



Executive summary of the 3R-BioPhosphate investment case

Specialized, High-Efficiency Solution to Turn Unexploited Biomass “Trash” into Valuable Assets

3R BioPhosphate offers a unique, scalable, and sustainable technology that transforms unexploited biomass into high-value products. Designed for high-efficiency and zero-emission performance, the solution enables the conversion of low-value waste into premium bio-based materials.

Our mission is to deliver **safe, resilient, and economically viable applications** for agriculture and water treatment—creating **measurable financial value and tangible non-financial benefits** for investors, users, and all stakeholders in the value chain.

Project Overview

3R BioPhosphate delivers a **scalable deep-tech circular economy solution** that directly addresses **global food security** and **climate resilience**. By transforming animal bone biomass through zero-emission, energy-independent processing, 3R produces premium **BIO-NPK-C bio-based fertilizers** and **adsorbents** for agricultural and environmental applications.

Unique Value Proposition

- **High-Performance Biofertilizer:** Enhances food crop productivity and safety while reducing production costs. Supports **soil health** and **drought-resilient cultivation**, aligned with climate targets.
- **Water Treatment Adsorbents:** High-performance BioPhosphate materials tailored for a wide range of **industrial and environmental water purification** use cases.
- **Market-Ready Innovation:** Fully industrialized and compliant with **EU, US, and Australian** regulatory frameworks.
- **Global Scalability:** Designed for **replication** in international markets, including the EU, US, and Asia.

Team & Execution

- **Founder & Inventor:** Edward Someus – 25+ years in industrial pyrolysis and engineering.
- **International Team:** Proven expertise in nutrient recovery, clean-tech, and process upscaling.
- **Execution-Ready:** Scale-up engineering, operational planning, and stakeholder training programs are already in place

Competitive Advantage

- **Zero Emission, Energy-Independent Technology:** Advanced 3R system engineered for **full industrial conditions**.
- **Upcycling Low-Value Biomass:** Transforms unexploited inputs into **high-value products** for agriculture, environment, and water sectors.
- **Nature-Based Circular Solution:** No chemicals used; organic, safe, and **eco-efficient products**.
- **Comprehensive 360° IP Strategy:** Includes patents, trade secrets, and design protections.
- **Premium Product Quality:** High-purity BioPhosphate with proven **agronomic and environmental benefits**.
- **Full Regulatory Approval:** Certified under **EU REACH**, with ready-to-deploy industrial production capabilities.
- **Conservative financials** (low risk high reward project)

Call to Action: Seeking co-investors and industrial partners to deploy the full industrial unit 2026 and rapid replicate globally. _____

**3R-BioPhosphate upcycling concept:**

A **zero-emission** and **energy-independent** circular solution for transforming **unexploited biomass** into **high-value** products. Through its next-generation **symbiotic onsite processing system**, 3R-BioPhosphate delivers substantial **CAPEX/OPEX reduction** and increased **profitability**. The core outputs are:

- **ABC (Animal Bone Char) BioPhosphate** compound bio-fertilizers for organic farming under drought-prone conditions, and
- **Specialized adsorbents** for advanced water treatment applications

Company Overview

- **Company Name:** 3R-BioPhosphate LLC (USA). *(Holding entity under registration in the USA. It will own all global IPR, subsidiaries, and operations. Legal structure is transparent and clean.)*
- **Founder & CEO:** Edward Someus – Swedish environmental engineer and inventor of the 3R system.
- **EU Address:** 2472 Kajászó, Biofarm Road 58/3, Hungary, [View Location on Google Maps](#)
- **Contact:**
✉ biochar@3Ragrocarbon.com
✉ edward@terrenum.net
- **Websites:**
🌐 BioPhosphate.net
🌐 3Rbiofarm.com
- **IP Strategy:** Proprietary invention protected by a comprehensive **360° IPR strategy**.
- **Current Estimated Valuation:** \$250M
- **Capital Raise Target (2025):** €30M to fund TRL9 industrial-scale project with 20,800 t/y capacity production and commercialization, that is aiming rapid 10x global replications <2030.

Planned TRL9 Industrial Implementation (2025–2026):

Total system implementation within **16 months** (12 months build, 4 months ramp-up).

1. **3R Pyrolysis Unit**
 - Capacity: 20,800 tonnes/year of food-grade cattle bone meal
 - Output: ABC BioPhosphate
 - Energy independent, zero emissions
2. **Onsite Energy Center**
 - 3 MWe/hour (24,000 MWe/year) green electricity from surplus 3R pyrolysis energy
 - Fully integrated across units
3. **ABC Substrate Preparation Unit**
 - Operates using internal green energy
4. **Greenhouse Unit (20,000 m² / 2 ha)**
 - Tomato and chili pepper cultivation on ABC substrates
 - Heated/cooled via surplus energy from 3R
5. **Fruit & Vegetable Processing Unit (1,200 m²)**
 - JIT (Just-in-Time) cooling, prep, and export-ready packaging
 - Designed for rapid turnover and minimized inventory costs
6. **Water Treatment Adsorbent Production Unit**



- Advanced adsorbents for industrial and municipal water treatment

Business Proposition

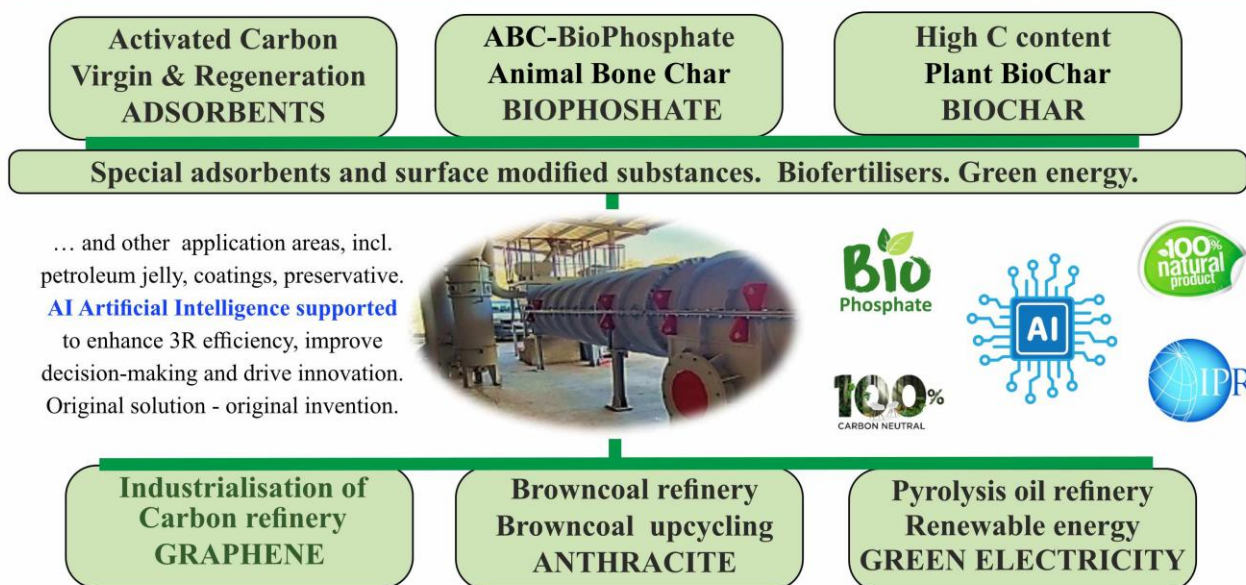
- **Payback Period:** <3–4 years
- **Scalability:** Targeting **15–20 replications** globally by 2030
- **Strategic Goal:** Reach **>\$500M in commercial value** by 2030
- **Vision:** Establish 3R-BioPhosphate as a **global leader** in sustainable, zero-emission nutrient recovery and integrated industrial symbiosis—**for at least the next 30 years**

Use of 3R Tech

"3R" zero emission and energy independent carbon refinery technology **AI supported upcycling of by-products to Recycle - Recover - Reuse** **Application map 2025**

3R pyrolysis reductive thermal processing in any range up to <850°C material core temperature.

High temperature pyrolysis - reductive thermal processing >850°Celsius material core temperature processed



Low temperature reductive thermal processing <450°Celsius material core temperature processed

