



s3d

Energy from waste

essentials

S3d Ingénierie is specialized in energetic waste valorisation and alternative fuels. S3d have been supporting public and private stakeholders for more than 10 years.

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- 2003** Beginning of Anthony KERIHUEL's Ph.D. about biofuels from fatty waste from the western agri-food industry.
 - 2007** Creation of S3d with 3 collaborators.
 - 2010** Choice to be an independent engineering company.
 - 2016** Division of S3D in two structures including S3d Ingénierie
 - 2018** S3d Ingénierie becomes a subsidiary company of SCE, KERAN group.
 - 2019** Opening of a branch in Lyon.
 - 2020** *15 collaborators, 1 million euros in revenue*

By becoming a SCE subsidiary, **S3d Ingénierie** is part of the independent KERAN group which deals with issues related to the city, territories, coastal regions and the digital sector. S3d Ingénierie thus benefit from complementary competences from the other subsidiaries of the group : **Créocéan, Groupe Huit** et **Naomis**. The group employs 550 collaborators with 54 M€ revenues which 20% is achieved outside France.

A creative and multidisciplinary approach, at all territorial scales



Methanization



Pyrogasification



Alternative
fuels



Strategy and
performance

A tailor-made accompaniment

The advanced expertise of our staff and our experience allow us to be at the side of our customers throughout the projects in order to advise them as efficiently as possible.

From strategic thinking to the design and the management of works :

consulting, design, studies

project management assistance

project management

skills transfer

training

Specificities

- # Bringing together **expertise** to gain **consistency**
- # Taking into account **environmental issues**, from the definition of the projects
- # Proposing a **global approach** to accomplish complex projects
- # Guaranteeing a real **proximity with our customers** (10 agencies of the group across France)
- # Going beyond usual practices : **innovation** is the core of our development
- # Offering the power of an **independent group**, Keran

15
collaborators

2 agencies
in France
and 10 Keran offices

€1M
on revenues

1 1 team of
engineers
of which 4 are Ph.Ds



www.sol3d.com

A global approach to bring complex projects to fruition

After many years, we have been developing a common management approach based on a global approach of project and searching **the best balance between economic development and resources protection**.

- Bringing out the appropriate expertise at the right time.
- Co-constructing the project with stakeholders.
- We are committed to meeting our customers' requirements.

At the heart of innovation

From the genesis of the company, innovation has been a **leitmotiv** from the training of two of the co-founders, both engineers, and Ph.Ds in process engineering.

In order to always be pioneers and a source of inspiration for our customers, integrating the latest technologies, S3d Ingénierie does not hesitate to participate in national and European research programs.

To achieve this, it relies on an **important academic network** made up of the largest french scientific laboratories (IMT Atlantique, Réseau Polytech, INRAE, AgroParisTech, etc.).

Thus, S3d Ingénierie can design and build prototypes to carry out **proofs of concepts** and to better understand **innovative processes**.

A common ambition

Our teams are mobilized around the same ambition and common values :

Innovation : providing adapted solutions that consider the latest technological advances.

Excellence : delivering a quality job to our customers.

Proximity : providing responses adapted to the context.

Availability : being available for our customers when they need it most.

The meaning of our action

Since its creation, S3d Ingénierie has been committed to sustainable development and global performance. Corporate social responsibility (CSR) is at the heart of our strategy.

The company does not only have an economic purpose, but it is also a stakeholder which contributes to a territory where it has an environmental impact and where it plays a social and societal role.

S3d Ingénierie innovates daily in waste recovery and alternative fuel production technologies, it actively participates in the collective fight against greenhouse gas emissions.



Methanization

Supporting public or private project leaders, and funders, in the development of methanization units.

Methanization processes are at the heart of the energy recovery of organic waste by enabling agricultural residues, agri-food industry residues, or local communities' residues to be converted to electrical energy or biomethane that can be used locally.

S3d Ingénierie assists you in your projects throughout their development :

- # Feedstock studies
- # Feasibility studies
- # Project Management Assistance (PMA)
- # Project Management (PM)*
- # Audits/Due Diligence

**handled by SCE*

Some projects

- Feasibility studies for the Pompey region (54), Perche-Ornais region (61), and Geneva region (74)
- Feasibility studies for energy unions such as SDEF (29) and SICECO (21)
- PMA for the projects of GAEC Girin (69), METHAMOLY (42), and METHAMAINE (53)
- PM for the project FONTAINE AGRIGAZ (72) and AGRIGAZ 41 (41)
- Technical, economic, social, and environmental monitoring of methanization installations on-farm, centralized, industrial, and in wastewater treatment plants for ADEME
- Analysis and prospection of the impacts on agricultural practices of methanization through energy crops, crop residues, and digestate for ADEME Bourgogne Franche Comté.
- Technical, economic, and environmental study of the centralized injection of biomethane into gas networks for ADEME.





Pyrogasification

Advising public and private project leaders, as well as funders, on the technology of pyro-gasification.

The considerable waste deposits, whether of organic or non-organic origin, can be transformed into an energy vector which is gas. Depending on the local context, this gas can be converted into electricity, hydrogen, or synthetic biomethane. Such projects are still at the development stage and the lack of feedback requires the presence of experts.

At all stages of your project, S3d Ingénierie is the expert at your side :

- # Feedstock studies
- # Feasibility studies
- # Project Management Assistance (PMA)
- # Project Management (PM)
- # Audits/Due Diligence

Some projects

- Feasibility studies for Limoges Metropolis (87) and Reunion Island: NEXA (974)
- Feasibility studies for the CAVALE Wine Cooperative (11), for Eiffage Energies (44), and the ECO'R project (13)
- Feasibility study for the City of Abidjan (Ivory Coast)
- PMA for Energies Réunion (974) and the CAVALE Wine Cooperative (11) PMP - Yeu Island (85)
- PM for the Archimbaud sawmill (79) and La Florentaise (44)
- Expertise, audits, and visits for GRTgaz/GRDF/TEREGA





Alternative fuels

Leading projects for the production and use of alternative fuels: Hydrogen, BioNGV, and Biodiesel on behalf of local authorities and industrialists.

Widespread ecological awareness, combined with the negative impact of transport, requires local development of green mobility. This will involve the development of alternative, clean, and bio-sourced fuels, which it is important to support because of their innovative nature. This innovative development requires close support and an expert view.

S3d Ingénierie recommends the best choices according to the context :

- # Feedstock studies
- # Feasibility studies
- # Project Management Assistance (PMA)
- # Project Management (PM)
- # Audits/Due Diligence

Some projects

- Feasibility study for Bigard (29)
- Feasibility study for Suez (33)
- Feasibility study for Euralis Gastronomie (85)
- Feasibility study for Bouygues Construction (78)
- Feasibility study – Lorient Agglomération (56)
- Feasibility study for the Abattoirs de Rivières du Loup (Quebec)
- PM for COOPERL (22)





Strategy and performance

Developing the necessary changes for companies and communities to be more efficient while respecting being respectful of the environment.

Waste management (reduction and recovery) and the control of energy expenditure are the two main axes of the circular economy. When circular economy is implemented, it allows sustainable growth that generates many jobs. As the era of fossil fuels is coming to an end, there is an urgent need to think about alternative solutions and to organize a virtuous, medium- and long-term strategy.

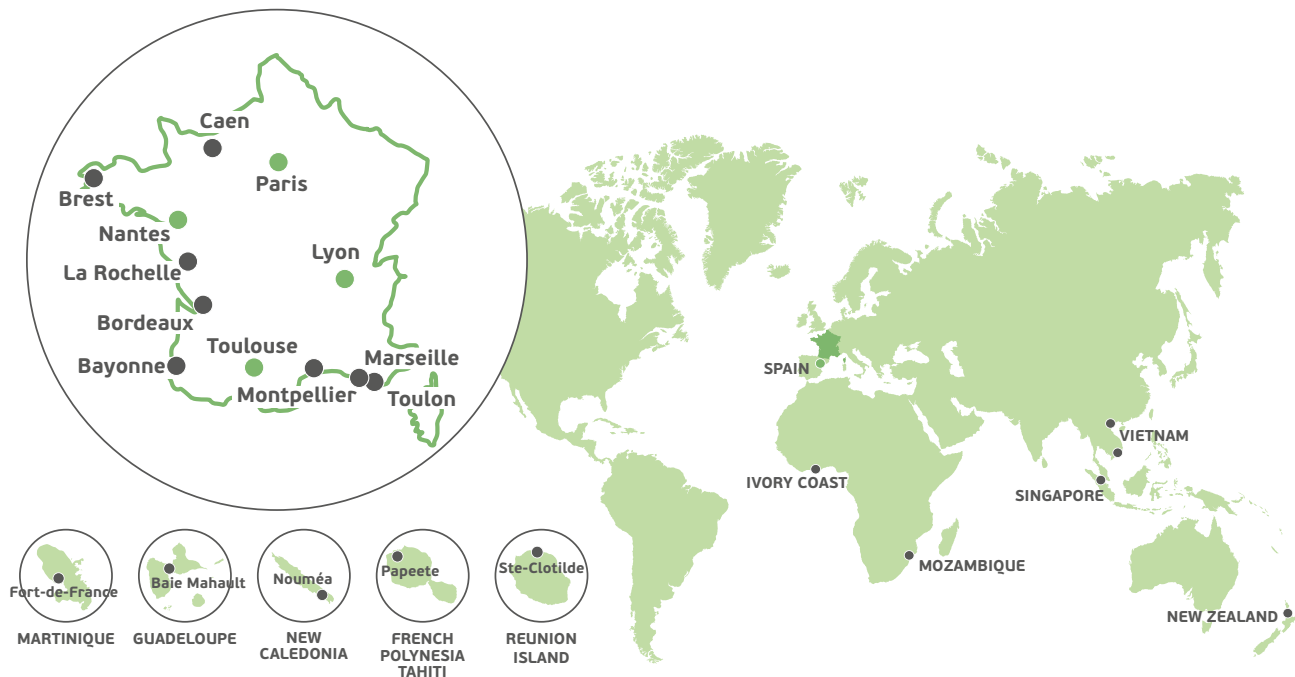
S3d Ingénierie advises you:

- # Industrial symbiosis
- # Strategic studies
- # Waste and energy master plans
- # Training

Some projects

- Methanization master plan - Limousin Region, Rhône Alpes Region and Guadeloupe (971)
- Strategy for the development of agricultural methanization by injection - Gers (32)
- Wood/Energy Master Plan - Reunion Island (974)
- Pyrogasification master plan - SOUTH Region.
- Study on the potential of pyrogasification for GRDF/ IDF Region – Paris region.
- Study on methanization potential for GRDF – Gard (30) and Hérault (34)
- Waste management - Gouessant (22)
- Support for the methanization and pyrogasification sectors for TEREKA.
- Analysis of the benefits for the community of shifting from biogas cogeneration to biomethane injection for GRDF.
- IMT Atlantique/AUDENCIA/Centrale Nantes/Sciences Po Rennes courses





Keran around the world...

S3d Ingénierie development is based on SCE locations and the group international subsidiaries. Keran benefits from 50 years of international experience.

- Keran intervention zones
- Keran locations
- S3d Ingénierie locations

The S3d Ingénierie and SCE alliance : an offer dedicated to biomass recovery

SCE and S3d Ingénierie combine their skills and experience to support you in the development of your biomass valorization project.



SCE, project manager and PMA specializing in water and sludge treatment and the energy recovery of treatment facilities.

www.sce.fr



S3d Ingénierie, consultancy and PMA specialized in waste-to-energy and alternative fuels.

www.sol3d.fr

- **Process • Biogas recovery and treatment**
 - **Sludge treatment • Water treatment**
- **Industrial safety • Civil engineering • Agronomy**
 - **Urban planning and environmental law, regulatory files**
- **Urban planning, architecture, and landscape**
 - **Concertation**



The other companies of the Keran



Scientific expertise at the service of coastal territories and oceanography.

www.creocean.fr



Advice on urban development in southern countries.

www.groupehuit.com



The intersection of Keran digital expertise and business skills.

www.naomis.fr

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