

Final
Program



INNOVATION • BUSINESS • DESIGN

GPD Glass Performance Days 2015 • June 24–26, 2015, Tampere, Finland

New concepts > More interaction

www.gpd.fi





GPD Excitement

can perhaps best describe our feeling in issuing the Final Program for our June Conference. This is the 15th time we organize the event and considering that it is not held every year we are getting close to a generation of GPD experiences. This certainly brings to mind how important it is that our seasoned lecturers and participants can share their vast knowledge with younger generations and first time participants. I sincerely hope that this is something the leading organizations of our business have at the top of their minds at all times. We at GPD do!

Excitement comes when the Final Program is put together and when one realizes how much we have to cover as we get together for this brief encounter of the world's premier glass specialists in June this year. From an organizer's viewpoint we have tried our utmost to create an interactive, instant feedback, efficient meeting services and well-managed conference. The key drivers of success, however, always relate to our participants.

It is truly exciting to see how top specialists share their knowledge in sessions and workshops. The special focus we have on innovation, design and technology brings rewards in focused sessions such as the Architects' Forum and the special workshop on high-rise construction. Sharing the experiences with the leading creators of our skylines upwards is truly exciting. The high-rise workshop is organized by the GII Glass Innovation Institute and it is held in Helsinki, the capital of the country, in recognition of the architectural impact there.

A special treat, as always, is provided by the interaction and networking between our lecturers and participants in discussions between visionaries of the glass business sharing their views on what the future holds, in technology, markets and global reach.

There is little doubt that missing the GPD is missing out on the trendsetting event of the glass industry. You would not do that – would you? Jump on board and get excited with us!

Welcome to Tampere – and Helsinki!



Jorma Vitkala
Chairman of the Organizing Committee

Opening Speaker



ABOUT KAI-UWE BERGMANN

Kai-Uwe Bergmann is a Partner at BIG who brings his expertise to proposals around the globe, including work in North America, Europe, Asia and the Middle East. Kai-Uwe heads up BIG's business development which currently has the office working in 17 different countries as well as overseeing BIG's Communications. Registered as an architect in the USA (six states), UK, and Canada (one province), Kai-Uwe most recently contributed to the resiliency plan BIG U to protect 10 miles of Manhattan's coastline. He compliments his professional work through previous teaching assignments at IE University in Madrid, the New School of Architecture in San Diego and his alma mater the University of Virginia. Kai-Uwe also sits on the Board of the Van Alen Institute, participates on numerous international juries and lectures globally on the works of BIG.

BIG

BASED IN BIG NYC
601 W. 26th Street Suite 1255
New York, NY 10001
USA

www.big.dk

LANGUAGES
English
German
Danish



Experience new conference concept!

The renewed event focuses on **innovation, business** and **design**.

The conference, exhibition and workshops generate insights and ideas for all participants.

- Presentations
- Discussion and debates
- Interactivity
- Polling and voting
- Meeting manager
- Networking

And so much more!
Check the gpd-website for more information

Welcome to Tampere in June 2015!



Opening Speaker



M. DALE SANDS

Senior Vice President and
Technology & Practice Director

EDUCATION

M.B.A., California State
University East Bay
Hayward, California

M.S., Environmental Science
The University of Michigan
Ann Arbor, Michigan

B.S., Chemistry
Central Michigan University

PROFESSIONAL AFFILIATION

Vice Chair, United Nations'
PrivateSector Advisory
Group for the International
Strategy for DisasterRisk
Reduction

M. DALE SANDS

Dale Sands is Senior Vice President and Technology & Practice Director for the Environmental Business line of AECOM, a \$20 billion global provider of professional technical and management support services. AECOM's 100,000 employees – including architects, engineers, designers, planners, scientists and management and construction services professionals – serve clients in 150 countries around the world.

Based in Chicago, Mr. Sands has more than 30 years of environmental management experience, and has worked in senior management positions for AECOM, (and predecessor companies), for 18 years. He has lived and worked internationally and has environmental management experience in 50 countries.

As Global Environmental Practices Director, Mr. Sands leads the firm's global technical experts in Air Quality, Environmental Health & Safety Management Consulting, Impact Assessment & Permitting, Remediation, Waste, Water & Natural Resources, Climate Adaptation, as well as in its Specialty & Emerging Technologies areas including Acoustics, Process Engineering and Nanotechnology. Mr. Sands is an invited speaker to many environmental conferences and has authored more than 40 publications or presentations. His recent speaking engagements include a presentation at the 5th International Disaster and Risk Conference in Davos, Switzerland, and Plenary Session Chair at the 5th Africa Platform for Disaster Reduction, Nigeria.

Appointed Vice Chair of the UN Private Sector Advisory Group for Disaster Reduction after the Global Platform in 2012, Sands leads AECOM's collaborative partnership with IBM in developing the Resilient Cities scorecard for the UN. The Resilience scorecard assists major cities around the world in integrating sustainability and assessing preparedness and resilience to natural disasters such as severe storms, sea level rise, floods, droughts, wildfires, earthquakes, etc Prior to joining AECOM, Mr. Sands held senior management positions with leading global environmental organizations such as ABB Ltd (Zurich, Switzerland), CH2M Hill (Denver, Colorado), Environmental Resources Management (London, England) and McKesson Corporation (San Francisco, California).

Ranked as #1 engineering design firm in Engineering News-Record magazine's annual industry rankings, AECOM is a premier, fully integrated infrastructure and support services firm, with a broad range of markets, including transportation, facilities, environmental, energy, oil and gas, water, high-rise buildings and government. AECOM blends global reach, local knowledge, innovation and technical excellence in delivering solutions that create, enhance and sustain the world's built, natural and social environments. A Fortune 500 company AECOM companies, including URS Corporation and Hunt Construction Group, had 2014 revenue of \$19.5 billion. www.aecom.com.

Interactive Networking Activities

Making the event more interactive, participatory and fun will play a key role in engaging all attendees to create an effective learning, sharing and networking environment. Many sessions will have participatory activities built in to them such as discussions, Q&A's and opinion polling. Additionally, on this page, we list some of the key activities that will be going on during the conference days (daytime and evening activities).

MEETING MANAGER

One-on-one meetings during the conference which you can book in advance through our new networking tool, the Meeting Manager.

Evening activities:

- Get Together Party on 24 June – fee included
- Conference Buffet Dinner on 25 June – 80 € + VAT 24 %
- Farewell Party on 26 June – fee included
- Glaston Golf Invitation on 23 June – fee included

Accompanying guests leisure activities

GPD participants and their accompanying guests can choose to do different leisure activities. Designed to suit different tastes, the activities vary from cultural to sporty ones.

The GPD organizing committee will organize a series of leisure activities in cooperation with Meetings Mill for those interested but we also recommend visiting the Visit Tampere website at www.visittampere.fi for more options.



Glaston Golf Invitation

- Tuesday, June 23
- Complimentary tournament for participants
- Preliminary timing
 - 11:00 Transportation from Tampere to the venue
 - time for practicing and light lunch after arrival
 - 13:00 – tournament starts
 - 17:30 – tournament ends
 - sauna + refreshments
 - 20:00 – Dinner in Tampere.
 - Venue to be confirmed later
- Golf equipment will be available for rent. The fee will be between 10 € and 30 €.
- Please confirm your participation during the on-line registration for the conference.

Get Together Party

- Wednesday, June 24
- Venue: to be confirmed

Included in the conference fee. All registered delegates and accompanying persons are invited. This event provides an excellent opportunity to meet old as well as new colleagues. Buffet style dinner will be served on complimentary basis.

Please confirm your participation during the on-line registration.

Dress code: Casual attire.

Conference Buffet Dinner

- Thursday, June 25
- Venue: to be confirmed
- Charges: 80 € + VAT 24 %

Outstanding Finnish dishes, drinks and entertainment will be on offer in a unique and an impressive setting.

Please confirm your participation during the on-line registration.

Dress code: Business attire.

Farewell Party

- Friday, June 26, 19.00 – until sunrise
- Venue: to be confirmed

Farewell Party – A Must Attend Event!

As expected, the Farewell Evening party is always something unforgettable. The set up will be very informal and will include special networking opportunities, activities and memorable entertainment!

Included in the conference fee. Please confirm your participation during the on-line registration.

2015 Conference Sessions

Glass in Architecture

- Architectural Challenges & Solutions and Facades
- New Products and Applications
- Glass in Structural Applications
- Glass and Sustainability
- Glass in Interior Design
- Curved Glass
- Architect Forum
- Glass Bonding and Point Fixing

Glass Processing

- Coatings Technology and Applications
- IGU & Window Technology
- Quality Measurement Systems
- Laminated Glass / Process / Design
- Tempering / Pre-processing

Market Trends and Future Opportunities

- Market Trends & Future Opportunities

Architect Forum

Posters

The Ageing of Transparent Adhesives under Solar Exposure • Bernhard Weller, Technische Universität Dresden

Novel concept for adhesive joints in glass structure towards optimized performances • Manuel Santarsiero, EPFL - ICOM

Detection and resolution of scratch-causing roller side defects • Gary Mauer, Window Cleaning Network

Stone/Glass composite panel for facades • Yutaka Misawa, Arup

Glass products standardization progress in CIS, Alexander Chesnokov, Glass Research Institute





GPD workshops are 4–8 hour intensive courses with each focusing on techniques and skills in a particular field (e.g. pre-processing, tempering,

structural glass facades, etc). The main emphasis is interaction and exchange of information among small groups e.g. the number of participants for practical

workshops will be limited to 5–15 persons and 20–50 persons for theoretical workshops. Below is a list of the accepted workshops.

For the latest list, please check the GPD website.
Price: **EUR 150** + VAT 24% / workshop.

WORKSHOP 1

WORKSHOP 2

WORKSHOP 3

WORKSHOP 4

WORKSHOP 5

WORKSHOP 6

9:00–17:00
“Immaterial Property Rights” and “Patents, a key source of knowledge for the flat glass industry”

9:00–13:00
Facade engineering

Agnes Koltay, Koltay Façades

9:00–17:00
Cutting and Grinding

Michael Emonds,
Chemetall GmbH
Peter Pokoern, Bohle AG

9:00–17:00
Glass Chemical Strengthening by Ion Exchange

Guglielmo Macrelli,
Isoclima SpA

9:00–17:00
High Rise buildings

Glass Innovation Institute
(Workshop will be in Helsinki)

9:00–17:00
Glass Lamination & Processing Efficiency of SentryGlas and PVB (EVA, etc.)

Jan Scheers, Kuraray

Bernard Savaëte, BJS.
Différences
Ari Hirvonen, Kitakura Oy



WORKSHOP 1	WORKSHOP 2	WORKSHOP 3	WORKSHOP 4	WORKSHOP 5	WORKSHOP 6	WORKSHOP 7	WORKSHOP 8	
9:00–13:00 Structural Performance and Applications of Laminated Glass Ingo Stelzer, Malvinder Singh, Roprai, Robin Czyzewicz, Kuraray	9:00–13:00 The thermal and mechanical performance of vacuum insulating glazing Cenk Kocer, University of Sydney	9:00–13:00 Structural Silicone Glazing and next generation bonding technologies: Optimizing Design and Performance in facade systems Larry Carbarry, Dow Corning	9:00–13:00 The introduction to glass tempering process and properties of tempered glass Antti Aronen, University of Sydney	9:00–13:00 Anisotropy Glass Innovation Institute	9:00–13:00 Glass Surface Treatment Edda Rädlein, TU Ilmenau Michael Emonds, Chemetall GmbH	9:00–13:00 Retrofitting of Projects Glass Innovation Institute	9:00–13:00 Some key figures for the global flat glass industry Bernard Savaète, BJS. Différences	
WORKSHOP 9	WORKSHOP 10	WORKSHOP 11	Price / Workshop EUR 150 + VAT 24%					
9:00–13:00 Business profitability solutions – 90 Day Challenge Lisett Gulnick, Jim Gulnick, McGrory Glass, Inc.	9:00–13:00 Industrial Internet Glass Innovation Institute	9:00–17:00 Eurocode - Design of glass panes on the basis of prEN 16612:2013 (E) Glass Innovation Institute Finnish Flatglass Association						

INTERACTIVE LUNCH BREAK 13:00–13:45



Jorma Vitkala



Arto Metsänen



Dale Sands



Kai Uwe

OPENING CEREMONY
15:00–18:00

Jorma Vitkala, Opening Speech

Glaston CEO
Arto Metsänen

Interlude – music / entertainment
 Kuraray

Dale Sands, Jonathan Cohen

Interlude – music / entertainment
 Dow Corning

Kai Uwe, Jean Paul-Hautekeer

GET TOGETHER PARTY 18:00–20:00

GPD Glass Performance Days 2015 • June 25, THURSDAY

Architect Forum

Chairperson: James O'Callaghan

9:00 Damesalen, Copenhagen – A case history of high performance through collaboration Stig Mikkelsen • Mikkelsen Architects
9:35 Contemporary museum – case Guggenheim Helsinki Rainer Mahlamäki • Arkkitehtitoimisto Lahdelma & Mahlamäki Oy

Glass and Sustainability

Chairperson: Mikel Kragh

9:00 Energy labelling scheme for windows: delivering a genuine consumer oriented tool Bertrand Cazes • Glass for Europe
9:25 Building Energy Simulations – Optimize/Customize Glazing Performance & Aesthetics by climate Zones while considering Building Shape, Orientation, and Window to Wall Ratio Patricia Athey • PPG Industries Inc.
9:50 Mobile Air Conditioning: the impact of glazing on vehicle consumption Cédric Janssens • Glass for Europe

IGU and Window Technology

Chairperson: Tracy Rodgers

9:00 Durability of insulating glass units: Influence of climate ageing & climate loads according EN 1279 Stephan Buddenberg • Staatliche Materialprüfungsanstalt Darmstadt
9:25 The mechanical performance of a vacuum insulating glazing Cenk Kocer • University of Sydney
9:50 Comparison of Non-Linear to Linear Load Sharing of Triple Insulating Glass Units Stephen Morse • Texas Tech University

Coatings Technology and Applications

Chairperson: Udo Schreiber, Simo Tammela

9:25 Combination of nFOG™ and Khepri-Coat® technologies to deliver superior quality of anti-reflective coating on solar cover glass Simo Tammela • Beneq Oy
9:50 Low Cost Electrochromic Film for Architectural and Automotive Applications Damoder Reddy • Argil, Inc.

Laminated Glass / Process / Design

Chairperson: Julia Schimmelpenningh

9:00 Designing Impact Glazing to Meet Tornado Performance Standards Valerie Block • Kuraray
9:25 Development of a bond shear stress-slip model for embedded reinforcement in glass laminates Kenny Martens • Ghent University
9:50 The mechanical behaviour of “thick” embedded laminated connections at different temperatures – preliminary results Manuel Santarsiero • EPFL - ICOM

Architectural Challenges & Solutions and facades

Chairpersons:

Larry Carbarry, Valerie Block
9:00 A high performing and multifunctional building skin with four different grades of transparency Lutz Schöne • LEICHT Structural Engineering and Specialist Consulting GmbH
9:25 Performance Testing of Glazed Cavities to Prevent Condensation and Glass Corrosion Daniel Vos • Heintges
9:50 Thermal Performance of High Performance Shadow Boxes, Modeling and Testing Lawrence Carbarry • Dow Corning Corporation

INTERACTIVE BREAK 10:15–11:00

11:00 Transparent Engineering – Glass today and tomorrow James O' Callaghan • Eckerly O'Callaghan

11:30 A case study of three ongoing SOM projects all utilizing hot bent glass in the big apple Christoph Timm som • SOM Architects

11:00 Integrated Fenestration and Lighting Systems: Optimal solution for both energy performance, daylighting and human comfort Helen Sanders • SAGE Electrochromics, Inc

11:25 All-glass house – a new space for living Philip Wilson • Malishev Wilson Ingenierie

11:50 Benefits of interior installed high performance insulating glass for commercial retrofit applications Tracy Rogers • Quanex Building Products

11:00 Attaching insulated glass to buildings, what are your options? Louis Moreau • AGNORA

11:25 A new warm edge system with superior energy efficiency and durability Christian Scherer • Kömmerling Chemische Fabrik GmbH

11:50 Ceramic Pillars for Efficient Vacuum Insulated Glazing Terry Collier • 3M

11:00 Cost efficient manufacturing for architectural glass coatings by optimizing processes and equipment Jutta Trube • Bühler Alzenau GmbH

11:25 Evolving Dual Magnetron Sputtering (DMS): Strategies for Increased Control and Efficiencies David Christie • Advanced Energy Industries, Inc.

11:50 Process impact of modern power supplies in dual magnetron sputtering Moritz Heintze • TRUMPF Hüttinger GmbH + Co. KG

11:00 Determination of shear connection of glass-polycarbonate composite panels Simon Tiedemann • Universität Siegen

11:25 Viscoelastic Properties of Laminated Glass – Theory and Experiments Johannes Kuntsche • Technische Universität Darmstadt

11:50 Shear Modulus Measurement of PVB interlayers and prEN16613 Pu Zhang • Eastman Chemical Company

11:00 Shadow-box spandrels: Risks, defects and unexpected outcomes Chris Barry • Independent consultant

11:25 Analytic Design Approach to maximize panel dimensions in horizontal 2 hrs Fire-Resistant & Thermally insulated Glass Assemblies Dirk Schulte • APG International, Inc.

11:50 Movable canopy Jürgen Neugebauer • University of Applied Sciences, FH-Joanneum

INTERACTIVE LUNCH BREAK 12:15–13:45

13:45 Helsinki Central Library

Juho Grönholm • Arkkitehtitoimisto ALA

14:20 Silence of the Plans: Designing glass facades with acoustical isolation Patrick Loughran • Goettsch Partners

13:45 High performance curtain wall solutions – optimization by simulations David Appelfeld • Dow Corning Corporation

14:10 Implementing a High Performance Unitized Curtain Wall Over-Clad Design William Fischer • Skidmore Owings & Merrill LLP

14:35 Smart Facade Systems Adopt The Internet of Things Stephen Selkowitz • Lawrence Berkeley National Laboratory

13:45 Plastic spacers for large sealed units. Are they strong enough? Karl-Theo Roes • Swisspacer

14:10 Windows in cold climate – U-value stability in 2 vs. 3 glass units Alf Rolandsson • Svensk Planglasförening

14:35 Quadruple IG-Unit with thin glass membranes Markus Jandl • LISEC Austria GmbH

Glass in Structural Applications

Chairperson: Ingo Stelzer & Mitsu Edwards

13:45 30 years of Dutch Glass Developments and Innovations Mick Eekhout • TU Delft

14:10 Free form glass braced structures. Laverstoke Mill glasshouses Carles Teixidor • Bellapart Group

14:35 Recent advances in use of structural glass in Russia Gennady Vasilchenko-Malishev • Malishev Engineers

13:45 Which interlayer for which glazing application? Björn Sandén • Kuraray

14:10 Welding of thermoplastic interlayer – wider and combined interlayer Hanno Sastré • glaslabor.de gmbh

14:35 Glass Finns in Architecture Mick Eekhout • TU Delft

13:45 The Challenge's for Glass/Glazing's as part of Curtain Wall Facades in High Rise Buildings Michael Elstner • AGC Interpane

14:10 Crystallized Angel Wings – Folded Glass Membrane Enclosure of the Third Church of Christ the Scientist, Washington D.C. Dirk Schulte • APG International, Inc.

14:35 Engineering of Large Scale Cast Art Glass Installations Beres Dowdle • Surface Design

INTERACTIVE BREAK 15:00–15:45

15:45 In the Pipeline Peter French • Snohetta

16:20 To be Announced Rob Henderson • UN Studio

15:45 Iconic skin self conditioning facade: development of a new façade generation Heiko Mertel • Seele GmbH

16:10 Thin Glass – Opportunities and Risks Hannes Spiss • ARUP

16:35 When Buildings Attack Their Neighbors Vicente Montes-Amoros • Curtainwall Design & Consulting (CDC)

15:45 New technology for non invasive gas testing on IG Miikkael Niemi • Sparklike

16:10 Optimisation of curved insulated glas Vladimir Marinov • Ove Arup And Partners Ltd

15:45 The new glass floor and glass balustrade for the renovation of the Eiffel Tower's 1st floor and the pagoda's glass façades for the elevators Núria Guitart • Bellapart

16:10 Laboratory experiments of centrally loaded glass columns Andrés Jakab • BME

16:35 Structural glass fin under blast loading Thomas Henriksen • Waagner Biro

15:45 Acoustic glazing based on different PVB interlayers Bernhard Koll • Kuraray Europe GmbH

16:10 Design and testing of annealed glass balustrade panels using a structural PVB interlayer Wim Stevels • Eastman Chemical Company

16:35 High performance acoustic interlayers – a laminate design shift Julia Schimmelpenningh • Eastman Chemical Company

15:45 The shape of spaces – projects with curved glass Felix Weber • Arup

16:10 Building The Opus – case study and history of a double curved glazed Dubai project Agnes Koltay • Koltay Facades

16:35 Laser Tracking Metrology: Confirming Vision Brian Rogers • Enclos

17:00 INTERACTIVE ACTIVITIES BEFORE EVENING NETWORKING EVENT

CONFERENCE DINNER 19:30–23:00

Curved Glass

Chairperson: Benjamin Beer

9:00 Unfolding glass for adaptive moulds
Christian Raun • Adapa ApS

9:25 Structural silicone sealed cold bent glass – High-rise projects experience leading to a new design concept Benjamin Beer • Meinhardt Façade Technology

9:50 Beneath the Surface: Buckling of Cold Formed Glass
Austin Bensend • Enclos

Glass Bonding and Point Fixing

Chairperson: Thomas Hendriksen

9:00 Innovative structural applications of adhesively bonded solid glass blocks
Faidra Oikonomopoulou • TU Delft

9:25 Resin based mortar: Long term behaviour test compared with numerical models
Georg H. E. Kolany • Graz University of Technology

9:50 The influence of surface composition and plasma treatment on adhesion
Christina Stålhandske • Glaflo

New Products and Applications

Chairperson: Norbert Wruk, Werner Wagner

9:00 Concept of a multifunctional glass-composite panel with a laminar silicone application
Florian Doebbel • Sika Services AG

9:25 Epoxy Resin Adhesives – Influence of Additives and Fillers to the Mechanical Properties and the Ageing Stability
Michael Kothe • Technische Universität Dresden

9:50 Fabric & Glass – Design meets function / SEFAR® Architecture VISION fabric(s) with SentryGlas® Ionoplast Interlayer(s)
Jérôme Lugrin • Sefar AG

Glass in Structural Applications

Chairperson:

Ingo Stelzer & Mitsu Edwards

9:00 Comparative study of laminated glass fins using full-scale testing, finite element modeling, and buckling formulas
John Knowles • STUTZKI Engineering

9:25 Stiff and Flexible Glazed Cable Net Structures
Mick Eekhout • TU Delft

9:50 Glass Breakage – Glass railing system failures
Vicente Montes-Amoros
Curtainwall Design & Consulting (CDC)

Tempering / Pre-processing

Chairpersons:

Francis Serruys, Miika Äppelqvist

9:00 The mechanical failure of tempered glass; a comparison of testing standards and in-service catastrophic failure
Antti Aronen • University of Sydney

9:25 Experimental Study of Weathered Tempered Glass Plates
Stephen Morse • Texas Tech University

9:50 Variance in pre-stresses obtained through thermal treatment
Fred Veer • Delft University of Technology

Market Trends and Future Opportunities

Chairperson: Nigel Rees

9:00 New developments in transporting float glass by Inloader trailers
Albert Balke • Faymonville Distribution AG

9:25 Dynamic Glazing in U.S. Building Energy Codes and Green Construction Codes
Helen Sanders • SAGE Electrochromics, Inc.

9:50 Solar Power Case Study – Investment for the Future
Jim Gulnick • McGrory Glass, Inc.

INTERACTIVE BREAK 10:15-11:00

11:00 Stress concentrations and optimal shapes in cold-(lamination-)
Gianni Royer Carfagni • University of Parma

11:25 Temperature effects on curved annealed glass
Lisa Rammig • Eckersley O'Callaghan

High Performance Facades – Design Requirements

Chairperson: Leon Jacob, Keith Boswell

11:50 High performance design considerations – an Architect's perspective
Keith Boswell • SOM

11:00 Investigation of multi-axial loading on adhesive point-fixings
Jonas Dispersyn • Ghent University

11:25 Structural silicone glazed curtain walls: beyond ETAG002
Patrick Vandereecken • Dow Corning Europe

11:50 Investigations on the aging resistance of sealing materials for the protection of bonded point fixings
Christiane Kothe • Technische Universität Dresden

11:00 Precision Window Optics for Natural Light Distribution and Aesthetics
Martin Wolk • 3M

11:25 "Additional" features of the modern glazing
Stanislav Chesnokov • Glass Research Institute

11:50 Impact Testing for Overhead Laminated Glass Applications
Malvinder Singh Roorprai • Kuraray India Pvt. Ltd

11:00 Impact behaviour of glass balustrades
Kinga NEHME • STRUKTÚRA KFT

11:25 From design by testing to structural verification of glass. The role of subcritical crack propagation
Gianni Royer Carfagni • University of Parma

11:50 A new window glass design approach following a review of international window glass design practice
Ignatius Calderone • Calderone and Associates Pty Ltd

11:00 Flow and lay-out optimization in the downstream business
John de Baere • Bottero

11:25 Latest development and applications in thin heat-treated glass tempering
Miika Äppelqvist • Glaston Finland Oy

11:50 Anisotropy as a defect in U.K. architectural floatheat-treated glass
Saverio Pasetto • Skanska

11:00 Internet of Things in Glass processing factory
Kimmo Kuusela • Glaston Finland Oy

11:25 The UK Glass and Window Industry 2014 / 2015
Nigel Rees • Glass and Glazing

11:50 Two years (2013 & 2014) in the world flat glass industry – facts & analysis
Bernard Savaète • BJS.Differences

INTERACTIVE LUNCH BREAK 12:15-13:45

13:45 New royal Adelaide hospital: façade challenges
Oliver Ng & Peter Smithson • BG & E Facades Pty. Ltd

14:10 A review of thermally induced fracture of low e solar control glass used in warm climates
Dr Leon Jacob • Jacob & Associates Pty Ltd & Mr Peter Smithson • BG&E Facades Pty. Ltd

14:35 Comparative review of international glass strength standards based on design considerations and variation with time of issue
Dr Leon Jacob • Jacob & Associates Pty Ltd

13:45 Concepts for seismic design of structural silicone joints in unitized curtain walling
Viviana Nardini • Sika Services AG

14:10 Validation of hyperelastic material models for silicone sealants for use in finite element modeling
Jon Kimberlain • Dow Corning Corporation

14:35 Translational stiffness of adhesive connections between cold-formed steel members and glass panels
Bert Van Lancker • Ghent University

13:45 Challenges and new look in BIPV (Building Integrated Photovoltaics)
Tomas Lenkimas • GLASSBEL

14:10 Thermochromic Glazing Systems – Defining Smart Windows while enabling a new Dimension in Safety Glass
Curtis Liposcak • Pleotint, LLC

14:35 Iconic skin glass sandwich panel: development of a new façade generation
Martien Teich • Seele GmbH

13:45 The Influence of the Boundary Conditions and Local Stress Concentrations on the Effective Thickness of Laminated Glass Elements
Peter Lenk • Eckersley O'Callaghan

14:10 Load bearing behavior of sliced beams under tensile load
René Ringli • ETH Zurich

14:35 Stability behaviour of cantilevered glass fins
Vlad Alexandru Silvestru • Graz University of Technology

13:45 Glass Chemical Strengthening by Ion Exchange: from ion exchange kinetics to strength determination
Guglielmo Macrelli • ISOCLIMA SpA

14:10 Chemically Strengthened Glass: correlation between Surface Compression, Potassium Count and Profile, Mechanical Strength and Strengthening Effect and production parameters
ENNIO MOGNATO • Stazione Sperimentale del Vetro S.C.P.A

14:35 Effect of heat transfer on glass quality in tempering
Reijo Karvinen • Tampere University of Technology

13:45 Lightweight acoustic glazing – achieving acoustic performance in thin, stiff, lightweight glass laminates
Chuck Butler • Kuraray America, Inc.

Quality Measurement Systems

Chairperson: Kimmo Kuusela

14:10 Reliable methods for non destructive quality inspection of glass products with focus on determination of tin load on float glass
Heinrich Ostendarp • Bohle AG

14:35 Highest quality and full process control via contact-free 3D measurement of flat or bent glass: PowerPlate (P2)-3D
Bertrand Mercier • ISRA VISION

INTERACTIVE BREAK 15:00-15:45

15:45 Tall buildings, operable facades, life safety
Ross Murchie, Peter Smithson & Oliver Ng • BG&E Facades Pty. Ltd

15:45 Combining Glass and Displays – Making the See-Through Difference
Gerald Smid • Beneq Products Oy

16:10 Restoration with authentic glasses: Bridging the gap between traditional look and modern building standards
Marten Walther • SCHOTT AG

15:45 Development of load-bearing timber-glass composite shear wall elements
Felix Nicklisch • Technische Universität Dresden

16:10 Application of post-tensioning techniques on structural glass beams
Jagoda Cupac • EPFL-ICOM

15:45 Vesuvius next generation ceramic roller for advanced tempering processes
Jakub Molin • VESUVIUS

16:10 The Penguin Effect
Jim Gulnick • McGrory Glass, Inc.

Glass in Interior Design

Chairperson: Kimmo Kuusela

15:45 Threshold: When Does a Reflection Become Noticeable?
Jim Gulnick • McGrory Glass, Inc.

16:10 Interior as a fun playground communicating art through synergy of light, glass, video, digital printings and luminescent inspiration
Mery Crystal Ra • Crystal Energy OY

Participant Registration

Participant registration & hotel reservation

The on-line participant registration for GPD Finland 2015 is now open. While completing your registration, you will also have to do the following

- Choose your participation in the evening social activities
- Book your hotel room. During the time of the Conference, Tampere hotels are fully booked, which is why GPD has made block reservations for all participants in advance. **Booking your hotel through the registration site is REQUIRED for you to be able to secure a room under the discounted GPD rate.**

Registration fees for participants:

24% VAT and 35€ service fee are added on all registrations fees as indicated in the following registration fee structure.

EUR 1 150 + VAT 24 %, for registrations received between January and April 30, 2015

- EUR 1 250 + VAT 24 %, for registrations received from May 2015 until the conference time

The fee includes

- admission to all sessions scheduled June 24–26, 2015
- conference bag and material
- lunches and teas/coffees on conference days
- admission to the Glass Expo
- admission to the Get Together and Farewell evening parties with food and drinks
- transportation to and from the conference venue and evening events

Registration Office Contact details

For more information about conference registration, please contact **Management Events Studio** at gpdinfo@managementevents.com or by phone at: **+358 400 882 401**.

Conference Buffet Dinner

The registration fee does not include the conference buffet dinner.

A separate fee of EUR 80 + VAT 24 % is charged per person. If you are interested to attend the dinner, please book a seat while you are registering for the conference. **Due to the popularity of this event, we encourage early registration!**

Fees for accompanying persons:

EUR 100 + VAT 24 %

This fee is available only for participant's spouse (or equivalent) or child travelling and staying in the same hotel with the participant. This fee does not allow accompanying guests' entrance to the conference sessions.

Fee includes

- accompanying guest badge
- entrance to the Opening Ceremony on June 24, 2015
- admission to the Get Together and Farewell evening events with food and drinks
- transportation to and from the conference venue and evening events

Group Discounts

It is possible to register groups and get discounted rates indicated below. An invoice will be issued and once paid; you will be given the instructions of how to register the members of the group.

- Group registration for 5 people, gets 10% discount
- Group registration for 10 people, gets 15% discount

Register
now at
www.gpd.fi

GPD 2015 Expo

Exhibition venue

The exhibition will be located in close connection to the meeting rooms/sessions. In addition, all coffees and lunches will be served in the expo area. This combination of activities will provide exhibitors the best platform to showcase or launch products, services and knowhow to the attending glass community.

Increase your business opportunities!

While the GPD Finland conference and the workshops are for educational purposes, the Expo is for commercial purposes. This strategic set-up aims at increasing business opportunities for exhibitors since coffees and lunches will be served in the Expo area.

Benefits for exhibitors will include the following:

- Networking and fostering partnerships with like-minded professionals
- Direct company and product promotion to a targeted audience of high level decision-makers.
- Establishing new contacts and laying foundations for future business

Booths available are between 9 and 24m². To ensure the best position for your booth, book now by contacting Ms. Heli Huhtala
email: info@meetingsmill.fi
tel: +358 400 737 420.

Exhibitors flowplan



Exhibitors	Stand no.	Stand size (m ²)
AGC Interpane	8	18
Agilent Technologies	4	9
Bohle AG	2	9
Bühler Alzenau GmbH	3	9
Dow Corning Europe SA, Platinum Sponsor	10	24
Durst Industrial Inkjet Application GmbH	12	9
GlasStress Ltd	1	9
Glaston Corporation	17	9
HEGLA GmbH & CO KG	9	18
ISRA SURFACE VISION GmbH	11	18
KIWO - Kissel + Wolf GmbH	13	9
Kuraray, Platinum Sponsor	19	24
sedak GmbH & Co. KG	21	18
Sekisui Chemical Co., Ltd	7	18
Sika Services AG	14	9
Softeco	15	9
Tredea	16	9

Book
now at
www.gpd.fi

Tours

Tours for GPD 2015 participants

Architectural tour to Helsinki

On Saturday the 27th of June, you will have a chance to participate in an interesting architectural tour in Helsinki. Top architectural sights and other interesting parts of Helsinki will be presented. The tour will start in Tampere and end at Helsinki's Vantaa airport.

Excursions in Tampere Master chef cooking contest in a forest

Have you ever cooked your meal in a forest? A playful cooking contest on a campfire in the forest nearby. The transportation to the forest and back is included.

Tasty food walk in the heart of Tampere with art and craft

The old and beautiful Market Hall in Tampere is worth visiting. On the way to the Market Hall we will stop by the Verkaranta art and craft centre. This tour combines local tastings, some art and craft and slight history of the town.

Canoe safari

This trip that takes you on a touring canoe safari, where the group works as a team, everyone paddling together – a great way to build up team spirit. The safari takes place on the picturesque the Lake Näsijärvi. Transportation to the lake and back is included.

Finlayson area

Tampere was founded in 1779 on the banks of the Tammerkoski Rapids – one of Finland's national heritage landscapes – Tampere evolved into the most highly industrialised locality in Finland during the 19th century. The renovated industrial milieus by the Tammerkoski Rapids including the Finlayson and Tampella areas have become the old part of the city. A nice historical walk in the Finlayson area.

The GPD organizing committee will organize a series of leisure activities in cooperation with Meetings Mill. Please see the tours from www.gpd.fi

Exact tour program to be confirmed later.

www.gpd.fi

Tour reservations:

The tour reservations should be made in writing at: info@meetingsmill.fi by May 12th, 2015.

Please mention the name of the participant and also the name of the tour you want to participate to! If your tour package includes any lunch or servings, we ask, that you inform Meetings Mill beforehand of any food-allergies as soon as possible, preferably at the point of reservation.

Kindly notice, that each tour requires a minimum number of participants; if the required number is not reached, the tour will be cancelled.



Helsinki and Tampere Building higher and smarter

Tampere
city center
is estimated
to attract 23%
more inhabitants
by 2030.

Helsinki and Tampere are growing inwards and upwards - towards the hearts of the cities, and along the high quality routes for public transport. The cities are creating new higher skylines sustainably and smart.

Investment opportunities

The city of Tampere will invest 3.5 billion euros in the development of the city center by 2030.

URBAN CITY SHORES IN TAMPERE:

Ranta-Tampella lakeside

- 150,000 sq m., mostly residential
- 2,000 new homes with 3,600 residents
- Construction begins 2017
- Näsijärvi lakeside views

Ratina lakeside

- 65,000 sq m.
- 2,000 new homes with 3,600 residents
- To be completed 2015
- Pyhäjärvi lakeside views

Eteläpuisto park lakeside

- 150,000 sq m.
- Homes for 2,900 residents
- Construction begins 2018
- Pyhäjärvi lakeside views

Lielähti lakeside

- Homes for 20,000 residents by 2030
- Construction has begun
- Näsijärvi lakeside views
- 10 km from city center

A NEW BOLD DISTRICT IN TAMPERE:

Deck and Arena

- Multi-functional arena above the railway
- 2,500 sq m. of conferencing space
- 100,000 sq m. incl. multi-functional arena, residential and commercial

Station Center

- 250-300,000 sq m. retail, offices, services and residential
- travel center for the city



The city of Helsinki

Helsinki High-rise

An international design-build competition in Helsinki.

- 8-10 towers, with at least 15 floors
- 150,000-200,000 floor square metres for residential, office and commercial space.
- At least 60% of the building facades clear, transparent glass.

Open call for entries in September.
www.helsinkihighrise.fi

Redi at Kalasatama, Helsinki

Six towers reaching 132 meters.

- 2,000 residents
- 2018, REDI shopping center
- 2017, a social and health care center
- To be completed 2022.

www.redi.fi

High-rise buildings Workshop 5, June 23, 2015 in Helsinki

Organised by The Glass Innovation Institute
www.gii.fi

Over 28%
of Finland's
population
will live
in Helsinki
region
by 2030.



Facts about Finland

The Land of The Midnight Sun

General info

Finland is a republic which became a member of the European Union in 1995. Its population is 5.4 million. Finland is the sixth largest country in Europe in area, with a low population density of 15.8 persons per square kilometre. The capital Helsinki has 1.25M residents (in metropolitan area). Finland is an advanced industrial economy: the metal, engineering and electronics industries account for about 60% of export revenues, the forest products industry for about 20%.

Nature

Forests cover three quarters of the country's surface area of 338 424 square kilometres. Other outstanding features of Finland's scenery are some 190 000 lakes and approximately as many islands.

Geography

Finland is situated in northern Europe. A quarter of its total area lies north of the Arctic Circle. Finland's neighbouring countries are Sweden, Norway, and Russia, which have land borders with Finland, and Estonia across the Gulf of Finland.

Climate

One notable effect of Finland's northerly position on the globe is that the four seasons of the year are clearly distinct from one another.

The climate is marked by cold winters and warm summers. The highest daytime temperature in southern Finland during the summer occasionally rises to almost 30 degrees Celsius. During the winter months, particularly in January and February, temperatures of minus 20 Celsius are not uncommon. In the far north, beyond the Arctic Circle, the sun does not set for about 73 days, producing the white nights of summer. In the same region, during the winter period, the sun remains below the horizon for 51 days, creating the polar night.

Visit www.finland.fi for more information.





INNOVATION • BUSINESS • DESIGN

GPD Glass Performance Days 2015 • June 24–26, 2015, Tampere, Finland



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Contact information:
Mr. Jorma Vitkala
jorma.vitkala@gpd.fi
Tel. +358 40 553 2042



Merchandise sponsors



Mr. Brown Onduso
brown.onduso@gpd.fi
Tel. +358 40 773 9313



The conference is supported by the following trade fairs and associations:



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Italian Glass Processing Machinery and Accessory Supplier's Association



National Glass Association



Glass Performance Days
P. O. Box 25
33731 Tampere, Finland
Tel. +358 10 500 500
Fax +358 10 500 6180



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