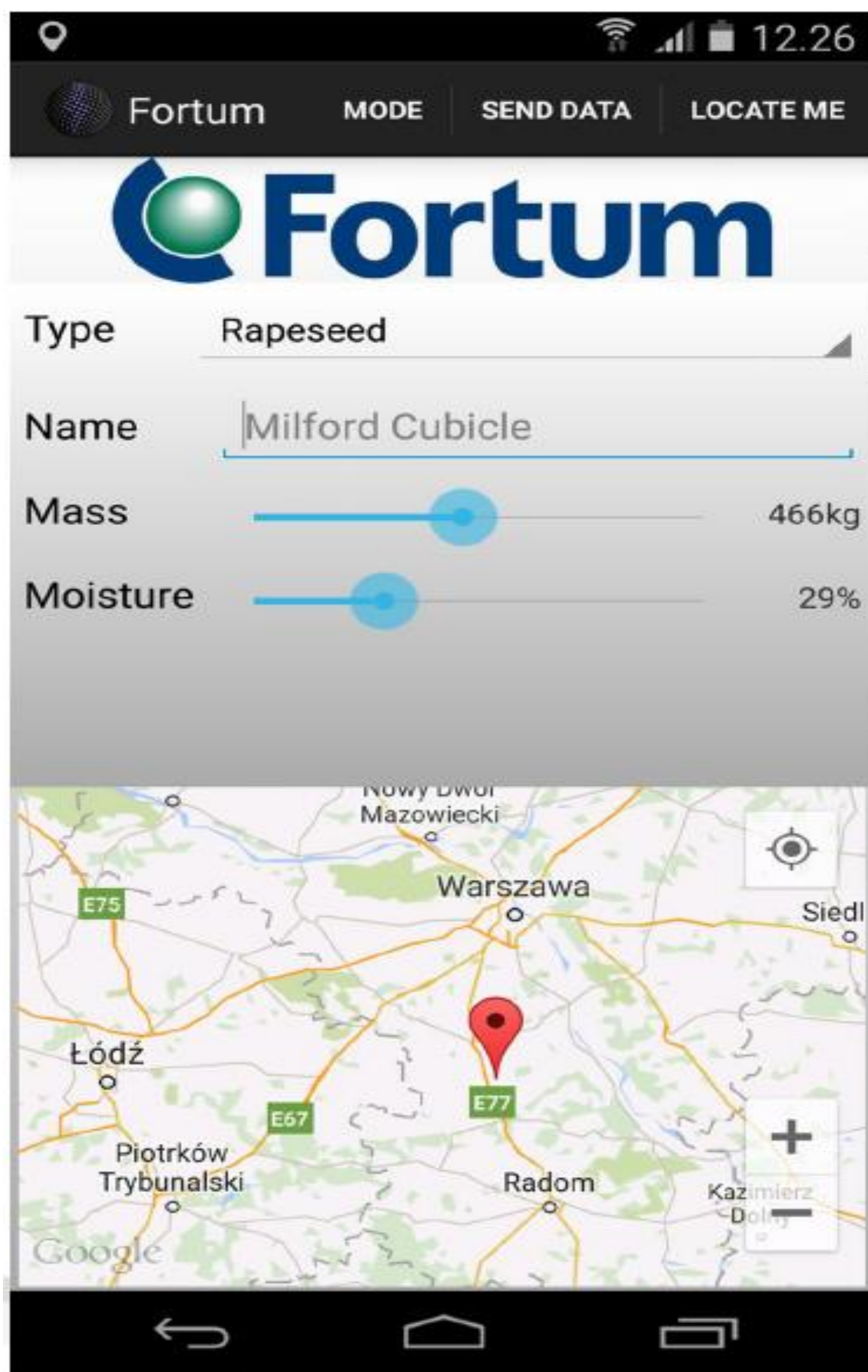




Sustainable Bioenergy  
Solutions for Tomorrow



## Improving the Biomass Supply Chain Through ICT Solutions

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Biomass from agricultural residues is an attractive renewable energy source for energy generation. It is, however, scattered over long distances, seasonally availability, and subject to quality and quantity issues, thus, add extra costs on the whole logistics of biomass procurement including transportation costs by trucks, particularly over long distances.

Internet-based and smart phone applications can offer a strategic and modern tool which enables fleet management, logistics and business optimization in the overall biomass procurement process. **Fortum Oy**, with cooperation with software developer **Cyberlightning**, has developed a smart phone application with the aim to improve the logistics of biomass supply chain. The producer informs the load location and parameters to the back-end system (CyberVille) by using the mobile UI. The load can be located on the map automatically, using the phone's GPS, or alternatively, choose a place on the map by making a long press on top of the desired location. In this case, the red indicator will appear on the map. Web UI shows all loads in the data base, their location and other parameters. Different load types can be selected from the left side of the UI.

The tool has been tested in two locations in Poland and with 110 farmers through BEST project Task 1.4. The farmers were asked to fill in a feedback form after testing the tool. The results of testing showed that over 80% of the farmers think that the SP application is a good idea for biomass trading, easy to use, and helpful tool to sell surplus biomass. Moreover, the farmers suggested several improvements such as proposing biomass prices per ton, suggest pick up time and location. The tool, which can be used by power companies, biomass traders, transportation companies, and also local biomass producers offers multiple benefits and costs saving. Further investments in this tool will spark further innovations in biomass trading and offer new business opportunities in the so called industrial internet.

For further information about the smart phone application:

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