The European Society of Radiology
A truly global affair

- Europe: 34%
- Asia: 32%
- Latin America: 17%
- North America (US & CA): 8%
- Africa: 7%
- Oceania: 2%
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MEMBERS
(as per November 30, 2019)
The largest radiological society in the world
It is tradition that the Chairperson of the Board of Directors prepares a foreword to the Annual Report of the European Society of Radiology pointing at what she or he thinks were the most important achievements of the society during the year, thus providing a ‘personal touch’ to the report. So it is now my duty — although I prefer to call it a pleasure and honour — to write a few words about how nice it was to talk to everyone who joined ECR2020. Furthermore, the society now has 194 national and sub-society members as well as Institutional and Associate Institutional Members. Again, I think this means that the ESR is felt to be — and is well established as — a forum for the discussion and growth of radiology worldwide, and that the motto of ECR 2018 ‘diverse & united’ is truly a reality.

At our Annual Leadership Meeting (ALM), held in Genoa, my hometown, on November 22, 135 member delegates from 46 institutional Member Societies gathered together and we presented the initial results of the survey on ‘The role and identity of the radiologist in Europe’, which was conducted among the European national radiological societies. We decided that the same survey will be sent to all full radiologist members of the ESR. The questionnaire, prepared by Prof. Andrea Roock, Chair of the National Societies Committee, aims to help us understand how radiologists perceive our role in healthcare; the nature of our relationships with each other, our colleagues and our patients; how we practice medicine; and how we improve teamwork in our departments. We hope it will be possible to gather information that will help us to gain a deeper knowledge of ‘the bigger picture’ of radiology in Europe and to understand ourselves better.

The ESR European Training Curriculum (ETC), the European Diploma in Radiology (EDiR), the Accreditation Council in Imaging (ACI), and the European Training Assessment Programme (ETAP). Our discipline is changing constantly, driven by both technological and clinical advances. This is why we have put so much effort into preparing a new version of the European Training Curriculum, including major updates regarding AI and medical imaging informatics at Levels I, II, and III. Levels I and II of the ETC in Medical Imaging Informatics detail the competences required to understand and make use of imaging informatics. We have worked hand in hand with Level III of this curriculum covers the skills and knowledge needed for the radiologist to actively manage medical imaging informatics in all clinical radiology domains. The understanding is that there is a need for a bridge between clinical radiology and the more technical disciplines (physics and informatics). Radiologists with in-depth knowledge of medical imaging informatics will be able to translate clinical needs into medical imaging informatics applications, typically within an interdisciplinary team of radiologists, informaticians and physicists. The new version of the curriculum will be presented at ECR 2020.

The European Diploma in Radiology (EDiR) will be ten years old in 2023. It has grown fast during that decade, with more than 3,500 candidates taking the examination in total. It took some time, but it is now accepted as equivalent to the national board examinations in the Netherlands, Poland and Croatia, as well as a part of the national board exams in Turkey, Finland and Slovenia. The numbers are continuously increasing, and therefore the European Diploma in Radiology is no longer only a valuable adjunct to the individual’s CV, but is also increasingly recognised by national authorities as robust, accurate and valuable.

The Accreditation Council in Imaging (ACI), launched in January 2016 as a joint initiative of the ESR and the UEMS, acts as a facilitator between training providers and the EACCME, offering a personalised and efficient service for accreditation of all educational projects and initiatives; and I am happy to say that radiology is one of the medical specialties with the highest number of UEMS accredited events.

Likewise, the European Training Assessment Programme (ETAP), which serves as an efficient and objective tool for evaluating training effectiveness and demonstrating the value of a training program, has continued to issue certificates of excellence for radiology training centres in Europe and beyond.

I am especially proud that, aside from the existing initiatives, the ESR continues to develop new projects that aim to facilitate progress in radiology. In 2019, the ESR Research Committee, together with the European Institute for Biomedical Imaging Research (EIBIR), launched a new seed funding programme for innovative one-year projects and pilot studies in the fields of AI and cardiac imaging. The purpose of the programme is to stimulate and provide funding for ambitious projects that will subsequently lead to larger studies and further funding applications.

Another new initiative launched by the ESR in 2019 was ESR Connect, offering exciting and highly educational online video content spread over three channels. We also relaunched the ESR Education on Demand platform with two websites: Education on Demand, currently offering more than 229 courses available, and Education on Demand Premium, containing more than 120 courses with 425 CME credits available.

Finally, I want to underline that the work of the Chair of the ESR Board of Directors is not performed in isolation but is the result of teamwork. I therefore wish to express my immense gratitude to all the directors, colleagues and Executive Council members who have contributed to achieving all these great things in the past year, to all the people at the ESR Office for their professional help, and to all of you, dear colleagues and ESR members, whose unrelenting support keeps us striving towards excellence in radiology.

Lorenzo E. Derchi
Chairman of the ESR Board of Directors
OVERVIEW OF THE ESR’S ACHIEVEMENTS IN 2019

INDIVIDUAL AND INSTITUTIONAL MEMBERSHIP

Record Membership

The ESR is experiencing a continuous increase in membership numbers, and 2019 marks yet another important milestone: more than 120,000 individual members. Finishing the year with 121,638 members from 182 countries solidifies the ESR as the world’s largest radiological society. The number of ESR member societies has also seen an increase with ten new Associate Institutional Member Societies joining the ESR in 2019 – the Ghana Association of Radiologists and the Kuwait Radiological Society. The total number of ESR Associate Institutional Member Societies thus amounts to 51, in addition to the six European National Member Societies and 15 European Subspecialty and Allied Sciences Member Societies.

ESR Support Initiative

The ESR Support Initiative saw its continuation in 2019. This social responsibility project aims to improve healthcare in less affluent regions in Europe by facilitating access to radiological training and educational resources for radiologists and allied professionals. The Support Initiative country for the March 2019 – March 2020 period was Georgia, and the initiative will go on to lymph to the newly-elected country for the March 2020 – March 2021 period.

ESR Annual Leadership Meeting

This year’s ESR Annual Leadership Meeting was held on November 22 in the capital of the Italian region of Liguria, Genoa. The ESR Annual Leadership Meeting is the major annual get-together of the presidents and members of the executive committees of the ESR National and Subspecialties & Allied Sciences Societies, as well as of leading professionals in the ESR bodies. 135 attendees from 46 ESR Institutional Member Societies gathered in the Palazzo della Borsa, the former stock exchange building in the heart of the historic port city of Genoa, to discuss the topics of importance for the ESR’s member societies and the profession of radiology. An update on the current ESR’s activities and the upcoming ECR 2020, the meeting focused on the topic of the role of the radiologist, the patient’s groups perspectives, as well as a variety of issues concerning the ESR Institutional Member Societies. The selected topics led to a stimulating exchange of ideas and opened up new perspectives for the future of medical imaging in Europe. The great interest in the meeting and continuous high number of participants each year confirms that it is one of ESR’s most important annual events. It is a great opportunity to network, to develop beneficial relationships and, most importantly, to build the future of radiology together.

The role of the radiologist survey among the European radiologist members

An important element for building the future of radiology is understanding the new role of the radiologist in an ever-changing landscape of modern medicine. In that sense, the ESR Board of Directors proposed a survey among ESR full radiologist members.

Andrea Rockall, Chairperson of the National Societies Committee, designed the survey in collaboration with the ESR’s Communication and External Affairs Committee, has been published in Insights into Imaging.

ESR on Tour

The radiological world is enriched by a myriad of congresses taking place throughout the year. The unceasing ESR representatives have worked tirelessly to visit as many of them as possible. ESR has a Memorandum of Understanding with more than 70 congresses across the globe. In addition to supporting our friends, by visiting many events worldwide, the ESR makes sure that the voice of European radiology is heard globally, and it has built strong partnerships with societies from around the world.

International and Interprofessional Relations

ESR on Tour

The ESR further expanded its cooperation with radiographers on a global basis and entered into its first MoU with the International Society of Radiographers & Radiological Technologists (ISRRT) on September 4, 2019, to attract even more non-European radiographers to ECR and to strengthen cooperation in areas of common interest to the Society of Radiology - in the past years, the ECR’s International Forum on Medical Imaging together with the ISRRT's International Forum on Medical Imaging, the ESR and the ISRRT will continue to cooperate on a peer-reviewed basis.

The topic for the ESR International Forum at ECR 2019 was ‘What are the strategies to engage the young generation’. The participants presented their societies’ views of this topic and discussed the future of radiology. A paper on the outcomes of the discussion prepared by Prof. Nikoleta Traykova, Chairperson of the ESR Communication and External Affairs Committee, has been published in Insights into Imaging.

Interprofessional Cooperation

ESR on Tour

The ESR has put great emphasis on the expansion of its multidisciplinary relations in 2019 and reached out to another related society, leading to the conclusion of its first MoU with the Brazilian Society of Radiology. The new MoU has been signed by Dr. Laidino Pinto (Brazilian Society of Radiology) and Andrea Rockall, Chairperson of the National Societies Committee, on June 26, 2019. The main aim is to strengthen cooperation in areas of joint interest, in particular, interdisciplinary scientific collaboration between both societies and the exploration of opportunities for diagnostic and interventional radiology.

The ESR continued to support the European Federation of Radiographer Societies (EFRS) and the European Society for Research on Medical Imaging and the European Federation of Medical Imaging Technologists (ISRRT) to have all respective ECCO officers in attendance at the opening ceremony.

Cooperation with the European Union of Medical Specialists (UEMS) Section of Radiology

In 2019, the ESR and the UEMS continued their successful collaboration, including projects under the umbrella of the European Board of Radiology (EBR), namely the Accreditation in Imaging (ACI), the European Training Assessment Modules (ETAM) 2.0 and the European Diploma in Radiology (EDIR). The ESR continues to support the UEMS Section of Radiology in administrative and management issues. In appreciation of the outstanding cooperation, the ESR granted the delegates of the UEMS Section of Radiology and its Divisions, Interventional Radiology and Neuroradiology, free registration for ECR 2019 where the successful joint session ‘Imaging professionals in the EU: radiologists without borders’ took place. In 2019, the ESR and the UEMS had an agreement which allocated forces regarding ultrasound.

Memoranda of Understanding

ESR on Tour

In 2019, the ESR had Memoranda of Understanding with 31 organisations. For the full list of the ESR Memoranda of Understanding, see pages 111-119.

The ESR has further strengthened its relations with the European Caner Organisation (EOCC) by joining forces in various lobbying initiatives, both at the Brussels level and at the international level. The ESR has supported the Cancer Declaration at the European Parliament and the ESR has been invited to write an article for the World Radiography Day 2019 special edition.

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improving quality and outcome of patient care’ was published in ECR ‘Today on Febra-
ury 27, 2019.

eHealth and Informatics
The ESR paper ‘What the radiologist should know about artificial intelligence – an
ESR white paper’ initiated by the subcommittee in 2018, was published in Insights into Imaging
on April 4, 2019. The ESR eHealth and Informatics Subcommittee worked on the update of the
imaging informatics section of the ESR European Training Curriculum Level I, II, and III and the
integration of AI content into the curricula in collaboration with the European Society of Medical Imaging Infor-
matics (EuSoMII). An international multi-society paper with the title ‘Ethics of artificial intelligence in radiology: summary of the joint European and North American multi-
society statement’ was produced by the ESR, the American College of Radiology (ACR), the Radiological Society
of North America (RSNA), the Society for Imaging Informatics in Medicine (SIIM), the European Society of Medical Imaging Informatics (EuSoMII),
the Canadian Association of Radiologists (CAR) and the American Association of Physicians in Medicine (AAPM).
A paper was published in Insights into Imaging on October 1, 2019. A further paper on blockchain technology in radiology is under development.

Professional issues and advocacy
Quality and safety agenda
Quality and patient safety in radiol-
ogy underpin all the work of the European Society of Radiology. The ESR advocates a holistic approach to quality and safety in radiology through several initiatives. Under
the leadership of Committee Chair Adrian P. Brady, the ESR Quality, Safety and Standards Committee is the main ESR body responsi-
ble for the development and implementation of quality and safety initiatives and acts as
supervising and supporting organ to the activities of dedicated subcommittees and working groups.

Audit and standards
Following the efforts of a clinical audit pro-
ject started in the past years, in 2019, the ESR Audit and Standards Subcommittee worked on
the development of clinical audit sur-
veys which were sent to European radiology departments through their national radio-
logical societies and EuroSafe Imaging Star departments. After evaluating the results, a feedback collaboration with national radiologi-
cal societies might work, and to assess departmental feedback on the clinical utility of 'Ethics of artificial intelligence in radiology: summary of the joint European and North American multi-society statement' was produced by the ESR, the American College of Radiology (ACR), the Radiological Society of North America (RSNA), the Society for Imaging Informatics in Medicine (SIIM), the European Society of Medical Imaging Informatics (EuSoMII), the Canadian Association of Radiologists (CAR) and the American Association of Physicians in Medicine (AAPM).
A paper was published in Insights into Imaging on October 1, 2019. A further paper on blockchain technology in radiology is under development.

Professional issues and Economics in Radiology
The ESR Professional Issues and Economics in Radiology (PIER) Subcommittee worked on
Published clinical studies and imaging researchers. This year also saw the EIBALL Subcommittee launch its Biomarkers Inventory on the ESR website, aiming to provide key information to
enable greater use of biomarkers in research. Additionally, EIBIR continued to
coordinate and manage seven EU-funded research projects. EIBIR also managed two
clinical studies and imaging biobanks to sup-
port clinical studies and imaging researchers. Further, EIBIR continued its management activities.

ESR Patient Advisory Group (ESR-PAG)
The ESR-PAG geared up its activities in 2019,
for a patient-centred approach in the activ-
ites of the ESR, with the aim of benefiting patients across Europe.

 For a full report see pages 42–44

RESER
ESR research activities
This year, in collaboration with the European Institute for Biomedical Imaging Research (EIBIR), this ESR Research Committee Board launched its Research Seed Grants initiative to stimulate innovative projects and pilot studies. Additionally, EIBIR continued to
collaborate with several EU-funded research projects. EIBIR also managed two
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EDUCATION & CERTIFICATION
Training
European Training Curriculum
The promotion of harmonisation of radiol-
ogy training is absolute key to the ESR with
the ultimate goal to achieve, throughout all
European countries, a standardised system
of education in the field of radiology, which will enhance the quality of radiological care for
patients.

The European Training Curriculum (ETC) are
living documents and subject to continuous revisions. An updated version of the ESR U-Level Training Curriculum was published online during ECR 2019. ESR Subspecialties and European Diploma for Radiologists recently pro-
vided their revisions for the ESR European Training Curricula Level I, II, and III and updated versions are planned to be published in time for ECR 2020. The 2018 edition of the European Training Curriculum Level I and II had been officially endorsed by the UEMS Council, and following the recommendation by the UEMS and under the guidance of Carlo Catalano, Education Committee Chair, intro-
ductive chapters were homogenised as well as a definition of ‘General Radiology’ was added for the 2020 edition.

Radiology Trainees Forum
In March 2019, Maja Marolt Mušić took over
as new Chairperson of the Radiology Trainees Forum
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For details about the European School of Radiology (ESOR), see pages 66–69.

For details about the ESR educational services
Education on Demand and Euroead, see pages 70–73.

For details about the platform ESR Connect, see pages 97–99.

Certification
For details about the European Diploma in Radiology (EDIR), the Accreditation Council in Imaging (ACI) and the European Traini-

ng Assessment Programme (ETAP), see pages 76–79.

For a full report see pages 57–63

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Chapter 2

European Congress of Radiology (ECR)

ECR 2019
the bigger picture
EUROPEAN CONGRESS OF RADIOLOGY (ECR) 2019 took place February 27 to March 3 with an impressive growth in attendance: a total onsite participation of 23,239, including a record number of 14,602 professional delegates, which represents a 5% increase compared to ECR 2018, and a total of 8,637 industry participants. In addition, the ECR Online streaming platform counted 7,020 registered viewers that were not present on site, which marks an increase of 9% compared to last year. The grand total of delegates at ECR 2019 thus comes to 30,259, which marks a rise of 6% compared to ECR 2018.

Over the last years, due to the continued increase in participation, the ECR started to occupy more and more buildings surrounding the congress centre, creating its very own ECR City. The majestic DC Tower, the location of the Cube 2.0, the Church, the Techgate and the DC Box were the latest additions to the ECR City map.

ECR 2019 was characterised by the celebration of the 25th congress held in Vienna since 1991 and turned out to be a major success on all levels. This year’s motto ‘the bigger picture’ did not only relate to the congress poster consisting of elements from the past 24 ECRs, but also to the ESR’s vision that its annual meeting is more than just a radiology congress, catering to the needs of radiologists, radiographers, nuclear medicine physicians, medical physicists and professionals from related disciplines. To celebrate this 25th anniversary in style, a new format for the Grand Opening ceremony was developed, which was especially well received and filled the biggest hall in the congress venue up to the last spot. A specific motto for the Grand Opening was chosen, ‘Five Senses’, which permeated the whole affair with special scents to set a unique atmosphere, a spectacular stage & light design and music throughout.

Like every year, though, it was the scientific programme highlights and innovative formats that made the meeting special.

‘The Cube’, the ECR’s dedicated venue for interventional radiology, which doubled in space in comparison to ECR 2018, saw further increase in attendance and interest. Over the course of four days, the Cube offered interactive presentations, challenges and quizzes led by international experts in the field of interventional radiology. Thanks to the support of more than 30 industry partners onsite, an unprecedented number of IR simulators and devices were available, giving participants the opportunity to experience a wide range of IR procedures.

‘Women in Focus’, a first-time event at ECR, took place at ‘the Church’, another one of various buildings surrounding the congress venue utilised for the ECR. It featured four sessions under the guidance of Professor Lorenzo E. Derchi and Professor Hedvig Hricak. The programme tackled issues such as leadership, mentoring and working in challenging environments, exploring and celebrating the crucial role that women play in healthcare, while offering advice and insights to those wishing to advance their career within this sector.

After their highly successful debut at ECR 2018, the ‘Coffee & Talk’ sessions, which took place in a relaxed atmosphere in one of the Austria Center’s stylish lounges, returned, featuring short lectures and discussions. Participants were encouraged to stop by and contribute to the informal discussions while sipping their coffee or tea.

Another out-of-the-box session format, the ‘My Thesis in 3 Minutes (MyT3)’ presentations, made a comeback at the spectacular Sky High Stage, providing a platform for residents and young radiologists who presented their thesis as a first author, in a dynamic and entertaining scientific session. A fixed point at ECR, since its introduction three years ago, is the ‘Voice of EPOS’, which again offered a platform for poster authors to present their work in a moderated poster session to an international audience at ECR 2019.

The ‘ESR meets’ programme, which sees national radiological societies, societies of a specific geographic region and related professional societies invited to the congress, featured Italy, Pakistan and Africa as the programme’s guest countries, as well as the European Federation of Radiographer Societies (EFRS) and the International Society of Radiographers and Radiological Technologists (ISARRT).

As every year, the ECR’s success was closely linked to the support of its industry partners and the technical exhibition, which again saw more than 300 companies exhibiting and for the first time hosted an area exclusively dedicated to artificial intelligence, the AIX. It featured 25 exhibitors, including NVIDIA’s Deep Learning Institute, and the AIX Theatre, where participants could attend keynote speeches and exchange their opinions with experts during podium sessions.

The ESR support programmes ‘Invest in the Youth and Shape Your Skills’ proved again highly popular, providing more than 1,200 young professionals and radiographers with free congress registration and an accommodation voucher.

Another out-of-the-box session format, the ‘My Thesis in 3 Minutes (MyT3)’ presentations, made a comeback at the spectacular Sky High Stage, providing a platform for residents and young radiologists who presented their thesis as a first author, in a dynamic and entertaining scientific session. A fixed point at ECR, since its introduction three years ago, is the ‘Voice of EPOS’, which again offered a platform for poster authors to present their work in a moderated poster session to an international audience at ECR 2019.

The ‘ESR meets’ programme, which sees national radiological societies, societies of a specific geographic region and related professional societies invited to the congress, featured Italy, Pakistan and Africa as the programme’s guest countries, as well as the European Federation of Radiographer Societies (EFRS) and the International Society of Radiographers and Radiological Technologists (ISARRT).

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**SCIENTIFIC HIGHLIGHTS AT ECR 2019**

**ESR meets Africa, Italy and Pakistan**

New project: ‘Women in Focus’

Innovation topics: Artificial intelligence, liquid biopsy, advanced imaging analysis, 3D printing lab, virtual reality

Developments in lung & breast screening programmes

2nd time around: Interventional Radiology at the Cube

Platform for residents and young radiologists: My Thesis in 3 Minutes

Enhanced programme: Coffee & Talk sessions

Educational hands-on workshops

Dedicated radiographers’ programme

Multidisciplinary Sessions with oncologists, urologists, radiotherapists, psychiatrists, neurologists, endocrinologists, diabetologists, surgeons and pathologists

Pros & Cons Session, discussing whether US or CT should be used first in the acute abdomen

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**HEADLINE SESSIONS & HONOURS AT ECR 2019**

**Presentation of ESR Honorary Membership to**

Federico G. Lubinus Bucaramanga, Colombia

Michael G. Kawooya Kampala, Uganda

Vijay M. Rao Philadelphia, PA, United States

Wilhelm Conrad Röntgen

Honorary Lecture

Oncologic imaging: a new beginning has just begun

Regina Beets-Tan Amsterdam, the Netherlands

Luigi Oliva Honorary Lecture

Contrast-enhanced ultrasound in paediatrics: ready for clinical practice?

Paul S. Sidhu London, United Kingdom

Junior Image Interpretation Quiz

A day in the (future) life of a young radiologist

Moderator: Bianca Bignotti Genoa, Italy

Presentation of the ESR Gold Medal to

Anna-Maria Belli London, United Kingdom

Luis Donoso-Bach Barcelona, Spain

Valentin E. Sinduev Moscow, Russia

Josef Lissner Honorary Lecture

Systemic effects of image-guided tumour therapy: have we opened Pandora’s Box or found the Holy Grail?

S. Nahum Goldberg Jerusalem, Israel

Image Interpretation Quiz

Greek gods: Mount Olympus vs The Underworld

Moderator: Apostolos H. Karantanas Iraklion, Greece

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**ECR 2019 – FACTS & FIGURES**

**Participants in 2019**

30,259

<table>
<thead>
<tr>
<th>Congress Attendees</th>
<th>Industry Representatives</th>
<th>Countries</th>
<th>ECR Online Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,602</td>
<td>8,637</td>
<td>133</td>
<td>7,020</td>
</tr>
</tbody>
</table>

Europe’s largest Industrial Exhibition

26,000 m²

Exhibitors from 62 countries

314

Scientific and Educational Sessions

622

Scientific and Educational Exhibits

3,790

Scientific Papers (accepted)

1,902

Invited Lectures

1,307

Voice of EPOS Presentations

1,141
### ECR 2019 – TOP 20 COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Congress Attendees</th>
<th>Live Viewers</th>
<th>Total</th>
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<tbody>
<tr>
<td>Italy</td>
<td>1,246</td>
<td>1,132</td>
<td>2,378</td>
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<tr>
<td>Germany</td>
<td>1,059</td>
<td>912</td>
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<tr>
<td>United Kingdom</td>
<td>827</td>
<td>424</td>
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<tr>
<td>Austria</td>
<td>1,106</td>
<td>910</td>
<td>2,016</td>
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<tr>
<td>Spain</td>
<td>509</td>
<td>263</td>
<td>772</td>
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<tr>
<td>Netherlands</td>
<td>579</td>
<td>204</td>
<td>783</td>
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<tr>
<td>Poland</td>
<td>436</td>
<td>218</td>
<td>654</td>
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<tr>
<td>Russian Federation</td>
<td>378</td>
<td>247</td>
<td>625</td>
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<tr>
<td>United States of America</td>
<td>346</td>
<td>223</td>
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<tr>
<td>France</td>
<td>425</td>
<td>129</td>
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<tr>
<td>Romania</td>
<td>361</td>
<td>179</td>
<td>540</td>
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<tr>
<td>Switzerland</td>
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<td>123</td>
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<td>China</td>
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<td>Japan</td>
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<td>Brazil</td>
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<tr>
<td>Turkey</td>
<td>208</td>
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### ECR 2019 – ABSTRACT SUBMISSIONS BY TOPIC

<table>
<thead>
<tr>
<th>Topic</th>
<th>Scientific Papers</th>
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<tbody>
<tr>
<td>Abdominal Viscera</td>
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<tr>
<td>Artificial Intelligence and Machine Learning</td>
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<td>63</td>
<td>263</td>
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<tr>
<td>Breast</td>
<td>306</td>
<td>257</td>
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<tr>
<td>Cardiac</td>
<td>244</td>
<td>164</td>
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<td>Chest</td>
<td>173</td>
<td>249</td>
<td>422</td>
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<tr>
<td>Emergency Imaging</td>
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<td>211</td>
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<tr>
<td>Genitourinary</td>
<td>261</td>
<td>339</td>
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<tr>
<td>GI Tract</td>
<td>135</td>
<td>201</td>
<td>336</td>
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<tr>
<td>Head and Neck</td>
<td>145</td>
<td>301</td>
<td>446</td>
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<tr>
<td>Hybrid, Molecular and Translational Imaging</td>
<td>69</td>
<td>46</td>
<td>115</td>
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<td>Imaging Informatics</td>
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<td>74</td>
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<td>Interventional Radiology</td>
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<td>254</td>
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<td>Musculoskeletal</td>
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<td>Oncologic Imaging</td>
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<td>Paediatric</td>
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<td>Physics in Medical Imaging</td>
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<td>72</td>
<td>212</td>
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<tr>
<td>Radiographers</td>
<td>206</td>
<td>419</td>
<td>625</td>
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<tr>
<td>Vascular</td>
<td>123</td>
<td>164</td>
<td>287</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,765</strong></td>
<td><strong>4,704</strong></td>
<td><strong>8,469</strong></td>
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Chapter 3
European and International Affairs
 Improving quality of care and patient safety in changing healthcare systems

In light of the changing political landscape and the 2019 European elections, the ESR has sought to reinforce its policy ambitions and work constructively with policymakers and other key stakeholders. The transition to cost-effective, innovative and personalised healthcare has resulted in a broadened policy agenda, which more than ever requires proactive engagement such that the ESR is actively involved in European healthcare and the design of the cancer mission so as to ensure cross-sectoral input on objectives and deliverables.

Under Horizon Europe – the next EU research and innovation programme covering the period 2021–2027 – the European Commission announced in 2019 the establishment of a new EU-wide Cancer Action Against Cancer Joint Action (IPAAC) and aims to develop innovative solutions to cancer care, it was decided to dedicate one mission to further research on cancer care with the aim of reducing mortality and raising the quality of care across Europe. Prof. Beets-Tan successfully applied to become a member of the Cancer Mission Board, which brought together 15 internally reviewed experts in the field of cancer research and was established to advise the European Commission and Member States on the design of the cancer mission so as to ensure cross-sectoral input on objectives and deliverables.

In 2015, an ESR expert became part of the European Commission Initiative on Breast Cancer (ECIBC). One aim of this initiative is to develop the new European Breast Guidelines, the evidence-based recommendations for breast cancer screening and diagnosis that will replace the European Guidelines for Quality Assurance in Breast Cancer Screening and Diagnosis, which were released in 2006. Another aim of the initiative is to develop a voluntary European Breast QA scheme for breast cancer screening and diagnosis, which is due for completion in 2020. In 2019, the ECIBC released a new set of recommendations addressing breast cancer screening and diagnosis, while a first online catalogue of trustworthy guidelines...
lines for all breast cancer processes after screening and diagnosis was also published.

Medical device legislation
After lengthy inter-institutional negotiations, the Council of the EU and the European Parlia-
mament formally adopted a new regulation for medical devices in 2017. The regulation is designed to enhance the safety of medical devices while allowing patients to benefit from harmonised rules for timeli-
ne and innovative healthcare solutions. Having entered into force in May 2017, and after a transitional period of three years, as pro-
vided for in the legislation, the regulation will become applicable from May 2020.

Apart from strengthening the authorisation of medical devices across the EU, the new regulation introduces new requirements for the traceability of devices and stricter rules for notified bodies that assess medical devices, such as how manufacturers have a-
pered personnel available to conduct factory inspections. Under the new legislative frame-
work, manufacturers will be held responsible for continuous follow-up on the quality and safety of devices placed on the market.

Amidst concerns regarding timely and effective implementation of the new Medi-
cal Device Regulation, the ESR has contin-
ued to monitor implementation progress, in close cooperation with other stakeholders, to ensure timely access to innovative solutions for the radiology profession and patients. The fruitful dialogue between the ESR and COFRADIC, a non-profit association that gathers EU-wide cooperation in the field of medical equipment and access to innovation, which allows them to continue benefitting patient out-
comes and the sustainability of healthcare systems. Furthermore, the ESR joined a Euro-
population of society and Medical Devices. The ESR liaises and engages extensively with policymakers to assess the impact of the new regulatory framework on cardiorad imaging systems.

The future of health in the EU
The European Parliament held elections in May 2019, resulting in many new incoming Members of the European Parliament (MEP), including several medical doctors who have shown interest in topics related to healthcare. The MEPS Against Cancer Interest Group, an informal group of MEPS dedicated to the fight against cancer in the EU, has grown substan-
tially, with 136 members in November 2019 and drawing from different political groups and Member States.

The new European Commission took office on December 1, 2019, presided by Ursula von der Leyen, a medical doctor in a drive to strengthen cross-border collaborations in healthcare, the Commission President-elect nominated Ms. Stella Kyriakides, a health expert and long-standing patient advocate as Health Commissioner. The mission letter addressed to her highlighted many relevant priorities including the Medical Device Reg-
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The EU Commission’s embrace of artificial intelligence (AI) resulted in concrete action plans for a broad range of sectors to drive investment in AI research & innovation. The ESR is fully aware that the introduction of AI approaches across borders will also affect how healthcare systems are organised and believes that this development is a strong call to action for the radiology community to adapt to this new reality by integrating patient-centred AI solutions into clinical practice.

In 2019, the High-Level Expert Group on AI, established to support the broader EU strategy on the subject, published the Eth-
ics Guidelines for Trustworthy AI which are aimed at ensuring a human-centric and ethical approach to artificial intelligence by positioning citizens at the forefront of auto-
mation in society. A human-centric approach, also widely proclaimed in the EU Commission plans on AI, ties in nicely with the ESR’s view where the key role of health care is to help patients in the implementation of AI tools in clinical practice. Furthermore, the ESR is a member of the AI for Europe Alliance, which acts as a multi-stakeholder forum to foster discus-
sion on the impact of innovation and new tech-
ologies in the economy and on the society. It allows the radiology profession to keep track of EU developments in the field of AI linked to health care and digitalisation. Considering its growing impact on clinical practice and research, the ESR will continue the exchange with the European AI Alliance, patient organisa-
tions, industry, academia and other health-care professionals, to act on behalf of the radiology profession in support of public health and AI-related efforts to tackle the burden of this disease in the Euro-
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The ESR has urged policymakers and stake-
holders to reinforce collaboration to address con-

es for productive discussions centred on how to

2012, the ESR has been a member of the EC’s eHealth Stakeholder Group (eHSG), with the aim of contributing to the develop-
ment of legislation and policies related to eHealth. This membership was renewed for a new three-year term in 2016 and the ESR was represented at the eHSG meetings in order to take stock of new developments and to discus-
ses with policy-makers. At the eHSG’s man-
date ended in 2019, the ESR submitted an official application to renew its membership within the group, which will be re-established in 2020 so as to support the new EU Commis-
sion’s initiatives in rolling out digital health solutions across Europe.

The ESR’s main objective in the field of eHealth is for telemedicine to be recognised as a medical act in its own right. As a part-

informed value-adding expertise in this area, the ESR will continue to drive discussions on telemedicine. The ESR also actively engages in the area of interoperability and standard-
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EUROPEAN AND INTERNATIONAL AFFAIRS

CHAPTER 3

EUROPEAN SOCIETY OF RADIOLOGY

ANNUAL REPORT 2019

EUROPEAN SOCIETY OF RADIOLOGY

ANNUAL REPORT 2019

CHAPTER 3

EUROPEAN AND INTERNATIONAL AFFAIRS

VALUE-BASED RADIOLOGY

Due to the significance of the movement towards value-based radiology, the ESR’s Value-Based Radiology Working Group was converted into a subcommittee in 2018. Thus, 2019 marked the first full year of the subcommittee. The subcommittee is chaired by Prof. Michael Fuchsberger of the University of Graz, Austria, and it remains directly attached to the ESR Board of Directors. The subcommittee continues to lead the ESR’s response to trends that make value-based rubrics in relation to quality of care, patient safety and reimbursement systems increasingly central to healthcare provision.

Following on from the concept paper on value-based radiology published by the ESR in Insights into Imaging in August 2017, a writing group was established in 2018 for a joint paper with the American College of Radiology (ACR), Canadian Association of Radiologists (CAR), ESR, International Society for Strategic Studies in Radiology (ISSR), Royal Australian and New Zealand College of Radiologists (RANZCR), and Radiological Society of North America (RSNA). This paper aims to outline the value contributed to healthcare services by radiology: waste or misuse results in reductions in outcomes for both patients and specialties. To maximise value, referrers and radiologists should work together in mutual understanding and collaboration. This requires dialogue, which is currently lacking. The joint paper is intended as a starting point for such dialogue. The writing group was active throughout 2019 and it is intended that the paper will be submitted to The Lancet in early 2020.

The ESR Value-Based Radiology Subcommittee has also been working to better understand what value means for patients and what value-based radiology initiatives exist in different European countries. The subcommittee undertook a survey of patients across Europe (both online and in print formats in nine different languages) in close collaboration with the ESR’s Patient Advisory Group (PAG). Provisional results were presented at ECR 2019. The final results will be presented at ECR 2020, and an article is planned to be published on the results in Insights into Imaging.

THE DIGITAL IMAGING ADOPTION MODEL (DIAM)

The ESR Professional Issues and Economics in Radiology (PIER) Subcommittee is responsible for overseeing the ESR’s contribution to the Digital Imaging Adoption Model (DIAM) project. The ESR and the Healthcare Information and Management Systems Society (HIMSS) jointly developed this concept in 2016 with the goal of supporting organisations in the planning and implementing of imaging IT in radiology departments. The DIAM score is designed to assist in benchmarking and alignment of best practices with other institutions regionally, within a specific country, or around the world.

In 2019, it has seen the expansion of the DIAM model through the development of the Enterprise Imaging (EI) platform, which was launched in February 2019. DIAM-EI goes beyond radiology imaging to include ophthalmology, dermatology, cardiology etc. as well as non-diagnostic imaging, such as digital photos to document wound care or endoscopy imaging during surgery. Additional criteria for DIAM-EI include imaging governance, data privacy, and a focus on multidisciplinary collaboration. Organisations still have the choice to select their preferred type of DIAM evaluation or to use the two models alongside each other to maximise the depth and breadth of the assessment.

EUROPEAN COMMISSION-FUNDED TENDER PROJECTS

The 33-month European Commission tender project EUCLID will provide up-to-date clinical diagnostic reference levels (DRLs) for the most important, from a radiological perspective, X-ray imaging tasks in Europe. The project is led by the ESR and began in August 2017. In 2019, the collection of data from 20 centres across 14 countries for the establishment of new DRLs for ten predefined CT indications and four predefined interventional radiology procedures was completed. Analysis of this data commenced in June 2019 and preliminary results were presented at the EUCLID workshop held in Luxembourg in December 2019. The final report (including a report on the workshop) is due to be sent to the European Commission in early 2020.

In October 2019, the ESR, leading a consortium with EANM and ESTRO, submitted a proposal for the European Commission Tender project ‘Constant improvement in quality and safety of radiology, radiotherapy and nuclear medicine through clinical audit’. The ESR received notice of their success in being awarded the contract in December 2019, and it is anticipated that the 30-month project, to be named ‘QUADRANT’ (Quality Improvement through Audit in Diagnostic radiology, Radiotherapy and Nuclear medicine including Therapies), will commence in early 2020.

PROVIDING A LOCAL VIEW

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EUROSAFE IMAGING

In 2019, EuroSafe Imaging celebrated its 5th anniversary and continued to support EURAMED members with the implementation of the European BSS Directive requirements through the production of guidance and tools. Its activities were focused on the promotion of clinical diagnostic reference levels (DRLs), the expansion of the network of EuroSafe Imaging Stars, the consolidation of several research activities in the field of radiation protection, as well as communication and outreach activities. The EuroSafe Imaging poster exhibition at the European Congress of Radiology (ECR) 2019 saw a record number of participants and two new EuroSafe Imaging working groups, on Dose Management, were also launched.

Call for action
Supporting the implementation of the EuroSafe Imaging Call for Action 2018, Working Groups, continued to be a focus in 2019 by implementing the 13 actions of the Call for Action 2018. EuroSafe Imaging significantly contributes to achieving the aims in the ten priority areas of the IAEA-WHO Bonn Call for Action.

Working Groups
Since 2015, EuroSafe Imaging has established a number of different working groups to support the implementation of its Call for Action and several other relevant ESR projects. As of 2019, there are seven EuroSafe Imaging working groups; Ask EuroSafe Imaging, Strategies for Image Quality, Paediatric Imaging, Training Activities, ESR iGuide Implementation and Promotion, Dosimetry for Imaging in Clinical Practice, and Dose Management. In addition, efforts are underway to establish a working group on radiation protection research and artificial intelligence in order to define and address the ESR’s interests in this field and to prepare the ESR’s input to the European Alliance for Medical Radiation Protection Research (EURAMED) as well as a working group on justification.

Two new working groups were launched at ECR 2019. Dosimetry for Imaging in Clinical Practice aims to support in the fulfilment of dosimetry aspects that are required by the Basic Safety Standards Directive. A dosimetry paper is currently in development by the working group and scheduled for publication in early 2020. The Dose Management working group aims to develop realistic approaches to support the fulfilment of dose management requirements, through the production of papers and guidelines. A dose management paper is currently in development, which will include the results from a recent EuroSafe Imaging survey on the cumulative radiation exposure in patients who have recurrent CT examinations.

In particular, EuroSafe Imaging has focused on developing implementation and dissemination policies for imaging referral guidelines and supporting the development of the ESR clinical audit tool. One core activity has been the dissemination of ESR iGuide in Europe and in low and middle-income countries and outside Europe, through its dedicated working group.

The Paediatric Imaging Working Group carried out a survey to determine the availability and use of paediatric imaging referral guidelines and will focus on the development of radiation protection material for paediatric imaging in view of the ‘Children in Focus’ theme at ECR 2020.

Clinical DRLs
Diagnostic reference levels (DRLs) are an important tool for optimisation. EuroSafe Imaging is promoting the concept of DRLs based on clinical indications, instead of anatomical locations, and is therefore leading the EUCLID project (European Study on Clinical Diagnostic Reference Levels for X-Ray Medical Imaging). For this purpose, the concept was presented at different meetings and conferences in 2019. The EUCLID project will be completed in spring 2020. EuroSafe Imaging is also advocating for a clinical DRLs project dedicated to paediatric patients through its working group on paediatric imaging. Refer to the article on European Commission
Collaboration, communication and outreach
EuroSafe Imaging continued its worldwide tour in 2019 and has now been represented at over 150 meetings and conferences since its foundation. In 2019, EuroSafe Imaging was represented at major conferences such as: the 5th African Society of Radiology meeting, the Total Radiology Conference at Arab Health, the 12th Annual Scientific Meeting of the Radiological Society of Saudi Arabia, the 5th International Symposium on the System of Radiological Protection, the European Radiation Protection Week as well as a number of other national and regional conferences within and outside of Europe.

Within the framework of EuroSafe Imaging, the ESR also continued its longstanding collaboration with HERCA (Heads of the European Radiation Protection Competent Authorities). The ESR contributed to an awareness campaign entitled ‘Getting the right image for my patient’ which was launched by HERCA on the International Day of Radiology (IdoR) 2019, with the aim of raising awareness of the appropriate use of medical radiological examinations by helping referrers to select the appropriate imaging procedure and avoid unjustified examinations. Radiation protection experts of the ESR were involved in the preparation of a toolkit for referring physicians that was published in five different languages.

Education
The Ask EuroSafe Imaging working group, established in 2015, aims to improve information for professionals and patients by producing concise open-access educational material, called Tips & Tricks, for the areas of CT, Interventional radiology and Paediatric imaging. Each of these subgroups consist of a radiologist, a medical physicist and a radiographer. In 2019, a total of three Tips & Tricks editions focusing on CT, four editions dedicated to Interventional Radiology, and three editions on Paediatric imaging topics were published. Moreover, two editions on topics related to “what patients should know” were prepared for patients, one on CT and one on Paediatric imaging, with input from the ESR Patient Advisory Group. To date, 53 Tips & Tricks have been published, all of which are available on the EuroSafe Imaging website. Tips & Tricks are also available as CME-accredited courses on the ESR’s e-learning platform Education on Demand.
ESR iGUIDE

Clinical Decision Support – ESR iGuide

ESR iGuide is a clinical decision support (CDS) system, utilising imaging referral guidelines developed by the ESR, based on the American College of Radiology Appropriateness Criteria (ACR AC). The ESR advocates the use of CDS integrated into existing imaging referral workflows to support healthcare providers with evidence-based guidance in utilising medical imaging more appropriately, to the benefit of patients.

Based on a 2014 agreement between ACR and ESR to cooperate on referral guidelines for CDS, the ESR created an expert group to review the ACR AC and ACR Select content to create guidelines for ESR iGuide. This group became a permanent ESR Working Group on Imaging Referral Guidelines (IRG WG) at ECR 2016, and in summer 2018 was transformed into the ESR Referral Guidelines Subcommittee (RGSC) to reflect the permanent importance of the work on referral guidelines as part of the ESR’s mission.

Throughout 2019, the RGSC has worked on a review and adaptation of the ACR Select content version 15, released in February 2019. This represents a significant structural overhaul compared to the previous content version, enhancing the functionality available for integrated clinical decision support.

While the ESR has had responsibility for maintaining the European content version, since September 2018 the ESR iGuide software has also been distributed by the ESR under a restructured licensing arrangement with the National Decision Support Company (NDSC). The ESR’s Quality and Safety in Imaging GmbH (QSI) assumed all responsibilities to license ESR iGuide, taking over the tasks previously performed by NDSC Europe GmbH, which was dissolved after Change Healthcare acquired NDSC LLC in the United States in early 2018. NDSC and the ESR agreed that the best way to ensure successful ESR iGuide adoption in Europe would be to assign all the required rights to the ESR. The cooperation on referral guidelines and appropriate use criteria between the ESR and ACR is not affected by this change.

Research
In line with action 9 of the EuroSafe Imaging Call for Action 2018, focusing on fostering research in radiation protection, the European Alliance for Medical Radiation Protection Research (EURAMED) was founded by the ESR, the European Association of Nuclear Medicine (EANM), the European Federation of Organisations for Medical Physics (EFOMP), the European Federation of Radiographer Societies (EFRS), and the European Society for Radiotherapy and Oncology (ESTRO) as a non-profit society registered in Austria in October 2017. EURAMED’s goal is to improve medical care and to solve radiation protection issues through comprehensive research efforts.

In 2019, EURAMED focused on enhancing its membership and orchestrating the development and submission of a Horizon 2020 project proposal aiming to develop a strategic research agenda and related roadmap for medical radiation protection following an integrated approach with the European research programmes for health and digitalisation. EURAMED contributed to the scientific programme of the European Radiation Protection Week 2019 held in Stockholm, Sweden.

EURAMED is the flagship medical radiation protection research project under the European funding scheme of Horizon 2020. It aims to enhance the scientific basis and clinical practice of radiation protection in the medical field. The project progressed well during 2019 with evaluating the health effects of low-dose ionising radiation exposure from diagnostic and therapeutic imaging and from off-target effects in radiotherapy. The ESR, supported by EuroSafe Imaging, is represented in the MEDIRAD Stakeholder Board, which has an advisory role and acts as multiplier, in particular for disseminating activities of the science-based policy recommendations that will constitute a key project deliverable.

MEDIRAD is the flagship medical radiation protection research project under the EURAMED funding scheme of Horizon 2020. It aims to enhance the scientific basis and clinical practice of radiation protection in the medical field.
MEMORANDA OF UNDERSTANDING SIGNED BY THE ESR

ACR
American College of Radiology
May 15, 2013
Renewed: May 17, 2015; March 4, 2017; March 1, 2019

AOSR
Asian Oceanian Society of Radiology
October 20, 2012
Renewed: October 20, 2014; March 3, 2016; March 3, 2018

BBMRI-ERIC
Biobanking and Biomolecular Resources Research Infrastructures – European Research Infrastructure Consortium
November 11, 2015
Renewed: December 19, 2018

CAR
Canadian Association of Radiologists
April 25, 2014
Renewed: March 3, 2016; March 4, 2018

CER
Colégio Brasileiro de Radiologia e Diagnóstico por Imagem (Brazilian College of Radiology)
August 9, 2018

CIR
Collegio Interamericano de Radiología (Interamerican College of Radiology)
March 6, 2015
Renewed: March 4, 2016; March 3, 2018

CSR
Chinese Society of Radiology
April 22, 2014
Renewed: March 3, 2018

EFLM
European Federation of Clinical Chemistry and Laboratory Medicine
June 25, 2019

EFOMP
European Federation of Organisations in Medical Physics
November 19, 2015
Renewed: March 1, 2018

EFRS
European Federation of Radiographer Societies
June 24, 2013
Renewed: June 18, 2015; November 17, 2016; November 21, 2019

EFSUMB
European Federation of Societies for Ultrasound in Medicine and Biology
March 26, 2015
Renewed: March 3, 2017; February 28, 2019

ESTRO
European Society for Radiotherapy and Oncology
December 9, 2013
Renewed: July 24, 2015; October 3, 2017; February 26, 2018

ERS
European Respiratory Society
December 10, 2013
Renewed: January 29, 2016; March 28, 2018

ERSNM
Egyptian Society of Radiology and Nuclear Medicine
March 3, 2018

FMRI
Federación Mexicana de Radiología e Imagen (Mexican Federation of Radiology and Imaging)
February 19, 2014
Renewed: March 3, 2018

IRIA
Indian Radiological and Imaging Association
April 30, 2014
Renewed: March 4, 2016; March 1, 2018

ISRRT
International Society of Radiographers and Radiological Technologists
September 4, 2019

JRS
Japan Radiological Society
June 23, 2014
Renewed: September 9, 2016; November 15, 2018

KSR
Korean Society of Radiology
October 20, 2012
Renewed: March 5, 2015; March 4, 2017; March 2, 2019

KSR
Korean Society of Radiology
October 20, 2012
Renewed: March 5, 2015; March 4, 2017; March 2, 2019

RANZCR
Royal Australian and New Zealand College of Radiologists
March 5, 2015
Renewed: March 2, 2018

RCRT
Royal College of Radiologists of Thailand
PST
Radiology Society of Thailand
March 1, 2018

RSE
Radiology Society of the Emirates
January 11, 2017
Renewed: February 16, 2019

RSNA
Radiological Society of North America
September 6, 2013
Renewed: August 15, 2015; September 25, 2017; September 6, 2019

RSSA
Radiological Society of Saudi Arabia
September 20, 2018

SDR
Sociedad Dominicana de Radiología (Dominican Society of Radiology)
November 28, 2018

SMRI
Sociedad Mexicana de Radiología e Imagen (Mexican Society of Radiology and Imaging)
March 3, 2016
Renewed: April 25, 2018

SOGCR
Sociedad Peruana de Radiología (Peruvian Society of Radiology)
March 1, 2013

SPR
Sociedade Paulista de Radiologia e Diagnóstico por Imagem (Radiological and Diagnostic Imaging Society of Sao Paulo)
November 29, 2016
Renewed: March 2, 2019

SRT
Sociedade Radiológica de Portugal
September 27, 2013

SRT
Sociedade Radiológica de Portugal
September 27, 2013

TSLRM
Turkish Society of Radiology and Medical Imaging
September 6, 2013
Renewed: August 15, 2015; September 25, 2017; September 6, 2019

USFNA
United States Federation of Nuclear Medicine and Biology
June 23, 2014
Renewed: September 9, 2016; November 15, 2018

VRSA
Vereinigung der Radiologische Gesellschaft der Schweiz (Swiss Society of Radiology)
June 29, 2013
Renewed: September 9, 2015; November 15, 2017

WFMUH
World Federation for Ultrasound in Medicine and Hyperthermia
December 20, 2013
Renewed: June 25, 2015; June 17, 2017; June 23, 2019

WRACR
World Radiological Association for College Residents
September 2, 2013
Renewed: August 15, 2015; September 25, 2017; September 6, 2019
The ESR Patient Advisory Group (ESR-PAG) was established in 2013 to bring together patients, the public, and imaging professionals in order to collect data and focus on the advancements of medical imaging. The ESR-PAG advocates for a patient-centric approach within the activities of the ESR, with the aim of benefiting patients across Europe. The ESR is the first medical specialty to successfully launch a professional-patient body that gathers patient representatives from various disease-specific fields.

The ESR-PAG has six core aims:

- to improve communication with patients;
- to raise awareness of medical imaging among patients;
- to improve patients’ knowledge of imaging procedures;
- to liaise with patient groups on policy issues of common interest;
- to involve patient representatives in strategic decisions regarding medical imaging; and,
- to ensure a patient-centred, human approach is embedded in the work of the ESR.

In 2019, the ESR-PAG built on its enhanced membership and a new vision to play a more prominent role in shaping ESR activities and advocating for patient-centredness in radiology. Since its establishment in 2013, the ESR-PAG has been actively involved in the European Congress of Radiology (ECR), and ECR 2019 was no exception. The ESR-PAG hosted a very well-attended session on ‘Communizing the role of the radiologist – best practices to manage patient expectations’. This session tackled the existential question of the way the radiologist’s role could be made understandable for patients, in the interest of enhancing communication between the medical professional and patients. An experienced panel of radiologists and patient advocates, with track records in communication, highlighted the need to implement a mutually beneficial dialogue between patients and professionals to address existing concerns. Building on the session’s fruitful debate, the ESR-PAG will continue to look into innovative tools to optimise communication with health-care professionals inside and outside the radiology department.

The ESR-PAG adopted a new strategy in 2019 entitled ‘ESR-PAG: a Strategy for 2019 and Beyond’ to enhance its membership and maximise outputs for a diversified portfolio of activities in order to firmly put the patient at the centre of medical imaging. As a result, the group was delighted to welcome new members, whose contributions have enhanced the group’s potential to collaborate with the radiology profession across a variety of disease areas. The ESR-PAG’s growing role within the ESR is nicely illustrated by its increased involvement as an observer in ESR committees, notably for the Quality, Safety and Standards Committee and the eHealth and Informatics Subcommittee, to rightly embed the patient perspective in forthcoming ESR initiatives. In this regard, the ESR-PAG continued to actively provide input to the EuroSafe Imaging publications ‘What patients should know and EuroSafe Imaging Tips & Tricks’ in a move to strengthen patient safety in medical imaging.

In its ongoing efforts to increase engagement with the medical profession, the ESR-PAG recently developed a social media campaign to raise awareness of patient concerns and to establish direct contact with the medical profession and other patient organisations. Blogposts are regularly published to present the ESR-PAG to the radiology community and to give a real voice to patients in the debate on how to put personalised and patient-centred healthcare in place. Furthermore, by developing a system of patient summaries and systematically reviewing ESR publications, the ESR-PAG accomplished a long-term objective of making scientific publications understandable and accessible for patients with the aim of reinforcing the link between medical imaging and the patient community.

Throughout 2019, ESR-PAG representatives participated in various conferences and ESR meetings, the ESR Annual Leadership Meeting among others, to reiterate the importance of an interactive relationship and patient empowerment within medical imaging. Considering its new strategy and broadened scope, the ESR-PAG is committed to playing an instrumental role in ESR activities to embed the patient perspective in medical imaging across Europe. In this regard, the ESR-PAG offered its expertise and input to EuroSafe Imaging as well as to other activities pursued by the ESR to guarantee a strong patient voice in these projects. Together with the expertise and resources of the ESR, the ESR-PAG will continue to give a unique voice to patients and put the patient at the heart of medical imaging, to the benefit of quality of care and patient outcomes.

2020 is also the year to say goodbye to Nicola Bedlington as chair of the ESR-PAG and show our gratitude for her commitment and inspiration to make patient engagement centrepiece of medical imaging. We are thrilled to welcome Birgit Bauer, an experienced patient advocate and social media expert, as new chair; her ambitions to further enhance the relationship between radiologists and patients will be highly appreciated.

**THE ESR-PAG IS COMPOSED OF THE FOLLOWING MEMBERS:**

(March 2019–2020)

**Chairperson**  
Nicola Bedlington, European Patients’ Forum (EPF)

**Vice-Chairperson**  
Nikoleta Traykova, Chairperson of the ESR Communication and External Affairs Committee

Representatives of pan-European patient organisations

- Birgit Bauer, non-affiliated patient advocate
- Judy Birch, Pelvic Pain Support Network (PPSN)
- Erik Briers, Europa Uomo (European Prostate Cancer Coalition)
- Cheryl Cruwys, Breast Density Matters UK
- Carolina Juddich, non-affiliated patient advocate
- Nancy Van Hoylandt, European Federation of Neurological Associations (EFNA)

**ESR 2nd Vice-President**  
Regina Beets-Tan

**ESR Quality, Safety and Standards Committee Chairperson**  
Adrian P. Brady

**ESR National Societies Committee Chairperson**  
Andrzej Rzucidlowski

**ESR Subspecialties and Allied Sciences Committee Chairperson**  
Alexandre Kanski

European Federation of Radiographer Societies (EFRS)

Vasilis Syrgiamiotis
ESR SCIENTIFIC PUBLICATIONS

The ESR journals continued to grow, achieving record numbers in all journals’ submission and download figures, resulting in a total of 4,009 submissions handled by the Editors and reviewers, and 1,797,465 article accesses across all three publications.

European Radiology
European Radiology received a total of 3,653 submissions (+10% up from 2018) and was able to maintain a good Impact Factor (3.962), and although the decline below 4 is unfortunate, it remains the number one European journal for general radiology with nearly 1,000,000 accesses. Thanks to the hard work of the Editors and reviewers, the time from submission to first decision was kept at a very attractive 33.1 days on average (compared to 32.4 days in the previous year), which was well received by the authors and is also a great service to the radiological community.

Lastly, 2019 also saw the establishment of the European Radiology Review Fellowships (a total of ten fellows were selected to take part) and the successful continuation of the Albert L. Baert Editorial Fellowship.

Insights into Imaging
Insights into Imaging further expanded its profile and attracted many new submissions (a total of 255, which translates into a 52% increase compared to 2018). The number of accesses also increased substantially (+64% from 2018), showing that the journal’s updated scope of critical-educational articles attracts many new readers.

European Radiology Experimental
The youngest member of the ESR journal family, European Radiology Experimental, passed the important submission mark of 100 by one submission (a total of 101, 31% more than the previous year) and reached nearly 83,000 accesses. Furthermore, three thematic series (on myocardial tissue characterisation, 7 Tesla MR, and musculoskeletal interventions) were initiated to be published in 2020.

EPOS™
The EPOS™ database (Electronic Presentation Online System) was expanded by nearly 3,800 scientific and educational posters from ECR 2019. Both the number of submitted poster abstracts and the number of uploaded posters for ECR 2019 broke previous ECR records. The adjunct 165 Voice of EPOS poster sessions held at the annual congress once more attracted many attendees and received positive feedback from the authors; they are now an indispensable part of the ECR programme.

Over 5.5 million users visited the EPOS website in 2019, which marks yet another all-time high.
EUROPEAN RADIOLOGY

Founded in 1991
Editor-in-Chief: Yves Menu, Paris/France

Initial submissions 2019

3,653

Year | Submissions
--- | ---
2015 | 2,386
2016 | 2,322
2017 | 2,479
2018 | 3,324
2019 | 3,653

Full text accesses

944,821

Impact Factor 2018

3.962

Year Downloads
--- | ---
2015 | 475,823
2016 | 623,946
2017 | 745,976
2018 | 799,437
2019 | 944,821

Full text accesses

944,821

Year Downloads
--- | ---
2015 | 0,781
2016 | 0,897
2017 | 1,219
2018 | 1,361
2019 | 1,653

Impact Factor 2018

3.962
CHAPTER 4
ESR SCIENTIFIC PUBLICATIONS

INSIGHTS INTO IMAGING

Founded in 2010
Editor-in-Chief: Luis Martí-Bonmatí, Valencia/Spain
Open access since 2012

Editorial board members: 37
Active reviewers: 209
Submissions: 255
Accepted papers: 105
Full text accesses: 769,704

Submissions 2019

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Full text accesses 2019

769,704

Year Downloads

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EUROPEAN RADIOLOGY EXPERIMENTAL

Founded in 2016
Editor-in-Chief: Francesco Sardanelli, Milan/Italy
Open access

Editorial board members: 46
Active reviewers: 99
Submissions: 101
Accepted papers: 52
Full text accesses: 82,940

Submissions 2019

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Full text accesses 2019

82,940

Year Downloads

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<td>42,391</td>
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EPOSTM
Launched at ECR 2003
Editor-in-Chief: Ioana G. Lupescu, Bucharest/Romania
Poster database of ECR 2003–2019 and other congresses
39,148 posters included

ECR 2019 related figures
Abstracts submitted: 4,704
Active reviewers: 179
Posters uploaded: 3,790

Posters uploaded ECR 2019

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Abstracts submitted ECR 2019

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Visits

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THE VOICE OF EPOS

Launched at ECR 2016
Oral poster presentations
Sessions organised by topic or language
Broadcast online via ECR Live
Recordings available via ECR Online

ECR 2019 related figures

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Chapter 5

ESR Research Activities
ESR RESEARCH ACTIVITIES

CHAPTER 5
ESR RESEARCH ACTIVITIES

Finally, the Research Committee Board has begun the process of working with subspeciality society representatives within the Research Committee with the aim of developing methodological guidelines for research. This project shall be discussed further at ECR 2020.

Further activities related to the ESR’s Research Committee are given below.

European Imaging Biomarkers Alliance (EIBALL) Subcommittee

In 2019, the European Imaging Biomarkers Alliance (EIBALL) Subcommittee has continued working towards fulfilment of its mission statement: ‘To facilitate imaging biomarker development, standardisation and promote their use in clinical trials and in clinical practice by collaboration with specialist societies, international standards agencies and trials organisations to develop a network of excellence’.

The EIBALL Subcommittee’s two-year roadmap, adopted in May 2018 and comprised of three pillars (establishing a functional biomarker profile that is current and relevant; enabling clinical use of biomarkers by setting standards for data acquisition and image processing; and education on appropriate use of functional imaging biomarkers and their interpretation) has continued to guide the subcommittee’s work.

The development and launch of an online inventory of imaging biomarkers that can be accessed by imagers and used to inform them about the biomarkers available, their effectiveness, their appropriateness for particular trials, and how to use them, was a key achievement of 2019. Defining exactly how and why imaging biomarkers are useful is seen as the key to convincing funders of clinical trials to collaborate more with radiologists.

With this in mind, the EIBALL Subcommittee published the first of two planned papers based on each of the first two pillars of roadmap: one on imaging biomarkers as a decision support tool, published in August 2019, and one on the validation of imaging biomarkers, which was submitted for publication in Insights into Imaging in December 2019. Furthermore, in relation to the third pillar of the roadmap, an educational workshop, held in conjunction with the European School of Radiology, took place in November 2019 in Vienna, Austria.

In 2019, EIBALL has continued to collaborate with various other organisations, particularly the Quantitative Imaging Biomarkers Alliance (QIBA), with closer links planned for the coming year.

Imaging Biobanks

The ESR is collaborating with the Biobank- and Biomolecular Resources Research Infrastructure – European Research Infrastructure Consortium (BBMRI-ERIC) with the goal of supporting the integration of imaging data with biobank databases to create a European biobank for medical imaging.

Over the course of 2019, the ESR experts of the MIABIS (Minimum Information About Biobank data Sharing) DICOM (Digital Imaging and Communications in Medicine) Working Group, established in 2016 and supported by the European Institute for Biomedical Imaging Research (EIBIR), started work on a catalogue to describe image collection for use in AI/machine learning research.

The technical aspects of the catalogue are currently being finalised.

ESR-ERS Working Group (Lung Cancer Screening)

The ESR and European Respiratory Society (ERS) have been working on a joint statement on lung cancer screening (LCS) programmes in Europe. The statement, which will be simultaneously published in European Radiology and the European Respiratory Journal in early 2020, is the product of almost two years of work by the ESR-ERS Working Group.

The group includes a range of pulmonologists, radiologists, thoracic oncologists and patients from across Europe, and is chaired by Prof. Hans-Ulrich Kauczor, Head of the Department of Diagnostic and Interventional Radiology at the University Hospital Heidelberg, Germany. The paper will provide a technical update to the ESR-ERS white paper on lung cancer screening, published in 2015. It focuses on new findings and current discussions surrounding screening programmes, representing a narrative, non-systematic review of the evidence from LCS trials and providing a description of the current practice of LCS, as well as aspects that have not received adequate attention until now. Both the ESR and ERS anticipate that the paper will stimulate further discussion and action on the implementation of lung cancer screening programmes in European countries.
EUROPEAN INSTITUTE FOR BIOMEDICAL IMAGING RESEARCH (EIBIR)

The European Institute for Biomedical Imaging Research (EIBIR) is a non-profit organisation established on the initiative of the European Society of Radiology in 2006. EIBIR coordinates and supports research, development, and dissemination activities in the field of biomedical imaging, with the ultimate goal of improving the diagnosis, treatment and prevention of disease. It actively supports research networking, and collaborative European research projects while continually playing a key role in spreading good practice and promoting common initiatives in the field of biomedical imaging research.

One of EIBIR’s main services is supporting research proposal writing for major European research funding programmes, such as the European Commission’s Horizon 2020 programme. This provides its network members with the services they need to make their project idea a reality.

Running collaborative research projects

Currently, EIBIR is involved in six Horizon 2020 projects:

- EIBIR is the project coordinator of the MEDIA project, which is investigating the impact of low dose radiation exposure, and the HYPMED project, which is developing a novel MR contrast agent without the use of gadolinium.
- EIBIR is also a project management and dissemination partner in four other Horizon 2020 projects: SPECIFIC, which is developing a multi-modal imaging device for thyroid nodules by combining laser and ultrasound methodologies; COSTREAM, investigating the link between stroke and Alzheimer’s; SOLUS, which is developing a multi-modal optical and ultrasound diagnostic system for breast cancer; and AlternativesToGd, which is developing a hybrid PET/MRI insert for breast cancer.

The EIBIR team in Vienna collaborates with a large number of project partners from all over the world, who rely on EIBIR’s expertise and professional project management experience. Proposal preparation services are provided free of charge to all active EIBIR network members. These services give EIBIR’s network members a distinct advantage in the highly competitive Horizon 2020 funding programmes. For more details, please visit the EIBIR website at www.eibir.org.

For further information, please contact EIBIR at office@eibir.org.

ESR Seed Grants


The purpose of this programme is to stimulate and provide funding for innovative projects and pilot studies that will subsequently lead to larger studies and further funding applications. The funding priorities in 2020 are for research in artificial intelligence and cardiac imaging. Up to ten seed grants ranging between €4,000 and €8,000 each will be awarded in the first quarter of 2020.

Strategic Research Agenda for Biomedical Imaging

EIBIR follows a clear vision for biomedical imaging research and for the purposes of shaping future programmes, published EIBIR’s first-ever Strategic Research Agenda (SRA) for Biomedical Imaging.

The agenda identifies current challenges and needs in healthcare and illustrates how biomedical imaging and derived data can help address these challenges. This includes:

- Meeting the healthcare demands of Europe’s population
- Developing new disease-specific, targeted and image-guided therapies
- Contributing to a healthy start
- Providing treatment of lifestyle and environmental impact factors on health
- Making Europe the world leader in machine learning and artificial intelligence

In particular, the agenda addresses the current paradigm shift in medicine, which has moved from reactive to proactive approaches, by providing predictive, preventive, and personalized solutions for individual patients. It highlights the growing impact of personalized medicine on patients and its ability to address challenges of ineffective treatment and rising costs.

The SRA also focuses on the growing importance of big data, artificial intelligence, and innovative imaging technologies, emphasizing the role of biomedical imaging as a forecaster in the digital transformation of healthcare and as a leading discipline in the adoption of new innovative solutions like deep learning.

The SRA is aimed at informing policymakers and funding authorities about key areas of research in biomedical imaging while also highlighting hot topics to consider in future funding programmes. It was developed by the EIBIR Office and Scientific Advisory Board, in collaboration with its eleven shareholder organisations, which represent scientific societies related to biomedical imaging.

EIBIR activities in data collection and imaging biobanks

EIBIR’s Electronic Data Capture Platform allows members to collect a wide range of research data for their studies in an easy-to-use system. The platform has been used successfully by the EUCLID project, an ESR-led European Commission Tender project on clinical diagnostic reference levels for x-ray medical imaging, and a large multicentre study on a machine learning CT-derived FFR (fractional flow reserve-computed tomography) application under the lead of Erasmus Medical Center.

Furthermore, and starting from an ESR/EIBIR-ERIC (Biobanking and Biomedical Research Infrastructure Consortium) collaboration, EIBIR now provides the support and service for applications under the Horizon 2020 program to demonstrate the added value of such collections, especially for applications using artificial intelligence.

EIBIR Joint Initiatives

EIBIR currently supports six joint initiatives, which represent interdisciplinary groups working together on common imaging-focused research goals:

- Artificial Intelligence
- Preclinical Imaging
- European Imaging Biomarkers Alliance (EIBALL)
- European Alliance for Medical Radiation Protection Research (EUMARPE)
- European Network for the Assessment of Imaging in Medicine (EuraIM)
- Paediatric Radiology

Specific activities within the joint initiatives include initiating and coordinating collaborative research efforts and projects, organising workshops and symposia, training and educating young scientists through exchange programmes and summer schools, and the sharing of state-of-the-art equipment.

EIBIR Shareholders

Currently EIBIR’s shareholders are:

- European Society of Radiology (ESR)
- Cardiovascular and Interventional Radiological Society of Europe (CIRSE)
- European Coordination Committee of the Radiological, Electromedical and Health-care IT Industry (COCIR)
- European Association of Nuclear Medicine (EANM)
- European Federation of Organisations for Medical Physics (EUFOM)
- European Federation of Radiographer Societies (EFRS)
- European Organisation for Research and Treatment of Cancer (EORTC)
- European Society for Magnetic Resonance in Medicine and Biology (ESMRMB)
- European Society of Paediatric Radiology (ESPR)
- European Society for Thyrotherapy and Oncology (ESTRO)
- European Society of Medical Imaging Informatics (EuSoMI)

All shareholders are represented at the General Meeting, where major strategic decisions are taken. Each shareholder organisation is represented by a representative who sits on EIBIR’s Scientific Advisory Board, which advises the EIBIR team on all scientific matters and plays a key role in the implementation of ESR-funded projects.

EIBIR network members and dedicated services

EIBIR relies on a large number of contributing network members. More than 70 leading European research institutions represent a variety of different imaging fields in 20 countries within Europe. Organisations with an interest in biomedical imaging are invited to become a part of the EIBIR network.
Chapter 6

Education & Certification

6.1 Education & Educational Services

6.2 Certification
CHAPTER 6.1
EDUCATION & EDUCATIONAL SERVICES

EUROPEAN SOCIETY OF RADIOLOGY (ESOR)

During 2019, ESOR has expanded its range of activities by adding new courses and training programmes to its portfolio, to accommodate the ever-evolving needs for radiological education. Two new additions to the calendar were the very successful courses in India and the Philippines. The outcome once more emphasises the importance of establishing a long-term commitment for education in partnership and the value of delivering structured modular and mentored opportunities to learn from exchange.

The educational highlight of 2019 was the first-ever held ESR/ESOR Premium Event on Artificial Intelligence. With more than 5,800 registrations from 140 countries for the live streaming and 194 attendees onsite, this event, called ‘Intelligence. Innovation. Imaging – The perfect vision of AI’, highlighted the increasingly important role that artificial intelligence (AI) plays for radiologists around the world. The event, which took place in Barcelona on April 5–6, featured more than 20 lectures and over 28 speakers from a variety of professional backgrounds and turned out to be a stunning success for the ESR and ESOR.

2019 also marked the completion of thirteen years of ESOR in action, years of continuous growth in educational activities, tailored to address the needs of thousands of radiologists. During this period ESOR contributed significantly to raising the scientific profile of radiological education and promoting the importance of subspecialisation as well as introducing fellowships in radiology in Europe.

SPECIFIC TASKS OF ESOR:

— To organise teaching courses and workshops as visiting schools and seminars
— To develop fellowship and scholarship programmes
— To support the eLearning initiatives of ESR by providing content from ESOR Courses
— To support the implementation of the European Training Curricula
— To establish and enlarge the ESOR community and to ensure the continuation of furthering education in the future
— To provide radiological education worldwide following and strengthening strategic tasks of the ESR
## ESOR Activities in 2019

<table>
<thead>
<tr>
<th>Course</th>
<th>Topic</th>
<th>Venue</th>
<th>Date</th>
<th>Onsite Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESR/ESOR AI Premium Event</strong></td>
<td>Intelligence. Innovation. Imaging – The Perfect Vision of AI</td>
<td>Barcelona, Spain</td>
<td>April 2019</td>
<td>144</td>
</tr>
<tr>
<td><strong>GALEN Foundation Course</strong></td>
<td>Women’s Imaging</td>
<td>Madrid, Spain</td>
<td>June 2019</td>
<td>23</td>
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<tr>
<td><strong>ESOR Advanced Course</strong></td>
<td>Cardiac Imaging (Echo)</td>
<td>Erfurt, Germany</td>
<td>July 2019</td>
<td>37</td>
</tr>
<tr>
<td><strong>ASLPEDS Course</strong></td>
<td>Advanced in the Field of Imaging</td>
<td>Bucharest, Romania</td>
<td>May 2019</td>
<td>27</td>
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<tr>
<td><strong>ASLPEDS Course</strong></td>
<td>Body Oncologic Imaging</td>
<td>Munich, Germany</td>
<td>June 2019</td>
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<tr>
<td><strong>ASLPEDS Course</strong></td>
<td>Neuroradiology</td>
<td>Vicenza, Italy</td>
<td>September 2019</td>
<td>72</td>
</tr>
<tr>
<td><strong>ASLPEDS Course</strong></td>
<td>Diagnostic Imaging – How to build a perfect study</td>
<td>Geneva, Switzerland</td>
<td>November 2019</td>
<td>22</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Neuroradiology</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>23</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Hybrid Imaging</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
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<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Head and Neck Radiology</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>41</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Vascular Radiology</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>42</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Gastro Imaging</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>43</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Breast Imaging</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>44</td>
</tr>
<tr>
<td><strong>ESOR Course for EDiR</strong></td>
<td>Radiological Imaging – How to build a perfect study</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>45</td>
</tr>
<tr>
<td><strong>ESOR/EBALL Course</strong></td>
<td>Research in diagnostic radiology – How to build a perfect study</td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>7</td>
</tr>
</tbody>
</table>

### Visiting Professors Programme

<table>
<thead>
<tr>
<th>Programme</th>
<th>Topic</th>
<th>Venue</th>
<th>Date</th>
<th>Onsite Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visiting Professors Programme</strong></td>
<td>Osteologic Imaging of the Adolescent and Adult</td>
<td>Tbilisi, Georgia</td>
<td>May 2019</td>
<td>36</td>
</tr>
<tr>
<td><strong>Visiting Professors Programme</strong></td>
<td>Paediatric Radiology</td>
<td>Varna, Bulgaria</td>
<td>September 2019</td>
<td>59</td>
</tr>
<tr>
<td><strong>Visiting Professors Programme</strong></td>
<td>Breast Imaging</td>
<td>Heraklion, Greece</td>
<td>October 2019</td>
<td>077</td>
</tr>
<tr>
<td><strong>AIMS Mexico</strong></td>
<td>How general radiologists should deal with Paediatric Imaging</td>
<td>Mexico City/LaSal, Mexico</td>
<td>April 2019</td>
<td>191</td>
</tr>
<tr>
<td><strong>AIMS Korea</strong></td>
<td>Breast and Prostate in MRI Radiology</td>
<td>Seoul, Korea</td>
<td>May 2019</td>
<td>21</td>
</tr>
<tr>
<td><strong>ASLPEDS International Philippines</strong></td>
<td>Head and Neck Imaging</td>
<td>Manila, Philippines</td>
<td>July 2019</td>
<td>57</td>
</tr>
<tr>
<td><strong>ASLPEDS International Thailand</strong></td>
<td>Breast and Prostate in MRI Radiology</td>
<td>Phuket, Thailand</td>
<td>July 2019</td>
<td>101</td>
</tr>
<tr>
<td><strong>ASLPEDS International Brazil</strong></td>
<td>Neuroradiology</td>
<td>Porto Alegre, Brazil</td>
<td>July 2019</td>
<td>149</td>
</tr>
<tr>
<td><strong>ASLPEDS International China</strong></td>
<td>Breast Imaging</td>
<td>Beijing/Shanghai, China</td>
<td>September 2019</td>
<td>9</td>
</tr>
<tr>
<td><strong>ASLPEDS International India</strong></td>
<td>Osteologic Imaging</td>
<td>Kochi, India</td>
<td>November 2019</td>
<td>101</td>
</tr>
<tr>
<td><strong>Visiting Professors Programme</strong></td>
<td>Osteologic Imaging</td>
<td>Cartagena, Colombia</td>
<td>August 2019</td>
<td>23</td>
</tr>
</tbody>
</table>

### Total ONSITE and LIVE STREAMING Participants

| Total ONSITE and LIVE STREAMING Participants | 5,956 |

### Total Scholarships/Fellowships

| Total Scholarships/Fellowships | 118 |

- **43 Visiting Scholarships Programmes in Europe**
- **2 Visiting Scholarship Programmes in the USA**
- **33 Exchange Programmes for Fellowships in Europe with ESGAR, EUSOBI, ESCR, ESHNR, ESHIMT, ESSR, ESNR, ESOI, ESPR, ESTI**
- **2 Exchange Programmes for Fellowships in the USA**
- **7 Full One-year Fellowships in Europe**
- **30 Bracco Fellowships**
- **1 Nicholas Gourtsoyiannis Teaching Fellowship**

### Live Streaming

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Venue</th>
<th>Date</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ESR/ESOR AI Premium Event</strong></td>
<td>Intelligence. Innovation. Imaging – The Perfect Vision of AI</td>
<td>Barcelona, Spain</td>
<td>April 2019</td>
<td>2,865</td>
</tr>
<tr>
<td><strong>ESOR Courses for EDiR</strong></td>
<td>Vienna, Austria</td>
<td>November 2019</td>
<td>73</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL LIVE STREAMING PARTICIPANTS**: 2,938
The year 2019 brought back two well-established, dearly missed platforms with a new interface and style. In April, the database for case reports, Eurorad, was launched after being temporarily closed at the end of 2018. In October 2019, the e-learning platform Education on Demand was finally back online after several months of transition.

**EURORAD**

By the end of 2019, the new Eurorad website hosted over 210,000 visitors and received a lot of positive feedback, praised by users and authors alike.

The main changes include independent platforms for the submission and publication of the case reports and the transition towards the use of the well-known Editorial Manager system to ensure a professional peer-review process. Additionally, a completely new database with a fresh and modern design and a brand-new website were introduced.

The submission numbers for the past year are lower than in previous ones for two reasons: firstly, due to the website transition, the submission phase was shorter than the standard 12-month period; secondly, the whole submission process was adapted and modified over the previous 18 months to meet the current standards of publication ethics. This made case submissions more time-consuming for authors, but the changes were necessary to obtain better quality and patient privacy.

The users of the new website now benefit from a strong and efficient search engine, as well as many new features, such as Editors’ selection of cases, teaching cases with multiple-choice questions, the ability to comment on cases, saving searches, the option to follow cases and authors, and the creation of a personal author profile.

**Facts & Figures**

- Established in 1999
- Editor-in-Chief: Olof Ekberg, Malmö/Sweden
- Teaching case platform for radiological case reports
- More than 7,500 cases published
- Submissions: 485
- Active reviewers: 126
- Users: 215,743

<table>
<thead>
<tr>
<th>Year</th>
<th>Submissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>562</td>
</tr>
<tr>
<td>2016</td>
<td>701</td>
</tr>
<tr>
<td>2017</td>
<td>639</td>
</tr>
<tr>
<td>2018</td>
<td>574</td>
</tr>
<tr>
<td>2019</td>
<td>485</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Users 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>222,758</td>
</tr>
<tr>
<td>2016</td>
<td>201,853</td>
</tr>
<tr>
<td>2017</td>
<td>149,553</td>
</tr>
<tr>
<td>2018</td>
<td>113,719</td>
</tr>
<tr>
<td>2019</td>
<td>215,743</td>
</tr>
</tbody>
</table>
EDUCATION ON DEMAND

The ESR’s e-learning platform, Education on Demand, was successfully launched with a completely new software in late October 2019. A tremendously improved usability, paired with hand-picked contents from ESR, ESOR and ECR resources are now presented in two options. The first one is a free-of-charge branch that allows users to test their knowledge, quickly and easily and without any login required. Those who want to dig deeper and earn CME credits can subscribe to the accredited Premium branch containing more than 320 courses. The Premium branch allows personalisation in the form of the selection of courses, tracking individual learning progress, downloading of CME certificates, and earning badges for a variety of activities. Both branches offer a comprehensive menu and course catalogue.

By the end of 2019, over 8,000 users had visited Education on Demand, and the subscribers of Education on Demand Premium had earned 417 CME certificates, as the whole platform had been accredited as an e-learning provider by the UEMS.

Facts & Figures

Re-launched in October 2019
Subcommittee Chair: Sue Barter, Cambridge/UK
eLearning platform
320+ modules available

Subcommittee members: 56
Visitors: 8,285

Education on Demand Premium:

Learners: 356
Course assignments: 1,319
CME certificates issued: 417
The European Diploma in Radiology (EDiR) is organised by the European Board of Radiology (EBR). The EDiR is an additional qualification of excellence that serves as a system of standardisation and accreditation of radiologists across European borders. It provides an international benchmark for general radiology and is officially and fully endorsed by the European Union of Medical Specialists (UEMS) and the ESR. Its target audience are certified radiologists or radiology residents in the last year of their national radiology training programmes at the time of the examination. The application for the EDiR examination can be carried out individually or as a group through hospital heads of department or the corresponding national society.

As the EDiR is a benchmark of European training standards, the EBR is devoting more of its efforts towards designing the following educational resources to prepare candidates for the examination:

- **EDiR – The Essential Guide** (published in September 2019 by Springer) was compiled by members of the EDiR Committees and coordinated by EDiR’s Scientific Director, Professor Laura Oleaga. It is an all-in-one resource that contains everything candidates need to know in order to successfully pass the EDiR examination.
  
  EDiR – The Essential Guide is available for purchase at: https://www.springer.com/gp/book/9783030200657

- **The EDiR Mobile App** was launched in October 2018 and now has over 2,500 users. The app contains many valuable resources to prepare candidates for the EDiR examination, including access to self-assessment tests, the EBR Blog, and structured reports to help candidates prepare for the CORE section.
  
  The EDiR Mobile App is available for download at:

- **The EBR Blog** presents study cases that cover a range of different topics such as chest and neuroradiology. The blog also features entries from the popular Professor Cáceres and his muppet Dr. Pepe – along with contests, webinars and the latest radiology news to help readers be at the top of their game.

Access the EBR Blog at: https://blog.myEBR.org/

In 2019, a total of 801 people applied for the EDiR examination. Candidates came from 43 different countries, with 68% of the total coming from within Europe.
The Accreditation Council in Imaging (ACI)

In January 2016, the Accreditation Council in Imaging (ACI) was officially launched. It was established under the umbrella of the European Board of Radiology (EBR) to cooperate and collaborate with the accreditation council of the European Union of Medical Specialists (UEMS), the European Accreditation Council for Continuing Medical Education (EACCME®), and its Radiology Section in delivering and harmonising Continuing Medical Education (CME) accreditation in imaging.

The ACI aims to provide, together with the UEMS/EACCME®, the highest level of CME accreditation available today. Its purpose is to make managing CME quick and easy for all applicants and guarantee the quality of accredited events and materials. CME is considered a cornerstone of quality assurance in medical care, and homogenised recognition is a necessary step towards European harmonisation of educational standards in radiology.

The ACI is also highly active in facilitating and improving processes related to CME accreditation in imaging. To this end, the results of the ACI surveys conducted yearly are used to analyse the needs of the radiology community towards new forms of CME and support advocacy for more practicable accreditation procedures.

The ACI committees are composed of active radiologists who are members of the EBR and the UEMS Radiology Section, and they combine a vast amount of expertise in the imaging field.

The ACI Leadership consists of three members:

- Miloš Lučić (ACI Scientific Director)
- Paolo Ricci (ACI Reviewing Committee Chair and President of the UEMS Radiology Section)
- Christian Loewe (ACI Policy Committee Chair)

Since the ACI’s launch in January 2016, more than 550 imaging events have been accredited, among which the first three large e-learning platforms (consisting of more than 100 e-modules each) were granted with CME credits.

The European Training Assessment Programme (ETAP 2.0)

The European Training Assessment Programme (ETAP) was established in 2001 as a joint initiative of the former European Association of Radiology (EAR) and the European Union of Medical Specialists (UEMS) Section of Radiology. Right from the beginning, the in-person assessment sessions had been positive experiences for both hosts and institutions, but new times call for new solutions. Thus, the ETAP 2.0 moved from an external assessment audit to a virtual self-assessment audit.

In March 2017, the ESR, the UEMS Section of Radiology and the EBR agreed on its new concept and shift to the EBR. The ETAP Working Group (composed equally by EBR/ESR and UEMS members) has been working since then on the adaptation and development of the ETAP 2.0 programme and the necessary documents.

The ETAP 2.0 aims to:
- Improve and harmonise the standards of radiology training in Europe and beyond based on the ESR European Training Curriculum for Radiology (ETC)
- Provide institutions that offer postgraduate radiology education with objective assessment of their training programmes by nominated external assessors (ETAP 2.0 Scientific Committee members)
- Develop assessment systems and guidelines for use by postgraduate education authorities at a national level
- Be recognised as an excellence certificate and added value by the different radiological training institutions

The following centres have undergone their respective ETAP 2.0 assessments and received their corresponding ETAP 2.0 excellence certificates:

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>DATE OF CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Hospital Basel</td>
<td>July 17, 2018</td>
</tr>
<tr>
<td>King’s College Hospital</td>
<td>February 4, 2019</td>
</tr>
<tr>
<td>Hospital Clinic Barcelona</td>
<td>February 21, 2019</td>
</tr>
<tr>
<td>Hospital Universitii Parc Tauli Sabadell</td>
<td>June 3, 2019</td>
</tr>
<tr>
<td>Sri Ramachandra Institute of Higher Education and Research (deemed to be University)</td>
<td>November 30, 2019</td>
</tr>
</tbody>
</table>

The following centres have undergone their respective ETAP 2.0 assessments and received their corresponding ETAP 2.0 excellence certificates:
Chapter 7
International Day of Radiology (IDOR)
The International Day of Radiology (IDoR) was celebrated for the eighth time on November 8, this year focusing on sports imaging, and was joined by supporters all around the world. More than 170 radiology-related professional societies from around the world participated in the IDoR 2019, holding a range of different events to celebrate, such as public lectures, department open days, symposia, national media appearances, and press events.

The new IDOR book ‘Imaging of MOTION & PERFORMANCE. Stress & Strain’, created in cooperation with the European Society of Musculoskeletal Radiology (ESSR), was published in October on the IDoR website as downloadable pdf. Print copies were given to the editors and authors of the book, and the members of the ESR Executive Council. Further, the ESR handed the books over as presents to all ESR institutional member societies’ presidents at the ESR Annual Leadership Meeting in Genoa, which took place one week after the IDoR.

Under the editorial leadership of ESSR President, Dr. Alberto Vieira from CUF Porto Hospital and Porto University Medical School, Dr. Luca Maria Sconfienza from University of Milano School of Medicine and Dr. Franz Kainbarg from the University of Vienna, 57 authors from Europe and the United States contributed to the book. Further chapters were provided by representatives of the European Federation of Radiographer Societies (EFRS) and the International Society of Radiographers and Radiological Technologists (ISRRT).

Also, the ESR launched a brand-new Sports Imaging microsite which uses examples of top global athletes to show the general public how radiology is used in the diagnosis and management of sports injuries. The website, which can be found at sports.internationaldayofradiology.com, takes a look at a wide variety of typical sports injuries, ranging from twisted ankles to brain trauma, with reference to the real-life experience of 28 athletes from a selection of the world’s most popular sports. In addition, 40 interviews with sports imaging experts from 37 different countries, conducted by the ESR, were published on the IDoR webpage.

On social media, the International Day of Radiology saw tremendous feedback throughout various platforms. The IDoR Facebook page, which shared a variety of events, fan posts and general IDoR information, attracted 373,071 likes on IDoR related posts (a new record) and gained over 2,000 new fans with a peak during the days before the actual event. On Twitter, which has traditionally seen the biggest buzz for IDoR related social media activities, 8,630 tweets including the hashtag #IDOR2019 were tweeted, generating a user feed reach of 18.9 million.

The ESR celebrated IDoR 2019 with the unveiling of ‘Cranium Florens’, an art installation to raise awareness of the significance of radiology and its role in modern medicine and healthcare, particularly for the benefit of patients. ‘Cranium Florens’, created by Pablo Spitzer, designer and custom artist, and commissioned by the ESR, was installed next to the European House of Radiology, the ESR headquarters at Am Gestade in Vienna. Also, the ESR showed a poster exhibition on the square next to the European House of Radiology, providing information on the ESR, IDoR and the discipline of radiology, explaining the modalities and highlighting some sports injuries with illustrations and clinical imaging, using famous athletes as examples.

IDoR 2020 will be celebrated on November 8, 2020, and will feature interventional radiology as its main topic.
109 Countries
Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Bolivia, Bosnia & Herzegovina, Brazil, Bulgaria, Canada, Chile, China, Colombia, Congo, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Georgia, Germany, Greece, Guatemala, Guyana, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Korea, Kosovo, Kuwait, Latvia, Lebanon, Lithuania, Luxembourg, Macedonia, Malaysia, Maldives, Malta, Mauritius, Mexico, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Palestine, Panama, Peru, Philippines, Poland, Portugal, Romania, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Suriname, Sweden, Switzerland, Taiwan, Tanzania, Thailand, Trinidad, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay, Vanuatu, Venezuela, Vietnam, Yemen.

Participating societies
177

Facebook likes
37,601

IDOR-related tweets
8,630

IDOR Twitter reach
18.91 million

Unique visitors to the IDoR website
29,821
(Sept 1–Nov 30)

Downloads of the IDoR 2019 book
3,757
(Oct 24–Nov 30)
UPDATE OF THE IDOR WEBSITE

www.internationaldayofradiology.com
NEW BOOK
Imaging of MOTION & PERFORMANCE Stress & Strain
CHAPTER 7
INTERNATIONAL DAY OF RADIOLOGY (IDOR)

SPECIAL MINI-SITE ON SPORTS IMAGING / ONLINE PATIENT INFO RESOURCE

sports.internationaldayofradiology.com

CHAPTER 7
INTERNATIONAL DAY OF RADIOLOGY (IDOR)

SOCIAL MEDIA ACTIVITIES: SHOW US YOUR SPORTY SIDE

SHOW US YOUR
SPORTY SIDE

#IDOR2019

More pictures can be found at www.internationaldayofradiology.com/idor-2019
CHAPTER 7
INTERNATIONAL DAY OF RADIOLOGY (IDOR)

POSTER EXHIBITION

What is radiology? 

How do we use modalities? How do they work? 

Poster Exibition
CELEBRATING WORLDWIDE

Vienna, Austria
Canberra, Australia
Baku, Azerbaijan
Caro, Egypt
Graz, Austria
Carlsberg, Denmark
Kuwait City, Kuwait
Dubai, United Arab Emirates
Port Vila, Vanuatu
Kuala Lumpur, Malaysia
Kuala Lumpur, Malaysia
Naples, Italy
Baku, Azerbaijan
Vienna, Austria

More pictures can be found at www.internationaldayofradiology.com/idor-2019
ESR CONNECT

connect.myESR.org is the newest unified video platform from the European Society of Radiology, providing educational and entertaining videos in the field of medical imaging. ESR Connect offers exclusive live streaming events, an extended and constantly growing on-demand library and premium topic packages from the European Congress of Radiology (ECR) and the European School of Radiology (ESOR). The ESR community can now choose their favourite content and watch it whenever, wherever they want.

The platform consists of three channels:

- **The Live Channel** offers live broadcast events, such as:
  - ESR Connect Weekly
  - ECR Online
  - Educational courses (ESOR)
  - Other ESR webinars

- **The On-Demand Channel** hosts recorded lectures from various events (e.g. ECR Online, ESR Connect Weekly) and offers them in packages:
  - Currently available:
    - 30 topic-based packages (ECR 2018, ECR 2019, ESOR)
    - ESR Connect Weekly Season 1 'The Cube Expanded – Interventional Radiology'
    - CHILI 2018 + CHILI 2019, the ESHIMT’s webinars on hybrid imaging

- **The People Channel** (previously introduced at ECR 2019 as ‘Be a star at ECR’) presents entertaining videos which include interviews, highlights, makings of and backstage reports from various ESR activities. This channel is available for free and without login.

**ESR Connect 2019 figures**

- more than 3,300 registered users
- more than 45,000 website visits
- more than 23,000 users

**ESR CONNECT Weekly**

This brand-new live webinar format presents the fascinating world of medical imaging in all its facets in an interactive, entertaining and innovative way. Divided into seasons of six episodes, ESR Connect Weekly features experts demonstrating practical cases on hot topics in radiology, such as interventional procedures and AI. The audience is closely tied in via various interactive feedback channels.

The first season, ‘The Cube Expanded – Interventional Radiology’, was broadcast in autumn 2019 and attracted 541 live viewers from 71 countries and counted 2,923 views. The six episodes that made up season 1 were hosted by Maximilian de Bucourt from the Charité, Berlin, and Christian Loewe from the Medical University Vienna.

Season 2, ‘AI – Use cases: reasons to do AI with friends’, was produced in autumn/winter 2019 at the new ESR Connect Film Studio in Vienna and will be broadcast in 2020.
ESR SOCIAL MEDIA

The growth in the number of social media followers has been strong throughout 2019. The fastest growing social media network this year has been LinkedIn, where the number of followers has nearly doubled in the space of approximately six months. A strategic decision has also been taken to merge the Facebook pages of Insights into Imaging, European Radiology and European Radiology Experimental into one Facebook page named ESR Journals. This change has also been reflected on Twitter where @ESR_SciPub (which represented the three journals under one account) has been renamed to @ESR_Journals. Twitter and Instagram overall have also demonstrated solid growth, as illustrated with the figures below.

Facebook

<table>
<thead>
<tr>
<th>Page</th>
<th>Likes</th>
<th>Change in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>myESR</td>
<td>167,889</td>
<td>up 9%</td>
</tr>
<tr>
<td>European School of Radiology (ESOR)</td>
<td>5,383</td>
<td>up 11%</td>
</tr>
<tr>
<td>International Day of Radiology</td>
<td>21,609</td>
<td>up 10%</td>
</tr>
<tr>
<td>ESR Journals</td>
<td>16,097</td>
<td>new</td>
</tr>
<tr>
<td>European Diploma in Radiology (EDiR)*</td>
<td>8,750</td>
<td>up 33%</td>
</tr>
</tbody>
</table>

*page now managed by the European Board of Radiology office in Barcelona

Twitter

<table>
<thead>
<tr>
<th></th>
<th>Followers</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>@myESR</td>
<td>13,205</td>
<td>up 20%</td>
</tr>
<tr>
<td>@ECRguide</td>
<td>242</td>
<td>up 8%</td>
</tr>
<tr>
<td>@ESR_Journals</td>
<td>508 followers</td>
<td>up 287%</td>
</tr>
</tbody>
</table>

LinkedIn

| @myESR | 11,241 followers | up 84% |

Instagram

| @myESR | 4,335 followers | up 63% |

YouTube

| myESR | 1,990 subscribers | up 18% |
Chapter 10

ESR Promotional Activities
<table>
<thead>
<tr>
<th>Name of congress</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Society of Radiology</td>
<td>Egypt</td>
</tr>
<tr>
<td>72nd Annual Meeting of the Indian Radiological &amp; Imaging Association (IRIA)</td>
<td>India</td>
</tr>
<tr>
<td>8th Journées Francophones de Scanner</td>
<td>France</td>
</tr>
<tr>
<td>Ukrainian Congress of Radiology</td>
<td>Ukraine</td>
</tr>
<tr>
<td>8th Austria</td>
<td>Austria</td>
</tr>
<tr>
<td>Annual Meeting of the Canadian Association of Radiology</td>
<td>Canada</td>
</tr>
<tr>
<td>49th Sao Paulo Radiological Meeting (JPR 2019)</td>
<td>Brazil</td>
</tr>
<tr>
<td>Georgian Association of Radiology Congress</td>
<td>Georgia</td>
</tr>
<tr>
<td>Radiologendagen</td>
<td>The Netherlands</td>
</tr>
<tr>
<td>48th Slovak Radiological Congress</td>
<td>Slovakia</td>
</tr>
<tr>
<td>63rd Nordic Congress of Radiology &amp; 24th Nordic Congress of Radiography</td>
<td>Denmark</td>
</tr>
<tr>
<td>Congress of the Polish Medical Radiological Society</td>
<td>Poland</td>
</tr>
<tr>
<td>Swiss Congress of Radiology (SCR 2019)</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Armenian Congress of Radiology</td>
<td>Armenia</td>
</tr>
<tr>
<td>Annual Meeting of the American Society of Radiological Technologists (ASRT)</td>
<td>United States</td>
</tr>
<tr>
<td>Columbian Congress of Radiology</td>
<td>Columbia</td>
</tr>
<tr>
<td>75th Korean Congress of Radiology</td>
<td>Korea</td>
</tr>
<tr>
<td>Bayerisch-Österreichischer Joint Radiology Congress</td>
<td>Germany</td>
</tr>
<tr>
<td>Irish Faculty of Radiologists’ Annual Scientific Meeting</td>
<td>Ireland</td>
</tr>
<tr>
<td>18th Congress of the Bulgarian Radiology Association</td>
<td>Bulgaria</td>
</tr>
<tr>
<td>Romanian Society of Radiology and Medical Imaging Annual Meeting (SRIM 2019)</td>
<td>Romania</td>
</tr>
<tr>
<td>48th Brazilian Congress of Radiology and Diagnostic Imaging (CBR19)</td>
<td>Brazil</td>
</tr>
<tr>
<td>Italian Radiographers Congress</td>
<td>Italy</td>
</tr>
<tr>
<td>Journées Francophones de Radiologie (JFR 2019)</td>
<td>France</td>
</tr>
<tr>
<td>Annual Radiology Meeting in United Arab Emirates (ARM 2019)</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>17th Balkan Congress of Radiology</td>
<td>Greece</td>
</tr>
<tr>
<td>Belarusian Congress of Radiology</td>
<td>Belarus</td>
</tr>
<tr>
<td>Israel Radiological Association Annual Meeting (ISRA 2019)</td>
<td>Israel</td>
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<tr>
<td>Norwegian Radiological Association Autumn Meeting</td>
<td>Norway</td>
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<tr>
<td>Annual Scientific Meeting of the Radiology Society of Saudi Arabia</td>
<td>Saudi Arabia</td>
</tr>
<tr>
<td>Annual Meeting of the Egyptian Society of Radiology and Nuclear Medicine</td>
<td>Egypt</td>
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<tr>
<td>Serbian Congress of Radiology</td>
<td>Serbia</td>
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<tr>
<td>Turkish Congress of Radiology</td>
<td>Turkey</td>
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<tr>
<td>National Congress of Russian Society of Radiology</td>
<td>Russia</td>
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<tr>
<td>Chinese Congress of Radiology</td>
<td>China</td>
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</tbody>
</table>
CHAPTER 10
ESR PROMOTIONAL ACTIVITIES

ESR NEWSLETTERS
ESR News
ESR@Work
Education Science Research
Rising Stars Newsletter
ESOR Mailings

ECR 2019 PROMOTION
Get Ready
Thank You
ECR Online
ECR 2019 App
ECR City
Women in Focus

ECR 2020 PROMOTION
Abstract Submission
Registration
Invest in the Youth
Radiographers – Abstract Submission
Radiographers – Registration special fee
ESR meets Canada
ESR meets Croatia
ESR meets Israel
ESR meets Slovakia
ESR meets Slovenia
Abstract Submission reminder in 20 languages
EPOS
ECR 2020 Preliminary Programme

ADDITIONAL PROMOTIONS
EuroSafe Imaging
European Board of Radiology (EBR)
European Diploma in Radiology (EDiR)
European Training Assessment Programme 2.0 (ETAP 2.0)
European School of Radiology (ESOR)
International Day of Radiology (IDoR)

ESR Connect
ESR Connect Weekly
ESR Connect ESOR for EDiR

European Radiology
European Radiology Experimental
Insights into Imaging

Eurorad
Education on Demand
The ESR was represented in Oman, during the 2nd Royal Hospital Conference in Muscat in April, by the Chairman of the ESR Board of Directors Prof. Lorenzo E. Derchi. Pictured on the left is Prof. Saquar Altai, Secretary of the Oman Radiology Society (ORMIS).

### Table

<table>
<thead>
<tr>
<th>Date of Congress</th>
<th>Name of Congress</th>
<th>City / Country</th>
<th>ESR Representation</th>
<th>Honours</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17-20</td>
<td>72nd Annual Conference of the Indian Radiological &amp; Imaging Association (IRIA)</td>
<td>Chandigarh, India</td>
<td>O. Clement</td>
<td></td>
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<tr>
<td>January 26-27</td>
<td>6th Journée Francophone de Scanner</td>
<td>Montpellier, France</td>
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<tr>
<td>March 4-6</td>
<td>IAEA Technical Meeting on Cumulative Radiation Exposures of Patients from Recurrent Radiological Imaging Procedures</td>
<td>Vienna, Austria</td>
<td>G. Frija</td>
<td></td>
</tr>
<tr>
<td>March 15-17</td>
<td>13th Croatian – Hungarian – Slovenian – Slovak Radiological Symposium</td>
<td>Modra-Pisak, Slovakia</td>
<td>B. Brkljačić</td>
<td></td>
</tr>
<tr>
<td>March 27-29</td>
<td>7th National Congress of the Association of Radiologists of Ukraine (ARD)</td>
<td>Kiev, Ukraine</td>
<td>L.E. Derchi</td>
<td></td>
</tr>
<tr>
<td>March 29-30</td>
<td>Austria – Annual Congress of the Austrian Association of Radiologic Technologists</td>
<td>Graz, Austria</td>
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</tr>
<tr>
<td>April 3</td>
<td>Round table on the application of the principle of justification in medical diagnostic imaging in BF</td>
<td>Moscow, Russia</td>
<td>G. Frija</td>
<td></td>
</tr>
<tr>
<td>April 4-7</td>
<td>17th Congress Maghrebin de Radiologie &amp; 19th Journées Franco-Tunisiennes de Radiologie</td>
<td>Tunis, Tunisia</td>
<td>G. Frija</td>
<td></td>
</tr>
<tr>
<td>April 11-12</td>
<td>7th Annual Meeting of the Japan Radiological Society (JRS)</td>
<td>Yokohama, Japan</td>
<td>M. Fuchshuber</td>
<td></td>
</tr>
<tr>
<td>April 11-12</td>
<td>Canadian Association of Radiologists Annual Scientific Meeting (CAR 2019)</td>
<td>Montreal, Canada</td>
<td>B. Brkljačić</td>
<td></td>
</tr>
<tr>
<td>April 11</td>
<td>General Assembly of the European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry (COCIR)</td>
<td>Brussels, Belgium</td>
<td>G. Frija</td>
<td></td>
</tr>
<tr>
<td>April 12-13</td>
<td>2nd RANZCR Emergency Radiology Group and Oman Radiology and Molecular Imaging Society Joint Scientific Meeting</td>
<td>Muscat, Oman</td>
<td>L.E. Derchi</td>
<td></td>
</tr>
<tr>
<td>April 12</td>
<td>Regional Conference</td>
<td>Triana, Italy</td>
<td>L. Bortolino</td>
<td></td>
</tr>
<tr>
<td>April 26-30</td>
<td>Annual Congress of the European Société for Radiotherapy &amp; Oncology (ESTRO 38)</td>
<td>Milan, Italy</td>
<td>L.E. Derchi, B. Beets-Tan, S. Khurshudyan</td>
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</tr>
<tr>
<td>May 2-5</td>
<td>49th Sao Paulo Radiology Meeting (JPR 2019)</td>
<td>Sao Paulo, Brazil</td>
<td>B. Brkljačić, L. Donosa</td>
<td></td>
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<tr>
<td>May 3-4</td>
<td>Annual Congress of the Georgian Association of Radiology (GAR)</td>
<td>Tbilisi, Georgia</td>
<td>L.E. Derchi, A. Brady</td>
<td></td>
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<tr>
<td>May 11</td>
<td>19th National Congress of the Italian Association of Interventional Radiologists (AITRI 2019)</td>
<td>Milan, Italy</td>
<td></td>
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</tr>
<tr>
<td>May 11-16</td>
<td>17th ISMRM Annual Meeting &amp; Exhibition</td>
<td>Montreal, Canada</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Chairman of the ESR Board of Directors, Prof. Lorenzo E. Derchi, along with Prof. Regina Beets-Tan, 2nd Vice-President of the ESR, attended ESTRO 38 in April in Milan. Pictured on the right is ESTRO President-Elect, Prof. Ben Slotman.

In May, ESR President Prof. Boris Brkljačić attended the Jamada Paulista de Radiologia congress in Sao Paulo, where he also gave a lecture.
May 16–17 Radiology Days of the Radiological Society of the Netherlands Hilversum, the Netherlands
May 16–18 41st Congress of the Slovak Association of Radiology Bardejov, Slovakia B. Brkljačić
May 18–19 Data Science and Right to Science – Dubrovnik International Bioethics & Science School (DIBBS) Dubrovnik, Croatia B. Brkljačić
May 22–24 63rd Nordic Congress of Radiology & 24th Nordic Congress of Radiography Copenhagen, Denmark
May 30–June 1 31st Congress of the European Federation of Societies for Ultrasound in Medicine and Biology (EFSUMB) – Euroson 2019 Granada, Spain B. Brkljačić
June 6–8 42nd Congress of Polish Medical Society of Radiology (PKTMR) Gdańsk, Poland B. Brkljačić
June 13–15 Swiss Congress of Radiology (SCR) 2019 St. Gallen, Switzerland
June 15 Armenian Congress of Radiology Yerevan, Armenia L.E. Derchi
June 18 International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (QOS 2019) Vienna, Austria G. Frija
June 20–22 Annual Meeting of the American Society of Radiological Technologists (ASRT 2019) Orlando, Florida, USA
June 20–22 IV Curso de Actualidades CIR 2019 Cancún, Mexico
June 20–22 17th International Congress of Diagnostic Imaging Córdoba, Argentiná
June 21–23 14th National Congress of the AETR (Asociación Española de Técnicos en Radiología, Radioterapia y Medicina Nuclear) Oviedo, Spain L. Oleaga
July 4–6 European School for Medical Physics Experts (EMPE 2019) Prague, Czech Republic W. Jaschke
July 4–7 Summer School Brasov Brasov, Romania G. Frija
July 31–August 3 Annual Scientific Conference of the Association of Radiologists in Nigeria (AARIN 2019) Kano, Nigeria Recorded lecture provided by L.E. Derchi
August 7–10 Colombian Congress of Radiology (CCR 2019) Cartagena, Colombia B. Brkljačić, B. Hamm
August 22–24 Argentinian Congress of Diagnostic Imaging (CADI 2019) Buenos Aires, Argentina
August 29- September 1
Feras Secef Course of the Radiological and Diagnostic Imaging Society Sao Paulo
Sao Paulo, Brazil

September 5-7
Chilean Congress of Radiology
Santiago de Chile, Chile

September 7-11
Annual Congress of the Cardiovascular and Interventional Radiological Society of Europe (CIRSE 2019)
Barcelona, Spain
B. Brkljačić

September 12-14
European Cancer Summit (ECCO 2019)
Brussels, Belgium
R. Beets-Tan

September 18-21
75th Korean Congress of Radiology
Seoul, Korea
R. Beets-Tan

September 18-21
2nd Baltic Conference of Pediatric Radiology and Radiation Protection
Tartu, Estonia
B. Brkljačić; EuroSafe: G. Fris, C. Granata

September 25-27
Irish Faculty of Radiologists’ Annual Scientific Meeting 2019
Dublin, Ireland
B. Brkljačić
Honorary Membership for B. Brkljačić

September 26-29
18th Congress of the Bulgarian Association of Radiology (BAR 2019)
Varna, Bulgaria
M. Fuchsjäger

September 28
UEMS, Section of Radiology Meeting
Rome, Italy
L.E. Derchi

October 3-5
National Congress of the Romanian Society of Radiology and Medical Imaging (SRM 2019)
Sibiu, Romania
L.E. Derchi

October 3-5
European Society of Breast Imaging Annual Scientific Meeting (EUSOBI 2019)
Budapest, Hungary
B. Brkljačić; M. Fuchsjäger

October 8-11
Europe Biobank Week 2019
Lübeck, Germany
S. Klein

October 10-12
48th Brazilian Congress of Radiology (CBR 19) – Best of ECR
Fortaleza, Brazil
L.E. Derchi, B. Brkljačić, B. Hamm, R. Beets-Tan, A. Rockall, M.P. Revel, W. Niessen, C. Martinoli, S. Vinniecombe, Ü. Aydingöz

October 11-13
2° Congresso nazionale della Federazione Nazionale Ordini TSRMPSTRP* (FNOTSRMPSTRP 2019)
Rimini, Italy

October 11-14
Joornal de Francophones de Radiologie
Paris, France

October 15-17
Annual Radiology Meeting in UAE (ARM 2019)
Dubai, UAE
C. Catalano

October 17-19
17th Balkan Congress of Radiology (BCR 2019)
Hersonissos, Greece
D. Akota, N. Traykova

October 17-18
2° Congress of the Belorussian Society of Radiologists
Minsk, Belarus

October 17-18
13th National Congress of the Uruguayan Society of Radiology and Imaging (SRIU 2019)
Montevideo, Uruguay
Luca M. Sconfienza

* Federazione nazionale degli ordini dei tecnici sanitari di radiologia medica e delle professioni sanitarie tecniche, della riabilitazione e della prevenzione

ESR President Prof. Boris Brkljačić received Honorary Membership of the Irish Faculty of Radiologists, Royal College of Surgeons in Ireland, during an awards ceremony in Dublin in September.

While at the RANZCR Annual Meeting in Auckland in October, ESR President Prof. Boris Brkljačić had the chance to meet the presidents of other major radiological societies. Pictured from left to right: ARRS President, Dr. Ruth Carlos; ACR President, Dr. Debra L. Monticciolo; ESR President, Prof. Boris Brkljačić; RSNA President, Dr. Valerie P. Jackson

As part of the new ‘Best of ECR’ initiative, a group of premium ECR speakers visited the 48th Brazilian Congress of Radiology in Fortaleza in October to present top-quality scientific content of the latest ECR.

From left to right: Prof. Carlo Martinoli, ESR 2nd Vice-President Prof. Regina Beets-Tan, Prof. Wiro Niessen, Prof. Marie-Pierre Ravel, ESR President Prof. Boris Brkljačić, Chairman of the ESR Board of Directors Prof. Lorenzo E. Derchi, Prof. Üstün Aydingöz

1st Vice President of the ESR, Prof. Michael Fuchsjäger received Honorary Membership of the Israel Radiological Association during their Annual Meeting (ISRA 2019) in October in Eilat. The picture above depicts Prof. Fuchsjäger (left) with the President of the Israel Radiological Association, Prof. Jacob Sosna.
October 17–20
Annual Scientific Meeting of the Royal Australian and New Zealand College of Radiologists (ANZCR 2019)
Auckland, New Zealand
B. Brkljačić

October 23–25
Israel Radiological Association Annual Meeting (ISRA 2019)
Eilat, Israel
M. Fuchsjäger
Honorary Membership for M. Fuchsjäger

October 23–25
Meeting of the Norwegian Society of Radiology (Radiologisk Høstme 2019)
Oslo, Norway

October 25–28
12th Annual Scientific Meeting of the Radiological Society of Saudi Arabia (RSSA 2019)
Jeddah, Saudi Arabia
B. Brkljačić, G. Frija

October 30–October 31
Annual meeting of the Egyptian Society of Radiology and Nuclear Medicine (ESERRA 2019)
Port Said, Egypt
L.E. Derchi, G. Frija

October 31–November 2
Serbian Congress of Radiology
Zlatibor, Serbia

November 5–10
40th Turkish Congress of Radiology (TURKRAD 2019)
Antalya, Turkey
L.E. Derchi
Honorary Membership for L.E. Derchi

November 6–8
National Congress of the Russian Society of Radiology 2019
Moscow, Russia
B. Brkljačić
Honorary Membership for B. Brkljačić

November 7–9
Viennese Radiological Symposium
Vienna, Austria
B. Brkljačić
ÖRG Honorary Membership for B. Brkljačić

November 13–17
Chinese Congress of Radiology (CCR 2019)
Beijing, China
B. Brkljačić, B. Hamm, C. Catalano

November 6
Multi-Stakeholder event at the European Parliament: ESR, European Respiratory Society (ERS) and Lung Cancer Europe (LuCE)
Brussels, Belgium
R. Beets-Tan, M.P. Revel

November 14
European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry (COCIR) 60th anniversary celebration
Brussels, Belgium
L.E. Derchi, G. Frija

December 1–6
10th Scientific Assembly and Annual Meeting of the Radiological Society of North America (RSNA 2019)
Chicago, Illinois, USA
L.E. Derchi, B. Brkljačić, R. Beets-Ton, B. Hamm, A. Rockall, C. Catalano, V. Vilgrain
Honorary Membership for B. Hamm

December 5
General Assembly of ECCO
Brussels, Belgium
L.E. Derchi

December 10
GE Healthcare Meeting on ‘Digital transformation of healthcare in Europe: unlocking the potential of digital solutions for patients, healthcare providers and health systems’
Brussels, Belgium
B. Brkljačić

While attending the Annual Scientific Meeting of the Radiological Society of Saudi Arabia in Jeddah in October, ESR President Prof. Boris Brkljačić received a silver plate in appreciation of the ESR. The plate was handed to him by Dr. Mahmoud Shaheen Al-Alhwal, Dean of the Medical Faculty, King Abdulaziz University, Jeddah; on the left is the current President of the RSSA, Dr. Lamia Jamjoom.

ESR President Prof. Boris Brkljačić received Honorary Membership of the Austrian Roentgen Society in Vienna in November. He is pictured here with ÖRG President Prof. Klaus Haussegger (left) and President-elect Prof. Rosemarie Forstner (right).

Past president of the ESR, Prof. Bernd Hamm, pictured on the left, received Honorary Membership of the RSNA during an awards ceremony in Chicago, in November. He was joined by Prof. Fiona Gilbert (centre) and Prof. Tarek El-Diasty (right).

During the Chinese Congress of Radiology in November in Beijing, Prof. Maximilian Reiser, past Editor-in-Chief of European Radiology and a former ESR President, received Honorary Membership of the CSR.
Chapter 12
ESR Organisation
ESR Executive Council
March 2019 – March 2020

ESR BOARD OF DIRECTORS
1. CHAIRMAN OF THE BOARD OF DIRECTORS (BOD)  Lorenzo E. Derchi, Genoa/IT
2. PRESIDENT  Boris Brkljačić, Zagreb/HR
3. 1st VICE-PRESIDENT  Michael Fuchs, Graz/AT
4. 2nd VICE-PRESIDENT Regina Beets-Tan, Amsterdam/NL
5. PAST-PRESIDENT Bernd Hamm, Berlin/DE

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6. Communication and External Affairs Committee  Nikoleta Traykova, Plovdiv/BG
7. ECR 2020 Programme Planning Committee  Boris Brkljačić, Zagreb/HR
8. ECR 2021 Programme Planning Committee  Michael Fuchs, Graz/AT
9. Education Committee  Carlo Catalano, Rome/IT
10. Finance and Internal Affairs Committee  Deniz Akata, Ankara/TR
11. National Societies Committee  Andrea Rockall, London/UK
12. Publications Committee  Marion Smits, Rotterdam/NL
13. Quality, Safety and Standards Committee  Adrian P. Brady, Cork/IE
14. Research Committee  Marc Dewey, Berlin/DE
15. Subspecialties and Allied Sciences Committee  Alexandre Krajinik, Grenoble/FR
16. ESR Scientific/Educational Director  Valérie Vilgrain, Clichy/FR
17. Executive Director  Peter Baierl, Vienna/AT
EUROPEAN BOARD OF RADIOLOGY (EBR)
18. Chairman of the EBR Shareholders’ Board
   Lorenzo E. Derchi, Genoa/IT
19. EDIR (European Diploma in Radiology) Scientific Director
   Laura Oleaga, Barcelona/ES
20. ACI (Accreditation Council in Imaging) Scientific Director
   Miloš A. Lučić, Sremska Kamenica/RS
21. ETAP (European Training Assessment Programme) Scientific Director
   Dragos Negru, Iasi/RO

EUROPEAN INSTITUTE FOR BIOMEDICAL IMAGING RESEARCH (EIBIR)
22. ESR Representative and Chair of EIBIR General Meeting
   Boris Brkljačić, Zagreb/HR
23. EIBIR Scientific Director
   Gabriel P. Krestin, Rotterdam/NL

ESR PUBLICATIONS
24. Editor-in-Chief of European Radiology
   Yves Menu, Paris/FR
25. Editor-in-Chief of Insights into Imaging
   Luis Martí-Bonmatí, Valencia/ES
26. Editor-in-Chief of European Radiology Experimental
   Francesco Sardanelli, Milan/IT
27. Editor-in-Chief of EPOS
   Ioana G. Lupescu, Bucharest/RO
28. Editor-in-Chief of EURORAD
   Olle Ekberg, Malmö/SE
29. Editor-in-Chief of ESR News
   Panos Prassopoulos, Thessaloniki/GR
30. Editor-in-Chief of ESR@Work
   Andrea Rockall, London/UK
CHAPTER 12
ESR ORGANISATION

SUBCOMMITTEES (CHAIRS)
31. Audit and Standards
   David Howlett, Eastbourne/UK
32. eHealth and Informatics
   Elmar Kotter, Freiburg/DE
33. eLearning
   Sue Barter, Cambridge/UK
34. European Imaging Biomarkers Alliance
   Nandita deSouza, Surrey/UK
35. Professional Issues and Economics in Radiology
   Peter Mildenberger, Mainz/DE
36. Radiation Protection
   Franz Kainberger, Wien/AT
37. EuroSafe Imaging Steering Committee
   Guy Frija, Paris/FR
38. Radiology Trainees Forum
   Maja Marolt-Mušič, Ljubljana/SI
39. Referral Guidelines
   Myriam Hunink, Rotterdam/NL
40. Ultrasound
   Dirk Clevert, München/DE
41. Undergraduate Education
   Vicky Goh, London/UK
42. Value-Based Radiology
   Michael Fuchsjäger, Graz/AT

WORKING GROUPS (CHAIRS)
43. Patient Advisory Group
   Nicola Bedlington, Vienna/AT
44. Patient Advisory Group Vice-Chair
   Nikoleta Trajkova, Plovdiv/BG
ESR Member Societies (114)

### INSTITUTIONAL MEMBER SOCIETIES (63)
#### EUROPEAN NATIONAL SOCIETIES (48)

- **ALBANIA**
  - Albanian Association of Radiology
- **ARMENIA**
  - Armenian Association of Radiologists
- **AUSTRIA**
  - Austrian Roentgen Society
- **BELARUS**
  - Belarusian Society of Radiologists
- **BELGIUM**
  - Belgian Society of Radiology
- **BOSNIA AND HERZEGOVINA**
  - Association of Radiology of Bosnia & Herzegovina
- **BULGARIA**
  - Bulgarian Association of Radiology
- **CYPRUS**
  - Cyprus Radiological Society
- **CZECH REPUBLIC**
  - Czech Radiological Society
- **DENMARK**
  - Danish Society of Radiology
- **ESTONIA**
  - Estonian Society of Radiology
- **FINLAND**
  - Finnish Society of Radiology
- **FRANCE**
  - French Society of Radiology
- **GERMANY**
  - German Radiological Society
- **GREECE**
  - Hellenic Radiological Society
- **HUNGARY**
  - Hungarian Society of Radiologists
- **ICELAND**
  - Radiological Society of Iceland
- **ISRAEL**
  - Israeli Radiological Association
- **ITALY**
  - Italian Society of Radiology
- **KAZAKHSTAN**
  - Radiological Society of Kazakhstan
- **KOSOVO**
  - Radiologists Association of Kosovo
- **Kyrgyzstan**
  - Kyrgyz Radiological Society
- **LATVIA**
  - Latvian Association of Radiologists
- **LITHUANIA**
  - Lithuanian Radiological Association
- **LUXEMBOURG**
  - Luxembourg Society of Radiology
- **MALTA**
  - Maltese Association of Radiologists and Nuclear Medicine Physicians
- **MOLDOVA**
  - Moldavian Society of Radiology and Medical Imaging
- **MONTENEGRO**
  - Radiological Association of Montenegro
- **NETHERLANDS, THE**
  - Radiological Society of the Netherlands
- **NORWAY**
  - Norwegian Society of Radiology

### EUROPEAN SUBSPECIALTY AND ALLIED SCIENCES SOCIETIES (15)

- **CIRSE**
  - Cardiovascular and Interventional Radiological Society of Europe
- **ESCR**
  - European Society of Cardiovascular Radiology
- **ESIR**
  - European Society of Emergency Radiology
- **ESGAR**
  - European Society of Gastrointestinal and Abdominal Radiology
- **ESHMT**
  - European Society for Hybrid, Molecular and Translational Imaging
- **ESNR**
  - European Society of Neuroradiology
- **ESOI**
  - European Society of Oncologic Imaging
- **ESSR**
  - European Society of Radiology
- **ESPR**
  - European Society of Paediatric Radiology
- **ESSR**
  - European Society of Musculoskeletal Radiology
- **ESTI**
  - European Society of Thematic Imaging
- **ESUR**
  - European Society of Urogenital Radiology
- **EUSOBIR**
  - European Society of Breast Imaging
- **EUSOMI**
  - European Society of Medical Imaging Informatics
## ASSOCIATE INSTITUTIONAL MEMBER SOCIETIES (51)

<table>
<thead>
<tr>
<th>Country</th>
<th>Society Name</th>
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<tbody>
<tr>
<td>Algeria</td>
<td>Algerian Society of Radiology and Medical Imaging</td>
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<tr>
<td>Argentina</td>
<td>Argentinean Society of Radiology</td>
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<tr>
<td>Australia &amp; New Zealand</td>
<td>The Royal Australian and New Zealand College of Radiologists</td>
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THE ESR WELCOMES ITS SUPPORTING MEMBERS

The ESR would like to express its gratitude to all supporting membership companies. As the ESR puts a special focus on innovation and keeping up to date with recent developments in the field, close cooperation with the industry leaders is indispensable. The active involvement of the companies contributes significantly to the success of the society and its congress, as well as supporting the cause of radiology in Europe.

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Thank you for your involvement!