

D.4.2 (WP 4)

Industry Workshop at SOLARIS

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1. About Industry Workshop

The Industry Workshop at the SOLARIS National Synchrotron Radiation Centre took place between 14th and 15th June 2023. The workshop was a unique opportunity to gain knowledge about industrial applications of synchrotron radiation, meet like – minded professionals, learn from actual industrial users of various synchrotron radiation facilities in Europe and get to know industry – savvy scientists, ready to assist with any R&D problems that a company can encounter.



Figure 1: The promotional poster of the Sylinda Industry Workshop

2. Promotion of the event among stakeholders

The promotion campaign of the Industry Workshop was carried out through various communication channels. All partners were equally involved in promotional activities.



With great pleasure, we would like to announce that the Sylinda Industry Workshop, dedicated to industrial and applied research conducted at synchrotron radiation facilities, will be held at the National Synchrotron Radiation Centre SOLARIS in Kraków, Poland between June 14th and 15th 2023! The first day of the workshop (14.06) will be dedicated to the chemical and materials sectors, while the second day (15.06) will cover areas related to the agriculture and food sectors.

Figure 2: A screenshot of the information about the workshop on the website of the Sylinda project

The information about the event were distributed regionally as well as internationally. In order to reach out to the target groups a wide range of tools was used: own contact databases, social media (including a paid campaign on LinkedIn and externally under the cooperation with NANONET Foundation), partner's media, project website (<https://sylinda.eu/industry-workshop>), information exchange platforms (for example Lifescience Open Space), direct contact at industry fairs and other events (for example Expoquimia). In addition to that, information materials in the form of leaflets and brochures were prepared and distributed. Participants registration was conveniently done through an electronic registration form. The link to the registration form was available at many different information carriers.

Examples of the publications of information about the event:

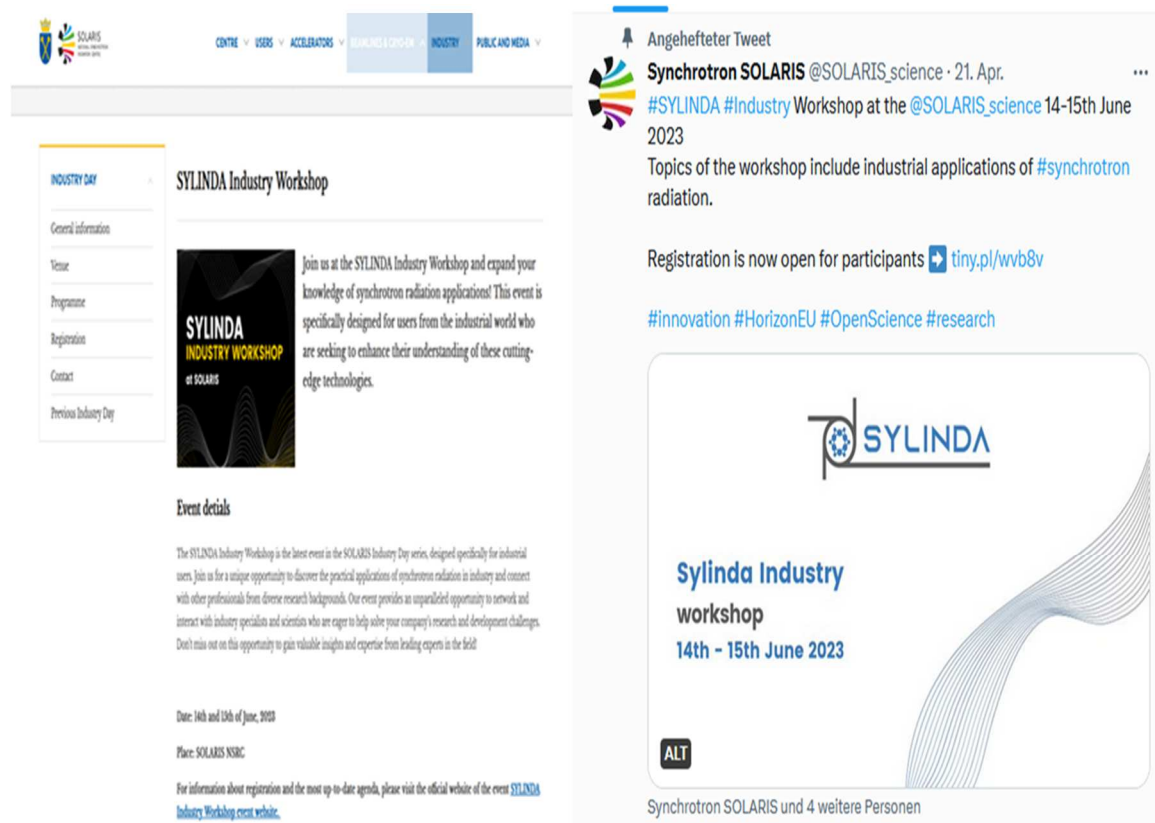


Figure 3: Publications about the workshop on the SOLARIS website and on Twitter



Figure 4: Information about the workshop on the IHIT website

The image shows two social media posts. The left post is from HS Niederrhein (@HSNiederrhein) dated May 2nd. It announces a two-day workshop in Krakow, Poland, on June 14-15, 2023, focusing on industrial applications of synchrotron radiation in chemistry, materials, agriculture, and food sectors. It includes a link to register at tiny.pl/wvb8v. The right post is from the Foundation of Nanoscience and Nanotechnology Support NANONET, dated 4 days ago. It provides more details about the workshop, mentioning the location at Centrum SOLARIS in Krakow and the topics of industrial applications in chemistry, materials, and biotechnology. It also includes the registration link and a deadline of May 31st. Both posts feature the SYLINDA logo and the text 'Sylinda Industry workshop 14th - 15th June 2023'.

Figure 5: Information about the workshop posted in the social media channels of Hochschule Niederrhein and Foundation of Nanoscience and Nanotechnology Support NANONET

3. Execution of the event

The workshop consisted of two separate parts. The first part, on June 14th, focused on the chemical and materials sectors, while the second part on June 15th, was devoted to the biotechnology and agricultural sectors. Event was executed in accordance with the following agenda:

Wednesday, June 14th:

- 9.00 – 9.10 Welcome
- 9.10 – 9.30 What is synchrotron radiation and introduction to the workshop (Piotr Ciochoń)
- 9.30 – 10.00 Synchrotron based hard x-ray spectroscopies: basics and industrial applications (Laura Simonelli)
- 10.00 – 10.30 Element specific tomography: basics and industrial applications (Tobias Artl)
- 10.30 – 11.00 Coffee break
- 11.00 – 11.30 IR spectroscopy with SR: basics and industrial applications (Ibraheem Yousef)
- 11.30 – 12.15 Rubber research as an example for industrial research (Josef Hormes)
- 12.15 – 13.15 Lunch break
- 13.15 – 13.45 On the Symbiosis of Industry and Academia (Harry Zumaque)
- 13.45 – 14.15 Shedding light on Cu-CHA DeNO_x catalysts by X-ray spectroscopy: from fundamental material understanding to SO₂-poisoning (Elisa Borefecchia)
- 14.15 – 14.45 Copper-Catalyzed Electroreduction of CO₂ to Ethylene. A Mechanistic Study (Konrad Szacilowski)
- 14.45 – 15.15 Henkel research by means of synchrotron radiation sources (Kang Wei Chou)
- 15.15 – 15.45 Coffee break with Poster Session
- 15.45 – 19.00 Tour of the facility, visit at the beamlines with Q&A, B2B meetings with beamline scientists, poster session

Thursday, June 15th:

- 9.00 – 9.10 Welcome
- 9.10 – 9.30 What is synchrotron radiation and introduction to the workshop (Piotr Ciochoń)
- 9.30 – 10.00 XANES spectroscopy and its application in agricultural and food systems (Alexander Prange, Josef Hormes)
- 10.00 – 10.30 Applied research with EXAFS/XANES at ASTRA beamline (Alexey Maximenko)
- 10.30 – 11.00 Coffee break
- 11.00 – 11.30 IR spectroscopy with SR: basics and agricultural applications (Ibraheem Yousef)
- 11.30 – 12.15 Applications of advanced synchrotron imaging techniques for Agri-Food research (Chithra Karunakaran)
- 12.15 – 13.15 Lunch break
- 13.15 – 13.45 Shining Light on Food (Clare Pizzey)
- 13.45 – 14.15 Agriculture research at Hochschule Niederrhein (Alexander Prange)
- 14.15 – 14.45 Agricultural sustainable intensification: Synchrotron techniques as innovative analytical tools (Anna Gorczyca)
- 14.45 – 15.15 Functional foods and traceability (Manuel Valiente)
- 15.15 – 15.45 Coffee break with Poster Session
- 15.45 – 19.00 Tour of the facility, visit at the beamlines with Q&A, B2B meetings with beamline scientists, poster session

Figure 1: Agenda of the event

Appropriate approach to the selection of speakers and the cross-section of topics accounted for the significant interest in the event. The representatives of European industry, users of synchrotron infrastructure, industry liaison officers, supervisors of beamlines gave interesting presentations on the possibility of using and usefulness of large research infrastructures in development of specific industries.



Figure 7: Photos from the event

As part of the event, in addition to the aforementioned lecture session, a poster session was organized at which the workshop participants could better understand the measurement techniques and get familiar with photon sources facility. The poster were prepared and presented by the young researchers and students. The examples of posters:

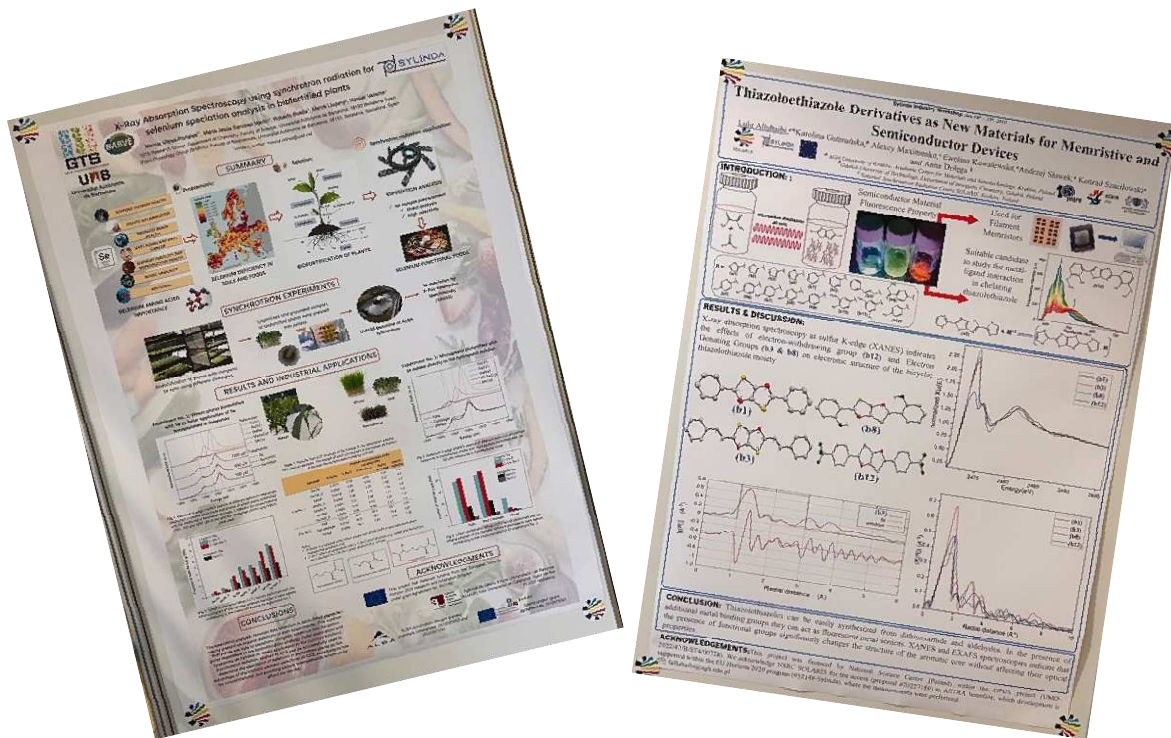


Figure 8: Examples of the posters presented during the poster session of the Sylinda Industry Workshop

At the end of each meeting day participants had a chance to visit SOLARIS' experimental hall see the beamlines and end-stations. During the tour of the facility the principle of the synchrotron has been explained.



In each of the two days of meetings, a catering service was provided. During the breaks, drinks, finger food and lunch were served. The event included also two dinners for participants.

4. Summary and meeting evaluation

In order to evaluate the event, an ex-post survey was conducted among Industry Workshop participants. The answers were gathered, analyzed and are presented below.

Assessment
of the
Industry
Workshop
under
SYLINDA
project

How would you rate the first day of the event?
(1-5)

4.80

Average Rating

How would you rate the second day of the
event? (1-5)

4.89

Average Rating

How would you rate the organisational aspects
of the event? (1-5)

4.91

Average Rating

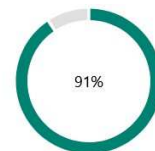
How useful was the event for your professional
goals? (1-5)

4.73

Average Rating

Considering your overall experience, how likely
are you to recommend this event to your friends
or colleagues?

According to the **Net Promoter Score**
(Promoters, Passives, Detractors)



● 91% people answered "Promoter answer" for question 6

How likely are you to participate in similar
events organized in the future?

According to the **Net Promoter Score**
(Promoters, Passives, Detractors)



● 82% people answered "Promoter answer" for question 7

What did you like about the event?

coffee breaks excellent organisation
Selection of speakers
good discussion applications of synchrotrons

In accordance to the internal evaluation by the organizers of the event, representing the project partners, as well as the SOLARIS NSRC authorities, the Industry Workshop has a significant impact on strengthening cooperation between SOLARIS infrastructure and industry. The participation of industry experts as well as academic speakers provided an opportunity to familiarize the participants with the issues of performing measurements at large research infrastructures in a very accessible way. An indisputable added value was the opportunity to hold matchmaking meetings with industry representatives. Professional connections formed both during the formal and the social parts of the event will serve as a basis for future projects and collaborations and will contribute to strengthening the cooperation of SOLARIS with industrial partners.



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