

# The SiLA Connection



STANDARDIZATION IN LAB AUTOMATION

JULY 2021

## SiLA user meeting goes from strength to strength

A big thank you to all who took part in our user meeting, the 12<sup>th</sup> so far.

This follows on the back of our last user meeting which ran in October 2021 alongside Analytica. We had tremendous response to our call for speakers and the agenda filled up in 24 hours.

We heard great keynote talks from major users **Roche** and **Unilever** as well as the latest from **Tecan**, **Labforward** and **Cytexa**. On top of some exciting news on using mobile robot from **Idorsia** and **Takeda** and an update on both **SiLA 2** and **AnIML**.

Delegates came from across the globe – Japan and Australia through to the West Coast of the US.

In fact, we had so many registrations that we had to upgrade our conferencing facilities. The impression we all got was of **increased momentum and enthusiasm in adopting SiLA**.

Many thanks to those who got up especially early or stayed up so late and stayed with us to the end of the conference.

We are already thinking of another meeting later in the year, so if you have a SiLA-related application or technology, please [get in touch](#) with us by mail or via [LinkedIn](#).

A separate meeting on use cases is also being planned by our academic members. [Let us know](#) if you are interested in joining.

## Meet us at these events:

- [SmartLab Exchange](#)  
August 25-26, 2021 (online)
- [Academic User Meeting](#)  
July/September, 2021
- [User Conference #13](#)  
tbd, 2021
- [Future Labs LIVE US](#)  
November 9-10, Raleigh, USA
- [SLAS2022](#)  
February 5-9, Boston, USA

If you missed the User Conference on June 8<sup>th</sup>, a selection of **talks are available** at the [SiLA youtube channel](#) and at the [download section](#) of our website.

## SiLA is an official partner at the next SmartLab Exchange on August 26-27

**smartlab**  
Exchange R&D

**#SMARTLABEXCHANGE**  
25th - 26th August 2021 | 100% ONLINE

**OFFICIAL SPEAKER**  
**Burkhard Schaefer**  
Board Member  
SiLA

**SiLA**

TO JOIN, CONTACT EXCHANGEINFO@IQPC.COM | +44 (0) 207 368 9484

We are delighted that our SiLA Director, Burkhard Schaefer, is part of the agenda on August 26th, speaking about:

**"How SiLA Supports Open Interoperability in the Laboratory - Case studies and Lessons Learned".**

For more information, full program and registration, click [here](#).

## SiLA@Achema PULSE for the first time

ACHEMA is one of the major events in the calendar for the chemical and biopharmaceutical process industries as well as energy and environmental services, where digitization and standards are hot topics.

SiLA was present for the first time with a booth, and a live talk given by Daniel Juchli, SiLA CTO on “Standards in Lab Automation” as well as participation in a moderated panel on “Standards and Initiatives for the World of Lab”.

The recording of the panel talk on “**Standards and Initiatives for the World of Lab**” with SiLA Director Patrick Courtney is available for you [here](#).

## New SiLA white paper “SiLA for instrument vendors”

This year, SiLA is planning on a series of new white papers written by the great science writer and editor [Sophia Ktori](#).

Sophia is specialized in biotechnology, pharmaceuticals, healthcare and life sciences and we are delighted to have the first paper available for you. For download, please register for free on our website and find the article in the [download section](#) under “promotional material”.

Now, strong articles need great publishing and we are happy that future articles are going to be published in DDW magazine in late 2021.



The DDW data published, published by W. K. K. et al. in 2021, have been assigned some early indicators on the likelihood on which organizations of any size can be a data management infrastructure that

As an instrument vendor, offering systems that support the use of communication and data standards encourages adoption of devices on a number of levels, suggests Justin

seamless instrument integration? Methods pointed out

## Review of first BioSASH hackathon

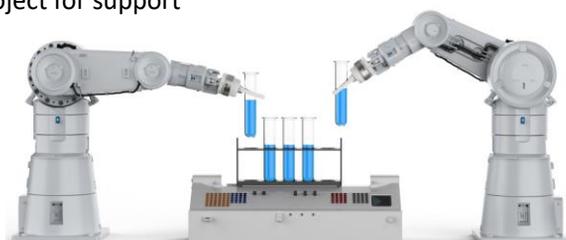
June also saw the launch of the BioSASH hackathon series (BioLAGO-SiLA serial hackathon). On June 17<sup>th</sup>, nearly 40 people came together online to learn about lab user needs and technology to meet the challenge of the digitised lab.

These ranged across clinical diagnostics, bioprocessing and culture, microbiology, documentation and pharmaceutical manufacture with views from both smaller and larger organisations from the BioLAGO and SiLA membership.

BioLAGO is the network of life science organisations around the lake Constance region lying between Southern Germany, Northern Switzerland and Austria. Being an online meeting, we welcomed participants from far further afield.

Several participants highlighted the importance of data interchange and one described “**SiLA as an accelerator for lab integration**”. The event served as a forum for exchange, networking and learning and the feedback has been very positive. Teams are now forming and follow-up hackathons are being scheduled now. It is not too late to take part – so [contact us](#) for more details!

Many thanks to the European Commission and the DIH-Hero project for support and BioLAGO for a great partnership.



## FutureLabs LIVE Europe

FutureLabs LIVE returned on June 21-22, online once again but with a great programme of talks, panels and discussion. SiLA had a strong involvement with SiLA board members Tom Kissling of Roche, Rob Harkness of Biosero and Oliver Peter of Idorsia, all leading panels.



We also had an exciting debate on standards where representatives of SiLA, AnIML and others carried out a roleplay highlighting the benefits of standards for a range of stakeholders. Several other speakers presented SiLA and/or AniML in the context of the digitisation journey.

The next European edition is due June 7-8, 2022 in Basel - and will be live, hopefully.

For all of you who do not want to wait this long: There is going to be a Future Labs LIVE event in the US on November 9-10th, 2021. SiLA is a partner of the US event and will be strongly present with SiLA Directors chairing on «data & digitization» and moderating the “Global collaboration in the lab space” panel discussion.

## Review “An Open Approach to Closed-Loop Experimental-Systems”

On June 23, the online symposium hosted by the University of Basel and co-organized by Oliver Peter and Prof. Markus Lill took place, to great interest and acclaim.

Together with the companion "Closed-Loop" track and panel discussion at "Future Labs Live" on the previous day, the event achieved its goal: To show that the concept of closed-loop experimental parameter optimization to drive R&D is being implemented across the world, for its transformative potential.

A take-home message is that even the most advanced "artificial intelligence" remains trapped in pre-existing data space unless it is coupled with a physical experimental system that can generate and measure new molecules or situations. Lab automation was never as relevant as now!

You can watch the recorded presentations by the exquisite board of speakers (details on the page) [here](#).



## Update on the development of the SiLA universal client

Some interesting news for the SiLA ecosystem, after the SiLA Consortium made a request for proposal to craft an open-source and extensible successor of the SiLA Browser called the Universal SiLA Client (USC).

The client has been under development since May and delivery is **planned for August / September 2021**.

The project is already publicly available on GitLab at [https://gitlab.com/SiLA2/universal-sila-client/sila\\_universal\\_client](https://gitlab.com/SiLA2/universal-sila-client/sila_universal_client) and open for contributions.

The current state of the project is showcased here : <https://sila.timothy.diguiet.com:8080/>.

For now, it only consists of a test interface. A new UI will be implemented during July. From a software point of view, the application architecture is complete and the back-end is well advanced. The current goal is to have a user-friendly working application that can control most SiLA servers by the end of July. After that, further development concerning Cloud Connectivity Feature and Plugin System will be the next steps.

## Update on SiLA Gateway – features overview

Siobra (mainly Benjamin Herrmann) is developing the SiLA Edge Gateway - a standalone software component to connect different networks in a controlled way. Here is an overview of what the SiLA edge gateway does (features have been defined in detail):

### Connect multiple SiLA servers to one SiLA client over the same path:

A server-initiated client can address multiple SiLA servers across networks through the gateway. All SiLA servers connected to the edge gateway are routed to the same SiLA client endpoint.

### Cloud-enable SiLA 2 1.0 servers without change of code:

Existing SiLA 2 1.0 servers that were not previously cloud-enabled can be made cloud-enabled via the gateway.

### Server-initiated connection establishment of the gateway with a connection (avoids firewall problems):

The gateway establishes the connection to a SiLA client externally. Only one connection (one port) is needed. This brings all the advantages of a server-initiated connection (read more about server-initiated connections in the [SiLA 2 specification](#)).

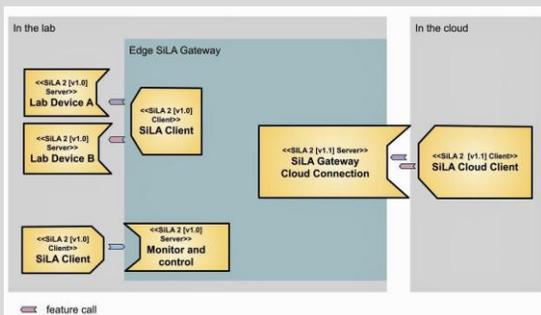
### Configuration: define which servers are connected to the client side:

Configuration functions and information from connected SiLA servers and SiLA clients can be accessed via the gateway. These include:

- Searching for SiLA servers on the network (Server Discovery). Found SiLA servers are added to the gateway. Only servers that have Server Discovery enabled can be found.
- Manually adding the servers to the gateway by specifying port and host. This will make the features of the server available to the gateway connected client. This also applies to the servers found by Server Discovery.
- Remove the servers from the gateway again. The server with its features can thus no longer be seen and used by clients connected to the gateway.
- Information such as server name, description, server status, supported features, etc. can be retrieved from a SiLA server known to the gateway. A monitoring & configuration client is provided for this purpose.
- Using the ConnectionConfigurationService(SiLA standard): The gateway can be connected or disconnected to a SiLA client. Optionally, the connection details can be kept persistent, so that the gateway restores the connection after a reboot.

### Message monitoring: trace all messages going through gateway:

Monitor and retrieve the current messages flowing between SiLA servers and the client, through the gateway. This data can also be further processed, stored, logged as an audit trail, used for traffic predictions and analysis.



### Call for test users and usage scenarios:

How does the edge gateway solve your connectivity problem? The foundation of the edge gateway has been developed and is ready to be tested in realistic usage scenarios soon. If you are interested in using the edge gateway please contact [Siobra](#).

We check how to support your scenario and set up a test environment for you. Email: [mike.groeinger@siobra.de](mailto:mike.groeinger@siobra.de) (Mike Groeinger)

### FOR MORE INFORMATION

Visit us at [www.sila-standard.org](http://www.sila-standard.org)

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