



# Solutions for energy, water & environmental monitoring

[WWW.GLASENERGYTECHNOLOGY.IE](http://WWW.GLASENERGYTECHNOLOGY.IE)

INFO@GLASETECH.IE

# Introduction

- Peter Mc Shane
- Background in building energy management systems for more than 20 years
- GLAS Energy Technology
- Irish, family owned business specialising in data logging solutions for energy and environmental monitoring.
- Own hardware and software + third party products

# Data Loggers

- Own product GET-1008/GET-1032
- Data logger reads from meters and sensors and sends to server
- Can use local internet connection or 3G/4G router to communicate
- Scales from a single meter to hundreds of meters and sensors.
- Both wired and wireless connections to meters and sensors



# Types Of Client

- Mainly commercial/industrial to date but a number of agri sector clients
  - Meat processors
  - Dairies
  - Feed Mills
  - Tomato growers
  - Fish Farms
  - Poultry farms
- Apartment blocks with 10s to 100s of meters



# What Can Be Measured

- Meters cover a wide range including water, oil, gas, heat, electricity, tallow
- Common sensors include temperature, relative humidity, CO2, dissolved oxygen
- Weather stations cover wind, rain, sunshine levels, atmospheric pressure, soil moisture, leaf wetness, evapotranspiration.
- Outside air temperature and relative humidity are important for regression analysis of drying, heating and cooling systems
- Link ventilation and temperature settings to energy data to see how the system is performing



# Types Of Agri-Tech Application

- Meat Processors
- Dairies
- Poultry farms
- Pig farms
- Grain storage and processing
- Timber processing
- Wind Turbines



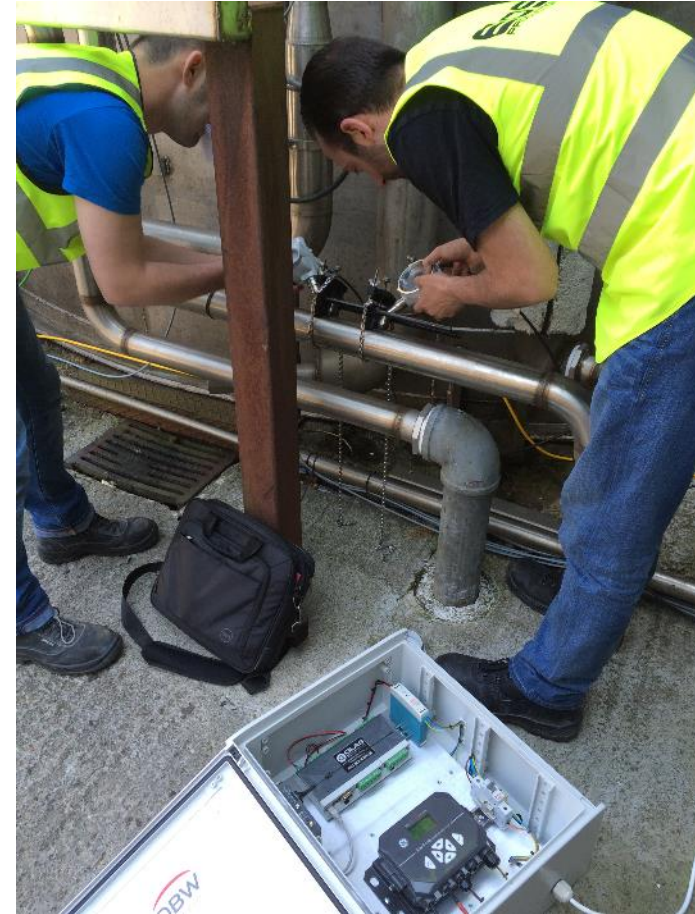
# Front End Systems

- Our offering is based around Mango both as a cloud hosted system and a local system
- Provides data storage and display.
- Our data loggers are also used with many 3<sup>rd</sup> party systems in Ireland and the UK
- Raw data and Excel – simplest option with lowest recurring cost but does require more work from the user



# Permenant Vs Mobile Monitoring

- Most of our installations are fixed and done on an ongoing basis
- Mobile installations have been used for some applications
  - UL Dairy project – Dairy Processing Technology Centre
  - LED lighting
  - CCTech
- Package could be built which could be moved between farms to do short/medium term monitoring of different farms.
- Weather station data could be made available to multiple farmers to provide local weather data.





# Biomass Performance - SSRH

- Data logging will be key for this and SEAI are working on defining what will be required.
- On older installations and newer ones that are outside the SSRH, monitoring of the system is still very important.



# Thank you for your time. Questions?

- My Contact details are:
  - [www.glasenergytechnology.ie](http://www.glasenergytechnology.ie)
  - Peter Mc Shane – [peter@glasetech.ie](mailto:peter@glasetech.ie)
  - 0818-227050 / 087-9377768