



The Road to ZERO-WASTE IRONMAKING™
EXECUTIVE SUMMARY

RECYRON is the ultimate smart choice for a zero-waste ironmaking process. This process is designed to recycle all possible raw material wastes (RMWs) from an integrated steel plant, while making guaranteed profit within 3-4 years. RECYRON takes care all RMWs of steel plants and iron-ore mines, such as superfine ores, coke breeze, sinter dust and BF dust etc. RECYRON uses a simple technology like briquetting to its utmost potential to agglomerate all the wastes, and thereafter reduces it using a rotary kiln to produce high quality direct reduced iron (DRI), perfect to use in mini-mills or charging back again into the blast furnace. The process is also able to generate power as the by-product. Therefore, RECYRON stops the valuable raw materials going to landfill and creates value out of waste. In parallel, it also reduces coke consumption and in turn reduces CO₂ emission significantly. RECYRON offers not only excellent NPV and IRR for investors, but also takes a firm step for the betterment of the environment.

Business Model / Go-to-Market strategy

Possibility 1 - Establishing stand-alone plants and generate revenue from selling DRI briquettes.

Possibility 2 – Selling the license to steel producers and receive royalty from each ton of briquettes produced

Bonus possibility – Offer consulting service for the process itself after successful installations

Since all the customers will be steel companies, a global marketing strategy will be taken to attract them using the platforms of various steel-forums and steelmakers consortiums throughout the world. In addition, potential investors from the steel companies will be attracted to make more investments. A potential number of possible investors have already been located in USA and Canada. After successful beginning for a few years, the technology will be expanded to third countries with a strong presence of steel companies, such as India, US and Canada with Mexican SEZ, Russian Federation, South Africa etc.

IP Rights and technology status

The process is patent pending. The technology is at present at TRL 7, waiting to be scaled to the pilot level (1 ton/day).

Finance plan

All calculations have been made for a 500 tpd plant in Euros (€). Production begins in 3rd year.

Yr	Cash Inflow	Cash Outflow	Net CF
0	0	3,000,000	-3,000,000
1	0	17,000,000	-17,000,000
2	0	15,000,000	-15,000,000
3	47,000,000	20,000,000	27,000,000
4	47,000,000	20,000,000	27,000,000
		NPV (@12%)	6,240,575
		IRR	22%
		NPV/CAPEX	18%

Preferred financing model – Debt and/or Equity financing

Awards: 3rd prize at the Business Idea Competition organized by EIT RawMaterials (Budapest, November 2017)