

EAL & VLCI digital R&D project wins MIT funding and top 10 national status

Joint innovation gets the ROV innovation subsidy



Amsterdam, Dec 22, 2020 ([Issuewire.com](https://www.issuewire.com)) - A collaborative project run by Electric Ant Lab (EAL) and Van Loon Chemical Innovations (VLCI) has been awarded the RVO [innovation subsidy](#) (MIT). This funding will fast track their ability to include HLD-NAC measurements in the simulation models of digital R&D tool, [RheoCube](#). From 135 applications in the national MIT subsidies, EAL & VLCI won 10th position. This success underpins RheoCube's ongoing evolution and growing interest in its capacity to transform R&D.

Predictive R&D

The current process of formulating new chemical products is primarily based on trial-and-error. That involves selecting ingredients, assembling new combinations into formulations and performing physical experiments. It's inefficient, as well as time and cost-consuming. A new product development project can take anything from weeks to years.

From idea to tested formulation within weeks

This innovative R&D project tackles that problem. VLCl and EAL are integrating their approaches to further develop the RheoCube virtual lab with the ability to use HLD-NAC as input and thereby widely increase its applicability. HLD-NAC is useful to any industry that deals with emulsions. This includes oil recovery, personal care, home care, agriculture, metalworking, or pharmaceuticals. Sander van Loon, CEO at VLCl comments:

“This innovation has the capacity to eliminate costly trial-and-error experiments, which are rendered unnecessary for surfactant selection in the emulsion industry. Customers in the formulation industry can use this approach to benefit from a ‘one-stop-shop’ setup.”

New possibilities in New Product Development

The resulting product will enable chemical companies to apply both HLD-NAC methodology and simulation models to their product development. This is remarkable as it is yet uncharted territory in the chemical industry. The combination of VLCl's approach for surfactant selection and emulsion development and EAL's approach to rheology and formulation simulations creates a unique digital solution. This breakthrough solution makes it possible to move from idea to tested formulation within a matter of weeks, and at a fraction of the current costs.

“Our clients such as Givaudan and Henkel have already expressed an interest in incorporating the HLD-NAC application in RheoCube. This exciting project will drive the evolution of RheoCube and facilitate users in new ways.”

Jurjen van Rees, COO at Electric Ant Lab

This project exploits HLD-NAC as a solution to serve the entire pipeline, from the initial determination at VLCl, to use as a surfactant characterizer for predictive modeling in EAL's RheoCube. The results will be reduced costs at each product development phase in industrial R&D. The predictive chemical formulation capabilities delivered by this full-pipeline approach will drive substantive cost-savings in the R&D departments of high-ranking chemical and materials industries throughout the world.

Electric Ant Lab (EAL) & RheoCube

EAL is a simulation software company based at the Science Park in Amsterdam. It's the company that created [RheoCube](#), the only tool to offer a multi-scale approach to simulations and complex fluids predictions. It's user-friendly, non-expert focused design makes it the first software tool available for use by R&D scientists. Zero simulation modeling experience is required and no extra investments in local compute clusters are needed, due to integrated cloud computing. Electric Ant Lab was founded in 2015 by Dr. Eric Lorenz, who is renowned in the field of computational physics. The company is active in various markets, including consumer chemistry (e.g. food and food ingredients, personal and home care, cosmetics, flavour and fragrances), Specialty chemicals (e.g. coatings, fillers, additives, crop protection), Petrochemicals (e.g. fracking, transportation) and Polymer chemicals (e.g. plastics, synthetic rubbers, fibers).

Van Loon Chemical Innovations B.V.

Van Loon Chemical Innovations B.V. (VLCI) (<https://vlci.biz/>) is a formulation company that provides R&D services globally to both SMEs and multinationals in the formulation industry. Formulations are widely applicable, therefore VLCI has a broad target market. It focuses on the personal and home care, paints and coatings, polymers and more. VLCI's expertise lies in applying formulation theories such as Hansen Solubility Parameters (HSP) and HLD-NAC, in combination with High Throughput Screening. VLCI was founded in 2008 and is also based at the Science Park in Amsterdam.

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