### Monday 30th September 2019

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8:00 - 21:00</td>
<td>Reception Hall, CCC Lyon</td>
<td>Registration</td>
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<td>09:00 – 17:30</td>
<td>CCC Lyon – check rooms at registration desk</td>
<td>WG &amp; Com Meetings</td>
</tr>
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<td>09:00 – 12:30</td>
<td>CCC Lyon – Rhône 1</td>
<td>Short course – Characteristics of the waterways (WG 141)</td>
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  - Welcome Reception

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**Session spéciale IAGF Initiative pour l’Avenir des Grands Fleuves**

- **11:00 – 12:30** Session spéciale IAGF
  - Initiative pour l’Avenir des Grands Fleuves
  - Facilitator: Erik Orsenna

**IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-1 Infrastructures technical design**

- **11:00 – 12:30** Rhône 1
  - Choir Xavier Bancal
  - Bertrand de Bruyn – Cerema
  - Conception standardisée sur les itinéraires Aisne et Meuse
  - Julien Vanwarreghem – BRL
  - Hydraulic loads on bottom constructions behind a storm surge barrier or weir: development of a rapid assessment method
  - Otto Weiler – BRL
  - Bouchures gonflables : quelles capacités de régulation ?
  - Julien Aubonnet – BRL

**IW TRANSPORT ECONOMICS – C-1 Corridor Strategies**

- **11:00 – 12:30** Rhône 2
  - The Méditerranée Rhône Saône waterway logistic
  - Bertrand de Bruyn – Cerema
  - Conception standardisée sur les itinéraires Aisne et Meuse
  - Julien Vanwarreghem – BRL
  - Hydraulic loads on bottom constructions behind a storm surge barrier or weir: development of a rapid assessment method
  - Otto Weiler – BRL
  - Bouchures gonflables : quelles capacités de régulation ?
  - Julien Aubonnet – BRL

**Rhône 2**

- **11:00 – 12:30** Rhône 2
  - Choir Michael Fastenbauer
  - Charles-Elie Allier – Cerema
  - Low water levels on the Rhine in 2018 and their economic impact on the inland navigation industry and on the industrial sector in Germany
  - Norbert Kriedel – CCNR
  - Good Navigation Status (GNS) – A suitable concept for navigation improvements on rivers and canals? Lessons learned at the Rhine
  - Kai Kempmann – CCNR
  - e-RIS, service d’information fluviale pour une navigation intelligente sur le Rhin supérieur
  - Raphael Wisselmann – VNF
  - Project Masterplan Digitalisation of Inland Waterways
  - Thierry van der Burgt – RWS

**Rhône 3A**

- **11:00 – 12:30** Rhône 3A
  - Choir Juergen Troegl
  - Low water levels on the Rhine in 2018 and their economic impact on the inland navigation industry and on the industrial sector in Germany
  - Norbert Kriedel – CCNR
  - Good Navigation Status (GNS) – A suitable concept for navigation improvements on rivers and canals? Lessons learned at the Rhine
  - Kai Kempmann – CCNR
  - e-RIS, service d’information fluviale pour une navigation intelligente sur le Rhin supérieur
  - Raphael Wisselmann – VNF
  - Project Masterplan Digitalisation of Inland Waterways
  - Thierry van der Burgt – RWS

**SMART TRANSPORT – D-1 River Information Services 1**

- **11:00 – 12:30** SMART TRANSPORT – D-1 River Information Services 1
  - Chair: Juergen Troegl
  - Inland Electronic Navigation Charts: new approach or new purpose?
  - Gert Morlion – De Vlaamse Waterweg
  - A Spatial database as the backbone of ris – How to bring spatial awareness to flat-file nautical data
  - Jonathan Collaghiere – Vlaamse Waterweg
  - Guidance for Thin Layer Placement of Dredged Material from Riverine Environments for Restoring Marsh Habitat
  - Todd Bridges – Usace
  - Linking Ecosystem Services To Estuary Restoration At The German North Sea Coast
  - Johann Krebs – WSV

**ENVIRONMENT-WWN – E-1 Engineering with Nature**

- **11:00 – 12:30** ENVIRONMENT-WWN – E-1 Engineering with Nature
  - Chair: Jasna Muskatirovic
  - Engineering With Nature for Rivers and Inland Water Infrastructure
  - Todd Bridges – Usace
  - Guidance for Thin Layer Placement of Dredged Material from Riverine Environments for Restoring Marsh Habitat
  - Todd Bridges – Usace
  - Linking Ecosystem Services To Estuary Restoration At The German North Sea Coast
  - Johann Krebs – WSV
## Smart Rivers 2019 Detailed Programme

**Wednesday 2nd October 2019**

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<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00</td>
<td><strong>WATERWAYS</strong>: MANAGEMENT AND GENERAL DESIGN – A-1: Project Management</td>
<td>Auditorium</td>
<td>Chair: Luc Van Domme</td>
</tr>
<tr>
<td>14:15</td>
<td>IW INFRASTRUCTURES: DESIGN AND MAINTENANCE – B-2: Asset Management 1</td>
<td></td>
<td>Rhône 1 Chair: Valérie Chabrier</td>
</tr>
<tr>
<td>14:30</td>
<td>IW TRANSPORT_ECONOMICS – C-2: Port Strategies</td>
<td></td>
<td>Rhône 2 Chair: Nicolas Bour</td>
</tr>
<tr>
<td>14:45</td>
<td>SMART TRANSPORT – D-2: River Information Services 2</td>
<td></td>
<td>Rhône 3A Chair: Esteban Blondi</td>
</tr>
<tr>
<td>15:00</td>
<td>ENVIRONMENT-WW – E-2: Climate &amp; Extreme Weather Effect</td>
<td></td>
<td>Rhône 3B Chair: Turi Flontio</td>
</tr>
<tr>
<td>15:15</td>
<td>WATERWAYS_AND GENERAL DESIGN – A-6: Navigable River Design</td>
<td></td>
<td>St Clair 1 Chair: B. Seenghen</td>
</tr>
</tbody>
</table>

**Early contractor Involvement**
- Kenneth Williams – Viantica
- Chris Wilcox – Teesratech
- Robert Patev – Usace
- Robert Patev – Usace
- Geoffrey Caude – OGEED
- Geoffrey Caude – OGEED
- Mike Fachioni – Tecnology

**The social and environmental contributions of the increasing of gauge and capacity of Amspin–Neuville lock-site on the Meuse River**
- Laure Chapel – VNF
- Sébastien Garcia – Hidrovía
- Le Port de Lyon, ontoutil multimodal au service du développement du territoire
- Pierre Meffre – CNR
- ARIIS-PS Project for the complete implementation of RIS (River Information Services), in the Port of Sevilla and in the Guadalquivir Waterway
- Rodrigo García Orea – Port Sevilla

**Contribution of Port for the replacement of 29 barrages on Aisne et la Meuse: Mise en A’œuvre de 4 centrales hydroélectriques**
- Laura Chapel – VNF
- Safety and Security.
- Some experiences in Unauthorized Intervention Mitigation
- Le Port de Lyon, ontoutil multimodal au service du développement du territoire
- Pierre Meffre – CNR
- ARIIS-PS Project for the complete implementation of RIS (River Information Services), in the Port of Sevilla and in the Guadalquivir Waterway
- Rodrigo García Orea – Port Sevilla

**DBFM New Flood Barrier Lille, why integrated contracts lead to better performance**
- Ken Watzeleis – Besix
- Inventaires de qualification du patrimoine d’infrastructures VNF
- Xavier Cherradi – Artelia
- Development of the Port of Buanogues and its role in the Paraguay – Paraná Waterway
- Ariel Jose Soavez – Empyrga STM
- Enhancing Accessibility and Usability of Automatic Identification System (AIS) Data
- Superti Jaya Ghosh – CMS

**Analysis of Flow Fluctuation Characteristic and Improvement Measures in Navigable Tunnel**
- Long Zhu – NHR
- Scheduling of maintenance interventions based on network reliability
- Francesca Marsili – BAW

**Optimisation des investissements dans les infrastructures de navigation grâce à une chaine complète de modélisation**
- Nicolas Nerincx – DN-T
- Helke Schmidt – Bouxner – BAW
- Constraints suffered and resources developed by a carrier
- Christoph Meudaltsguy – IfSstør

**Simulateur de navigation sur le Rhone et sa Soone**
- Philippe Minoudet – Cerema
- Robustness of Navigation Infrastructure in Context of Risk-Based Maintenance
- Jan Akkermann – H S Kartsurhe
- Medlink Ports: Port Cooperation as a Key Factor of Modal Shift in Freight Developments
- Fabienne Margaré – Port Marseille

**The influence of a waterway cross section on a fuel consumption of an inland vessel – a sensitivity analysis**
- Wojciech Misioz – Arcadis
- Risk based inspection and maintenance planning of miter gates
- Thaung. Dong Van – Anass
- Assessing the robustness of Dutch inland Ports
- Pooman Tanneja – TU Delft

**The use of river information in the design of the waterway infrastructure, PIANC WG 312**
- Kari Pohjola – Metinsito

**Waterweg – De Vlaamse Waterweg**
- Frederik Vinke – TU Delft
- Impact of an irregular bank on the sailed trajectory of an inland ship
- Antoine Bedos – Marin

**Integrated Waterway Transport and its Influence in the City-Port relationship**
- Jose Sanchez – Chair: Jose Sanchez
- Early contractor Involvement
- Some experiences in Unauthorized Intervention Mitigation
- Le Port de Lyon, ontoutil multimodal au service du développement du territoire
- Pierre Meffre – CNR

**New PIANC works for strategies that pave the way for the complete implementation of River Information Services (RIS) for roads. The bridge opening dilemma.**
- Frederik Vinke – TU Delft

**Strategic and Financial Analysis of an Inland Vessel – a Sensitivity Section Size on a Fuel Consumption**
- Jan Akkermann – H S Kartsurhe
- Simulation of Flows Fluctuation Characteristic and Improvement Measures in Navigable Tunnel
- Helke Schmidt – Bouxner – BAW
- Constraints suffered and resources developed by a carrier
- Christoph Meudaltsguy – IfSstør

**Some experiences of Underwater Imaging of Waterway Infrastructure, PIANC WG 312**
- Kari Pohjola – Metinsito

**Environmental issues: River'Tri, a fluvial waste disposal site**
- Turi Fioritto – Chair: Turi Fioritto
- Approche innovante de compensation pour un grand canal
- Some experiences of Underwater Imaging of Waterway Infrastructure, PIANC WG 312
- Kari Pohjola – Metinsito

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<td>From 16:00</td>
<td>TBC</td>
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<td>Young Professional Event</td>
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<tr>
<td>18:00 – 21:00</td>
<td>Congress Pier</td>
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<td>Optionnau cruise to Lyon Confluences</td>
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www.smartrivers2019.com
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<td>09:00 - 10:30</td>
<td>SESSIONS SPÉCIALE - Development of African rivers</td>
<td>Auditorium</td>
<td>Bruno Georges</td>
<td>CICOS Congo&lt;br&gt;Joshua Sued&lt;br&gt;Mahamadou Thoub&lt;br&gt;Ministry of Equipment Niger&lt;br&gt;A new paradigm for river management: Application to the Niger Inner Delta in Mali&lt;br&gt;ICOS Congo&lt;br&gt;Suez Canal Authority, Egypt&lt;br&gt;Sogno Senegal&lt;br&gt;Ministry of Equipment Niger&lt;br&gt;A new paradigm for river management: Application to the Niger Inner Delta in Mali</td>
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<tr>
<td>16:00</td>
<td>Gasternot</td>
<td>WATERWAYS - MANAGEMENT AND GENERAL DESIGN - A-4 Network governance</td>
<td>Didier Bouamar – SPW</td>
</tr>
<tr>
<td>17:45</td>
<td></td>
<td>IW INFRASTRUCTURES - DESIGN AND MAINTENANCE – Monitoring – SHM – BIM Structural Health Monitoring – B-7 Building Information Modelling)</td>
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<td></td>
<td>Gasternot</td>
<td>Rhône 1</td>
<td>Claus Kurz</td>
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<td>18:00</td>
<td>Gasternot</td>
<td>Rhône 2</td>
<td>Elia Flop</td>
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<td>19:30</td>
<td>Gasternot</td>
<td>SMART TRANSPORT – D-7 Energy Issues with Waterways</td>
<td>Didier Baudry</td>
</tr>
<tr>
<td>20:00</td>
<td>Gasternot</td>
<td>ENVIRONMENT-WWN – E-7 Ecological bank</td>
<td>Franck Presillet</td>
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### Passing ship effects on inland vessels moored in a side harbor next to a fairway
- Lutz Schweter - Arcalis
- Innovative solution for navigation locks monitoring
  - Mikael Carrasena - Monophasense

### Validation of squat formulas for inland vessels
- Anke Cottelee - Marin
- Operation of a monitoring system including fiber optics on the Rhine Levers between Strasbourg and Illzheim
  - Cyril Guidoux - Geophyconsult

### Prototype observation of navigable Safety of Inland River ships under complex flow conditions
- Xin Wang - NHI
  - DEF-pathology in concrete supporting a lock–gate use of numerical modelling to re-assess structural behaviour
  - Jean-François Seignol - IFSTTAR

### Le BIM pour les infrastructures hydrauliques: une expérience croisée de Maîtrise d’ouvrage, d’exploitation et d’ingénierie
- Frantz Rango-gno - BRL
- Escole de La Roche-Cugon – Seine
  - Benoit Seidlitz - Port Paris
- A French experience of Structural Health Monitoring of scour affecting river infrastructures
  - Frédérique Lar-nante - Ilfstar

### Prototype observation of navigable Safety of Inland River ships under complex flow conditions
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  - Frédérique Lar-nante - Ilfstar

### Europe strategy for a climate neutral EU by 2050 and need for navigation sector to engage
- Laure Roux - CCNR

### Application of three-dimensional Geonet Grass Planting Technology on inland waterway bank protection at lower Beijiang River in China
- Yan Xing – Tianjin RI

### Willow brush mattresses – a promising method of direct technical-biological bank protection on waterways
- Katja Behrendt – BFU

### First steps towards a Best Practice Approach for selection of technical-biological bank protections – status and findings of PIANC InCOr WG 128
- Bernhard Selslach - BAW

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<td>Gasternot</td>
<td>Lyon City Hall Gala dinner</td>
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### Building a strategic scheme for management and investments on the Wallon waterways network
- Didier Boumar - SPW
  - Langez Lock - Perturbation in the lock chamber induced by an asymmetrical filling
  - Celine Savory - SPW
- Romanian Inland Waterways Transportation System – Engineering and Maintenance
  - Victor Dumitrescu – BCPC
  - Feasibility study of Itajaip Locks
  - Sébastien Roux – CNR
  - Réappropriation industrielle et touristique de la Sambre à Hautmont
  - Vincent Azemard – BRL
  - Recreational Navigation Infrastructures - part of Resilient and Sustainable Transportation Systems and Urban Development
  - Esteban Biondi – Applied TM

### Monitoring watershed sediment supplies in Walloon waterways
- Catherine Swartembrok – SPW

### Incorporating Ecological and Social Benefits into Land Planning through Engineering With Nature and Landscape Architectural Practices
- Jeffrey King – Uscar

### Implementation of a strategy for structuring information relating to Seine estuary management issues – SCRIPTES project
- Anne Levasseur – Artelia

### Innovative use of dredge material for upgrading a concrete embankment
- Edwin Zengerink – Tendate

### Influence of climate, garbage, sedimentation
- Christophe Moiroud – CNR

### SMART TRANSPORT – E-7 Environmental strategy - Sediment monitoring and dredging
- Rhône 3B Chair Jean-Michel Hiver
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<td>Auditorium, CCC Lyon</td>
<td>Closing Ceremony</td>
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<td></td>
<td>Jean Christophe Baudouin, Délégué interministériel au développement de l’axe portuaire et logistique</td>
<td>Mediterranean Rhône Saône</td>
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<td></td>
<td>Bruno Lebuhotel</td>
<td>Métropole de Lyon</td>
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<td></td>
<td>Pascal Berteaud</td>
<td>Directeur général du Cerema</td>
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<td></td>
<td>Jean-Bernard Kovarik</td>
<td>Scientific Committee Chairman,</td>
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<td></td>
<td>Geert Van Cappellen</td>
<td>Secretary of PIANC,</td>
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<td></td>
<td>Gensheng Zhao &amp; Yun Li, PIANC Chine</td>
<td>Introduction of Smart Rivers 2021</td>
</tr>
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<td></td>
<td>Guillaume le Réveillé, Président d’AIPCN–France</td>
<td>General conclusion</td>
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<tr>
<th>13:30 - 17:30</th>
<th>All tours depart at 13:30 from Entrance H of the Centre des Congrès</th>
<th>Technical visits</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Congress Pier on bateau conflues, expected return 17:00, bottled water will be provided on the boat</td>
<td>PORT OF LYON AND NAVIGATION SIMULATOR / PORT DE LYON ET SIMULATEUR DE NAVIGATION multimodal infrastructure combining five modes of transport: fluvial, maritime, river, road and oil pipeline. It is the head of a network of 18 industrial and port sites and 9 quays operated by CNR along the Rhône, in direct connection with the Grand Port Maritime of Marseille and the ports of the Saône.</td>
</tr>
<tr>
<td></td>
<td>Transport by Bus, expected return 17:00, bottled water will be provided on the bus</td>
<td>CACOH (CENTER FOR BEHAVIORAL ANALYSIS OF HYDRAULIC STRUCTURES, CNR) / CACOH (CENTRE D’ANALYSE COMPORTEMENTALE DES OUVRAGES HYDRAULIQUES, DE CNR) Taking care of the control of hydraulic risks and participates in the optimisation of the functioning of the works, with the activities: laboratory of hydraulic modeling, auscultation of the hydraulic works and engineering of the materials, hydrometry, hydrography</td>
</tr>
<tr>
<td></td>
<td>Transport by Bus, expected return 17:00, bottled water will be provided on the bus</td>
<td>NEW DISTRICT OF CONFLUENCE / NOUVEAU QUARTIER DE LA CONFLUENCE Major redevelopment between Rhône and Saône. An innovative urban project that highlights the rivers and landscape qualities of the site. It includes an old industrial port, the port Rambaud, along the Saône and former warehouses including the Sucrière, building that regularly hosts events such as the Biennale of Contemporary Art.</td>
</tr>
<tr>
<td></td>
<td>Transport by Bus, expected return 19:00, lunch will be provided on the bus</td>
<td>CEA TECH LITEN / CEA TECH LITEN The proposed visit focuses on the Innovation Laboratory for New Energy Technologies and Nanomaterials (LITEN) in Grenoble, one of the CEA Tech institutes, the CEA’s “technological research” department, the energy commissioner atomic energy and alternative energies. Inaugurated on December 21, 2018, the river hydroelectric farm of Caluire on the Rhone is a world first. It consists of 4 vertical axis turbines with a power of 80 kW unit</td>
</tr>
<tr>
<td></td>
<td>Transport by Bus, expected return 19:00, lunch will be provided on the bus</td>
<td>ARTELIA’S TRAINING CENTER FOR PILOTS / ARTELIA, UNE ÉCOLE DÉDIÉE AU PILOTAGE Port Revel, a subsidiary of ARTELIA group, is a ship handling training center; world leader for continuous training at all possible maneuvers in all conditions imaginable on scale models.</td>
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