



Dear Sir or Madam,

at the start of 2021, we would like to welcome you to the new year with our newsletter. In the current [issue](#), you will receive the latest information about the Business Area Cleaning of Fraunhofer, such as the redesign of the basic seminar, our survey on market and trend analysis in industrial parts cleaning, as well as the upcoming general assembly and the next parts2clean.

Furthermore, we introduce another member in our interview series: Christoph Tammer from Fraunhofer IGCV.

Another highlight is the guest contribution by Fraunhofer IVV and Frank-Holm Rögner (Head of the Business Area Cleaning of Fraunhofer) in the German professional magazine "Lebensmittelbrief".

We hope you enjoy reading this newsletter and wish you a good start into an exciting year 2021!

Let's talk ... interview with a member of Business Area Cleaning of Fraunhofer



As part of our interview series in each newsletter, we once again introduce you to a member of the Business Area Cleaning of Fraunhofer. This time, Dr. Christopher Tammer from Fraunhofer IGCV answered our questions. Read more about his career and his personal views on the goals, potential and aspirations of the Cleaning Business Area of Fraunhofer.

1. How did you join the Cleaning Business Area of Fraunhofer?

The topic of cleaning and surface inspection has accompanied me for more than 10 years in my work at Fraunhofer. At that time, I started with a research project on the production of lithium-ion cells in cooperation with the Technical University of Munich. Cleanliness was identified as one of the decisive quality influences on the battery cell. The search for suitable solutions for surface inspection revealed to me a large white field with potential for intensive scientific activity. While we were initially working on - from a cleaning technology point of view - very specialized niches, we went on to additive manufacturing and with an intensive exchange with the Fachverband industrielle Teilereinigung e.V. (FiT) - triggered by inquiries and needs of the industry - in the following years we went the way of "classic applications" in the field of cleaning technology.

The large field of cleaning technology is so multi-layered and complex that, despite a very strong team, it is never possible to address the topic as a whole in the necessary depth. In addition, it is not necessary to reinvent the wheel in several areas. Networking and cooperation to link competencies is therefore of very high importance. With the entry in May 2018 we are (together with the IVV in Dresden) the youngest member of Cleaning Business Area of Fraunhofer.

2. What goal have you set yourself for your work at the Cleaning Business Area of Fraunhofer?

My goal is the professional but also personal exchange, the synergetic complementation of competences but also capacities in order to be able to advise the customers of the Fraunhofer Gesellschaft in the best possible way and also to support them in a practical manner!

3. What would you like to pass on to the customers of the Cleaning Business Area of Fraunhofer?

The competencies of the individual institutes usually go well beyond what is developed in the context of public research projects, for example, and may therefore also be published. It is difficult for outsiders to see exactly who is working on which cleaning technology topics in the Fraunhofer world, or even which plant technology is available at each location. Therefore, one never makes a mistake to place a request via the network or the spokesperson, because in this way one can be sure to reach everyone who is working on cleaning technology in the Fraunhofer-Gesellschaft. By the way, I have also done this myself several times when it was a question of calling in expertise for customers that lies outside our fields of activity.

4. What does the Fraunhofer IGCV offer in cleaning technology?

There is a lot on offer! In my Quality and Technical Cleanliness group, the current application focus is certainly on battery production, additive manufacturing ("3-D printing"), the remanufacturing of used components, and the topic of process understanding based on knowledge-based systems and AI. Over the course of numerous projects, we have built up not only the relevant expertise but also a considerable portfolio of plant technology and laboratory equipment in order to be able to approach the topics in a practical way. This also includes production-scale systems. Very often, we carry out feasibility studies for customers from industry, for example when it is a question of identifying an ideal cleaning process chain for a new product.

Just a year ago, we moved into a new building in Augsburg's Innovation Park. We have around 200 sqm of technical center space for cleaning technology (e.g. for alternating pressure process, ultrasonics, low-pressure plasma, jet cleaning (solids and CO2 snow), brushes and suction devices and various brush wash tables) and over 100 sqm of laboratory space for cleanliness analyses and analytics (VDA19, SEM/EDX, spectroscopy, laser diffraction, thermography, HPLC and the entire range of fluorescence measurement technology). However, as is often the case with public sector construction, the building is already bursting at the seams after construction delays, so we already have to think about developing expansion space for quality and technical cleanliness.

Of course, we have also access to further analytical equipment from other scientific areas and departments.

A laboratory and pilot plant with multi-layered equipment is essential for us to be able to validate theses we have developed and to simply try out ideas in practice!

5. What makes you a competent partner in cleaning technology

Experience and practical affinity, but also curiosity, drive and the critical examination of the state of the art. I also like to critically question supposed, experience-based established fundamentals, because in the field of cleaning technology I have already encountered a lot of "gut feeling established as a rule of law", which on closer examination have often turned out to be at most partially true. Although we often work in an advisory capacity, I do not want to be exclusively a "consultant". I also like to lend a hand and get involved in the process in order to gain my own experience! I am always open for innovative ideas and approaches and find ways and means to bring such topics to implementation

6. What do you wish for the industry?

Perseverance and innovation! We are currently living in strange times, which, in addition to the already challenging change in the automotive industry for many users and equipment manufacturers, primarily bring uncertainty with them. Although cleaning technology will continue to be provided with plenty of tasks and questions, the question arises as to how long necessary investments on the part of customers will be put on the back burner - due to uncertainty factors. In the end, it will probably be the innovative equipment manufacturers in particular, who comprehensively qualify themselves and their equipment technology for new applications, who will emerge from the crisis with a strong order situation.

7. What is urgently needed so that the next big step can be taken in the field of cleaning technology?

This may sound like the same old story in the industry, but I still see a need for action here to increase the perception of the importance of the topic of technical cleanliness. Of course, a lot has happened here over the last 10 years. But when a request lands in my mailbox that, in the course of planning a new product line in the final phase, it came to light that a cleaning process might be necessary after all and that there is now a space of 1-2 sqm left for this, then there is still a need for educational work. Only with increased awareness will there be a willingness to invest the necessary money in an innovative and efficient system and thus promote this important innovation in the long term.

Expert for Industrial Parts Cleaning – Now in a hybrid form!

In the current unpredictable corona-situation, there are still travel restrictions in many companies and a great reluctance to hold face-to-face events. For this reason, the basic seminar will now take place in a hybrid form. The theoretical part will take place as planned from March 09th -11th, 2021 – new – now online. The hands-on, practical part will be postponed to 9.-10th June 2021 and will then be held in presence in Dresden. Details on the exact schedule can be found on our [website](#)



Survey: market and trend analysis in industrial parts cleaning

Our market and trend analysis survey is still online!

Please take about 20 minutes and share your needs, requirements and current assessments on the topic of "Industrial Parts Cleaning".

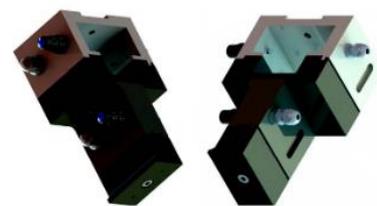
Among all participants a voucher for the basic seminar "Expert for Industrial Parts Cleaning" in March 2021 (or alternatively for a following seminar, if there are scheduling conflicts) as well as 5 copies of the newly published study will be raffled off. Participation is worthwhile!

[To the survey.](#)



Press article „Lebensmittelbrief“

The "Lebensmittelbrief" is a trade journal covering all aspects of food & nutrition. In the following article of the hygiene section, you will find a guest contribution by Fraunhofer IVV and Frank-Holm Rögner as head of the Business Area Cleaning of Fraunhofer. The focus topic is a new test method to prove the cleanability of open systems. You can subscribe to the journal "Der Lebensmittelbrief – ernährung aktuell" on the website of the Lebensmittel-Informationen-Dienst GmbH.



[To the article](#)

[To the official website of LID.](#)

parts2clean 2021

With around 4,000 participants, the parts2clean is the leading international trade fair for industrial parts and surface cleaning. With more than 1,300 visitors, the parts2clean expert forum is one of the most visited events in the field of cleaning technologies. Under the expert leadership of the Business Area Cleaning of Fraunhofer, current topics and processes will be presented, and forward-looking trends as well as the latest scientific findings will be presented and discussed.



Together with Deutsche Messe AG as the organizer, we strongly hope to be able to hold the specialist forum again this year on site at Messe Stuttgart. However, we have also

learned a lot in 2020 and will therefore also plan and set up online elements in order to reach even more interested parties with a hybrid event.

Stay informed and register now for the next parts2clean in October!

[To the official website of the parts2clean.](#)

General assembly



The annual general assembly of the Business Area Cleaning of Fraunhofer will take place digitally this year from February 25th – 26th. Among other topics, the meeting will focus on the new hybrid basic seminar, the next parts2clean, and the review of the eventful year 2020.

A review and all published information will be given in our next newsletter.

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