Direct Adsorption with Cadans technology out of Complex Streams

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Objective:

To prove Cadans technology on relevant industrial feed streams, to show feasibility for scale-up of Cadans technology and validate technical and economical feasibility. Using relevant industrial cases from agrofood applying Cadans technology the potential for valorisation of these streams can become clear. Finally the activities and results in this project will help to promote application of Cadans Technology.

Motivation:

To extract economically valuable substances from viscous or turbid agrofood side streams, we need innovative separation techniques. The ISPT roadmap identifies Cadans as a promising technology. A pilot installation has been developed, which in this project will extensively be tested on three industrial streams to determine its industrial applicability and economic feasibility.

Project scope:

The partners in the project will define relevant cases. For these cases a test program is designed to define process window and optimization of the technology. With the information from the tests a scale up study is performed for industrial scale application. This is input for the business cases for the chosen applications containing the technical risks and economical feasibility. Based on that a solid business decision could be taken.

Applicability:

The cases are chosen from agrofood industry but application of Cadans Technology is also possible for chemical and pharmaceutical industry. Application can be isolating specific components or cleaning streams from residuals. Cadans technology can be an alternative for adsoption systems in bio based processes to valorize side streams or replace existing adsorption systems in food and other industries.

Status:

With the partners in the project industrial cases are selected and initial trials are performed. During the current campaign a test program is performed to analyze the process window. After the process window is analyzed an optimization is done. With long trials the robustness of the technology is checked. When the test program is finished scale up can be performed and the business cases can be developed.