THE CONTRIBUTION OF THE FOLLOWING COMMISSIONS CAN BE FOUND ON THE PIANC WEBSITE:

http://www.pianc.org/yearbookbrowseall.php

**MarCom**
**Maritime Navigation Commission**
Chairperson: Mr Francisco Esteban Lefler (Spain)

**RecCom**
**Recreational Navigation Commission**
Chairperson: Mr Elio Ciralli (Italy)

**InCom**
**Inland Navigation Commission**
Chairperson: Mr Philippe Rigo (Belgium)

**CoCom**
**International Co-Operation Commission**
Co-chairpersons: Mr Edward Schmeltz (USA) and Mr Akula R. Rao (India)

**EnviCom**
**Environmental Commission**
Chairperson: Mr Harald Köthe (Germany)

**YP-Com**
**Young Professionals Commission**
Chairperson: Mr Pablo Arecco (Argentina)
MarCom
1. GENERAL

MarCom starts this Annual Report 2016 with a statement of tribute to our colleague from Germany, Stefan Hauser, who unexpectedly passed away last August at the age of 51. Stefan was highly appreciated by all MarCom members not only for his excellent technical contribution but also for his human virtues.

Programme

2016 has been a very productive year for MarCom, in which all efforts on making a good progress with regard to our Working Groups has resulted in the publication of five relevant Working Groups reports.

Three reports (WGs 152, 153 and 172) focus on specialised terminals.

According to the goal of ‘Improving the professional production of MarCom Working Groups and Expert Group Reports’, as stated in the Action Plan 2014-2018, four new Working Groups have been launched plus a stagnated one that has been re-launched and started from scratch.

MarCom members have started a continuous review of existing WG-reports in order to define topics that need an update by new Working Groups.

It has been a great success for MarCom to achieve WG 196 (former WG 47) report publication, as this WG has been active for a long time, with a great dedication and research work made by its members with a relevant support from MarCom. It is a relevant publication on breakwaters.

The publication of WG 152 on ‘Guidelines for Cruise Terminals’ has been very much appreciated in the cruise cluster, including the willingness of signing a MoU between PIANC and MedCruise for future collaborations. MedCruise ordered 106 copies of the report for their Annual Assembly. A presentation was given by WG 152 Chairman David Pino.

Due to the increasing complexity of infrastructure projects, sometimes the fact of allowing a contractor to be involved from the earliest beginning of the project will benefit all the parts involved. With the idea of providing a framework to decision makers for managing Early Contractor Involvement (ECI) processes for waterborne transport infrastructure projects, the Terms of Reference for WG 194 – ‘A Framework for Early Contractor Involvement in Infrastructure Projects’ were approved. The Call for Members was launched and the Working Group started to work in early 2017.

Meetings

In 2016, MarCom organised two Commission meetings:

- Brussels (Belgium), February 2-3, with a busy agenda, including four WG-presentations and two WG final discussions on draft reports.
- Wallingford (UK), September 19-20, hosted by the British National Section. The meeting included a technical visit to HR Wallingford facilities, including the 3-D and 2-D modelling tanks, the new Fast Flow Facility and the Ships Simulation Centre.

MarCom Membership

In 2016 there have been a few changes regarding the MarCom membership.

Mr Steve Cork (UK Alternate Member) left MarCom after many years of active collaboration with the Commission. MarCom thanks Steve for his works and great fellowship.

The National Section of the Philippines designated an Alternate Member, Mr Reynand Parafina, and a YP Member, Mr Christopher Omum.

The National Section of Iran designated a new Alternate Member, Mr Babak Banijamali.

Unfortunately, our German MarCom Member, Mr Stefan Hauser, suddenly passed away in August. He was a very engaged member both from a technical and personal point of view and he was highly appreciated by all of us.

In December 2016, there were 33 MarCom members, amongst them the Chairman, one representative from IAPH, seven Alternate Members and six Young Professionals. 19 National Sections or Qualifying Members are represented in MarCom.

MarCom List of Members – September 2016

- Mr Francisco Esteban Lefler (Spain) – Chairman
- Ms Noelia González Patiño (Spain) – Secretary
- Mr Hans Burcharth (Denmark)
- Mr Arjan van der Weck (the Netherlands)
- Mr Peter Hunter (UK)
- Mr Andrea Ferrante (Italy)
- Mr Tore Lundestad (Norway)
- Mr Luc Van Damme (Belgium)
- Mr Fer van de Laar (IAPH Europe)
- Mr Seppo Virtanen (Finland)
- Mr Olivier Plet (France)
- Mr Yoshiaki Higuchi (Japan)
- Mr Ron Heffron (USA)
Mr Rafael Escutia (Spain)
Mr Mattias Sandell (Sweden)
Mr Peter Fountain (Australia)
Mr Mohammad Reza Allahyar (Iran)
Mr Iksoon Cho (Korea)
Mr Gerardo Castaño (Colombia)
Mr Carlos Gines (Argentina)
Mr A. Guzman (Philippines)

Alternate Members:
Mr Richard Styles (USA)
Mr Scott William Keane (Australia)
Mr Juan Francisco Herrera (Colombia)
Ms Noelia González Patiño (Spain)
Mr Marcelo Peyregne (Argentina)
Mr Reynand C. Parafina (Philippines)
Mr Babak Banijamali (Iran)

Young Professional Members:
Mr Andersson-Berlin (Finland)
Ms Hadewych Verhaeghe (Belgium)
Mr Christopher Thomas (USA)
Mr Santiago Povedano Marcos (Spain)
Mr José Antonio Aldunate Rivera (Chile)
Mr Christopher Ornum (Philippines)

2. PRESENTATIONS

February Meeting


Mr Ron Heffron, MarCom Member and Chairman of Working Group 153, presented the final draft report on ‘Recommendations for the Design and Assessment of Marine Oil and Petrochemical Terminals’. The final report was also published in 2016.

Working Group 172 Chairman Mr Ignacio Sanchidrián presented to MarCom the final draft report on ‘Design of Small to Mid-Scale Marine LNG Terminals Including Bunkering’, finally published in 2016.

Mr Takashi Kiyomizu, Secretary of Working Group 145 – ‘Berthing Velocities and Fender Design’, presented the results of the Working Group research to MarCom. The report includes an analysis of a huge amount of data related to berthing velocities, all of them with tug assistance. The WG-members are working on the final version for early publication.

Mr Nick Pansic and Ms Anne Cann, asking for ideas on collecting data about investment in port and transport infrastructure in different countries, presented the contents and objectives of transversal Working Group 181 about ‘The Future of Global Waterborne Transport Infrastructure’.

September Meeting


3. PUBLICATIONS

In 2016, five MarCom Working Group Reports were published by PIANC.

• **PIANC MarCom WG 152** - ‘Guidelines for Cruise Terminals’
  (Chairman: Mr David Pino)
  PIANC Working Group 152 has prepared this document to provide technical guidelines for assisting the development of cruise port facilities. Based on the newest trends in cruise ships and the industry in general, the document covers all areas involved in the operation of a cruise ship: waterside drivers, apron area, terminal building and ground transportation area. In view of the importance to the cruise industry of port security and operational and financial aspects, special emphasis has been laid these two topics.

• **PIANC MarCom WG 153** - ‘Recommendations for the Design and Assessment of Marine Oil and Petrochemical Terminals’
  (Chairman: Mr Ron Heffron)
Marine oil and petrochemical terminals (MOPTs), by the nature of materials being handled, may pose risks to the marine and coastal environment, as well as affect health and safety. The purpose of this document is to provide a uniform set of guidelines and recommendations for the design, analysis, and maintenance of MOPTs, for new terminals as well as rehabilitation and upgrade of existing facilities. This report covers a lack of publications on this topic.

**PIANC MarCom WG172 - ‘Design of Small to Mid-Scale Marine LNG Terminals Including Bunkering’**  
*(Chairman: Mr Ignacio Sanchidrián)*

This Working Group document provides design guidelines for small to mid-scale LNG fixed terminals including LNG bunkering for designers and operators of marine LNG terminals and infrastructure worldwide. This guidance is given in order to provide a safe, efficient and cost-effective operation of these terminals.

The guideline will apply to small to mid-scale terminals with the following modes of operations:

1) Terminal on standby (with no vessels alongside)
2) LNG carriers offloading to storage or offloading point
3) LNG carriers loading from storage or loading point
4) Vessels bunkering LNG as fuel from storage or loading point

**PIANC MarCom WG 162 - ‘Recommendations for Increased Durability and Service Life of New Marine Concrete Infrastructure’**  
*(Chairman: Prof. Odd Gjørv, who passed away in February 2016. After the sensitive loss, MarCom member and PIANC Vice-President Tore Lundestad undertook the coordination job that enabled finishing the already advanced report)*

Starting with a review of most up-to-date international knowledge, the report provides some additional recommendations and guidelines to existing concrete standards and service life based design methodologies with the objective of achieving a better-controlled and enhanced durability for new marine concrete infrastructure.

The document addresses performance based durability specification and design, condition assessment and preventive maintenance management during the operational life of the marine concrete structures.

**PIANC MarCom WG 196 - ‘Criteria for the Selection of Breakwater Types and Their Related Optimum Safety Levels’**  
*(Chairman: Prof. Hans Burcharth)*

The primary scope of the Working Group has been to provide guidance to designers on the choice of the type of breakwaters and related safety levels taking into consideration the project performance requirements related to the cross section.

The report takes into consideration functional criteria, environmental conditions at the site and construction constraints and addresses the selection of breakwater types including lifetime cost optimisation both for preliminary and detailed design.
The types of breakwaters addressed in the report are:

- Conventional rock, cube and single layer Acropode armoured rubble mound breakwaters
- Berm breakwaters
- Vertical composite caisson breakwaters

The report is based on most recent knowledge and shows the results of a comprehensive parametric study of safety levels based on life-cycle cost optimisation performed by two members of the Working Group.

4. PROGRESS OF MARCOM WORKING GROUPS

The summary of the status of ongoing MarCom Working Groups is addressed in this section.

**WG 144 – ‘Classification of Soils and Rocks for the Maritime Dredging Process’**

A Field Guide has been compiled as an abridged version of the WG 144 already published report. It will be available soon in 2017.

**WG 145 – ‘Berthing Velocities and Fender Design’**

The draft report has been approved by MarCom and publication is expected for 2017.

**WG 159 – ‘Renewable and Energy Efficiency for Maritime Ports’**

The draft report will be available in 2017 and publication is expected for end 2017.

**WG 161 – ‘Interactions between Offshore Windfarms and Maritime Navigation’**

The draft report will be available in 2017 and publication is expected for 2017.

**WG 164 – ‘Upgrade of Port Terminals by Increasing Dredged Depth’**

The Working Group has had a fruitful kick-off meeting in September 2016.

**WG 167 – ‘Design of Combined Terminals for Ro-Ro and Ro-Pax Vessels’**

Presentation of draft report is expected by September 2017.

**WG 171 – ‘Ship Handling Simulation Dedicated to Channel and Harbour Design’**

Presentation of draft report is expected by September 2017.

**WG 184 – ‘Design Principles for Dry Bulk Marine Terminals’**

The kick-off meeting took place in 2016 and a proposal for updating the ToR was presented in the February 2017 MarCom meeting.

**WG 185 – ‘Site Selection and Planning for New Ports and Specialist Marine Terminals on Greenfield sites – Technical Guidelines’**

Work ongoing very fluently.

**WG 186 – ‘Mooring of Large Ships at Quay Walls’**

The kick-off meeting was held in Brussels in October 2016.

**WG 187 – ‘Protection of Undersea Pipelines and Cables in Navigable Areas’**

The kick-off meeting was held in 2016 and final report expected by 2018.

5. APPROVED TERMS OF REFERENCE

The following Terms of Reference were approved in 2016:

- **WG 194 – ‘A Framework for Early Contractor Involvement in Infrastructure Projects’**.

This Working Group will be an effort to fill the need of establishing a set of structured and well accepted guidelines to the ECI process. This a new topic for PIANC that will require a multidisciplinary approach.

This Working Group was formed in 2016 and had its kick-off meeting in February 2017.

6. COOPERATION WITH OTHER COMMISSIONS

MarCom has Correspondent Members in the following joint or other Commission’s Working Groups:

- EnviCom ‘Working with Nature’
- EnviCom Permanent Task Group on Climate Change

MarCom also participated in the Jury of the De Paepe-Willems Award.

7. PARTICIPATION IN OTHER PIANC ACTIVITIES

After the publication of WG 152 and its presentation at the Seatrade Cruise in Miami, a MoU was ready for signing between PIANC and MedCruise for future collaborations. The report was presented at the Seatrade Cruise Annual Assembly in Tenerife and 106 copies were distributed to MedCruise members.
It has been proposed to make a shared Working Group InCom-MarCom about Structural Health Monitoring. At the moment, the ToR are at an early draft stage. Both Commissions had a joint meeting in Brussels in February 2017.

8. WGS GUIDANCE

From MarCom, there is a permanent interest on helping Working Groups to their better development. According to it, the document ‘Helpful Hints for WG Chairpersons’ will be presented to ExCom as a guide for managing WGs.

There will also be a continuous revision of WG-reports published in order to identify obsolete, superseded or the need for updating reports.

9. MARCOM TECHNICAL VISITS

**HR Wallingford Facilities**

MarCom visited the main facilities for testing available in HR Wallingford, both for 3-D and 2-D modelling after its meeting on September 19-20 celebrated in their offices. MarCom also had the chance of knowing the new Fast Flow Facility, Tsunami Simulation and the Ships Simulation Centre.

MarCom wants to thank Peter Hunter as organiser of the visit, his HRW colleagues, the PIANC UK National Section and all persons that intervened in hosting the MarCom visit and dinner.

---

Francisco Esteban Lefler
Chairman of PIANC MarCom
InCom
Activities of the Inland Navigation Commission (In-Com) in 2016 were focused on further promotion of inland navigation, with a special focus on South America. The very successful PIANC-COPDEC IX Conference was held in Rio de Janeiro, Brazil, with a specialised PIANC-ECLAC-ANTAQ workshop on ‘Inland Navigation and a More Sustainable Use of Natural Resources: Networks, Challenges, and Opportunities for South America’.

In 2016, two reports were published, three new Working Groups were launched, and several new countries joined InCom.

1. COMMISSION MEMBERSHIP

In 2016, three new countries appointed their experts to InCom:

- Japan: Mr Takahiro Sugano
- South Korea: Mr Seung-Woo Kim
- Peru: Mr Ricardo Miguel Obregon Montes

The Austrian Section informed that Mr Reinhard Pfiegl is retiring, and that he will be replaced by Mr Jürgen Trögl. We would like to wish Mr Pfiegl all the best in his future endeavours.

The Canadian Section introduced a new representative, Mr Jim Athanasiou, who will replace Mr Stephen Kwok. Mr Kwok was a very valuable member for the InCom community, and we are sorry that he will not be as active in InCom, but since he is taking the place of First Delegate for Canada, he will for sure keep his engagement with InCom and its activities.

The UK Section also introduced a new member to InCom. Ms Fran Littlewood will be representing the Young Professionals.

InCom members at the end of 2016 are:

- Philippe Rigo (Belgium) – Chairman
- Jasna Muskatirovic (Serbia) – Secretary
- Leonel Temer (Argentina)
- Michael Fastenbauer (Austria)
- Jürgen Trögl (Austria)
- Jean-Michel Hiver (Belgium)
- Stefan Devocht (YP-Com, Belgium)
- Adalberto Tokarski (Brazil)
- José Renato Ribas Fialho (Brazil)
- Gemot Pauli (Central Rhine Commission (CCNR))
- Jim Athanasiou (Canada)
- Wu Peng (China)
- Tero Sikiö (Finland)
- Benoît Deleu (France)
- Holger Schüttrumpf (Germany)
- Takahiro Sugano (Japan)
- Seung-Woo Kim (South Korea)
- Lieven Geerinck (Mekong River Commission)
- Otto Koedijk (The Netherlands)
- Ricardo Miguel Obregon Montes (Peru)
- Ljubisa Mihajlovic (Serbia)
- Ignacio Sanchidrián Vidal (Spain)
- Rodrigo Garcia Orera (Spain)
- Jim Sterling (United Kingdom)
- Fran Littlewood (United Kingdom)
- Craig Philip (USA)
- José Sanchez (USA)
- Brian Ball (USA)
- Ton Nu Thi Thanh Yen (Vietnam)

In 2016, we also welcomed three Corresponding Members: Mr Jorge Enrique Saenz and Mr Carlos Jose Gonzalez from Colombia, and Mr Akula Nidarshan from India. We hope that in the coming months they will become full-time members of InCom.

2. MEETINGS

InCom held three official meetings in 2016:

- Meeting No. 73, held on February 2-3, 2016 in Liège and Brussels, Belgium
- Meeting No. 74, held on May 30-31, 2016 in Strasbourg, France
- Meeting No. 75, held on October 18, 2016 in Rio de Janeiro, Brazil
- Two web conferences: one in June 2016 and another one in November 2016

The main subjects of meetings were:

- information on the activities of the Association
- update on the progress made by various Working Groups
- preparation of ToR for new Working Groups
- preparation and participation at workshops and conferences

The InCom meeting in February 2016 was held in Liège and Brussels, including a technical visit to the new Lanaye Lock on the Albert Canal, as well as a visit to the Hydraulic Laboratory at the University of Liège. During the visit to Liège, a dinner was organised, in honour of two InCom members, Mr Yves Morin, previous InCom Chair, and Mr John Clarkson, former US representative in InCom, in order to thank them for their great contributions to InCom and PIANC.
3. Published Reports

In 2016 two InCom reports were published:

- **WG 139 – ‘Values of Inland Waterways’**
  - Chairman: Andreas Dohms

Authors of this document are:

- Hugues Duchateau
- David Grier
- Arjan Hijdra
- Ellen Maes
- Glenn Milar
- Erwin Pechtold
- Rashed Thabet
- Thilo Wachhol
- Leonel Temer
Authors of the WG 151 – part 2 report are:

• Loïc Buldgen  
• Juan Quiroz  
• Jerzy Salamon  
• Najib Bouaanani

InCom would like to thank all members and chairmen for their effort in preparing great reports.

4. PROGRESS OF EXISTING WORKING GROUPS

**WG 125 - RIS Guidelines (Update)**  
Chair: Cas Willems

This WG had its latest meeting in Barcelona, Spain on October 24-25, 2016 but the core of the work will be done after completion of WG 156, in order to avoid overlaps. The WG has got 14 members.

**WG 128 - ‘Alternative Technical-Biological Bank Protection Methods for Inland Waterways’**  
Chair: Bernhard Söhngen

After the kick-off meeting in April 2016, another meeting was held in October 2016. The WG is looking forward to welcome new members, especially coming from China.

**WG 141 - ‘Design Guidelines for Inland Waterways’**  
Chair: Bernhard Söhngen

This WG submitted a first draft report to InCom just before the end of 2016. Publication of this report is expected in 2017.

**WG 154 - ‘Mitre Gate Design and Operation’**  
Chair: Frederick Joers

This report is in the final phase of preparation, and it is expected to be published in 2017. InCom is planning to organise an international workshop on this issue in November 2017.

**WG 156 - ‘E-Navigation for Inland Waterways’**  
Chair: Dierik Vermeir

The final approval and publication of this report are planned for the first quarter of 2017.

**WG 156 - ‘Inflatable Structures in Hydraulic Engineering’**  
Chair: Michael Gebhardt

This report is in the last phase of preparation and the plan is to present the published report at the PIANC-SMART Rivers ‘17 Conference in Pittsburgh, USA.

**WG 173 - ‘Movable Bridges and Rolling Gates Design, Maintenance and Control Lessons Learnt from Experience’**  
Chair: Timothy Paulus

The final draft of this report was submitted to InCom in December 2016 and is expected to be published in 2017.

**WG 179 - ‘How to Deal with New Ships in the CEMT ’92 Classification – Towards a New CEMT (ITF) Classification’**  
Chair: Ivo ten Broeke

This WG has made good progress and a first draft is expected by mid-2017.

**WG 189 - ‘Fatigue of Hydraulic Steel Structures: Design, Analysis, Assessment, and Maintenance’**  
Chair: Dirk Jan Peters

This is a new WG, which started in February 2016. It already had two meetings in 2016.

**WG 190 - ‘Corrosion Protection of Lock Equipment’**  
Chair: Rebekah Wilson

This new WG is expected to start at the beginning of 2017.

**WG 191 - ‘Use of Composites on Hydraulic Structures’**  
Chair: Hota Ranga Rao

This WG started its work in February 2016, and already had two meetings after the kick-off.

**WG 192 - ‘Automatisation of Locks and Bridges, Remote Operations, Self-Usage, Network Security’**  
Chair: Lieven Dejonckheere

This WG started its work in October 2016, and currently has 8 members coming from 6 countries. The WG seeks members from Finland, Germany, etc. Their second meeting took place in February 2017 in Brussels, Belgium.
WG 197 – ‘Small Hydropower Plant in Waterways’
Chair: to be determined

The Call for Members was launched in November 2016. InCom invites experts in this field to apply through their National Sections for participation in this WG.

WG 198 – ‘Saltwater Intrusion Mitigations and Technologies for Inland Waterways’
Chair: to be determined

The Call for Members was launched in November 2016. InCom invites experts in this field to apply through their National Sections for participation in this WG.

5. PIANC-ECLAC-ANTAQ WORKSHOP IN RIO DE JANEIRO, BRAZIL IN OCTOBER 2016

The PIANC-ECLAC-ANTAQ Workshop on ‘Inland Navigation and a more Sustainable Use of Natural Resources: Networks, Challenges, and Opportunities for South America’, was held during the PIANC-COPEDEC IX Conference, on October 19, 2016, in Rio de Janeiro, Brazil.

The goal of the workshop was to rally representatives and experts from countries in South America to discuss current inland navigation policies and its role in a more sustainable use of natural resources.

The event represented a joint effort of the World Association for Waterborne Transport Infrastructure (PIANC), the National Waterway Transportation Agency (ANTAQ) and the Economic Commission for Latin America and the Caribbean (ECLAC) and was attended by 90 participants, including governmental representatives from Argentina, Brazil, Bolivia (Plurinational State of), Colombia, Paraguay, Peru, and Uruguay as well as inland navigation experts from China, Belgium, France, Germany, the Netherlands, Japan and the United States of America.

The main objective of the event was to offer decision makers, national experts, and technical advisors an opportunity to share their experiences and exchange views on the challenges and potential for inland waterways development in South America. The discussions were structured around three main topics:

- Inland waterways infrastructure, i.e. identification of the economic potential of national and regional inland waterways
- Funding Schemes for Inland Waterway Development, i.e. trends and challenges in public and private investment in inland waterways
- Policies and governance for inland waterways, i.e. the key elements of a national and regional policy on inland waterways development and institutional framework

Particular attention was given to the role that inland waterways can play on a more sustainable use of the region’s natural resources.
6. INCOM WEBSITE

InCom is proud to present its new website http://incomnews.org, a new step in promotion of inland navigation. It consists of two parts, one public part, and another one dedicated only to InCom members.

On the public part of the website, visitors can find detailed information on the progress of InCom Working Groups, as well as information on events InCom is organising or participating in.

7. INFLATABLE WEIRS DATABASE

In line of the work of WG 166 – 'Inflatable Structures in Hydraulic Engineering', a significant amount of information on existing inflatable structures was collected, and as a result, a database was set up, with public access: http://www.infrastructure.pianc.directory/consult_locks.jsp?CAT=7.

The intent was to provide a comprehensive summary of best practices that can be incorporated into future design of inflatable structures. Furthermore, a compilation of designs (project reviews) has been created for inflatable structures in conjunction with navigation locks, movable weirs and storm surge barriers.

8. CONCLUSION

The year 2016 has been the year of the PIANC-COPEDEC IX Conference and the PIANC-ECLAC-ANTAQ Workshop, held in October in Rio de Janeiro, Brazil. It was a great opportunity for InCom to present the latest developments in the field of inland navigation in Europe and South America, to exchange ideas, and to further promote navigation as an environmentally sound mode of transportation. As main outcome of this workshop, a new ToR was proposed on 'Inland Waterway Classification for South America'.

Philippe Rigo
Chairman of PIANC InCom

Jasna Muskatirovic
Secretary of PIANC InCom
EnviCom
1. INTRODUCTION

The Paris Agreement, which was adopted at the Paris Climate Conference (COP 21) in December 2015 by 195 countries, is the first-ever universal, legally binding global climate deal. The transport sector is challenged to support these goals regarding suitable and effective mitigation and adaptation measures. PIANC has enforced its efforts in this field by further establishing the ‘Navigating a Climate Change’ (NaCC) initiative with its coalition partners and had its voice into UNFCCC COP 22 in November 2016 in Marrakech. The NaCC Action Plan shows how the waterway and ports sector is active and working to contribute. The PIANC Permanent Task Group on Climate Change (PTG CC) is continuously accompanying this process with new working and task groups providing specific guidance. Combating and dealing with the impacts of climate change is one of the new 17 Sustainable Development Goals (SDG) the UN has set up. An important driving force for the need of these SDG is the steadily increasing world population. This increases the demand for faster and more flexible mobility of people and trade. Another driving force is the constantly increasing pressure on our planet’s natural resources with growing political conflicts and increasing refugee movements. All this requires innovative and sustainable concepts and solutions for the waterborne transport sector. The economics of Ecosystems and Biodiversity is a global initiative focusing on ‘making nature’s values visible’. Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels. Therefore, EnviCom published an orientation paper on Ecosystem Services in 2016 and has constantly been working to develop and provide guidance in the fields of Working with Nature, Ecosystem Services, Environmental Risk Management, Dredging in Environmental Sensitive Areas, Sustainable Ports, Climate Change Adaptation, Carbon Management, and Resilience. Against this development, the description of EnviCom’s role in the PIANC Rules & Regulation was updated in 2016.

Proactive management is essential for the waterborne transport sector towards being an attractive and highly performing transportation mode in the future and striving for sustainability. New ways of thinking and approaches for planning are necessary as promoted by the Working with Nature philosophy or by green growth as a new driver of the economy. The challenge is to organise this in circumstances where demands for approval procedures are getting more and more complex and require a better understanding of the ecosystems we acting and living in and from.

In this sense, EnviCom has continued in 2016 to be a proactive partner and driver with its strategic initiatives, working groups and networking activities to support the implementation of the PIANC goals.

2. MEMBERS

33 members from 15 nations (Australia, Belgium, Spain, Finland, France, Germany, India, Iran, Japan, Korea, the Netherlands, Norway, the Philippines, UK and USA) and 7 partner organisations (CCNR, CEDA, EUDA, IADC, IAPH, INE, Ports Austra- lia). Edward Brauer (YP from USA), Frederik Roose (CEDA, Chairman EC) and Aina Garcia Gomez (YP from Spain) were taken up as new members. Anne Kibsgaard (Norway) returned. During the February 2016 meeting, EnviCom had to say goodbye to Edmond Russo (USA), who did an excellent job as EnviCom Secretary and Vice-Chair since 2008. Edward Brauer was appointed as interim Secretary until the new EnviCom Chair will be appointed in 2017.
Chairman: Harald Köthe (Germany)

Vice-Chairman and Secretary (until February 2016): Edmond Russo (USA)

Interim Secretary (since February 2016): Edward Brauer (YP, USA)

Country Members:
- Australia: Marika Calfas
- Belgium: Filip Vandeputte, Siegfried d’Haene
- Finland: Olli Holm
- France: Paul Schemer
- Germany: Elmar Fuchs
- India: R.D. Tripathi
- Iran: Nasser Hadjizadeh Zaker
- Japan: Yoshiyuki Nakamura
- The Netherlands: Tiedo Vellinga
- Norway: Anne Klbsgaard, Ame Petterson
- The Philippines: Reynand Parafina, Christopher Omum (YP)
- South Korea: Myoungbak Oh
- Spain: José-Maria Gómez Fuster, Aina García Gomez (YP)
- United Kingdom: Jan Brooke, Peter Whitehead (Observer)
- USA: Todd Bridges, Burton Suedel, Sandra Brasfield (YP)

Commission Representatives:
- Australia: Ron Cox (CoCom)
- USA: Jason Giovannettone (YP-Com)

Members from Partner Organisations:
- IAPH: Kris de Craene
- IADC: René Kolman
- CEDA: Anna Cstí, Frederik Roose
- EUDA Paris Sansoglioú
- CCNR: Kai Kemppmann
- INE: Karin de Schepper
- Ports Australia: David Anderson

Additionally, following experts acted as Chairpersons of Working Groups and attended EnviCom meetings in 2016:
- PTG CC: Todd Bridges (Chair), Sandra Newell (Secretary) (USA)
- PTG EU WFD Navi TG: Jan Brooke (UK)
- WwN Jury: Elmar Fuchs (Germany)
- WG 157: James Matt Jurry (IADC)
- WG 170: Chris McDougall (UK)
- WG 174: Kris de Craene (IAPH)
- WG 175: Burton Suedel (USA)
- WG 176: Kelly Burks-Copes (USA) until October 2016
- Victor Magar (USA) since November 2016
- WG 178: Charles Haine (UK)
- WG 188: Doug Daugherty (USA)
- TG 193: Julie Rosati (USA)

3. MEETINGS

The EnviCom held two face-to-face meetings in 2016.

Meeting no. 44 took place in Brussels, Belgium, hosted by PIANC Headquarters, on February 2-3, 2016 in conjunction with the 12th meeting of the Permanent Task Group on Climate Change (PTG CC) on February 1.

The 44th meeting was hosted in Rio de Janeiro on October 15-16, 2016 hosted by the Brazilian Section of PIANC in connection with the 14th meeting of the Permanent Task Group on Climate Change and the ExCom meeting on October 14, 2016, the Council meeting on October 15, 2016 and PIANC COPEDEC IX, on October 16-21, 2016. João Dobrochinski, Brazilian YP, was excellent in his support of the EnviCom meeting. Mr Mateus Salomé do Amaral from the Brazilian Ministry of Transport gave a guest presentation in the EnviCom meeting with a very interesting overview about the situation of the economic, technical and environmental situation of the waterways in Brazil.

Under the lead of Tiedo Vellinga, EnviCom organised a Workshop ‘Nature-Based Solutions for Ports and Waterways’ within a short course on October 16, 2016.
Meetings in 2017:

- January 31-February 1, 2017 in Brussels, Belgium, hosted by PIANC headquarters, in conjunction with PTG CC (January 31, 2017)
- September/October, 2017 in India (not confirmed yet)

4. WORKING GROUPS, TECHNICAL RECOMMENDATIONS AND GUIDANCE

EnviCom continued its work in 2016 in the following fields:

**Dredging:**

- **Working Group 157** - ‘Environmental Aspects of Dredging, Port and Waterway Construction around Coastal Plant Habitats’
  Chairman: James Matt Jury (IADC), EnviCom mentor is René Kolman.

  WG 157 was established in 2015. Unfortunately, heavy work commitments, economic constraints, travel restrictions and illness of members have slowed down the progress ongoing also during this year. The draft report is about 75% complete and a complete draft is now expected during the first quarter of 2017.

- **Working Group 170** - ‘Dredging Operations and Port Construction around Marine Turtles and Mammals’
  Chairman: Chris McDougall (UK), Secretary: Heidi van der Meij (NL). EnviCom Mentor: René Kolman.

  During 2016, progress was made on drafting various sections of the report over the course of two face-to-face meetings in Rotterdam and London, respectively. Inputs from members of the WG diminished and no responses or additional inputs were received from members after mid-2016. Although the progress has slowed, the Chairman and the Secretary are busy to put a first complete draft together which is anticipated to be sent to EnviCom in the first quarter of 2017 for a first review.

**Ports:**

- **IAPH-PIANC Working Group 174** - ‘Sustainability Reporting for Ports’
  Kris de Craene (B) is Chairman on behalf of IAPH and Eric de Deckere (B) Secretary. Tiedo Vellinga (NL) is Co-Chairman and Mentor on behalf of EnviCom.

  The WG has made continuously good progress. The WG had fruitful meetings on March 21-22 in Lisbon and at other occasions in conjunction with...
IAPH meetings and events (e.g. in Hamburg and Panama) and gave input into the Green Port Congress 2016 in Venice on October 12-14, 2016. There are ideas and preparations in IAPH to launch a world sustainable ports initiative at the occasion of the IAPH conference in Bali in May 2017. It is intended to produce a complete draft for review for the first quarter of 2017. The next WG meeting was scheduled in January 2017.

**Navigation:**

- **Working Group 175 - 'Environmental Risk Management for Navigation Infrastructure Projects'**
  - Chairman: Burton Suedel (USA), Co-Chair: Kevin Kane (AUS), EnviCom Mentor: Todd Bridges (USA).

The WG-members are coming from Australia, Belgium, Ireland, Norway, Spain, UK and USA. The main goal is to provide a methodology to inform risk management decisions for the comprehensive range of environmental risks pertinent to navigation infrastructure. After their successful start and work in 2015 the WG made continuously good progress during 2016 with meetings on the west coast of the USA (Long Beach, CA and Seattle, WA; jointly with WG 176) and in Belfast, Northern Ireland (September 2016) and several internet meetings (so-called webinars). Chairman Burton Suedel (USA) gave a presentation providing an overview of the WG-report at the WODCON XXI, June 2016 in Miami, Florida, USA. On invitation by the editor of the ECO Magazine an article of the WG was published: Suedel, B., Kane, K., Moore, D., Allen, K., Gardner, R., Lally, J., Vanwonerghem, M., Pary, A. and Bridges, T. (2016): “Navigational Infrastructure Projects to Benefit from International Guidelines on Environmental Risk Management”, Eco Magazine, June: 32-36.

It is intended to have a first complete draft of the report for EnviCom review in summer 2017.

  - Chairperson: Kelly Burks-Copes/Victor Magar (USA), Secretary: William Coulet (UK), EnviCom Mentor: Paul Schemer (France).

The 14 WG-members are from Australia, Belgium, Denmark, France, Germany, Malaysia, Singapore, South Africa, the Netherlands, UK and US. After a successful start in February 2015, the progress slowed down during 2016 due to important other business commitment of the Chair. Consequently, WG-member Victor Magar took over the chairpersonship from Kelly Burks-Copes at the end of October. Nevertheless, the WG grew together and toured (jointly with WG 175) various depoldering and flood protection projects in Belgium and the Netherlands in February 2016. Lessons learnt are being used as to guide readers through the Working with Nature philosophy and process. Members also visited projects at various ports in the US, and are planning a site visit at the Port of Hamburg in 2017. Under the lead of Secretary William Coulet and support of EnviCom mentor Paul Schemer, the WG produced a first presentation and publication of their outline and latest findings on the conference I2SM in Montreal (Canada) in July 2016.

- **Working Group 178 - 'Working Group on Climate Change Adaptation for Maritime and Inland Port and Navigation Infrastructure'**
  - Chair: Charles Haine (UK), Secretary: Ben Hodgkin (UK), EnviCom Mentor: Jan Brooke (UK)

This big WG (working in subgroups) made very good progress during 2016 and met formally three times to discuss improvements and enhancements to the structure of the document and to progress content of the chapters and case studies (No.3: Arup, London, UK on January 28-29; No.4: University of Cantabria, Santander, Spain on August 23; No. 5: RHDHV, London, UK on December 7-8). In each case, some participants dialled in to contribute to sessions.
The overall work stream was partly influenced by the knowledge gained at PIANC-led workshops hosted in three countries (No. 2, UK, Institution of Civil Engineers, London on March 7, co-promoted by CEDA; No. 3, the Philippines – Philippine Ports Authority (PPA), Manila in July; No. 4, South Africa – organised by Aurecon within another conference, September). It was also supplemented by telephone conference calls and email correspondence to keep in touch with smaller sub-groups. The meetings progressed with average numbers of around 15 participating. The WG had several guest speakers, for example the Climate Change team from the European Bank for Reconstruction and Development at the third meeting. They imparted knowledge on plans to invest heavily in port development (i.e. new build, expansion and retrofit) that were vulnerable to significant changes from climate change effects, such as Morocco, and the need for such projects to embrace adaptation measures. The last meeting of the year was more practical, involving some focussed sessions that involved preparing material and inserting text directly into chapter drafts. The key chapters are in second draft while the WG had a current push on asking organisations in our business and personal networks to provide more case studies. The urgency of the need to embrace adaptation now, rather than in future strategies was evident in hearing feedback on the discussions held by other organisations, initiatives and conferences, such as the GreenPorts Annual Congress (Venice, October 12) and COP 22 (Marrakech, November). Three WG members were present at the transportation side events at COP 22 which helped raise visibility of the group and witness the elevation of adaptation up the priority list of material risks that ports need to tackle. The group has better awareness of the urgent need for adaptation, for instance in improved planning of capital expenditure. The groups working on chapters have been able to include more tangible examples of best practice and lessons learnt. They have also learned much on the challenges facing the facilities and infrastructure of inland waterways from excellent contributions at the workshops.

In the work, some key findings have emerged. Adaptation needs to be flexible, in terms of being able to be implemented, and adjusted in stages. Future proofing in this way, in order to allow for unknown variables (e.g. levels of rainfall in 30 years’ time) and via smart design features will be a key part of implementing adaptation. Adaptation measures are not only physical but social and institutional while responses to future climate change will need to be addressed using adaptive management techniques. Monitoring is key and should be promoted throughout a project life-cycle along with the keeping of robust documentation for continuity.

WG 178 was represented at the Navigating a Changing Climate conference in Brussels on March 27-28, 2017, organised by PIANC and the Think Climate coalition partners, where the attendees learned more about the key findings of the WG. Following a round of consultation with EnviCom in spring, the guidance document is anticipated for publication in summer 2017.

WG 178 observed the physical testing facilities, including Hydraulic, Coastal & Ocean and Environmental Laboratories of the University of Cantabria in Santander.
• **Working Group 188 –**  
  **‘Carbon Management for Port and Navigation Infrastructure’**  
  **Chairman:** Doug Daugherty (USA), **Secretary:** Talmor Meir (USA), **EnviCom/PTG CC Mentor:** Filip Vandeputte (B)

The WG had its successful kick-off meeting on February 4, 2016 in Brussels. It is tasked to review and report on the technical literature related to the carbon footprint of navigation infrastructure and supporting activities, provide guidance on applying life cycle analysis and related assessment tools and techniques, and investigate opportunities for reducing atmospheric carbon dioxide through operational practices, Working with Nature, land use management, blue carbon projects, and related environmental management. The WG met again in June in London and held two webinars, one in September and another one in October and established four sub-groups for special topics: main challenges, drivers and boundaries, existing initiatives, and emerging trends and technologies. During 2016 the WG finalised its document outline and is in the processing developing first draft guidance document text. The WG gave a presentation at the conference ‘Navigating a Climate Change’ in Brussels on March 27-28, 2017 in the context of mitigating climate effects.

• **EnviCom continued the partnering/ corresponding to WGs of other PIANC Commissions.**

It was noticed that the other commissions are requesting more support from EnviCom for environmental knowledge and guidance in their reports. To avoid duplication and double work for all, EnviCom is intending to produce a kind of standard text about common environmental guidance to be used for other reports.

5. **STRATEGIC INITIATIVES**

**Working with Nature (WwN)**

(http://www.workingwithnature.pianc.org/)

In 2016, only one new project got the WwN Certificate of Recognition. This is the ‘Atchafalaya River – Artificial Islands by Beneficial Reuse of Dredged Material’ project in the USA. All the projects which have received the WwN Certificate of Recognition so far are freely accessible in the WwN database on the PIANC website. The intention is to learn from existing projects for future project planning. Since there are a number of good projects known and lots of valuable activities around which are not submitted, EnviCom has concluded that there is a necessity to better promote WwN to make use of the existing offer from PIANC. Together with PIANC HQ it was decided to undertake professional action in the frame of the new PIANC marketing strategy which is in preparation for 2017. Also, the upcoming WwN Award, which will be granted at the 34th PIANC World Congress in Panama on May 7-12, 2018, is an important incentive. During 2016, a WwN teaser was put on the main PIANC website and changes in WwN Rules and Regulations, which describe the process ‘PIANC Working with Nature (WwN) – Certificate of Recognition and Supporter, Award’ were approved by the PIANC Council. These changes will attract non-consented projects for getting a WwN Certificate of Recognition, which is possible any time. Although the WwN-jury did not have much work during 2016, the WwN Jury Chair Elmar Fuchs (Germany) kept the team together and supported all the necessary actions for WwN throughout the year. Finally, EnviCom member Paul Scherrer (France), Mentor of WG 176, was appointed as focal EnviCom person for WwN to share
the workload and to coordinate and intensify the necessary actions. Again, several EnviCom members promoted WwN with presentations and in discussions on international events. A closer connection to the project database of the Engineering with Nature (EwN) initiative in the USA is in progress.

WwN Jury Chair Elmar Fuchs (Germany) implemented experiences and discussions into the update of the PIANC Rules & Regulations for WwN.

Permanent Task Group on Climate Change (PTG CC)

The PTG CC had two face-to-face meetings in 2016 (no. 14 on February 1 in Brussels and no. 15 on October 14 in Rio de Janeiro) in connection with the EnviCom meetings and interim telecons. At the occasion of the meeting in Rio de Janeiro Prof. Rosman from the University of Rio gave a very interesting guest presentation about possible impacts of the sea level rise for the city of Rio and adaptation preparations. The PTG CC is actively supporting the work of PIANC WG 178 on Climate Adaptation and the new WG 188 on Carbon Management, which started its work in February 2016 and is well developing. In this context, the update of the PIANC report Climate Change and Navigation (TG 3, 2008) is in progress. Another new project prepared and steered by the PTG CC is the new PIANC Task Group 193 – ‘Resilience of the Maritime and Inland Waterborne Transport System’, which also started in February 2016 and made good progress during 2016. All in all, the scope of activities of the PTG CC is further growing but the group definitely needs more members from other commissions and climate experts to better share the workload and to be constantly enriched by more technical perspectives and regional background. The PTG CC maintains the specific website to provide relevant information to the PIANC community (http://www.pianc.org/climatechange.php). Furthermore, the PTG CC was ongoing supporting the growing initiative ‘Navigating a Climate Change’ driven by the PIANC Think Climate Coalition. The PTG CC and WG members also had active roles in the PIANC conference ‘Navigating a Climate Change’ in Brussels on March 27-28, 2017.

Navigating a Changing Climate (NaCC) - PIANC Think Climate Coalition

Chairman: PIANC president Geoffroy Caude,
Focal point: Jan Brooke (UK)

On November 4, 2016, the Paris Agreement on Climate Change came into force. This is an ambitious international agreement that aims to combat climate change and adapt to its effects. If the objective of limiting warming to less than two degrees is to be met, parties to the Paris Agreement will need to take significant steps to reduce greenhouse gas emissions and to encourage a move to low carbon solutions across all sectors. This will include emissions from navigation infrastructure. Notwithstanding the Paris Agreement, however, it is also now widely agreed that continuing change in certain climate parameters is unavoidable. Resilience will need to be strengthened and waterborne transport infrastructure will need to adapt. The navigation sector has much to do.

2016 was a busy year for the Think Climate coalition. The early part of the year was focused on consolidating progress with the development and implementation of the Navigating a Changing Climate Action Plan, including incorporating the activities and interests of new coalition partners IMarEST and ESPO. The updated plan, which was published in time for the November 2016 UN Framework Convention on Climate Change ‘COP 22’
meetings in Marrakech, can be found on the new website, at http://navclimate.pianc.org/about/action-plan. This new website, which was developed jointly by PIANC and IMarEST, represents another significant deliverable during 2016 and another milestone completed.

In the meantime, as the UNFCCC COP Presidency shifted from France to Morocco, the Lima Paris Action Agenda (under which the Navigating a Changing Climate initiative participates as part of the ‘transport’ theme) changed to become the Global Climate Action Agenda (GCAA). More information on the activities of the transport sector under the GCAA and in Marrakech can be found at http://www.ppmc-transport.org/ppmc-cop22/.

Another major effort during 2016 involved the preparations for the Navigating a Changing Climate conference held in Brussels, Belgium on March 27-28, 2017 along with the site visit to Port of Zeebrugge on March 29, 2017, organised with ESPO. Speakers from across the sector will present a mix of high-level and practitioner viewpoints covering the three main conference themes:

- MITIGATION: reducing greenhouse gas emissions and moving towards low- or no-carbon navigation infrastructure
- ADAPTATION: strengthening resilience and adapting waterborne transport infrastructure to projected changes in sea level, storminess, precipitation, river flow, air and water temperature, waves, wind, fog and other climate parameters
- INTEGRATION: opportunities to contribute to climate change mitigation or adaptation by supporting inter-modality, Working with Nature or integrated coastal management.

The conference outcomes have been recorded and key conclusions will be used to inform the work of the coalition over the next few years.

EU Water Framework Directive (WFD) Navigation Task Group

UK EnviCom member Jan Brooke (UK) continues to chair the EnviCom-led, multi-Association Task Group dealing with the EU Water Framework Directive (WFD) and to inform PIANC and the navigation sector via the thematic PIANC website about the progress on navigation interests (http://www.pianc.org/euwfd.php). This permanent task group met two times in 2016 (April 5, October 4) and observed, discussed and reported on the meetings of the WFD Strategic Coordination Group (SCG) meetings (March 8-9, October 27-28) and their subgroups regarding relevant issues for the navigation sector. In this regard the NAVI PTG was actively following the adoption of the new CIS Working Programme 2016-2018, the EU assessment procedure of the River Basin Management Plans of the EU member states, the new Ad hoc Hydromorphology Task Group and the new the Ad hoc Article 4.7 Task Group with special attention to the implications of the Weser CJEU ruling and the recent CJEU ruling C 346/14 on the Styria hydropower project.

In close connection with the CEDA-led Marine Navigation Group (MSNG) continues to monitor activities around the Marine Strategy Framework Directive (MSFD) including to address overlaps between the WFD and the MSFD. CEDA is actively in discussions involved. Chantal Martens from the Flemish Government took over chairing the MSFD NAVI Task Group for CEDA, and has responded to COM with the sector’s comments. In the context of the MSFD the main current issue is the revision of Good Environmental Status (GES) Decision with areas of concern for the sector.

7. PRESENTATIONS

During several important events, EnviCom members opportunistically delivered many presentations on behalf of PIANC worldwide to infuse PIANC products and development into waterborne transportation sector awareness, with emphasis on increasing professional networking on strategic themes (listed by date):

- **Jan Brooke**: Think Climate – IBTA AGM, Rotterdam, the Netherlands, April 22, 2016.
• **Jan Brooke:** PIANC Working Group 178 – ‘Climate Change Adaptation for Ports and Inland Waterways’, PPA climate change adaptation workshop, Manila, the Philippines, July 12, 2016.

• **William Coulet:** ‘Applying Working with Nature to Navigation Infrastructure Projects’ (PIANC WG 176) – 5th International Symposium on Sediment Management (I2SM) in Montreal (Canada) on July 13, 2016.


• **Charles Haine:** ‘The Unseen Impact of Construction in Port Development. Findings Ways of Mitigating GHG Emissions and Planning for Climate Change Adaptation’ – GreenPort Conference, Venice, Italy, October 12, 2016.

• **Todd Bridges:** ‘Dredging to Create Value for Infrastructure and the Environment’ – PIANC-COPEDEC IX Conference, Dredging short course, Rio de Janeiro, Brazil, October 16, 2016.


• **Filip Vandeputte:** ‘Creating Land for the Future – Innovative and Sustainable Dredging Solutions’ – PIANC-COPEDEC IX Conference, Dredging short course, Rio de Janeiro, Brazil, October 16, 2016.


• **Todd Bridges:** ‘Adaptation to Climate Change at Port and Navigation Sector’ – Keynote PIANC-COPEDEC IX Conference, Rio de Janeiro, Brazil, October 17, 2016.

• **Jan Brooke:** ‘Navigating a Changing Climate: The Action Plan of PIANC’s Think Climate Coalition’ – PIANC-COPEDEC IX Conference, Rio de Janeiro, Brazil, October 17, 2016.


Thank you to all

• EnviCom members,
• chairpersons and members of EnviCom Working and Task Groups,
• to the partner organisations,
• all supporting colleagues in the background

for a busy, enriching and fruitful cooperation in 2016.

Looking forward to a fruitful continuation in 2017.

Harald Köthe & Edward Brauer
Chairman Interim Secretary
PIANC EnviCom PIANC EnviCom
RecCom
1. WHAT WE DO

RecCom has been established to deal with aspects directly related to sport and recreational navigation, to develop aids for this kind of navigation and to facilitate its integration among the other types of navigation (commercial and fishing). The aspects related to urban, commercial and industrial waterfronts rehabilitation and development are duly treated.

A specific Position Paper – ‘Recreational Navigation in Coastal and Inland Waters’, translated in several languages, was prepared and updated and is freely downloadable from the RecCom web subsite reccom.pianc.org.

The Commission has set up and manages:

- International Working Groups for production of high-quality technical reports and guidelines
- The Marina Excellence Design ‘Jack Nichol’ Award (MEDA)
- The Marina Designer Training Programme (MDTP), that organises courses for marina designers at an international level

2. WHO WE ARE

In 2016, the Commission welcomed two new members: Mr. Lee Wook-Jae from the Republic of Korea and Mr. Dimitrios Pagonis from Cyprus. In 2016 the PIANC Recreational Navigation Commission was composed by:

- Elio Ciralli, Italy, Chairman
- Simone Lanzalone, Italy, Secretary
- Michiel de Jong, the Netherlands, Vice-Chair
- Esteban Biondi, Argentina
- Brad Saunders, Australia
- Kathleen Bemaert, Belgium
- John Kwong, China
- Dimitrios Pagonis, Cyprus
- Harri Sane, Finland
- Amaud Guillard, France
- Hans Nickels, Germany
- Fabiana Maccarini, Italy
- Masato Yamashita, Japan
- Harald Andreassen, Norway
- Gian Battista Borea d’Olmo, Principality of Monaco
- René Bouchet, Principality of Monaco, Alternate Member
- Hong-Yeon Cho, Republic of Korea
- Lee Wook-Jae, Republic of Korea
- Sara Calvo, Spain
- Stig Jansson, Sweden
- Tim Beckett, UK
- Maria Fernández, Uruguay, YP-Com Observer
- Jonathan Ambruster, USA
- Mark Pirello, USA, Alternate Member
- Matthew Trammell, USA, YP-Com Observer
- Peter Jansen, Germany, ICOMIA/IMG
- Roberto Perocchio, Italy, ICOMIA/IMG
- Oscar Siches, Spain, ICOMIA/IMG
- Louis Van Schel, Belgium, PIANC Secretary-General, ex-officio member
3. MEETINGS

Two official RecCom meetings were held:

67th RecCom Meeting on February 3, 2016 in Brussels, Belgium

During the 67th RecCom Meeting on February 3, 2016 in Brussels, Belgium, the RecCom members welcomed two observer guests from PIANC Estonia, Ms Liina Harm and Mr Rene Arikas. Mr Claudio Fassardi from Argentina, Chairman of RecCom WG 168, joined the meeting to represent the status of his WG. After discussing the statutory matters, the RecCom members had the opportunity to discuss with the team of Nick Pansic of WG 181 the ‘Future of Global Waterborne Transportation Infrastructure’, from the Recreational Navigation Infrastructure (RNI) point of view. The discussion focused on the ever closer relationship of RNI with urban waterfront and transformations of commercial ports in towns.

68th RecCom Meeting on November 20, 2016 at RAI, Amsterdam, the Netherlands

The 68th RecCom Meeting was held on November 20, 2016 at RAI, Amsterdam, the Netherlands. The venue was chosen for supporting the Sister Association ICOMIA during their efforts for METS 2016 and for the World Marinas Congress 2016. Two members from the Far East joined, Mr Masato Yamada, from Japan, and Mr Wook-Jae Lee from Korea. Some other members from overseas joined via Skype.

In the morning RecCom discussed the statutory matters and the update of the status of active WGs.

During the afternoon, PIANC RecCom and ICOMIA/IMG joined for discussing several common items. This was the second joint plenary meeting between the two commissions, after the first one held in Dublin, after PIANC and ICOMIA signed a MoU for mutual cooperation in 2005.

During the discussions, Mr Elio Ciralli and Mr Roberto Perocchio, Chairmen of the two commissions, and all the colleagues underlined the importance of this cooperation in a very practical way, analysing the status of the RecCom WGs of common interest and ensuring the mutual support and presence in the activities conducted.

4. PUBLICATIONS OF TECHNICAL REPORTS

In 2016 two technical reports were published:

• RecCom WG 149 - ‘Guidelines for Marina Design’, Part I (Chapters 1-4)
  Chairman Mr Elio Ciralli, Italy

  1. Scope and General
  Coordinator: Mr Elio Ciralli (Italy), contributors: Mr Esteban Biondi (Argentina), Mr Sip Meijer (the Netherlands), Mr Thomas Pehlke (Germany)

  2. Recommended Design Process
  Coordinator: Mr Mike Chemaly (South Africa), contributors: Mr Esteban L Biondi (Argentina), Mr Sip Meijer (the Netherlands)
3. Surveys and Investigations
Coordinator: Mr Alfonso Capote (Spain)

4. Vessel Characteristics
Coordinator: Mr Simon Burchett (UK), contributor: Mr Thomas Pehlke (Germany)

- **RecCom WG149 - ‘Guidelines for Marina Design’, Part II (Chapter 5)**
  Chairman: Mr Elio Ciralli, Italy

5. Marina Protection and Coastal Aspects
Coordinator: Mr Jack Cox (USA), contributor: Mr Elio Ciralli (Italy)

These reports were released in the summer of 2016 and can be found online at [http://www.pianc.org/](http://www.pianc.org/).

5. PROGRESSES OF ACTIVE WORKING GROUPS

In 2016, RecCom continued to encourage its active Working Groups to come up with their final reports.

- **WG 147 - ‘Guidelines for the Management of Recreational Navigation Activities within Fishing and Commercial Ports’**
  Chairman: Mr E. Ciralli, Italy

- **WG 148 - ‘Recommendations for Environmentally Sustainable Recreational Navigation Infrastructures’**
  Chairmen: Mr I. Berenguer, Spain (first phase) – Mr E. Biondi, Argentina (second phase)

- **WG 149 - ‘PIANC Guidelines for Marina Design’, remaining parts**
  Chairman: Mr E. Ciralli, Italy

- **WG 168 - ‘Single Point Yacht Mooring Design’**
  Chairman: Mr Claudio Fassardi, Argentina

- **WG 169 - ‘Fire System Detection and Controls in Marinas’**
  Chairman: Mr E. Rinaldi, Italy

- **WG 177 - ‘Marina Excellence Design: 10 Years of the ‘Jack Nichol’ (MEDA) Award’**
  Chairpersons: Mr R. Nathan, USA and Ms F. Maccarini, Italy

- **WG 182 - ‘Underwater Acoustic Imaging of Waterborne Transport Infrastructure’**
  Chairman: Mr T. Browne, USA

- **WG 183 - ‘Innovative Products and Technologies in Marina’**
  Chairman: Mr H. Haas, Germany

6. TERMS OF REFERENCE APPROVED FOR NEW WORKING GROUPS

New ToR were approved during the 68th RecCom meeting: ‘Influence of RNI on Waterfront Projects’. After the approval of the ExCom the WG could be launched in 2017.

7. MARINA EXCELLENCE DESIGN ‘JACK NICHOL’ AWARD – MEDA 2016

By unanimous approval of PIANC RecCom, the MEDA 2016 went to ‘Marina at Keppel Bay’ in Singapore. The marina was developed and is operated by ‘Keppel Bay Pte Ltd’ (Keppel land), designed and constructed by Bellingham Marine.

The handing over ceremony was held during the PIANC AGA 2016 in Bruges, Belgium, and the award was presented at the occasion of the Asia Boat Forum 2016 in Singapore.

MEDA 2016 Handing Over Ceremony during the PIANC AGA 2016 in Bruges: Mr Elio Ciralli (Chair of RecCom) and Mrs Roxie Comstock (Bellingham Marine)

MEDA 2016 presentation in Singapore (L-R): Mr Roberto Perocchio (ICOMIA/IMG) Mr Trevor Fong (Marina at Keppel Bay), Mr Gary Charlwood (Bellingham), Mr Peter Jansen (ICOMIA/IMG)
8. RECCOM COOPERATION WITH OTHER ORGANISATIONS

Global Marine Institute and PIANC RecCom Signed a MoU for Cooperation

The Global Marina Institute (GMI) and PIANC, the World Association for Waterborne Transport Infrastructure, signed an agreement of cooperation on January 11, 2016 at the London Boat Show to collaborate in a number of areas with the aim of enhancing the training of marina managers, designers and other marina professionals for best practice.

GMI and PIANC will specifically be working together to ensure a greater alignment of the GMI Intermediate and Advanced marina management courses and the PIANC Marina Designer Training Programme.

This agreement is following the way of enlarging cooperation between PIANC and other organisations active in the marina market operators (ICOMIA, TYHA and now GMI).

One of the main goals is to create a stronger ‘Marina Formative Network’ in order to share knowledge of best practice. A common good knowledge basis for planners, designers, developers, owners, managers, operators and public servants in the field of recreational navigation infrastructures (RNI) and related waterfronts, will avoid substandard services for final users and enhance safe, pleasant and sustainable projects.

During the ICOMIA World Marinas Conference, Mr Elio Ciralli, Mr Oscar Siches (for RecCom), Mr John Hogan (GMI President) and Ms Sarah Dhanda (for GMI) held a specific meeting to check the status of cooperation. This will be done through the mutual participation of experts from the two organisations during their respective courses and the use of the respective technical reports.

PIANC RecCom Technical Reports as Main Reference for ISO TC288

At the ISO meeting of the TC288, Technical Committee/Tourism, Work Group 8 which is developing the yacht harbours norm (ISO 13687), started the latest phase of the norm, which deals with luxury harbours.

GMI Chairman Mick Bettesworth and Louis Van Schel, PIANC Secretary-General, signed the agreement at the stand of The Yacht Harbour Association (TYHA), an association within the British Marine, in front of an audience of marina operators and managers from around the world.
PIANC WG 134 – ‘Design and Operating Guidelines for Superyacht Facilities’ was adopted as a main reference for the task, narrowing the traditional gap between engineering, operations and the full understanding of the recreational marine activities. The collaboration between ISO and PIANC is there to deal with these subjects at the highest possible levels and to assure official recognition all over the world.

9. RECCOM ACTIVITIES

Technical Advice from PIANC RecCom in South Korea

The Chairman and two members of RecCom were invited by PIANC Korea, the Korean Ministry of Ocean and Fisheries, and the Ansan City Government to join the ‘International Seminar to Improve Competitiveness for Modern Marina Design’ as foreign experts, on July 12-14, 2016.

Special attention was given to the future Ansan Marina, planned alongside the breakwater between the Sihwalake and the open sea, a very ambitious project incorporating berths for visiting superyachts from neighbouring countries and creating also a marina fully integrated with the community nearby.

From the outset, the RecCom party was treated with exquisite cordiality, always having people take care of the smallest details.

On the first day, a visit was organised to the tide power plant (one of the biggest in the world), the future marina location, to Jeongok Marina and the attendees ended the day on a cruise along the Han River, courtesy of Mr Seung-Jae Lee, CEO of Seoul Marina, and with a dinner at the marina restaurant.

On July 14, the RecCom representatives joined a private meeting with the Director of the Port Authorities of Korea, where specifics of marina design and operation were discussed. After lunch, kindly hosted by Ansan City Mayor, Mr Je Jong-Geel, a seminar was held at the Ansan Convention Centre. University professors, engineers and construction companies presented their cases and the three RecCom members gave their presentations covering design, construction and operation subjects.

Once the seminar was finished, many of the more than 120 delegates approached the RecCom members for further questions and advice.

The enthusiasm of all parties involved led to study the possibility of making a full Marina Designer Training Programme (MDTP) in Korea in the near future. The event will widen the practical spread of accumulated knowledge and experience and keeps PIANC RecCom as an ambassador for all that is infrastructure for recreational yachting.
Mr Elio Ciralli thanked very much the Authorities and the President, as well as the General Secretariat of PIANC Korea, Mr Park Jun-Kwon and Mr Young Min Oh, for the perfect organisation and friendly hospitality.

PIANC RecCom at the Third China Marinas Convention in Nansha, Guangzhou

The Third China Marinas Convention was held at the Nansha Marina and Yacht Club, in continental China in the delta of the Pearl River, and at 50 km from Hong Kong. Extremely well organised, the programme touched themes dealing with the present state of the nautical and marina business in China and the rest of the world. Presentations were about the creation of new destinations to provide future clients with ready programmes to do with their boats, marina maintenance and the importance of design for the future maintenance programme, how to draw people to the yacht clubs and marinas in order to get them interested in the hobby, and the addressing of their local advantages and disadvantages compared to such of other countries.

China ticks all the boxes to be a near future host of the Marina Designer Training Programme. They need the recreation marine approach to build yacht harbours, and PIANC’s expertise both in the design area and in the particularities differencing a commercial from a yacht harbour.

PIANC RecCom at the ICOMIA World Marina Conference 2016 in Amsterdam

The ICOMIA World Marinas Conference (IWMC) 2016, held in the RAI Amsterdam Convention Centre on November 17-19, was a truly international event.

Mr Roberto Perocchio, Chairman of The ICOMIA Marinas Group, invited Mr Elio Ciralli, Chairman of PIANC RecCom to speak at the breakout session dealing about ‘Water Planning Regimes and Zones’

Over 200 marina professionals from 39 countries joined the 9th edition of this prominent travelling conference – the theme of which was ‘Future of Marinas in a Changing World’. With over 40 speakers representing leading marina organisations from
almost every part of the world and an extensive conference programme running the gamut of the sector, IWMC focused on the future development of marina facilities around the globe. The conference was held in parallel with the METSTRADE Show and its dedicated Marina & Yard Pavilion.

**10. PROMOTING RECCom AND ITS ACTIVITIES**

In 2016 RecCom continued to promote PIANC and its activities around the world, through Sister Associations, companies and magazines with the specific intent to reach a wider audience with news on RecCom activities and initiatives such as MEDA, MDTP, reports and events. Moreover, the flyer was prepared and distributed during the main events.

Programme and a moment of the IWMC 2016 at RAI in Amsterdam
YP-Com
1. WHO WE ARE

The year in review, 2016 was a significant period for PIANC’s Young Professionals around the globe. With over 2,000 YPs as members, followers, and supporters throughout 6 continents, YP-Com now has more members than ever before and, in 2016, direct measures were taken to allow for even more growth in the years to come. This year, YP-Com has achieved an organisational structure that promises to not only extend PIANC’s worldwide reach to Young Professionals, but to promote new activities and stimulate existing YP national chapters. Our recently-formed YP-Com Board will leverage the commission by establishing formal lines of communication from the Chair of YP-Com to each YP national chapter. For the first time in its history, YP-Com expanded with the addition of an international Co-Chair, as well as regional Vice-Chairs for America, Europe/Africa, and Asia-Pacific regions. Supporting each Vice-Chair, Delegates from other countries within the same region were appointed. This new YP-Com internal organisation, with the introduction of the YP-Com Board, is totally in line with the setting of our events and meetings to keep strengthening the bonds among our YP-network. These events can be classified into four levels: worldwide (Biennial Technical Visits), large regional (Regional Seminars), small regional (neighbouring countries gatherings), and national events.

We would like to thank Pablo Arecco (Argentina) for extending his role as the Chairman of YP-Com for two more years. We would additionally like to thank Inés Alvarez (Peru) for her continued support as YP-Com Secretary. We welcome Andrew Thomas (United States), who has taken the role of Co-Chairman of YP-Com, and in two years will take Pablo’s role as YP-Com Chair. Above all, we thank everyone that has assumed a role and its consequent responsibilities within this new structure to keep YP-Com running smoothly.

Current membership includes 45 delegates from Argentina, Australia, Austria, Belgium, Brazil, Finland, France, Germany, Iran, Italy, Japan, Korea, the Netherlands, Norway, Peru, Philippines, Poland, Portugal, Romania, Singapore, South Africa, Spain, United Kingdom, United States and Uruguay. Furthermore, 18 observers from several countries are regularly invited to join every YP-Com event and meeting. Among these delegates and observers, once again a special mention goes to the team in Singapore (Thanks Zi!) because due to their commitment and great performance, Singapore has become a Qualifying Member of PIANC. Furthermore, two other special mentions go to our delegates in the Philippines (Thanks Chris!) and in Brazil (Thanks Nina & João!), for their wonderful performance in organising our 2nd Asian-Pacific YP-Com Seminar in Manila; and the marvellous YP activities during PIANC-CODEPEDEC in Rio de Janeiro.

The 2016 membership roster of YP-Com is as follows:

**Delegates**

- Marcos De Vincenzi, Argentina
- Francisco Weyland, Argentina
- Kate Panayotou, Australia
- Tim Green, Australia
- Jürgen Trögl, Austria, InCom Observer
- Helene Gilkarov, Austria, ProCom Observer
- Stefan Devocht, Belgium, InCom Observer
- Jan Goemaere, Belgium
- Carolina Piccoli, Brazil
- Kim Andersson, Finland & North PIANC, MarCom Observer
- Eric Fernagu, France
- Guillaume Carpentier, France
- Ingrid Dispert, Germany
- Anja Brüning, Germany
- Reza Sohrabi, Iran
- Alireza Shafieefar, Iran (first year in YP-Com)
Our main event this year was the 2nd Asian-Pacific YP-Com Seminar, which took place on April 11-14, 2016 in Manila, Philippines. Thanks to the great efforts of Chris Ornum, main delegate, Adrian Cayanan, alternate delegate of the Philippines, and the support of the Asian-Pacific region delegates, this event was attended by 95 participants from five different continents. Following to three days of technical and development-oriented presentations, as well as site visits to local ports, the seminar also included sightseeing of historical locations within the City of Manila. The extensive collaboration, networking, and knowledge sharing that took place at this seminar was made possible with sponsorship from Trelleborg Marine Systems, Tencate Geosynthetics, Mer Lion Metals Pte. Ltd., FW NICOL-Tenzar, and Geoworks International Corporation. Moreover, in addition to the great support received from these sponsors, YP-Com attributes the great success of the seminar to the cooperation and hospitality provided by the PPA.
By the end of the year, we had another major event, the PIANC-COPEDEC IX 2016 Young Professionals Social Event, which was held on Tuesday, October 18, in Rio de Janeiro, when 65 YPs and honoured guests from 11 different countries were hosted by Trelleborg Marine Systems to experience the Carioca nightlife. The first PIANC YP event held in Brazil was a great opportunity for sharing experiences, networking and for youngsters to be encouraged by PIANC members acting worldwide.

2. LOCAL EVENTS

A few highlights of the YP-activities within the National Sections of PIANC.

Singapore

On the evening of March 15, a group of 20 people gathered for a technical presentation by Mampey Offshore Industries (MOI), organised by PIANC YP Singapore and hosted by Delta Marine Consultants (DMC). This event drew audiences from diverse fields and industries from oil and gas and shipyard operations to large EPC consultants to the local authorities.

On the evening of April 15, 2016, PIANC YP Singapore held a networking session in which around 50 people from the maritime industry were present. The attendees came from very diverse backgrounds – from government authorities and universities to construction and consultants to operations. As a bonus, we had two important people from PIANC international with us that evening. At the start of the event, Louis Van Schel, Secretary-General of PIANC and Pablo Arecco, Chairman of PIANC YP-Com.

Louis Van Schel gave a speech at the networking session in Singapore
Argentina

Argentina’s YP group started the year with the commitment of having a permanent basis of three PIANC Argentina YP events per year, with at least two of them outside of Buenos Aires city. This year events were in Rosario, Buenos Aires (in coincidence with our AADIP/PIANC Argentina Biennial Congress) and in Bahía Blanca together with our colleagues from Uruguay in order to keep repeating the YP-Com River Plate meetings (Argentine and Uruguayan YPs gathering on yearly basis with alternating hosting country).

The first took place in Buenos Aires, where the group enjoyed the different experiences transmitted by Helen A. Brohl (USA) and Hans van der Werf (the Netherlands). The YPs took advantage of their trip to Argentina due to the 1st Meeting “To Boost Trade and Logistics Development of Production in the Field of Waterway Paraguay-Paraná”, organised by ‘La Bolsa de Comercio de Rosario’, with the support of CAF development bank of Latin America and sponsored by PIANC and ENAPRO, days later.

Later on, the 2nd YP-Com River Plate meeting took place in Bahía Blanca, located in the south of the Province of Buenos Aires, Argentina. It was a full weekend activity in October, joined by 30 participants including YPs from neighbouring countries. The YP-Com River Plate meetings are planned by the delegates of both Argentina and Uruguay with the intention of creating connections between both YP groups. In the future, the River Plate meetings would like to reach out to neighbouring countries, like Chile and Brazil, in an attempt to take one step forward in achieving to organise YP-Com South American meetings.

Spain

The 13th edition of the Spanish Young Professional Sessions took place on June 2-3, 2016 in Sevilla, organised by the ATPyC (Spanish Young Section of PIANC) and hosted by the Sevilla Port Authority. This event was once again a great participation
success, with more than 80 Young Professionals, not only from Spain but also from other Europeans countries like Luxembourg. This event drew audiences from diverse maritime and coastal fields, from engineering companies and maritime contractors to different Port Authorities. The Sessions also included sightseeing by boat of Sevilla’s Port facilities, in particular the new Sevilla Harbour lock that was recently commissioned.

USA

The inaugural event for the PIANC USA Young Professionals took place in Washington D.C. and Baltimore, MD on June 22-24, in conjunction with the ‘From Sail to Satellite: Delivering Solutions for Tomorrow’s MTS’ Fourth Biennial Research and Development Conference, co-hosted by the Committee of the Marine Transportation System and the Transportation Research Board of the National Academies of Sciences. Approximately 30 YPs attended this event, which consisted of various tours throughout the region. First, the YPs joined the conference participants and several PIANC USA commissioners on a boat tour of the Potomac River. The second day consisted of a tour of the Pentagon (9/11 Memorial and the Pentagon itself), which also gave the YPs an opportunity to speak with the Assistant Secretary of the Army for Civil Works, the Honourable Ms Jo-Ellen Darcy.

On the third day, the YPs were given a tour of the new waterfront development in Southwest D.C. by Michael Bruce and Jessica McIntyre, followed by a networking social hour at the Capital Yacht Club. The day consisted of a morning boat tour of the Baltimore Harbor (hosted by the Baltimore District, U.S. Army Corps of Engineers and the Maryland Port Administration) with the 67th Commander of the Baltimore District, Colonel Chambarlayne, followed by a second tour aboard the Maritime Administration U.S. Reserve Fleet Roll-on/Roll-off ship, Cape Wrath, and a third tour of the U.S. Coast Guard Surface Forces Logistics Center in Baltimore.

Norway

YP-Com Norway and the Norwegian University of Science and Technology (NTNU) jointly organised the Coastal Engineering Day, on May 26, 2016. The main aim of the day was to bring together students and professors from the University with professionals from practice, for networking and sharing of experience. In addition, 4 finalist master students from the university competed for ‘Best Master Presentation’ as judged by those present. The day was a great success with many interesting presentations and a fruitful debate on the future of coastal engineering education in Norway.

The Netherlands - Belgium

Organised by the Belgian and Dutch PIANC YPs, more than 40 attendees visited the construction of the 500-metres long deep sea quay wall which consists of an 18-metres wide concrete relieving floor and a substructure comprising a combined wall, concrete foundation piles and 60-metres long steel tension piles. This new terminal is an expansion of the existing Cif-group facilities in the Netherlands.

The current lack of design codes and guidelines for spudcan-structure interaction turned the design into pioneering work. An extensive quay monitoring programme has been developed in order to confirm the design assumptions and to provide a practical guideline for future projects.

In July, the yearly Young Holland Ports event took place during the DelfSail 2016 event in the harbour of Delfzijl, Groningen. For the event a special waterside location was arranged in the floating dock of Royal Niestern-Sander in which a container ship was being built at that time. During the event, interesting lectures were given on the impact of modern shipping on the climate and the necessity of energy transition in the shipping business.
Iran

The first YP-meeting of the Iranian National Section members was held during the informal dinner of ICOPMAS 2016. The meeting was aimed to introduce the activities and goals of the association to members and to create an appropriate ground for member’s contribution and cooperation in an open discussion. We were honoured by the presence of Mr Geoffroy Caude (President of PIANC) for the first time in this event along with Mr Louis Van Schel (Secretary-General of PIANC), Mr Freddy Wens (Chairman of the IOC) and Mr Geert Van Cappellen (successor of the Secretary-General).

Visit to the Offshore Terminal in Rotterdam

First YP-meeting in Iran
Philippines

A YP-Com meeting was held on November 10, 2016 on the 7th Floor of the PPA building. Attended by approximately 30 YP members/guests, highlights of the meeting include updates from the YP-Com meeting held in Brazil, the 6th BTV in Australia, and the proposed YP-Com Election of Officers, which was to be held at the Christmas Party on December 21, 2016. It is truly an honour to see the YP-Com family in the Philippines growing!

Pablo Arecco
Chairman of PIANC YP-Com
CoCom
1. INTRODUCTION

2016 saw a continuation of the activities of the Commission begun over the last several years. This Annual Report summarises those activities and describes progress made with respect to certain goals of the Commission during that period.

2. THE COMMISSION

- Edward Schmeltz, USA – CoCom Co-Chairman
- Akula R. Rao, India – CoCom Co-Chairman
- Peter De Wolf, Belgium – Secretary

- Jefferson Vianna Bandeira, Brazil
- Kenji Ono, Japan
- Jean-Marc Deplais, France
- Ron Cox, Australia
- Kevin Knight, USA
- Abbas Samad, USA (Alternate)
- Elizabeth Follosco, Philippines
- Hector Mole, Philippines
- Hartmut Brühl, Germany
- Michaël Fastenbauer, Germany
- Rogelio Gordon, Panama
- Ronald Stive, the Netherlands
- Cecilia Norman, Argentina YP
- Louis Van Schel, PIANC Secretary-General
- Freddy Wens, Belgium – PIANC-COPEDEC IOC Chair
- Enrique de Faragó Botella, Spain
- José-Luis Monso de Prat, Spain (Alternate)
- Young-Min Oh, South Korea
- Trygve Isaksen, Norway (inactive)
- Eric Marcone, Italy (inactive)
- José Maria Rubiato, UNCTAD (inactive)

Only one change to membership occurred during the year: Kenji Ono of Japan was appointed to the Commission. He replaced Hisao Ouchi, also of Japan, a long time and valued member of the Commission.

3. COCOM MEETINGS

During 2016, several meetings were held: a formal meeting on February 3rd at PIANC HQ in Brussels; an informal meeting on May 16th in Bruges at the occasion of the PIANC AGA and October 16th in Rio de Janeiro, Brazil. In addition, a symposium of Latin American Countries was held in association with the 9th PIANC-COPEDEC Conference in Rio de Janeiro, Brazil.

The meetings focused on recruitment and sub-committee activities. The national target list was updated and specific nations pursued during the year. Our focus continues to be on membership development. Attendance at the meetings has been good, generally including at least 10 to 12 members.

Sub-Committees

SC 1 - Training & Education

SC-1, Training in Ports and Waterways, (formerly WG 126) continues to be headed by Ronald Stive. The SC’s database is on the PIANC website and relates to available training activities for Ports and Waterways. The commission continues to solicit input to that database but the response continues to be poor. We reiterate the request that anyone with training opportunities provide information to the database to maximise its utility in the future.

In addition, the subcommittee, under Mr Stive’s direction, is developing a proposal to conduct a multi-day short course in a Qualifying Member nation based on one of the more popular PIANC Working Group reports, such as WG 121 – ‘Harbour Approach Channel Design’. The course would be presented by PIANC members well versed in the subject matter and potentially part of the Working Group. The intent would be to increase PIANC visibility in new markets and attract further members to a new QM. Indonesia is being considered as the potential location of the first short course. Financial support from HQ will be required to launch the maiden effort. More to follow.

SC 2 - Regional Activities

Specific, targeted countries have been identified by CoCom members and will be invited to become active, participating members of PIANC. Mentoring will be provided by individuals on the Committee, regional Vice-Presidents and HQ personnel. Some examples include the mentoring of the Mekong River countries by the region of Flanders (Belgium), of Morocco by the French Section, Colombia by the US Section and of Argentina by the Spanish Section. Others we believe would benefit from membership include:

- Mexico
- Fiji/Papua New Guinea
- Chile
- Russia
- Uruguay
- Latvia
- Peru
- Lithuania
- Indonesia QM 2016
- Morocco
- Cambodia
- Mozambique
- Thailand
- Kenya

The list is dynamic and continues to be adjusted based on political and practical realities.

A key component of CoCom’s membership initiative is the nurturing of new member organisations. Successes in the Philippines, recruited during 2015
with a seminar held in the country late in 2014 to help solidify the Section; followed by Indonesia in 2015 and 2016. Those efforts were spearheaded by the Japanese Section supported by the Netherlands and Australia.

PIANC USA continues to support the Colombian Section via speakers at local conferences and other forms of encouragement. A new section of PIANC was established in Colombia in 2012 and held its first Annual Meeting in 2015. In keeping with the goal of encouraging active participation in the organisation, CoCom, in association with PIANC USA, provided speakers for the Colombian Section’s first Congress held on July 29-August 1.

The overall approach is being used as a template to reach out to other nations in a similar fashion to encourage membership in the organisation. Lillian Almodovar, with support from HQ, continues to provide coordination and support to the Colombian Section and other Latin American activities. In a further development, a Memorandum of Understanding was executed between PIANC USA and the Inter-American Committee on Ports within the Organisation of American States (CIP.)

PIANC USA, in collaboration with other PIANC National Sections and Qualifying Members in Latin America, has developed a work plan to strengthen and expand PIANC in the Americas. One of the elements of this work plan is the development and implementation of a Regional Conference for the Americas. This Conference would be tailored to address the particular needs and challenges of the Americas and help achieve the goals of the work plan. A draft proposal has been presented to CoCom and is in discussion which addresses the details of the suggested Conference as agreed by a regional team composed of representatives from Argentina, Brazil, Panama, Colombia and USA.

The PIANC sections in Australia, the Netherlands and Japan are all currently actively engaged in similar efforts. The Japanese effort in the Philippines resulted in that country joining the organisation in 2015. Vietnam continues to be pursued.

Indonesia was also targeted during the year but their participation has been challenging due to internal, structural impediments. However, The First PIANC Indonesia Seminar was held in Jakarta October 28-29, 2015 and Indonesia became a QM in 2016.

The Australian Section has taken a number of actions consistent with their strategic plan and with the objectives of CoCom for expanding PIANC membership. The efforts were directed to members of the Pacific Maritime Transport Alliance (PMTA) made up of ports of the Pacific Islands. The Australian National Section is attempted to add a technical seminar to the 2015 PMTA Conference, a member of the Australian National Section. A PIANC Australia sponsored event for the islands was stifled this year due to a lack of financial support of the event.

Over the past year, there continues to have been continuing progress within PIANC Latin America. Building off of the successful Latin American events at the PIANC World Congress and the PIANC-SMART Rivers Conference, several Latin American nations including Argentina, Spain, Colombia, Panama and Mexico, have been reviewing the Draft Action Plan for Latin America, which will not only serve as a means of collecting additional input for the Action Plan-Priority 1: Capacity Building, but will increase PIANC’s visibility among Latin American delegates to the Congress and heighten awareness about PIANC services, benefits, Commissions and working groups to encourage membership of new countries.

Here are some noteworthy events over the past year and what’s to come:

CoCom member Kevin Knight, who serves as PIANC USA’s liaison to Latin America, attended the American Association of Port Authorities (AAPA)’s 25th Latin American Congress of Ports from November 29 to December 2, 2016 in Merida, Mexico. Nearly 500 representatives from over 30 countries throughout Latin America, as well as North America, Europe and Asia attended the annual Congress in which the theme was ‘Latin American Ports in the Next 25 Years’. Panel sessions highlighted recent trends in trade, regulations, logistics, trade agreements, shipbuilding and port operational practices and capital improvements throughout Latin America, including an update of the recently-completed Panama Canal expansion and the consequences of the expansion.

At that event, PIANC USA Commissioner Ron Coles delivered a presentation on the recently-published Working Group Report 158 – ‘Master Plans for Existing Ports’. In doing so, Ron also encouraged greater participation in PIANC Working Groups and in PIANC overall. Many port officials and policy makers among the AAPA Latin Congress have already contacted Commissioner Coles and expressed a strong interest in engaging with PIANC.
During the Congress, Knight met with Latin American officials to gain a fuller understanding of the challenges and development projects within the region. Moreover, information gathered from the event will improve on the PIANC’s Action Plan for Latin America, which lays out strategies of how PIANC could better serve the region. The next annual AAPA Latin American Congress is scheduled to take place in Punta del Este, Uruguay in early-December 2017. (POC: K. Knight)

Knight also participated in the Organisation of American States-Inter-American Committee on Ports (OAS-CIP)’s 10th Annual Meeting, which was held in Montevideo, Uruguay on July 27-29, 2016. The meeting featured speakers from 18 nations, covering environmental legislation, innovative financing, port safety, security and other challenges ports are facing throughout the Western Hemisphere. On the final day, Knight participated in a panel presentation highlighting the ongoing challenges of the U.S. Inland Waterway System along with the P3 pilots which were legislated through WRRDA 2014. The OAS-CIP and PIANC US Section have been fostering international collaboration, technical cooperation, training, events cooperation, and exchange of views and information while Uruguay is a target country for PIANC.

Finally, at the PIANC-COPEDEC IX Conference, CoCom members Knight and Lillian Almodovar led another lively and informative brainstorming event with the Latin American nations as they finalise the PIANC Action Plan for Latin America.

SC3 PIANC-COPEDEC IX Conference

The 9th International Conference on Coastal and Port Engineering in Developing Countries (PIANC-COPEDEC IX) took place in the Royal Tulip Conference Centre, Rio de Janeiro, Brazil on October 16-21, 2016. The theme was ‘Enhancing Waterborne Transport and Coastal Development – The Challenge of Reaching Integrated Solutions’.

Freddy Wens served as the Chair of the International Organising Committee (IOC). Mr Rafael Galvão de Santana from the Agência Nacional de Transportes Aquaviários (ANTAQ) was Chairman of the Local Organising Committee (LOC) and Ms Ana Paula Harumi Higa, also from ANTAQ, was the Secretary for the conference.

Professor Ron Cox from Australia, a member of CoCom, was the Chairman of the Paper Selection Committee, which consisted of seven highly qualified members from all over the world.

In total, 452 registered delegates from 37 countries participated in the conference.

In total, 355 abstracts from 36 countries were received. Each abstract was reviewed by the Paper Selection Committee and 284 abstracts were approved; 251 for oral presentation and 33 for poster presentation. 151 papers were ultimately presented at the conference.

175 fellowship applications were received from 21 countries. Thanks to the contributions of PIANC HQ and several PIANC National Sections (especially Norway and Japan), some 54 fellows with an approved oral abstract were granted a fellowship for a total amount of US$ 106,000.

Two one-day short courses were held on Sunday prior to the conference opening, one on ‘Innovative Developments in Port & Waterways Planning and Design’ and another one on ‘Dredging Techniques’. Each was attended by some 40 participants.

On Wednesday, five technical tours were arranged to Porto Sudeste, Itaquai, to the Laboratory for Ocean Technology, to Porto Novo, Santo Cristo, to the Diretoria de Hidrografia e Navegação and to Sepetiba TECON, Porto de Itaguaí.

An exhibition area with some 17 exhibitors was featured as part of the PIANC-COPEDEC IX Conference. Diamond and Platinum sponsors to the Conference were given a free booth at the exhibition.

The Conference was concluded with a wonderful closing banquet at the Fogo de Chão Restaurant and our special thanks go to the International Organising Committee (IOC), the Local Organising Committee (LOC) with special gratitude to the Agência Nacional de Transportes Aquaviários (ANTAQ) and the Paper Selection Committee (PSC) for the exceptional efforts they put forth to organise this excellent Conference.

Special thanks also to all sponsors and to the PIANC National Sections that contributed to the fellowships.

Discussions have already begun relative to PIANC-COPEDEC X to be held in four years in a location yet to be finalised.
Action Plan

An Action Plan based on the new Strategic and Operating Plans was developed late in 2013. That plan forms the basis for CoCom’s activities during the year. Specific undertakings are identified in the sections above. In brief, we anticipate continuing the technical outreach efforts to potential national sections who are interested in participating in these events.

Respectfully submitted
Edward J. Schmeltz and Akula Rao
Co-Chairmen of CoCom
For more than 80 years MARIN has been serving the maritime industry with high-grade technology. The experience of our hydrodynamic research is incorporated in our nautical services, consultancy and training. MARIN’s nautical centre MSCN provides the following services:

**Nautical consultancy**
- Port lay-out and channel design
- Manoeuvring strategies for complex operations
- Safety studies

**Training for professionals**
- Ship and tug handling
- VTS training
- Pilotage and mooring master training
Finances
SAFELY AND EFFICIENTLY DELIVER CONSTRUCTION AND SURVEY PROJECTS IN SURF ZONES

If you want to know how AskFugro.com

BESIX

Port and marine projects have been one of BESIX’s spearheads since the company was first established in 1909.

BESIX focuses on the design and construction of on-shore and off-shore projects: locks, breakwaters, seawalls, seawater intakes, quay walls, gas or ore terminals and LNG (Liquefied Natural Gas) jetties.

Clients are attracted by BESIX’s international experience, know-how, technical skills and innovative solutions, as well as by its own specialized marine equipment, enabling work to get started quickly.

BESIX SA/NV
Avenue des Communautés 100
B-1200 Brussels
Belgium
Tel.: +32-2-402-82-11
Fax: +32-402-402-09
www.besix.com
REPORT OF THE FINANCIAL COMMISSION 2016

MEMBERS:

Ian White – Chairman, PIANC UK
Herbert Smitz – Secretary, PIANC Belgium
Joe Mantey – PIANC USA
Neil Lawson – PIANC Australia
Johan Boon – PIANC Netherlands
Remi van der Wijk – PIANC Netherlands
Manuel Arana Burgos – PIANC Spain
Jan Reche – PIANC Germany
Jacques Paul – PIANC France
Louis Van Schel – Secretary-General PIANC, Belgium

The Commission met twice over the past year with its first meeting being held alongside the AGA in Bruges in May. The second meeting was held in Bonn in December, hosted by PIANC Germany on board the SM Mainz at Bonn and included a sail on the Rhine.

The meeting reviewed the budget proposals for 2017, which were agreed for recommendation to ExCom and the AGA. The PIANC Portfolio of investments was also closely scrutinised. Geert Van Cappellen, the future Secretary-General of PIANC, also attended. For the first time in history, FinCom was sailing during its meeting.

The financial affairs of PIANC have continued to do reasonably well, although a much smaller operating surplus of €2,387 was made in 2016 compared with €54,726 in 2015. This was due mainly to a reduction in subvention payments and that the full payment from PIANC-COPEDEC has not yet been received.

Income from subscriptions (€342,401 [2016] > €324,744 [2015]) increased over 2015 but subventions decreased (€130,150 [2016] < €166,250 [2015]). This was due to several National Sections not making a complete return. Authorised but un-budgeted funding for the Think Climate seminar in March 2017 at Brussels was also made.

Sales of Working Group reports produced an income of €29,857 over budget by €9,857 and an improvement over the sales for 2015 of €20,737. This continues to highlight the benefits of moving the WG-reports being published electronically rather than as before in hardcopy format.

The costs for the publication and mailing of the yearbook increased to €27,565 but a small profit of €2,929 was made due to the sponsorship and advertising income received. However, the cost of printing and posting continues to increase and
ways to reduce these must be found, as well as increasing advertising and sponsorship support so that the Yearbook can continue to be published at a profit.

The value of the PIANC portfolio was € 818,174 at the end of 2016, which is a slight increase over the previous year of € 7,570. This represents an increase of 0.94 % in the portfolio (current capital value of the portfolio + interest/dividend payments) compared to the increase of 1.84 % in 2015.

At the December 2016 meeting of FinCom, a further review was undertaken of the investment undertaken by BNP Paribas, the portfolio managers. Concern was expressed at the level of investment in long-term bonds and the reducing income being received. As a consequence, FinCom is proposing that an independent adviser/consultant be appointed to provide advice on the portfolio. The original instructions given to BNP regarding PIANC’s portfolio as per the Rules and Regulations are to be reviewed.

The number of international events that PIANC are organising or hosting is increasing with the Congress, PIANC-COPEDEC, PIANC-SMART Rivers, COP 21, etc. This is placing an ever-increasing workload on the headquarters team and is reducing its capacity to undertake other duties and functions. FinCom requests therefore that all local organising committees endeavour to undertake as much of the preparatory work as possible to reduce the headquarters input.

So, to summarise, although some unbudgeted but authorised expenditure was incurred during the course of the year, a small surplus of € 2,387 was generated to be added to the reserves of PIANC!

The membership level has increased in 2016 by 88 Individual Members, an increase of 5.7 % on 2015. The increase of Corporate Members by 23, representing a percentage increase of 5.4 % over the previous year, was again very pleasing. The decrease of eighteen Student Members may be due to their conversion to full Individual Members.

In gathering this information, the need has been proven yet again to keep the membership records up-to-date, so that the correct charges can be made for subscription and subvention payments. The financial sustainability of PIANC is totally reliant on these two sources of income and is a challenge that continues to be looked at in some detail by both FinCom and ExCom.

The subscription rate and subvention rates have been held constant for the last few years. FinCom believes that due to the impact of inflation, both sets of rates need to be increased. At its next meeting in Cairns, it will be deciding by how much they need to be increased by and then submit its proposals to ExCom and Council.

<table>
<thead>
<tr>
<th>Date</th>
<th>31 Dec 2016</th>
<th>31 Dec 2015</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Members</td>
<td>1,629</td>
<td>1,541</td>
<td>88</td>
</tr>
<tr>
<td>Corporate Members</td>
<td>452</td>
<td>429</td>
<td>23</td>
</tr>
<tr>
<td>Student/Life/Honorary</td>
<td>149</td>
<td>182</td>
<td>-33</td>
</tr>
<tr>
<td>Total</td>
<td>2,230</td>
<td>2,152</td>
<td>78</td>
</tr>
</tbody>
</table>

Table 2: Development of PIANC Membership 2015-2016
As previously, can I leave you with two final requests please? The first is to ensure that the membership records are kept up-to-date as much as possible and secondly that subscription and subventions payments, once invoiced, are paid promptly. This helps with the cash flow and budgeting of PIANC and also allows the head office team at Brussels to spend more time in giving a productive service to the National Sections and not to have to be continuously asking for up-to-date information and chasing late payments.

Yours sincerely,

Ian White
Chairman of PIANC FinCom