

## **Best practice AD – showcases for Australia**

**Warren Leitao & Thorsten Winkler**



 Company

**One step ahead.**

Over 35 years of experience,  
technological competence and  
flexibility.

## AGO Bioenergy's business areas



Pre-, Basic Engineering,  
Feasibility Studies

Engineering

Supply of standardized,  
containerized components

Components

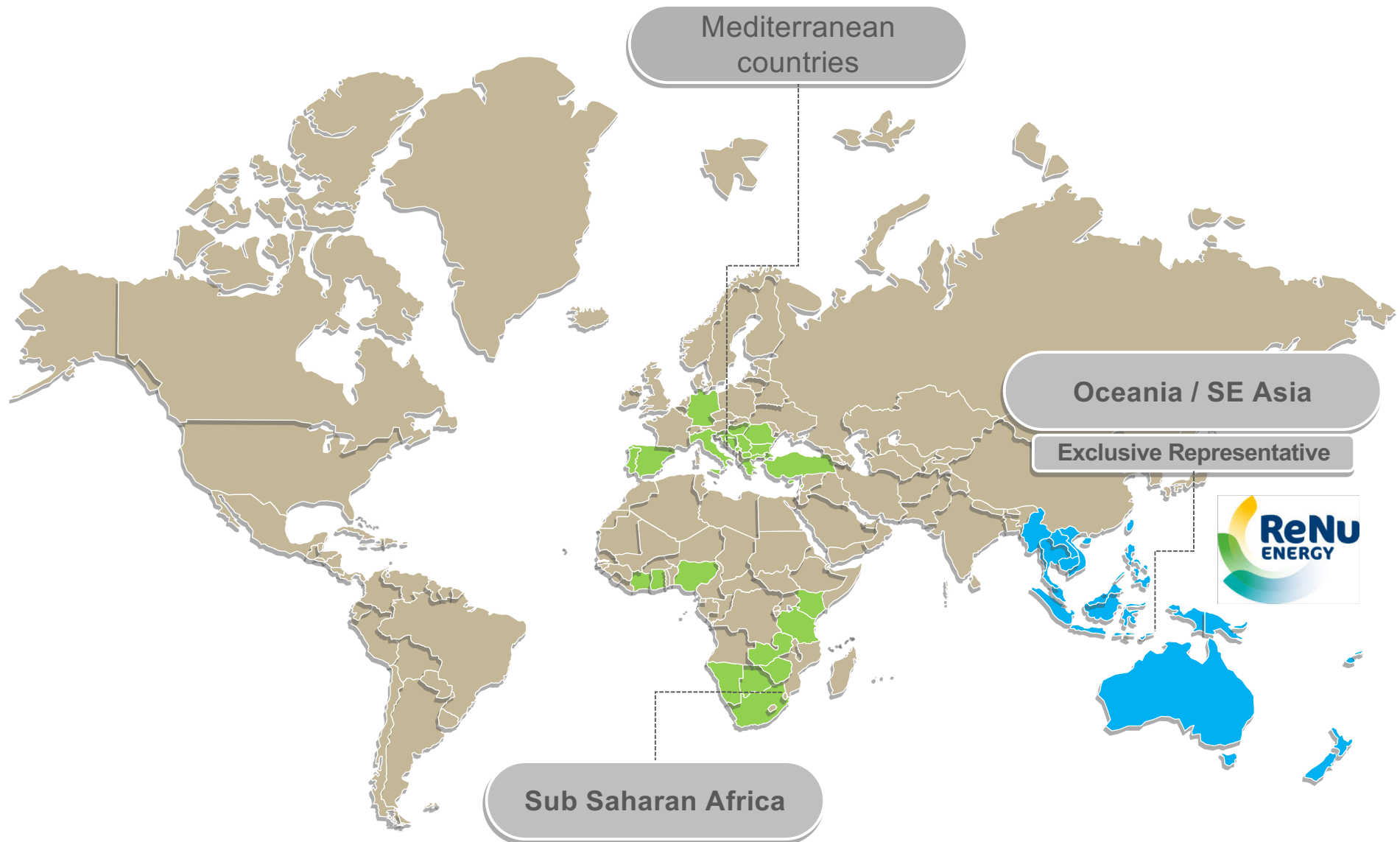
Plant engineering, technology  
packages, project- and site  
management, start up

Plant Construction

Retrofit, Repowering,  
Maintenance, spare parts

Service

## Key and target markets





# ReNu Energy Limited — powered by AGO Bioenergy



Industry News

## New partnership established to grow Australia's waste-to-energy industry



INSIDE WASTE

6 days ago 🔥 47



ReNu Energy and German-based AGO Bioenergy GmbH have reached a Cooperation Agreement to join forces in the deployment of waste-to-energy technology, equipment and services in Australia, New Zealand, and the greater Asia-Pacific region.

The Cooperation Agreement with AGO will enable ReNu Energy to provide further BOOM solutions, whilst also growing its business through the supply of AGO-powered equipment, technology and services.

ReNu Energy Limited  
255 Follower  
1 Woche

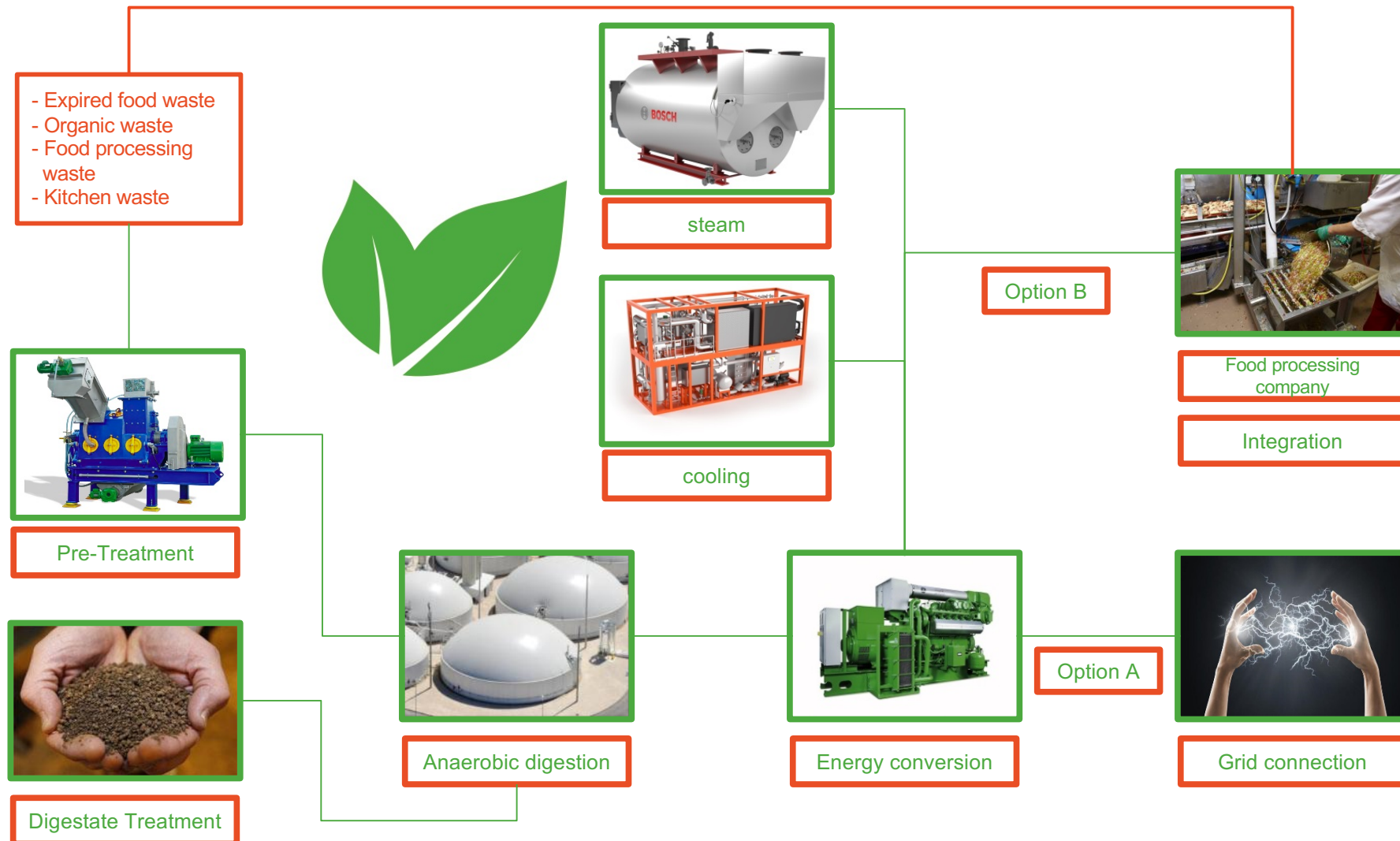
In Photo: Signing of Cooperation Agreement in Germany (L-R) Günther Hein (AGO CEO), Warren Leitao (ReNu Energy COO), Thorsten Winkler (AGO, Managing Director Bioenergy)

<https://lnkd.in/fyrJvjk>  
[#ReNuEnergy](#) [#AGOBioenergy](#) [#bioenergy](#) [#anaerobic](#) [#technology](#)  
[#wastetoenergy](#) [#ASX](#)

🌐 Übersetzung anzeigen



# AGO's Green Leaf system / components for food/organic waste



## International show cases

Bronkhorstspuit, South Africa



### Project





## International show cases

Bronkhorstspuit, South Africa



### Project

- 4.8MWel
- agricultural feedstocks
- PPA with BMW factory
- Wheeling agreement with the local municipality
- Long term offtake agreement with BMW
- Plant currently in the engineering phase for an extension of another 3.6MWel

Project driver : PPA, power outages



## International show cases

Cape Town, South Africa



### Project

- Treatment of MSW - 480to/d and 100to/d of source separated organics
- Biogas upgrading (purification) in order to extract the CO<sub>2</sub> – CO<sub>2</sub> will be sold as food grade CO<sub>2</sub> to the food processing industry
- The biomethane going to be compressed up to 250bar and liquified (bottled)
- The bio LNG is used within a truck fleet, bus fleet and for public transport
- The non-organic fraction from the MSW is further treated to RDF (refused derived fuel) and used in a cement kiln

Project driver : gate (collection) fees from the MSW, different revenue streams coming from the sell of the liquified gas and the RDF



## International show cases

Dar es Salaam, Tanzania



### Project

- Replacement of 5 (out of 12) diesel engines - back up generators; in total 5MWel
- Biogas upgrading (purification) in order to extract the CO<sub>2</sub> – CO<sub>2</sub> will be sold to a carbonated soft drink producer
- The biomethane out of the upgrading plant leads to a higher efficiency within the CHPs (methane content 85% instead of 55%)
- Feedstock – food processing waste (milk and dairy products), wet commercial waste, fruit and veg, yeast effluent from a brewery

Project driver : due to tremendous power outages, the diesel back up generators operating almost 10 hours/d. Due to the bad infrastructure, the transport of the diesel is quite expensive. A kWhel produced by the back up generators sits at **40 US\$cents/kWh**.

## International show cases

Mombasa, Kenya



### Project

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## International show cases

### Conclusion



The key to bring an industrial AD plant across the line is the **IPP** (independent power producer). Most of the food processing companies are keen having another potential energy supply (by saving disposal costs at the same time). However, the operation of an AD plant is not the core competence of these enterprises. Hence they will most likely not take one of these facilities onto their balance sheets.

## Memberships



AGO Bioenergy GmbH is a proud member of the following associations





**Thank you very much for your attention!**

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