ANNUAL REPORT
2017

International Union of Laboratories and Experts in Construction Materials, Systems and Structures
About RILEM

The International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM, from the name in French) was founded in June 1947 in Paris, France, with the aim to promote scientific cooperation and to stimulate new directions for research and applications, thus promoting excellence in construction worldwide.

This mission is achieved through collaboration of leading experts in construction science and practice, including academics, researchers, industrialists, testing laboratories, and authorities.

Become a member

If you are interested in joining RILEM, please consult our website www.rilem.net and become a member.

Membership benefits include:

- Participation in RILEM Technical Committees
- Access to the private Web directories restricted to RILEM Members and Online version of the RILEM Directory of Members,
- Personal access after login online to the journal Materials and Structures, RILEM Proceedings and Springer/ Nature proceedings
- Reduced fees for RILEM events
- 30% discount on printed RILEM publications
- 20% discount on all Springer / Nature e-books
- Opportunity to publish selected articles as free OA paper in Materials & Structures and in RILEM Technical Letters

Note that special discounts of 40% up to 60% on the membership fees apply depending on your country of residence. Please consult the website membership.rilem.net for all details.
Editorial
by RILEM Presidency

Looking back to 2017, we can confidently proclaim that, through the enthusiasm of many of you, it was again a successful year of international activities for RILEM. Our Spring meeting in Detroit in connection with the ACI Convention, the Annual Week in Chennai at IIT Madras, the conference in Rabat at the Mohammed V University, are just a few of our international activities that can be remembered as highlights, breaking new ground again.

We were indeed happy to be at the ACI Convention in Detroit in March 2017 with a RILEM delegation, to liaise with our American colleagues at the occasion of the RILEM 2017 Spring meeting, which was upon kind invitation of ACI and held in connection with their Spring Convention. We received a warm welcome from the ACI staff, and a lot of effort had been put in by ACI and our colleague Kamal Khayat into integrating the RILEM meetings in the already very busy and huge ACI event. In Detroit, it was really a great experience to be part of the large ACI event and to be able to present our first ever RILEM Annual Review 2016 as a new venture to promote RILEM. RILEM and ACI colleagues both shared mutual interest, to exchange know-how and ideas. Being able to merge the RILEM Colonnetti award lectures with talks from leading industrial practitioners was a success in bridging the gap between science and practise.

Being in Chennai, India, nearly at the opposite part of the globe to Detroit, six months later with our Honorary President Manu Santhanam was another great experience. It was an Annual Week with a top attendance of over 500 people, involving worldwide experts and also many local researchers. The entire range of themes relevant to RILEM was covered at the conference; concrete, bitumen, wood, composites, structural engineering, repair, building systems, and sustainability. Some 16 keynote speakers from across the world enthralled the conference delegates with their presentations, and the pre- and post -conference workshops generated massive interest among young researchers from India and abroad. Possibly the fastest decision that RILEM has ever implemented was the organisation, for the first time, of a Best Poster Award for a young researcher being present at the conference to present his or her poster. This will become now standard practise at future Annual Weeks. Moreover, we were able to present our new RILEM website, an extra “cherry on the cake”.
After some years of absence of RILEM activities in the North of Africa, The Materials & Structural Stability Conference in Rabat, Morocco, in late November was another great adventure. The atmosphere at the prestigious École Mohammadia d’Ingénieurs was relaxing and thrilling at the same time. Many young people from Morocco and Algeria attended the well organised and structured conference, eager to learn from each other and to share their ideas and research achievements. Mohammed Sonebi made fantastic advertisement for RILEM, many participants signed up for RILEM membership, and a strong desire for partnership with RILEM was expressed and officialised in a common declaration signed at the event between the association ASMATEC (Association Marocaine des Sciences des Matériaux et Technologies de la Construction) and RILEM.

From the above, it is clear that we are moving steadily along the path set out in our RILEM Strategy. Reaching out to Young people, fostering further links with industry, developing further our publication and promotion strategy, assuring our worldwide presence in conferences, through partnerships, as well through the Internet - all these were evident in 2017, and we are pleased to report on this in the present 2017 review.

For a more comprehensive overview of RILEM activities in 2017, we invite you cordially to scroll through the pages of this report.

We look forward, with the help of all of you, to capitalise on these achievements strive to make 2018 an even bigger success.

On behalf of the RILEM presidency

Johan, Ravindra, Mark
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2017 Key Numbers

MEMBERSHIP

1405 members

67 countries

ACTIVITIES

37 Technical Committees

11 courses

27 events

PUBLICATIONS

2 State-of-the-Art reports

10 proceedings

1 report

3 recommendations
WEBSITE

73,404 viewers
315,869 pages views

Top 3 countries
India
USA
United Kingdom

Facebook
553 followers
Top 3 countries
India
Brazil
USA

LinkedIn
717 followers
Top 3 countries
France
USA
Italy

YouTube
97 subscribers
Top 3 countries
Brazil
India
Canada
The 71st RILEM Annual Week was organized by the Indian Institute of Technology Madras at Chennai, India, in conjunction with the International Conference on Advances in Construction Materials and Systems. The event was possibly one of the largest in terms of the attendance. While the conference drew nearly 550 participants from over 35 countries, an additional 200 – mainly from India – participated in the pre- and post-conference workshops.

The entire range of themes relevant to RILEM was covered at the conference, which saw papers and posters presented in the areas of concrete, bitumen, wood, composites, structural engineering, repair, building systems, and sustainability. 16 keynote speakers from across the world enthralled the conference delegates with their presentation of the state of the art research. The plenary session on the last day of the conference saw the L’Hermite medal being bestowed upon Dr. Ueli Angst from ETH Zurich, along with a new award for the best poster for Ms Sripriya Rengaraju, a PhD student from IIT Madras.
The pre-conference workshops addressed two emerging topics of study – (i) Limestone Calcined Clay Cement, and (ii) Textile Reinforced Concrete, and these were able to generate massive interest among the young researchers from India. On the other hand, the post-conference workshops were dedicated to two of the leading researchers from the modern era: (i) Workshop on Corrosion Monitoring and Control – to Dr. Carmen Andrade, and (ii) Workshop on NDT of Modern and Heritage Structures – to (late) Dr. Luigia Binda. The deliberations at the workshops are expected to have far reaching implications on the research and engineering practices in India and the developing world.

The conference was also enriched by a very large delegation from the Indian industry, who also set up several stalls at the conference venue showing their latest products and services. Another high point of the conference was the participation of youngsters from academia and industry – it is estimated that almost 70% of the participants were aged 35 and below.

Apart from the high quality science on display at the workshops and conference, the participants were also treated to a selection of the best of Indian culture and traditions, which are sure to create an everlasting memory of the RILEM Annual Week 2017.
RILEM Membership

Since 2008, RILEM has seen a steady growth in total number of members (individual and corporate), climbing from 1057 in 2008 to 1405 in 2017.

Total number of RILEM members (individual and corporate)

Countries TOP-20 in 2017 (based on total #individual membership)
Within RILEM, Technical committees are the heart of the organisation, and the backbone of action. They are highly dynamic and have a limited functioning life of 5 to 7 years. Every year, several technical committees are closed after successfully reaching their goals, and new TCs are initiated. During the last decade, the number of active Technical Committees fluctuated around 35, and in 2017 this number was 37.

Technical committees

Every year, 4 to 5 new technical committees are created. The full list of active TCs and details about their work can be consulted at tc.rilem.net

The following new committees were approved in 2017:

Cluster B: Transport and Deterioration Mechanisms (Convener: Esperanza Menendez Mendez)
  • CCC - Carbonation of concrete with supplementary cementitious materials (Chair: Nele De Belie)

Cluster E: Masonry, Timber and Cultural Heritage (Convener: Robert Flatt)
  • LHS - Specifications for testing and evaluation of lime-based repair materials for historic Structures (Chair: Ioanna Papayianni)

Cluster F: Bituminous Materials and Polymers (Convener: Hervé Di Benedetto)
  • CBE - Multiphase characterisation of cold bitumen emulsion materials (Chair: Andrea Graziani)
  • WMR - Valorisation of Waste and Secondary Materials for Roads (Chair: Lily Poulidakos)
The following technical committees have successfully terminated their mission by publishing a State of The Art Report (STAR) or Technical report in 2017:

- **237-SIB**: Testing and characterization of sustainable innovative bituminous materials and systems chaired by Manfred Partl  
  STAR to be published in 2018

- **238-SCM**: Hydration and microstructure of concrete with supplementary cementitious materials chaired by Nele De Belie  
  STAR to be published in 2018

- **241-MCD**: Mechanisms of Cracking and Debonding in Asphalt and Composite chaired by William Buttlar  
  STAR to be published in 2018

- **243-SGM**: Specifications for non-structural grouting of historic masonries and architectural surfaces chaired by Caspar Groot  
  STAR published in 2016

- **248-MMB**: Methods of measuring moisture in building materials and structures chaired by Lars-Olof Nilsson  
  STAR to be published in 2018

- **268-SIF**: Surface delamination of concrete industrial floors chaired by Valerie Pollet  
  Report 46 published on RILEM's website [https://www.rilem.net/publication/publication/485]

This figure is from the first publication resulting from the work of RILEM TC 262-SCI (published 18 months after the TC started its work; U. M. Angst, M. R. Geiker, A. Michel, C. Gehlen, H. Wong, O. B. Isgor, B. Elsener, C. M. Hansson, R. François, K. Hornbostel, R. Polder, M. C. Cruz, M. Sanchez, M. J. Correia, M. Criado, A. Sagüés, N. Buenfeld. The steel-concrete interface, Materials and Structures 50 (2017) 143). The TC made a comprehensive list of possible local characteristics at the steel-concrete interface (SCI) and compiled available information regarding their properties as well as the occurrence of these characteristics in laboratory and in engineering structures. Given the complexity of the SCI, the TC suggested a systematic approach to describe it in terms of local characteristics. The SCI exhibits significant spatial inhomogeneity along and around as well as perpendicular to the reinforcing steel bar in terms of material composition and physical and chemical properties. A single SCI representing all on-site conditions does not exist; the SCIs of laboratory-made samples are likely to be non-representative for field conditions. The SCI is known to affect the durability performance of reinforced concrete structures, particularly corrosion. The TC is currently looking into this in more detail. Credits: TC 262-SCI
Full scale tests on a masonry vault strengthened at the intrados with steel reinforced grout, as part of the experimental activity that are carried out within the RILEM TC 250-CSM - Composites for sustainable Strengthening of Masonry.
Credits: Gianmarco De Felice

Fracture of Textile Reinforced Concrete under tension and bending load is assessed using synergy of advanced experimental techniques: Digital Image Correlation (crack width and spacing, see figures), Acoustic Emission (onset and intensity of damage) and Ultrasound Pulse Velocity (stiffness monitoring).

Research associated to RILEM TC 269-IAM Damage assessment in Consideration of Repair/Retrofit-Recovery in Concrete and Masonry Structures by Means of Innovative NDT

Credits: Dept. Mechanics of Materials and Constructions (MeMC), Vrije Universiteit Brussel (VUB) in cooperation with Laboratory on Innovative Techniques for Infrastructures (ITIL), Kyoto University.

Samples of different clay plasters, with different clay: sand ratio.
Credits: Paulina Faria
Technical and Educational Events

Many technical and educational events were again organized worldwide in 2017, including conferences, workshops, PhD courses, and the like. The following map shows the geographical spread of the activities. It can be concluded that RILEM is reaching out to all corners of the world bringing together many people!
RILEM events 2017–2020

- Co-sponsored event
- Educational activity
- RILEM event
- Technical Committee meeting
- Spring Convention
- RILEM Annual Week
- RILEM partner

RILEM partners
01 ALCONPAT
02 American Concrete Institute (ACI)
03 ASMATEC
04 Concrete Institute of Australia (CIA)
05 FIB
06 IBRACON
07 ICI
08 International Academy of Engineering (IEA)
09 International Society for Asphalt Pavements (ISAP)
10 JCI
11 KCI
12 NZCS
Test-production of crushed sand for concrete at a pilot-plant within the MiKS-project at the Norwegian University of Science and Technology.
Credits: Roland Cepuritis and Stefan Jacobsen

Engineered crushed sand for concrete produced at a pilot-plant within the MiKS-project at the Norwegian University of Science and Technology. Credits: Roland Cepuritis and Stefan Jacobsen
In addition to conducting business by email, the Educational Activities Committee met at the RILEM Annual Week in Chennai on Sept. 3.

In 2017, five new PhD courses were approved and run along with 6 previously approved PhD course series. These courses took place in Europe, South and North America.

In 2018, six EAC-approved PhD course series will be run and one new PhD course has already been approved.

In addition, the concept of introducing EAC-sponsored Industry Professional Courses is being considered.

Courses cover a wide range of topics as is obvious from the list below.

- The course "CSC2I – Corrosion Science & Corrosion Control for Infrastructure” was again organized by Dessi Koleva in Delft, The Netherlands on 15 – 19 May 2017.
- Oguzhan Copuroglu organized the “Concrete Microscopy Course” (CMC) in Delft, The Netherlands on 30 May – 2 June 2017.
- The course “Service Life of Concrete”, organized by Jason Weiss was held for the first time in Corvallis, OR, USA on 9 – 14 July 2017.
- For the first time, EAC co-sponsored a MOOC “Cement Chemistry and Sustainable Cementitious Materials” that started in September 2017 on the platform EdX.
- The “Multiscale Modelling Course for Concrete” (MMC2) was held as each year in Delft, The Netherlands on 2 – 6 October 2017.
- The course “Modelling of cement-based materials and structures at early age”, organized by Agnieszka Knoppik, was held in Gliwice, Poland on 9 – 13 October 2017.
- “Fiber reinforced concrete design aspects and specifications” was held in Bento Gonçalves, Brazil on 31 October – 1 November 2017.
- “De la microestructura al diseno por vida util” organized by Roberto Torrent was held in Medellin, Columbia on 28 November – 1 December 2017.
The EBADE test is a strain sweep test developed at the Road Research Laboratory of the UPC that provides information about the fatigue cracking resistance of asphalt mixtures, reducing considerable the testing time with respect to the conventional test procedures employed to that purpose. Credits: Ramón Botella Nieto

The Fenix test is a monotonic test developed at the Road Research Laboratory of the UPC that characterizes the cracking resistance of asphalt mixtures. Credits: Ramón Botella Nieto
Publications

Of utmost importance for RILEM is the dissemination of information. This is facilitated through different channels such as the flagship publication of RILEM, the journal “Materials and Structures”, the Open Access journal “RILEM Technical Letters”, conference proceedings, STAR reports, technical reports, and RILEM Recommendations. Enormous advances have been made this year especially with respect to the impact factor of M&S which is growing steadily, the launch of RILEM Technical Letters and the revival of issuing Technical Recommendations.

The aim and challenge for 2018 is to establish a citation index also for RILEM Technical Letters.

Materials and Structures

Editorial board and journal management
In 2017 Editor in Chief Pietro Lura got extra support of Prof. Giovanni Plizzari (already Associate Editor), as Deputy Editor in Chief next to Prof. Nicolas Roussel. Prof. Plizzari’s main role is advising the EiC on structural papers. He replaces Prof. Laura De Lorenzis who remains in the Editorial Board as Associate Editor.

Three new Associate Editors were appointed in 2017: Prof. Dimitrios G. Aggelis (Vrije Universiteit Brussel, Belgium), Prof. Gaurav N. Sant (UCLA, USA) and Prof. Gabriele Tebaldi (University of Parma, Italy).

Continuous article publishing and faster publication
Since August 2016, Materials and Structures changed from a traditional, issue-based publication scheme to Continuous Article Publication (CAP). The CAP scheme is currently applied to all articles accepted in Materials and Structures, leading to extremely fast publication. Articles appear online in final form in usually two to four weeks after acceptance; often, this time is reduced to 7 days only.

In addition to the faster publishing process brought about by CAP, the Editorial Board, technical staff and our volunteer reviewers make every effort to ensure a rapid and competent review process. Thanks to these efforts, the time to decision of the newly submitted articles was also substantially reduced in 2017: the average time for a final decision was 4 months for accepted papers and only 2 weeks for rejected papers. Currently (January 2017), there are no pending papers from 2016 and only 3 papers from the first semester of 2017 are without final decision.

Impact Factor Materials and Structures

Published articles and impact of the journal
The increase in number of submissions observed since several years is still persistent but may be starting to flatten out. In the year 2017, the total number of submissions was almost 1600. Nevertheless, the high standards regarding scientific quality, novelty and originality of the journal are strictly maintained. In fact, the acceptance rate decreased from 19% in 2015 and 13% in 2016 to slightly above 10% in 2017.
In Vol. 50 (2017), 256 articles were published. Despite the high number of papers published in the previous two years to clear the backlog (160 in 2013 and 150 in 2014, versus 288 in 2015 and 381 in 2016), a slight increase of the impact factor of the journal occurred. The IF 2016 was 2.607 compared to 2.453 in 2015. We should expect the impact factor to decrease in 2017 due to the high number of papers published in both years 2015 and 2016, but dare to be optimistic to be able to build further on the present positive élan.

In addition to publishing regular research papers, Materials and Structures serves as an important platform for dissemination of the outcomes of RILEM Technical Committees. In the year 2017, four articles stemming from RILEM TCs (TC 260-RSC, TC 246-TDC, TC 262-SCI and TC 238-SCM) and three official Recommendations (TC 236-BBM, TC 246-TDC and TC 237-SIB) were published.

Since 2017 it is possible to publish electronic supplementary material with a paper in Materials and Structures. The supplementary material is stored by Springer on their website and may contain additional figures and tables also videos, data and software.

Outstanding Papers and Best Reviewer Awards

Similar to previous year, also in 2017 the Editorial Board awarded the Outstanding Paper award to the authors of 10 articles. In recognition of their high quality and important contribution to the journal and to the whole RILEM community, the selected articles were made available as Open Access. This means that the awarded articles can be accessed and downloaded worldwide with no restrictions, providing better outreach and dissemination.

Another important RILEM Award related to the journal is the Best Reviewer Award granted annually by the Editorial Board to our best volunteer reviewers, which guarantee the high scientific quality of the published articles and a fast review process. In this year, 6 reviewers were awarded for their service to the journal in the year 2016.

List of the Outstanding Papers 2017


Materials and Structures Best Reviewers 2016

- Pietro Carrara (TU Braunschweig)
- Farshad Rajabipour (Penn State)
- George W. Scherer (Princeton)
- Xiaohu Lu (Nynas)
- Antonio Mari (UPC Barcelona)
- Dirk Löwke (TU Braunschweig)
RILEM Technical Letters

In 2017, RILEM Technical Letters, a new open access journal established in March 2016, published the second volume. Also, in this year, the journal published 20 letters reporting on most breakthrough current research topics authored by acknowledged authors from the RILEM community. It is worth underlining that all the letters are available in full open access and the publication fees are fully sponsored by RILEM if at least one author is a RILEM member. This contributes to an important mission of RILEM, creating a platform for the exchange of ideas and dissemination of knowledge in the field of building materials and structures. Furthermore, the availability and outreach of the published articles goes beyond that offered by the journal’s website, since the authors are free to upload their articles in the repositories of their choice, giving credit to the journal. The open access policy together with the most valuable contributions by RILEM authors results in high impact of the journal, manifested already at the early stage in the high number of citations. We are confident that this trend will keep increasing also in the coming years.

An important milestone in the development of the journal was appointing the editorial board during the Spring Meeting in Detroit. The first official meeting of the editorial board took place during the RILEM Week in Chennai. The active contribution of the new editors yielded new invited submissions that were published towards the end of the year.

In this year, a continuous development of the journal also consisted of a number of technical improvements. A new mobile-compatible webpage was launched to provide easier access to the articles. Also, new editorial platform based on Open Journal Systems 3.0 was installed to facilitate the editorial work-flow. The plans for 2018 are to invite further interesting submissions in the form of short (5-6 pages) letters. The interested authors are welcome to submit the proposed topics to the editor in chief, Prof. Nicolas Roussel (nicolas.roussel@ifsttar.fr) or the members of the editorial board.

Please visit the journal at: letters.rilem.net.

The study was the development of a modified version of APULOT test (Appropriate Pull-Out Test) performed to estimate the in-situ compressive strength of concrete at early ages from maximum bond stress between steel rebar and concrete. The correlation was made with strength compressive of cylinders and cores. The research has developed in laboratory as well as on real construction sites. It has been proposed the use of this bond test specially for post-tensioned concrete when there is need to know the strength of concrete in his first days.
Besides the two journals, RILEM also publishes proceedings, state-of-the-art reports (STAR), and recommendations. 2017 has been a successful year in this respect, with 10 proceedings, 2 STARs and 1 report, and 3 Recommendations.

List of proceedings published in 2017

Published by RILEM Publications:

- PRO 103: International Conference on Advances in Civil Engineering and Sustainable Construction (ACESC’16) (2016); Eds. T. Ch. Madhavi, G. Prabhakar, Santhosh Ram, and P.M. Rameshwaran
- PRO 105: International Conference UHPC Materials and Structures (2016); Eds. Caijun Shi and Dehui Wang
- PRO 106: International Conference on Ultra-High-Performance Fibre-Reinforced Concrete (2017); Eds. François Toutlemonde & Jacques Resplendino
- PRO 107: XIV DBMC – 14th International Conference on Durability of Building Materials and Components (2017); Eds. Geert De Schutter, Nele De Belie, Arnold Janssens, Nathan Van Den Bossche
- PRO 118 (4 volumes): International Conference on Advances in Construction Materials and Systems (2017); Ed. Manu Santhanam
- PRO 120 (2 volumes): EAC-02 - 2nd International RILEM/COST Conference on Early Age Cracking and Serviceability in Cement-based Materials and Structures, (2017); Eds. Stéphanie Staquet and Dimitrios Aggelis
Published by Springer:

- International RILEM Workshop on Creep Behaviour in Cracked Sections of Fibre Reinforced Concrete (FRC-CREEP 2016); Vol. 14; Eds. Pedro Serna, Aitor Llano-Torre, Sergio Cavalaro
- International RILEM Conference on Strain-Hardening Cement-Based Composites SHCC4; Vol. 15; Eds. Viktor Mechtcherine, Volker Slowik, Petr Kabele
- 2nd International Conference on Calcined Clays for Sustainable Concrete; Vol. 16; Eds. Fernando Martirena, Aurélie Favier, Karen Scrivener

List of STARs published in 2017

- A Framework for Durability Design with Strain-Hardening Cement-Based Composites (SHCC) – STAR of RILEM Technical Committee 240-FDS – Vol. 22; Eds. Gideon van Zijl & Volke Slowik

Other reports published in 2017:


Recommendations published in 2017

- Recommendation of RILEM TC 237-SIB on complex Poisson’s ratio characterization of bituminous mixtures
- Recommendation of RILEM TC 246-TDC: test methods to determine durability of concrete under combined environmental actions and mechanical load
- Recommendation of RILEM TC 236-BBM: characterisation testing of hemp shiv to determine the initial water content, water absorption, dry density, particle size distribution and thermal conductivity
RILEM Honours and Awards

Annual Week Best Student Poster Award

For the first time ever, a Best Student Poster Award was rewarded in Chennai to Ms Sripriya Rengaraju, a PhD student from IIT Madras. This award is going to be further developed in the years to come.

Gustavo Colonnetti Medal

Starting in 2016, up to two Gustavo Colonnetti Medals, named after the first RILEM President and co-founder of the association, are awarded each year to researchers of less than 35 years of age, who have made an outstanding scientific contribution to the field of construction materials and structures.

In 2017, the awards were granted to Prof. Gaurav Sant and Prof. Enrico Sassoni. They received their medal and presented their work at the ACI Spring Convention in Detroit in March 2017. Videos of their lectures are on RILEM YouTube channel.

Robert L’Hermite Medal

Since 1975, the Robert L’Hermite Medal is awarded annually to a researcher of less than 40 years of age, who has made an exceptional scientific contribution to the field of construction materials and structures.

In 2017 the medal was granted to Prof. Ueli Angst. He received his medal and presented his work at the International Conference on Advances in Construction Materials and Systems in Chennai, India, in September 2017. Video of his presentation is on RILEM YouTube channel.
RILEM Fellows and Honorary Members

Created in 1993 by the General Council, the honorary title of RILEM Fellow is bestowed upon RILEM Senior members who have made exceptional contributions to RILEM in their capacities as research scientist, engineer, technical leader or educator. RILEM also distinguishes Honorary Members. These are persons having rendered exceptional services to the association — for example, having successfully chaired the work of several TCs, or having contributed to giving a new orientation to the association.

RILEM fellowship was bestowed on Prof. Dubravka Bjegovic, Prof. Hervé Di Benedetto, Dr. Esperanza Menendez Mendez, Prof. Hirozo Mihashi, Dr. Mohammed Sonebi, and Prof. Enric Vazquez, in Chennai in September 2017. Prof. Manfred Partl and Prof. Lars-Olof Nilsson were elected as Honorary Members, also in Chennai.

Prof. Dubravka BJEGOVIC
“In recognition of her RILEM work on key performance indicators and concrete durability at large.”

Prof. Hervé DI BENEDETTO
“In recognition of his work, amongst others, in the field of bitumen.”

Prof. Esperanza MENENDEZ MENDEZ
“In recognition of her commitment to RILEM Technical Committee activities.”

Prof. Hirozo MIHASHI
“In recognition of his work on fracture mechanics and fibre reinforced concrete in the context of RILEM.”

Prof. Mohammed SONEBI
“In recognition of his engagement in RILEM Technical Committees, and efforts as Regional Convener for Middle-East and North Africa.”

Prof. Enric VAZQUEZ
“In recognition of his work, amongst other, related to recycling of materials.”

Prof. Manfred PARTL
“In recognition of his commitment to RILEM in general and his dedicated role in reaching out to the Asphalt Pavement Association on behalf of RILEM.”

Prof. Lars-Olof NILSSON
“In recognition of his achievements related to Testing, Modelling, Service-Life Prediction and Performance Based Specifications as chairman and member of numerous RILEM TC’s and his continued efforts to act as RILEM ambassador.”

Johan Vyncke, RILEM President and Dubravka, Bjegovic, RILEM Fellow 2017.
Credits: Sofiane Amziane

Mohammed Sonebi, RILEM Fellow 2017.
Credits: Sofiane Amziane

Manfred Partl, RILEM Honorary member 2017 and Johan Vyncke, RILEM President.
Credits: AG
Regional Groups & National Groups

In some regions, a formal RILEM Regional Group has been established to overcome language barriers and to encourage and facilitate development of RILEM technical and educational activities on a regional level, in due consultation with the RILEM headquarters in Paris. Currently, RILEM has three regional groups:

- **LAT-RILEM**, established in 2010, covering the region of Latin America.
- **CIS-RILEM**, established in 2016, covering the region of East Europe & Central Asia.
- **CHN-RILEM**, coinciding with China. This group started as a national group in 2013 and was transformed to a regional group following the recent reorganization of RILEM regions.
- **JPN-RILEM**, established in 2016. The Japanese National group was officially created in Lyngby although Japan has a long-time experience with national RILEM meetings, dating back already before the RILEM Annual Week organized in Japan in 2004.

RILEM National and Regional Groups have some autonomy in developing national and regional activities, within a framework defined by RILEM Bureau and General Council.

Some info related to the regional groups is given below:

- The focus of the Lat-RILEM Regional Presidium was put in 2017 on diversifying the location of RILEM events in the Region, geographically and thematically. In addition to the continuous participation in events in Argentina and Brazil, events are planned in countries with lower bonding to RILEM, including Paraguay, Cuba, Peru, Chile, Ecuador and Mexico. This is mostly based on encouraging current local RILEM members to become organisers, but also from contacting institutes and researchers with no previous participation in RILEM activities.
- CIS-RILEM came to in full development in 2017, after the official launch in 2016. In the last year, many efforts have been put in organizing numerous events, involving many colleagues from local industry and academia. Main targets are clearly to involve young people in the work of RILEM and CIS RILEM and to update a detailed plan of action for CIS-RILEM. The edition of some selected papers from Materials and Structures, and eventually a number of selected RILEM State-of-the-Art Report in Russian is currently one of the main activities of CIS-RILEM.
- In a region where RILEM has shown a fast development in the past years, CHN-RILEM is very active in organizing technical activities, including national academic events, international conferences and workshops, and RILEM doctoral courses. In addition, CHN-RILEM also supports some members to attend international activities. In 2019, we will have the RILEM Annual Week in Nanjing, China. This promises to become a major event, for which preparations have already started now!
- With a long-standing tradition in assembling Japanese RILEM members, the Japanese colleagues now started working in the framework of a RILEM National Group, after the official launch in October 2016. In an excellent cooperation with major stakeholders in Japan, including Japan Concrete Institute, one of RILEM’s International Partners, JPN-RILEM significantly contributes to the development of RILEM in Japan. Their proposal to organize the RILEM Annual Week 2022 in Kyoto has been approved by RILEM.
International Partnerships

During the last five years, RILEM has concluded several strategic partnership agreements with important national and international organizations. These partnerships are very helpful to exchange organizational, technical and educational information, in view of an optimal spread of state-of-the-art information concerning construction and building materials all over the world.

In 2017 RILEM was happy to welcome ALCONPAT as new International Partner. Furthermore, preparations have been made to sign an agreement with AATH, and a declaration of intent to explore setting up an international partner agreement with ASMATEC has been signed.

ALCONPAT is a Regional Association of Researchers in the field of Concrete Durability and Pathology of Reinforced Concrete Structures. Carmen Andrade, RILEM Honorary Member, was the Director of International Relations of ALCONPAT and is now President of ALCONPAT.

AATH is the Argentine Association of Concrete Technology, congregating mainly researchers and academics involved in R&D on cement and concrete. This institution has an extended and active life with a national and regional coverage.

ASMATEC is the Association of Building Materials Science and Technology in Morocco, or in French L’Association Sciences des Matériaux et Technologies de Construction.

Remarkable for 2017 was the organisation of our RILEM Spring meetings at the ACI Convention in Detroit where RILEM was also present with a booth. ACI officials and members were very pleased to have this opportunity to meet with the RILEM staff and members at the convention in Detroit, and it was one of at the highlights of the convention for ACI.

Also in Maastricht, at the fib symposium, RILEM and Springer were present with a booth. Noteworthy for this event was that our CIS-RILEM Regional convenor Vyatcheslav Falikman, who has been instructive in triggering our renewed partnership with fib, was bestowed with Honorary Life Member at the fib symposium 2017 in Maastricht.

A list of current international partnerships is given hereafter, with the contact person.

- Latino-American Association of Quality Control, Pathology and Construction Recuperation, Alconpat International (Carmen Andrade)
- American Concrete Institute, ACI (Ron Burg)
  Partnership in progress of exploration and intended to be implemented soon.
Indian Concrete Institute, ICI (R. Radhakhrishnan)

International Academy of Engineering, IEA (Vyatcheslav Falikman)

International Society for Asphalt Pavements, ISAP (Gabriele Tebaldi)

Japan Concrete Institute, JCI (Kyuichi Maruyama)

Korean Concrete Institute, KCI (Hyun Mock Shin)

New Zealand Concrete Society, NZCS (Michael Khrapko)

Signature with ASMATEC in presence of Johan Vyncke, RILEM President, Mark Alexander, RILEM Outgoing president, Mohammed Sonebi, RILEM Regional Convener and Ali Boughari, President of ASMATEC. Credits: Mohammed Sonebi

Signature of the partnership agreement with Alconpat, Johan Vyncke, RILEM President and Carmen Andrade, President of Alconpat International. Credits: IIT Madras
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Upcoming major events for 2018 and beyond

RILEM Spring Convention 2018
The first RILEM Spring Convention 2018 will be held in conjunction with the Seminar “Advances in Durability and New Materials for Construction” at Universitat Politècnica de Catalunya in Barcelona, Spain, on 19-21 March 2018.

RILEM Annual Week 2018
The 72nd RILEM Annual Week will be held in conjunction with the International Conference on Service Life Design for Infrastructures and the Symposium on Concrete Modelling on 26-30 August 2018 in Delft, The Netherlands.

Future RILEM Events

<table>
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<tr>
<th>Year</th>
<th>Spring Event</th>
<th>Annual Week</th>
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<tbody>
<tr>
<td>2019/34</td>
<td>Rovinj, Croatia (Dubravka Bjegovic)</td>
<td>Nanjing, China (Tian Qian)</td>
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<tr>
<td>2020/45</td>
<td>Guimarães, Portugal (Eduardo Pereira)</td>
<td>Sheffield, UK (John Provis)</td>
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<tr>
<td>2021/56</td>
<td>Paris, France</td>
<td>Merida, Mexico (Alejandro Duran)</td>
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<tr>
<td>2022/67</td>
<td>Morocco(*) (Mohammed Sonebi)</td>
<td>Kyoto, Japan (Takafumi Noguchi)</td>
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(*) Proposal under exploration, details to be specified.
Calls for events in 2023 will be launched later in 2018.
Secretariat General

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