

## DECISION-MAKING-Integral and circular methodology for making business decisions

### Summary

The Decision-Making project consists of creating a methodology that allows the implementation and use of 'business intelligence' tools and knowledge and commercial artificial intelligence by small businesses.

### Objectives

- **Increase sales** through digitalisation and improved decision-making. Provide tools and information through business intelligence techniques that generate knowledge for business decision-making.
- **Facilitate decision-making** by automating knowledge systems extracted from data analysis, making it possible to create decision patterns that facilitate quick and effective responses in similar future situations.
- **Build a competitive advantage over the competition.** The time taken from detecting a business opportunity to executing it and getting the desired result is essential in an increasingly volatile and competitive market. There is no point knowing what we need to do if we are unable to implement it. The key differential factor is the time it takes to implement actions with a real impact on hoped-for outcomes. Such a tool as Decision-Making, which speeds up this process, is a key competitive advantage for a company in today's markets.
- **Identify key points when making decisions.**
- **Focus business efforts on the important points for the company.** Improving productivity quotas and reducing poor decisions are truly key factors for business success.
- **Training people** to interact with data is a highly strategic step.
- **Implement a disruptive project on the market.** Move from traditional data analysis to an innovative business opportunity suggestion system.

### Description of the measures planned in the project

**1- Data collection.**

Historical, reliable and recent data on the operation of commercial activities.

**2- Data processing.**

Data processing with specialised computer tools (R software and/or the Python programming language).

**3- Definition of KPIs.**

Definition of the key performance indicators to verify the success of the project and goal achievement.

**4- Definition of ROLES.****5- Descriptive analysis of the data.**

Descriptive analytics, to provide a realistic picture using numerical and graphical analysis of the data obtained.

**6- Predictive analysis of data.**

Use the correlations and behaviour patterns obtained to make reliable predictions about trends in variables of interest over time. Develop multivariate regression models to explain relationships between key efficiency indicators and different decision variables. Use of multi-variant and machine learning techniques that will be implemented in open solutions, R and Python.

**7- Prescriptive data analysis.**

Construction of a smart decision-making support system. Use of smart algorithms (heuristics, metaheuristics, and artificial intelligence methods) that automatically provide business recommendations that maximise the efficiency of sales agents in each time period.

**8- Pilot test and analysis.**

Test of the effectiveness of the developed smart support system.

**9.- Project management and coordination.**

**10- Dissemination of the results.**

## Expected results and practical recommendations

The Decision-Making project will develop a **methodology that allows the implementation and use of 'business intelligence' tools and knowledge and commercial artificial intelligence by small businesses.**

The methodology developed will help to professionalise and digitise sales departments, providing tools, method and rigour to minimise subjective decision-making and the knowledge needed to specify a way of becoming highly competitive.

Companies today accumulate enough data to make much more calculated business decisions than is generally the case. The high cost of sales structures harms profits unless efficient actions are taken. Increasing sales and optimising costs and resources are the key variables for most businesses and are essential in organisations with a clear business outlook. Customising and providing rigour, methodology and processes for the sales structure are essential to ensuring survival and are the objectives of the project.

In business, it is not always important to know the answers, as they do not always give us the expected results. More important for business is knowing how to ask the right questions. These are what provide the desired result. Guiding companies in formulating these questions is one of the most important aspects of this project. Accompanying this process by introducing artificial intelligence and data analytics is the main differentiating factor for a sales team. Productivity and efficiency in actions are the key difference between generating good or mediocre business results. This is where the methodology comes in.

Business strategy is the way a company defines how to create value and marks the way forward, but results are only achieved if the actions taken are properly aligned with these value-generating goals. Among other things, this project aims to help companies 'take action' by giving them tools that generate knowledge in order to execute tactical actions that will impact on sales results and, at the same time, global business results.

**Leader of the Operational Group**

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**Subject area(s) of application**

- Agricultural production system
- Agricultural practice
- Agricultural equipment and machinery
- Livestock farming and animal welfare
- Vegetable production and horticulture
- Landscape / Territorial management
- Pest and disease control
- Fertilisation and nutrient management
- Soil management
- Genetic resources
- Forestry
- Water management
- Climate and Climate Change
- Energy management
- Waste and by-product management
- Biodiversity and environmental management
- Food quality/processing and nutrition
- Supply chain, marketing and consumption
- Competitiveness and agricultural and forestry diversification
- General

**Geographical area(s) of application**

PROVINCE(S)	REGION(S)
Tarragona	Priorat and Baix Penedès

**Dissemination of the project (publications, seminars, multimedia, etc.)**Websites: [www.etim.cat](http://www.etim.cat); [www.cevipecat](http://www.cevipecat); [www.fcac.coop](http://www.fcac.coop); [www.uoc.edu](http://www.uoc.edu)

Publication of news on social media and the FCAC Agroactivitat de la FCAC, in the UOC press service. Sending of press releases.

Conference-Webinar

Social media

### More information on the project

PROJECT DATES	TOTAL BUDGET
Start date (month-year): July 2020	Total budget: €187,908.43
Completion date (month-year):	DARP funding: €76,794.28
Current status: Underway	EU funding: €57,932.52
	Own funding: €53,181.63

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*Order ARP/133/2017 of 21 June, approving the regulatory bases for grants for cooperation for innovation by promoting the creation of European Association for Innovation operational groups in the areas of agricultural productivity and sustainability and the execution of innovative pilot projects by those groups, and Resolution ARP/1531/2019, of 28 May, announcing the call for the grant.*

