



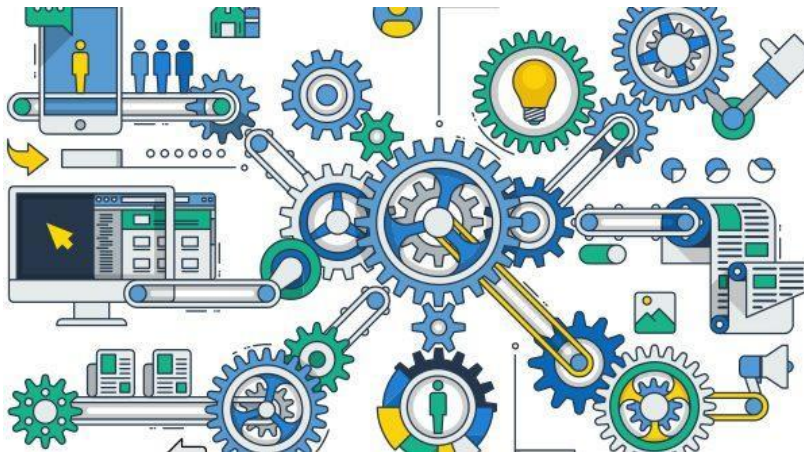
## GlassTrend Seminar “Process automation & big data”

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](http://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](mailto:info@glasstrend.nl) or call +31 (0)40 249 01 00.



# Location GlassTrend Seminar

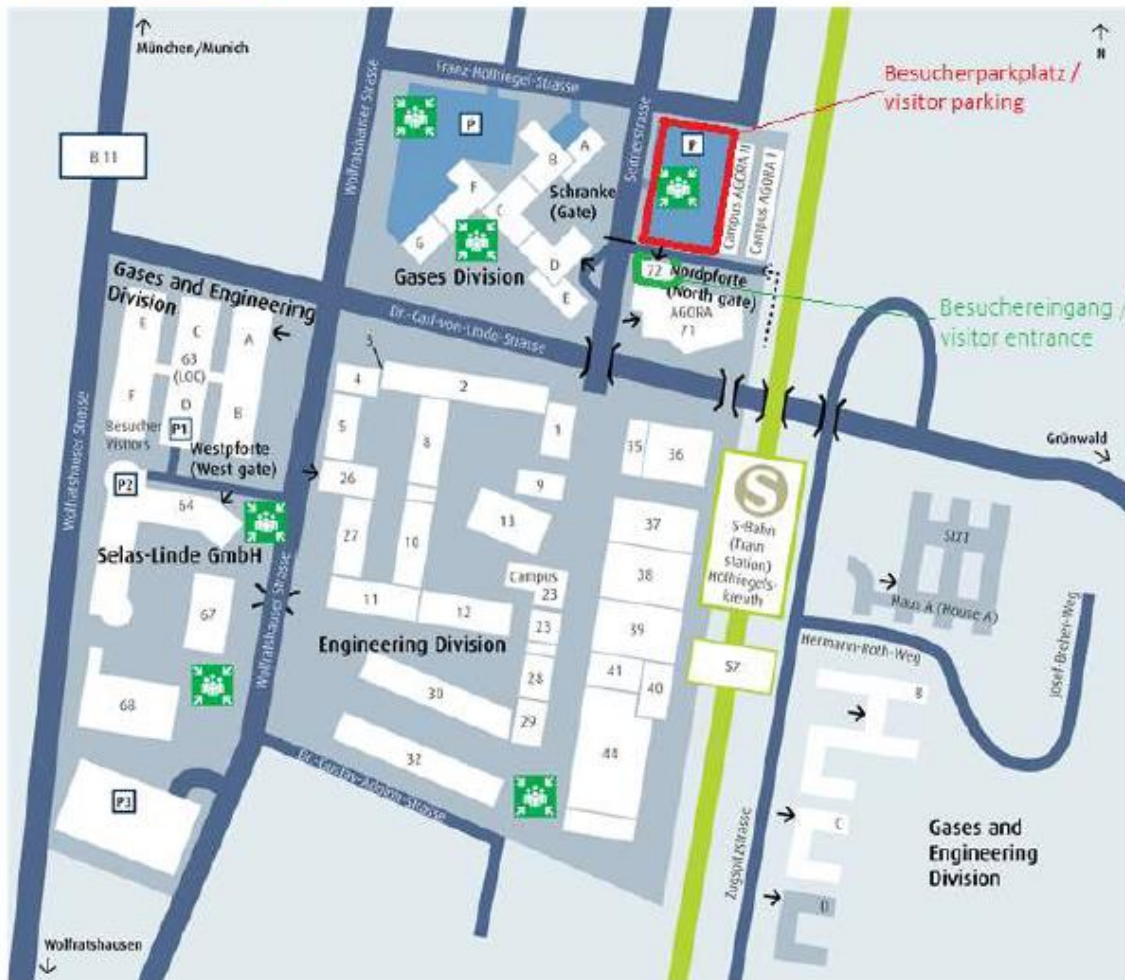
Linde Agora building



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, 17<sup>th</sup> – 19<sup>th</sup> September 2019

## Tuesday, September 17<sup>th</sup> 2019

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

## Wednesday, September 18<sup>th</sup> 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 Laurent Laporte, BrainCube & Tiama (F), *Data analysis*

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), *Operation of in line LIBS elemental analyzers for steel, aluminum & mining industry*

- 16:30 – 17:00 Peter Droegmoeller, Land/Ametek (UK), *Not just a pretty picture*
- 17:00 – 17:30 Sven Kahl, Ardagh (NL) and Lieke de Cock, CelSian (NL), *Improved combustion control by laser sensors*
- 17:30 – 18:00 Yakup Bayram, Paneratech (USA) and Elmer Sperry, Libbey (NL), *Furnace Risk and Life Monitoring with SmartMelter Radar Inspections*
- 18:30 *Joint Dinner Offered by Linde AG*

## Thursday, September 19<sup>th</sup> 2019

08:00 – 09:00 *Breakfast*

### Session 3: Analysis of big data

- 09:00 – 09:30 Dexin Luo, Linde AG (G), *Digitalization in the process industry*
- 09:30 – 10:00 Hanz Mahrenholz, Glass Service (Cz), *Big data analysis & control for glass production, economical and ecological*
- 10:00 – 10:30 Ali Bahramisharif, Machine2Learn (NL), *Automated quality control of glass production with artificial intelligence*
- 10:30 – 11:00 *Break*
- 11:00 – 11:30 Rene Meuleman, Schneider Electric (G), *Industry 4.0, a pragmatic approach*
- 11:30 – 12:00 Atilla Ünsal, Sisecam (Tr), *What is possible with Process Automation and Big Data: a Glassmaker's Perspective?*
- 12:00 – 13:00 *Lunch*
- 13:00 – 14:30 **Session 4: Interactive session with break-out groups:**  
**“Big data”, what will it bring to the glass industry?**
- 14:30 *End of Seminar*
- 15:00 – 16:00 GlassTrend council meeting** (for GlassTrend member companies)

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