

# Bioenergy Innovation Award 2017

## Prediktor Instruments AS

### The committee announcement

This year's winner scores high on the three pillars of the Bioenergy innovation Award, i.e. innovative thinking, research-based development and commercial potential.

Through long-term, dedicated work, this year's winner has extended the application of a known technology into a new field. This effort has given birth to an instrument for the fast and accurate measurement of moisture in biomass fuels. The current 48-hour method can now be replaced by a new procedure that only takes a couple of minutes. This novel technology enables its users to set quality standards, directly contributing to a more professional bioenergy sector.

Development of Near InfraRed (NIR) technology for industrial processes has been a key priority for this year's winner since its foundation in 1995. Spektron Biomass is the result of over 20 years of R&D efforts. Furthermore, researchers at NIBIO in Norway and Skogforsk in Sweden have tested the instrument with very positive results.

Biomass feedstocks come in many shapes and forms, and are usually heterogeneous materials. The challenge in developing new measurement methods lies in finding the right set-up and a good calibration method in order to be able to tackle the large variations in assortment, temperature and moisture content. The winner has developed a unique calibration method known as Real Time Calibration that takes care of these challenges for the Spektron Biomass.

The instrument complies with the new Swedish legislation on measurements for biomass trade and is approved for use in the Swedish industry by Virkesmättningskontrollutvalget. Measurements can be carried out on frozen and unfrozen materials, on various types of feedstocks and the whole range of moisture with good accuracy.

In Scandinavia alone, several hundred potential customers exist. In addition to the stationary version of the Spektron Biomass, there is a significant potential for the development of a solution for real-time measurements in bioenergy plants in order to optimize the fuel feeding to the furnace. This innovation will have a strong positive effect on the bioenergy value chain.

### The 2017 Committee:

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13.03.2017

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