



# **DELIVERABLE B.5.1.**

## **BUSINESS PLAN – INITIAL VERSION**

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## Deliverable content

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## 1. Executive summary

This document provides the initial version of the Business Plan. The Business Plan is part of the Action B.5, which aims to establish the guidelines to properly transfer and exploit the results obtained in the LIFE DEMINE project. During the project, three different versions of the business plan will be prepared, an initial version during the first 6 months of the project (presented in this deliverable), a mid-term version just in the middle of the project (month 24), and finally, a final version at the end of the project. The initial version of the Business Plan was created based on the Lean CANVAS model, and it outlines the key points of the business idea linked to the LIFE DEMINE project, to transfer and exploit the results obtained during the project.

The initial version of the Business Plan was presented by FUB and discussed among project partners during the 1st Project Meeting held on December 2017 in Swansea University. All the proposed improvements suggested were implemented. From this initial version, ELENTEC will work during the project in the elaboration of a more detailed business plan of the DEMINE technology.

## 2. Introduction

### 2.1 Objectives

The main objective of this Deliverable is to define an initial version of the Business Plan linked to the innovative water treatment process developed in the LIFE DEMINE project. It should outline the key points of our business idea and serve as a starting point to develop the final version of the Business Plan at the end of the project.

### 2.2 The Lean CANVAS business model

The initial version of the business plan presented in this deliverable was created based on the Lean CANVAS model. This model is widely used as tool to outline the key points of a business idea, in order to simplify and analyze it better. It consists on a single page business plan composed of 9 basic building blocks that deconstruct and organize the business idea into key assumptions. The Lean CANVAS model has 9 building blocks: Unique Value Proposition, Unfair advantage, Channels, Customer Segmentation, Problem, Solution, Key Metrics, Cost Structure, and Revenue Streams. The Lean CANVAS model offers a useful starting point to discuss, analyse and structure our business idea linked to the LIFE DEMINE project to develop the final version of the Business Plan. It simplifies the business planning process by creating a quick snapshot of the business idea that can be share among partners and refine it continuously.

### 3. LIFE DEMINE Business Plan – initial version

#### PROBLEM

**The lack of an efficient water treatment technology to remove the pollutant load from mining effluents.**

Mining effluents may contain large quantities of dangerous substances, such as high heavy metals and high salts concentrations, that can severely pollute the water bodies. Due to that, most of the water sources surrounding mining areas are not meeting the objectives set by the Water Framework Directive.

#### *Existing alternatives:*

No real solution exists for this environmental problem. Current technologies in use for the remediation of contaminated mine pollution in water bodies suffer from high operating costs, including energy requirements, and disposal issues for the toxic sludge removed. Moreover, these technologies are usually created to deal with a specific mining effluent type, without offering a versatile solution.

#### SOLUTION

LIFE DEMINE will develop an innovative water treatment process that will include existing and known technologies based on membrane processes and electrocoagulation, with the global aim of obtaining a non-polluting final effluent. This treatment will offer several key advantages over the traditional technologies:

- Low energy requirements
- Non-specific to a single mining effluent type.
- Cheap, reliable and robust.
- Recuperation of metals and salts from water.

#### KEY METRICS

- Replication/transfer of the treatment plant.
- Market size in number of costumers.
- Website traffic and statistics.

#### UNIQUE VALUE PROPOSITION

LIFE DEMINE will develop an innovative, efficient and versatile water treatment process that will transform the polluted mine effluent into clean water.

The DEMINE process will make major advances in remediating mine wastewaters and increase the sustainability of the EU mining sector, while vastly improving the quality of affected water bodies, in accordance with the Water Framework Directive.

#### UNFAIR ADVANTATGE

The innovative water treatment process proposed in the LIFE DEMINE project offers a proven and tested solution to treat mining effluents, ensuring its effectiveness.

#### CHANNELS

- The Life DEMINE project website.
- Networking and awareness raising activities, including open days to the pilot plant.
- Publication in scientific journals and conferences in the framework of wastewater management sector.
- Social media networking: Twitter and LinkedIn accounts.
- Project dissemination material: brochures, project promotional video and broadcast in the local media.

#### CUSTOMER SEGMENTS

- Administrations at local, regional, national and European level responsible for water and abandoned mines management.
- Water agencies.
- Mining operators and other industrial sectors with polluted effluent discharges.
- National and European authorities.
- Scientific community.

#### *Early adopters:*

Administrations in charge of managing abandoned mines will adopt our technology to reduce the environmental impact caused by mining effluents into water bodies and to fulfill the Water Framework Directive in their area.

#### COST STRUCTURE

- Personnel 59.63%
- Travel and subsistence: 5.63%
- External assistance: 1.4%
- Prototype (durable goods): 22.02%
- Consumables: 3.30%
- Other costs: 1.49%
- Project overheads: 6.54%

#### REVENUE STREAMS

This treatment plant will deliver a solution to an existing environmental problem, and it can generate revenues especially from construction of new treatment plants and patents.

