

## Minutes of the GlassTrend Council meeting 2015 – 1 (Bilbao, Spain)



Date: April 21, 2015  
Location: Euskalduna Conference Centre, Bilbao, Spain  
Attendance: See names in excel file "List registered participants": 35 Glass Trend companies were represented by 55 persons  
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### More information can be found in the power point document

During the GlassTrend Council meeting, after welcoming the participants and informing the attendees on the anti-trust statement, the following points were presented and discussed, in chronological order:

- **Agenda of the meeting:**
  - ✓ The agenda of the meeting was approved by all attendees
- **Minutes of the last meeting:**
  - ✓ The minutes of the last meeting that was held in Parma in September 2014 during the ESG meeting were approved.
- **GlassTrend Board changes:**
  - ✓ AnneJans Faber announced the leave of Mr. Wilfried Linz from GlassTrend because of his retirement by the end of August 2015. He thanked Wilfried Linz for his continuous support of the GlassTrend organization. For his important contribution to the formation of GlassTrend and his long and intense participation in the GlassTrend Board, Mr. Wilfried Linz received two crystal glass candlesticks.
  - ✓ The GlassTrend Board and Schott proposed Dr. Hildegard Roemer of Schott to take over the position of Mr. Wilfried Linz in the GlassTrend Board. Hildegard Roemer is head of the glass melting department at Schott Research and has been involved in many topics related to GlassTrend in the past.
  - ✓ The GlassTrend council approved the candidature of Dr. Hildegard Roemer as new GlassTrend Board member, starting in Q3 of 2015.
- **Survey of GlassTrend members:** See power point presentation

- **GlassTrend events 2014:** see power point presentation
  
- **International Glass Technology courses**
  - ✓ Faber reported on the recent development (2013-2014) of a new interactive e-learning course via internet; this course is meant as *introduction* to the classical course (mind-set), to ensure that all participants understand the technical terminology in English and to ensure that all participants have a similar background level; The CelSian e-learning portal is accessible with username + password
  - ✓ For a trailer of this e-learning course: see YouTube <http://youtu.be/pID0PYsBibQ>
  
- **GlassTrend events 2015:**
  - ✓ The GT Seminar in Eindhoven (13/14 October) will be organized together with the ICG TC15/21. (The next TC09 meeting will be scheduled on October 15<sup>th</sup>, 2015)
  - ✓ For this joint GlassTrend – TC 15/21 Seminar on “Sensors and Process Control” the call for papers is now open! The seminar will be held at the Natlab (previous Philips Research Labs) in Eindhoven, the Netherlands. Topics for the seminar include:
    - Sensors for raw materials and glass melts
    - Sensors for inspection of refractories
    - Sensors for combustion gases and flue gases
    - Soft sensors
    - Process control techniques and software
    - Sensors for glass product characterization
  - ✓ A joint workshop with the steel industry is proposed to learn from each other state-of-the-art technologies and sensors. CelSian is in discussion with BFI (= leading European provider of application-focused R&D in the field of steelmaking technology) to co-organize this workshop. Topics for the workshop include:
    - Burner technology
    - Heat recovery technologies
    - Sensor / sensor systems
    - Process simulation

BFI (<http://www.bfi.de/en/>) verifies support on management-level for a workshop either at the end of 2015 (December) or the beginning of 2016
  
- **GlassTrend-Universities program:**
  - ✓ Mathieu Hubert presented the new initiative for a GlassTrend-Universities program.
  - ✓ The idea of this program and the preliminary content were agreed by the GlassTrend Board. Discussions were held to suggest some paths and actions to be of most interest for the GlassTrend companies.
  - ✓ The goals of this program are to:
    1. **Encourage academic research** on topics which are **relevant for industrial glass production** and processing
    2. **Identify** and establish a **list of universities working on topics of interests**, to be made available to GT companies

3. **Give more publicity to the glass industry** and to career opportunities for people in the academic world.
  4. **Promote and facilitate the creation of partnerships** for participation in research programs
  5. In the future, this program could lead to the funding of doctoral or postdoctoral studies at these universities and institutes, funded as part of Glass Trend projects
- ✓ Mustafa Orhan (Sisecam) reported on the agreement between Sisecam and a University in Istanbul for a glass technology class and proposed to link this with the GT-University program.
  - ✓ Andreas Prange (RWTH) reported that RWTH currently cooperates with various industrial parties; By the end of August 2016, Prof. R. Conradt of the RWTH will retire and his successor will continue the glass technology approach of Prof. R. Conradt.
  - ✓ Hans van Limpt (Sibelco) enquired after the position of PhD-students in GlassTrend. Mathieu Hubert indicated that in future PhD's may be involved in GlassTrend projects. On case-by-case basis, IP conditions will be discussed and agreed upon with respect to the PhD-activities.
- **GlassTrend events for 2016 and beyond**: see power point presentation
  - **Website GlassTrend**
    - ✓ Faber indicated the demand for a modernized website and presented the specifications for this website that has been discussed with the GlassTrend Board.
    - ✓ At a later stage during the seminar, a provisional new logo for GlassTrend was shown (made by the marketing department of Eurotherm that supports GlassTrend on this topic).
  - **Overview of running and envisaged GlassTrend projects:**
    - ✓ Faber presented the status of the GlassTrend GT10 project entitled 'Batch Pelletizing & Pellet preheating by Glass Furnace Flue Gases'. When companies are interested to participate in running GT projects, this may be possible under certain (financial) conditions and with approval of all current project members.
    - ✓ Hubert presented the status of the GlassTrend GT23 project entitled 'Prevention and breakdown of foam in industrial furnaces producing borosilicate glasses'.
    - ✓ Faber presented the status of the GlassTrend GT24 project entitled 'Regenerator refractories for flue gases with high CO levels (LowNO<sub>x</sub>)'; Hans van Limpt (Sibelco) asked whether the scope of the project might be extended with evaluation of the impact of carry-over on the behavior of regenerator bricks. This topic may be discussed with the GT24 project members. After the workshop on Wednesday April 22<sup>nd</sup>, a GT24 progress meeting was scheduled.
    - ✓ Hubert presented the status of the GlassTrend GT26 project entitled 'Development foam sensor'. After the workshop on Wednesday April 22<sup>nd</sup>, a GT26 progress meeting was scheduled.

- ✓ Faber presented the **envisaged GT25 project** entitled 'Alternative raw materials and selective batching: evaluation methods of batch-to-melt conversion'. As the topics of new /alternative raw materials is regarded as competitive (especially the development of selective batch melting routes), it is proposed to confine the project to the development of reliable experimental techniques to assess and compare batch-to-melt conversion rates in a quantitative way. In the meantime a pre-study has been started by CelSian which includes:
  - Formation of an Expert Group to review state-of-the-art knowhow on:
    - Adequate characterization of individual raw materials
    - Characterization methods of batch-to-melt conversion rate
    - Batch preparation and batch treatment techniques
  - Organization of a dedicated workshop with guest lectures from, institutes / universities working on this topic, glass companies, raw materials & equipment suppliers (e.g. Netzsch)
  - These activities are sponsored by the Dutch Enterprise Agency (RVO) as the topic of 'alternative raw materials and selective batching' is also of high priority on the roadmap of the Dutch glass industry (VNG/NCNG).
  - The workshop is scheduled for mid October before or after the next GlassTrend workshop that will be held in Eindhoven on 13-14 October, 2015. All GT-members will receive an invitation for participation in this dedicated workshop.
  
- **Next GlassTrend council meeting:**
  - ✓ The next GT council meeting will take place on October 13, just before the next GlassTrend Seminar in Eindhoven on 13-14 October, 2015.

Before closure of the GlassTrend council meeting, Mr. Wilfried Linz said a word of thanks to the Glass Trend Board and gave a brief overview of the history of GlassTrend and his participation. He expressed his conviction that GlassTrend will continue to be an important platform for the glass industry in supporting new technology developments.