Greenpac PM1: Application of Valmet Industrial Internet for advanced process monitoring

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Valmet Industrial Internet (VII) is a system that combines data and expertise from different sources to develop analytical applications in cooperation with customers and to implement them through the Valmet Performance Centers (VPC) as explained in the case below. The aim is to build cognitive advisors that interact with operators and machines, and to move towards more autonomous plants, mills and overall operations.

Greenpac Mill is a new state-of-the-art Linerboard mill in Niagara Falls, NY, USA that manufactures a variety of lightweight linerboard, made with 100 percent recycled fibers. Seven years after its opening in 2013, this facility has a strong focus on innovation and operational excellence. The mill concentrates on value-adding activities that utilize data-based decisions to maximize profitability. As part of a long-term partnership, Valmet and Greenpac Mill have a shared target of improving the mill's production efficiency with a strong digitalization focus, and putting machine and system-generated data to good use.

In the presentation, the authors will show the current development status of the latest VII applications and the practical implementation of advanced process monitoring applications to achieve the targets of availability and overall energy efficiency.

The application in focus, called Paper Machine Diagnostics, is a software package that enables a paper machine to observe and track its own behaviour. It indicates if the performance of dedicated machine sections, like for example the press or forming section, is within normal limits or if technical help is required. As a result of the implementation in combination with the VPC, it has been possible to accurately predict both - small machinery failures and larger, more critical ones, avoiding unplanned shutdowns and production losses.