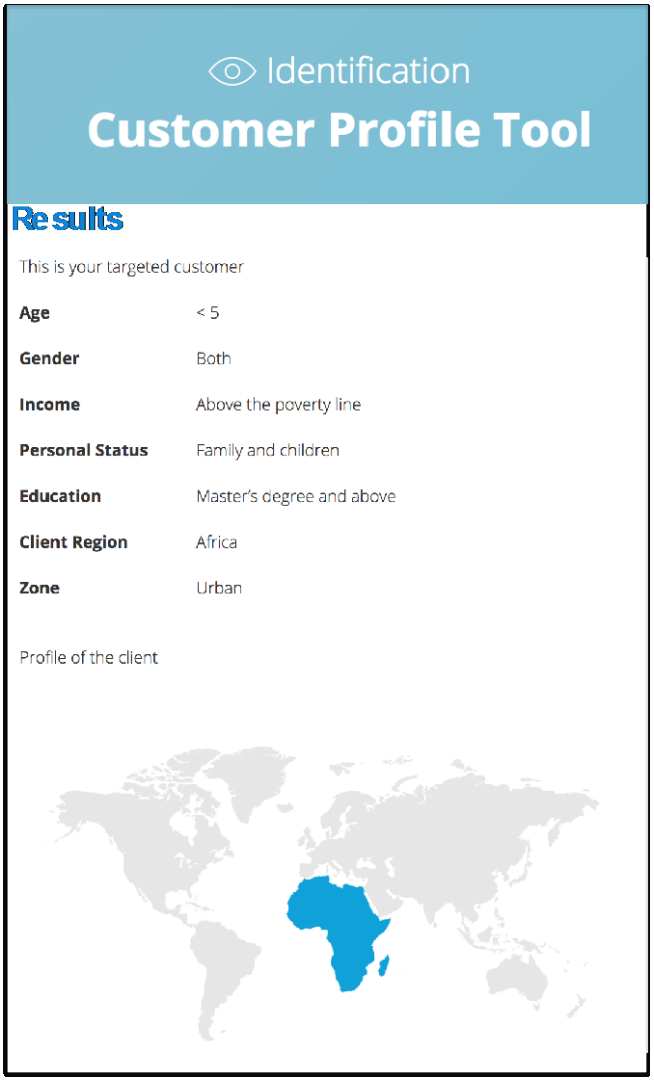
Understanding the customer as the person or entity that receives or purchases goods or services from another, the user defines its customer profile by answering questions related to age, income, personal status or region. Firstly, the user distinguishes between businesses as a client, business to business (B2B) or an individual, business to consumer (B2C).

As an individual, the user shall define the main demographic, geographic, social and economic features of its ideal target customer. These include the following:

- Age
- Gender
- Income
- Personal status
- Education
- Region
- Zone

In the case that the user would like to focus on B2B, the features required to be defined are:

- Size of the business in terms of the number of employees
- Size of the business in terms of sales revenue
- Region
- Business focus
- Standard Industrial Classification (SIC)



The 2nd Phase: Results and research

The user will be able to come up with a picture of the ideal customer profile with specific links / databases where they can drill down and investigate more about its ideal customer. This aids in knowing the possibilities, the number of targeted population and therefore the realism of the selection.

How does it improve the decision-making process?	The tool allows users to come up with relevant information about the ideal customer and several links to useful information.

Core aspects and added value of the tool

- Provides crucial links to information of customer profiles
- Allows the user to identify their possible target customers and to take into consideration the main features of its future client.

3.2.3 T0103- Sector profile tool

Objective	To analyse and discover the best client and market to develop an idea
Target group / Users	Anyone interested in starting a new project/company
Description	

Good research into the business's industry, competitors and market is needed to get a complete understanding of the playing field. Knowing and understanding in detail what is going on in the industry helps to define the factors that are hurting and helping the entire industry and therefore can also impact on an individual business. These external factors cannot be controlled but how a business responds to them can be.

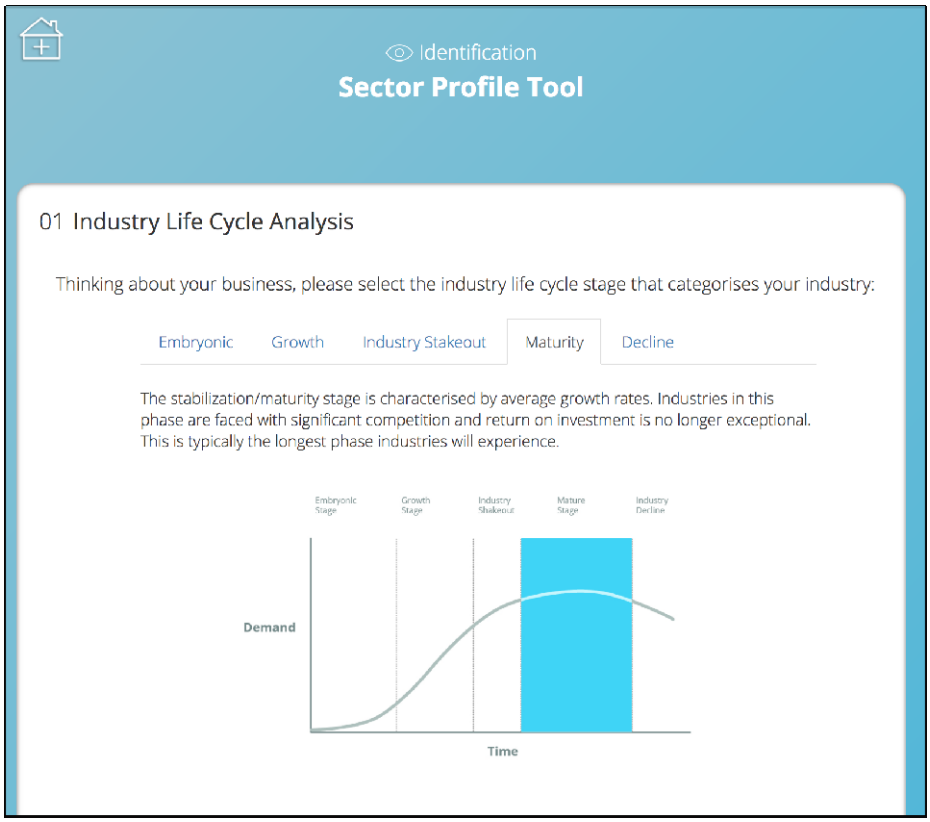
Everything in the sector that happens outside of the business will affect the company. New competitors, new technological advances, a rise in the price of raw materials, changes on the industry legislation...The more the manager knows about the industry, the greater advantage and protection the company will have. The aim of this tool is to give the user an idea of the situation of its business within its sector.

Industry Life Cycle Analysis

The user will need to think about the tendency of the market and to select the state of the life cycle they believe that the industry is in.

The industry life cycle represents the stages that an industry goes through while during its lifecycle in the market:

- Embryonic: This stage is characterised by low demand for the industry's products and significant start-up costs. Industries at this stage of the life cycle are typically start-up companies, with substantial upfront costs and limited sales revenue.
- Growth: The growth stage is characterised by few competitors and rapidly growing sales revenue. Industries in this phase have typically survived the challenges of start-up and are now beginning to achieve sales growth.
- Industry Stakeout: This stage is still characterised by above average growth, but the growth rate is no longer accelerating. Industries in this phase are now faced with increasing competition resulting in the erosion of profit margins.
- Maturity: The stabilization/maturity stage is characterised by average growth rates. Industries in this phase are faced with significant competition and return on investment is no longer exceptional. This is typically the longest phase industries will experience.
- Decline: The decline phase is characterised by declining growth as demand shifts to other substitute (new) products.

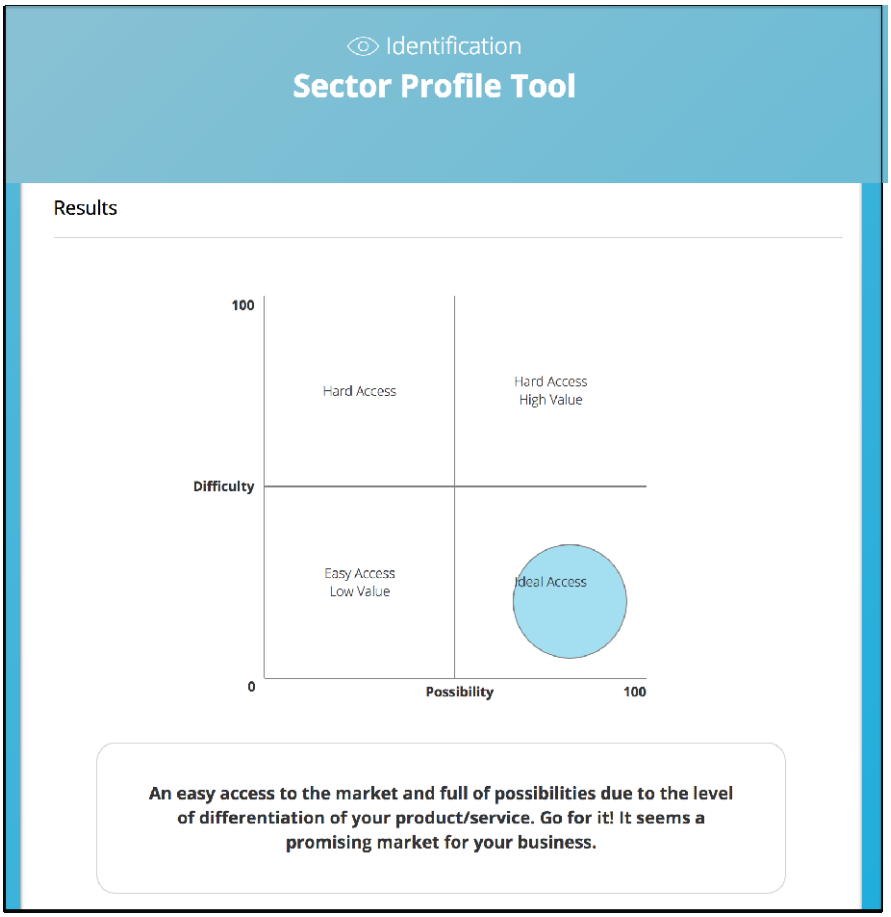


Market Access

The user evaluates the access to their market by rating from 0 to 10 (0 being no differentiation/easy and 10 highly differentiated/very challenging) different questions related to the level of differentiation and the effort needed to sell its product or service.

The result is displayed in a graph with 4 different scenarios (Easy access –low value; Hard access; Hard access – High value; Ideal access) and depending on the answers of the previous questions, the business of the user will appear on one of the scenarios or another.

The four possible scenarios differentiate between the difficulty of access into the market and the differentiation of the product / service against those of the competitors. The quadrant with the most possibilities and less difficulties is considered the “Ideal Access” scenario.



How does it improve the decision-making process?	Users will come up with a graphical presentation of the results facilitating their ability for understanding the sector profile. Helps the users to overcome by themselves with a well-planned idea
Core aspects and added value of the tool	
• Shows the main factors to consider in the business plan development • Creates a big picture of the tendency of the market and the possibilities of the new business in the industry.	

3.2.4 T0104- Pricing for Water Reuse and Water services

Objective	Phase 1: To assist Water Managers (Wastewater) to set a water reuse price for new water reuse schemes Phase 2: To aid SMEs to set the price for their product or service for the water sector
Target group / Users	Water Managers (wastewater treatment plant managers and directors) and SMEs directing their products to the water reuse sector
Description	
Costs of reused water are highly sensitive to a number of drivers, particularly economies of scale relating to net demand for water. At best, only financial costs of water treatment and distribution are included in tariffs. Few Member States apply direct charges to polluters for the treatment of their wastewater as well as other	

activities that impact on water quality, and charging for the resource costs of water abstraction is rare (EEA, 2013).

The water reuse sector is highly incentivized which does not promote the efficient use of water and indeed does not drive the water reuse market. Water treatment companies are not inclined to invest in technologies that can aid in water reuse without the incentive to gain full cost recovery. The Tool for *Pricing for Water Reuse and Water Services* is a tool that aims to assist on the one hand wastewater treatment managers that are looking to implement a new water reuse scheme, while on the other hand it looks to assist SMEs with new products and services that they would like to sell to the water sector.

Income Diversification tool: Who pays for what? (Tool for water treatment operators)

Wastewater treatment operators that are undecided with regards to implementing a water reuse scheme can use the first tool to gain an understanding of how much they should charge in order to break even. The user is guided through a number of questions where they are asked to input financial and economic data.

General information

Here the user needs to define the volume per day of water to be treated in m3/day. The user will also need to input the number of years of the contract that they propose. Finally, in this section, the user would need to input the amount of profit they would propose to want to make at the end of the contract period.

Capital Costs

In order to implement a water reuse scheme there are capital costs that will be associated not only with the technologies required to treat the water to reuse standard, but also capital costs in delivering the water to its point of use. The water operator should introduce these costs here in €/m3. There could be a possibility that the water operator would be able to share the cost of this investment with the final end user, if this is the case the percentage of how much of the investment can be shared with the end user should be inputted here.

Operational Costs

There are a number of operational costs that need to be taken into account when treating the water and delivering it to its point of use. The user shall input in this point the energy costs, chemical costs, maintenance costs, staff costs, marketing costs etc. that are required to treat the wastewater to reuse standards.

There could be a possibility that the water operator would be able to share the cost of operation with the final end user, if this is the case the percentage of how much of operational costs can be shared with the end user should be inputted here.

Results

One of the biggest advantages of this tool, is that the Wastewater Treatment Operators will know the price in €/m3 they should charge for their treated water in order to recover costs or indeed to make a profit. The Wastewater treatment operators can change the variables to create different scenarios so that the wastewater treatment owners can optimise their investments and cost recovery.

Pricing tool for products and services aimed at the water sector (Tool for SMEs)

Costs (Setting the Price)

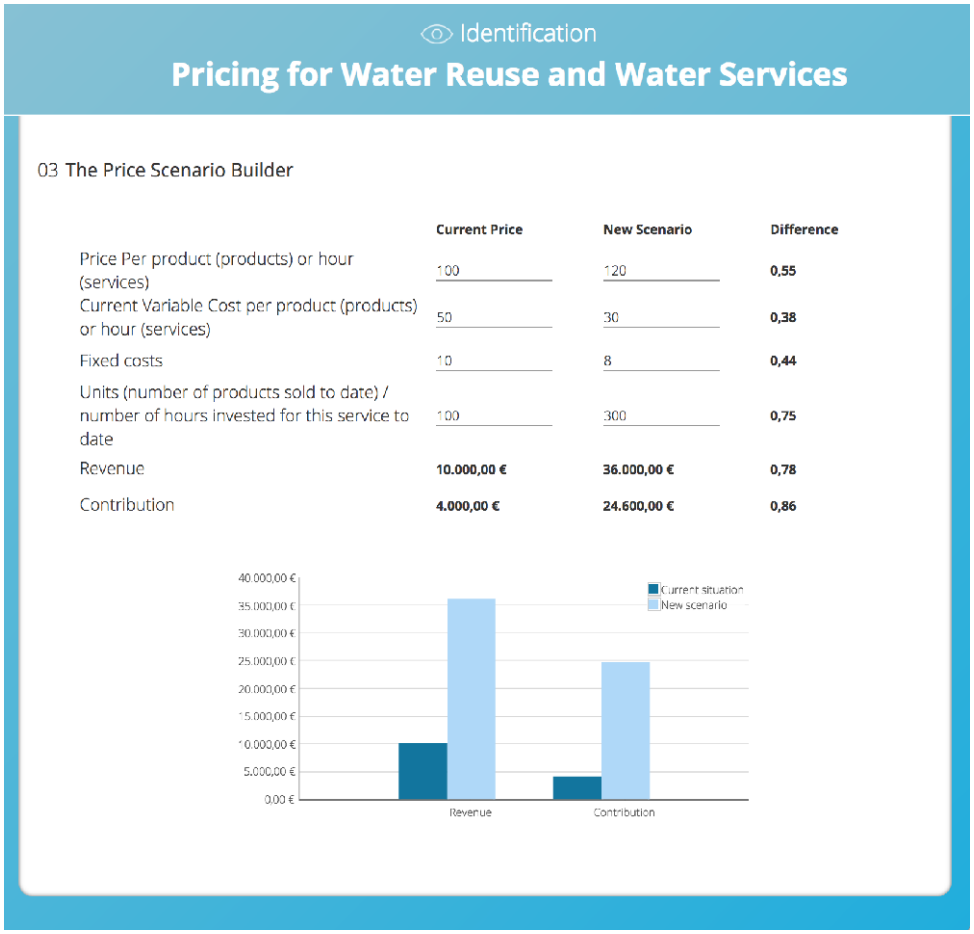
What price should you set your product at? This tool will help SMEs answer this question. The first stage of the tool is a simple cost input deciphering the product or service costs:(including labour and the costs of marketing and selling those products and business costs associated with producing the product or service) as well as the intended sales volume over a 10 year period.

The ideal Price

With the information given above the user will be given three scenarios of setting the ideal Price (1) The breakeven Price, (2) The Price with a 5% profit margin and (3) the Price with a 10% profit margin

The Price Scenario Builder

In this phase, the SME can firstly input the price of the product (per unit) or price per hour for their service. In the next block they can input all the variable costs associated with the product or service and in the 3rd block they can input the fixed costs of the company. The user is then asked to input the number of units or hours that they expect to sell.



Results

The tool will thus calculate the revenue and contribution of the current price. The user can then repeat this process with a potential new scenario inputting different values to see how each option changes for the user. Finally, the SMEs will be able set the best price for their product as well as being able to compare prices through the scenario builder.

How does it improve the decision-making process?	Helps water managers to set the correct price according to their potential water reuse scheme. This will help them to know what they would need to charge to recover costs The tool will guide SMEs to set the most ideal price for their product or process through directing them to consider various costing aspects that they may not take into consideration
Core aspects and added value of the tool	

- Water Treatment Companies will know what price they should set their water tariffs at to ensure full cost recovery and potential profit.
- SMEs will be able to set the best price for their product or service and to define price variations based on the outcome of inputting different numbers in the scenario builder

3.3 Design and incubation

The objective of the Design and Incubation phase is to assist the setup of a nurturing, instructive and supportive environment for the SMEs during their critical stages of starting up a new business. This phase aims to shorten the time and reduce the costs of establishing and growing a business. This stage takes place once the identification of the business idea and all the aspects of the market research has been done and carefully analysed. The business incubation is "a unique and highly flexible combination of business development processes, infrastructure and people designed to nurture new and small businesses by helping them to survive and grow through the difficult and vulnerable early stages of development" (International Business Innovation Association, INBIA). In terms of design, it is said that business design seeks to apply the principles and practices of design to help organisations create new value and new forms of competitive advantage.

For these reasons, the goal of this phase is to provide and support users with the right tools to properly establish its business and to help them at the beginning of the implementation taking into account the risks as well as the financial and monitoring planning needed to set up and start up an SME. Most of the problems of a new business usually hail from a poor approach and design of the steps to follow.

The six tools presented in this phase of the Tool Description Report will help SMEs owners, entrepreneurs, practitioners and anyone that is looking for support for the implementation of a business, especially in the water reuse sector. These tools help the user in the elaboration of a detailed financial planning, to become aware of the risks implicit in the development of a business, for the pollution costs related with the operational aspect of these kinds of businesses, for the proper monitoring of its business and finally for the support through financing solutions and existing successful cases to take as example so that SMEs can learn from established cases.

The Design and Incubation tools are:

- T0201- Strategic Financial Planning: The objective is to calculate the income and expenses of a business for the first year and to give an estimation over 5 years helping the user to establish an accurate financial picture of the business that will improve the management of the SMEs for the coming years.
- T0202- Risk Assessment and Management: This tool aims to help to establish an estimation of risks that a business could face and help to decide how to manage them
- T0203- Pollution Cost Tool: The tool facilitates the user to compare different charges related to the polluter pays principle in order to be aware of the potential costs that the business could face with regards to not compiling with its legal requirements.
- T0204- Logical Framework Tool: The objective of this tool is to support the user to build a logical framework matrix. It will help the SME to manage its business and gain control of all the goals, objectives and actions required to the running of the business.
- T0205 - Financing Solutions for Water Reuse: The tool aims to assist all organisations in the water value chain to gain a greater understanding of where they can obtain financing for their projects, schemes or products as well as the details of this financing.

- T0206 - Case Studies: This tool helps any stakeholder that would like to implement a new water reuse scheme or would like to learn from water reuse schemes in operation around the world gaining an understanding of the amount of investment, treatment capacity, technologies used etc.

3.3.1 T0201- Strategic Financial Planning

Objective	Calculate the income and the expenses of a business for the first year and to give an estimation over 5 years
Target group / Users	Anyone interested in starting a new project/SME
Description	

The creation of a financial plan helps a business to see the big picture and set long and short-term goals. Having a financial plan, makes easier to take financial decisions and stay on track to meet the goals of the business.

The objectives of a financial plan are:

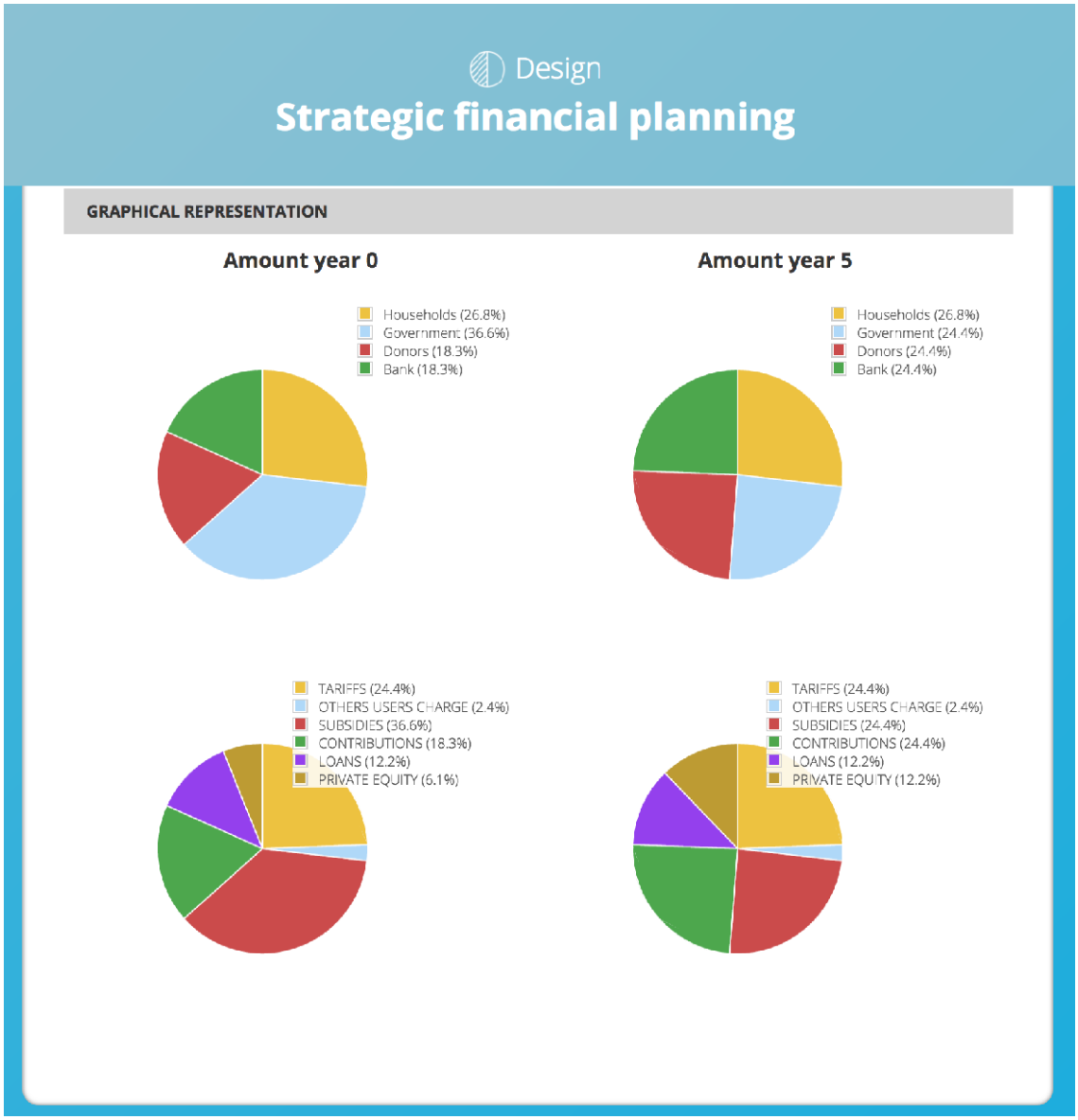
- Determining the capital requirements and the capital structure
- Framing the financial policies
- Maximizing the utilization of scarce financial resources in the best possible manner.

The strategic financial planning tool aims to help the user in the first steps of the creation of a financial plan. The tool helps to calculate the income and expenses of its business in the first year and to estimate these in 5 years' time. This tools are divided into 3 phases.

The 1st Phase: Income Diversification.

In order to avoid a possible financial dependence, it is very important to make a plan to get more than one source of income. It is highly recommended to have multiple source of income so the business or the project will not have to depend exclusively on only one source of income, which assists in avoiding as much as possible the risks of the business going into default or to have the lack of cash flow.

In this first phase, user defines the source of payments and its nature with a 5-year forecast horizon. The user will define the type of income (i.e. tariffs, charges from other users (like fees), subsidies, contributions, loans or private equity) and the source of that income (i.e. including households, government, private donors, amongst others) in two different scenarios: in the current year and in five years time. The result will be displayed in two pie charts per scenario differentiating between who is paying and the type of payment.



The 2nd Phase: Cost Distribution.

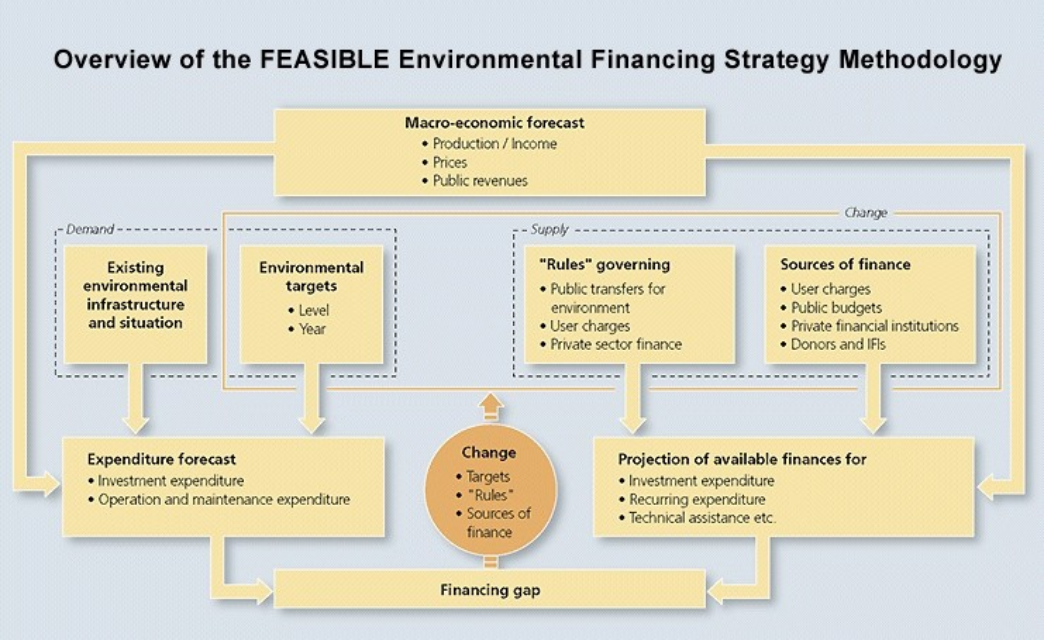
Knowing the costs involved in a business is crucial in order for a company to perform well. Most of the times, SMEs fails on accounting properly and adequately the inner and related costs of running a company, making them become bankruptcy. For these reason, in this phase the user differentiates all the inner cost/expenses of the business in the current year and in five years time. All the cost concepts are grouped into eight different components: Human Resources; Utilities; Equipment; Manufacturing / Production; Marketing and Sales; Research and Development; Cost of Capital and Others. The results are displayed in two pie charts showing the costs of the business in the two different scenarios.

The 3rd Phase: Financial Strategic Scenarios.

Finally, in this last phase the user will be able to compare the scenarios of the current year or the scenario in 5 years time and have an idea if there is any financial gap between income and expenses giving clues on how to solve this gap. The suggested solutions are given as some literature and a brief introduction to the FEASIBLE approach. FEASIBLE is a decision-making tool for estimating costs and closing the possible financial gaps through an iterative process involving key stakeholders. It can be applied to the water and wastewater sectors

of entire countries, regions and large cities. FEASIBLE has been developed by the OECD with the support of COWI consultants.

The FEASIBLE approach gives to the user alternatives on how to solve its existing financing gap. It gives an overview of all the possible aspects to take into account to



How does it improve the decision-making process?	Allows to identify the financial gaps between income and expenses between the first year and in 5 years time. Summarizes all costs and incomes.

Core aspects and added value of the tool

- Gives some clues on how to solve a possible financial gap
- Scenarios with a 5 year forecast horizon
- Creates a big picture of the income and expenses of a business

3.3.2 T0202- Risk Assessment and Management

Objective	To estimate risks that a business could face and to help to decide how to manage them
Target group / Users	Anyone involved in business management

Description

A risk is something that could be objectively defined but impossible to observe since it "is a combination of the consequences of an event (hazard) and the associated likelihood/probability of its occurrence" (ISO/IEC 31010). The aim of this tool is to help users to asses and manage the analysis of the risk, by providing information about the situation, and estimating the most important management priorities. For example, an SME in the water sector could typically be negatively affected through by taking a wrong decision in terms of technology that in some cases could put the company's viability at risk if preventive measures are not taken. The tool helps to highlight the risks associated with this type of decision and other situations such as transaction processing errors, pollution or harassment and discrimination amongst others.

Managers tend to analyse risks as independent events, neglecting the "cascade effect", and therefore carrying out superficial analysis. This 4 phases tool intends to go beyond the sole single risk approach, taking into consideration risk interactions, in order to have a broader perspective bringing together assessment and management. This tool will help to reveal risky interactions, to have an overview of the likelihood of a risk and its expected impact.

Goals:

- To point out the risks the business could face
- To provide information regarding the risk interactions
- To estimate the risk likelihood
- To map the potential risks according to the likelihood, impact and the interactions

The 1st Phase:

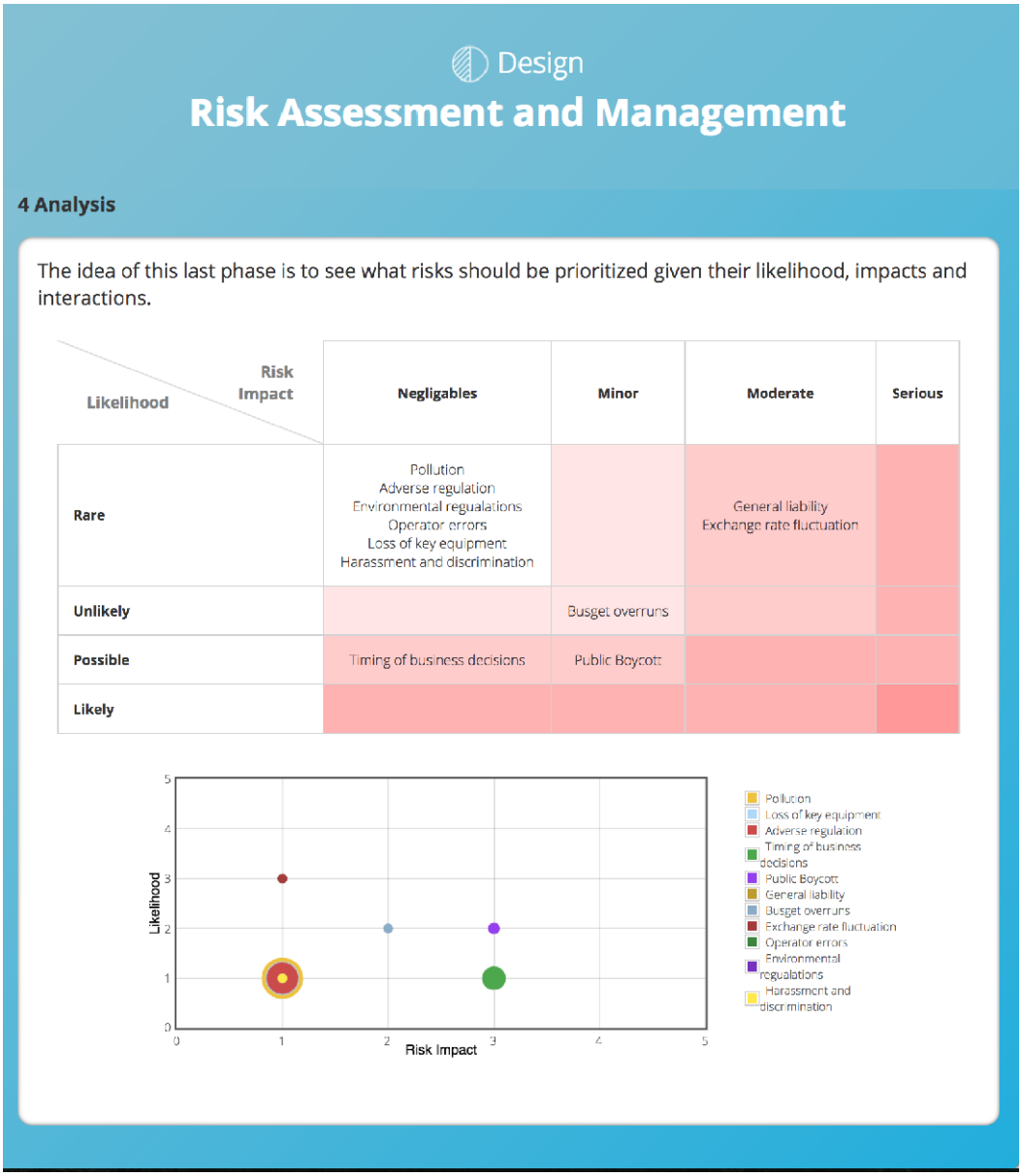
1a Identification of possible risks: Users select possible risks they could face according to the following categories: hazard risks; financial risks; strategic risks and operational risks. At this stage risks are not evaluated, they are to just identify the possible situations a business manager could face. It is a checklist to which users could add any specific risk identified as relevant to their business.

1b Assess Risk Interactions: This second step is vital to launch a multi-risk approach; the idea is to assess the interaction that exists between the identified risks. We take into consideration not only risky connections, but also the intensity of these connections.

The 2rd Phase: Assess Risk Impact: At this stage the user has to evaluate the risks selected in Phase 1 according to the negative impact they would have on certain specific issues: environment; service users; organisation; services and human resources.

The 3th Phase: Risk Likelihood: During this phase the user assess the probability of a risk becoming a reality. It is highly recommended to conduct a preliminary assessment of the risk likelihood based on literature review and/or a track record of the business.

The 4th Phase: Analysis: The idea of this last phase is to see what risks should be prioritized given their likelihood, impacts and interactions. All responses are displayed in a risk matrix and the software automatically maps risks according to a three-dimensional map, taking into account the likelihood, impacts and interactions. This map allows a visualisation of the organisation's position and to set up the most effective strategy to deal with the identified risks. The vertical and horizontal axes define the likelihood of a risk to becoming a reality and the potential destructive impacts of these risks. The interaction dimension is defined by the size of the bubble of each risk.



How does it improve the decision-making process?	The risk assessment and management tool is designed to help to decide which are the priority risks and to avoid misleading management decisions. The tool allows users to realize which risks are more important taking into consideration risk interactions, likelihood and estimated impact.

Core aspects and added value of the tool

- Users will be provided with a map of potential risks according to their likelihood, impacts and interactions.
- Risks are not evaluated as stand-alone, but in a specific context with other risks.

3.3.3 T0203- Pollution Cost Tool

Objective	To facilitate the user to compare different charges related to the polluter pays principle
Target group / Users	All water users that discharge effluent to a water course or drainage

Description

In Europe, the water user has a legal obligation to pay a charge in relation to the polluter pays principle (PPP) where the party responsible for producing pollution is responsible for paying for the damage done to the natural environment.

In Europe this obligation is entrenched in the Water Framework Directive (WFD) which states:

Member States are to take account of the recovery of the costs of water services, including environmental and resource costs related to water pollution.

In the Urban Waste Water Directive this is further defined by:

- The Collection and treatment of waste water in all agglomerations of >2000 population equivalents (p.e.);
- Secondary treatment of all discharges from agglomerations of > 2000 p.e., and more advanced treatment for agglomerations >10 000 population equivalents in designated sensitive areas and their catchments;
- A requirement for pre-authorisation of all discharges of urban wastewater, of discharges from the food-processing industry and of industrial discharges into urban wastewater collection systems;
- Monitoring of the performance of treatment plants and receiving waters; and
- Controls of sewage sludge disposal and re-use, and treated waste water re-use whenever it is appropriate.

The charges that the polluter could pay for are defined by each member state but include the following aspects:

- Emission/effluent charges: Based upon the quantity or quality of the discharged pollutant.
- User charges: Include for example fees paid for the use of drinking water and wastewater treatment facilities. They may be variable (e.g. increasing, decreasing or uniform volumetric), fixed or a combination of the two (see also water pricing).
- Product charges: Charges levied on products that are harmful to surface or ground water (e.g. pathogens, fertilisers, pesticides, lubricant oils, see also pathogens and contaminants).
- Administrative charges: Fees paid to authorities for such purposes as chemical registration or financing licensing and pollution control activities.

This tool will assist water users that discharge effluent to compare the costs of the of the three options related to Polluter Pays Principle:

Option 1: Cease Operations that is causing the pollution

Option 2: Change technologies, practices or implement treatment schemes

Option 3: Carry on Polluting and pay the charge

The comparative analysis of each of these costs over the years will enable the water user to:

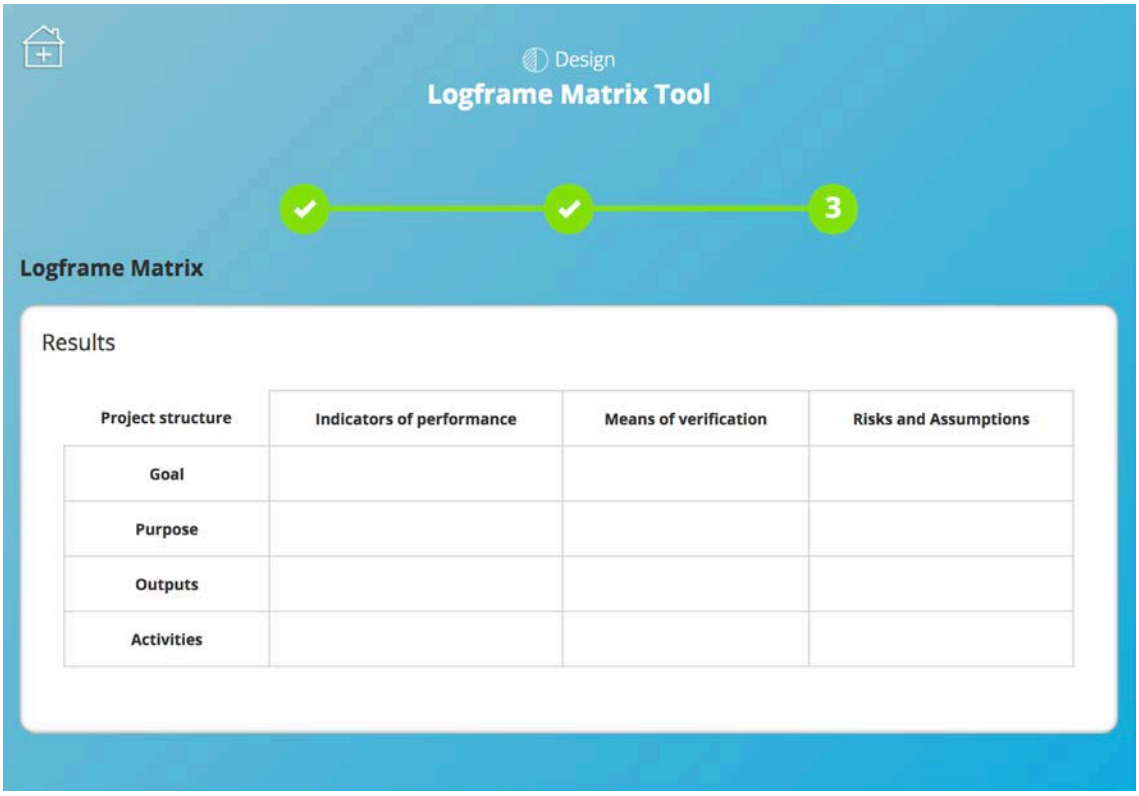
- Make a decision on whether or not to implement new treatment schemes
- To potentially save time and money
- Potentially avoid contaminated discharges

• Decrease risk exposure • Assure compliance with regional or country-based wastewater emissions standards • Comply with the WFD
How does it improve the decision-making process? — The tool allows for what-if scenarios to be performed, which allows the water user to make a decision to cease operations, to implement a treatment or process change or to continue polluting and pay the charge.
Core aspects and added value of the tool
• Brings the economic consequence of polluting to the forefront of the water users mind • Provides crucial links to information of a polluters legal obligation, pollution indicators and directives. • Allows the user to generate cost scenarios to enable the user to choose the least cost option.

3.3.4 T0204- Logical Framework Matrix Tool

Objective	Build a logical framework matrix
Target group / Users	Anyone interested in starting a new project/SME
Description	
The Logical Framework approach is an analytical and project management tool developed in 1969 for the USAID and based on a worldwide study by Fry Consultants Inc. It is one of the most successful and used managing and planning tools for developing a project (EC, 2004). The present version of the Logical Framework tool is designed to be valuable for water reuse management and sanitation projects. It gives a series of tools to analyse and to solve planning problems and to design and manage their solutions. The logframe summarizes what the project intends to do and how it intends to do it, the key assumptions, and how the outputs and outcomes will be monitored and evaluated. This tool helps users to build a logframe matrix to outline a problem solving approach, and the key features to achieve a goal. The tool is divided into 3 phases. The tool gives a final matrix that can be used to monitor the users' business and its activities in just one roster. The 1st Phase: Project description. The user starts by defining: the goal or main mission, the purpose or what is hoped to be achieved, outputs or specific objectives and activities or the tasks to be undertaken to achieve the aspired results. The 2nd Phase: KPI and assumptions definition. In the second phase, the user defines the Goal, Purposes and Outputs according to the following aspects: which KPIs will be used for each one, how the realization of these KPIs will be realised, and the assumption that would need to hold true in order for these events to occur. In the case of the activities, instead of the definition of the KPIs, the requested information is the means required for their implementation, the sources of information to track the action progress and the estimated costs of each activity. The 3rd Phase: The LFA Matrix. Finally, the user will come up with a logical framework matrix made up of 4 columns (The Project Structure, Indicators of Performance, Means of Verification, and Risks and Assumptions) with 4 rows (goal, purpose, outputs, and activities). The matrix will show the way to reach the goal: If the activities are implemented	

holding the assumptions, the outputs will be reached. If the outputs are delivered holding the assumptions, the purpose will be achieved. If the purpose is achieved holding the assumptions, then the goal will be reached. The aim of this matrix is to be used constantly along with the planning and performance of a project and to always have in mind the relevant aspects of the project.



How does it improve the decision-making process?	The Logical Framework Matrix can be used to monitor the users' business and its activities in one roster. It also helps to create a roadmap to properly achieve all the goals, objectives and actions required and designed for the correct running of the business.

Core aspects and added value of the tool

- Gives some clues on how to complete the matrix
- Printable
- Creates a big picture of the business activities
- Facilitates the task of monitoring and planning a project

3.3.5 T0205- Financing Solutions for Water Reuse

Objective	The "Strategic Financial Planning" tool assists all organisations in the water value chain to gain a greater understanding of where they can obtain financing for their projects, schemes or products as well as the details of this financing. The output of this process will detail the following points: (1) The funding Channel (2) the type of Financing Available (3) The name of the Financing Source
Target group / Users	All stakeholders in the entire water value chain from start-ups to large companies can use this tool to facilitate the process of finding financing for their water sector ideas and projects.

Description

The Strategic Implementation Plan of the European Innovation Platform (EIP) on Water identifies five thematic priority areas: (1) water re-use and recycling; (2) water and wastewater treatment, including recovery of resources; (3) the water-energy nexus; (4) flood and drought risk management and (5) ecosystem services. Cross-cutting priority areas include: water governance; decision support systems and monitoring and **financing** (European Commission, 2012a).

Although the European Innovation Platform has identified financing as one of the cross cutting priority areas, the European water sector is plagued by being fragmented, so limiting the ability to provide services or to pull financial resources. A further way that the European water sector struggles to ensure its innovations reach the market is that the ability to finance an idea or project is often limited by a lack of knowledge from the innovator to find where to finance their idea or project.

The *Financing solutions for water reuse tool* guides the user through a series of quick questions which results in a list of potential financing options. Its contents have been designed based on the work developed on Task 4.3 from the DEMOWARE project.

Questions

What Type of beneficiary are you?

Here it is important for the user to identify itself as what type of beneficiary it is. As the financing options differ for different beneficiaries, through this identification question, the user will be guided to a list that will only concern it.

Is your Organisation European or Non-European?

Many financing options, especially focused on the European sector are for European entities only. However, there are financing options available for entities that from outside of Europe especially financing options related to bilateral funding initiatives or development banks. Therefore, it is important for the user to identify where it is registered.

Region where you plan to undertake your work

This question differs from the question above in that particular regions across the globe have bilateral financing agreements (for example IBEROEKA or EUREKA programmes that have bilateral agreements with only certain regions and countries), therefore it is important for the user to indicate where they wish to undertake their work.

In what stage of the value chain is your product/process/idea

There is no one financing solution that fits all phases of the innovation value chain, therefore it is vital that the user identifies at which stage their innovation or idea is at so that the specific financing solution is obtained. The outputs of providing answers to these questions, is that user will know: *The Funding Channel* – which lets the user know if it is either public or private financing *Type of Financing Available* – here the user will know if its 100% Funded / Loan / Service Contract etc. *Name of Financing Source* - This gives the user the name of the financing institution or the financing programme. *Short Description* – This gives the user a quick guide on what can be expected from the financing source. *Link to financing webpage* – Finally the user is given a link to the financing web page so that it can investigate further the options available to it.	
How does it improve the decision-making process?	There is a plethora of information that is dispersed across a wide network of sources for financing water sector ideas. This tool will assist the (European) water sector to easily discover which financing option can best be used to finance a water sector idea, innovation, project etc.
Core aspects and added value of the tool	
• Details all financing options open to the (European) Water Sector • It is not limited to just one type of organisation, but rather open to all water stakeholders • It gives a list and brief outline of the financing options available for any part of the innovation value chain. • It makes finding financing for water projects easier.	

3.3.6 T0206- Case Studies

Objective	Any stakeholder that would like to implement a new water reuse scheme or would like to learn from water reuse schemes already in use around the world, can use this tool to gain an insight with regards to the amount of investment, the treatment capacity, the technologies used etc.
Target group / Users	All water sector stakeholders that would like to know more about current water reuse schemes in use around the world.
Description	
To implement a new water reuse scheme through learning from past experiences can aid new schemes to improve on what has already been implemented. The Case Study tool therefore allows a user to gain information regarding water reuse schemes in use around the world. Its contents have been designed based on the work developed on task 4.3 of DEMOWARE project. Questions *Water Reuse Case Study Country of Interest*	

The user can input the country where the user would like to know of water reuse schemes to gain an understanding of all the water reuse schemes available in that country. If the user does not input a country, all countries will be chosen.

Final Water Use Application

Treated wastewater can have its final use application in different ambits, mainly:

Urban; Industrial, Agriculture, Ground water Replenishment or Environmental flows. The user can have a potential interest in implementing a water reuse scheme for a final water reuse application for any of these points, therefore the user can input the final water use application to know all the details of the particular water reuse scheme.

Treated Water Volume range

The user can also input the treated volume range of the water reuse scheme. The range from < 100,000 m3/day; 100,001 - 200,000 m3/day and > 200,001 m3/day, allows the user to input the amount of treated water volume range to obtain a list of details of all the water reuse schemes that have a low treatment range to those that have a high treatment range. If not treatment range is inputted, all treatment volumes will be chosen.

Governance

Water reuse schemes are either implemented by public entities, private entities or in public private partnerships. At this point, the user can input the governance which most interests the user to obtain a list of all of the water reuse schemes for any of these governance options.

Technology

To implement water treatment for reuse, depending on the final use application, certain tertiary treatment technologies aid in the adequate treatment of the water for reuse. At this point, the user can choose from the following technologies: Membrane Technologies; Ozone Treatment; Reverse osmosis; Conventional activated sludge; Microfiltration; Advanced oxidation; Chlorine disinfection. The user can choose one or many of these options to obtain a list of all the treatment options.

Through the above options the user will obtain a list of water reuse case studies as an output with the following information: the case study name; the country of the case study; a short description of the case study; the final water use application; the water treatment technologies to obtain the required water quality; the treated volume for reuse and the total amount of capital investment that was required for that particular water reuse scheme.

How it improves the decision-making process?	This tool will allow all water reuse stakeholders to obtain a list of current water reuse schemes from around the world that fit certain criteria that the user can choose from a list. Through this process the user has a better idea of the investment amounts, final water applications, technologies etc., this will allow future water reuse implementers to have better knowledge of the schemes that are currently in use.

Core aspects and added value of the tool

- Aids new implementers of water reuse schemes to obtain a list of current water reuse schemes from across the globe.
- It allows the users to know the investment amount, the technologies in use, the final use application amongst other factors in a short list of facts, enabling the user to gain an overview of global water reuse schemes.

3.4 Life Cycle Management

The Life Cycle Management is a framework model that helps to analyse and manage the sustainability performance of goods and service in a company. In this context, the Life Cycle Management phase aims to give the user several tools to create business value in the long-term. In this phase the user will receive support from the tools to learn how to improve the social and economic performance of their business in order to ensure a more sustainable value chain. Therefore, this phase seeks to improve the efforts of the company in order to strengthen its credibility, its stakeholder relations and enhance the value of its performance.

The goal of this phase is to manage efficiently the Life Cycle Management model through these different tools. For this purpose, the users are required to get a clear idea of their organisational capacity, its communication skills, its possible partnerships and the performance of its value chain. These tools can be used in all types of businesses and their use can ensure a more sustainable management within the company. They can be also used to target, organize, analyse and manage product-related information and activities towards continuous improvement along the product or service life cycle. The final purpose of this tool is to encourage and support the continuous improvement of the SME minimizing their environmental and socio-economic burdens while maximizing economic and social values.

The five tools presented in this phase of the Tool Description Report will help SMEs and business managers to improve the performance of its company in the most sustainable way. These tools are based on the value chain concepts and strategies and are designed for the purpose of enhancing and boosting the main aspects related to the running of a business once it is in full swing.

The Life Cycle management tools are:

- T0301 – Organisational Capacity: The objective of the tool is to have an overview of the organisational capacity of a business in order to evaluate the main resources and reinforcement requirements of an organisation
- T0302 – Partnership Strategic Management Tool: This tool is designed to help the identification of potential partners to create strategic alliances for the business
- T0303 – Communication and Public Awareness: The aim of this tool is to find the best mix of objectives, supporters, targets, messages and the capability in terms of company communication, in understanding that a well-designed communication and public awareness campaign can be a really useful tool to promote certain messages, actions or products.
- T0304 – Value Chain Cost Analysis: The objective of this tool is to understand how costs are distributed along the products/services value chain.
- T0305 - Impact Area and KPI Tool: The tool aims to assess the social impact of the company product/service has on external stakeholders, i.e. Consumers/clients and/or the local community.

3.4.1 T0301- Organisational Capacity

Objective	To gain an overview of the organisational capacity of a business.
Target group / Users	Anyone involved in business management

Description

This tool aims to identify and evaluate the main resources and reinforcement requirements of an organisation. The organisational capacity tool helps water managers and SMEs to gain a greater understanding of their own capacity gaps. The objective is to have an overview of the organisational situation in terms of resources, direction and implementation. The tool was developed to allow organisations to carry out rapid auto-organisation diagnostics aimed at understanding their distinctive added value. To diagnose this is necessary to ensure sustainability of the organisation since it will help to show the strengths and weaknesses of the organisational capacity. It is highly recommended to use this tool in a participatory way in order to integrate the perceptions of all the parties involved. This tool has only one phase.

Users evaluate from between 1 to 5 the Operational Capacity in 3 different areas: Resources, Direction, and Implementation Change.

The first section aims to help practitioners identify the weaknesses and to determine the areas in need of improvement. The second section stresses the importance of developing a shared strategy to achieve and accelerate growth. The third and last section aims to point out the deficiencies in the implementation process.

Resources:

Auto-evaluation of the general operational capacity of the organisation in terms of resources. Organisational weaknesses relate to all the resource features that prevent the organisation from taking full advantage of their opportunities or that do not protect the company from threats. Identifying weaknesses allows the users to determine areas for improvement and capacity building needs for the organisation.

User evaluates the capability of the organisation based on the following:

- Organisational structure and human resources management
- Implication of workers
- Material resources
- Financial resources
- Specific knowledge, methodology or tools useful for the project
- Access to relevant knowledge
- Relationship with the ecosystem
- Benefits derives from partnerships
- Organisational identity and values
- Internal communication
- Access to communication channels

Direction:

Auto-evaluation of the general operational capacity of the organisation in terms of its direction. A clearly defined aim is crucial for obtaining a strategy, and therefore for defining the activities needed to achieve this aim. After completing this section, the user will gain an impression of the organisation's organisational strategy thanks to a score out of 100. The user will answer questions and provide a quality rating for individual statements related to its mission, vision, values, structure, its lines of responsibility, its internal communication and its strategic plan.

Implementation/Changes:

The auto-evaluation of the general organisational capacity of the organisation in terms of implementation and adaptation. In many cases, it is not enough to have the required resources and a well-defined strategy if there is no optimised implementation. This section will help users to have an overview of their performance regarding the implementation of changes and adapting to them. For example, the vision should be reviewed in conjunction with the strategic plan, in addition it is vital to have a monitoring and evaluating strategy in place.	
How does it improve the decision-making process?	It helps to identify where the major capacity gaps are. Organisational diagnosis is a necessary step before undertaking strategic decisions that aim to having any type of social impact.
Core aspects and added value of the tool	
• Users will obtain an evaluation of their organisational capacity • It is a first preliminary study that will easily provide an overview of the business situation in terms of the organisation.	

3.4.2 T0302- Partnership Strategic Management Tool

Objective	To identify potential partners
Target group / Users	Anyone involved in an SME
Description	
Nowadays any organisation, which wishes to be active in promoting sustainable inclusive development, needs the participation of all the sectors involved. We live in a complex and interconnected world and many of today's societal environmental, business and humanitarian challenges can only be tackled by forming cross-sector partnerships. Strategic partnerships can maximize the potential for organisations and should therefore form a base in the development plan in the short and long term planning of any organisation. A strategic partnership is a collaborative relationship between two or more organisations based on trust, equity and mutual understanding, in order to achieve a number of specific objectives. Partnerships necessarily involve sharing risks and benefits, shared and equitable decision-making, and transparent management of the relationships. Some of the benefits of forming partnerships are: • Increasing the impact and sustainability of the company programs • Diversifying and increasing resources, expertise, technologies and market access • Consolidating both the positioning and the visibility of the organisations involved in the partnership. The partnership strategy management tool is designed to assess and select potential partners. However, before using the tool it is important to analyse the environment of the organisation and the interaction with other actors working in the same context or area. This involves carrying out a diagnosis of the (political, economic, social and legal) context and to map the main actors. When mapping the actors of the business environment, it is important to have a systematic view of the context and to not exclude anyone. It is recommended to consider all sectors, since each sector involves accessing a number of specific resources which can prove to be very useful.	

The partnership strategic management tool is designed to create successful partnerships by assessing the level of input from stakeholders towards strategic objectives, in terms of three dimensions of analysis and nine impact areas. This tool is divided into three phases.

The 1st Phase: The Assessment Criteria

Define most relevant criteria for each of the key dimensions for partnering. Defining a good selection criterion is critical to the success of the partnership. The nine quantitative variables, should be agreed upon with the organisation's team in order to use the most appropriate variables according to the strategic interests. The proposed variables that are in the tool are not fixed, users should indicate the most appropriate ones to their interest.

Dimensions:

- Alignment with the organisation's objectives
- Knowledge generating and added value
- Economic

Proposed variables:

- Sharing the organisation's main objectives
- Working within the regional areas of the organisation
- Financing and/or promoting similar projects
- Methodologies relevant to management
- Network of partners and stakeholders of relevance
- Knowledge generating and transfer
- Funding potential
- Vontributions to programs
- Potential contribution to the organisation

Once the variables are defined, user should associate a percentage to each variable depending on its importance, the sum of all must equal 100%.

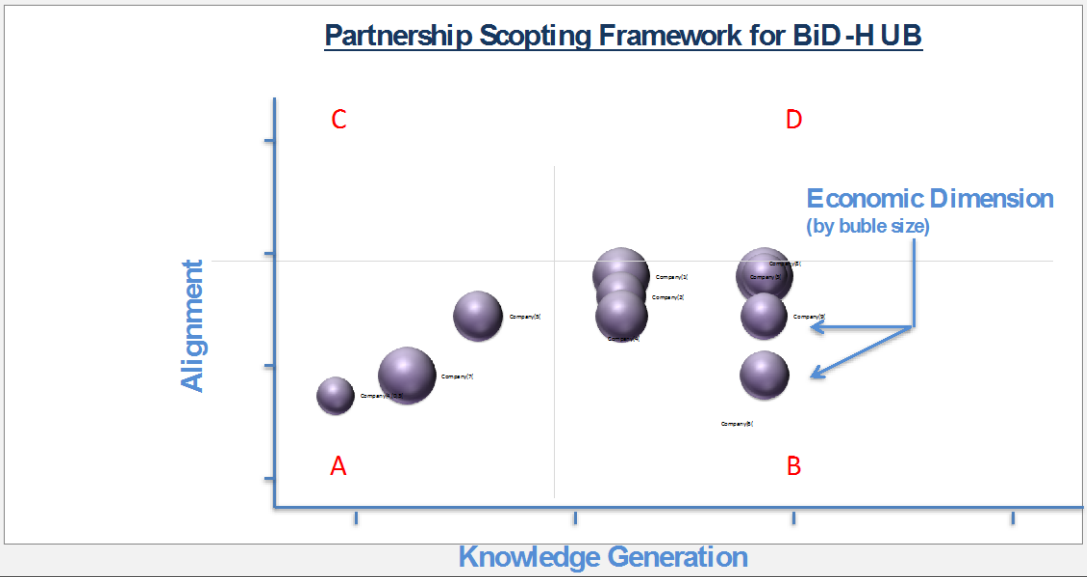
The 2nd Phase: The Rating Scales

During the second phase, users specify the main organisations they have identified in their environment and attribute a value for each organisation in the nine variables, previously defined in phase one. The assessment will be carried out considering 1 being the most negative and 4 the more positive value. To adequately complete this phase, it is recommended to conduct a preliminary research in order to properly evaluate the potential of each of the organisations with regard to the defined variables.

The 3rd Phase: Three-dimensional mapping

The software automatically maps potential partners' strategic interest, according to a three-dimensional map. The mapping obtained allows the user to easily visualize the strategic position of each organisation in order to identify the one most suitable ones. The horizontal axis defines the alignment with the objectives of the organisation, and the vertical axis, the potential contribution in terms of knowledge generation, as for the third dimension (economic), that is defined by the bubble size of each potential partner. The analysis of these results will allow for a selection of the organisations that are most interesting and with which the user would want to create a partnership. At this point it's important to remember that partnering is not about finding the perfect partner, but about looking for organisations that meet the highest number of parameters defined as necessary to achieve the objectives in an optimal way.

MAPPING ON STRATEGIC PARTNERING DECISION



It is thus recommended to conduct an analysis of the results by quadrants. In our example:

Quadrant A: The value of knowledge generating and alignment with low interest. In principle we are not interested to partner up with organisations in this quadrant, unless an organisation wants to contribute financially (ensuring, however, that this does not influence the alliance to a different strategic direction with that aim).

Quadrant B: Under the alignment with the objectives of the organisation, but potentially relevant to the design, implementation or evaluation of project knowledge. Organisations in that quadrant can be of interest to explore, partnerships would be aimed at sharing knowledge and developing common platforms. Eventually, a collaboration with organisations in this quadrant has the potential to bring strategic positions.

Quadrant C: Alignment with the objectives of the organisation, but little contribution to the knowledge generation level. You can explore collaborations in areas of common interest that can form a basis for developing co-financing or other collaborations.

Quadrant D: Alignment with the objectives and contributing to the generation of knowledge. Organisations in this quadrant are those that can provide the most added value. It then tries to identify and select those that best complement what the user needs for its alliance as well as offering more possibilities for synergies.

How does it improve the decision-making process?	Helps to analyse the organisations that could be good to form partnerships with.

Core aspects and added value of the tool

- Users can define their assessment criteria in order to use the most appropriate criteria according to their strategic interest.
- Users will be provided with a mapping of strategic partners that assists the organisation to position and prioritise the most effective partners to work with.

3.4.3 T0303- Communication and Public Awareness

Objective	To find the best mix of objectives, supporters, target groups and messages.
Target group / Users	Anyone involved in a communication and public awareness campaign.
Description	
Well-designed communication and public awareness campaigns can be a useful tool to promote certain messages, actions or products. However, even if we have some direct communication channels towards our target groups (people, organisations, etc.) making it easy to send messages, it is essential to follow certain steps to communicate the message to the receiver. There is no magic formula to develop a communication strategy, only general guidelines. This tool of two phases gives some practical considerations on how to create and communicate a public awareness campaign, helping users throughout the process as a whole. At the end, users will have clearly defined campaign objectives, target groups and ideas directed towards obtaining desired results. For SMEs and SMEs in the water reuse sector in particular, communication and public awareness is a tool to pressure and impact public opinion and to allow advocacy. A good communication and public awareness strategy needs to be planned as for any other project. This tool proposes a step-by-step process from setting the campaign objectives all the way to defining a specific strategic plan to implement in the campaign. After running the tool, users will get a report that will define expected success, how to deliver the right message to the right audience and the capacity to deliver such a message. The aim is to find the best middle ground between objectives, supporters, target groups, and messages. The 1st Phase: Setting the campaign objectives The aim of this phase is to establish the objectives of the campaign, which are the key components in the preparation and design of the campaign. To do that, users need to write the general idea they have identified as the main causes and the reason to launch a campaign, what the aspects are and the main challenges that need to be addressed, and what the possible solutions are to the identified challenge. This phase requires in-depth work prior to its use in order to reduce indeterminateness and ambiguity. A detailed understanding of the objective and our challenge is vital in the earliest of stages, and therefore it is highly encouraged that users take time to think and research this in order to have the information needed to set the campaign objectives. The 2nd Phase: Setting your target group and key message To maximise the success of the user's objectives it is essential to define two aspects: (1) What does the user want from the audience (to purchase a product or service, to make a donation, to create engagement in specific actions, to take part in a change of policy, affiliation, change of habits, etc.) and (2) Who is the users' audience. Without these two elements clearly defined, a communication and public awareness message cannot be properly transmitted, thus resulting in a waste of resources and messages. This tool will help to find the best mix of audience and messages. With this tool users will also evaluate the base of their proposed key messages, assessing among other aspects their consistency, strategic significance, relevance and simplicity. During this last phase, the user will also brainstorm possible ideas that could be used to promote their key messages.	
How does it improve the decision-making process?	The user will gain an integrated vision on how to plan a strategic communication campaign
Core aspects and added value of the tool	

- Integrated view: it takes into consideration all the relevant aspects often not taken into account
- Prioritisation of actions and strategies are made by the user
- Easy step-by-step processes

3.4.4 T0304- Value Chain Cost Analysis

Objective	To understand how costs are distributed along the product/service value chain
Target group / Users	Anyone interested in starting a new project/SME

Description

The concept of *Value Chain* as a set of activities that a company operating in a specific industry performs in order to deliver a valuable product or service for the market comes from the business strategy concept popularized by Michael Porter on the 80's.

The value chain is constructed from the idea that products pass through a chain of activities in order, and at each activity, the product gains some value. However, a business value chain forms part of a larger stream of activities: a Value System. A value system includes the suppliers that provide the inputs necessary to the firm along with their value chains. The value system also includes the value chains of distributors all the way to the customers. To achieve and sustain a competitive advantage, and to support that advantage with information technologies, a business manager must understand every component of this value system.

However this tools is only focused on the value chain of the business and it aims to help business owners to better understand how costs are distributed along the product/service value chain. The tool provides a visual overview of the results and thereby allows business owners to make strategic decisions regarding the future expenditure of the business and how to invest more strategically. The tool is divided into three phases.

The 1st phase: Answer a number preliminary questions.

User answers some questions about its perceptions on the distribution of his/her business costs along the value chain. The categories considered that are implied on a business value chain are: Human resources, Utilities, Equipment, Manufacturing/Production, Marketing & Sales, Research and Development. This first step aims to make the user think about the reality of his/her business before start calculating the costs of its value chain.

The 2nd phase: To determine the exact costs per type of cost and per value chain phase.

In this second step the user determines the exact cost based on the type of costs defined in the previous step. The user adds the cost amount that applies to each phase of the value chain (Design, Distribution, Supply/Production, Post Sales)

The 3rd Phase: Get an overview of your costs

Once the user has added all the costs implied in its business value chain, in this third step the user would be able to visualize the following graphs:

1. Graph regarding the total cost per value chain phase, that shows how much the user spends per value chain phase of its business.
2. Pie charts showing the distribution of each type of cost per value chain phase
3. Graph that shows the distribution of the total costs by type of cost
4. Graph that shows the distribution of total costs per type of cost and value chain phase

This step aims to give a general overview of the costs and the distribution along the value chain.

Finally, on this last step the user can see a brief analysis of the information added. This is given where a number of questions are automatically answered by the program such as "In which part of the value chain do incur the largest expense?", the user is able to check the cost distribution of its company and the type of costs most relevant into the business or the activity that is most expensive. In this last step the user is also able to download a short report including this brief analysis and the graphs of the previous step.

Through all these steps the user will be able to get a global idea of the costs implied in all the phases of its business and its current situation. Thanks to this the user will be able to take assertive decisions and to make well-planned changes in their management if is seen as necessary.

How does it improve the decision-making process?	• It gives a general overview of the costs in the business • It facilitates the creation and visualisation of the value chain of the company

Core aspects and added value of the tool

- It offers a useful way to understand and organise all the costs existing in a business
- It helps in the creation of the value chain of a business with special attention on the costs implied.

3.4.5 T0305- Impact Area and KPI Tool

Objective	The tool aims to assess the social impact your product/service has on your external stakeholders, i.e. Consumers/clients and/or the local community.
Target group / Users	Anyone interested in starting a new project/SME

Description

When we speak about inclusive businesses and / or companies in the water reuse sector, it is important to assess the desired impact. However, even though you can have the notion of what impact you want to achieve more or less clear, it's usually difficult to define it, and specially, to measure it. This tool aims to help in defining KPIs to measure the users desired impact. This tools is divided into two phases.

The 1st Phase: Successful measuring of the impact per area

To measure the impact your product/service has per area, it is recommended to define the so-called key performance indicators (KPIs). KPIs are important as they help to measure business performance and evaluate business success.

KPIs should follow the SMART principle and should be:

Specific: The KPIs should be clearly defined. Is the objective clear and specific about what, when, where and how it seeks to achieve? Is it clear what the "desired end state" is? Are there any particular conditions and restrictions?

Measurable: The KPIs should be easy to measure and to manage. Are the criteria used to measure in compliance with the desired results? Who, when and how will they be measured?

Attainable: The business should be able to reach the KPIs. Can the goal be achieved with the resources available? Are the leaders of the organisation committed to achieving the objective?

Relevant: The KPIs are relevant and realistic for measuring the business success. Is the objective relevant to achieving the desired strategic outcomes or can it be replaced by some other actions?

Timely: The KPIs can be measured on an ongoing basis and are traceable, e.g. weekly, monthly, etc. Would it be possible to fix a timetable to mark milestones? Is the allotted time sufficient for achieving the objective?

This phase is divided into two steps:

1. Users will see their three to five most important areas of impact listed and next to each area of impact they will see some examples of KPIs. As the next step, users will enter their KPIs in the column "Your KPIs".
2. This is followed by an evaluation of whether the identified KPIs correspond to the SMART principle. Please note that only KPIs which fulfil a minimum of 50% of the SMART criteria will make it to the final list of KPIs.

The 2nd Phase: Gathering additional information to be able to track the KPIs

Once in this phase, users should have defined their most suitable KPIs. The next step is to think of a few more additional aspects to be able to track the KPIs that have fulfilled the SMART criteria. In this phase the user has to define the unit of measure, the tracking interval, when the tracking will start, and the goal.

The Impact area and the KPI tool will provide a format to effectively track the achievement of the KPIs. Users can download the document and save an excel version of it.

How does it improve the decision-making process?	It helps to define the impact areas and ensures that the KPIs used are good for the impact we want to measure.

Core aspects and added value of the tool

- Definition of KPIs
- Assessment of KPIs with the SMART criteria
- Downloadable KPI tracking format

3.5 Post User

Once a business has been set up, properly implemented and it is running without any major problem there is still some work to do by the company management in order to enhance the performance of the business. The Post User phase encompasses all the aspects related with the company once the business is working at full capacity. The tools of this phase aim to give to the user some clues on how to improve its relation with the customer or how to identify the most significant aspects of the company that need to be solved or given a boost.

Therefore, the three tools presented in this phase of the Tool Description Report will help SMEs and business managers to improve the performance of its company through proper analyse of a company when it is already running and to enhance the relation and communication with the customer, as they are the resource upon which the success of the business depends.

The Post User tools are:

- T0401 – Customer Satisfaction Survey Tool: The objective of this tool is to provide pre-written questions to support the design of a Satisfaction Survey for the business. It also aims to improve the Customer Satisfaction service of the business facilitating the process to elaborate surveys.
- T0402 - SWOT Analysis Tool: This tool aims to carry out a strategic assessment based on a SWOT analysis to determine different strategic lines of action and to improve the performance of the business
- T0403 - The Integrated Water Resource Management Tool: Finally, this last tool, aims to assist all implementers of the IWRM process to know if they have successfully covered all points of the process.

3.5.1 T0401- Customer Satisfaction Survey Tool

Objective	Provide prewritten questions to support the design of a Satisfaction Survey for the business It aims to improve the Customer Satisfaction service of the business facilitating the process of elaborating surveys.
Target group / Users	Business owners, customer service departments
Description	
Customer satisfaction is a marketing term and a leading indicator that provides marketers and business owners with a metric that they can use to manage and improve their businesses. It measures how products or services supplied by a company to meet or surpass a customer's expectations. Satisfied customers usually return and buy more, they use the service again and they tell others about their great experience. For this reason, a market trader or a business owner, should have a continuous finger on the pulse of their customer satisfaction. Direct contact with customers could provide realistic information about what the company is doing right or where the company is going wrong. This informal feedback is really valuable in any company but in large companies or when the contact with the clients is not so direct it can be rather complicated. For this reason, surveys are necessary and useful to measure and track customer satisfaction. Surveys provide the information that shows where attention is required but developing a customer satisfaction program is not just about carrying out a customer satisfaction survey. The results of the survey should be transformed into major long lasting improvements in the company, probably involving training of the staff, cultural or even political changes in the management. However, the aim of this tool is focused on improving and facilitating the first step of a good customer satisfaction program in the water industry. Create and design a successful Customer Satisfaction Survey. The tool works as a survey designer with its main purpose of facilitating the user in the elaboration of Satisfaction Surveys and do it in the most accurate and useful way. The tool provides the user more than a hundred options of questions to put them into its survey. The suggested questions are grouped into 10 categories: Personal/Company information, Water Quantity, Water Quality, Water reuse, Water Technologies, About your Company, Staff-Customer service, Product, Service, Customer Service Overview. The users can select as many questions as they want. Most of the questions offer two ways to answer them, a blank space to fill it out or a selector with pre-written answers. The users can also choose which kind of answer	

they would want for its selected questions. Once the users has selected all the questions and the answer methods for each one, they would be able to print the designed survey or download it. The printed or downloaded version can be used to distribute among its clients to easily know their opinion. Finally, the results of the survey will be collected and analysed by the user and he or she will be able to come up with a picture of the customer satisfaction regarding its company.	
How does it improve the decision-making process?	• It gives ideal questions for a good customer satisfaction survey • It facilitates the user to develop a good customer satisfaction program
Core & value-added of the tool	
• Prewritten questions that facilitates the designing process of a survey • It can be used for different satisfaction surveys due to its diversity of questions. • It can create hundreds of different surveys, one for each necessity or request	

3.5.2 T0405- SWOT Analysis Tool

Objective	To carry out a strategic assessment based on a SWOT analysis to determine different strategic lines of action
Target group / Users	Anyone involved in an SME
Description	
To ensure sustainability of any organisation it is essential to know the capabilities and limitations of the organisation and its relationship with the ecosystem in which it operates. Often, organisations are not aware of all the possibilities on hand and underestimate their potential, and at the same time they are not entirely aware of their shortcomings and weaknesses, which could pose a risk for the proper performance of their activities. The SWOT matrix is the link that allows us to move from internal and external analysis of the organisation to formulate a course of action based on this knowledge. Its main aim is to draw conclusions regarding how the organisation will be able to cope with the changes proposed in its vision in a given context, characterised by opportunities and threats from its internal strengths and weaknesses. The strategic assessment based on a SWOT analysis seeks to determine different strategic lines of action that allow the organisation to use their strengths to seize opportunities, counteract their weaknesses and prevent threats. The SWOT matrix is an analysis tool that presents a summary table consisting of four quadrants (strengths, weaknesses, opportunities and threats) that allows the company to define and contextualise the situation of a theme or organisation at any given time. SWOT stands for Strengths (positive critical factors that we can count on), Weaknesses (areas for improvement of the organisation), Opportunities (positives we can take advantage of using our strengths), and Threats (external negatives that could hinder the achievement of our objectives). The tool is divided into two phases that will help users to carry out a SWOT analysis. The 1st phase: Internal and external matrix Users complete the internal and external matrix emphasizing the most significant resource for their organisation and identifying key facts or events of the context that have or could exert some impact on the organisation.	

For the internal analysis, resources are categorized by:

- Human resources: by "human resources" we mean both people working and forming the organisation, and other more intangible and equally important aspects such as knowledge acquired and the ability to regenerate it (sometimes it refers to the concept of "human capital"). In that sense, human resources also include the specific knowledge and experience accumulated by individuals within the organisation.
- Physical resources: all tangible assets necessary to perform the basic operations of the organisation and achieve their goals (offices, furniture, computers, automobiles, etc.).
- Financial resources: the set of financial assets that have a degree of liquidity, defining "liquidity" as the quality of the assets to be converted into cash immediately. It includes both financial resources immediately available (assets such as cash, checks, deposits in financial institutions, bonds, stocks, etc.) and the ability to raise funds through loans from financial institutions, public tenders' grants, government subsidies, etc.
- Knowledge: Each organisation has its own kind of knowledge that has been accumulating continuously. This knowledge may have been reflected in publications, Tool Description Report s, methodologies, tools, databases, management systems, etc. However, part of this self-knowledge has a more informal character not found in any material support.
- Ecosystem: This type of resource is the set of relations that builds up and maintains an organisation with its external environment, giving it a very specific value.
- Values and identity: The identity or the organisational culture is the set of beliefs, values and actions that identify and differentiate one organisation from another. It is directly related to its history, values and activity performed.
- Communication: the ability of an organisation to transmit messages and their comprehensibility in a way the sender desires. Such potential is two-fold: on the one hand it is the internal ability to generate clearly, mobilise, shock, etc., which can support specific target messages; while on the other, the ability to access the appropriate channels of communication and to spread the desired messages widely.

For the external analysis, the tool requires to identify facts or events of the context that have already or could exert some impact on the organisation. They can be of a political nature (instability, crisis), legal (new law, new priorities, tax incentives, etc.), social (health, employment, etc.), financial (arrival of new players), etc. It is recommended to complete this in a participatory manner with all the various members of the organisation.

The 2nd Phase: Prioritisation

The next phase requires the prioritisation of the main strengths, weaknesses, opportunities and threats that have been identified by the user. Once the prioritisation has been made, the software will show the SWOT matrix completed, in which the most important aspects to consider will appear in each quadrant (up to 7 per quadrant) ordered from highest to lowest priority. Once the SWOT matrix is completed, the next step is to analyse it and develop possible lines of action corresponding to the evidenced reality. Several strategies are raised and tailored to the situation analysed. By crossing the Strengths, Weaknesses, Opportunities and Threats, the objective is to determine the strategic options: for example, which strategies are we able to implement and which strategies can we not implement?

How does it improve the decision-making process?	Strategic lines of action are determined by an exhaustive analysis of the organisation, which minimises the risk of the erroneous implementation of strategies out of touch from the reality and the ability of the organisation.
Core & added value of the tool (bullet points)	

ep by step guide to conduct a strategic assessment based on a SWOT analysis.

3.5.3 T0403- The Integrated Water Resource Management Tool

Objective	To aid all implementers of the IWRM process to know if they have successfully covered all points of the process.
Target group / Users	Implementers of the IWRM Process
Description	

According to the GWP (2003), Integrated Water Resource Management (IWRM) *is a process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment.*

IWRM is based on the Dublin Principles, which are internationally agreed statements of water management, which according to the GWP (2003) led to the 4 key principles of IWRM:

Principle I: Water as a finite and vulnerable resource

Principle II: Participatory approach

Principle III: The important role of women

Principle IV: Water as an economic good

IWRM is a holistic and integrated approach to water management with a natural system integration (freshwater and coastal zones, land, surface water and groundwater, quantity and quality, upstream and downstream interests) and a human system integration (policy integration and policy making, macro-economic effects, economic sector, stakeholders in planning and process, water and wastewater management). These principles can be implemented for all uses of water including: domestic; agricultural and forestry; industrial; power production; waste disposal and natural products etc.

The tool is broken down into the 4 principles of the IWRM process, where under each principle the user can check off if a particular process has been undertaken or not. The IWRM process, is adaptable and should be altered to each situation, however all 4 principles do need to be taken into account.

Principle I: Fresh water is a finite and vulnerable resource

- The user has to check off the following points:
- Have the demands on the resource been taken into account, including all the sectors that use the resource?
- Has the freshwater resource been regarded as a natural capital asset?
- Have the effects of humans both negative (pollution) and positive (water reuse) been taken into account?
- Are dialogue or conflict resolution mechanisms in place to reconcile upstream and downstream water users as needed?
- Is there an institutional framework in place that is capable of integrating the human systems (economic, social and political)?

Principle II: Participatory approach

- Has a stakeholder mapping process been undertaken?

- Have the stakeholders been analysed?
- Has a participatory process/methodology been employed?
- Have governments, minority groups and woman been included in the participation process?
- Has a consensus with the stakeholders been reached? If not, has a conflict resolution process been put in place?

Principle III: The Important Role of Woman

- Have special efforts been made to involve woman's participation at all organisational levels?
- Have different mechanisms been explored to increase women's access to decision-making and widening the spectrum of activities through which women can participate in IWRM?
- Are there processes in place for the implementation of training programmes for water professionals and community or grass root mobilizers, taking into account the gender dimension?

Principle IV: Water as an economic good

- Is there a value placed on water?
- If there is no value for water are there processes in place to change perceptions about water values and to recognize the opportunity costs?
- Has a study on willingness to pay been undertaken?
- Is it possible to gain full economic cost recovery (this includes: the full supply cost due to resource management, operating and maintenance expenditures and capital charges, the opportunity costs from alternative water uses, and the economic externalities arising from changes in economic activities of indirectly affected sectors)?
- Are there operational economic concepts and instruments in place that can contribute to water management by limiting the demand for water?
- Are there transparent financial linkages among different organisations and between users and management agencies?
- Is water included in the concept of the circular economy?

How does it improve the decision-making process?	If a water stakeholder is looking to implement the IWRM process, this tool can aid the user in making sure that all points above are borne in mind when initiating the process.

Core & value-added of the tool (bullet points)

The tool aids the users to ensure that all points of the IWRM process are considered

It is a tool that can be used to show the stakeholders in the process what would be required to be implemented throughout the entire IWRM process, therefore it can be seen as a planning tool as well.

4 Conclusions

This Tool Description Report is as an answer for the significant lack of knowledge among SMEs. It has been seen from the analysis of this investigation that coupled with limited financial resources, SMEs find it hard to acquire the necessary knowledge to be successful.

Therefore, throughout this Tool Description Report all the aspects of the development of a business in the water reuse sector and its management before and after it is started up in order to become a useful toolkit for those SMEs and entrepreneurs that aim to set up a business or improve an existing one. Through the four phases and with its different tools it is expected that the user is able to learn and solve all aspects related to the identification, design, incubation, management and post-management of this kind of SME. These tools are compiled in an online platform supported by the European Union and developed under the project DEMOWARE.

In that sense, an online platform providing readily accessible and easy to use tools can help SMEs in the water reuse sector to overcome the knowledge gap and can lead to better performance results. The shown tools are exhaustive and tackle the major knowledge gaps of SMEs.

For these reasons this Tool Description Report and the consequent online platform acts as a one stop shop for SMEs to find all the tools they need to be successful. This Tool Description Report and online platform will save time for the user offering the necessary resources for the SME, found in a unique knowledge centre.

It is expected that SMEs use the platform according to their needs, choosing the tools they find the most useful or basic versus the more advanced tools; choosing among the different areas of tools creating their own path of training, learning and improving their knowledge on the most natural way.

In conclusion, this toolkit (the present Tool Description Report and the online platform) aims to become a reference in the training of SMEs in the water reuse sector in Europe solving all the existing learning gaps in the sector and boosting those businesses to succeed in any market.

5 References

Bixio, D., Thoeye, C., De Koning, J., Joksimovic, D., Savic, D., Wintgens, T. & Melin, T. (2006) Wastewater reuse in Europe. Desalination 187 (1-3), pp. 89–101.

Edinburgh Group. Growing the global economy through SMEs. http://www.edinburgh-group.org/media/2776/edinburgh_group_research_growing_the_global_economy_through_smes.pdf

European Commission (2016). User guide to the SME Definition. Ref. Ares (2016) 956541 - 24/02/2016

European Commission (2015). Final report - Annual Report on European SMEs - 2014 / 2015 - SMEs start hiring again. http://ec.europa.eu/DocsRoom/documents/16341/attachments/2/translations/en/renditions/pdf

European Comission (2015). SME Definition – user guide 2015. http://ec.europa.eu/DocsRoom/documents/15582/attachments/1/translations/en/renditions/pdf

European Comission (2015). Statistics on small and medium-sized enterprises. http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises

European Commission (2015). Final report - Annual Report on European SMEs - 2014 / 2015 - SMEs start hiring again. http://ec.europa.eu/DocsRoom/documents/16341/attachments/2/translations/en/renditions/pdf

European Commission (2015). Europe 2020 indicators - research and development. http://ec.europa.eu/eurostat/statistics-explained/index.php/Europe_2020_indicators_-_research_and_development

European Commission (2012) European Innovation Partnership Water Strategic Implementation Plan.

European Water Platform (2014) Water Innovation Europe 2014 “Water in Europe : Green tape or Blue Gold ?”

European Commission (2009). Implementing SME Definition. EU publications. https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

European Environment Agendy (2010). Directorate-General Enterprise and Industry (DG-ENTR) http://www.eea.europa.eu/data-and-maps/data-providers-and-partners/directorate-general-enterprise-and-industry

Hrovatin, N. & Bailey, S.J. (2002) Implementing the European Commission ’s water pricing perspectives 10 (2001), pp. 13–24. communication : cross-country

Krozer, Y., Hophmayer-Tokich, S., van Meerendonk, H., Tijsma, S. & Vos, E. (2010) Innovations in the water chain – experiences in The Netherlands. Journal of Cleaner Production 18 (5), pp. 439–446.

Science for Environment Policy (2015). Innovation in the European water sector. Future Brief 10 produced for the European Commission, DG Environment. Bristol: Science Communication Unit. Available at: http://ec.europa.eu/science-environment-policy

UN-Water & FAO. (2007) Coping with water scarcity. Challenge of the twenty-first century. http://www.fao.org/nr/water/docs/ escarcity.pdf

OECD, LEED (2009). Innovation in Skills Development in SMEs Highlights

OECD (2004). Promoting entrepreneurship in SMEs highlights and innovative SMEs in a global economy: Towards a more responsible and inclusive globalization.

OECD (2009). Small business, job creation and growth: facts, obstacles and best practices.

Oxford Economics (2013). The Global SME Mindset http://www.oxfordeconomics.com/Media/Default/Landing%20pages/SAP%20SME/Research/SME_Global_Mindset.pdf