



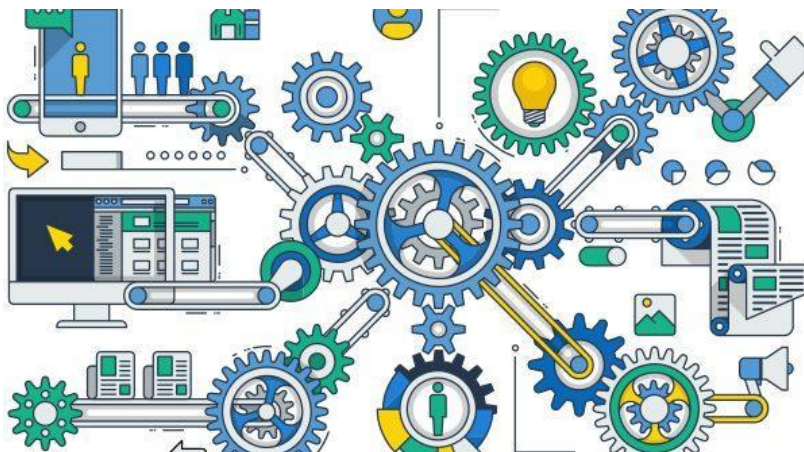
GlassTrend Seminar “Process automation & big data”

Progressing automation and utilization of big data offer major opportunities to increase production efficiency in the glass manufacturing industry. GlassTrend will organize a seminar dedicated to this topic on *September 17 – 19, 2019*. The seminar is hosted by Linde AG and will take place in the Agora building in Munich, Germany.

We have invited highly knowledgeable speakers from inside and outside the glass industry to present their view on Industry 4.0, sensors & control systems. The target group consists of GlassTrend members and invited companies/presenters.

Registration is limited to about 100 persons. Each GlassTrend member company may send 2 persons to the seminar free of charge. The cost for each additional person is 400 €. To secure that GlassTrend member companies can register 2 persons, each additional person is put on the reserve list. In case the maximum amount of attendees is not met, the persons on the reserve list can join the seminar (in sequence of registration and until the maximum number of attendees is reached).

Please register via www.glasstrend.nl/events. When the final program is confirmed it will be uploaded on the same page. For more information, please contact info@glasstrend.nl or call +31 (0)40 249 01 00.



Location GlassTrend Seminar

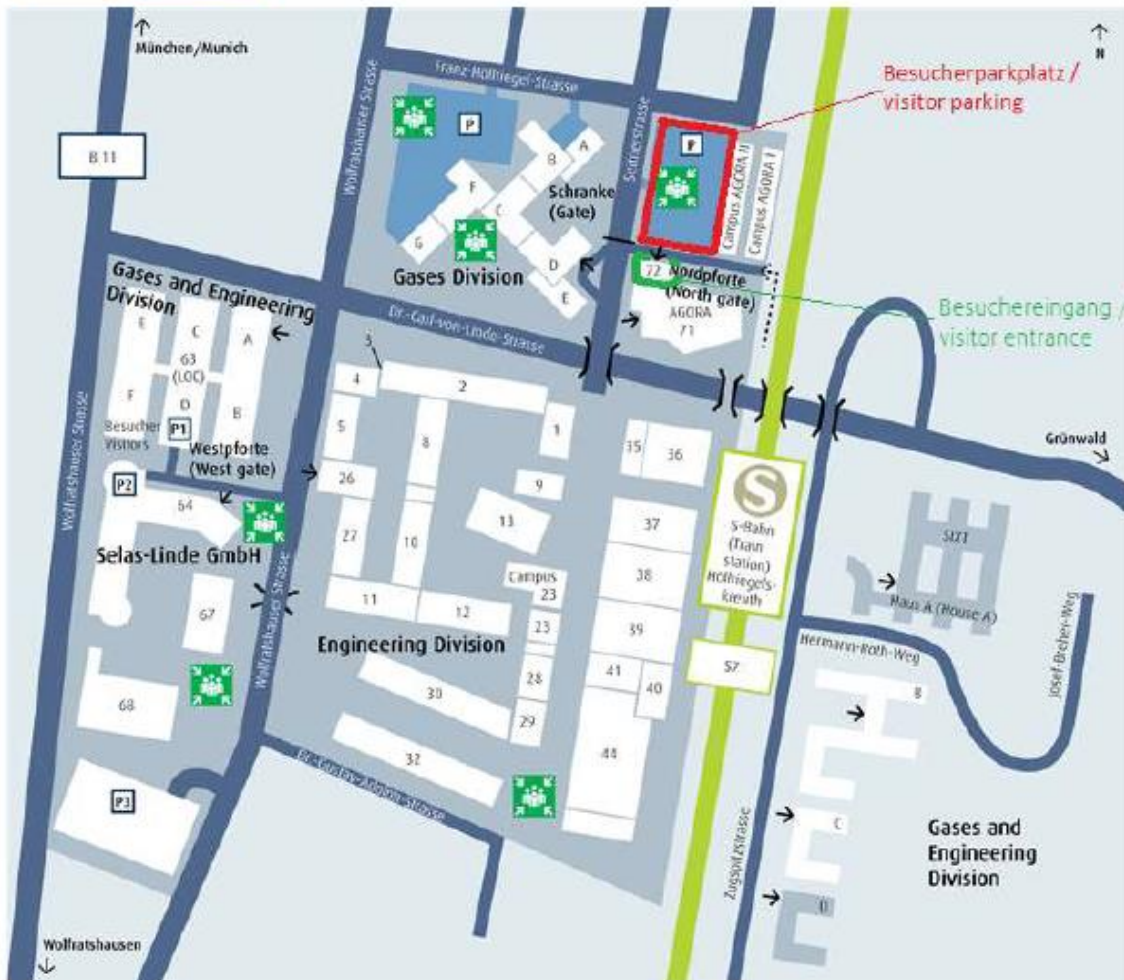
Linde Agora building



Address: Seitnerstraße 70, 82049 Pullach, Germany



Area layout of Pullach site. Werksplan Standort Pullach.



Anfahrt Besucherparkplatz
 Visitor parking directions
 Seitnerstrasse 70
 82049 Pullach, Germany

Linde AG, Gases Division
 Seitnerstrasse 70, 82049 Pullach, Germany
 Phone +49.89.7446-0, info@linde-gas.com, www.linde-gas.com

Linde AG, Engineering Division
 Dr.-Carl-von-Linde-Strasse 6-14, 82049 Pullach, Germany
 Phone +49.89.7445-0, info@linde-le.com, www.linde-engineering.com

Selas-Linde GmbH
 Wolfratshäuser Strasse 138, 82049 Pullach, Germany
 Phone +49.89.7447-470, selaslinde@linde-le.com, www.linde-engineering.com/selas-linde

Note: there is a visitor parking at Seitnerstrasse 70 right next to the Agora and the visitor entrance (=north gate but with limited parking space. The alternative visitor parking is Wolfratshäuser Strasse 138).

Program “Process automation & big data”

Munich, Germany, 17th – 19th September 2019

Tuesday, September 17th 2019

18:00 – 20:00 Welcome drinks for all participants

Wednesday, September 18th 2019

08:00 – 09:00 Breakfast

09:00 – 09:30 Welcome (Linde AG and GlassTrend)

Session 1: Survey and vision papers on Digitization in the industry

09:30 – 10:00 Tobias Wachtmann, Siemens AG (G), *Looking ahead: Join us on the journey to the digital industry*

10:00 – 10:30 Harald Zimmerman, TAZ Spiegelau (G), *Glass industry 4.0*

10:30 – 11:00 Rene Meuleman, Schneider Electric (G), *Industry 4.0, a pragmatic approach*

11:00 – 11:30 *Break*

11:30 – 12:00 Jesper Mellenthin, SMS digital GmbH (G), *How the platform economy is enabling the learning factory*

12:00 – 12:30 Bruno Purnode, Owens Corning (USA), *Advanced techniques & modeling to improve process efficiencies in glass fiber manufacturing*

12:30 – 13:30 *Lunch*

13:30 – 15:30 Tour: Digital Lab of Linde AG, Quiz and movie show on glass making

Session 2: Sensors in the high temperature process industry

15:30 – 16:00 Paul Laimbock, ReadOx (NL), *Glass melt redox control using an in-line oxygen sensor*

16:00 – 16:30	Amit Ahsan and Alexander Schlemminger, Secopta (G), <i>Operation of in line LIBS elemental analyzers for steel, aluminum & mining industry</i>
16:30 – 17:00	Peter Droegmoeller, Land/Ametek (UK), <i>Not just a pretty picture</i>
17:00 – 17:30	Sven Kahl, Ardagh (NL) and Lieke de Cock, CelSian (NL), <i>Improved combustion control by laser sensors</i>
17:30 – 18:00	Yakup Bayram, Panerotech and Elmer Sperry (USA), <i>Furnace Risk and Life Monitoring with SmartMelter Radar Inspections</i>
18:30	<i>Joint Dinner Offered by Linde AG</i>

Thursday, September 19th 2019

08:00 – 09:00 *Breakfast*

Session 3: Analysis of big data

09:00 – 09:30	Dexin Luo, Linde AG (G), <i>Digitalization in the process industry</i>
09:30 – 10:00	Hanz Mahrenholz, Glass Service (Cz), <i>Big data analysis & control for glass production, economical and ecological</i>
10:00 – 10:30	Ali Bahramisharif, Machine2Learn (NL), <i>Automated quality control of glass production with artificial intelligence</i>
10:30 – 11:00	Laurent Laporte, BrainCube & Tiama (F), <i>Data analysis</i>
11:00 – 11:30	Atila Ünsal (TU), <i>What is possible with Process Automation and Big Data: a Glassmaker's Perspective</i>
11:30 - 13:00	Session 4: Interactive session
13:00 – 14:00	<i>Lunch</i>
14:00 – 15:30	Concluding remarks
15:30 – 16:00	GlassTrend council meeting (for GlassTrend member companies)
16:00	<i>End of GlassTrend Seminar</i>

Note: The breakfast, the lunch, the catering during breaks in the morning and afternoon sessions, and the joint dinner on Wednesday, September 18th, are offered by Linde AG.