

Business Project: Industrial & market replication model for ABC-BioPhosphate recovery

Applied industrial & environmental norms & standards: EU & USA.



Edward Someus
(biochar S&T
senior engineer)



Product of Europe



"The significant problems we face cannot be solved at the same level of thinking we were at when we created them"
Albert Einstein

3R innovation EVOLUTION for green tech REVOLUTION

In a world with finite resources there is no infinite development opportunity with sustainability, unless a resource efficient circular economy is fully implemented.

The 3R zero emission pyrolysis is unique & strategic technology system with strategic market position in the fields of organic horticultural innovative fertilizers and adsorbent markets. The 3R is converting trash into cash and provides high economical yield for investors.

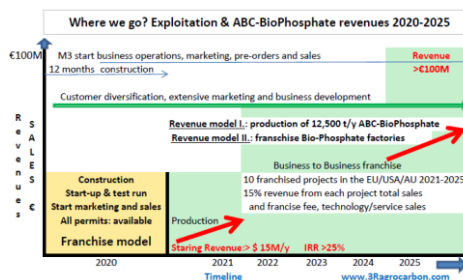
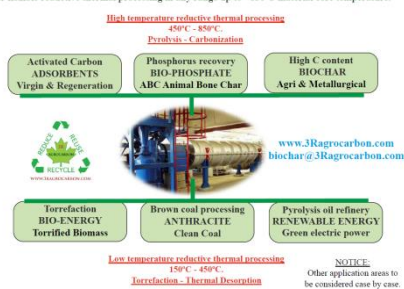
The Investment Proposal Offer: Implementation of industrial replication franchise model for Bio-Phosphate recovery targeting EU, Australian, Japan and USA/Canada markets. The basic industrial installation is for conversion of 20,800 t/y low value food grade cattle animal bone grist by-products (un-exploited biomass resources) into high added value organic fertilizer and adsorbent natural products (ABC Animal Bone bioChar and formulated BIO-NPK-C). **The results are >€15 million/year EXW business and >€ 100 million/year franchise business expansion opportunity (>10 replicated franchise units in the EU, USA, Australia) before 2025.** Terra Humana Ltd. is the only organization in the EU which is specialized on high nutrient dense bio-phosphate recovery from food grade animal bones and having comprehensive high tech and economical solution. The knowledge intensive company is specialized for carbon refinery, carbonization recycling technology and carbon products reuse specialized industrial engineering organization since 1989.

THE PROJECT: construction (takes <12 months) and full production operations of the bio-phosphate industrial replication franchise model for processing of 20,800 t/y throughput food grade cattle animal bones for production of 12,500 t/y ABC-Bio-Phosphate natural-organic products and 4,000 t/y bio-oil surplus bioenergy, generating over €15 M/y EXW based revenue over the next >20 years. The feed material "just in time" supply is already organized. This comprehensive installation meets all the EU and US industrial/environmental norms/standards together. The advanced technology applied is the revolutionary 3R zero emission and autothermal pyrolysis and its auxiliary installations. The 3R field demonstration plant with 2,000 t/y throughput capacity is also located at the project location and proven long run demonstrated-operated-tested-validated past decade. Based on the long run test/development results the comprehensive industrial engineering for the replication franchise model has been developed/designed past years. Hungary is one of the possible option to implement the first industrial replication franchise model as of significant cost benefits that decreasing the CAPEX/OPEX of this project. In later franchise replication model set ups the German CAPEX/OPEX scenario costs calculated as standard model. The EU >88%, but most MS 100%, importing the mineral phosphate (contaminated with Cadmium and Uranium), therefore all Phosphate and Phosphorus products are defined as critical raw material as of European Commission decision COM(2017) 490. The project is strategic important to improve the market demanded European food safety and supply security, and at already 10 franchise system offering high substitution potential for the EU imported mineral phosphate fertilizers for the organic/low input farming food production sector before 2025.

The project is implemented under the coherently integrated EU and US industrial and environmental norms and standards with objective driven prime market targets in the temperate climatic zone countries.

Phosphate is critical raw material: ABC-BioPhosphate is for 100% substitution of the Cadmium/Uranium contaminated & non-renewable mineral phosphate fertilizers

"3R" zero emission carbon refinery technology application map 2019
for flexible reductive thermal processing in any range up to >350°C material core temperature.



Investment information

Amount to be raised = €10,000,000. IRR = >30%, pay back = 3-4 years. Full industrial replication franchise model implemented in 2019 with 20,800 t/y throughput capacity and commercial production 2020. **Objective:** after implementation of an low cost industrial replication franchise model, expand with replicated projects in the EU, Australia and USA markets with at least >ten projects before <2025. The franchise project is located in the center of logistical hub and interlinked to industrial training/education for franchise partners. EU/MS Authority permits = valid, already available. **IPR =** Strongly IPR protected original solution with core element of confidential and none public industrial engineering design documentation and proprietary know-how. The 3R technology has been developed recently under European Commission applied research programmes, which are strictly IPR regulated according to the EU regulations. In all cases 3R-BioPhosphate Ltd. has been the core science & technology provider, product developer and coordinator. All IPR and results are solely owned by the inventor Edward Someus and the 3R, which legal/financial status is clean/clear. Full value technology insureded will be managed. Number of employees 13.

Project web <http://www.3RagrocCarbon.com> - **video pitch** <https://www.youtube.com/watch?v=2HCNIYLcxDw>
European Investment Project Portal <https://ec.europa.eu/eipp/desktop/en/projects/project-284.html>