



Total Solutions for Environmental and Industrial Waste Management

Advanced, environmentally responsible technologies and professional services to support the long-term sustainability of your business.

www.cr-enviro.com



EXECUTIVE SUMMARY

PT Centra Rekayasa Enviro (CRE) is an internationally standardized environmental engineering company specializing in integrated solutions for industrial waste, hazardous waste (B3), medical waste, and municipal solid waste management. With over a decade of experience and comprehensive ISO certifications, CRE has grown into one of Indonesia's leading waste management technology providers.

Through strategic partnerships with global principals — including China GDE for Waste-to-Energy (WtE) technology and Jiangsu Zhongding for fluidized bed systems, rotary kilns, and sludge drying solutions — CRE also collaborates with OGB Engineering from the Netherlands for biodigester and RDF-based municipal waste solutions. CRE delivers internationally compliant thermal treatment systems tailored to industrial and local government requirements.

In the domestic waste sector, CRE has developed the Satu Rasa Ecosystem, a comprehensive approach to household waste management built upon simple, efficient, and sustainable technologies. This innovation is further strengthened by Sampah Watch, a national digital platform that provides waste intelligence, end-to-end traceability, ESG reporting, and carbon economic valuation.

This integrated portfolio positions CRE as a true one-stop waste-to-resource solutions provider, capable of combining engineering excellence, operational services, digital integration, and energy recovery to support Indonesia's transition toward a green economy and the Net-Zero 2060 agenda.



COMPANY OVERVIEW

OUR STORY

PT Centra Rekayasa Enviro (CRE) is an integrated environmental engineering company focused on developing advanced waste treatment technologies for industries, hospitals, industrial estates, and local governments across Indonesia. Established in 2013, CRE has evolved into a comprehensive solutions provider that combines mechanical and electrical engineering, equipment manufacturing, thermal treatment technologies, digital integration, and energy and resource recovery.

With a fabrication workshop based in Bandung and a nationwide technical network, CRE designs, manufactures, and operates a wide range of waste treatment systems, including hazardous and medical waste incinerators, Waste-to-Energy (WtE) facilities, RDF production lines, sludge drying systems, industrial wastewater treatment plants (WWTP), used oil regeneration units, and FABA recycling systems. All engineering and production processes comply with ISO 9001, ISO 14001, and ISO 45001 standards to ensure quality, safety, and environmental compliance.

CRE serves as an official technology partner to several leading international principals: China GDE for large-scale WtE facilities, Jiangsu Zhongding Environmental Engineering for fluidized bed, rotary kiln, and sludge drying–incineration systems, and OGB Engineering from the Netherlands for biodigester and RDF-based municipal waste solutions. These collaborations strengthen CRE’s ability to deliver globally proven technologies while ensuring full compliance with Indonesian regulations.

At the domestic level, CRE introduced the Satu Rasa Ecosystem, a locally adapted and sustainable household waste management model. This ecosystem is reinforced by Sampah Watch, a digital platform providing waste traceability, ESG reporting, and carbon economic value analytics, ensuring that every waste treatment process is measurable, transparent, and verifiable.

By integrating engineering excellence, international technology partnerships, digital intelligence, and a strong commitment to the circular economy, CRE positions itself as a strategic partner for industries and governments in accelerating Indonesia’s transition toward a modern waste management system and a sustainable green economy.

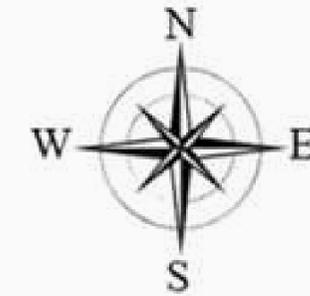
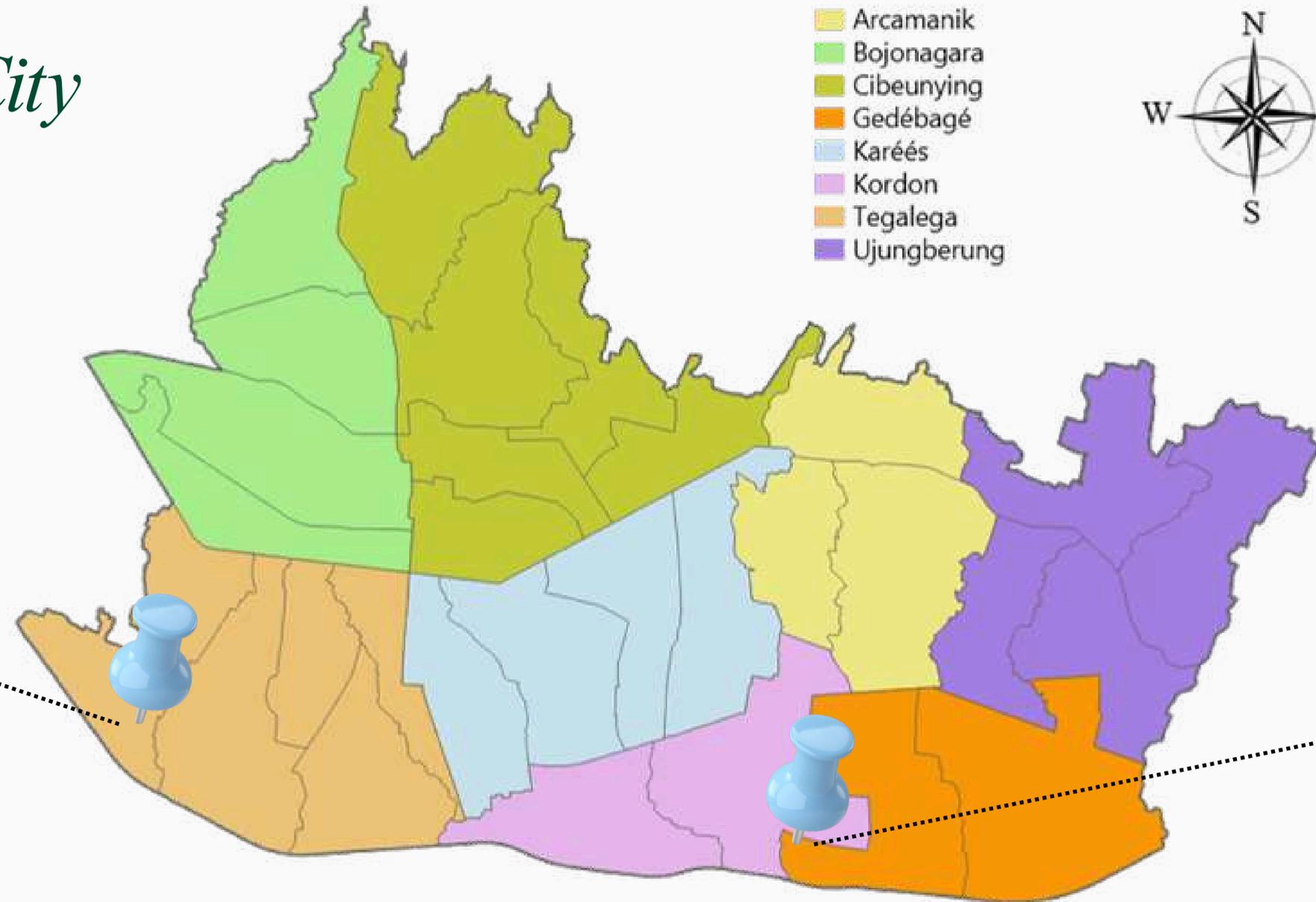
BANDUNG

City



Kantor Pusat & Workshop 1

Jl. Gempol Sari 340,
Cijerah, Kec. Bandung
Kulon, Kota Bandung,
Jawa Barat 40215



Workshop 2

Kawasan Industri Deprima
Terra Blok E1 No 11, Jalan
Raya Sapan No.1A,
Tegalluar, Bojongsoang,
Kab. Bandung

Our Operations

VISION, MISSION & CORE VALUES

VISION

To become Southeast Asia's leading integrated environmental engineering company, driving the transformation of waste management toward a circular economy, clean energy, and national sustainability.

MISSION

- Deliver innovative, safe, and environmentally compliant waste treatment solutions through modern engineering technologies and international best practices.
- Develop fully integrated waste management systems from upstream to downstream – encompassing design, manufacturing, installation, operation, digitalization, and energy and material recovery.
- Support governments, industries, and communities in establishing transparent, efficient, and sustainable waste management systems driven by data and digital technology.
- Build a circular economy ecosystem that promotes waste reduction, increased recycling, energy recovery, and the creation of carbon-based economic value.
- Foster a corporate culture centered on quality, safety, continuous innovation, and responsible governance.

CORE VALUES

Integrity & Responsibility

Upholding honesty, regulatory compliance, and moral responsibility toward the environment, society, and future generations.

Engineering Excellence

Committed to precision-driven design and manufacturing quality aligned with international standards, supported by experienced professionals and ISO-based processes.

Sustainability & Circular Thinking

Viewing waste as a resource. Every solution is designed to reduce emissions, optimize energy utilization, and strengthen the circular economy.

Innovation & Continuous Improvement

Continuously advancing technologies – through internal R&D, global collaboration, and digital integration – to deliver increasingly efficient and effective solutions over time.

Collaboration & Partnership

Building strategic partnerships with industries, government institutions, global principals, financial institutions, and communities to generate long-term impact.

Safety First

Prioritizing operational safety through robust occupational health and safety management systems, continuous training, and risk-based operational procedures.

LEADERSHIP



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PT Centra Rekayasa Enviro (CRE) is led by a management team with extensive experience in environmental engineering, industrial equipment manufacturing, hazardous and medical waste management, waste-to-energy technologies, and the development of digital and circular economy ecosystems. CRE's leadership is anchored in integrity, innovation, and sustainability as the core foundations of the company's growth.

The management team combines strong technical expertise, long-term operational experience, strategic capability in international partnerships, and a deep understanding of Indonesia's environmental regulatory framework. Through a data-driven approach and a culture of continuous improvement, CRE ensures that every project is executed with high quality, full regulatory compliance, and maximum added value for its clients.

OUR BRAND

PT Centra Rekayasa Enviro has developed a portfolio of technology brands to establish clear identity, strong market positioning, and recognizable differentiation for industries, government institutions, and investors. Each brand represents a specific solution within the modern waste management ecosystem.



Phoenix Incinerator
Medical & Hazardous Waste Incinerator Designed and Manufactured by CRE

Phoenix is a proprietary incinerator series fully engineered and manufactured by CRE to handle medical, pharmaceutical, chemical, and industrial hazardous (B3) waste.

Key Features:

- Small to medium capacity (≤ 1 ton/hour)
- Emission standards compliant with Indonesian Regulation PermenLHK 06/2021
- Modular, compact, and user-friendly design
- Advanced Air Pollution Control (APC) systems (Dry / Semi-Dry / Wet)
- Available in automatic and semi-automatic configurations

Phoenix represents CRE's core expertise in advanced thermal treatment technology.



Electric Eel
Electrocoagulation Wastewater Treatment System

Electric Eel is CRE's proprietary electrocoagulation (EC) wastewater treatment technology, designed for industrial, commercial, and public facility applications.

Key Advantages:

- Rapid and effective removal of TSS, COD, color, oil, and grease
- Compact footprint with plug-and-play installation
- Can be integrated with biological treatment units or filtration systems
- Suitable for textile, laundry, automotive, F&B, and mixed industrial wastewater applications

These capabilities position Electric Eel as a preferred solution for efficient, stable, and high-performance wastewater treatment.



Satu Rasa – Sampah Tuntas, Rakyat Senang
Decentralized Domestic Waste Management Ecosystem

Satu Rasa is a decentralized domestic waste ecosystem model designed for villages, sub-districts, small islands, and micro-regional communities.

Ecosystem Components:

- Community-based waste collection and sorting
- Modular waste stations
- Domestic incinerator with Air Pollution Control (APC)
- Local workforce training programs
- Improved sanitation and 90–95% waste volume reduction

Satu Rasa is designed as a practical and scalable solution for regions without landfill infrastructure or with severely limited landfill capacity.



Sampah Watch
Digital Waste Intelligence & ESG Platform

Sampah Watch is a national digital platform designed to enhance transparency, efficiency, and accountability in waste management operations.

Key Features:

- End-to-end waste traceability
- IoT-based monitoring of CRE equipment
- Emission and performance dashboards
- Automated ESG reporting
- Carbon analytics and NEK (Sustainability Economic Balance) integration

Sampah Watch connects all CRE technologies into a unified digital ecosystem that is auditable, measurable, and easily verifiable.

CERTIFICATIONS & COMPLIANCE

Engineering Reliability Backed by International Standards and National Regulations

PT Centra Rekayasa Enviro operates under the highest standards of quality, safety, and environmental compliance. Every product, process, and project is executed in full alignment with Indonesian regulations and international standards to ensure safe, stable, and reliable outcomes.



We are certified under:

- ISO 9001:2015 – Quality Management System
- ISO 14001:2015 – Environmental Management System
- ISO 45001:2018 – Occupational Health & Safety Management System

Association Membership Certificate



Regulatory Mastery as Core Competency

CRE does not merely comply with regulations – we understand them comprehensively. Our regulatory strengths include:

- Extensive experience in preparing Pre-FS, FS, UKL-UPL, and operational permit documentation
- Engineering designs aligned with sector-specific emission and discharge standards
- Technical advisory support during audits and regulatory inspections
- Integrated digital reporting through Sampah Watch to enhance transparency and accountability

The integration of engineering excellence and regulatory mastery represents a key competitive advantage for CRE compared to conventional technology vendors.



Combining Indonesian Engineering Strength with World-Class Technology

To address waste treatment needs ranging from small to large scale, CRE collaborates with leading international principals who are at the forefront of thermal technology, Waste-to-Energy (WtE), RDF, biodigester systems, and sludge management. These collaborations ensure that every CRE project delivers global-quality standards, high reliability, and optimal operational efficiency, while fully complying with Indonesian regulations.

Jiangsu Zhongding Environmental Engineering (China)



Technology Partner for Large-Capacity Incinerators & Sludge Drying

Jiangsu Zhongding is an environmental engineering company with more than 100 incineration installations across China and various other countries. This partnership strengthens CRE's capabilities in industrial-scale thermal technologies.

Scope of collaboration:

- Incinerators >1 ton per hour
- Fluidized Bed Systems
- Rotary Kiln for Hazardous Waste
- High-Chlorine / High-Sulfur Waste Solutions
- Sludge Drying + Integrated Incineration Systems
- Automated Feeding & Continuous Discharge

This collaboration enables CRE to deliver world-class technology with strong local implementation readiness.

China GDE Engineering Co Ltd (China)



Technology Partner for Waste-to-Energy (WtE) 300–1000 TPD

China GDE Engineering is a global company with extensive experience in large-scale municipal WtE facility development. The collaboration with CRE provides access to proven, efficient, and stable WtE technology.

Scope of collaboration:

- Grate Furnace Technology
- Waste Heat Boiler (WHB) & HRSG
- Flue Gas Treatment System
- Energy Recovery & Power Integration
- WtE EPC Support & Technical Advisory

This partnership enables CRE to support Indonesian cities and municipalities in transitioning toward modern WtE solutions.

OGB Engineering (Netherlands)



Zero-Waste & Circular Economy Waste Management Solutions (100–1000 TPD)

OGB Engineering is a Dutch environmental engineering company with over 30 years of experience in developing integrated municipal and regional waste treatment facilities.

OGB is recognized as a pioneer in Mechanical-Biological Treatment (MBT) technologies such as RDF/SRF production and Anaerobic Digestion for municipal solid waste, delivering high material and energy recovery rates with minimal residual waste.

WHY CRE?

Your One-Stop Environmental Engineering Powerhouse

PT Centra Rekayasa Enviro (CRE) is the only company in Indonesia that integrates engineering, manufacturing, operations, digitalization, and global technology partnerships into a fully integrated ecosystem for industrial, hazardous (B3), medical, and municipal waste management.

Here are four key reasons why governments, industries, and investors choose CRE as their strategic partner:



CRE is the preferred choice for industries, hospitals, industrial estates, and government institutions because only CRE delivers Engineering + Manufacturing + Digitalization + Global Technology + Circular Economy within a single integrated ecosystem.

CRE – Your Trusted One-Stop Environmental Engineering Powerhouse.

CRE ONE-STOP SOLUTION FOR WASTE ECOSYSTEM



1 Engineering & Design

CRE has a multidisciplinary engineering team providing:

- Pre-FS & Feasibility Study
- Basic Engineering & Detailed Engineering Design (DED)
- Environmental permits, technical approvals, UKL-UPL, technical assessments, AMDAL assistance, and related documentation
- Process simulation & material balance

All designs comply with national technical standards and regulatory requirements.



2 In-House Manufacturing

CRE manufactures a wide range of waste treatment equipment, including:

- Incinerators ≤1 ton/hour (Phoenix Series)
- Electrocoagulation WWTP (Electric Eel)
- Biological & hybrid WWTP
- APC systems (Dry, Semi-Dry, Wet Scrubber)
- RDF modular & waste preprocessing systems
- FABA recycling systems
- Used oil regeneration units
- And more

Each unit undergoes ISO-based QA/QC and Factory Acceptance Test (FAT) prior to delivery.



3 Global Technology Partnership

For large-scale capacity and advanced technologies, CRE partners with:

- Jiangsu Zhongding – incinerators >1 ton/hour, fluidized bed, rotary kiln, sludge drying
- China GDE – Waste-to-Energy 300–750 TPD
- MSW RDF for city waste with capacity 300–1000 TPD.

These collaborations ensure CRE can meet industrial and governmental needs at any scale.

360°

Integrated 360° Waste-to-Resource Concept

Through the integration of all elements above, CRE delivers a comprehensive solution package that not only processes waste but transforms it into energy, materials, and economic value.

The 360° concept includes:

Engineering → Manufacturing → Operation → Digital → ESG → Resource Recovery
A model that is easily replicable across cities, industries, hospitals, and economic zones.

This approach is aligned with both national and international sustainability agendas. CRE stands as a one-stop environmental engineering powerhouse, supporting clients from planning through full-scale implementation on site.

4 Construction, Installation & Commissioning

CRE provides integrated EPC services, including:

- Mechanical & electrical construction and installation
- Commissioning & performance testing
- Operator training
- SOP & HSE compliance

Projects are executed efficiently, safely, and in full regulatory compliance.



5 Municipal Ecosystem Satu Rasa

To support the transformation of domestic waste management in Indonesia, CRE introduces the Satu Rasa Ecosystem – an independent, locally adapted waste management model.

This solution is suitable for regions lacking modern waste infrastructure yet requiring fast and sustainable implementation.



6 Digital Intelligence Sampah Watch

Sampah Watch is a digital platform that integrates all CRE operations into a unified system, generating national-scale waste intelligence.

This digital integration provides full transparency for clients while strengthening accountability and regulatory compliance.



CRE Upstream – Midstream – Downstream Waste Management

Upstream (Source & Pre-Treatment)

Scope	CRE Work Scope	CRE Solutions & Technologies
Study & Planning	Pre-FS & Feasibility Study, technical review, environmental assessment, waste generation analysis, and waste characteristics evaluation	Pre-FS / FS, material–energy balance, process simulation
Permitting & Compliance	UKL-UPL, AMDAL assistance, technical approvals (air emissions, wastewater discharge, hazardous waste/B3), audit support	Regulatory engineering & compliance advisory
Collection & Sorting Systems	TPS/TPST concept development, manual & semi-automatic sorting, waste station design	TPST design, sorting equipment, shredding, pre-treatment line
Initial Digitalization	Baseline data development, waste source mapping, ESG readiness preparation	Sampah Watch – waste input & traceability

Midstream (Treatment & Conversion)

Scope	CRE Work Scope	CRE Solutions & Technologies
Thermal Treatment	Treatment of hazardous (B3), medical, sludge, and domestic residual waste	Phoenix Incinerator, Fluidized Bed, Rotary Kiln, Satu Rasa + APC
Wastewater & Sludge Treatment	Industrial & domestic WWTP, sludge drying & dewatering	Electric Eel (Electrocoagulation), biological systems, sludge dryer
Material Recovery	Recovery of valuable materials from waste streams	FABA recycling, used oil recycle, metal recovery, RDF/SRF production line
Waste-to-Energy	Conversion of waste into energy	RDF/SRF, Waste-to-Energy (China GDE), anaerobic biodigester (OGB)
EPC & Implementation	Fabrication, construction, installation, commissioning	Integrated EPC services + operator training

Downstream (Utilization, Monitoring & Value Creation)

Scope	CRE Work Scope	CRE Solutions & Technologies
Output Utilization	Energy generation, alternative fuels, recycled materials	RDF supply to cement industry, oil regeneration, construction materials
Operation & Optimization	SOP implementation, HSE compliance, maintenance, performance improvement	O&M support, retrofit & optimization
Digital Monitoring & ESG	Emission monitoring, performance tracking, reporting	Sampah Watch – ESG dashboard, emission & carbon analytics
Carbon & Circular Value	Emission reduction calculation & economic valuation	Carbon reduction metrics, NEK readiness
Replication & Scaling	City, regional, and industrial zone models	Modular & replicable waste ecosystem



OUR SOLUTIONS

Integrated Technologies for Industrial, Hazardous, Medical, and Domestic Waste

CRE provides a comprehensive portfolio of technology solutions covering the entire waste management spectrum: thermal treatment, wastewater treatment, material recovery, energy conversion, digitalization, and domestic waste ecosystems. All solutions can operate independently or be integrated into a unified and comprehensive system.



Thermal Treatment Solutions

Industrial, hazardous (B3), and medical waste treatment solutions based on advanced combustion and drying technologies.



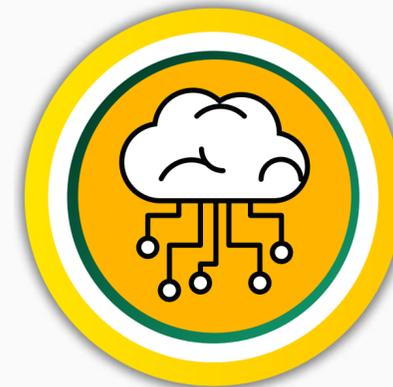
Wastewater & Sludge Treatment

Integrated solutions for industrial and domestic wastewater treatment, including sludge management and drying systems.



Material Recovery & Circular Economy

Solutions for the recovery and reuse of economically valuable materials from waste streams.



Digital Solutions – Sampah Watch

Digital systems for monitoring, analytics, performance tracking, and ESG reporting.



Community & Domestic Waste Ecosystem – Satu Rasa

A replicable domestic waste management ecosystem model designed for community-level implementation.

Engineering, Design, and Environmental Permitting

The transformation of a project begins with the quality of its planning. At CRE, we believe that precise engineering is not merely a technical service — it is the foundation for a cleaner, safer, and more sustainable waste management future.

CRE provides comprehensive engineering and design services, covering the preparation of Pre-FS and Feasibility Studies through the development of Basic Engineering and Detailed Engineering Design (DED) ready for construction. Each output is developed by a multidisciplinary team that understands industry dynamics, national regulations, and real-world operational challenges. The result is a realistic, measurable design that provides certainty for project owners.

Through comprehensive process simulations and data-driven material balance calculations, we ensure optimal system performance from the conceptual stage. Our approach prioritizes energy efficiency, long-term reliability, and operational flexibility to maximize the client's investment value. CRE also delivers full support in environmental permitting processes. With experience across multiple sectors — including industry, municipalities, hospitals, and large-scale waste facilities — we manage the complete documentation process, including environmental and technical approvals such as UKL-UPL, AMDAL, technical permits, and regulatory supporting studies. Processes that are typically complex become structured and streamlined through our strong coordination with relevant authorities.

Our services go beyond documentation. We provide clients with the confidence that their projects are built on a solid foundation. By combining high-quality engineering, regulatory certainty, and a strong consultative approach, CRE becomes a strategic partner for organizations seeking to accelerate their transition toward modern, independent, and sustainable waste management systems.

Engineering & Technical Design Capabilities

Pre FS / FS

Basic Engineering Design

Detail Engineering Design (DED)

Material, Energy and Water Balance

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Permit and Compliance Services

UKL / UPL

PERTEK / KATEK

AMDAL Assistance

SLO / SLF

FABRICATION & ENGINEERING

PT Centra Rekayasa Enviro (CRE) possesses strong engineering and manufacturing capabilities that form the foundation of its entire technology portfolio.

With a fully equipped production workshop and an experienced engineering team, CRE is capable of designing, manufacturing, testing, and integrating various types of waste treatment equipment with precision, in full compliance with national and international standards.

CRE's workshop is designed to meet the needs of industrial, hazardous (B3), medical, domestic, and waste-to-energy projects across various scales. Each production process follows strict quality standards and is supported by certified management systems, including ISO 9001 (Quality Management), ISO 14001 (Environmental Management), and ISO 45001 (Occupational Health & Safety Management).

These capabilities position CRE not only as a technology integrator but also as a manufacturer of environmental engineering equipment capable of competing at the regional level.

Engineering & Technical Design Capabilities

Process Engineering

Mechanical Engineering

Electrical &
Instrumentation

Environmental &
Compliance Engineering

TECHNOLOGY PORTFOLIO

PT Centra Rekayasa Enviro's (CRE) technology portfolio spans the full spectrum of waste treatment solutions — from hazardous (B3), medical, industrial, and domestic waste to energy and material recovery systems. Each technology is engineered to comply with national regulations, ensure operational efficiency, and meet stringent emission standards, while remaining fully integrable with the Sampah Watch digital platform to guarantee transparency and accountability.

Through the synergy of in-house manufacturing, continuous research and development, and international partnerships with China GDE and Jiangsu Zhongding, CRE delivers technologies that are relevant, scalable, and ready for deployment across diverse regions of Indonesia.

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THERMAL TREATMENT SOLUTIONS



From Small-Scale Medical Incinerators to Large-Scale Industrial Systems

CRE provides comprehensive incinerator-based thermal technologies for the treatment of medical, industrial, hazardous (B3), sludge, and domestic waste. All systems are designed in accordance with national and international technical standards, with scalable capacities tailored to meet specific client requirements.

Domestic Incinerator

Satu Rasa Ecosystem

For residential areas, villages, small islands, and remote regions, CRE offers an innovative domestic incinerator featuring:

- No electricity required
- No fuel (BBM) required
- Natural draft system
- Easy operation
- Modular structure
- Suitable for kitchen waste, organic waste, and mixed waste
- Equipped with Air Pollution Control (APC) including cyclone and water scrubber
- Emission results compliant with Indonesian Regulation PermenLHK No. 70/2016

This technology forms the foundation of the Satu Rasa Ecosystem, a community-based independent waste management model.



**Quality,
compliance
and excellence**



Fitur Utama:

- Capacity: 200–300 kg/hour
- Heat-resistant material up to 1,200°C
- Safe operation with low maintenance requirements
- Suitable for schools, villages, MSMEs, and remote facilities

Parameter	Specification
Product Name	Satu Rasa Incinerator (SR-5)
Type	Self-burning incinerator (without electricity & fuel)
Combustion Capacity	200–300 kg/hour
Waste Type	Household waste, non-hazardous residual waste
Design Duration	8–10 hours/day, 1 shift
Additional Fuel	Not required
Electricity	Not required
Combustion System	Natural Airflow + Self Combustion
Operating Temperature	850–1,200°C
Combustion Efficiency	>99%
Gas Retention Time	>2 seconds (natural draft)
Ash Residue	±5–10% of initial volume

Hazardous (B3) & Medical Incinerator

CRE's internal team develops and manufactures medium-capacity incineration systems up to 1 ton per hour, designed to meet the needs of industries, hospitals, domestic facilities, and integrated applications equipped with modern emission control technologies.

For capacities exceeding 1 ton per hour, CRE collaborates with Jiangsu Zhongding Environmental Engineering, a provider of internationally standardized incineration technology implemented in more than 100 facilities across China and other countries. This collaboration enables CRE to deliver incineration systems capable of handling solid, semi-solid, liquid, and colloidal waste, including high-chlorine and high-sulfur waste streams, with stable performance, high efficiency, and compliance with global emission standards.

Compliance & Emission Control

All systems comply with Indonesian Regulation PermenLHK No. 06/2021 and international standards through:

Cyclone

Venturi scrubber

Water Scrubber

Dry Ceramic Scrubber

Bag Filter

SNCR System

CEMS Ready

Main Technologies

Fixed Grate System

- Modular incinerator for medium-scale medical & hazardous waste
- Easy operation with low maintenance requirements



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Fluidized Bed Incinerator

- Suitable for high-moisture waste
- High combustion efficiency
- Stable emissions
- 24-hour continuous operation capability

Rotary Kiln Incinerator

- Suitable for waste containing chlorine & sulfur
- Flexible for solid and liquid waste
- Stable performance in multi-fuel configurations



Static Reciprocating Grate Incinerator

The Most Advanced Hazardous Waste Incinerator Technology in Indonesia

Our Phoenix Incinerator™ is a high-performance, robust incineration system equipped with the latest SMART technology, fully integrated with Internet of Things (IoT) capabilities across every unit.

The advancement of IoT technology in thermal incineration equipment is pioneered by CRE. We are the first company to comprehensively implement IoT across our systems, enabling customers to manage, monitor, and operate their equipment more effectively.

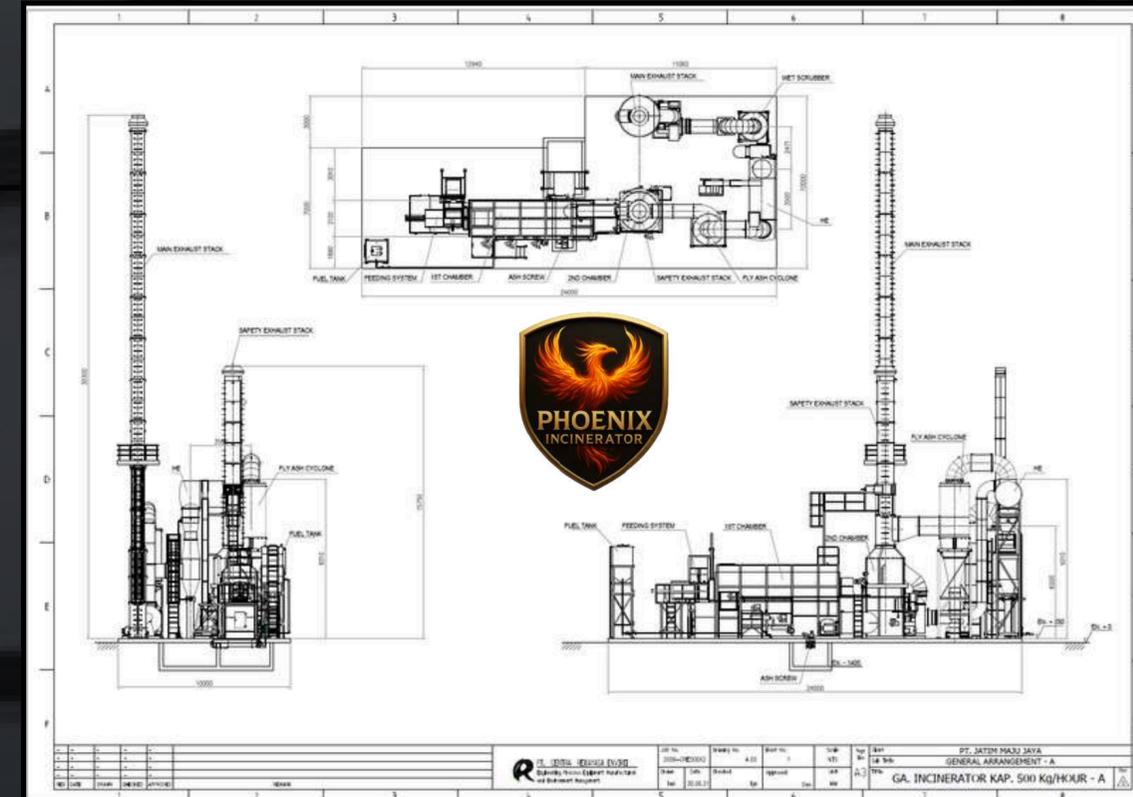
By applying IoT technology, clients can control and monitor their systems directly via smartphone. The incinerator application is designed to assist customers in tracking performance data and generating customized operational reports according to their specific requirements.

KEY BENEFITS FOR INDUSTRY

- IOT READY
- ROBUST
- APPS READY
- HIGH PERFORMANCE

AIR POLLUTION CONTROL

- CYCLONE
- PENUKAR PANAS (HEAT EXCHANGER)
- SCRUBBER AIR (WATER SCRUBBER)
- SCRUBBER VENTURI (VENTURI SCRUBBER)



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Sludge Drying & Incineration System

The sludge drying and incineration system is developed in collaboration with Zhongding, utilizing two core technologies:

Rotary/Disc Sludge Dryer

- Reduces moisture content by 70–80%
- Lowers transportation and incineration costs
- Utilizes waste heat for energy-efficient drying

Sludge Incineration System

Utilizes either fluidized bed or rotary kiln technology, depending on sludge characteristics:

- Capacity: 1–30 tons/day
- Low calorific value sludge can still be combusted stably
- Modular design suitable for urban areas and industrial WWTP

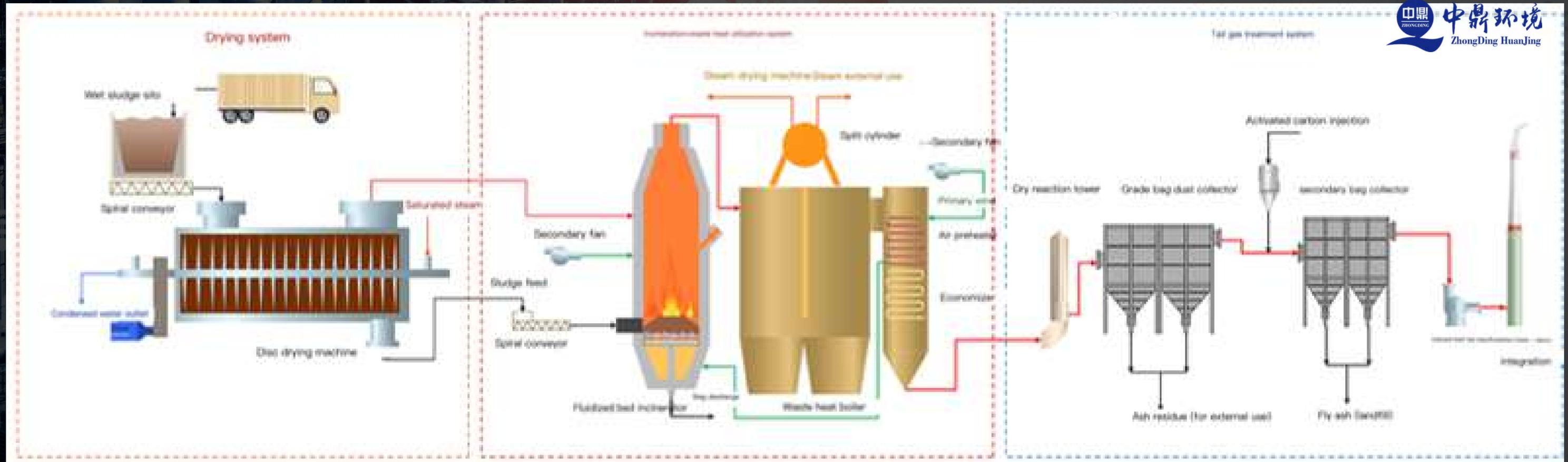
Applications

- Industrial wastewater treatment plants (WWTP)
- Industrial estates
- Palm oil mills
- Municipal WWTP facilities

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Salt-Based Waste Treatment

Advanced Waste-to-Resource Technology for Salt-Based Industrial Waste

PT Centra Rekayasa Enviro (CRE), in collaboration with Jiangsu Zhongding Environmental Engineering, delivers industrial waste treatment solutions for salt-based and saline wastewater streams using European-standard Salt Melting Furnace technology.

This technology is designed to destroy organic and inorganic contaminants in salt-based waste with high efficiency, while simultaneously producing high-quality industrial salt (>98% NaCl) that can be reused.

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APPLICATION SECTORS

- Chemical and solvent industries
- Textile and dyeing industries
- Fertilizer industry
- Plating and galvanizing
- Pharmaceutical and API manufacturing

KEY BENEFITS FOR INDUSTRY

- Effective destruction of organic contaminants
- Reduced disposal costs for salt-based waste
- Production of high-value industrial salt for resale
- Compliance with international emission regulations
- Improved energy efficiency through heat recovery systems

TECHNOLOGY HIGHLIGHTS

- High-Temperature Salt Melting Furnace
- Two-Stage Combustion & Heat Recovery
- Advanced Flue Gas Purification System
- High-Purity Salt Recovery
- Modular Capacity (5–200 TPD)



Industrial Waste-to-Energy (WtE) China GDE Partnership

CRE is the official technology partner of China GDE, one of the global leaders in large-scale Waste-to-Energy (WtE) facilities.

Grate Furnace Technology (300–750 TPD)

- Suitable for Indonesian municipal solid waste characteristics
- 24/7 operation with high efficiency
- High tolerance to varying moisture content
- Automated and safe system
- Proven performance in more than 200 cities

Benefits for Local Governments

- Reduces dependence on landfills (TPA)
- Increases clean energy mix
- Generates 5–20 MW of electricity
- Accelerates Net-Zero emission targets

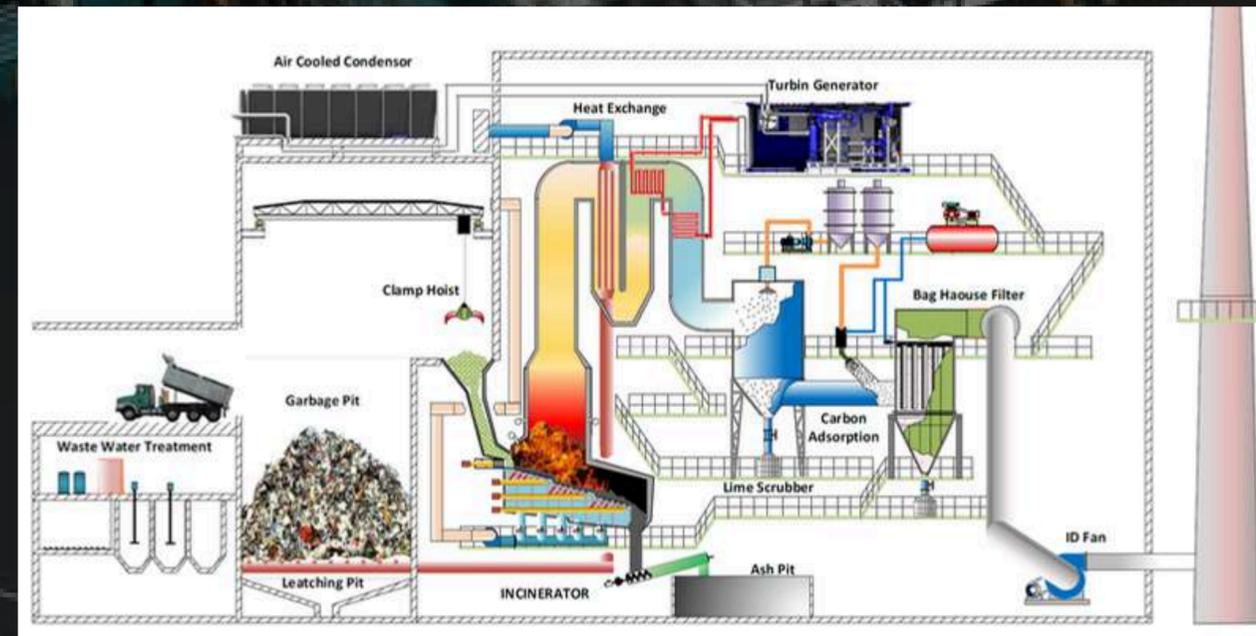
**Cutting- edge
technologies**

Waste Heat Recovery

- Waste Heat Boiler (WHB)
- HRSG (Heat Recovery Steam Generator)
- Steam generation for power turbines
- Heat reuse for drying or oil separation

Supporting Facilities

- Refuse pit with automated crane system
- Optional shredder
- Complete APC (Air Pollution Control) system
- CEMS online monitoring



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WASTEWATER TREATMENT SOLUTIONS (WWTP)



Advanced Industrial & Domestic Wastewater Treatment by CRE

PT Centra Rekayasa Enviro provides wastewater treatment plant (WWTP) systems designed to meet the needs of industrial, commercial, industrial estate, and public facility applications. CRE's WWTP technologies combine efficiency, reliability, modularity, and full compliance with national regulatory standards. CRE's wastewater solutions are categorized into two primary systems: Electrocoagulation (Electric Eel) and Biological/Hybrid WWTP systems.

Conventional WWTP (Biological & Physico-Chemical System)

For wastewater treatment needs involving high organic concentrations or large industrial flow rates, CRE offers Conventional WWTP systems designed in accordance with Best Available Technology (BAT). Process configurations may include:

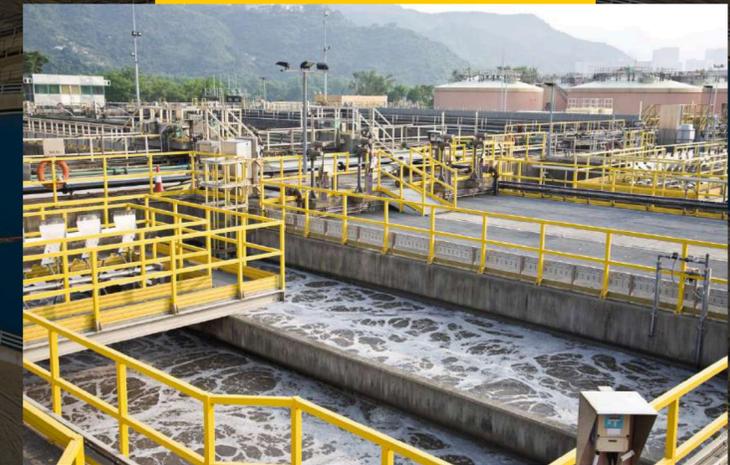
- Anaerobic reactors (UASB, EGSB)
- Aerobic reactors (Extended Aeration, MBBR, SBR)
- Coagulation–Flocculation
- Sedimentation & Clarifier
- Filtration (Sand Filter, Carbon Filter)
- Sludge drying/dewatering (Filter Press, Belt Press)

Key Applications

- Food & Beverage
- Textile
- Pharmaceutical
- Electronics
- Large-scale industries (chemicals, plastics)
- Industrial estates

WWTP / STP Design & Engineering

- Comprehensive WWTP/STP process design, including mechanical, electrical, and piping systems
- Customized solutions for complex wastewater characteristics, ensuring full environmental regulatory compliance
- Preparation of Detailed Engineering Design (DED) to deliver precise technical drawings and project specifications



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Electrocoagulation WWTP (EC System)

Electrocoagulation (EC) is an electrically driven wastewater treatment technology that utilizes anodic dissolution to bind, precipitate, and separate pollutants from wastewater rapidly and efficiently.

CRE manufactures EC units in-house at its internal workshop, offering modular systems ranging from 1 m³/day up to 1,000 m³/day. Key advantages of CRE's EC system include:

Fast & Stable Removal

- Effective COD/BOD reduction
- Efficient TSS and turbidity removal
- Color reduction (dye removal)
- Highly effective for oily wastewater, metal-containing effluents, and industrial emulsions
- Consistent performance even under fluctuating wastewater quality

Competitive OPEX

- Lower operational expenditure compared to excessive chemical dosing due to:
- Minimal chemical consumption
 - Rapid reaction process
 - Reduced sludge generation
 - Controlled and measurable energy usage

Key Applications

- Automotive – machining, forging, painting
- Textile – dyeing & finishing
- Food & Beverage – high solids wastewater
- Pharmaceutical & chemical industries
- Workshops & CNC facilities
- Wastewater containing oil, grease, and metals



WASTE WATER TREATMENT PLANT - ELECTROCOAGULATION SYSTEM



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MATERIAL RECOVERY SOLUTIONS



Transforming Industrial Waste Into Valuable Resources

CRE provides material recovery technologies designed to generate economic value from waste streams, supporting the advancement of the national circular economy. The primary focus areas include the utilization of FABA (fly ash and bottom ash), used oil regeneration, and waste conversion into RDF (Refuse-Derived Fuel). All systems can operate as standalone units or be fully integrated with other CRE solutions, including incineration systems, WWTP, sludge drying, the Satu Rasa ecosystem, and the Sampah Watch digital platform.

FABA Recycling & Metal Recovery

With the increasing number of coal-fired power plants (PLTU) and incineration facilities, CRE provides FABA (Fly Ash & Bottom Ash) recycling solutions utilizing advanced recovery technologies.

Our Technologies:

🔍 FABA Recycling & Metal Recovery ✕

- Eddy current separator
- Magnetic separator
- Crushing & screening
- Glass/ceramic recovery system

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Output:

- Non-ferrous metals
- Lightweight aggregates
- Eco-friendly sand
- Non-structural construction materials

IBA - Incinerator Bottom Ash - Recycling Process

Purpose

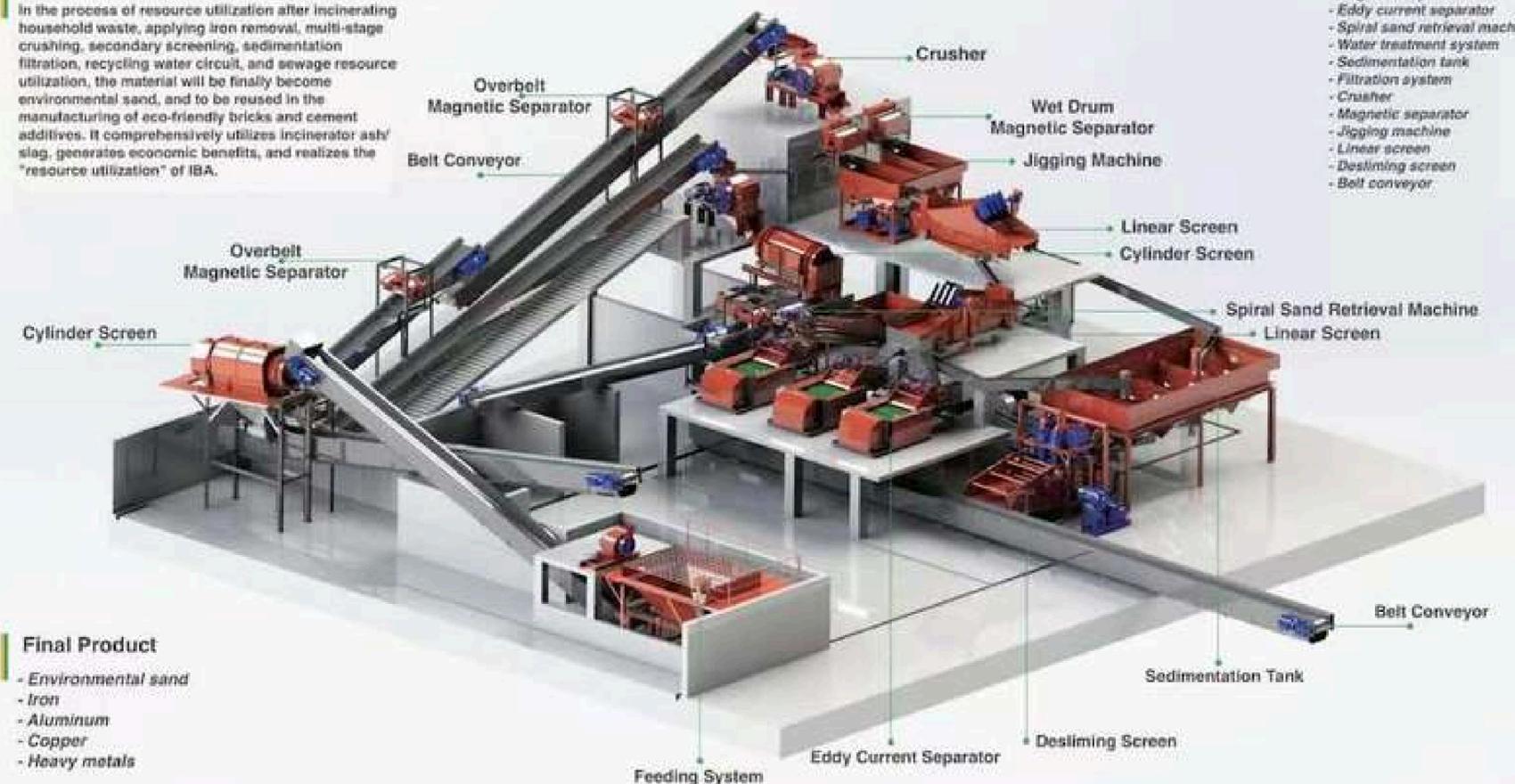
In the process of resource utilization after incinerating household waste, applying iron removal, multi-stage crushing, secondary screening, sedimentation filtration, recycling water circuit, and sewage resource utilization, the material will be finally become environmental sand, and to be reused in the manufacturing of eco-friendly bricks and cement additives. It comprehensively utilizes incinerator ash/slag, generates economic benefits, and realizes the "resource utilization" of IBA.

Final Product

- Environmental sand
- Iron
- Aluminum
- Copper
- Heavy metals

Sorting Equipment

- Feeding system
- Magnetic separator
- Eddy current separator
- Spiral sand retrieval machine
- Water treatment system
- Sedimentation tank
- Filtration system
- Crusher
- Magnetic separator
- Jigging machine
- Linear screen
- Destliming screen
- Belt conveyor



PYROLYSIS & OIL DISTILLATION SYSTEM

Converting Waste Oil, Oil Sludge, and RDF Pyrolysis Oil into Valuable Fuel

PT Centra Rekayasa Enviro delivers liquid and semi-solid waste conversion technologies into alternative fuels through strategic partnerships with leading principals from China, whose systems have been widely implemented globally. This technology processes oil sludge, used lubricants, and RDF-derived pyrolysis oil into non-standard diesel and other industrial fuel products.

KEY TECHNOLOGIES

Pyrolysis System processes:

- Oil sludge
- Used engine oil
- Drilling sludge

Main outputs:

- Pyrolysis oil (45–55%)
- Carbon black (15–20%)
- Synthetic gas for internal heating reuse

Oil Distillation System produces:

- Refined pyrolysis oil → non-standard diesel
- Sulfur-reduced diesel-equivalent fuel (45–50 cetane)
- Clear yellow/light brown fuel oil

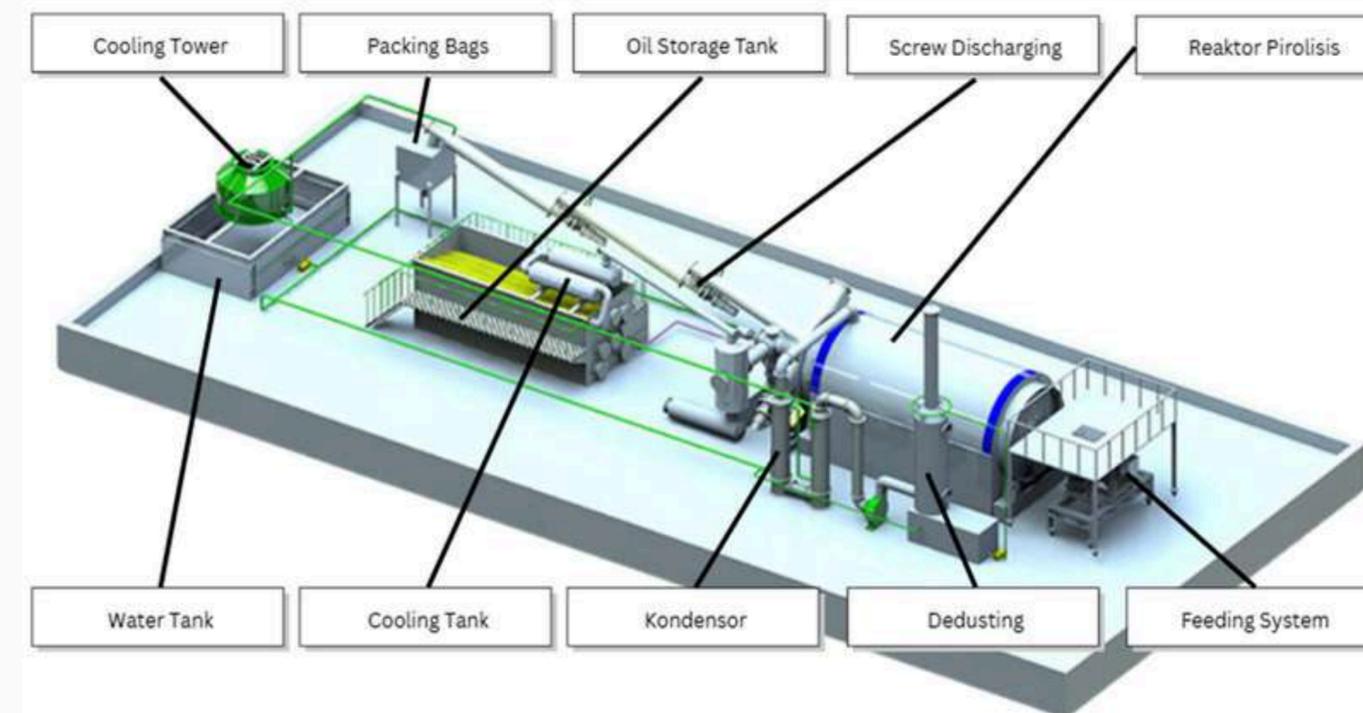


APPLICATION SECTORS

- Hazardous waste (B3) operators
- Oil & gas industry
- Cement & ceramic plants (boiler fuel)
- Genset & heavy machinery
- Refineries / independent processors

ADVANTAGES

- Reduces oil sludge disposal costs
- High economic value (diesel substitute)
- Modular & skid-mounted design
- Fast installation (7–10 days)
- Fully enclosed system with minimal emissions



Oil Filtration & Regeneration System

CRE provides used oil recovery and regeneration solutions for:

- Heavy equipment workshops
- Automotive sector
- Manufacturing industries
- Licensed used oil collectors and processors



Output:

- Reusable oil
- Alternative fuel
- Reduction of hazardous (B3) waste

Types of oil that can be processed:

- Hydraulic oil
- Gear oil
- Cutting oil
- Engine oil
- Turbine oil
- Transformer oil
- Diesel
- Kerosene
- Used cooking oil



Model	CRE-001	CRE-002	CRE-003	CRE-005	CRE-008	CRE-012	CRE-020	CRE-036
Power	220V	220V	220V	220V	220V	220V	220V	220V
Number of Filter Elements	1	2	3	5	8	12	20	30
Hourly Filtered Oil Output	15 L/h	30 L/h	50 L/h	100 L/h	150 L/h	350 L/h	520 L/h	3000 L/h
Size (cm)	55×42×98	73×42×98	110×42×98	110×68×115	120×70×115	158×58×115	153×100×115	312×124×120
Net Weight	75 kg	100 kg	125 kg	230 kg	200 kg	300 kg	510 kg	1200 kg



Hazardous Packaging Washing & Shredding System

PT Centra Rekayasa Enviro (CRE) delivers an Integrated Hazardous Packaging Washing & Shredding System as a comprehensive engineering solution for the safe, regulation-compliant decontamination of hazardous (B3) waste packaging, aligned with circular economy principles. The system is designed to handle contaminated steel drums, plastic jerrycans, and IBC tanks exposed to various industrial chemicals, while producing reconditioned materials suitable for reuse or further processing.

Drum & IBC Washing

- Capacity: 10 drums/hour
- Washing temperature: 80–90°C
- Spray pressure: 2–4 bar
- Closed-loop water circulation system
- Chemical-specific decontamination process

Drum & IBC Plastic Shredding

- Capacity: 1 ton/hour
- Continuous processing
- Dryer temperature: 80–120°C
- Cyclone & hopper separation system
- Output: clean, dry plastic flakes



Compliance & Safety

- Designed for diverse hazardous (B3) chemical characteristics
- Residual handling integrated with physico-chemical and biological treatment
- Clean–dirty separation layout design
- ISO-aligned engineering and fabrication standards



HAZARDOUS PACKAGING WASHING & SHREDDING SYSTEM

SATU RASA SAMPAH TUNTAS, RAKYAT SENANG

Decentralized Domestic Waste Ecosystem

Satu Rasa is a decentralized domestic waste management ecosystem developed by CRE to address waste challenges in regions without sanitary landfills (TPA), with severely limited landfill capacity, or facing continuously increasing daily waste volumes. The model is designed to be modular, easily replicable, and low in operational cost, making it highly suitable for deployment across thousands of villages and small islands throughout Indonesia.



End-to-End Domestic Waste Model

Satu Rasa integrates the entire household waste management chain from upstream to downstream:

- Community-based collection and sorting
- Small-scale modular waste station
- Shredding, drying (optional), and compacting
- Safe combustion (domestic waste incinerator)
- Modern air pollution control (APC) system
- Waste volume reduction of up to 90–95%
- Digital monitoring via Sampah Watch

The operational model is simple, community-friendly, and easy to implement.

Community Empowerment & Workforce Upskilling

Satu Rasa is designed for fast and efficient implementation:

- Installation completed within 3–10 days
- Low operational costs
- Minimal land requirement
- No complex technology required
- Standardized SOP (proven across multiple locations)

The model is designed to be operated by local workforce, not requiring highly specialized personnel.



Low OPEX & Rapid Deployment

Satu Rasa directly generates social impact by:

- Creating local employment opportunities
- Strengthening community participation in environmental cleanliness
- Providing operational, HSE, and SOP training
- Fostering a culture of cleanliness and shared responsibility

Suitable for tourism villages, urban areas, residential communities, and remote regions.

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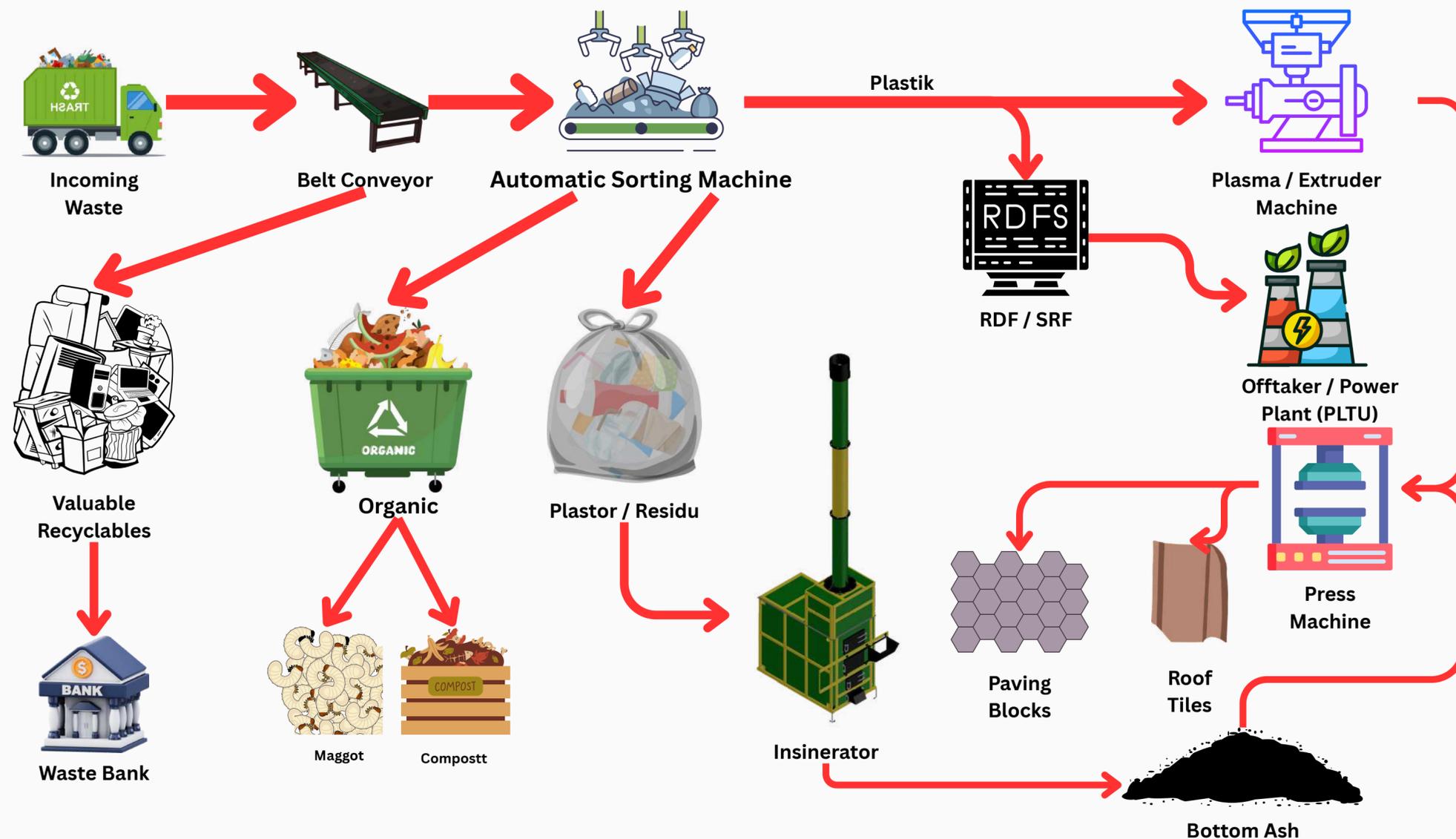
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SATU RASA ECOSYSTEM PROCESS FLOW



Waste Treatment Solution Flowchart

Prototype for TPST Capacity of 5 Trucks (30 m³ or Equivalent to 10 Tons/Day)



All waste can be processed and converted into income-generating products; remaining residues are fully treated through incineration.

Technology in the Satu Rasa Ecosystem

Village-Scale Household Waste Sorting Machine (Capacity: 0.5 Ton/Hour)

Set Pengolahan sampah rumah tangga skala desa (kapasitas 0,5 Ton/Jam)
 Kecepatan SDM sorting sangat berpengaruh akan kapasitas set mesin pengolahan

Requirements
 1. Hanggar : 600 m²
 2. Trafo listrik : 80 KVA



Set RDF30500

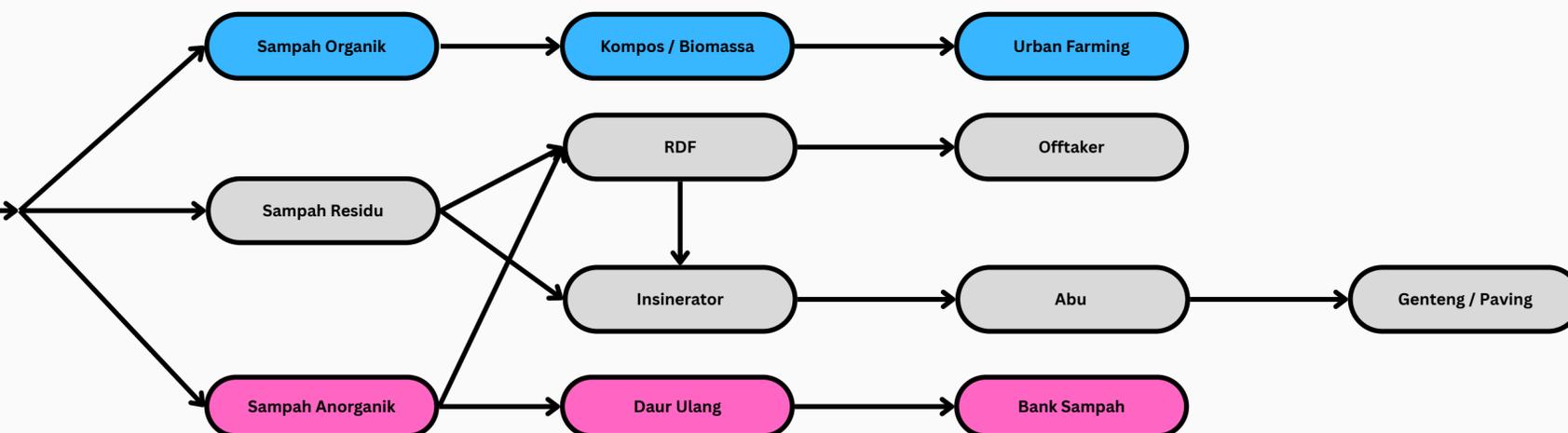
Mesin Yang diinstal :

- Mesin pemilah tipe TM 9030 : 1 unit
- Mesin Pencacah tipe CR 500 : 1 unit
- Mesin Destoner DT 600 : 1 unit
- Conveyor input (feeder) : 8 meter (incline)
- Conveyor out organik : 6 meter (incline)
- Conveyor out residu : 6 meter (incline)
- Conveyor out anorganik : 6 meter (incline)
- Conveyor out cacahan anorganik : 6 meter (incline)

Input :
 - Mixed municipal waste (sampah dapur rumah tangga) ,tidak ada batasan moisture

output :

- Hasil pilahan / valuable material (botol, kardus, plastic)
- Organik (bahan baku RDF organik maupun kompos), masih bercampur material anorganik 30%
- Anorganik cacahan size 50 mm (ukuran cacahan bisa disesuaikan), untuk material RDF anorganik (SRF)
- Residu (uncombustible material, textile, B3 rumah tangga)



This village-scale waste sorting machine is designed to manage domestic waste generation of up to 0.5 tons per hour with high operational efficiency. The complete system is deployed within a minimum 600 m² covered facility, supported by an 80 kVA power supply and an integrated conveyor system to ensure continuous material flow from input to output. Its modular design allows easy installation, operation, and adaptation to various field conditions, including remote areas.

The main equipment configuration includes a TM 9030 sorting unit to extract valuable materials such as bottles, cardboard, and plastics; a CR 500 shredder to process organic waste into uniform fractions; and a DT 600 destoner to separate heavy materials such as stones and gravel. Each unit is interconnected with an 8-meter inclined input conveyor and a 6-meter inclined output conveyor to manage organic, residual, inorganic, and shredded fractions. The system is capable of handling mixed municipal solid waste with varying moisture levels while minimizing operational disruptions.

From the sorting process, the final material streams include:

- Valuable materials ready for resale
- Organic fraction for RDF production or composting
- Inorganic fraction of approximately 50 tons/month suitable for RDF/SRF production
- Non-combustible residues such as textiles and household hazardous waste

With a purification rate of up to 70%, this system supports the Satu Rasa circular economy strategy by generating economic value while complying with emission standards and waste management regulations under Permen LHK No. P.70/2016 and PP No. 22/2021 on Environmental Protection and Management.



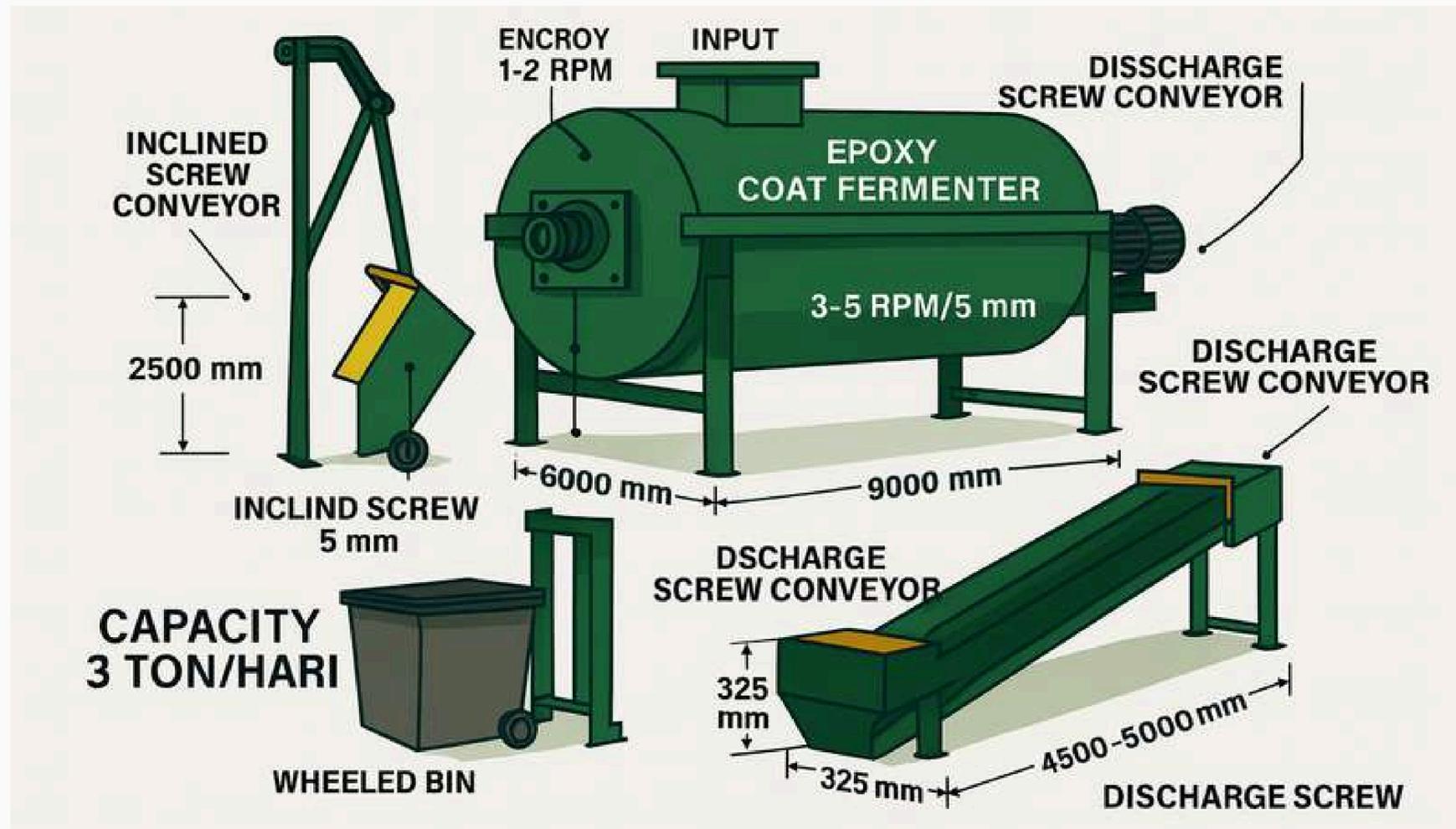
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Technology in the Satu Rasa Ecosystem

Food Organic Composter (SR-FOC Series)



The Food Organic Composter (FOC) is an innovative organic waste treatment solution based on in-vessel composting technology. This system operates automatically, hygienically, and in an environmentally friendly manner, capable of processing 1–3 tons of organic waste per day into high-quality compost within a short processing time.

Role in the Satu Rasa Ecosystem

Within the Satu Rasa ecosystem, the Food Organic Composter functions as a core unit for processing organic waste fractions at TPS3R facilities, community zones, and district levels.

The system:

- Reduces waste volumes sent to landfills (TPA)
- Produces locally sourced organic fertilizer
- Supports community-based circular economy initiatives

Product Capacity Options

Pilihan Kapasitas Produk	
Model	Kapasitas Input
SR-FOC-1000	1 ton / hari
SR-FOC-2000	2 ton / hari
SR-FOC-3000	3 ton / hari

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Technology in the Satu Rasa Ecosystem

Plastic Waste Melting Machine

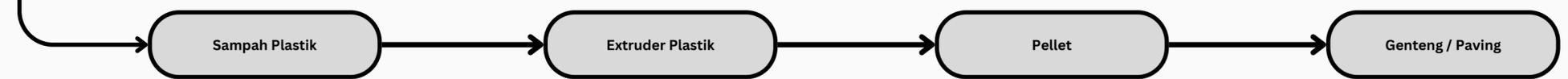


Spesifikasi	Hot Extruder Satu Rasa	Plasma Satu Rasa
Model	TW-120	TW-PL-75
L/D Ratio	15	—
Material Barrel/Screw	S45C	S45C
Motor Penggerak	5,5 kW (Cyclo)	5,5 kW (Cyclo)
Zona Pemanas	3 Zone (PID Control)	3 Zone (PID Control)
Kapasitas	300–600 kg/jam (residu)	300–600 kg/jam (residu)
Konsumsi Daya	12 kW	12 kW
Berat	600 kg	600 kg
Fungsi	Extrusion & Moulding	Plasma Pelletizing

The Satu Rasa Plastic Melting Machine is specifically designed to process plastic waste from sorting activities into pellet feedstock or finished products such as paving blocks, roof tiles, and customized molded items. Utilizing advanced extrusion technology, the system ensures a safe, efficient, and environmentally friendly melting process.

Key Advantages

- **Integrated Process:** Shredding and melting residual plastics continuously within a single system line.
- **Precise Temperature Control:** Three-zone temperature control system ensures uniform melting without material degradation.
- **Low Energy Consumption, High Capacity:** 5.5 kW motor with total power consumption of 12 kW, delivering stable output up to several hundred kilograms per hour.
- **Durable & Wear-Resistant Materials:** Screw and barrel constructed from S45C steel, resistant to abrasion and corrosion.
- **Product Flexibility:** Output can be directly molded into products or reprocessed into pellets for injection molding or extrusion blow molding applications.



Technology in the Satu Rasa Ecosystem

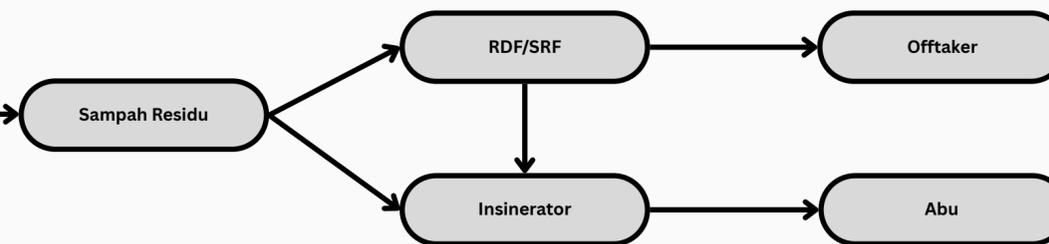
Satu Rasa Incinerator with Air Pollution Control (APC)



Satu Rasa + APC is a domestic waste incineration system developed by PT Centra Rekayasa Enviro as a controlled, regulation-compliant urban waste management solution, prioritizing environmental protection and public health.

This technology is designed to address waste management challenges in areas with limited land availability and downstream processing capacity. The system integrates a closed combustion chamber and an advanced Air Pollution Control (APC) system to ensure flue gas emissions remain within the regulatory limits established under national environmental standards.

Satu Rasa + APC is developed to support waste management at community to urban scales, including neighborhoods, traditional markets, public areas, educational facilities, and densely populated zones—serving as a safe, measurable, and technically accountable transitional solution.



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RDF (Refuse-Derived Fuel)

Modular Line

CRE designs modular RDF systems with capacities ranging from 25–300 tons per day for industrial and municipal applications.

RDF Line Components

- Conveyor system
- Trommel screen
- Magnetic separator
- Shredder
- Dryer (optional)
- Pelletizer



**Quality,
compliance
and excellence**

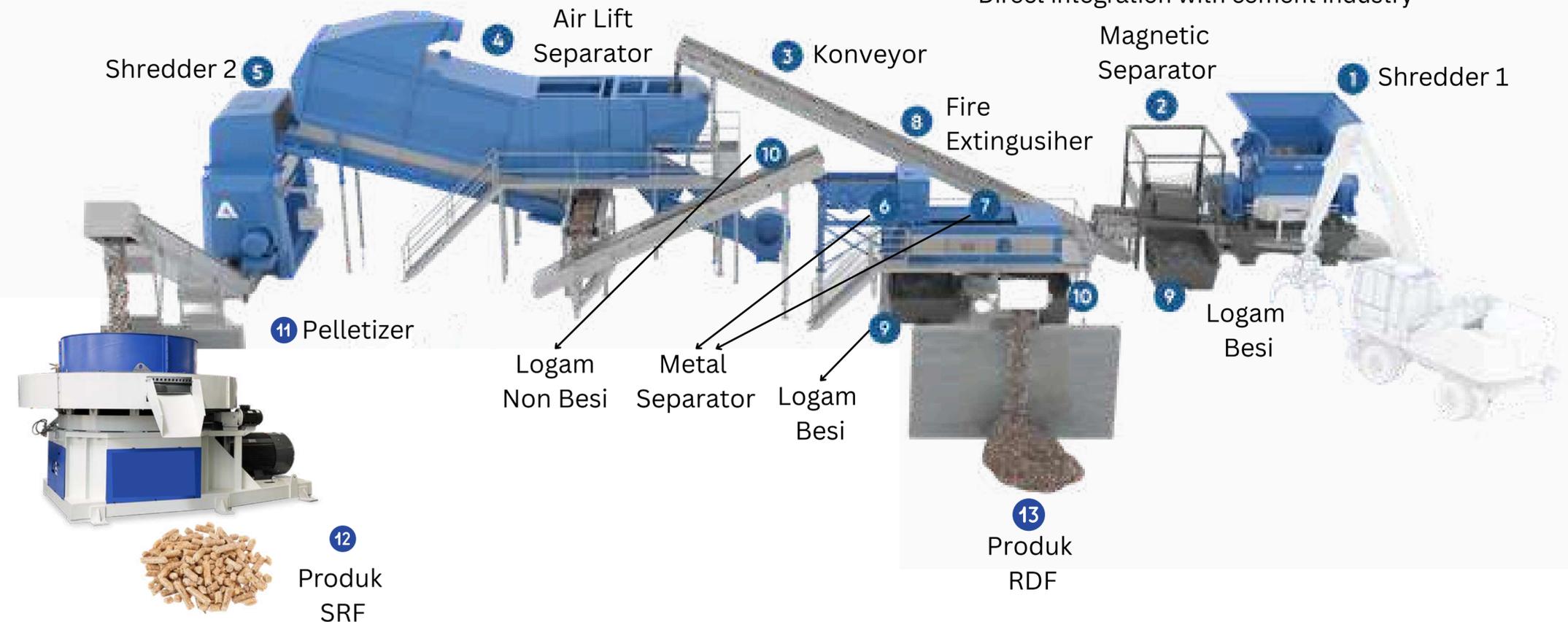
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Advantages

- Modular design (suitable for small to large-scale installations)
- Low energy consumption
- Stable RDF output with calorific value of 3,000–4,500 kcal/kg
- Direct integration with cement industry



Biogas Reactor

CRE collaborates with OGB Engineering from the Netherlands in developing Anaerobic Digestion – Arciplug Plug Flow technology, an advanced system that converts domestic waste into biogas through a bioreactor process.

OGB System Characteristics

- Capacity: $\pm 1,000$ tons/day (min: 300 TPD)
- Land requirement: ± 4 hectares
- Implementation timeline: ± 22 months
- Capital-intensive investment structure supported by OGB / Dutch Green Bond financing



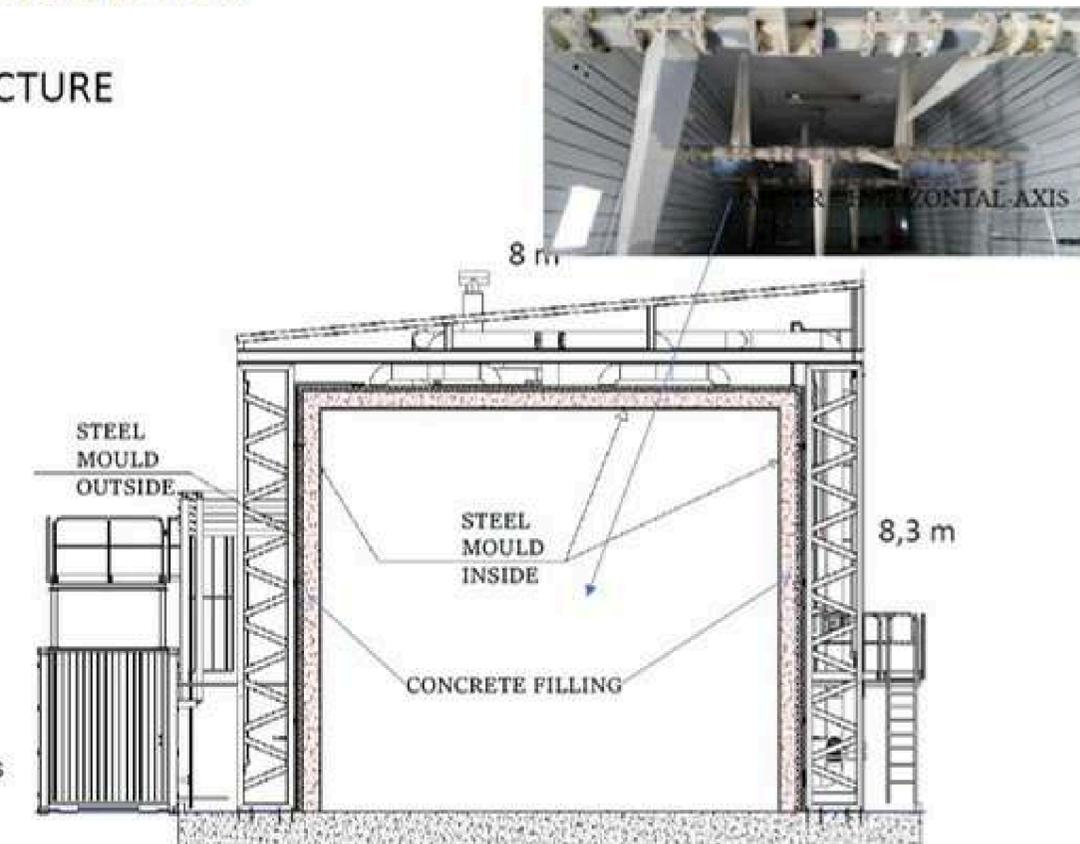
Advantages

- Patented plug-flow biogas technology
- Processes organic fraction of MSW
- Biogas production equivalent to $\pm 7-8$ MW of electricity
- Digestate further processed (solid & liquid recovery)
- Significant reduction in greenhouse gas emissions

ARCIPLUG PATENTED BIOGASREACTOR

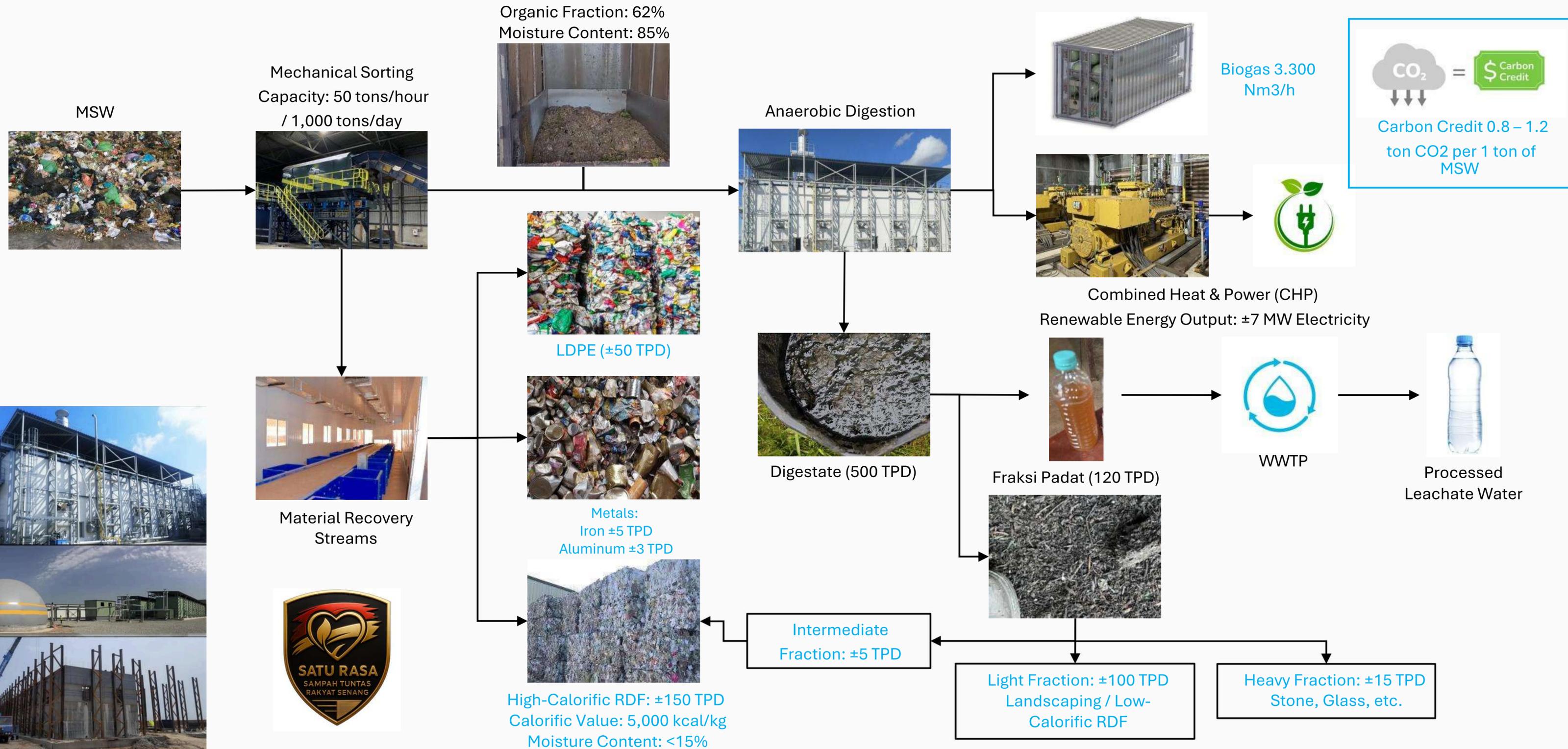
INNOVATIVE SANDWICH STRUCTURE PLUG FLOW TECHNOLOGY

- Steel Mould walls
- Concrete infill + Reinforced bars
- Anti-corrosion material/painting
- Modular structure
- Size: L 24,2-80,2 m, W 8 m, H 8.3m
- Construction time 3 months
- Temperature 37-55 C
- Organic Loading Rate (OLR):
9+ kg volatile solid/reactor m³/day
- Hydraulic Retention time (HRT): 21+ days

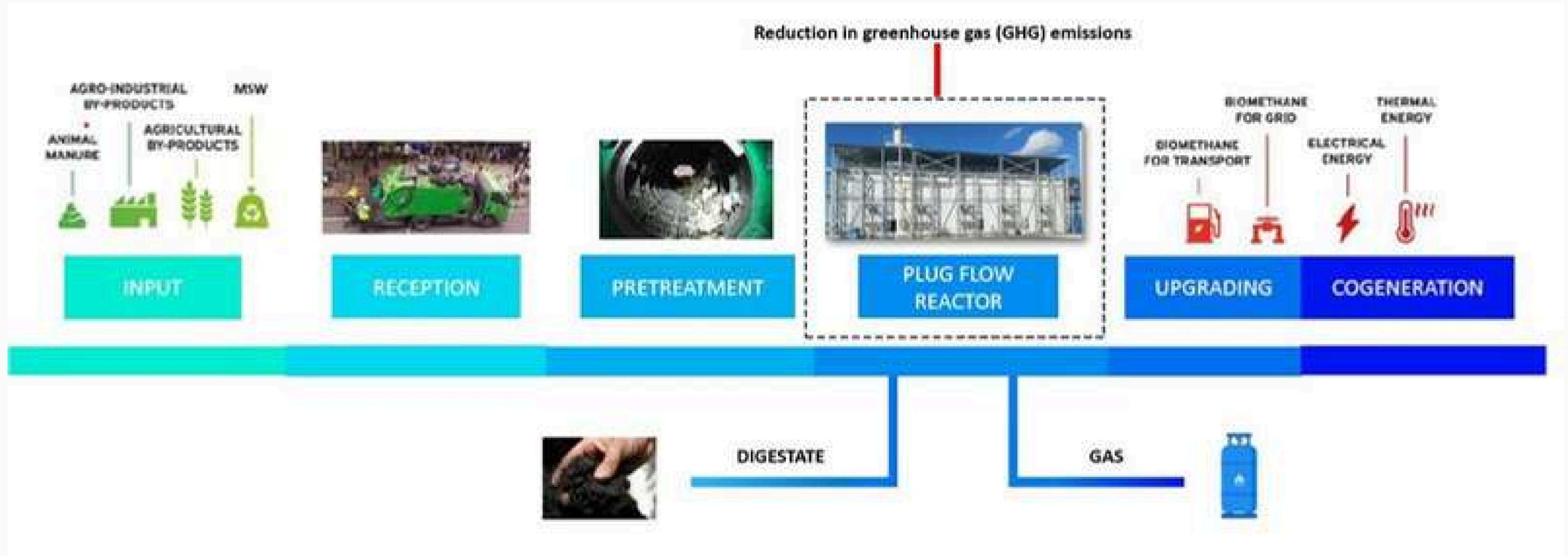


Solution – Sorting & Recycling

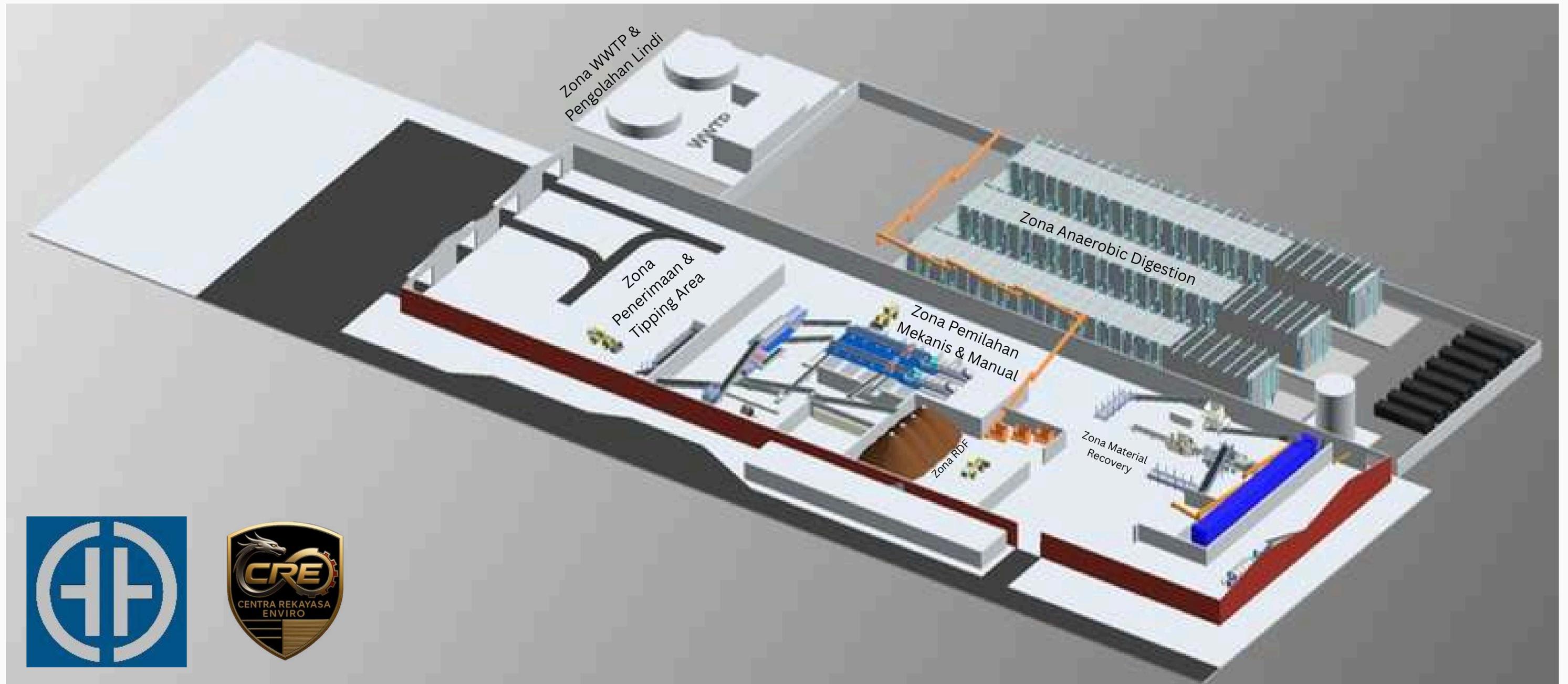
Waste Processing & Generated Products (Volumes depend on material input)



Flow Proses Integrated Waste Treatment Facility



Example Layout of an Integrated Waste Treatment Facility



OGB Engineering, Netherlands x PT. Centra Rekayasa Enviro, Indonesia

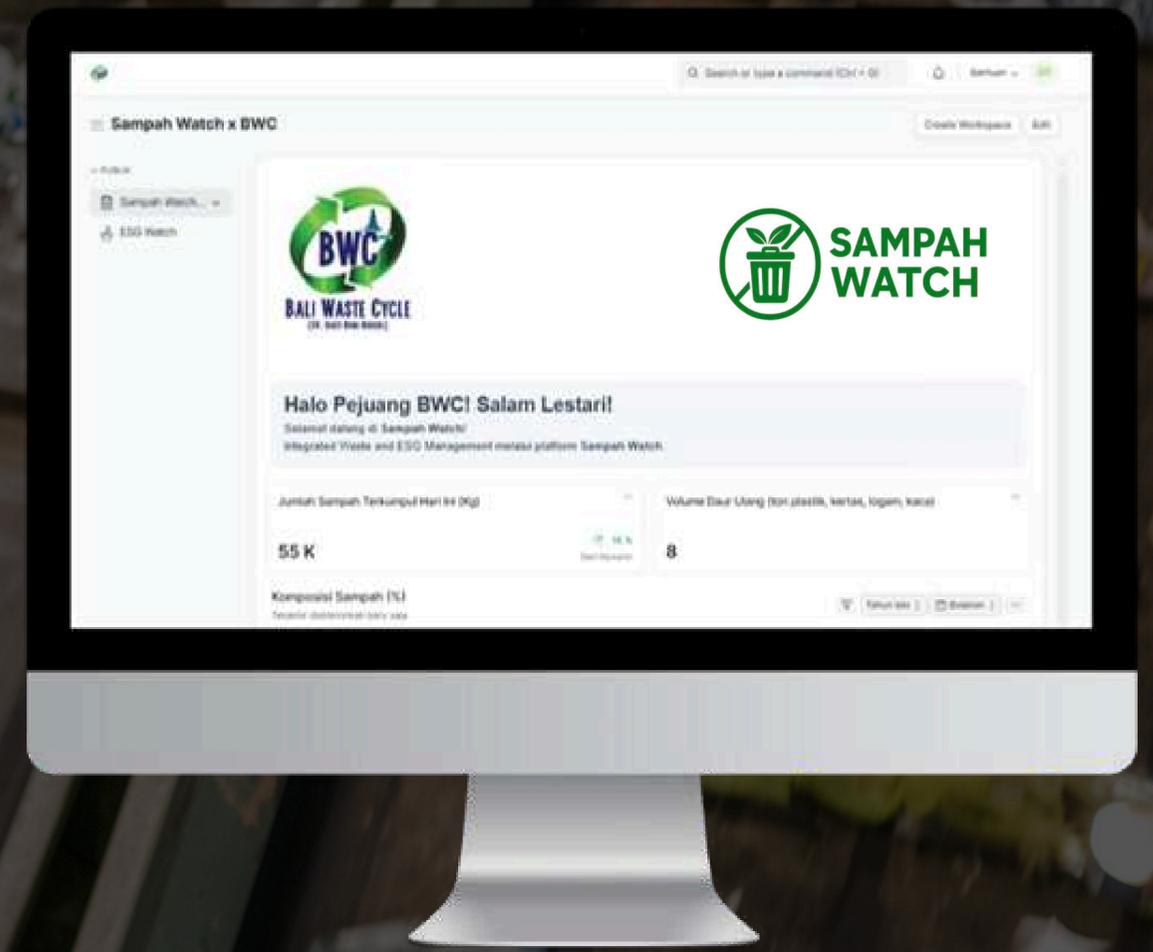
saturasa.cr-enviro.com



DIGITAL SOLUTIONS SAMPAH WATCH

Indonesia's First Integrated Waste Traceability & ESG Intelligence Platform

Sampah Watch is a digital platform developed by PT Centra Rekayasa Enviro to deliver transparency, efficiency, and accountability in waste management operations. The platform connects physical equipment, on-site operations, and digital analytics into a fully integrated ecosystem that is auditable and verifiable.



■ Apa itu Sampah Watch?

Sampah Watch is an environmental technology platform that establishes a National Single Data foundation for waste management, circular economy implementation, and emission reduction verification in Indonesia.

We believe that waste is not merely a problem, but an asset that can generate economic value, create employment opportunities, and reduce emissions—when managed properly, transparently, and measurably.

End-to-End Waste Traceability

Sampah Watch enables waste tracking from source to final processing.

Key Features:

- Waste generation input (manual / IoT-based)
- Tracking by waste type and source
- Digital chain-of-custody system
- On-site verification and audit capability

Ensuring waste management processes comply with regulatory requirements and ESG standards.

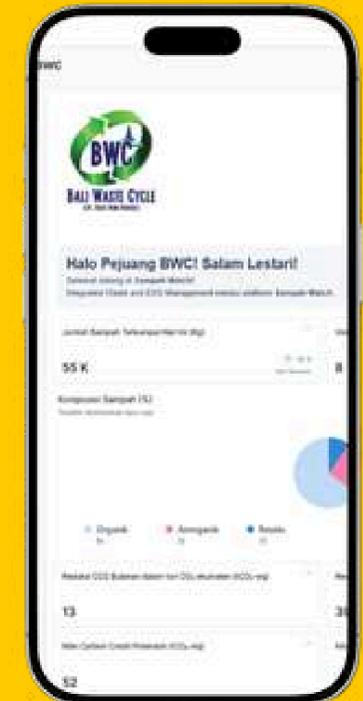
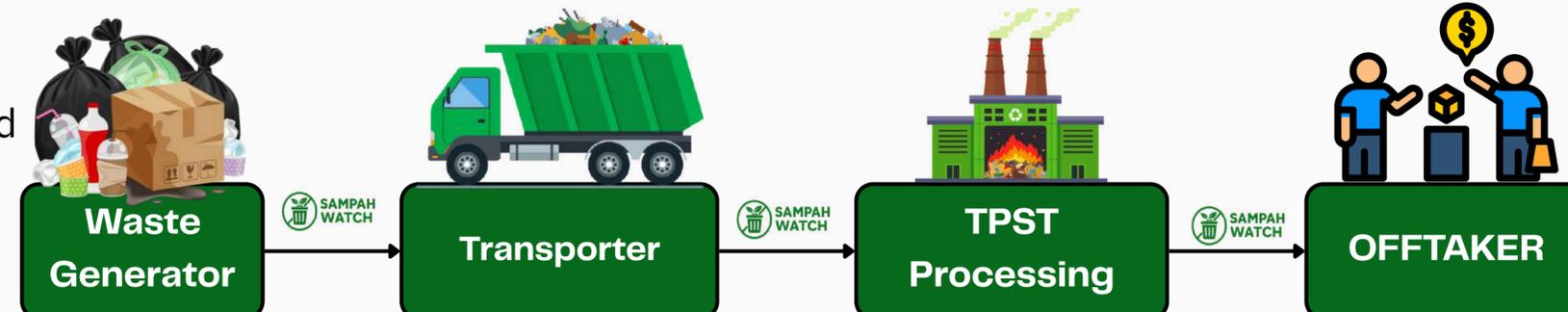
ESG & Carbon Analytics

The platform simplifies sustainability reporting processes.

Digital outputs include:

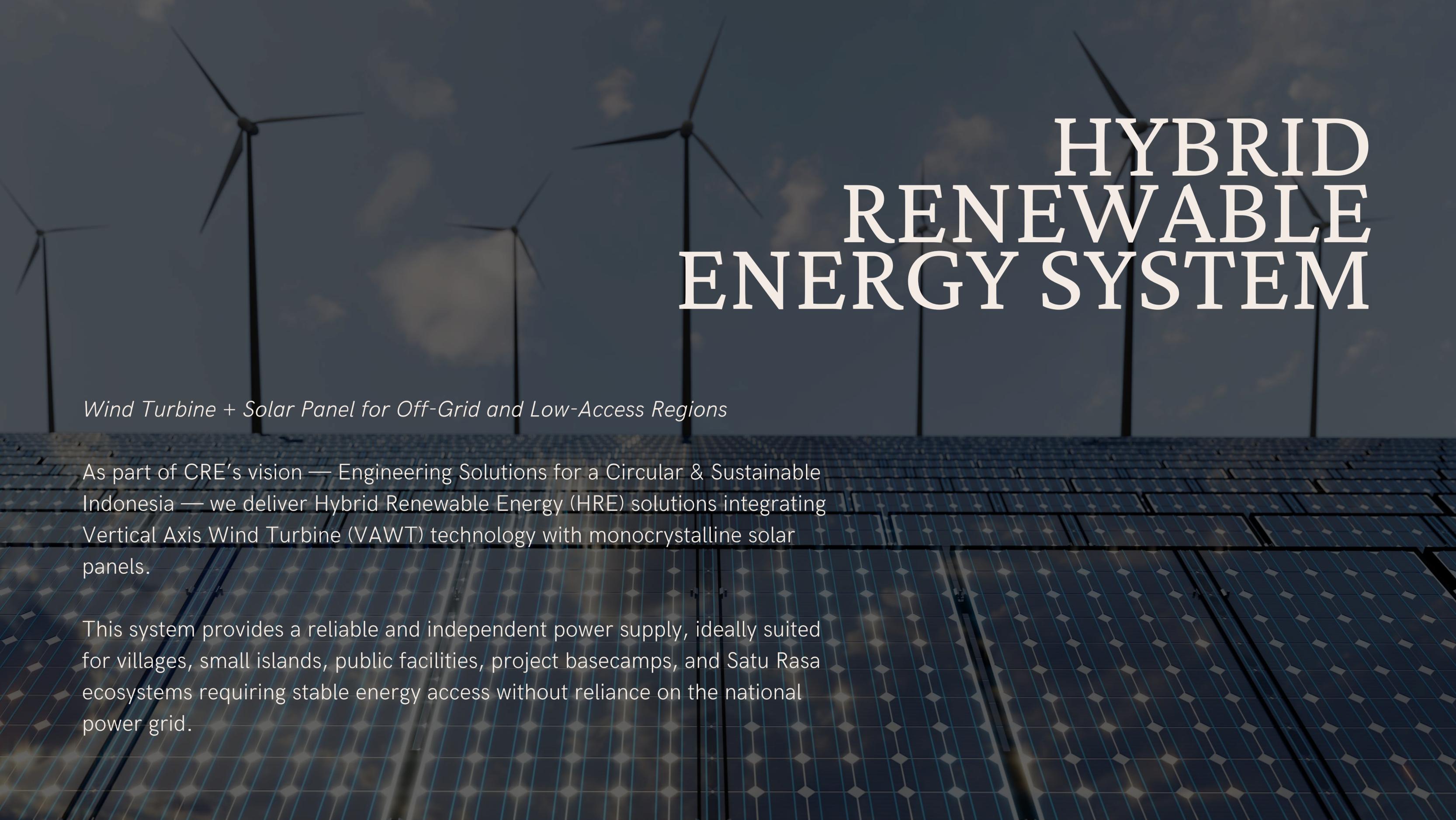
- Automated ESG reports
- Emission intensity per ton of waste
- Greenhouse gas (GHG) reduction estimates
- NEK (Sustainability Economic Balance) data
- Waste valorization recap (RDF, oil reuse, metal recovery)

Supporting companies in securing green financing and meeting investor compliance requirements.



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HYBRID RENEWABLE ENERGY SYSTEM

Wind Turbine + Solar Panel for Off-Grid and Low-Access Regions

As part of CRE's vision — Engineering Solutions for a Circular & Sustainable Indonesia — we deliver Hybrid Renewable Energy (HRE) solutions integrating Vertical Axis Wind Turbine (VAWT) technology with monocrystalline solar panels.

This system provides a reliable and independent power supply, ideally suited for villages, small islands, public facilities, project basecamps, and Satu Rasa ecosystems requiring stable energy access without reliance on the national power grid.

■ Why Hybrid Energy?

- Wind and solar energy have different peak production times throughout the day.
- Hybrid output remains stable even if one energy source experiences a decrease.
- Efficiency improves through the use of hybrid inverters and bio-capacitor systems.

Applications within the CRE Ecosystem

Satu Rasa – Domestic Waste Management

Hybrid energy is used to operate:

- Sorting conveyor systems
- Organic and plastic processing machines
- Control panels, pumps, and lighting systems
- Enables TPST facilities to operate fully without reliance on the national grid (PLN).

Small-Scale WWTP Units

Power supply for:

- Control systems
- Influent/effluent pumps
- Digital/IoT monitoring sensors

Fuel-Free Domestic Incinerator (Satu Rasa)

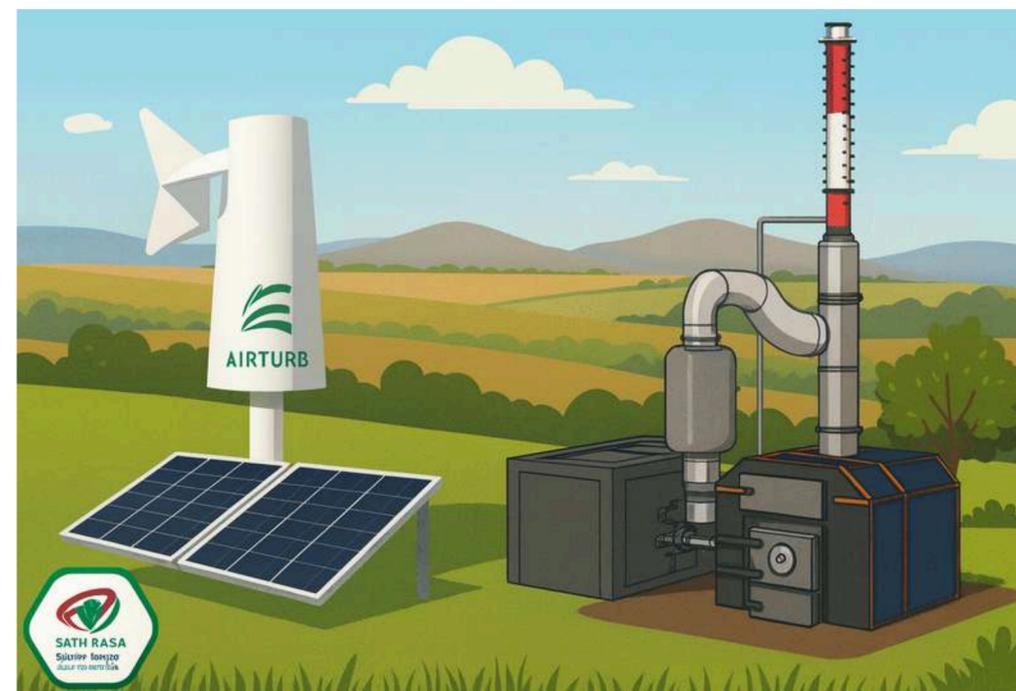
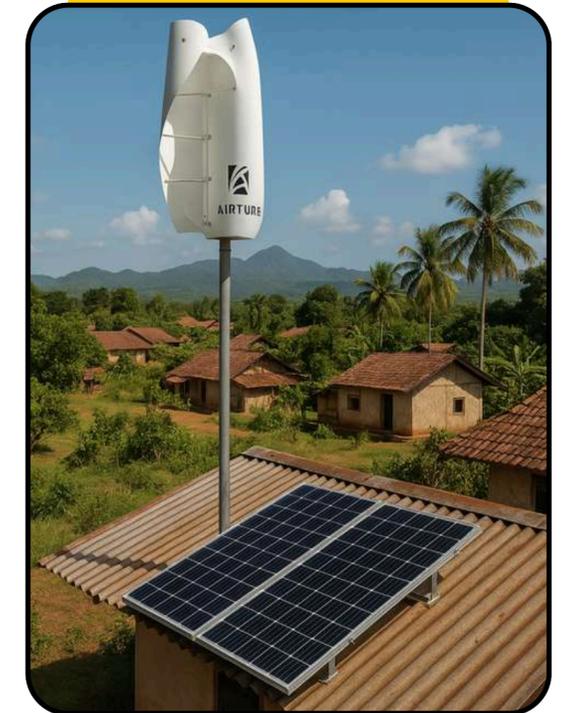
Provides energy for fans, valves, and digital monitoring systems.

Project Basecamps, BTS Towers, Public Facilities

Delivers stable electricity for lighting, routers, CCTV, mini-PC systems, and charging stations.

Added Value for Local Governments & Industry

- Reduces dependence on diesel generators
- Supports Indonesia's commitment toward Net-Zero 2060
- Low OPEX with rapid installation timeline
- Optional integration with Sampah Watch for energy and emission analytics



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NATIONAL IMPACT

Driving Indonesia's Transition Toward a Circular & Low-Carbon Future

As an integrated environmental engineering company, CRE contributes directly to the transformation of Indonesia's national waste management system through thermal technologies, advanced wastewater treatment, material recovery systems, and traceability-based ESG digitalization.

The impact generated is not limited to technical performance – it extends to environmental resilience, economic value creation, social empowerment, and digital governance.



Through engineering, manufacturing, digital integration, and community-driven initiatives, CRE acts as a catalyst for a cleaner, more efficient, and more sustainable Indonesia – accelerating the nation's readiness toward Net-Zero 2060.



WHAT THEY SAID ABOUT US



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“WE ARE HIGHLY SATISFIED WORKING WITH PT CRE. ALL REQUIRED PERMITS FOR OUR EQUIPMENT WERE SUCCESSFULLY ISSUED.”

Patria Yudha Asmara

*Project Manager - PT Adhi Karya Tbk
4 Incinerator Units, Capacity 300 kg/hour - Medan*



“OUR EXPERIENCE WORKING WITH MR. DIMAS AND HIS TEAM HAS BEEN OUTSTANDING. THE ENTIRE PROCESS RAN SMOOTHLY AND PROFESSIONALLY.”

Faisal Achmad S.T.

*Director - PT Balikpapan Environmental Services
1 Incinerator Unit, Capacity 500 kg/hour and 1,000 kg/hour - Balikpapan*

Our clients



On going projects 2025

Hazardous & Medical
Waste Incinerator

3
LOCATIONS

WWTP
Electrocoagulation

2
LOCATIONS

Retrofit &
Maintenance

1
LOCATION

Domestic Waste
Satu Rasa Ecosystem

1
LOCATION

Sampah Watch
TPST Tenant

2
LOCATIONS



CONTACT US