The SiLA Connection
April 2026

STANDARDIZATION IN LAB AUTOMATION APRIL 2026

SiLA Conference 2026 – Novartis, Basel – October 9th

BioProcess International, Vienna, A
April 27-30

London Lab Live, London, UK
May 6-7

Future Lab Live, Basel, CH
May 27-28

Discovery & Development Europe, DE
June 15-16

BioTechX, Basel, CH
October 6-8

SiLA Conference 2026, Basel, CH
October 9

IUTA Analytik-Tag, Duisburg, DE
November 2

Postponed: Arab Lab Live, Riyadh, KSA
December 14-15

Most life science research is still done manually, and many labs struggle with basic digitalization. To unlock
AI-supported R&D, the next generation of scientists must be trained and inspired to use—and build—fully automated labs. We will explore how academia and industry can accelerate this shift:

- ***Academia:*** *How to train students to adopt and advance lab digitalization and automation*
- ***Industry:*** *How to design accessible, scalable digitalization and automation products and services, and grow the market*
- ***SiLA:*** *Its role in education, standardization, and market growth*

AGENDA

08:30 – 09:30 Registration & Coffee
09:30 – 12:00 Morning Session • Welcome • Talks • Q&A

Call for use case presentations, posters and demos open!

Confirmed Speakers:
Pascal Miéville (EPFL) • **Krizia Gallone** (Opentrons)
Stefan Maak (Uppsala University) • **Benedict Diederichs** (OpenUC2)

12:00 – 14:00 Lunch & Networking • Posters • Exhibition “Wonders of Medicine”
14:00 – 15:00 SiLA in Action: Joint User & Vendor Use Cases
15:00 – 16:00 Roundtables Academia–Industry Teams
16:00 – 16:30 Wrap-up

Register here:

New Award for Student Projects in Laboratory Automations

Join us in celebrating innovation and open standards in laboratory automation!

The SiLA Consortium is excited to announce a new award recognizing outstanding Bachelor's and Master's theses that advance laboratory automation through open standards. This initiative aims to support and celebrate the next generation of innovators driving open and interoperable lab automation solutions.

Who can apply: Bachelor's and Master's students in laboratory automation
Focus: Projects improving laboratory automation using open standards
Base prize: €1,000
Bonus funding: Up to €4,000 for projects published as open source and meeting defined te milestones (before or after the award)
First submission deadline: May 30, 2026
Frequency: Annual award

More details on eligibility, evaluation criteria, and submission process are available here: https://sila-standard.com/sila-award/. For questions or expressions of interest, please contact info@sila-standard.org.

Preparing the Next Generation: Education Meets Lab Automation

We are delighted to see another important article by SiLA Director Dr Tim Meyer, Research Group Leader in Pharmaceutical Biotechnology at the University Medical Center Göttingen, published in Drug Discovery World.

In his latest piece, Tim Meyer explores why the next generation of scientists must be trained differently to meet the evolving demands of modern laboratories—where automation, digitalisation, and interoperability are becoming essential skills.


Opinion

How to improve lab education

Dr Tim Meyer, Research Group Leader Pharmaceutical Biotechnology at University Medical Center Göttingen, explains why the next generation of scientists must be trained differently for the lab.

https://www.ddw-online.com/ddw-spring-2026-2-40963-202603/ **- PAGE 51**

This vision closely aligns with **SiLA's mission and will be a central theme at the upcoming SiLA Conference 2026**, hosted at Novartis on October 9th. Save the date and join us in Basel!

Following their example, we must urgently bridge the divide between ambition and academic reality and join forces to form an inter-institutional education alliance for advanced laboratory technology and automation. The smartlab.network was formed to promote open hard- and software standards, to promote collective action and provide coordination between members. We now urge all interested parties to join the network, share their pain-points and seek, collectively, for solutions, financial and organizational, to establish virtual and real-world smartlab.hubs across borders to forge the next generation of life science professionals.

If this topic is relevant to you, please consider contributing to the surveys for educators and industry here https://bit.ly/3OjeHQB. We'll bring you the results later in the year.

Interview with Meghav Verma from Axle

SiLA: What specifically motivated you to add SiLA to your product?
We added SiLA because we were spending too much time on one-off integrations and glue code between instruments and the rest of the lab software stack. Every new device or system tended to mean a custom interface, custom testing, and custom maintenance. That slows delivery and makes upgrades risky.

SiLA gave us a clear path to standardize how we connect and orchestrate lab components. Instead of treating each instrument as a special case, we can expose capabilities through a consistent interface and build workflows that are more modular. The big motivation was faster integrations, lower long-term maintenance, and less vendor lock-in, so we can scale integrations without scaling complexity.

SiLA: How did you find the experience of integrating (the code base, the community, total effort etc)?
Overall, the integration experience was positive, especially once we got past the first learning curve. The first implementation took the most effort because we had to align our internal concepts (jobs, runs, errors, statuses, data artifacts) with SiLA's model and decide how we wanted to structure features in a way that's intuitive for downstream users.

From there, the work became more repeatable. We found that a good approach was to start with a thin slice integration (one device + one workflow), prove the end-to-end path, and then expand. The community side was a real plus: when we hit questions about best practices and edge cases, getting feedback from people who'd done similar integrations helped us avoid re-inventing patterns.
In terms of effort, I'd describe it as very reasonable for the value, the main time sink wasn't coding the protocol layer. It was the product thinking: mapping capabilities cleanly, defining good error semantics, and building solid automated testing around device behavior.

SiLA: What would you say to anyone considering using SiLA?
I'd say: if you expect to integrate multiple instruments and software systems over time, SiLA is worth it. The ROI compounds, the more things you integrate, the more you benefit from having a consistent integration surface.
My practical advice is:

- Start small: choose one instrument and one workflow that matters and do an end-to-end pilot.
- Treat the SiLA surface as a product: design features and naming for usability, not just "whatever works".
- Invest in conformance and testability early: integration bugs are expensive once multiple systems depend on you.
- Engage the community: you'll move faster by borrowing established patterns instead of guessing.

SiLA: Finally, is there anything SiLA could do better?
Yes, mostly around onboarding new adopters.
A few constructive areas that would help:

- More opinionated, end-to-end reference examples (realistic device + workflow + client patterns), so teams can copy proven architectures.
- *Even stronger conformance tooling (tests, validation suites, clearer checklists) to reduce ambiguity and speed up onboarding.*
- Better discoverability and packaging of features, it's not always obvious which features are the best starting point for common device categories or how to approach extensions consistently.
- More integration guides: guidance for versioning, backwards compatibility strategies, and operating SiLA services reliably in production environments.

Importantly, these are next-level improvements. The core value is already there; this is about reducing time-to-first success and helping teams converge on best practices faster.

Bio: Meghav Verma is a leader in laboratory automation and robotics, focused on translating real-world lab pain points into scalable technologies that accelerate scientific discovery.
https://axleinfo.com/

SiLA Core Working Group Update

Over the past two months, the SiLA Core Working Group has focused on improving interoperability, clarifying governance, and accelerating community-driven development.

On standardization, the group discussed default communication ports but decided against fixed assignments. Instead, this is now clearly documented in the specification to keep flexibility while reducing ambiguity.

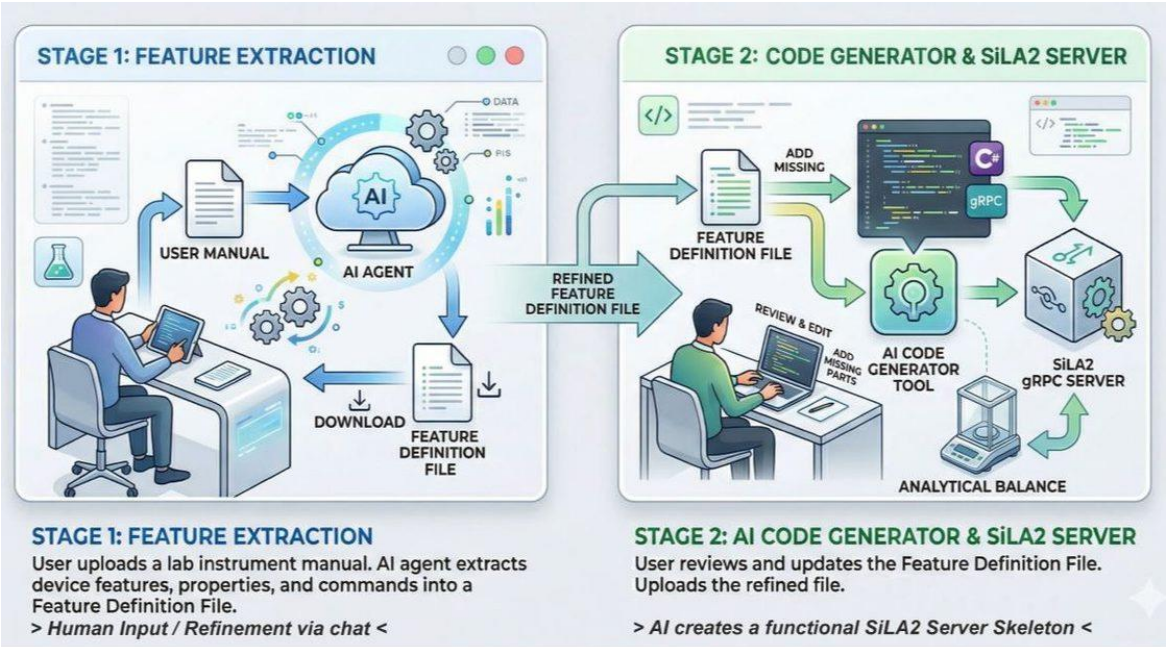
Interoperability remained a key focus. The group reviewed compatibility issues between client implementations, identified gaps in server discovery (notably mDNS), and revisited the idea of reference tests to improve reliability across implementations.

On governance, a clearer and more transparent contribution process was reinforced. New features are expected to go through an open review and merge cycle to ensure broad community input. In parallel, ecosystem development continued with work on an ELN connector and planning of a hands-on hackathon focused on device integration.

Overall, the focus has been on pragmatic standardization, better interoperability, and scalable collaboration across the SiLA community. **If you are a SiLA corporate member and interested in joining the SiLA Core Working Group, led by Daniel Juchli (SiLA Director / wega) please contact *info@sila-standard.org.***

SiLA AI Working Group Update

Imagine, you can generate a SiLA2 Server for a specific Instrument within Minutes ..... Paradise is only a few weeks away!



If you are interested in joining the SiLA AI Working Group, led by Tom Kissling (SiLA Director / Roche), please contact *info@sila-standard.org.*

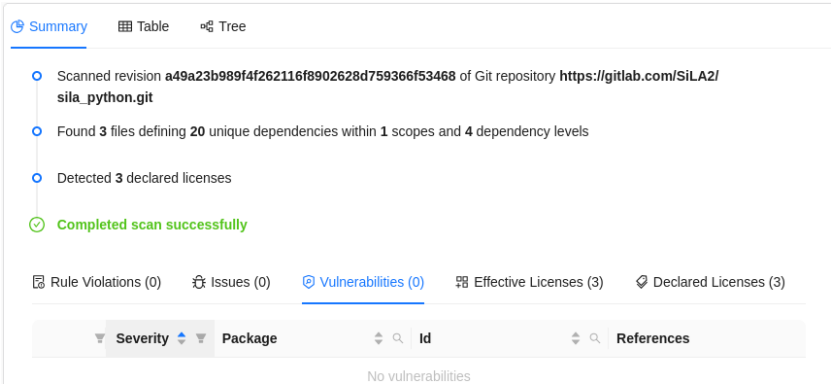
SiLA Cyber Security Working Group Update

The SiLA Cyber Security Working Group, led by Dr. Marc Porr (SiLA Director / TechkIT), aims to support lab automation technicians by offering guidance and templates for secure software development and implementation.

With the implementation of security testing in the SiLA repositories (starting with sila_python and the universal SiLA client), the group has created GitLab CI templates for automated security testing that can be reused by any software development project. These tests include static and dynamic security testing as well as software composition analysis (checking for known vulnerabilities in third-party dependencies).

In the coming weeks, these testing procedures will be implemented across all SiLA repositories to provide templates for different tech stacks.

The Working Group is also currently reviewing a guideline document that offers practical insights into secure automation and is aimed at integrators and automation specialists implementing their projects.



Stay tuned — this will be available on the SiLA website in the coming weeks.

Next WG meeting is taking place on May 11th at 15:00 CET. If you are interested in joining the SiLA Cyber Security Working Group, please contact info@sila-standard.org.

README sila_python : https://gitlab.com/SiLA2/sila_python#application-security

SiLA Robotics Working Group Update

At the SiLA Robotics Working Group meeting on Thursday, February 19, the Group led by Florian-David Lange (SmartLab Solutions GmbH), discussed the current status of the ongoing projects. The next meeting is tentatively scheduled for April 23, 2026, from 14:00 to 15:00 CET.

One of the main topics currently under discussion is the definition of a practical set of common execution errors for the framework. **The goal is to identify errors that are sufficiently likely to occur in a laboratory robotics environment and should therefore be handled gracefully at the framework level, rather than individually by each implementation.**

In addition, the Working Group plans to contribute to the design of the new standard for lab plates to help ensure it is better suited for robotic handling.

A smaller subgroup of the SiLA Robotics Working Group is also working on an update to the standard LabwareTransferManipulatorController and LabwareTransferSiteController features. As part of this update, two new commands are being introduced: “Ready For Retrieval” and “Ready For Delivery.” These commands are intended to allow delivering and receiving devices to indicate whether they are ready to interact with a mover, significantly simplifying orchestration.

If you are interested in joining the SiLA Robotics Working Group, please contact *info@sila-standard.org.*

SiLA Adoption Working Group Update

It is widely agreed that digitalization must precede automation, and that integrating ELN and LIMS systems is a crucial first step in this journey. In line with this, the SiLA Adoptions working group launched its **first project of 2026: the development of a robust set of feature descriptors to define how interfaces and devices exchange data with ELN/LIMS systems through SiLA.**

This project, led by Griffin White, is making strong progress and is now approaching the finish line. Through regular monthly meetings, valuable input has been gathered from major ELN providers such as RSpace, Chemotion, and Benchling. This collaborative approach ensures that the resulting features are both versatile and built on broad consensus across the ecosystem.

Once completed, these commonly agreed-upon features are expected to make it significantly easier to create SiLA connectors for a wide range of ELN and LIMS systems. This, in turn, will enable the development of stateless microservices, such as lightweight user interfaces for adding and retrieving data in a vendor-independent manner.

In parallel, the working group is preparing an **upcoming project focused on the renovation of the well-known SiLA Box**. The goal is to enable true plug-and-play automation, including support for legacy devices. **The next-generation SiLA Box will be designed to be seamlessly recognized and configured via the SiLA Installer, which is evolving into a central dashboard for managing local SiLA installations.**

If you feel inspired by these projects and would like to share your own ideas and experiences, please feel free to join the next working group meeting on **April 20 from 17:00–18:00 CET at www.smartlab.university**, or contact SiLA Director *Tim Meyer* directly.

Review of Pittcon 2026 in San Antonio, USA - Advancing Integration: SiLA & AnIML

SiLA and AnIML made a strong showing at Pittcon in San Antonio, one of the key events in the analytical instrumentation space.

SiLA Director Burkhard Schaefer (Splashlake), led a half-day short course on Scientific Data Management and Instrument Integration, and delivered a podium presentation exploring how instrument integration is evolving in the age of AI.

The SiLA and AnIML communities were well represented throughout the conference — and of course, mascots GoodSiLA and Annie were on hand to explore the local food scene and bring some extra energy to the stage!

SiLA at the 13th Munich Lab Automation Community Meetup

On March 12th, SiLA joined the **13th Munich Lab Automation Community Meetup**, hosted by Zeiss Digital Innovation, bringing together around 100 professionals from pharma, device and system manufacturing, and academia.

The evening opened with SiLA Director Jason Meredith (Tecan), who introduced the role of the SiLA standard in laboratory automation, supported by Lukas Bromig (UniteLabs) and Christoph Pohl (Chromsystems), highlighting how it enables scalable, interoperable systems and seamless device communication across diverse equipment.

This set the stage for two insightful keynote talks: David Heinz (Zeiss Digital Innovation) and Dennis Knobbe (Technical University of Munich) shared practical examples of SiLA in action, particularly in automated cell-based workflows.

The meetup provided a valuable forum to discuss interoperability and the challenges of scaling lab automation, while also offering a great opportunity to reconnect with familiar members of the SiLA community and connect with new participants interested in contributing to the standard. **Strong interest in the newly formed SiLA AI Working Group was a particular highlight, sparking engaging discussions and attracting potential new contributors.**

Overall, the event reflected the growing momentum behind collaborative standardisation efforts in lab automation and reinforced the importance of community-driven innovation.
Big thanks to Bernd Martensen, David Heinz, Mirjam Schott and the team at Zeiss Digital Innovation for a fantastic organisation and hosting.

David Heinz (Zeiss / SiLA Director)
Jason Meredith (Tecan / SiLA Director)

Review of first Berlin Lab Automaters Meetup

On March 17th, SiLA co-sponsored the first Berlin Lab Automation Community Meetup.
An evening full of engaging presentations and conversations on lab automation – from standardization in GxP environments over automation in quality control labs to the relevance of interoperability standards like SiLA to ensure scalability of lab's overall automation strategies.

Thanks for all the refreshing conversations with participants from Bayer, Bausch & Lomb, Analytic Jena, Nuvisan, EU-OPENSCREEN, ISPE SC Berlin, Tecan and many others. It was great to see so much interest in interoperability standards in general, as well as practical and technical questions on how to set up automated workflows based on SiLA in particular.

We are looking forward to new practical SiLA implementations from this the community in the near future. Lastly, **thank you very much, Katharina Paulick, for organizing what was hopefully the first of many meetups to come.**

David Heinz (Zeiss / SiLA Director)

Review of RSC Analyticode 2026 — One-Day Conference, London, UK

The *RSC Analyticode 2026* symposium, hosted by the Royal Society of Chemistry at Burlington House, London, on 16 March, brought together around 80 delegates to explore sustainability, laboratory automation, and digital innovation in analytical science. Organised by the Chemical Information and Computer Applications Group (CICAG), the event highlighted the growing importance of integrating environmental responsibility with technological advancement.

A key highlight was the talk by SiLA Director Dr. Patrick Courtney (tec-connection), *"Laboratory Automation and Sustainability: Friends or Not?"*
His presentation introduced the concept of digital sustainability, linked to FAIR data principles, and examined how automation can support more efficient and responsible laboratory practices. Other speakers addressed the practical use of machine learning, artificial intelligence, and large language models (LLMs), focusing on their role in improving data use and decision-making in analytical workflows.

The symposium underscored the need for collaboration across disciplines to balance innovation with sustainability, demonstrating how digital tools and automation can contribute to a more responsible future for analytical science.

Thanks to the organizers for inviting SiLA!

SiLA at PLA Europe in Barcelona: Building the Foundations for AI-Ready Labs

The SiLA community was well represented at the Paperless Lab Academy 2026 in Barcelona, and we are grateful to 20/15 Visioneers for the invitation and for building such a strong partnership with us at this year's event. It was a pleasure to contribute to a conference that continues to bring together the lab informatics and digitalization community in such a vibrant and collaborative spirit.

Burkhard Schaefer, SiLA Board Member and co-founder of (Splashlake), took to the podium to present "The Missing Foundation: Why AI in the Lab Needs Open Interfaces First" — making the case that interoperability and open data standards are not an afterthought in the AI era, but its essential prerequisite.

Alongside the talk, attendees had the opportunity to roll up their sleeves in a hands-on instrument connectivity workshop, exploring live integrations with both simple and complex instruments. Seeing SiLA 2 and AnIML in action — bridging the gap between the bench and the digital layer — is always one of the best ways to bring these concepts to life, and the engagement from participants was fantastic.

SiLA as Media Partner of the German Biotech Days 2026

SiLA members benefit from a 15% discount on registration. Learn more and register here: https://www.german-biotech.day/?utm_source=pa&utm_medium=link&utm_id=2026

Oh yes, what an event - SiLA at analytica 2026 in Munich, DE

Like a comet on a two-year return period, Analytica returned to Munich Messe in March 2026. Bigger than ever (35k visitors) and SiLA was there, alongside several members such as Bico, Tecan, LabOperator, Splashlake and wega …

SiLA Director, Dr. Patrick Courtney (tec-connection) and I, Matt Neidhardt (Aurosity) ran the SiLA booth and enjoyed being among friends—wega just opposite us and Splashlake nearby.
A big thanks to wega for keeping us fueled with coffee from their booth—it made a real difference during the long days.

Booth traffic was steady, with the Digital Transformation Forum in Hall B2 in full swing and **SiLA hosting a focused 90-minute session on the first afternoon, drawing a continuous flow of attendees.**
The session featured the following talks:

- *SiLA: Accelerating Digital Transformation in Laboratory Automation*
- *Secure Software Development Life-Cycle for Lab Automation*
- *Flexible SiLA: Accelerating Product Development and Proof-of-Concept Projects*
- *Bridging the Bioprocess Visibility Gap with Raman Chemometrics for Real-Time PAT*
- *SiLA & AnIML: Interoperability as the Foundation for AI*
- *Creating a Community and Harnessing AI to Address the Biggest Challenges in Lab Automation and Beyond*

We met a great mix of familiar faces and new contacts. **It was especially encouraging to meet people who already knew of SiLA, even if it was their first time engaging with us, and to continue conversations from past events.**

What stood out most this year was discovering so many new special interest groups and lab automation communities. Seeing these grassroots networks grow across Europe and beyond—and support each other—is genuinely exciting.

A big thanks to all the speakers – we're planning to put recordings on our youtube channel - stay tuned!
See you again in 2028 - April 25–28!

Matt Neidhardt (Aurosity)

SiLA as Partner of the DIGITAL LABS SUMMIT EUROPE, Berlin, DE, April 15-16

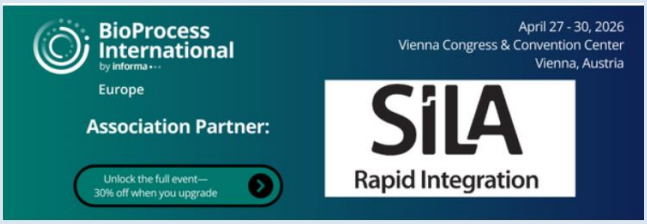
SiLA is proud to be a partner of the DIGITAL LABS SUMMIT EUROPE 2026 in Berlin. **On April 15 at 13:40, SiLA CTO Daniel Juchli (wega)** will give a presentation on ***"Lab Digitalization from the Bench Up."***

His talk highlights a practical approach to digital transformation—focusing on real progress at the bench by connecting instruments, improving data flow, and simplifying workflows, all without vendor lock-in or large, top-down programs.

BioProcess International Europe 2026, Vienna, A, April 27-30

From 27–30 April 2026, BioProcess International Europe (BPI Europe) returns to Vienna, bringing together the global bioprocessing community for four days of applied science, innovation, and collaboration. Recognized as the industry's premier event, BPI Europe goes beyond theory to address real-world challenges and solutions across the full biopharmaceutical lifecycle — from cell line development and upstream and downstream processing to ATMPs and AI-enabled biomanufacturing.

SiLA Director, Dr. Patrick Courteny, will moderate a roundtable on Day 2, **Wednesday, 29th April 2026, 12:30–13:30, on the topic: *"Digitalisation, data, and interoperability standards – how to get the best out of your data."***



Special opportunity for SiLA corporate members, we have two complimentary full conference passes to hand out. First come, first serve. **And for all members: benefit from 30% discount* on the All Access Main Conference Pass.**
Use discount code (HollandBio30) to access the full scientific program and all conference tracks.
View the full scientific program and event details here.

Future Labs Automation & Technology East, 19 May 2026

Future Labs Automation & Technology East takes place on 19 May 2026, bringing together experts to explorehow emerging and disruptive technologies are shaping the labs of tomorrow.

SiLA is proud to be a partner of the event, supporting greater interoperability and innovation across smart lab automation. The event will feature thought-leading discussions, real-world case studies, and insights into the future of connected, digital laboratories.

Save the Date — SiLA at London Lab Live 2026, UK, May 6-7

SiLA is once again a partner of London Lab Live taking place May 6–7, 2026 at ExCeL London. This event brings together lab professionals, thought leaders and industry innovators from sectors including biotech, pharma, chemicals, food & beverage, agriculture, and academia for two days of cutting-edge insights, networking, and collaboration.

SiLA is delighted to be part of the Connectivity Excellence Showcase at London Lab Live 2026: live demos of connected lab workflows solving data and integration challenges across instruments, LIMS, and ELN—unlocking insights, reducing manual work, and enabling AI-ready labs.

Furthermore, SiLA Directors, Burkhard Schaefer (splashlake) and Dr. Patrick Courtney (tec-connection) are moderating the following panels on May 6th:

14:20pm • Designing for the next decade- Ensuring research strategies and digital investments stand the test of time

16:00pm • Self-driving labs in the UK: Where AI, automation, and science converge

Mark your calendars and join us at Landon Lab Live! Click here to register.

Future Labs Live Basel, CH, May 27-28

As a long-term partner of Future Labs Live Basel, SiLA will be present at the show again in various forms; presentations, panels, moderations, sessions…

Future Labs Live is all about driving collaboration and innovation in the global lab ecosystem — and SiLA is proud to be part of it again. We look forward to seeing you there! To register click here.

SLAS publishes Data Standards Repository

With increased interest in lab standards, our friends at SLAS have created a list of standards to help inform the community. This includes the famous SBS lab plate, simpler and commonly used data formats such as csv as well as the more lab-specific standards like SiLA.

You can find the list https://www.slas.org/resources/standards/
This is a living document and depends upon your support and involvement. **You are welcome to rate, add comments and show your support for SiLA!**

slas
Come Transform Research

FOR MORE INFORMATION

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