

PRESS RELEASE

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Crowd Engineering

Fraunhofer spinoff »clous« opens online marketplace for industrial CAD design processes

The latest Fraunhofer IPK spinoff brings together companies with engineering needs and CAD engineering service providers worldwide. Former Fraunhofer researchers have developed the clous.engine for this purpose. It automatically breaks down complex designs into smaller tasks and assigns them to different service providers in the clous.community via the clous.platform.

Manufacturing companies are struggling with ever increasing cost pressure. Engineering in particular tends to be the factor to tip the scales. On the one hand, this is due to the strictly sequential organization of design processes: From the initial concept through individual stages such as mechanics, electrics/electronics or software to testing, new products go through several design loops. This costs time and money, especially when erroneous developments only become apparent in testing at the end of the process and have to be corrected retroactively. On the other hand, companies in industries like automotive, mechanical engineering, energy and construction still complain about a shortage of skilled workers. The hurdles for hiring well-trained engineers from Eastern Europe, South America or Asia are still high. Freelancers and engineering offices, on the other hand, spend 50 percent of their time on contract acquisition.

This is where »clous« comes in: The Fraunhofer IPK spinoff breaks down complex design tasks into many individual project modules and allows different people to work on the single modules at the same time in a virtual, cloud-based network. This enables manufacturing companies to drastically reduce their biggest cost factor: the time from product idea to successful prototype testing.

In detail, it works like this: A client, usually a manufacturing company, needs the CAD design of a machine or tool. This design task is first broken down into many partial tasks using clous.engine. This step happens offline at the customer's site. The partial tasks are then uploaded to the clous.platform and processed independently by individual engineering service providers. The engineering service providers are freelance designers and design offices that receive their orders via clous.platform. After completion of all partial orders, these are fed back to clous.platform and combined by clous.engine on the client's local computer to form a complete CAD design. The unique selling point of clous is that the parallel processing reduces the CAD design time immensely while at the same time preserving the intellectual property at all times, as

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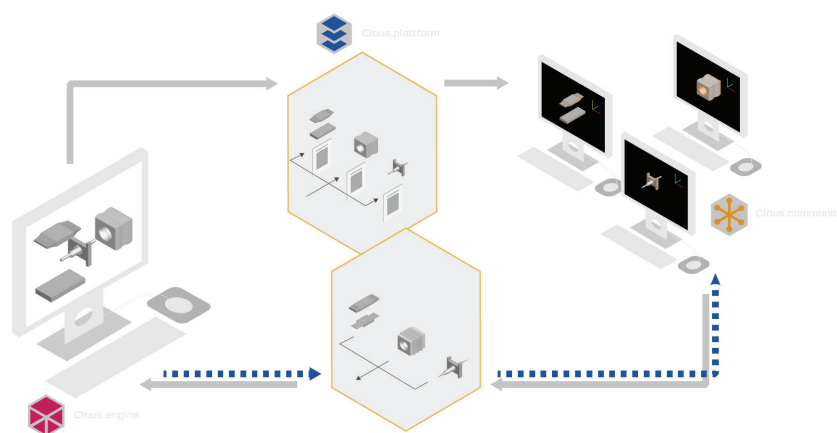
each engineering service provider only knows a small part of the overall design. In addition, clous.platform takes care of all contractual aspects, from commissioning to non-disclosure agreements to payment, thus reducing the workload for both client and contractor. Community members are curated by clous to ensure the quality of the services.

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In the medium term, clous aims to become an entire platform economy that can handle the entire value chain from procurement to production. »Our vision is to become *the* B2B platform for engineering,« says CEO and co-founder Claas Blume, summarizing the spinoff's ambitions. Prof. Rainer Stark, head of the Virtual Product Creation division at Fraunhofer IPK and member of the clous advisory board, confirms that this goal is quite realistic: »clous completely rethinks the engineering process and represents a creative, low-cost alternative for small and medium-sized companies«.

The two founders – besides Claas Blume, Thomas Vorsatz is responsible as CTO – developed the technological foundations of their company during their time as researchers at Fraunhofer IPK. As part of the Fraunhofer AHEAD Company Building Program, they consolidated their team, market and product maturity before going live with clous. Since then, the young entrepreneurs have moved into their offices to Berlin's hip Friedrichshain district. At www.clous.io engineers, designers, customers and contractors can find out more about the young company and register for the clous.community shortly.



This is how clous works (© Fraunhofer IPK)

The print quality version of this image as well as further background information are available on request.

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