

The SiLA Connection

July 2024



STANDARDIZATION IN LAB AUTOMATION

JULY 2024

[How automation is fuelling self-driving labs](#)

We are delighted to share with you the link to the first online SiLA-article, published by our **media partner [Drug Discovery World!](#)**

Read what **James Love from Novo Nordisk** has to say about self-driving labs and how SiLA supports their daily lab business:
<https://www.ddw-online.com/how-automation-is-fuelling-self-driving-labs-30600-202407/>



See us at these events:

[TraceBot Symposium](#)
September 25, Konstanz, DE

[Lab of the Future Europe 2024](#)
October 1-2, Amsterdam, NL

[ELRIG Drug Discovery 2024](#)
October 2-3, London, UK

[PLA Conference India 2024](#)
October 15-16, Mumbai, India

Also, look at the recorded presentation by James Love on our SiLA YouTube channel: [Novo Nordisk using SiLA: Automation for closed loop processes/self driving lab](#)

Stay tuned for our fall article on cyber security in lab automation by Mark Auty, [Unilever](#).

ICRA2024: The role of interoperability standards in accelerating scientific discovery

In May, SiLA members were invited to take part in a workshop on “Accelerating Discovery in Natural Science Laboratories with AI and Robotics”.



This was organized by leading researchers from TU Munich in Germany, the University of Liverpool UK and the University of Toronto Canada, as part of the International Conference on Robotics and Automation (ICRA) in Yokohama, Japan. This is major event in the robotics calendar, attracting over 5000 delegates!

The topic of accelerating discovery has generated a lot of interest across the empirical sciences: life science, material and drug discovery in recent times. Challenges include reproducibility and scalability, so automation and robotics has a strong role to play. Specific technical barriers include manipulation and perception of transparent glassware, deploying mobile manipulators safely in human labs, and system integration with non-digital devices where standardization can contribute.

SiLA Directors Adam Wolf and Patrick Courtney presented talks on “Towards Robotic Laboratory Automation Plug & Play: The LAPP Reference Architecture Model” and “The role of interoperability standards in supporting the acceleration of Discovery in the Natural Sciences” respectively.

More details <https://sites.google.com/view/icra24-accelerating-discovery/schedule>. A workshop report will be published as a viewpoint paper on Science Robotics and due to appear soon.

[EUROLAB – there will be more news from Laura from early September](#)

SiLA Director, Patrick Courtney, was invited to present at the Lab of the Future event organized by EUROLAB in May. EUROLAB is an association of national associations of laboratory owners and operators.



This includes a wide range of labs from the very small to the very largest, operating across all sectors, environmental testing, research and calibration laboratories. The event aimed to provide an insightful exploration into specific practices in the digitalization of laboratories.

SiLA presented alongside talks on smart standards, robotics, computer vision and equipment management. Thank you EUROLAB, for the opportunity!

The program is available here: <https://www.eurolab.org/newsarticles/register-now-to-the-eurolab-webinar-%E2%80%9C%9Clab-of-the-future%E2%80%9D>

[Another strong showing at Future Labs LIVE Basel](#)

June saw us return to the Basel convention center to meet old and new friends from near and far at THE event on lab and digitalization for Switzerland, Germany, France and beyond.

Building on the highly successful events of past years, this time with over 3000 delegates, 100 startups, 200 speakers and more.

SiLA members and users were present in many sessions. We even discovered new users among the trade show exhibitors – that’s how SiLA is being taken up by the community!



As part of this event, SiLA once again organized a SiLA splash session on the pre-conference day. Here we presented SiLA and also gave space to our friends at the [AnIML](#) data standard to a full room of lab users, vendors, academics, and startups.

A particular highlight this time was an introduction from Tom Kissling at [Roche](#) (see article [AC/DC lab - the democratization of lab automation](#)), a longtime SiLA supporter, as well as Lukas from startup vendor [UniteLabs](#).

A US edition runs on October 30-31 in Philadelphia <https://www.terrapinn.com/conference/future-labs-live-usa/index.stm>

[Presentations from FutureLabs Live event available for download now!](#)

If you missed the SiLA presentations at Future Labs Live in June, we are delighted to share some of the presentations with you today. Sign up on our website for free, visit our downloads section "D. Publications" and scroll to "4. SiLA on other events".

Available presentations are:

- **A smartlab network to foster digitalization and automation through open standards** by Tim Meyer, University of Göttingen
- **Full integration of ML into an ontology guided automated robotic workflow** by Mark Doerr and Stefan Born, University Greifswald and TU-Berlin
- **Biologics Quality Control Automation Ecosystems** by David Wolton, Biologics operations Consultant, Numeriq
- **A bioSASH and SiLA journey: Implementing advanced laboratory automation technologies** by Adam Wolf, SiLA Director and lead of the SiLA Robotics Working Group
- **AC/DC Lab Democratization of Lab Automation** by Tom Kissling, Roche Pharma Research and SiLA Director

Visit: <https://sila-standard.com/downloads/#1598259056647-2601f5fd-310d>

We also would like to share the report Automating Discovery: Laboratory automation, high throughput experimentation, diagnostics and laboratory robotics/AI with you. This report, mentioning SiLA and AnIML as standards to use, is written by Dr. Patrick Courtney ([tec-connection](#) and SiLA Director) and Dr. Radhika Gudipati ([euRobotics](#)) and has been presented at the event. With the allowance of the editors, we are delighted to share the report with you. Sign up on our [website](#) for free, visit our [downloads section](#) "D. Publications" and find the report under "1. Publications".

[AC/DC lab – the democratization of lab automation](#)

Tom Kissling from [Roche](#) gave us an excellent overview of the activities in lab automation at research and early development.

He presented the vision and motivation for cost-efficient and flexible lab automation. Overcoming the barriers of incompatible tools in a systematic and standardized manner to support both automation and digitalization around SiLA.

We heard about the "AppStore" concept and how it is used to combine known and existing with new devices to meet evolving needs.

We are delighted to share the presentation with you. Visit our website, sign up for free, and find the presentation in the [download section](#), register "D. Publications" under 4. SiLA on other events.



[Robotics-4-Labautomation Symposium 2024, Konstanz, Germany, September 25th](#)

SiLA is a partner of the TraceBot Symposium, organized by BioLAGO, taking place on September 25th at the Bodenseeforum in Konstanz, Germany.

The event invites all lab automation and robotics experts from research and industry, who want to network and exchange ideas with scientists and industry representatives from all over Europe.

With a wide-ranging program, we will highlight current topics related to robotics and lab automation in the pharmaceutical and health industries.

For more information visit: <https://www.biolago.org/de/veranstaltung/robotics-4-labautomation-symposium-2024-for-the-smart-digitalised-lab-of-the-future.html>

SiLAS and the team look forward to welcoming you at our booth!



Lab ^{OF} THE Future Europe
1st & 2nd October 2024
Beurs van Berlage, Amsterdam

The banner features a dark blue background with white text. To the right of the text is a stylized graphic of horizontal lines of varying lengths, resembling a barcode or a digital signal. The overall design is clean and modern.

[SiLA at Lab of the Future Europe in Amsterdam, October 1st-2nd](#)

SiLA is glad to be partnering with the Lab of the Future for their forthcoming congress in Amsterdam. This congress is the world's largest meeting place for R&D Leaders in BioPharma.

Book before August 16th and save up to €200 with the **early bird discount**. **SiLA members benefit from an additional 10% discount using the code "SiLA10"**. Please note this discount can only be applied at the time of booking and cannot be claimed retrospectively.

Find out more: <https://www.lab-of-the-future.com/europe/>

Register now: <https://www.lab-of-the-future.com/europe/registration/>

[New SiLA Awesome page](#)

This curated list and the resources provided are designed for a wide range of users: For software developers and engineers who are familiar with coding and SiLA concepts, you'll find direct links to various implementations and technical resources.

For scientists and laboratory personnel who are newer to software and SiLA, this document aims to provide a clear and accessible entry point into the world of laboratory automation.

This curated list and the resources provided (implementations, applications, clients, servers) that uses the SiLA 2 standard can be found here: <https://sila-standard.com/sila-awesome/>

SiLA at Drug Discovery, London UK, October 2nd-3rd

Robotics and Automation Track: Innovations and Applications

From physical manipulation to data modeling, join us to discover how robotics and automation are enabling science across drug discovery.

This session, co-organized with SiLA, will consider both new innovations and current applications of automation in the chemical and biological fields, and will highlight the impact of Artificial Intelligence in this space. Join us for a series of talks from subject-leading speakers and get involved in our interactive panel discussions. Session chairs: Patrick Courtney (SiLA), Burkhard Schaefer (SiLA/AnIML), Lorna Suckling (GSK).

Register now: <https://elrig.eventsair.com/drug-discovery-2024/delegate-registration/Site/Register>



SiLA at Paperless Lab Academy (PLA) Conference in Mumbai, India, Oct. 15th -16th

We are delighted to be present again with a Deep Dive Workshop on October 16th, at the upcoming Paperless Lab Academy (PLA) Conference in Mumbai, India.

Together with SiLA Director, Burkhard Schaefer, you will experience a hands-on session with the aim to prepare you for the application of laboratory digitization on a large scale through the use of data and communication standards.

You will learn:

- How the application of scalable patterns can accelerate your digitization efforts. This includes instrument connectivity and data management using the SiLA and AnIML standards.
- How to collect data from instrument PCs in an analytical or biological laboratory and store it in a secure central location.
- How data can be integrated into leading systems such as LIMS and ELN to reduce manual transcription.
- How to apply the FAIR principles to your data to maximize its value.



DEEP DIVE WORKSHOP | October 16, 2024 | 13:30 - 17:30

Hands on Lab Digitalisation Instrument Connectivity and Data Management at Scale using Standards



As you go through these points, you will understand the role of data and communication standards in facilitating this process.

The session will begin with an overview of SiLA and AnIML standards. We will then explore the use of repeatable patterns to apply laboratory digitization at scale and conclude with a live session using real instruments. Seize the chance and make advance of the super early bird discount!

Register now:

https://www.paperlesslabacademy.com/india_registration/

"GoodSiLA" is taking over the foodbrewer-lab!

At an early stage of their automation journey, the foodbrewer-team already push collaborators and vendors to adopt the SiLA standard!

Messages like this make my day! Thank you, foodbrewer-team, for helping to standardize lab automation!



Kuhner Shaker - SiLA compatible/-compliant

The SiLA Consortium-team is always excited to see that even non-member companies make their products SiLA-compatible/-compliant!

At Future Labs LIVE in Basel, we came across the MPS-Z Shaker by Kuhner Shaker Inc which will be officially released in Q1 2025!

Thank you, Nicolas Geist, for helping to make standardization in laboratory possible!

Standardization in lab automation, interoperability and manufacturer-independency is not the lab of the future, it's the lab of today!

Contact office@kuhner.com for more information.

MPS-Z

Handle your automated bioprocess with ease



MPS-Z Expert

Feel free to contact our team of MPS-Z experts for more information.

E-mail: automation@kuhner.com

The new MicroPlate Shaker (MPS-Z) from Kuhner is the reliable cultivation system for your bioprocess. Integrable into all common automated platforms, the system eliminates bottlenecks and accelerates workflows in the laboratory.

- Operation of up to 18 standard microtiter and deep-well plates
- High-precision control of all essential parameters such as temperature, humidity, shaking speed, and CO₂

- Direct magnetic drive allows easy shaking diameter changes: 3mm, 6mm, 12.5mm, 25mm, 50mm
- System Duetz compatibility
- The self-developed SCARA system, Kuhner Hawk, enables smooth process workflows with short access times
- Ready for the future: the MPS-Z works with two communication protocols: state-of-the-art TCP/IP and the new standard for lab automation, SiLA 2 (HTTP2)



Adolf Kuhner AG • office@kuhner.com • +41 61 319 93 93 • www.kuhner.com

Do you want to learn more about SiLA?

<https://sila-standard.com/standards/> -> scroll down to the section called “get started” and “how to get started”.

- technical details/information on SiLA visit [GitLab](#)
- technical questions on SiLA join the very active [Slack](#) community
- tutorials on SiLA visit our [SiLA youtube channel](#)



FOR MORE INFORMATION

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