



BETTER BASICS
LABORBEDARF

INFORMATION ABOUT

47% EFFICIENCY IMPROVEMENT BY USING

THE SMARTRACK®



47% EFFICIENCY IMPROVEMENT BY USING THE
SMARTRACK® IN THE METHACRYLATION

THE SMARTRACK®
Information for laboratory users and users

Free yourself from the daily overload at the laboratory workstation by using the revolutionary organisation system for laboratory workstations - the SmartRack®!



The SmartRack® provides structured storage, digital documentation, and efficient use of limited space inside the laboratory fume hood.

Abstract

Many laboratories still work in analogue - with paper protocols, unstructured processes and a lot of time. Fraunhofer IKTS has tested two tools together with Better Basics:

- A smart workplace organisation and
- Digital sample management.

The result: 47% shorter process times with greater precision. A clear leap in efficiency - and a strong signal for the future of laboratory work.

The Fraunhofer Institute for Ceramic Technologies and Systems (IKTS), together with Better Basics Laborbedarf GmbH and Qualitype GmbH, has conducted a practical test in a pioneering cooperation project:

How much efficiency can really be gained through optimal workplace organisation and digital documentation using LIMS? The impressive answer: up to 47% increase in efficiency, significantly fewer errors, better reproducibility - all while increasing employee satisfaction and sustainability.

The Experiment: Two Processes, One Goal – Greater Efficiency

The optimisation potential was tested under real laboratory conditions using the complex processes of methacrylation and mineral synthesis. The focus was on the interaction between the modular workstation organisation system SmartRack® from Better Basics and the LIMS software Samples from Qualitype.

The result: the test time for methacrylation was reduced from 71 to 38 minutes.

In mineral synthesis, the standard deviation of the measurement results fell dramatically from 25.9 % to 1.3 %.

These results emphasise the significant increase in process quality and the reproducibility of the results.

'I am delighted with the effects of the optimisation in our laboratory. These not only bring us enormous advantages, but also convince our industrial partners,' says Dr. Matthias Ahlhelm, group leader of the "Biologised Materials and Structures" working group at IKTS.

SmartRack® – More Than Just Organization

The SmartRack® is more than just a shelving system, it is an intelligent, modular workstation solution that can be customised to meet the exact requirements of any laboratory application. It transforms even cramped and cluttered areas into highly organised and maximally efficient laboratory workstations.

By utilising the room height at the laboratory workstation, the SmartRack® creates more usable work space in the fume hood, on the laboratory workbench or in the safety cabinet (in this case, we recommend using the SmartRack® mini).

Each module is designed precisely for specific laboratory work equipment, from pipettes, glassware and reaction vessels to well plates and digital work equipment such as barcode scanners or tablets, and can even be operated safely with one hand thanks to the integrated and patented click mechanism.



Storage boxes and holders in the SmartRack® allow quick access to lab vessels and support efficient workflows in the fume hood.

The SmartRack® not only provides you with an efficiency booster, but also makes an active contribution to the implementation of LEAN management principles and 5S in your laboratory.

Standardised work processes are supported, enabling structured access to knowledge and equipment. With the SmartRack® and the new products in the SmartIntegrate product family, you have the ideal solution for dynamic teams, parallel experiments and demanding research environments.

Samples – Seamless Digital Documentation

The Samples software perfectly complements the physical organisation system: interactive step-by-step instructions, embedded videos and stored process parameters ensure seamless, audit-proof documentation - quickly, easily and securely.

The Takeaway: The Future of the Lab Starts Now

The LimPROVE project thus impressively demonstrates that the combination of digital sample management and smart workplace design creates laboratory environments in which efficiency, ergonomics, safety and sustainability go hand in hand. For the industry, this not only means economic advantages, but also a convincing signal in the direction of innovation and future security.

'At the same time, current and future challenges in the labour market could be addressed, because with Samples and the Smart Rack, solutions are available that allow new employees to be introduced to work and test procedures efficiently, quickly and precisely,' adds Ahlhelm.

Read the full technical article on the LimPROVE project in the 03/2025 issue of Laborpraxis Vogel [here](#).



Storage boxes and holder modules organised in the SmartRack® allow quick access to laboratory vessels and support efficient workflows in the fume hood.

Better Basics Laborbedarf - Unlock Your Lab Potential



Photo: Building of the Better Basics Laborbedarf GmbH in Dresden



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Marcus Heinze was born in Zittau and is now a Partner and Head of Development at Better Basics Laborbedarf GmbH. He completed his studies in polymer chemistry at the TU Dresden with a doctorate in the field of mineralisable hydrogels. Today he is responsible for development at Better Basics Laborbedarf. The area of product development is dedicated to multidimensionally optimised component design, which combines the possibilities of various 3D printing processes with those of classic metal processing.

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Are you interested in our products or have any further questions?

Please get in touch with us:
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For more information and updates on our product innovations, you can also visit:
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Our request to you

A product like our SmartRack® is only as good as its users. With our roots in the Leibniz Institute for Polymer Research Dresden, our company Better Basics Laborbedarf stands for the tradition of "Made in Germany" quality. We feel in multiple aspects committed to this quality label for German companies, which stands for high innovative strength. Even beyond our product catalog, the same applies for us at Better Basics: Just contact us if you have ideas for extensions or improvements or if you notice something in your daily laboratory routine that we should optimize right away.

We want to create the best possible working environment for you in the laboratory and we are grateful for any comments and inspiration. We can jointly shape the future of laboratory work by cooperating with scientists and researchers. Just like you, we're always looking for a way to make our world a little better every day.

Impress:

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