In the past few months, PIANC organised its annual winter meetings. With Covid-19 still not out of the way, the meetings again had to be organised virtually, but this didn’t stop many of the PIANC Delegates and Members to get together in the online meeting rooms!

Both the PIANC President and Secretary-General are very pleased to see that PIANC can easily adapt to the digital era. Our Working Groups also continued their meetings and their work, which translates into the fact that PIANC HQ just published WG 208 (MarCom) and WG 197 (InCom). Two more WG-reports are being finalised to be published soon (see 'Publications' in this newsletter).

PIANC’s Annual General Assembly (AGA) will take place on 26 May 2021 and will be split into two days:

- On 26 May 2021, the General Assembly will deal with its statutory matters and this part will only be open to PIANC Delegates
- On 27 May 2021, PIANC UK & HQ are planning to host a webinar dealing with some technical presentations, which will be open to all PIANC members

All PIANC Delegates will be informed in due time about the further details. We hope to meet many of you online!

In the meantime, we hope you will enjoy reading the March issue of 'Sailing Ahead'!
NEWS FROM EXCOM & COUNCIL

ExCom 2021-2 on 10 March 2021 and 84th Council Meeting on 24 March 2021

The aim of this ExCom meeting was to prepare the 84th Council meeting which was held virtually on 24 March 2021.

The ExCom members ran through the different Action Points and they discussed the received candidacies for the next CoCom Chair(s). As the four candidates were evenly matched, they were asked to provide a short video, giving their vision on some questions by the ExCom members.

Based on the result of the anonymous voting, both the candidacy of Mr Mohammadreza Allahyar and the one of Mr Abbas Sarmad were forwarded to the Council for appointment. In its meeting on 24 March, the Council approved these appointments.

Besides the update on the status of Working Groups, the ExCom also discussed the Template for Communication Activities of WG, proposed by ProCom and explained by Mrs Pahl as Chair of ProCom. New Terms of References (ToR) were also dealt with by the ExCom members and the new template for ToR, drafted by MarCom Chair Egbert van der Wal, was approved by all the members.

PIANC Secretary-General, Mr Van Cappellen, gave an overview of the Association's financial situation. Furthermore, Mr Van Cappellen informed the ExCom on the two remaining candidate suppliers for the new membership software, being Norriq and Evoqia.

The ExCom also discussed the upcoming future events of PIANC and the copyright form was evaluated.

PIANC President, Mr Esteban Lefler, proposed to have an extra ExCom meeting prior to the AGA, which will take place on 26 May 2021. The date is set on 18 May 2021.

The 84th Council Meeting on 24 March 2021 attracted a large audience, and Mr Esteban Lefler welcomed the new First Delegate from Brazil, Mr Eduardo Nery.

The Council approved the continuation of the mandates of Chairmen of both RecCom (Mr Biondi) and EnviCom (Mr Bridges), as well as the appointment of Mr Sebastián Iglesias as Co-Chair of YP-Com, replacing Mr Matthew Prümm.

In addition, the Council approved ExCom proposal to extend the mandate of YP-Chair, Ms Vrolijk, with one more year in order to facilitate the transition period.

The Council also endorsed the proposed candidacies of both Mr Abbas Sarmad and Mr Mohammadreza Allahyar to become the new Co-Chairs of CoCom.

Furthermore, the Council approved the designation of Mr Bumgou Kang (South Korea) to become the new Vice-President in succession of Mr Neil Lawson, who finishes his mandate this year.

The Council also recommends the accounts/budget/business plan/audit report for ratification by the AGA in 2021. Mr Esteban Lefler congratulated Mr Van Cappellen, HQ and FinCom for the excellent results for this difficult year 2020.

Last but not least, the Council discussed the upcoming international PIANC events, as well as the new membership software.
Having been formed in 2014, this Working Group 167 has a well represented membership from Finland, France, Germany, Japan, the Netherlands, Senegal, Spain, USA and the UK. As we have not submitted an update in "Sailing Ahead" so far, this article will be a bit broader in content than usual. Those with sharper eyes will note that WG 167 has been going on for some 7 years now, and I am happy to say that until now, we have only lost 3 members of the group through retirement and our national coverage has only reduced by 2 nations, USA and Senegal. That means that we remain active and are close to delivering.

The Terms of Reference (ToR) are broad, and say that "the matters to be investigated are: quays, ramps and access bridges for RoRo and passenger traffic, land installations including passenger facilities, areas for loading and unloading of vehicles, erosion due to propellers, impacts of future climate change, and technical design and safety and security requirements". This covers a very wide range of topics from planning to architecture and including specialised berth and machinery design. That means that it needs to be long, and, as noted in the ToR, these are subjects that have not yet been dealt with in a unified way.

We needed to start by agreeing what RoRo is. This is because those dealing with RoRo terminals in Africa will not recognise the operation mode in RoRo terminals in North West Europe, which have completely different purposes. As many of you will know, 'RoRo' is a neat term for 'Roll On-Roll Off' cargo handling services, i.e. vehicles are transported in the ship and simply roll from ship to shore over ramps. 'RoPax' includes passengers. In Africa (and many other parts of the world), RoRo exclusively refers to the trade vehicle ships such as PCCs and PCTCs, ocean going vessels that transport manufactured cars and vehicles round the world for export and import. Even in Europe there is no agreement on terminology. In Scandinavia, RoPax services would not be regarded as RoRo because for them RoRo refers to unaccompanied traffic only.

Our report will cover all types of RoRo and in doing so we plan to introduce some new terminology with a working proposal that the PCC/PCTC type RoRo trade should be called the 'Port Visit' group of trades and the ferry type trade common in Northern Europe and Japan should be called the 'Marine Bridge' group of trades. The planning processes for the two types are radically different.

The report will show how the 'all in-all out' nature of the Marine Bridge type trades means that the planning of the trade depends not only on predicted trade flows but is also all about the ships. Whereas in Port Visit type trades only a partial cargo is transferred at each port, so the planning only needs to follow traditional port planning approaches allowing for the amount of trade flow and the dwell time, for Marine Bridge type trades the planning has to allow for the total capacity of each vessel as well. If you can’t unload your ship completely, you can’t operate!

A further complication is the radical difference between accompanied RoRo (i.e. vehicles with drivers) and unaccompanied RoRo (trailers only), which requires at least 30% more ground area.

We also have to cover the issue of linkspans and passenger boarding bridges (PBBs) which are an essential part of Marine Bridge type RoRo ports, so a substantial section is needed to cover these specialised facilities.

Finally, we have included a section on sustainability and future proofing in which we have approached issue such as climate change and carbon footprint management. We have also given some pointers in a general way about possible future requirements arising from the implications of autonomous vehicles becoming dominant.
The Working Group has met in Brussels, Helsinki, Algeciras and Immingham, so managed to see a wide variety of RoRo terminal types. The photo in the first paragraph shows some of our Working Group at Ceuta in North Africa following a crossing from Algeciras. We had planned to meet in 2020 in Marseille before Covid-19 hit us, so the most recent Working Group meeting in February 2021 was held remotely. At the last meeting, we agreed that the text content was now mostly complete, so the report is now moving into the final completion and editing phase. Publication is expected during 2021.

Steve Osborn
WG 167

Working Group 208 - 'Planning for Automation of Container Terminals'

Working Group 208 - 'Planning for Automation of Container Terminals' kicked off on 31 January 2019 in Brussels. It was the first of 18 meetings held over the duration of the Working Group and served to establish objectives, milestones, and the approach to team coordination. WG 208 tackled the work of preparing the report throughout 2020, and met for the last time, via Webex, on 16 July 2020.

After receiving final comments and input, a journalistic review of the report was completed, and the final version delivered to PIANC Headquarters for their editorial process. The report has recently been published. PIANC invited WG 208 to follow up the state-of-the-art of automation on a yearly basis, and to update the report if need be.

The members of WG 208 wish to express their sincere thanks to the port authorities and organisations that kindly hosted the WG 208 meetings and all participants and reviewers who helped nurture the report through to publication, which is imminent as of this writing.

Ashebir Jacob
WG 208

Update on Working Group 211 - 'Guidelines for the Design of Fender Systems'

Working Group 211 is given the difficult task to update or slightly improve the 20-year old report from WG 33; the globally very often used 'PIANC Guidelines for the Design of fender Systems: 2002'. WG 211 is a large Working Group, the 26 members come from around the globe and from various disciplines. We have fender manufacturers, contractors, consultants, port authorities and, special guest, a retired master mariner for the more practical approach. The group started two years ago in Rotterdam with our personal comments and comments made by our network on what issues the guideline should be updated with. This long list resulted in a new table of contents. So, WG 211 will in fact produce a new guideline.

In no particular order, a few highlights are:

- The kinetic energy approach as used in WG 33 will still be in place.
- The system of abnormal impact factors will be replaced by a reliability based safety factor. The basis of this work comes from the highly appreciated Delft University master Thesis of Felix Orlin: 'Reliability-based Assessment for Fender Systems'. PIANC ExCom awarded Felix the 2nd prize in the De Paepe-Willems Award 2021.
- There will be an informative chapter about rubber manufacturing.
- Rubber testing will get a chapter in the report instead of an appendix.
- Hull pressure as a design criterion is under investigation of another Master Student from Delft university, we expect to present a better motivated criterion in WG 211.
- Berthing velocities are based on the work of WG 145.
- Multiple fender contact is explicitly part of the design.
- Obviously, we pay attention to the whole lifecycle of a fender with attention for installation, maintenance and at the end, recycling of the system.

Though discussions are part of the meetings, sometimes resulting in new approaches, often resulting in maintaining the original approach, but now with the arguments available. Covid-19 obviously influences the works, but we keep working and given our global spread, even online meetings give some people a jetlag!
The work approach of WG 211 is that every chapter has an appointed chapter lead and a chapter writing team. Interfaces are identified and managed by the leads. Drafted chapters are discussed plenary with the full group. Some chapters are rather small, some chapter leads have concerns that their chapter becomes a guideline in itself, but so far only one chapter lead has achieved that really.

Most PIANC reports contain a table with certain reference ships. That was the intention of WG 211 as well. And obviously, those vessels would differ slightly from the vessels mentioned in other reports, such that you could not select the same ship for fender design and mooring design easily. So, in close co-operation with MarCom and WG 186, Chapter 4 of WG 211 decided to publish a separate document with ship dimensions for planning and designing marine infrastructure. Briefly: PIANC WG 235 - ‘Typical Ship Dimensions’. This report can then be used as a reference for each new report and be easily updated or expanded with relevant data for a specific subject. Report WG235 is expected at the end of 2021, a draft of WG 211 is expected in 2022.

Erik Broos  
WG 211

**Update on Working Group 215 - 'Accidental Impacts from Ships on Fixed Structures'**

This WG is focuses on providing best practice guidelines and recommendations for analysis and risk assessment of accidental impacts from ships on fixed structures. We are considering structures in harbours and inland waterways, including but not limited to quay walls, bridges and bridge piers, offshore wind farms, and temporary structures. We have also had a recent request to include impacts on dams so are considering this at the moment in collaboration with ICOLD.

After only two face-to-face meetings, the WG is now meeting regularly using Teams; we have smaller focused meetings to discuss specific content and larger meetings to discuss the report in general and for co-ordination purposes. During our last meeting on 23 February 2021, we talked through each chapter of the report and the various authors gave an update. Our aim is to complete the draft report by early 2022.

James Turley  
WG 215

**Update on Working Group 224 - 'Planning of Fishing Ports'**

The kick-off Meeting for WG 224 on 'Planning of Fishing Ports' took place on 15 February 2021 online, due to the Covid-19 pandemic. The objective of the Working Group is to review recently published technical information and lessons from recent efforts related to the development and management/operation of fishing
ports, and then incorporate useful information to the previous PIANC WG 18 report (1998) where appropriate.

The group reviewed the WG 224 objectives in more detail, prepared an outline table of contents for the new report and allocated actions per chapter. This included areas that would benefit from improvements, addressing gaps, identifying key issues and examples to take into account.

Newly proposed topics included Disaster Resilient Ports, the Internet of Things (IoT) and Information and Communications Technology (ICT) Utilisation in Fishing Ports Operations, and Maintenance of Fishing Facilities. The aim is to also address the role and functions of fishing ports in promoting sustainable fish farming and the recent enhancement of fish resource management and growing concern for quality and sustainability, which are significant considerations for fishing port planning.

The Working Group Chairman is Martin Mannion and members include Tore Lundestad, William Dubbs, Prof. Masamitsu Nakaizumi, Keith Jones, Keith Mackie, Ruwaida Edries, Christian Vrist, Ana Isabel Calzadilla Bouzón, José Ángel Iglesias, Rob Kamsma, John Campbell, Michael Grace, Mahmoud Sharaan and David Cota Mascuñana. The group thus has representatives from Japan, USA, South Africa, Egypt, Spain, UK, Ireland, Iceland, Norway and Denmark.

Martin Mannion
WG 224

Update on Working Group 225 - ‘Seismic Design Guidelines for Port Structures’

The objective of Working Group 225 is to update the existing PIANC Seismic Design Guidelines for Port Structures WG 34 (2001). The existing guideline was developed after the 1995 Kobe, Japan earthquake which caused a tremendous amount of damage to port and harbour structures and appropriately reflected lessons obtained from the earthquake. It acknowledged the limitations of the conventional force-based design approach and emphasised the importance of the performance-based design approach. I personally like the existing guideline. However, new codes and standards have been published over the following 20 years including Technical Standards and Commentaries for Port and Harbour Facilities in Japan and the American (ASCE) standards which include new useful information. It is now appropriate to update the existing guideline to incorporate new technical information.

The WG, which consists of 29 members from 11 countries, started in April, 2020 and now we are exchanging new technical information relevant to the seismic design of port structures. It was interesting to observe that specialists living in different countries are aware of the same problems. For example, the strain limits for hollow steel pipe piles due to local buckling was one of the issues that has been extensively studied by American specialists, while the same issue was also studied by Japanese specialists and addressed in the latest Japanese technical standards and Commentaries.

Another interesting issue is how to combine kinematic and inertial loadings for the design of marginal wharves. These issues should be discussed more in detail in future meetings. At this moment, we are planning to make presentation of a draft Report in 2022.
NEWS FROM FINCOM

FinCom Online Winter Meeting on 3 February 2021

The FinCom online winter meeting took place on 3 February 2021 at 12 noon CET, which was exceedingly early in the morning for our US participants, and late in the evening for our friends on the other side of the world in Sydney.

At the start of this new year, we also welcomed a new FinCom member.

Ir. Sofie Nullens was appointed by the Belgian Section as YP representative in FinCom. She is a civil servant in the Maritime Access Division of the Flemish Government.

The usual FinCom topics were addressed. During the past year 2020, overall, the 2020 financial results were quite good, despite the very difficult circumstances of the Covid-19 pandemic. With a positive result, FinCom Chairman, Ian White, thanked and congratulated especially Panama ACP and PIANC France for their extra financial input still linked to the organisation of the PIANC World Congress 2018 in Panama, as well as PIANC-SMART Rivers 2019 in Lyon, France. He also thanked PIANC HQ for the assistance provided in the reimbursement of some of the cancellation costs that had already been paid for the AGA in Bristol (2020).

Mr White was convinced that PIANC as an association must follow new paths now that the pandemic has forced us to meet less physically and work remotely. This new way in communication can affect both our activities and the budgetary outcome of the Association. However, it is essential that a physical meeting is held at least once a year!

The development of webinars as a result of the pandemic will create opportunities for national and international events to reach a far wider audience and therefore be able to spread the technical knowledge that PIANC excels in. These way of working will also increase the opportunity to recruit more members, and possibly to generate extra income.

Membership constantly changes, with new members being added but others leaving the Association. The good news is that for the first time since 2011, the Corporate Members and Platinum Partners together exceed more than 500 in total. The fact that we have exceeded the number of 500 is partly due to the good performance of Australia and Spain, and the reason why the Chairman congratulated both sections.

Nevertheless, as FinCom assumes that every maritime sector is our target, the National Sections, in particular the Secretaries of those sections, should make every effort in this sector to encourage potential members to join PIANC.

As members of the Membership Task Group, both FinCom members Ian White and Manuel Arana Burgos informed the meeting about the actual selection procedure for appointing the company which will develop the new membership software.

Taking into account the world vaccination strategy against Covid-19, from 2024 onwards, there will normally be no more problems, but for the meetings in 2022 and 2023, it is not yet clear what will happen. It looks like PIANC-SMART Rivers will probably be possible in China (green light in September 2021), although it may be that less interest can be expected as there may still be travel restrictions for some countries to China.
The postponement of the PIANC World Congress in Cape Town until 2024 gives a future perspective (orange from 2022). Nevertheless, any event depends on the possibility of travelling there. FinCom and PIANC are thus facing quite some uncertainties due to the continuing pandemic, which will affect both spending and revenue to organise such events.

Ian White
Chairman of FinCom

Herbert Smitz
Secretary of FinCom

NEWS FROM YP-COM

PIANC YP-Com First Biennial Meeting in 2021

PIANC YP-Com successfully conducted its first biennial meeting in 2021 on 3 March 2021, which gathered young professionals (YPs) from across the globe to review the Commission's recent activities and to discuss the yearlong plan. Notwithstanding the time zone differences, more than 40 YPs (including first timers from Malaysia, Indonesia, Costa Rica, Brazil, Greece, South Korea and Portugal) attended the 2-hour virtual meeting. The meeting was chaired by YP-Com Chair Eslie Vrolijk.

At this meeting, Eslie introduced the new YP Com Co-Chair Sebastián Iglesias who will take over this role as from now. YP-Com is very happy to welcome Sebastián to the board of the Commission and is looking forward to working together during the next few years.

Sebastián is a thirty-year-old professional with great energy and enthusiasm to bring to the Commission. He is as civil engineer from the distant region of Patagonia (Argentina) where he started his career working in the maritime ports sector and as a teacher in a local university. For the last two years, Sebastian has been living in the Netherlands following the MSc programme in Civil Engineering at Delft University of Technology, supported by the Argentine Association of Port Engineers (AADIP).

He is specialising in the application of sustainable infrastructure in ports and coastal zones, and also assist the Ports and Waterways staff in the Civil Engineering Faculty. Sebastián has been actively involved with PIANC for around 5 years, first with his participation and organisation in activities held by the Argentine National Section, and then representing it in strengthening bonds with European peers. He hopes to use his experience to gather young professionals around the PIANC community and create ideas to bring new groups into action.

Next, YP-Com Vice-Chairs for the Americas, Europe-Africa, and Asia Pacific, Nina Piccoli, Lisa-Maria Putz and Rodney Hancock, respectively (along with the alternate Vice-Chairs) gave a thorough update on the recent activities carried out in each region. Due the health risk posed by the ongoing Covid-19 pandemic and the imposed travel restrictions, nearly all activities or events were carried out virtually.
Future international events such as the PIANC-COPEDEC Conference in the Philippines, PIANC-SMART Rivers in China, and the Biennial Technical Visit in the USA have been postponed towards 2022-2023.

One of the successful PIANC events last year was the APAC 2020 Conference. This hybrid conference was hosted physically in Fremantle, Western Australia as well as virtually, to accommodate overseas audience via online streaming. Claire Treeby, PIANC Australia’s YP Chair and YP delegate, was on the conference organising committee, and shared an overview presentation and lessons learnt from the conference – inspiring fellow YPs to organise their own events during the pandemic period and providing experience and key things to learn from.

As most of the upcoming YPs' events will be carried out virtually, the International Virtual Events Task Group (IVETG) has been set up and is currently led by YP-Com Co-Chair Sebastián Iglesias; the other members consist of Heather Houston (the UK), Bianca Borca (Austria), Aung PK (Myanmar), and Laurence Benn (Australia). The Task Group’s primary goals are:

- to assist and support YPs from around the globe in organising virtual events, while promoting the various local and regional events to maximise YPs participation and networking.
- To organise a global virtual event in 2021.

Also, Filip van de Wiele (Belgium) gave a short update about the International Membership Task Group. The group has various YP representatives who are preparing a survey to circle around the YP’s community to gain input in the perception of the current membership system.

In terms of PIANC Commissions and Working Groups, a number of vacancies are available whereby YPs are encouraged to participate.

The next biennial meeting will be held in September 2021.

Eslie Vrolijk
Chair of PIANC YP-Com

**NEWS FROM THE PIANC COMMUNITY**

**Another Successful PIANC Webinar Hosted in Malaysia**

PIANC and PIANC Young Professionals successfully carried out their second webinar in Malaysia on 25 March 2021. 30 port and navigation professionals attended the webinar. The guest speaker for the webinar was Capt. K. Subramaniam, General Manager of Port Klang Authority in Malaysia and the President-Elect of International Association of Ports and Harbors (IAPH) 2021-2023. He gave an insightful presentation entitled 'Sustainable Port Development in Port Klang'. The presentation touched on Port Klang’s historical
development, channel dredging, future expansion, and adoption of green port and sustainable development policies. 4 more webinars are scheduled for the rest of the year to gather the Malaysian navigation infrastructure community to share knowledge and exchange industry best practices. The next webinar is scheduled on 27 May 2021.

Jack Lee Vun Zac

News from PIANC Australia & New Zealand

Anyone for a Snorkel?

PIANC ANZ are beginning to emerge from the world’s zoom room, with some local networking events – hosted in Tasmania, Sydney and Melbourne. Our WA regional Chapter, however, begins its year of embodied activities with something really spectacular – a snorkel tour of an underwater dive trail!

The Coogee Maritime Trail encompasses WA’s shore-based shipwreck (in 1905), the Omeo (pictured) plus nearly 70 purpose-built reef habitats, ranging in height from 1m to 5m tall. Unique sections create a complex reef that includes lots of cave-like spaces to support fish, crays and molluscs and are great for snorkelling.

The Trail demonstrates how owners of coastal infrastructure can create facilities that promote community well-being and cohesion, integrate into the natural environmental and promote fisheries abundance.

More information about the dive trail is here.

Australasian Coasts and Ports 2021 – New Date

Due to venue availability, the date of this fantastic conference has changed from as previously advised in the September 2020 “Sailing Ahead” to a new and later date: 30 November to 3 December 2021.
Nearly two hundred abstracts have been received and the Local Organising Committee in Christchurch, New Zealand are on fire! For more details, see http://www.coastsandports2021.co.nz.

Welcome New Board Observers for 2021

At the Board’s first 2021 formal meeting on 5 March 2021, PIANC ANZ Chair Will Glamore welcomed our 2021 Board Observers Anna Gudkov and Olivier Mineau. “As usual”, he said, “PIANC benefits greatly from the extremely high quality of the Observership Program candidates.

Anna Gudkov is a litigation lawyer committed to keeping companies accountable for their climate change and ecological footprint. Anna works as a Senior Solicitor in the Corporate and Gas team at the Environmental Defenders Office (EDO), one of the largest environmental legal centres in the southern hemisphere. “Climate change”, Anna notes, “is not just an environmental risk, it is also a financial risk, and a business risk.” In her year with PIANC she will work with the Board on aligning PIANC ANZ with the UN Sustainable Development Goals (SDG) and increasing our diversity.

Olivier Mineau is the General Manager, Commercial & Partnerships – Woolworths Everyday Rewards. He has an MBA, is a self-styled ‘[loyalty] points nerd’ with years of experience in marketing and boosting customer engagement strategies. He has been active as a volunteer in campaigns and organisation focused on alleviating poverty in Canada and Tanzania. He will be working with PIANC ANZ on new membership engagement strategies - how to drive renewal rates, step-change membership growth and make sure we are addressing all of our potential market.

Other PIANC ANZ News in Brief:

PIANC ANZ Mentoring Program
Our very successful PIANC ANZ Mentoring Program begins its second year, with fifteen pairs of members. 25 % of participants are female.

APAC2020 Lives On!
APAC2020 Session Recordings are now available for sessions within the conference including the pre-Conference seminar Nature based Solutions: https://www.pianc2020.com/videos-day-1/.

Great viewing for those who didn’t get to attend either in person or virtually. The videos are password protected - for password, contact Ron Cox or support@pianc.org.au.

Mary O’Connell
PIANC ANZ

News from PIANC Austria & Germany
On 16 March 2021, the PIANC YP-Com Sections of Germany and Austria organised a virtual event together with Maritimes Cluster Norddeutschland (MCN), DST-Entwicklungszentrum für Schiffstechnik und Transportsysteme e.V., bremenports GmbH&Co.KG and the University of Applied Sciences Upper Austria (Logistikum) about the value of inland navigation for Europe. The focus of this event was to bundle various initiatives, projects and stakeholder related to inland shipping. Therefore, a broad audience from the logistics sector, the construction industry, shipping companies, politicians, port authorities, planner, administration up to the education sector was addressed.

Overall, approximately 80 interested parties were reached and guided through a keynote speech followed by 6 virtual discussion tables of up to 15 participants focusing on different aspects, such as inland waterway transport & education, infrastructure, innovation, digitalisation, performance and shipping 4.0.

The overall resonance was highly positive and thus, a follow-up during the second half of this year is presumable. A summary of this event as well as presentations slides can be downloaded here.

Anja Brüning MBA
PIANC Germany

News from PIANC Japan

PIANC Asian Seminar 2021 (Webinar)

PIANC-Japan will organise the PIANC Asian Seminar 2021 (Webinar) on 11 May 2021. The webinar will features 'Coastal Disaster Prevention (Tsunami, Storm Surge/High Waves)'.

Registration for the webinar is free of charge and more details about it can be found in this flyer.

Registration can be done at https://forms.gle/tMkphe18Pjb3Ps1U6 before 20 April 2021.

Everyone interested in coastal disaster prevention is welcome to join in!

Latest Japanese 'Port Technical Standards' is now available in English

An English version of the 'Technical Standards and Commentaries for Port and Harbour Facilities in Japan' covering the Japanese Standards which came into effect in the year 2018 under the Port and Harbour Act was translated by the Overseas Coastal Area Development Institute of Japan (OCDI) in December 2020. The contents of the English version Technical Standards are given here.

The first Japanese manual on port and harbor technology was published in 1943 and was subsequently revised several times. Under the 1974 revision of the Port and Harbour Law, 'The Technical Standards for Port and Harbour Facilities' are provided in the form of ministerial ordinances. It has been revised four times as of this writing. Historically, large numbers of port facilities in Japan as well as overseas Japanese ODA projects have been planned and designed according to the Technical Standards.

Because many ports in Japan face the open sea and/or are located on one of the world's most vigorous
earthquake active areas, a considerable number of ports are exposed to severe wave conditions as well as earthquakes and tsunamis. It is fair to say that Japan has the world’s most advanced level of technology for wave-resistant design, earthquake-resistant design and for countermeasures to cope with soft ground at port and harbour areas.

Another distinguishing feature of the Technical Standards is the adoption of the performance-based design method conforming to WTO required ISO 2394, ISO 23469 and ISO 21650. The Technical Standards which describe state-of-the-art technology are believed to be indispensable for engineers in charge of design, construction and maintenance of port and harbour facilities as well as persons engaging in port management and operation.

It is our sincere hope that ‘the Technical Standards’ will contribute to the effective development of ports and harbours and to progress in port and harbour technology. The English version of Japanese port technical standards is available on [OCDI’s Website](#).

Ko Hirasawa
PIANC Japan

**News from PIANC Spain**

**Webinar: Presentation of the ESPO Award 2020. Digital Innovation Strategy at the Port of Algeciras**

On 3 February 2021, Mr Francisco de los Santos, Head of the Area of Innovation at the Port Authority of Algeciras, gave an online presentation about how innovation activities and technology in general are changing the shipping industry and the port activities. He especially focused on the experience of his Port Authority and the implementation of a new programme trying to attract innovative ideas and local ‘start ups’. This programme has been recognised with the ESPO Award 2020. The event was attended by 40 participants and it’s available in English in the ‘Members Only’ section on the [website of PIANC Spain](#).

**Webinar: ‘Dredging Experience in Ports’ organised by PIANC YP-Com Spain & Argentina**

On 4 March 2021, the YP-groups of the National Sections of Argentina and Spain co-organised a technical session trying to share dredging experiences in both countries, in the ports of Huelva (Spain) and Bahia Blanca (Argentina). The event was attended by 140 participants.

Representing Spain, Mr Alfonso Peña López-Pazo, Head of the Area of Infrastructures in the port Authority of Huelva, showed his experience in dredging management in the last decades. He especially focused his presentation on environmental aspects, in which the Port Authority of Huelva has been very active, playing a leading role in Spain.

On 18 February 2021, PIANC USA hosted a webinar featuring Mr George Detweiler. George was a member of MarCom Working Group 161 - 'Interaction Between Offshore Wind Farms and Maritime Navigation'. He provided an overview of offshore wind in the United States, then he provided a summary of the Working Group report.

Participants were very engaged with questions about how the offshore wind farms are impacting navigation and numerous participants inquired about how they can access the report and learn more about PIANC. This was a well-attended event that highlighted the hard work and expertise of PIANC Working Groups and their contributors. PIANC USA continues to offer quarterly webinars with the next one tentatively scheduled for May.

Kayla Waltemire
Secretary PIANC USA

NEWS FROM OUR PLATINUM PARTNERS

Bekaert Becomes New Platinum Partner of PIANC

Who We Are
Bekaert is a world market and technology leader in steel wire transformation and coating technologies. We pursue to be the preferred supplier for our steel wire products and solutions by continuously delivering superior value to our customers worldwide. Bekaert (Euronext Brussels: BEKB) was established in 1880 and is a global company with 27 000 employees worldwide, headquarters in Belgium and € 4.4 billion in combined revenue.
**What We Do**

We seek to be the best in understanding the applications for which our customers use steel wire. Knowing how our steel wire products function within our customers’ production processes and products helps us to develop and deliver the solutions that best meet their requirements and, through that, we create value for our customers.

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<thead>
<tr>
<th>Application</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Tire &amp; Automative</td>
<td>47%</td>
</tr>
<tr>
<td>Construction</td>
<td>20%</td>
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<tr>
<td>Agriculture</td>
<td>7%</td>
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<td>Energy &amp; utilities</td>
<td>7%</td>
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<td>Consumer goods</td>
<td>7%</td>
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<tr>
<td>Basic materials</td>
<td>6%</td>
</tr>
<tr>
<td>Equipment</td>
<td>6%</td>
</tr>
</tbody>
</table>

**How We Work**

Our baseline ‘Better Together’ sums up the unique co-operation within Bekaert and between Bekaert and its business partners. We create value for our customers by co-creating and delivering a quality portfolio of steel wire solutions and by offering customised services in all continents.

We believe in lasting relationships with our customers, suppliers and other stakeholders, and are committed to delivering long-term value to all of them. We are convinced that the trust, integrity and irrepressibility that bring our employees worldwide together as one team also create the fundamentals of successful partnerships wherever we do business.

**Where We Are**

We are present in more than 120 countries all over the world. Backed by Bekaert’s global presence and technological support, customers can benefit from our commitment to local service.
Our customers can rely on a worldwide manufacturing footprint and sales network that is responsive to specific market needs. This way, they get the most from our global reach: our expertise, our flexibility, our proximity.

**Serving the needs of Construction**

Bekaert offers the construction industry a wide range of steel wire reinforcement solutions, strands, meshes, fences and customised products. Architects, designers, contractors and government entities can rely on our products to create buildings and constructions that meet regional and international standards. At the same time, they can rest assured that they receive the best solution in terms of speed, total cost of ownership, safety and durability. Our experience and resources make us a reliable partner who offers:

- design support based on international standards and guidelines
- calculation tools to determine the right type and amount of reinforcement for your project
- execution details
- high qualitative solutions for both structural and non-structural projects
- co-development opportunities

**Dramix® Steel Fibre Concrete Reinforcement Solutions**

Adding steel fibres to concrete can no longer be considered as new or novel; steel fibre reinforced concrete (SFRC) was pioneered in the early 1960s where it was demonstrated that tensile strength and crack resistance of concrete can be improved by providing suitably arranged, closed spaced, wire reinforcement.

Today, SFRC is included in numerous design guidelines, standards and codes globally. The bends and hooks are crucial to the fibre’s anchoring performance and subsequent concrete ductility. These features, in combination with steel elongation, are the main-differentiators of Dramix® steel fibre concrete reinforcement series.

The current range of steel fibres, grouped into 3-D, 4-D and 5-D families, has many applications. To read more, please click [here](#).

**Heavy Duty Pavements**

Container terminals, harbours and airports pavements require high structural stability to support the continuous and smooth operation of valuable economic activities. Minimising their maintenance requirements increases operational efficiency and reduces costly disruptions.

Dramix® reinforcement of heavy duty pavements consists of glued steel fibre bundles that feature tensile strengths of up to 2,300 N/mm², low elongation and innovative hooked ends (4-D and 5-D series). These properties provide long-lasting crack control that protects the concrete structure against repeated impact, heavy traffic, static and dynamic loading, and fatigue. Moreover, the dense network of fibres makes concrete pavements less pervious to seawater, chemicals, and other corrosive substances. These advantages combine to ensure that heavy-duty pavements remain reliable and operational for decades.
The addition of steel fibres to concrete enhances the post crack tensile strength and provides significant ductility. A conventionally reinforced concrete pavement design uses the elasticity theory by assuming that the concrete section is uncracked whereas a SFRC design uses the plastic analysis and design approach, such as yield line theory for ultimate limit state design.

This approach allows for the material properties of SFRC to be taken into account and therefore it provides more realistic load bearing capacity estimates. Consequently, SFRC pavement thickness can be significantly reduced and the distance between the crack control joint spacings can be increased when compared to conventional pavements, as indicated in the PIANC report n°165 (2015).

This design is not only a cost saving solution but it also allows faster and more efficient installation, and it enhances the asset’s sustainability footprint by reducing the amount of concrete used without compromising its safety and quality. For those reasons, several container terminal pavements have been reinforced with Dramix® since 1985 and are renovated or expanded with the same successful solution. Some examples are the port of Ghent (Belgium) realised in 1985, the port of Paranagua (Brazil) in 2002 and the port of Algeciras (Spain) realised in 1985 and renovated in 2019. More references can be found in the PIANC Yearbook 2020.

For more information, please visit www.bekaert.com or contact Chiara Minoretti. Mrs Minoretti has also been appointed to be member of ProCom on behalf of Bekaert.

Chiara Minoretti
Business Developer Manager Europe

Sustainability in Infrastructure Projects – Boskalis’ Sustainability Report

On 22 March 2021, Boskalis launched its latest Sustainability Report. The report provides an overview of our activities in and around sustainable infrastructure projects in 2020 and showcases a wide range of diverse initiatives covering each of our business areas that positively contributed to the achievement of our SDGs goals. It describes activities we executed to achieve cleaner energy by helping advance the energy transition, creation of innovative port infrastructure and implementation of large-scale coastal protection along various coastlines in the world. The report summarizes the work we did in these areas and the approaches we took to deliver these projects in an increasingly sustainable way.

Our sustainability strategy has been formed around material topics that were identified in a materiality analysis such as climate change adaptation, local impact and social performance, community investments, (sustainable) innovation and biodiversity and ecosystems. The materiality assessment illustrates the relative importance of a shortlist of 23 topics to our business and our stakeholders and forms the guideline of our focus in sustainability approach. The topics were defined based on ESG benchmarks and reporting frameworks, alongside a media and peer analysis.

Some highlights include:

- Execution of landmark projects around climate adaptation such as Pulau Tekong polder in Singapore, Markerwadden soft sediment nature islands, Houtribdijk innovative dike protection, coastal defense on Germany’s East Frisian island Wangerooge;
- Boskalis Netherlands approaches for low carbon projects focusing on reduction of vessel emissions and design optimisations through an NBS approach;
- Safe working environment on and around projects following our 10th anniversary of our No Injuries No Accidents NINA safety programme;
- Progress of our various NGO collaborations to define and execute programmes aimed at enhancing biodiversity and blue carbon initiatives in pilots and where possible projects;
ShibataFenderTeam Group Released Unbiased Information About Prime-Quality Pneumatic Fender Manufacturing

As leading manufacturer of fender systems, the ShibataFenderTeam Group is aware of its great responsibility towards the maritime industry. This is one of the reasons why SFT actively engages in PIANC Working Groups, provides knowledge in White Papers Series and offers customised online technical seminars.

“One of the SFT Group’s core value is to make the marine industry safe, reliable and efficient. These values are practiced day to day when engaging with clients and other stakeholders, and in particular in our engagement with Working Groups of guidelines and standards. The most famous is PIANC Working Group 211 for the new fender guidelines, where the SFT Group is providing a deep insight into marine fender design to make berths safer, more reliable and increase efficiency applying our holistic design approach”, as Dominique Polte, Board Member at SFT, explained.

The latest achievement of our SFT experts is the 'Pneumatic Fender Manual' which elaborates on the differences between the two manufacturing methods for pneumatic fenders that are commonly performed in the fender industry: wrapping and molding. Both mentioned methods comply with ISO 17357-1:2014, an international standard providing guidelines on essential pneumatic fender criteria such as material, performance, dimensions, guaranteed energy absorption (GEA), as well as test and inspecting procedures.

The new publication of ‘A Guide to Prime-Quality Pneumatic Fender Manufacturing’, is also outlining the key facts and information on pneumatic fenders. This particular fender type - also commonly referred to as Yokohama or floating fender - is an adequate and effective solution for ports with extreme tidal variations, ship-to-ship operations (liquid cargo vessels, FSRU) or temporary berthing. It is deployed to withstand harsh weather conditions and tremendous berthing forces.

We are proud to have this enormous base of knowledge about fender design and even more proud to share reliable information with our stakeholders. A free download of ‘A Guide to Prime-Quality Pneumatic Fender Manufacturing’ is now available at the SFT website.

Nadine Pape
Junior Marketing Manager ShibataFenderTeam

PUBLICATIONS

Just Shipped

The following publications were published in March 2021:

- WG 208 (MarCom): ‘Planning for Automation of Container Terminals’
- WG 197 (InCom): ‘Small Hydropower Plant in Waterways’

Publications Pipeline

The following publications will be published in April/May 2021:

- WG 195 (EnviCom): An Introduction to Applying Ecosystem Services for Waterborne Transport Infrastructure Projects’
- WG 198 (InCom): 'Saltwater Intrusion Mitigation in Inland Waterways'
ON THE CALENDAR

CCNR Online Workshop on 'Alternative Energy Sources for Electrical Propulsion Systems'

This online workshop will be organised by CCNR on 20 April 2021 in German, French, Dutch and English. The concrete programme will be communicated soon. Participation in the workshop is free of charge. The workshop is dedicated to electrical propulsion systems that are supplied with electrical energy from alternative energy sources, such as fuel cells or batteries, and explicitly not to conventional fuel combustion.

The concrete programme will be communicated soon, so for now: save the date! Please click here for some background information.

Lucie Fahrner
CCNR Communication Officer

PIANC-SMART Rivers 2022 in Nanjing, China

Due to the Covid-19 pandemic, the PIANC-SMART Rivers Conference had to be postponed from 2021 to 2022. It will now be held in Nanjing, China on 18-21 October 2022. The conference is an incomparable opportunity to meet international actors of river transport and the global supply chain of transport. It is a privileged place of exchange around the best feedback and global trends in the field of sustainable development of inland waterways.

Since 2004, this international event takes place every two years, under the umbrella of the World Association of Waterborne Transport Infrastructure (PIANC). In 2019, the conference took place in Lyon, France. PIANC-SMART Rivers 2022 is organised by Nanjing Hydraulic Research Institute (NHRI). NHRI, set up in 1935, is the earliest and most comprehensive water science research institute in China, currently under China’s Ministry of Water Resources, Ministry of Transport and National Energy Administration.
The submission of an abstract is required for panel as well as for poster sessions. Each abstract must be written in English and limited to 500 words. It should be based on one of the conference technical topics and should not include graphics/figures. You can submit your abstract here before 1 December 2021.

All information on the conference can be found at http://www.smartrivers2022.com/. You can also click on the image on the left to find the conference flyer.