REBUILT Project / Activity 2.4.9

Co-funded by the European Union

Business modelling for circular economy projects

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1. Introduction

RED BETON is part of a Czech construction Group operating in building construction and this subsidiary is spezialized in sustainable construction through recycling of demolition waste to produce concrete.

They operate in both the Czech and Slovak construction market.

The vision of the company is cleaerly driven by innovation in the circular economy for ready mix (RED meaning Recycling/Ecology/Durability).

The innovation is to produce ready mix with 100% waste materials in order to save virgin aggregates, so it is a clear circular economy project.

The project is compose of three different segments :

- Producing concrete with the technical parameters of the traditional concrete but with a lower environmental footprint,
- Waste processing by assisting the transformation of waste materials to high quality raw materials for ready mix production,
- Provide licensing and know how to ready mix producers to implement new recipes.

Ther innovation presented in this document is mainly related to create a software to implement the recipes with waste materials either internally (already experienced) as well as to others ready mix producers.

In the recent past, there was a cooperation with the local subsidiary of a major Nordics construction company but it ended without success.

2. Market analysis.

RED BETON estimates that 1.5 millions tons of crushed stones could be saved through the usage of recipes with waste materials, that means about 10% of the yearly extraxction only for Czechia.

The market is quite atomized with about 450 concrete plants managed by 160 companies locally.

Since 2025, there were some legal changes in the country which are clearly a booster for the reuse of waste materials :

- Forbid to dump waste materials which could be reuse in landfill.
- Increase of 45% of the tax on waste going to landfill areas.

Another opportunity is that the virgin aggregates volumes are diminishing on a long term basis, which could help to change the mindset of the ready mix producers.

Decision making process.

Key deciders are the concrete ready mix producers.

One main issue is that the market is very conservative and time is needed to convince the ready mix producers to adopt this concrete done with waste materials.

One good commercial point is that RED BETON estimates a cost saving of 20% compared to the tradional existing concrete formulas.

Competition.

At this stage, it was not investigating whether software to optimize recipes are available on the market. It is surely mostly done internally by the ready mix producers.

3. The solution and its implementation.

Description of the solution.

The solution is to propose a software in a form of a turnkey intellectual property package with

- Certified recipes (C20/25, C25/30 for example) using 100% of waste materials (bricks, concrete or mixed rubble).
- Technical guidance on how to adjust the existing concrete plant equipment to handle waste materials, particularky as they could be more porous and abrasive compared to virgin aggregates.
- Certification support to deal with the complex EU legislation and the local technical requirements (TZUS certification) needed to market this new concrete tot he building sector.

Certification.

One issue ist he European Union norm EN206 which limit reuse of waste materials in a range o 20 to 50% oft he tonnage.

Mimimum viable product (MVP).

The MVP is unfortunately not yet available.

But RED BETON is already producing concrete slabs with 100 % recycled materials (see hereunder)

Further development areas..

Not relevant.

4. Business plan components.

To further develop the software, there is a need for an IT specialist for 6 months.

Based on the current market conditions, we estimate that these up front costs (CAPEX) would amount tot he following :

- Salary : 4.000 € x 1,34 (social contributions) x 6 months = 30 k€
- Various IT costs (computer, licences,…) : not relevant as already in the company assets
- Yearly maintenance cost : 4 k€ (15% oft he sotware initial costs)

Fort he revenues side, the proposal is to have a SaaS revenue composed of

- A base annual fee of 500 €,
- A cost per recipe of 100 €

With approaching and gaining 10 clients from 2027, it could generate a turnover of 15 k€ per year and a gross margin of 30%.

Of course the data will be revised depending on market demand fort he SaaS solution.

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ReBuilt

The Lean Canvas

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RED BETON		March 2026	1	Read Instructions Watch YouTube video

Problem	Solution	Unique Value Prop.	Unfair Advantage	Customer Segments
Main problem : reducing comsumption of virgin aggregates by replacing with waste coming from demolition, with coping to the EU and Czech regulations (nrom EN206,…)	Software to help the ready mix producers to change their recipes and technical suppoort to adapt their batching plant equipment for the usage of waste materails	RED BETON is the only company marketing allready concrete with up to 100% waste materials and has a clear competitive advantage to sell the solution. ot the Czech ans Slovak market.	No unfair advantage foreseen as this solution is only aiming as reusing waste materials (so less virgin aggregates extraction)	Target Customers : ready mix producers in a B2B environment.
Existing Alternatives	**Key Metrics**	**High-Level Concept**	**Channels**	**Early Adopters**
Unknow at this stage, as the competition is not publishing their solutions.	Number of companies adopting the SaaS solution.		Personal approach to ready mix companies (estimation of 160 companies owning 450 batching plants)	Testing in 2027 with a couple of small medium size ready mix producers.

Cost Structure	Revenue Streams
List your fixed and variable costs. CAPEX to produce the software : 30 k€ to be depreicated over 5 years and maintenance costs of 4k€ per year	List your sources of revenue. Revenue : 10 clients per year paying a 0.5 k€ base Saas fee and another 1 k€ for 10 recipies, so a total of 15 k€ per year Gross Margin : 5 k€ so 33% in 5 years

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