



| Day   | Start | Duration | End   | A-sessions   | B-Sessions   |
|---|-------|----------|-------|--|--|
| <b>Monday, 15<sup>th</sup> September: PPXXII Opening and Technical Sessions</b> |       |          |       |  |  |
|   | 9:00  | 0:50     | 9:50  | <b>OPENING SESSION</b>   |  |
| <b>Monday</b>   | 9:00  | 0:10     | 9:10  | PPXXII WELCOME - <b>Zoran Davidovski - AUSTRIA (Wienerberger)</b>  |  |
|   | 9:10  | 0:20     | 9:30  | ID109: Advancing Sustainability in the Plastic Pipe Industry: Strategies for Circular Solutions and CO2 Reduction - <b>Zoran Davidovski - AUSTRIA (Wienerberger)</b>   |  |
|   | 9:30  | 0:20     | 9:50  | ID121: Preparing the Industry for the Upcoming Harmonised Rules for Products in Contact with Drinking Water - <b>Peter Sejersen - BELGIUM (The European Plastic Pipes and Fittings Association - TEPPFA)</b> |  |
|   | 9:50  | 0:30     | 10:20 | <b>TECHNICAL BREAK</b>   |  |
| <b>Monday</b>   | 10:20 | 1:40     | 12:00 | <b>1A - DRINKING WATER</b><br>Chair: <b>Peter Sejersen - Belgium (The European Plastic Pipes and Fittings Association (TEPPFA))</b>  | <b>1B - INNOVATIVE APPLICATIONS</b><br>Chair: <b>Tony Calton - Belgium (The European Plastic Pipes and Fittings Association (TEPPFA))</b>                                  |
|   | 10:20 | 0:20     | 10:40 | ID156: Navigating the New EU Regulations: Materials and Products in Contact with Drinking Water - <b>Eric Scharstuhl - BELGIUM (NSF)</b>   | ID116: Structural Design of Plastic Manholes - <b>Ricky Selle - GERMANY (Selle Consult GmbH)</b>   |
|   | 10:40 | 0:20     | 11:00 | ID245: Understanding the Impact of the New Drinking Water Directive - <b>Cristina Costa - PORTUGAL (Cires Lda)</b>   | ID231: The Use of HDPE Corrugated Pipes in Microtunneling - <b>Grigorios Vigellis - U.A.E. (Union Pipes Industry)</b>  |
|   | 11:00 | 0:20     | 11:20 | ID144: Reducing the Level of Arvin Substances in Pipe Applications - <b>Gerd Mannebach - Germany (Basell Polyolefine GmbH)</b>   | ID202: New Technology for Improvement of Strength of Extruded Inline Sockets on Double Wall Corrugated Pipes - <b>Kong Lingxiang - CHINA (ZhongyunTech)</b>                |
|   | 11:20 | 0:20     | 11:40 | ID283: Detection of Arvin Substances in Water Samples and Pipe Applications - <b>Przemyslaw Hruszka - BELGIUM (The European Plastic Pipes and Fittings Association - TEPPFA)</b>                             | ID276: Revolutionising Plastic Pipe Handling: A Reusable System for Safer, Efficient Logistics - <b>Dermot Lindsay, Wade Price - AUSTRALIA (Eartheco)</b>                  |
|   | 11:40 | 0:20     | 12:00 | ID133: Paving the Way for the Use of Polymers as Barrier Materials in Drinking Water Pipes - <b>Christoph Losher - GERMANY (FABES Forschungs-GmbH)</b>   | ID236: Thermoplastic Boxes: The Evolution of Polypropylene Stormwater Retention and Detention Systems - <b>John M. Kurdziel - U.S.A. (Advanced Drainage Systems, Inc.)</b> |
|   | 12:00 | 1:00     | 13:00 | <b>LUNCH SPONSORED BY</b>  <b>TECNOMATIC</b>  |  |

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| Monday | 13:00 | 1:20 | 14:20 | <b>2A - WATER</b><br>Chair: Ludo Debever - Belgium (The European Plastic Pipes and Fittings Association (TEPPFA))   | <b>2B - PROCESSING INNOVATIONS</b><br>Chair: Christian Apel - Germany (Radius Group Procurement)  |
|        | 13:00 | 0:20 | 13:20 | <b>ID214:</b> Resistance of Polypropylene Raised Crack and Temperature Resistance (PP-RCT) to Chloramine Solutions - <b>Christopher Ziu - U.S.A. (Nupi Americas)</b>  | <b>ID123:</b> Research and Practice of Anti-Sag Technology for High Yield Extrusion of PE Large Diameter Thick Wall Plastic Pipe - <b>Richard Lee - CHINA (Ningbo Fangli Technology Co.,Ltd)</b>      |
|        | 13:20 | 0:20 | 13:40 | <b>ID220:</b> Application Case of HDPE Siphon Rainwater System on the Roof of Large Industrial Building - <b>Huang Zhuying - CHINA (Hongyue Plastic Group Co., Ltd)</b>   | <b>ID244:</b> New Scanning Technology for Multi-Layer and Structed Wall Pipes - <b>Joseph Venegas - THE NETHERLANDS (Rollepaal Pipe Extrusion Technology)</b>   |
|        | 13:40 | 0:20 | 14:00 | <b>ID270:</b> Survey of Experience with More than 50 Year Old Water Supply Polyethylene Pipes in Japan - <b>Takashi Kuriyama - JAPAN (Kyushu University)</b>  | <b>ID137:</b> ØOD 1600 mm PVC-U Pipe: Pioneering New Possibilities in Modern Infrastructure - <b>Chelsea Qin - CHINA (Shanghai Jurry Plastics Machinery)</b>  |
|        | 14:00 | 0:20 | 14:20 | <b>ID282:</b> Industry Insights, Best Practices / Transitioning from Traditional Materials Lessons Learned Transitioning from DI to HDPE Water Main - <b>Casey Haynes - U.S.A. (Haynes Engineering &amp; Excavation, LLC)</b> | <b>ID150:</b> Advancements in Material Savings in PO Pipe Extrusion - <b>Andreas Türk - GERMANY (battenfeld-cincinnati)</b>   |
|        | 14:20 | 0:30 | 14:50 | <b>COFFEE BREAK SPONSORED BY</b>  <b>Shell Polymers</b>  |   |
| Monday | 14:50 | 1:20 | 16:10 | <b>3A - GLOBAL CASE STUDIES</b><br>Chair: Andy Wedgner - The Netherlands (LyondellBasell)   | <b>3B - RENEWABLE ENERGY</b><br>Chair: Randy Knapp - U.S.A. (Plastics Pipe Institute (PPI))   |
|        | 14:50 | 0:20 | 15:10 | <b>ID230:</b> Successful Implementation of Plastic Pipes in Mine Subsidence Areas - <b>Saviz Gharavi - AUSTRALIA (Savon Engineering)</b>  | <b>ID184:</b> Thermoplastic Lining System and Life Cycle Costing: A Business and Environmental Perspective - <b>Mohana Murali Adhyatmabhattar - U.A.E. (United Special Technical Services (USTS))</b> |
|        | 15:10 | 0:20 | 15:30 | <b>ID254:</b> Case study of a PE-Pipeline with Manholes DN/ID3500, Jointed by Integrated Electrofusion in the Philippines. - <b>Bernhard Alexander KraH - GERMANY (KraH GmbH)</b>   | <b>ID179:</b> Miami University Turns to Polypropylene (PP) Pipe for Campus-Wide Hydronic Heating Upgrade - <b>Steve Sandstrum - U.S.A. (Borealis Compounds, Inc.)</b>                                 |
|        | 15:30 | 0:20 | 15:50 | <b>ID264:</b> PE100 Material Supports Sea Water Cooling Project in Jazan – Saudi Arabia - <b>Hussein Basha - U.A.E. (Borouge)</b>   | <b>ID146:</b> Low CO2 Footprint High Voltage Cable Ducts Based on PE100-RC-HT Compound for Green Electricity Transport in Germany - <b>Herbert Terwyen - GERMANY (Basell Polyolefine GmbH)</b>        |
|        | 15:50 | 0:20 | 16:10 | <b>ID235:</b> Using HDPE Pipe to Preserve the Great Salt Lake - <b>Stephen Boros - U.S.A. (Pipeline Plastics)</b>   | <b>ID187:</b> Assessing Long-Term Effects and Permeation of Hydrogen Transported in Polyethylene Pipes - <b>Márton Bredács - AUSTRIA (Polymer Competence Center Leoben GmbH)</b>                      |
|        | 16:10 | 0:30 | 16:40 | <b>COFFEE BREAK SPONSORED BY</b>  <b>Rollepaal</b><br>Pipe Extrusion Technology  |   |

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| <b>Monday</b>   | 16:40 | 1:00 | 17:40 | <b>4A - CIRCULAR STRATEGIES</b><br>Chair: Dan Currence - U.S.A. (Plastics Pipe Institute (PPI))  | <b>4B - ANALYSIS</b><br>Chair: Michael Pluimer - U.S.A. (Crossroads Engineering)  |
|   | 16:40 | 0:20 | 17:00 | <b>ID251:</b> Circularity of Plastic Pipes in Australia - <b>Cindy Bray - AUSTRALIA (Plastics Industry Pipe Association of Australia (PIPA))</b>                 | <b>ID195:</b> Predicting the “1000-hour” Test According EN 1852-1 of Virgin and Post-Consumer Recycled Polypropylene Grades and Corresponding Mixtures - <b>Mario Messiha - AUSTRIA (Polymer Competence Center Leoben GmbH)</b>     |
|   | 17:00 | 0:20 | 17:20 | <b>ID241:</b> Sustainable Polyolefin Feedstock for Various Pipeline Projects - <b>Yazgan Mete - GERMANY (Borealis AG)</b>  | <b>ID256:</b> Stress Relaxation-Based Lifetime Estimation of Unpressurized Polyethylene Pipes Containing Recycled Material – Revisiting the Janson Strainability Approach - <b>Daniel Zach - AUSTRIA (Montanuniversität Leoben)</b> |
|   | 17:20 | 0:20 | 17:40 | <b>ID205:</b> Assessing Environmental Impacts of Circular PE-X Pipes - <b>Ilari Aho - FINLAND (GF Building Flow Solutions)</b>                                   | <b>ID257:</b> Advanced Microstructural Insights and Optimization Strategies for Oriented PVC Pipes - <b>Daniel Voces - SPAIN (Molecor)</b>  |
| <b>Tuesday, 16<sup>th</sup> September: Technical Sessions</b> |       |      |       |  |   |
| <b>Tuesday</b>  | 9:00  | 1:20 | 10:20 | <b>5A - RESILIENCE AND SUSTAINABILITY</b><br>Chair: Steve Sandstrum - USA (Borealis Compounds)   | <b>5B - COMPOSITES</b><br>Chair: Suleyman Deveci - UAE (Borouge)  |
|   | 9:00  | 0:20 | 9:20  | <b>ID265:</b> A Revised NCLS Test Method to Predict Service Life for Structure-Walled Pipes - <b>Michael Pluimer - U.S.A. (University of Minnesota - Duluth)</b> | <b>ID134:</b> Analysis of sGF Orientation of Polyethylene Reinforced with Short Glass Fibers Pipe by Spiral Cross Winding Method - <b>Mitsuaki Tokiyoshi - JAPAN (C.I.TAKIRONCIVIL Corporation)</b>                                 |
|   | 9:20  | 0:20 | 9:40  | <b>ID260:</b> Are Microplastics a Problem for the Plastic Pipe Industry? - <b>Tina Gruber - U.S.A. (University of Minnesota - Duluth)</b>                        | <b>ID166:</b> Specialized Multilayer Die-Head Design – New Concepts for New Questions - <b>Robert Weddgie - GERMANY (KraussMaffei Extrusion GmbH)</b>   |
|   | 9:40  | 0:20 | 10:00 | <b>ID211:</b> Influence of Service Laterals on the Seismic Response of HDPE Pipes - <b>Michael O'Rourke - U.S.A. (Rensselaer Polytechnic Institute (RPI))</b>    | <b>ID192:</b> Paving the Way for the Use of Reinforced Thermoplastic Pipes for the Transport of Carbon Dioxide - <b>Suzanne van Greuningen - THE NETHERLANDS (Kiwa Technology)</b>  |
|   | 10:00 | 0:20 | 10:20 | <b>ID145:</b> Exploring the Decision-Making Process in Infrastructure Investment - <b>Deanne Dutton Hughes - U.S.A. (McElroy)</b>                                | <b>ID112:</b> Green Composition - Minimize the multi-layer pipe producing rejection and make it recyclable and sustainable - <b>Li Xing - CHINA (Zhejiang Shuanglin Environment Co., Ltd.)</b>                                      |
|   | 10:20 | 0:45 | 11:05 | <b>COFFEE BREAK</b>  |   |

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| Tuesday | 11:05 | 1:20 | 12:25 | <b>6A- SUSTAINABILITY ASSESSMENTS</b><br>Chair: Ilari Aho - Finland (GF Building Flow Solutions / Uponor )   | <b>6B - CHALLENGING ENVIRONMENTS</b><br>Chair: Vivek Rohatgi - USA (Chevron Phillips Chemical)   |
|         | 11:05 | 0:20 | 11:25 | <b>ID210:</b> New EU Representative Environmental Datasets (LCIs) for Recycled PVC (Flake Micronised Powder) - <b>Jean-Pierre Taverne - BELGIUM (The European Plastic Pipes and Fittings Association - TEPPFA)</b> | <b>ID128:</b> Innovative HDPE Pipes with Superior Abrasion and Crack Resistance for Mining Applications - <b>Pongpol Ekabutr - THAILAND (SCG Chemicals Co.,Ltd.)</b>   |
|         | 11:25 | 0:20 | 11:45 | <b>ID250:</b> Comparing the Environmental Impacts of Different Piping Systems - <b>Lucy Croker, Matthew Hynes - AUSTRALIA (Vinidex Pty Ltd, Iplex)</b>   | <b>ID157:</b> Investigation of a PP-RCT Pipe After 5 Years Use with 95 °C Hot Water - <b>Olle Persson - AUSTRIA (Borealis AG)</b>  |
|         | 11:45 | 0:20 | 12:05 | <b>ID129:</b> The Recycling Commitment of the European Plastic Pipe Industry - <b>Ludo Debever - BELGIUM (The European Plastic Pipes and Fittings Association - TEPPFA)</b>  | <b>ID158:</b> Modeling of Brittle Fracture Behaviors of Polyethylene Pipes Under Oxidative Environments - <b>Jung-Wook Wee - REPUBLIC OF KOREA (Kyungpook National University)</b>   |
|         | 12:05 | 0:20 | 12:25 | <b>ID266:</b> Reducing Embodied Carbon Through the Use of Plastic Pipe in Infrastructure - <b>Daniel Figola - U.S.A. (Advanced Drainage Systems)</b>   | <b>ID248:</b> Mobile Extrusion Technology - A Sustainable Case Study in the Production, Joining, and Installation of Long Lengths of HDPE Pipes in a Mining Application - <b>White G. Jee - U.S.A. (JEE Consulting Services LLC)</b> |
|         | 12:25 | 1:00 | 13:25 | <b>LUNCH</b>   |  |
| Tuesday | 13:25 | 1:20 | 14:45 | <b>7A - LEVERAGED LEARNINGS</b><br>Chair: David Fink - U.S.A. (Plastics Pipe Institute (PPI))  | <b>7B - INNOVATION (RESIN)</b><br>Chair: Carl Baker - U.S.A. (Shell Polymers)  |
|         | 13:25 | 0:20 | 13:45 | <b>ID267:</b> Plastic Pipe Market Development after Economic Change in 1989 in Poland - <b>Piotr Falkowski - POLAND (Polskie Stowarzyszenie Producentów Rur i Kształtek z Tworzyw Sztucznych)</b>                  | <b>ID136:</b> Reducing Greenhouse Gas Emissions through Innovation in the Plastic Pipe Industry: Pathways to Low-Carbon Polyethylene - <b>Gaelle Pannier - BELGIUM (INEOS Olefins &amp; Polymers Europe)</b>                         |
|         | 13:45 | 0:20 | 14:05 | <b>ID190:</b> Potable Water Disinfection Resistance Classification Methodology for HDPE Pipe Resistance as implemented in North America - <b>Patrick Vibien - U.S.A. (Plastics Pipe Institute (PPI))</b>           | <b>ID199:</b> Design Characteristics of High - Density Polyethylene for Large Diameter Pressure Pipe - <b>Umang Agarwal - U.S.A. (Shell Chemical LP)</b>   |
|         | 14:05 | 0:20 | 14:25 | <b>ID212:</b> Toward a Comprehensive Understanding of the Grafting & Crosslinking of Polyethylene Using the SIOPLAS System for the Production of PEX Pipe- <b>Robert Samplonius - CANADA (KAFRIT NA)</b>           | <b>ID185:</b> High Filled Content OPVC Pipes for Low to Medium Pressure Range Applications - <b>David Trigo Cabañero - SPAIN (Molecor Tecnologia SL)</b>   |
|         | 14:25 | 0:20 | 14:45 | <b>ID218:</b> Plastic Pipes in Sustainable Infrastructure: Dispelling Common Misconceptions - <b>Tobias Johnsen - BELGIUM (PVC4Pipes)</b>  | <b>ID193:</b> Effect of Initial Morphology on the Drawing Behavior and Final Properties of Biaxially Oriented Polypropylene Pipes - <b>Mark Boerakker - The Netherlands (SABIC)</b>  |
|         | 14:45 | 0:30 | 15:15 | <b>COFFEE BREAK SPONSORED BY</b>   |  |
|         |       |      |       | <br><small>A Davis-Standard Company</small>   |  |

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| <b>Tuesday</b>  | 15:15 | 1:20 | 16:35 | <b>8A - STANDARDIZATION/ BEST PRACTICES</b><br>Chair: Mitsuki Tokiyoshi - Japan (C.I. Takironcivil Corporation)   | <b>8B - INSTALLATION DESIGN</b><br>Chair: John Kurdziel - U.S.A. (Advanced Drainage Systems)   |
|   | 15:15 | 0:20 | 15:35 | <b>ID216:</b> 25 Years of Collaborative Efforts to Support the PE100 Pipe Industry - <b>Suleyman Deveci - U.A.E. (PE100+ Association)</b>                             | <b>ID107:</b> Effect of Creep in Estimating Deflection of Buried HDPE Pipe - <b>Chris Ampfer - U.S.A. (WL Plastics LLC an INEOS Business)</b>                    |
|   | 15:35 | 0:20 | 15:55 | <b>ID219:</b> How China's Plastic Pipe Industry is Preparing to be Sustainable - <b>Wang Zhanjie - CHINA (China Plastics Processing Industry Association (CPPIA))</b> | <b>ID194:</b> Pressure Testing of a Long Sections of Large Diameter PE Pipeline - <b>Andrzej Roszkowski - POLAND (KMR s.c.)</b>                                  |
|   | 15:55 | 0:20 | 16:15 | <b>ID152:</b> Standards Development Continues Support of Polypropylene Pipe Market in North America - <b>Steve Sandstrum - U.S.A. (Borealis Compounds, Inc.)</b>      | <b>ID217:</b> Determining the Minimum Cover for Twin-Wall Corrugated Plastic Pipes Under Construction Loads - <b>Ian Patterson - AUSTRALIA (Vinidex Pty Ltd)</b> |
|   | 16:15 | 0:20 | 16:35 | <b>ID181:</b> Updated Polyethylene Product Standards doing their part for a Sustainable Future - <b>Ernst van der Stok - THE NETHERLANDS (Kiwa Technology)</b>        | <b>ID237:</b> Analysis of Narrow Trench Impacts on Polyethylene Pipelines - <b>Joseph Babcanec - U.S.A. (Advanced Drainage Systems)</b>                          |
| <b>Wednesday, 17<sup>th</sup> September: Technical Sessions &amp; Closing</b> |       |      |       |   |  |
| <b>Wednesday</b>  | 9:00  | 1:20 | 10:20 | <b>9A - VALUE ADDING</b><br>Chair: Vincent Stone - Belgium (PVC4PIPES)  | <b>9B - STRUCTURED WALL</b><br>Chair: Bruce Hollands - U.S.A. (PVC Pipe Association)   |
|   | 9:00  | 0:20 | 9:20  | <b>ID258:</b> Advancing Climate Efficiency in Pipeline Renovation with No-Dig Technology - <b>Claes Wiger - SWEDEN (A-Plast)</b>                                      | <b>ID110:</b> Innovative Approach to Measure Layer Transitions of Corrugated Pipes - <b>Christian Schalich - GERMANY (SIKORA AG)</b>                             |
|   | 9:20  | 0:20 | 9:40  | <b>ID131:</b> Advanced Recycling Options for Legacy Additives-Containing PVC Pipe Waste - <b>Vincent Stone - BELGIUM (VinyIPlus)</b>                                  | <b>ID259:</b> 30 Years of Double Wall Corrugated PVC Piping System for Sewage Applications - <b>Pablo Peinado - SPAIN (Molecor Tecnologia S.L.)</b>              |
|   | 9:40  | 0:20 | 10:00 | <b>ID149:</b> A Solution for PVC Pipe Waste Legacy Additives - <b>Eric Romers - BELGIUM (INEOS Inovyn)</b>  | <b>ID113:</b> Beyond Hoop: Axisymmetric Stress in PVC Pressure Pipe Joints - <b>Guido Quesada - Costa Rica (HULTEC)</b>  |
|   | 10:00 | 0:20 | 10:20 | <b>ID148:</b> Options For Defossilation of PEX Resins and Recycling Solutions For Interior Piping - <b>Holger Bruening - GERMANY (Basell Polyolefine GmbH)</b>        | <b>ID147:</b> Design Method for Calculating Load Reduction when Using Plastic Instead of Concrete Pipes - <b>Jan Vaslestad - NORWAY (GeoAnlegg AS)</b>           |
| <b>10:20 0:30 10:50 COFFEE BREAK</b>  |       |      |       |   |  |

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| Wednesday | 10:50 | 1:20 | 12:10 | <b>10A - SUSTAINABLE USE</b><br>Chair: Andre Nijland - The Netherlands (Orbia Building & Infrastructure (Wavin))  | <b>10B - FUSION</b><br>Chair: Shane Schuessler - U.S.A. (ISCO)  |
|           | 10:50 | 0:20 | 11:10 | <b>ID206:</b> Higher Quality Recyclates for Pipe Applications by Improved Mechanical Recycling - <b>Jutta Geier - AUSTRIA (Polymer Competence Center Leoben GmbH)</b> | <b>ID273:</b> A Novel Electrofusion Welding Technique for Large Diameter Pressure Class Pipelines: Mechanical Assessment, and Case Study - <b>El Mehdi Tamasna - GERMANY (Star Engineering Systems)</b>             |
|           | 11:10 | 0:20 | 11:30 | <b>ID177:</b> Validation of End-Use Application Conditions for HDPE Conduit with Recyclate - <b>Patrick Vibien - U.S.A. (Plastics Pipe Institute (PPI))</b>           | <b>ID221:</b> Evaluation of the Hydro-Axial Stress Rupture Test for PE100 Butt Fusion Joints - <b>Suleyman Deveci - U.A.E. (Borouge Pte. Ltd.)</b>  |
|           | 11:30 | 0:20 | 11:50 | <b>ID188:</b> Carbon Blacks in Pressure Pipes – a Successful History with a Sustainable Future - <b>Marc Delvaux - BELGIUM (CABOT Corporation)</b>                    | <b>ID240:</b> International Round-Robin Testing Of Non-Destructive Test Methods For Polyethylene Butt Fusion Joints - <b>Suleyman Deveci - U.A.E. (Borouge Pte. Ltd.)</b>   |
|           | 11:50 | 0:20 | 12:10 | <b>ID141:</b> Evaluation of Tightness Testing for PE Pipes - <b>Daniel Ejdeholm - SWEDEN (GPA Flowsystem AB)</b>  | <b>ID249:</b> Improving Electrofusion (EF) Peel Decohesion Weld Test Interpretation Through Collaboration and Education - <b>Matthew Hynes - AUSTRALIA (Plastics Industry Pipe Association of Australia (PIPA))</b> |
|           | 12:10 | 1:00 | 13:10 | <b>LUNCH</b>  |   |
| Wednesday | 13:10 | 1:20 | 14:30 | <b>11A - DESIGN (100+)</b><br>Chair: Robin Bresser - USA (Baystar)  | <b>11B - DATA AND EDUCATION</b><br>Chair: Cindy Bray - Australia (Plastics Industry Pipe Association of Australia (PIPA))   |
|           | 13:10 | 0:20 | 13:30 | <b>ID278:</b> The 100-Year Lifetime of PE100/PE100RC Pipes – An Industry Association's Perspective - <b>Suleyman Deveci - U.A.E. (PE100+ Association)</b>             | <b>ID167:</b> Data Strategy is Key to the Circular Economy – How Gravimetrics, Inline-Measurement Systems and Data Contribute to Sustainability - <b>Markus Hildenbrandt - GERMANY (iNOEX GmbH)</b>                 |
|           | 13:30 | 0:20 | 13:50 | <b>ID170:</b> PVC-U Pipes: Optimal Extrusion Conditions for a 100+ year Design Lifetime (Part II) - <b>Joaquin Lahoz Castillo - SPAIN (CEIS, S.L.)</b>                | <b>ID215:</b> The Impact of Comonomer on High Temperature Performance of Polyethylene of Raised Temperature (PE-RT) Resins - <b>Alex Stolarz - Switzerland (Dow Europe GmbH)</b>                                    |
|           | 13:50 | 0:20 | 14:10 | <b>ID232:</b> 100 Years Lifetime of Polyethylene Pipes – a Review - <b>Gerald Pinter- AUSTRIA (Montanuniversität Leoben)</b>  | <b>ID189:</b> Leveraging Voluntary Data to Improve the Safety of Gas Distribution Systems Through the PPDC - <b>Randall Knapp - U.S.A. (Plastics Pipe Institute (PPI))</b>  |
|           | 14:10 | 0:20 | 14:30 | <b>ID272:</b> A Sustainable 100 Year Design Life with HDPE Pipe - <b>Stephen Boros - U.S.A. (Pipeline Plastics)</b>   | <b>ID261:</b> Educating the Next Generation of Plastic Pipe Experts - <b>Michael Pluimer - U.S.A. (University of Minnesota - Duluth)</b>  |
|           | 14:30 | 0:30 | 15:00 | <b>COFFEE BREAK SPONSORED BY</b>  |   |
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| <b>Wednesday</b> | 15:00 | 1:20 | 16:20 | <b>12A - DESIGN CONSIDERATIONS</b><br>Chair: Camille Rubiez - USA (Plastics Pipe Institute (PPI))   | <b>12B - PRESSURE PIPE TESTING</b><br>Chair: Przemyslaw Hruszka - Belgium (The European Plastic Pipes and Fittings Association (TEPPFA))   |
|                  | 15:00 | 0:20 | 15:20 | <b>ID172:</b> Determining Accurate Friction Factors for Highly Crystalline, Ultra Smooth, Water Repellent PP-RCT Piping Systems and Equivalent Lengths and K Factors for Molded Long Radius 90° Elbows and Standard Sharp-Turn Molded 90° Elbows By Full Scale Flow Testing - <b>Christopher Ziu - U.S.A. (Nupi Americas)</b> | <b>ID174:</b> Chlorine Resistance Testing of Hot Cold Water Pipes a 30 Year Review and New Challenges - <b>Stefan Dreckoetter - GERMANY (Borealis Polymere GmbH)</b>                                     |
|                  | 15:20 | 0:20 | 15:40 | <b>ID132:</b> Research on the Performance of Axial Coefficient of Linear Expansion and Applications for Plastic Pipes - <b>Xiaowei Zhang - CHINA (SINOPEC (Beijing) Research Institute of Chemical Industry Co.,Ltd)</b>  | <b>ID124:</b> Permeability Coefficients of Sustainable Gases Through Plastic Pipes - <b>Suzanne van Greuningen - THE NETHERLANDS (Kiwa Technology)</b>   |
|                  | 15:40 | 0:20 | 16:00 | <b>ID155:</b> Thermal Analysis of Structural Properties for Gravity Flow Corrugated Polypropylene Pipe at Elevated Temperatures - <b>Joseph Babcanec - U.S.A. (Advanced Drainage Systems, Inc.)</b>   | <b>ID127:</b> Evaluation of Slow Crack Growth Resistance In PE100RC: Will a Single Test Ever be Possible? - <b>Carlos Dominguez - SPAIN (Polymer Technology Laboratory - Rey Juan Carlos University)</b> |
|                  | 16:00 | 0:20 | 16:20 | <b>ID271:</b> Survey of United States Departments of Transportation: Practices to Enhance Resiliency of Existing Roadway and Embankment Culverts - <b>Sara Stone - U.S.A. (Crossroads Engineering Services)</b>   | <b>ID208:</b> The Impact of Different Ways of Measuring the Notch Dimensions in CRB test - <b>Nadia Luijsterburg-Vleugels - THE NETHERLANDS (Kiwa Expert B.V. (Kiwa Technology))</b>                     |
|                  | 16:20 | 0:15 | 16:35 | <b>CLOSING</b><br>- <b>Zoran Davidovski - AUSTRIA (Wienerberger)</b>  |  |