

The First High Throughput Workshop at Bosch in Waiblingen was a complete success



On September 10th, 2009, forty participants met together at Bosch Lab Systems in Waiblingen in order to participate in the first BLS-High-Throughput-Workshop. Over 80% of the participants came from the industry with functions ranged from lab-specialist to managing R&D director.

Lectures given by Dr. Aart A. Wismeier (Akzo Nobel), Mr. John H. Hammond (Syngenta Crop. Science) and Dipl.-Ing Jürgen Ortmeier (Karl Wörwag Lack- und Farbenfabrik GmbH & Co. KG) reported on their experiences regarding High-Throughput Experimentation (HTE) and High-Throughput Installations.



The presentations clearly showed that High-Throughput Technology is worth the money. It was for example stated that, raw material costs could be reduced by 40% by improved screening using a HT-Installation without negatively affecting the production process or product quality. Another example showed that the

product quality improved so significantly that revenue could be increased by 40%.

This formulation would not have been discovered with standard development procedures because it is based on a non-linear interaction of several of the additives. These results could only be achieved through a combination of a statistical experimentation plan and numerous tests carried out on a HT-system. Discussions showed that formulation experts for coatings assume that 80% of newly developed compositions are based on such non-linear and complex interactions.

A key success criteria for using HTE is the transfer of the usual lab processes to the HT Installation.

The lecturers pointed out that this approach leads to considerably more robust data which assures a direct transfer of the results into the common practices.

In summary, it could be shown that development processes could be made 2.5 times faster and more efficient by using statistical planning of experiments and HTE.

After the presentations the participants could visit a HT-Installation which was in the start-up process.

They were also able to see several new developments including the Visual Phase Analysis, the dosing of wet and sticky powders, and new dosing and filtration units.

The possibility for direct and intensive information exchange was appreciated by all participants of the workshop.

This exchange was used extensively and as a result the workshop ended behind schedule.

