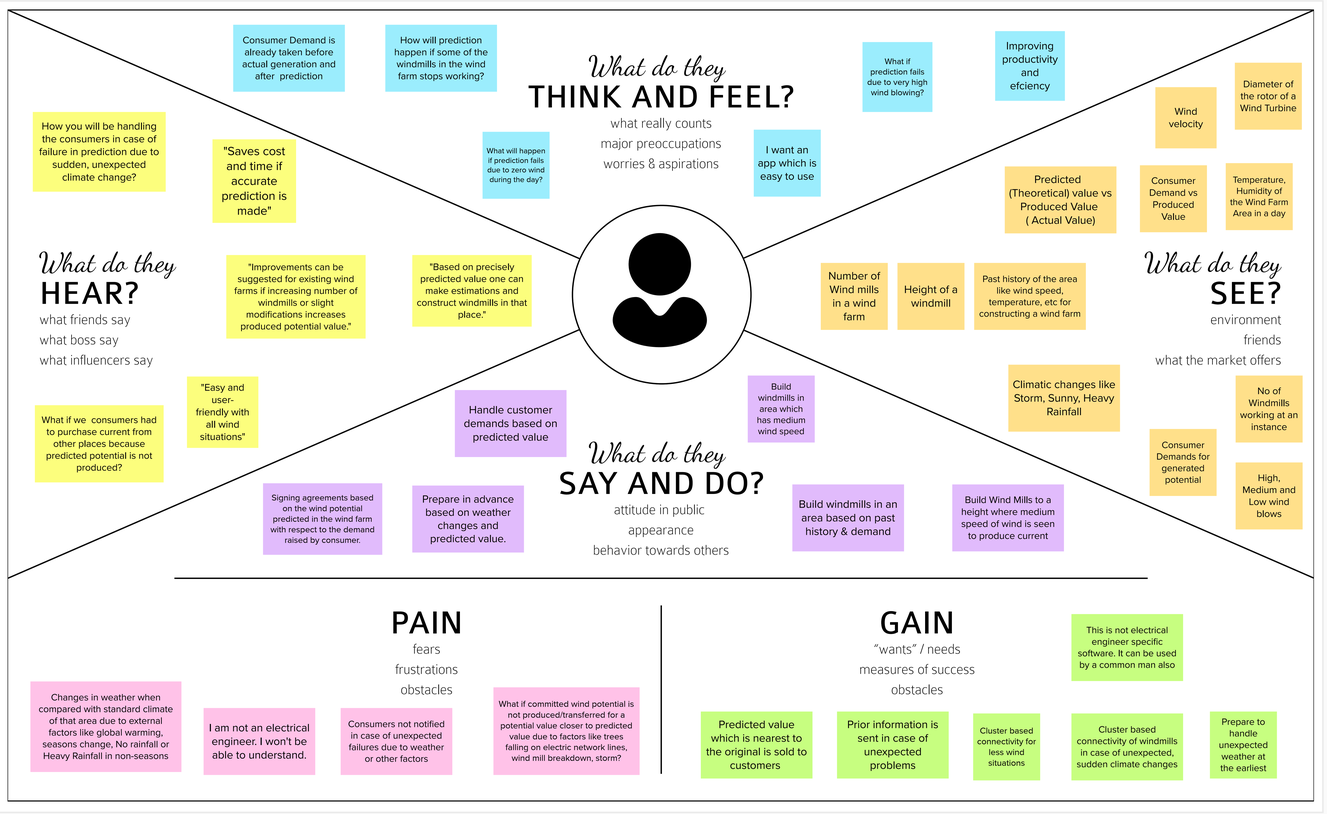
Predicting the energy output of wind turbine based on weather condition

Wind power generation differs from conventional thermal generation due to the stochastic nature of wind. Thus wind power forecasting plays a key role in dealing with the challenges of balancing supply and demand in any electricity system, given the uncertainty associated with the wind farm power output. Accurate wind power forecasting reduces the need for additional balancing energy and reserve power to integrate wind power. For a wind farm that converts wind energy into electricity power, a real-time prediction system of the output power is significant. To develop this real-time prediction system, we need to understand end-user's perspective, feelings, thoughts and problems as adapting best approaches, finding and implementing solutions for these problems can create a huge change in prediction of output power.



Share your feedback