

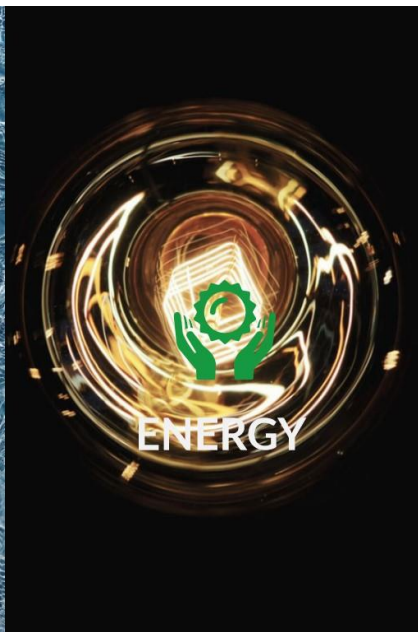


WATER | ENERGY | WASTEWATER
CONSULTING ENGINEERS

Profiling our areas of expertise and services provided, including the sustainable application of Innovation in the water, wastewater, solids conditioning and bioenergy sectors.

WEW is ISO 9000 2015 accredited, while also being a Corporate Member of Engineers Ireland, the Association of Consulting Engineers of Ireland (ACEI) and the Water Environment Federation (WEF)

CONSULTING ENGINEERS
WATER | ENERGY | WASTEWATER



WEW Engineering Ltd

Registered in Ireland, No: 5519866

Unit 39B, Hebron Business Park, Hebron Road, Kilkenny,

R95C43W

T: (056) 77 63 932 E: info@weweng.ie | W: www.wewengineering.ie

Directors: Henk M. van der Puil (Dutch), Seamus M. Crickley, M. Anthony Mahon

The Company

WEW Engineering Ltd is a specialist Consulting Engineering design and management firm focused on sustainable, energy-efficient water and wastewater treatment, including waste-to-energy projects, both industrial and municipal. The company is run by its three founding shareholders, Seamus Crickley, Henk van der Puil, and Tony Mahon, supported by a team of talented engineers and CAD technicians.

Our highly professional team comprises specialist Water Chemists, Chartered Engineers, Master Planners, Field Specialists, and 3D CAD Designers. In-house water engineering specialities include chemistry and process design, with integrated mechanical electrical instrumentation and automation engineering services, all available for each project. We are recognised as international experts in this area of Engineering practice.

WEW Engineers have been applying cutting-edge technologies in the Water, Energy and Wastewater sectors, both Municipal and Industrial, for over 45 years.



QUALITY
ISO 9001:2015
NSAI Certified



Sectoral Expertise

Typical areas of expertise provided include the following:

- Pre-project quantification, analytical characterisation, and identification of the critical design/performance parameters on water wastewater and solids conditioning projects.
- Preliminary assessments including relative sustainability, both technical and commercial, of alternative designs to confirm the optimum solution.
- BAT design of plants to utilise most up-to-date field-proven technologies and to minimise carbon footprint, modulated in accordance with loading. Technical data sheets and all related drawings are produced in a 3D CAD environment.
- Incorporation of state-of-the-art emerging technologies to recover and maximise biological removal of nitrogen and phosphorus, including post-treatment for recycle.
- Conditioning of feedstocks for Anaerobic Digestion and/or incineration with post-treatment of by-products for reuse as co-products.
- Systems design of most efficient energy generation and recovery facilities based on biogas, bio-methane, steam, hydrogen, CHP, and electricity.
- Once-off design and/or procurement services for mechanical/electrical equipment, instrumentation, and on-line control facilities to accord with the User Requirement Specification (URS) as defined by the selected process design.
- Day-to-day management of Client–Vendor contracts based on designated terms of reference for each project.
- Full-scale decarbonisation studies with reports and recommendations including CO² recycle from stack emissions.

WEW Engineering has worked successfully with industrial clients, national authorities, development agencies, consulting engineers, design/build contractors, and specialist equipment vendors. We develop cost-effective solutions incorporating Best Available Techniques (BAT) to meet the individual challenges of Clients.



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Our Services

WEW works directly with each client to identify the project requirements and fundamentals, identifying latest technologies and processes, proven from our experience, to maximise cost-effectiveness and cradle-to-cradle sustainability while minimising carbon footprint.

- Advisory Services relating to engineering applications.
- Carbon Footprint and Green House Gas analysis review, and modelling.
- By-product recovery including CO₂ capture and conversion.
- Client representation on Climate Fund grant Applications funded by Enterprise Ireland.
- Master-planning, planning, and licencing negotiations.
- On-site surveys of brownfield (existing) plants for modernisation/sustainability purposes
- Feasibility/Pilot studies of defined process applications and combinations at laboratory and field level.
- Preliminary Design and Engineering Reports with CAPEX, OPEX and due diligence assessment.
- Provision of Client Representative services as required.
- Detailed Design & Engineering, including process warranty (defined parameters) and PSDP Services (Drawings and Designs are carried out using the latest AutoCAD 3D software).
- Preparation of Tender Documentation with vendor selection, and technical-commercial assessment of received tenders under agreed terms of reference.
- Ongoing Client Representative services as projects progress, including checking and approval of drawings and BIM conversant technical submissions.
- Process commissioning, testing, training, certification, and ongoing periodic reviews of the operating works to the satisfaction of the Client.



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Reference projects

Lead Sectors include Pharma/Biopharma, Agriculture (production and processing), Food Industry, Drinks Industry, Municipal Water/Wastewater and categorised solid wastes.

Leading projects of international significance include design and engineering (with procurement services) of:

- Conventional mainstream AD pre-treatment works with biogas recovery and recycle as steam with downstream high-quality polishing operations at Mitchelstown, Cork, Ireland for the Dairygold Group. Works capacity is up to 35,000 kg/d COD (390,000 Population Equivalent, PE).
- Design/procurement of an AD system with energy recovery for Ireland's agricultural research body Teagasc, at their Grange Research Centre, which will be used to study AD performance versus feedstock composition; such information is becoming valuable in design of the bio renewable centres with fertiliser manufacture now being processed by WEW for a number of clients.
- Multiphase design of the dairy wastewater treatment plant at Ballyragget, Kilkenny, Ireland for the Glanbia Group, to produce a high-quality discharge incorporating cutting-edge BNR technology, Plant capacity 40,000kg/d COD (440,000 Population Equivalent).

Reference profile information booklets are available upon request which are specific to the following market sectors:

- Agriculture, Food including Brewing and Distilling
- Pharma/Biopharma
- Municipal Sectors e.g. water, sewage and landfill derivatives
- Bio-Renewables including organic fertiliser
- Mining and other defined industrial sectors



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Our Clients



Royal Oak Distillery



PEPSICO



Bristol-Myers Squibb



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