The SiLA Connection

STANDARDIZATION IN LAB AUTOMATION JULY 2022

The pandemic paved the way for digital transformation

The pandemic situation over the last 2 years accelerated the digital transformation that has been underway for decades. Society has adopted digital models to maintain operations and preserve business continuity. In private and professional lives, reliance on digital solutions for home schooling, working from home, but also remote interactions between machines and humans became working models.

Some of these models are now irreversibly embedded in our society and some have been left behind, as the pandemic showed gaps in the digital transformation. Organizations, companies, and governments have moved the development of digital strategies to a higher priority in their agenda.

Since almost 15 years now the SiLA consortium has been working on cutting edge technologies to facilitate automation solutions in the pharmaceutical industry, adopting Industry 4.0 technologies into this quite specific area of automation and digitizing solutions.

See us at these events:

- **IQPC Smartlab exchange**
  August 23-24, virtual
- **Lab Vision**
  September 26-27 Basel
- **ELRIG UK / SiLA hackathon**
  October 3, London UK
- **Lab of the Future**
  October 4-5, Amsterdam
- **BioIT Europe**
  October 19-20 Berlin Germany
- **Future Labs LIVE US**
  November 15-16 N.Carolina USA
- **SLAS 2023**
  Feb 26 - Mar 1 San Diego USA

The SiLA consortium unites teams of experts from a wide range of domains. The SiLA teams realized the necessity of inclusive digital transformation, with coordinated and comprehensive strategies, long before the pandemic made us aware of the concerns and requirements that go along with digital transformation in the Lab space.

We describe the aim of the SiLA consortium to provide standards and strategies to organizations and companies that enable the use of connected devices in critical contexts answering the concerns around data privacy, digital security, flexibility, reliability and many more.

The SiLA standard and consortium is a journey and not a product. To ensure a resilient digital future, standards will have to evolve reflecting the capabilities of new technologies. The success of this journey relies on sharing expertise in the pre-competitive environment that SiLA offers.

SiLA not only connects your instruments and products easily and reliably – it also connects you with like-minded people - So, join us today!

Launch and ramp-up of the SiLA Robotics Working Group

The SiLA Robotics Working Group (SRWG) launched on March 1st with the mission to foster standardized plug & play integration of lab robots. Regular meetings ensure a broad engagement of the community of users and solution providers. Open brainstorming discussions are conducted and a regular presence at scientific and industrial conferences is ensured. Endeavors so far included the reference implementation of a bridge framework between SiLA and the Robot Operating System (ROS) during the 3rd bioSASH hackathon.

Robotic SiLA feature definitions are currently divergent and vendor dependent. The SRWG's next endeavor is to unify these to maximize compatibility for existing SiLA-based lab robots and provide a common interface for future implementations. Furthermore, a robot integration guide is in progress, which will serve as an entry point for solution providers who want to "SiLA-fy" their robots. Before rolling out these resources as normative parts of SiLA Part C, they will be put to the test by student projects and during the upcoming in-person bioSASH hackathon. Further plans include the extension of the standard features to go beyond the current scope of pick & place manipulation. Moreover, extensive self-configuring integration can be achieved by adapting elements of the digital twin approach and object-oriented information representation.
If you are interested in joining the SiLA Robotics Working Group, contact Ádám Wolf at adam.wolf@sila-standard.org.

Ádám studied Mechatronics and Robotics at TU Budapest and at FH Technikum Wien. He has extensive experience in industrial R&D (specialty equipment prototyping) and in academic R&D (agro-mechatronics). He joined Takeda in 2019 to write his master thesis on mobile manipulators for laboratory automation. After conducting a successful simulation-based feasibility study and taking part in various robot implementations across Takeda, he started his industrial PhD at the company. Supervised by the Óbuda University, he is currently working on a standardized digital twin framework for the plug & play integration of lab robots. He plays an active role in the lab automation community by leading the SiLA Robotics Working Group.

Welcome JAG Jakob Ltd.

We are delighted to welcome JAG Jakob Ltd. on board of the SiLA corporate members.

JAG offers integrated solutions and turnkey plants for demanding process technology. Their highly automated and connected complete systems are among the best in the world.

Follow JAG on LinkedIn: https://www.linkedin.com/company/jag-jakob-ag/

JAG Plant Engineering Process Automation Robotic Systems

SiLA session at Lab of the Future, Amsterdam

SiLA is once again partnering for the Lab of the Future congress taking place 4-5 October in Amsterdam. We will be running a session on SiLA. Register now for the event. Early bird discount until August 23rd - **Discounts available to members - contact us.**

SiLA directors Patrick Courtney and Burkhard Schaefer will be presenting "Interoperability standards as an enabler in the digital lab of the future" and the new AnIML user group, while Andy Mitchell, data manager at Unilever will be presenting a

**"Case study of SiLA and AnIML in formulation –
Why Unilever is using standards and experiences so far".**

We will close with a panel and discussion joined by James Love, VP of automation at Novo Nordisk where the team have been using SiLA for some time with valuable insights to share. So, join us in Amsterdam.

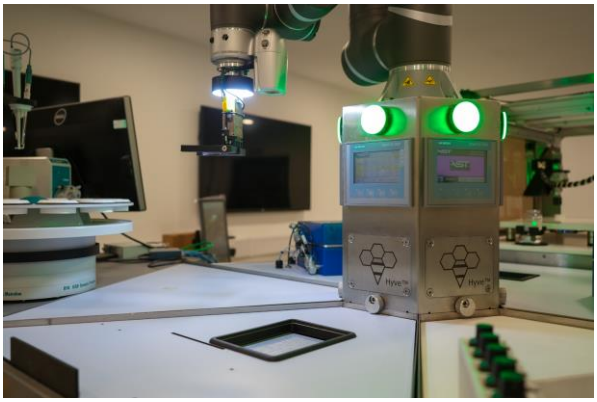
Welcome Omron !

A warm welcome to our new member OMRON. Being a global player in factory automation and a prominent supplier of collaborative and mobile robots makes them a crucial member of the SiLA Robotics Working Group (SRWG). *"We believe that taking part in this community can provide a robot vendor or integrator first-hand insights into what it takes to adapt their products to the needs of laboratory automation. On the other hand, the active contribution of OMRON and other members to the unification and extension of the standard is extremely valuable for the community. We are looking forward to collaborating on the implementation of present and future SiLA-based capabilities".* Find more on Omron at https://industrial.omron.eu

OMRON

Introducing: SiLA 2 compatible Hyve™

Applied Scientific Technologies announced the launch of Hyve™, a dedicated, autonomous, automation system employing a collaborative Techman robot at its heart has been designed to discover advancements in formulation chemistry and subsequent testing in laboratory environments. Compatible with SiLA 2, Hyve™ has been purposed for the complete automation of lab processes around stability testing in the cosmetics and consumer goods production environment. Hyve™ is unique in the turnkey, laboratory automation marketplace with its collaborative robot and extreme modularity offering a paradigm shift in flexibility for analytical lab process automation. The Hyve™ can be used as a stand-alone system or can operate together in a Beehive-like architecture to form a production line or multiple testing set-up.



Its unique and patented modular concept allows it to be adapted and redeployed easily so as your requirements change and a new process is developed, the Hyve™ can change with it!

The Hyve™ platform is especially suited to complex processes and is being applied to many hitherto unautomated processes in laboratory and cosmetics environments. Some examples of where Hyve™ can be deployed include; cosmetics in-vitro SPF-factor testing, hair-care testing such as forced degradation studies, photostability, creaming and difficult sample preparation for HPLC and GC analytics.

SiLA@Analytica Digital Transformation Forum

Digital Transformation is one way of describing the evolution happening as laboratories become more connected and the DT forum at the Analytica fair is a good place to meet and discuss progress.

SiLA was present on the opening day June 21st with our presentation **“User Centric Lab Digitalization – How Application of the Connectivity Standard SiLA 2 Brings Real Value to the Lab“** to much interest and many questions.

SiLA members at BSSN/Merck followed this up with a talk on role of FAIR data:

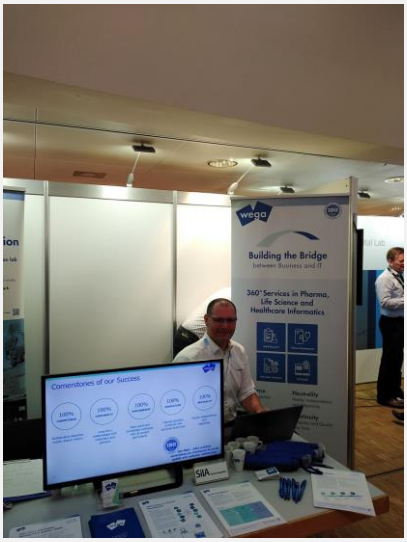
“Be FAIR from the beginning on - how standardization can help to overcome data integrity problems and enable data management, data analytics and long-term storage”.

Basel and SiLA welcomed FutureLabs LIVE on 7-8 June 2022

After 2 years of online meetings, nearly 1000 scientists and lab users from across Europe descended on Basel at the start of June, for FutureLabs LIVE. SiLA is delighted to have worked with organizer Terrapin to bring a flagship conference to this global life science hub our spiritual home. Keynotes included insights into building the digital lab to drive innovation by Hal Stern on Janssen, and sustainability and the business drivers, by Craig Hewitt of AstraZeneca. Of particular note was the session on Data Management, Standards & Analytics chaired by Burkhard Schaefer and featuring Unilever's experience with SiLA and AniML.

The conference was accompanied by a dynamic exhibition where SiLA members were strongly in evidence. There was a pitch competition where 18 startups were whittled down to one overall winner by judges from 5-HT, BASF and SiLA. Congratulations bionomous! For those who missed the event, talks will be available online.

Save the date for the US event on November 15-16 with the same great mix of sessions!



Looking back at "Mobile Robots in the Pharmaceutical Industry", London 20-21 April

Covering R&D labs, QC and manufacturing, 120 professionals gathered in London for the first full 2-day conference on the use of mobile robots. Kicking off with a great overview by Alvaro Carpinter from McKinsey, SiLA was present in many presentations - from Biosero, Omron and Takeda - with discussions and exchanges. SiLA member Astech Projects was also present within the small exhibition floor. A valuable experience for all and another event is planned for 2023!

Follow SiLA on youtube! …

and don't forget to like and leave a comment!

SmartLab Exchange EU, August 23rd – 24th, virtual organized by IQPC with SiLA as partner.

Review of bioSASH hackathon on Laboratory Robotics and on to the next ones !

The feedback from the last hackathons continues to flood in….

What participants said: *"Participating in such a hackathon as a lab technician, is very enriching and fascinating, as people with different backgrounds, experiences, and expertise, as well as different professional positions participate to work together on the same problem or question..."*

"I think that the bioSASH hackathon and the bioSASH project provide smart access to lab automation. I particularly liked the goal-oriented approach to prepare a tangible solution to a real-world problem."

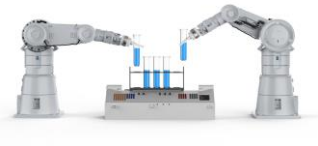
"The bioSASH project engages and brings together like-minded people who are working on similar problems around laboratory automation. Users and researchers expressed their needs and ideas, then we dived into the technical details. The programming session was very productive, leading to results we published on GitLab repo"

A further hackathon is planned for 29-30 September and will be a face-to-face event in Konstanz, Germany. And we must mention the hackathon on 3rd of October just before ELRIG's DD2022 conference at London's Excel Centre, running from 14:00 into the evening. Contact us for more details or watch the ELRIG website.

BioLAGO the health network

SiLA Rapid Integration

DIH-HERO



The bioSASH hackathon series is a partnership between BioLAGO and SILA supported by the European Commission via the DIH-Hero project Digital Innovation Hubs for healthcare robotics.

Jamin Bouras - bioSASH hackathons - speaks about the importance of SiLA & AnIML!

A piece of advice from Jamin Bouras: **Be innovative and don't get stuck on old processes**. Very true and an ongoing effort for everyone - reconsider old habits!

https://www.labinsider.com/lab-transformation/world-leading-medical-cluster-reveals-labtech-development-secrets-lab-insider-11

A longer piece on "Find Out Why Tomorrow's Labs Need These Vital Solutions to Financially Survive" here

Recordings and publications - now available

SiLA Academic User Meeting, March 31st 2022
Hear presentations on "SiLA integration for chromatography systems", a generic ROS-SiLA bridge for mobile robots and "LARA Platform in Greifswald and the MiLA mobile robot in Berlin". **https://youtu.be/-XdhACJ3nrk**

Our newest SiLA white paper: "Connectivity and data standards - a precondition for successful digitalization" was published in Drug Discovery World special edition for SLAS. Check it out here

We hope you enjoy the information contained and we very much welcome your feedback.

Change in the SiLA Management Team

At the General Assembly on June 13th, SiLA announced that long-time board member Oliver Peter (idorsia Pharmaceuticals) is going to be the new SiLA president! Erwin Althof who lad the Consortium as president from 2019 to 2022, will stay on the board as Chief Financial Officer.

Erwin Althof has been part of the SiLA team as founding member, board member and the past few years as president of this tremendous team. *"Since the earliest Proof of concept, I have met many interesting people and as many in this team, learned a lot during some very challenging periods",* he said.

Erwin says: "Now with the Pandemic leaving us space again for meeting in person, we all recognize the importance and the value of in person interactions of the "pre-pandemic" working model.
In person meetings and conferences are instances to create ''coincidence relations'' by design. The pre-pandemic created relationships helped us to overcome lockdowns and social distancing.

The SiLA consortium has a great team that manages the opportunities to have the personal interactions.
For personal reasons I will not be able to support this team in the effort of creating and maintaining relations that are so important for the SiLA consortium. I have therefore decided to hand over the position of President to Oliver Peter, our former vice-president who has agreed to take up this position. I got to know Oliver also as an enthusiast from the first hour of SiLA. I strongly believe that his Innovative force, his professional network and most important is personality will move the SiLA initiative to the next Level."

Call for submissions to next user meeting September 2022

As September comes around, we are planning our next user meeting. If you have a SiLA story, solution, project, insight or challenge, please send a proposal (author, title, abstract) to info@sila-standard.org by 15 August. You can find recordings from past User Meetings on our youtube channel
(typically, 15 mins incl. questions)

SiLA 2 Training Videos
available **for free** on youtube!

FOR MORE INFORMATION

Visit us at www.sila-standard.org

Email us at info@sila-standard.org

Spinnereistrasse 38, 8645 Rapperswil-Jona, CH

Call +41 55 210 01 19 (Switzerland)

Follow us on Twitter or LinkedIn