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This report covers the time from 2020-01-01 until 2022-06-30.

1 Mission and Objectives

1.1 Objectives

The European Federation for Medical Informatics (EFMI) is the leading nonprofit organization in biomedical and health informatics in Europe. The Federation comprises 28 national societies and includes an exceptional network of experts and stakeholders in health, care, IT and its societal dimensions; supported by 16 topic working groups ranging from human factors, to security and translational health informatics.

EFMI is committed to health for all underpinned by information and communication technology.

The objectives when founded in 1976 were:

- To advance international co-operation and dissemination of information in Medical Informatics on a European basis;
- To promote high standards in the application of medical informatics;
- To promote research and development in medical informatics;
- To encourage high standards in education in medical informatics;
- To function as the autonomous European Regional Council of IMIA.

1.2 Activities and Governance

All European countries, i.e. countries within the European Region of the World Health Organization are entitled to be represented in EFMI by a suitable Medical Informatics Society. The term medical informatics is used to include the whole spectrum of Biomedical, Health-/Social-care Informatics and all disciplines concerned with Biomedical, Health-/Socialcare and Informatics.

The organization operates with a minimum of bureaucratic overhead. Each national society supports the federation by sending and paying for a representative to participate in the decisions of the Federation’s Council, the membership assembly. Apart from the Council, an elected board consisting of ten members governs EFMI. English has been adopted as the official language.

1.3 Membership and Organization

At the mid of 2022, 28 countries have joined the Federation. All representative societies in countries within the European Region of the WHO are entitled to apply for membership.

EFMI is also open for institutional membership. Typical institutions, which become EFMI members, include universities, research organizations, federations, companies and organizations. Currently, 14 organizations have become institutional members of EFMI: 12 academic institutions, public or private organization, non-profit organization and 2 industrial and corporate organization.

EFMI has a long tradition in working groups (WG). 16 WGs are organizing and supporting events and projects on a European basis but also worldwide in close co-operation with national and international WGs and institutions. EFMI does not offer personal membership except for the working groups.

For details, see the following chapters.
2 Executive Board

2.1 Board Members

<table>
<thead>
<tr>
<th>Name</th>
<th>term begins</th>
<th>through conference</th>
<th>Board Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronaki, Catherine</td>
<td>28.11.2020</td>
<td>2022 fall conference</td>
<td>President</td>
</tr>
<tr>
<td>Doupi, Persephone</td>
<td>31.05.2022</td>
<td>2024 fall conference</td>
<td>Vice President</td>
</tr>
<tr>
<td>Stoicu-Tivadară, Lăcramioara</td>
<td>28.11.2020</td>
<td>2022 fall conference</td>
<td>Past President</td>
</tr>
<tr>
<td>Winter, Alfred</td>
<td>17.10.2018</td>
<td>2022 fall conference</td>
<td>Secretary</td>
</tr>
<tr>
<td>Parra-Calderón, Carlos Luis</td>
<td>29.04.2020</td>
<td>2024 spring conference</td>
<td>Treasurer</td>
</tr>
<tr>
<td>Benis, Arriel Johan</td>
<td>01.06.2021</td>
<td>2023 spring conference</td>
<td>Executive Officer</td>
</tr>
<tr>
<td>Gallos, Parisis G.</td>
<td>01.06.2021</td>
<td>2023 spring conference</td>
<td>Publication Officer</td>
</tr>
<tr>
<td>Lindsköld, Lars</td>
<td>28.11.2020</td>
<td>2022 fall conference</td>
<td>Institutional Membership Officer</td>
</tr>
<tr>
<td>Ognjanović, Ivana</td>
<td>28.11.2020</td>
<td>2022 fall conference</td>
<td>Young Professional Officer</td>
</tr>
<tr>
<td>Weber, Patrick</td>
<td>31.05.2022</td>
<td>2026 fall conference</td>
<td>Managing Director</td>
</tr>
<tr>
<td>Deserno, Thomas</td>
<td>31.05.2022</td>
<td>2022 fall conference</td>
<td>President elect</td>
</tr>
</tbody>
</table>

The reports of the individual board members are presented in Appendix 2.

From 09.09.2022 the Board members will be:

<table>
<thead>
<tr>
<th>Name</th>
<th>term begins</th>
<th>through conference</th>
<th>Board Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deserno, Thomas</td>
<td>09.09.2022</td>
<td>2024 fall conference</td>
<td>President</td>
</tr>
<tr>
<td>Doupi, Persephone</td>
<td>31.05.2022</td>
<td>2024 fall conference</td>
<td>Vice President</td>
</tr>
<tr>
<td>Chronaki, Catherine</td>
<td>09.09.2022</td>
<td>2024 fall conference</td>
<td>Past President</td>
</tr>
<tr>
<td>Hurlen, Petter</td>
<td>09.09.2022</td>
<td>2026 fall conference</td>
<td>Secretary</td>
</tr>
<tr>
<td>Parra-Calderón, Carlos Luis</td>
<td>29.04.2020</td>
<td>2024 spring conference</td>
<td>Treasurer</td>
</tr>
<tr>
<td>Benis, Arriel Johan</td>
<td>01.06.2021</td>
<td>2023 spring conference</td>
<td>Executive Officer</td>
</tr>
<tr>
<td>Gallos, Parisis G.</td>
<td>01.06.2021</td>
<td>2023 spring conference</td>
<td>Publication Officer</td>
</tr>
<tr>
<td>Lindsköld, Lars</td>
<td>09.09.2022</td>
<td>2024 fall conference</td>
<td>Institutional Membership Officer</td>
</tr>
<tr>
<td>Ognjanović, Ivana</td>
<td>09.09.2022</td>
<td>2024 fall conference</td>
<td>Young Professional Officer</td>
</tr>
<tr>
<td>Weber, Patrick</td>
<td>31.05.2022</td>
<td>2026 fall conference</td>
<td>Managing Director</td>
</tr>
</tbody>
</table>

2.2 Synopsis of board activities

From 2020 to 30.6.2022, the Executive Board held 29 meetings. Due to the pandemic only 2 meetings could be held in presence. Participation and activities are continuously documented. Minutes and additional material of the meetings are available at the EFMI archive\(^1\). The main topics discussed have been:

- **Covid-19**
  - National initiatives for Covid19
- **EFMI strategy**
- **EFMI conferences**
  - MIE conferences 2020 (cancellation), 2021, 2022, 2023, 2024
  - STC conferences 2020, 2021, 2022, 2023, 2024
  - Europe-China Health IT summits
  - Schedule of MIE and STC conferences
  - EFMI virtual webinars, panels and workshops
  - Update MCO contract
- **EFMI organization**
  - Preparation of Council meetings and elections

\(^1\) [http://www.efmi-server.com/owncloud](http://www.efmi-server.com/owncloud)
EFMI finances
- Working groups
- Institutional members: strategy
- youngEFMI
- Memberships: Interviews with national societies
- Digital EFMI strategy 2021
- EFMI data protection officer
- Vice President interim
- Introducing Managing Director
- Bylaws update
- Honorary Fellows
- Annual report

- EFMI Publications
  - EFMI Inside
  - EFMI Publication Policy for WGs and EU Projects

- EFMI Services
  - Accreditation and Certification (AC2 committee)

- EFMI Projects
  - AI for the smart hospital of the future (HOSMARTAI)

- EFMI endorsements
  - Endorsement criteria
  - Endorsement of projects, conferences and journals

- EFMI external relationships
  - IMIA relations
  - EFMI-AMIA Workshop at MIE2020 (cancellation)
  - Chinese Medical Informatics Society
  - European Open Science Cloud (EOSC)
  - European Health Data Space (EHDS)
  - Federation of European Academies of Medicine (FEAM)
  - Social Media
  - Solidarity with Ukraine

- External conferences
  - Rovinj eHealth week (cancellation)
# 3 National Members

<table>
<thead>
<tr>
<th>Country</th>
<th>National Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Working Group Medical Informatics (AKMI) of the Austrian Society for Biomedical Engineering (ÖGBMT) and of the Austrian Computer Society (OCG)</td>
</tr>
<tr>
<td>Belgium</td>
<td>Belgian Medical Informatics Association (BMIA)</td>
</tr>
<tr>
<td>Bosnia Herzegovina</td>
<td>Society for Medical Informatics of Bosnia &amp; Herzegovina</td>
</tr>
<tr>
<td>Croatia</td>
<td>Croatian Society for Medical Informatics (CroSMI)</td>
</tr>
<tr>
<td>Cyprus</td>
<td>The Cyprus Society of Medical Informatics (CSMI)</td>
</tr>
<tr>
<td>Denmark</td>
<td>The Danish Society for Digital Health</td>
</tr>
<tr>
<td>Finland</td>
<td>Finnish Social and Health Informatics Association (FinnSHIA)</td>
</tr>
<tr>
<td>France</td>
<td>French Medical Informatics Association (AIM)</td>
</tr>
<tr>
<td>Germany</td>
<td>German Association for Medical Informatics, Biometry and Epidemiology (GMDS)</td>
</tr>
<tr>
<td>Greece</td>
<td>Greek Biomedical and Health Informatics Association</td>
</tr>
<tr>
<td>Hungary</td>
<td>Medico-biological Section of the John von Neumann Computer Society</td>
</tr>
<tr>
<td>Iceland</td>
<td>A special interest group of health informatics within the Icelandic Society of Information Processing</td>
</tr>
<tr>
<td>Ireland</td>
<td>Healthcare Informatics Society of Ireland</td>
</tr>
<tr>
<td>Israel</td>
<td>Israeli Association for Medical Informatics</td>
</tr>
<tr>
<td>Italy</td>
<td>Società Scientifica Italiana di Informatica Biomedica</td>
</tr>
<tr>
<td>Norway</td>
<td>NorHIT, Norsk Helse-IT</td>
</tr>
<tr>
<td>Portugal</td>
<td>e-mais - Movimento Associação dos Sistemas de Informação na Saude, Portugal</td>
</tr>
<tr>
<td>Romania</td>
<td>Romanian Society of Medical Informatics</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Slovenian Medical Informatics Association</td>
</tr>
<tr>
<td>Spain</td>
<td>Sociedad Española de Informática de la Salud (SEIS, Spanish Society of Health Informatics)</td>
</tr>
<tr>
<td>Sweden</td>
<td>Swedish Federation for Medical Informatics (SFMI)</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Swiss Society for Medical Informatics</td>
</tr>
<tr>
<td>The Czech Republic</td>
<td>Czech Society for Biomedical Engineering and Medical Informatics</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Society for Healthcare Informatics (VMBI)</td>
</tr>
<tr>
<td>The Russian Federation</td>
<td>National Association of Medical Informatics (NAMI)</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>British Computer Society</td>
</tr>
<tr>
<td>Turkey</td>
<td>Turkish Medical Informatics Association (TurkMIA)</td>
</tr>
<tr>
<td>Ukraine</td>
<td>Ukrainian Association for &quot;Computer Medicine&quot; (UACM)</td>
</tr>
</tbody>
</table>

Full reports of the EFMI national members are presented in appendix 4.
4 Institutional Members

Institutional Members of EFMI are academic institutions, public or private organizations, non-profit institutions as well as industrial and corporate organizations.

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>academic institutions, public or private organisations, non-profit institutions</td>
<td></td>
</tr>
<tr>
<td>HL7 – Health Level Seven International</td>
<td>Belgium</td>
</tr>
<tr>
<td>National and Kapodistrian University of Athens – HIL</td>
<td>Greece</td>
</tr>
<tr>
<td>Politecnico di Milano – eHealthLAB</td>
<td>Italy</td>
</tr>
<tr>
<td>Division of medical information sciences (SIMED), Geneva University Hospitals (HUG)</td>
<td>Switzerland</td>
</tr>
<tr>
<td>The Danish Centre for Health Informatics, Aalborg University (DaCHI)</td>
<td>Denmark</td>
</tr>
<tr>
<td>European Campus Rottal-Inn of Deggendorf Institute of Technology (ECRI)</td>
<td>Germany</td>
</tr>
<tr>
<td>Autoritatea Națională de Managementul Calității în Sănătate (National Authority for Quality Management in Healthcare) (ANMCS)</td>
<td>Romania</td>
</tr>
<tr>
<td>Faculty of Medicine of Oporto University</td>
<td>Portugal</td>
</tr>
<tr>
<td>University of Donja Gorica Montenegro</td>
<td>Montenegro</td>
</tr>
<tr>
<td>UMIT</td>
<td>Austria</td>
</tr>
<tr>
<td>University Gothenburg / Dpt Applied IT</td>
<td>Sweden</td>
</tr>
<tr>
<td>industrial and corporate organisations</td>
<td></td>
</tr>
<tr>
<td>Case Mix</td>
<td>The Netherlands</td>
</tr>
</tbody>
</table>

5 Working Groups

<table>
<thead>
<tr>
<th>CHD - Citizen and Health Data</th>
<th>Chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU - Education</td>
<td>Hägglund, Maria</td>
</tr>
<tr>
<td>EVAL - Assessment of Health Information Systems</td>
<td>Saranto, Kaija</td>
</tr>
<tr>
<td>FAIR - FAIR data in Health Research Performing Organizations</td>
<td>Cresswell , Kathrin</td>
</tr>
<tr>
<td>HIIC - Health Informatics for Interregional Cooperation</td>
<td>Martinez-Garcia, Alicia</td>
</tr>
<tr>
<td>HIME - Health Information Management Europe</td>
<td>Crisan-Vida, Mihaela</td>
</tr>
<tr>
<td>HOFMI - Human and Organisational Factors of Medical Informatics</td>
<td>Engelbrecht, Rolf</td>
</tr>
<tr>
<td>IDeS - Information and Decision Support in Biomedicine and Health Care</td>
<td>Marcilly, Romaric</td>
</tr>
<tr>
<td>LIFOSS - Libre/Free and Open Source Software</td>
<td>Sonicki, Zdenko</td>
</tr>
<tr>
<td>MIP - Medical Image Processing</td>
<td>Kane, Tom</td>
</tr>
<tr>
<td>NI - Nursing Informatics</td>
<td>Deserno, Thomas</td>
</tr>
<tr>
<td>ODH - One Digital Health</td>
<td>Madsen, Inge</td>
</tr>
<tr>
<td>PPD - Personal Portabel Devices</td>
<td>Tamburis, Oscar</td>
</tr>
<tr>
<td>SSE - Security, Safety and Ethics</td>
<td>Lhotska, Lenka</td>
</tr>
<tr>
<td>THI - Translational Health Informatics</td>
<td>Delgado, Jaime</td>
</tr>
<tr>
<td>yEFMI - Young EFMI</td>
<td>Giacomini, Mauro</td>
</tr>
<tr>
<td></td>
<td>Ognjanović, Ivana</td>
</tr>
</tbody>
</table>

Full EFMI WGs reports as presented for the IMIA Yearbook is presented as appendix 3.
6  EFMI Council

The Council consists of the national representatives and the representatives of the group of institutional members with full voting rights and the working group chairs and honorary fellows with limited voting rights. Board members who do not have one of these functions belong to the Council without voting rights.

6.1  National Representatives

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpkoçak, Adil</td>
<td>Turkey</td>
</tr>
<tr>
<td>Ammenwerth, Elske</td>
<td>Austria</td>
</tr>
<tr>
<td>Bakke, Slije Ljosland</td>
<td>Norway</td>
</tr>
<tr>
<td>Benis, Arriel Johan</td>
<td>Israel</td>
</tr>
<tr>
<td>Cleary, Mary</td>
<td>Ireland</td>
</tr>
<tr>
<td>Cornet, Ronald</td>
<td>The Netherlands</td>
</tr>
<tr>
<td>Correia, Ricardo</td>
<td>Portugal</td>
</tr>
<tr>
<td>De Clercq, Etienne</td>
<td>Belgium</td>
</tr>
<tr>
<td>Doupi, Persephone</td>
<td>Finland</td>
</tr>
<tr>
<td>Eriksen, Jeppe</td>
<td>Denmark</td>
</tr>
<tr>
<td>Guðmundsdóttir, Arnheiður</td>
<td>Iceland</td>
</tr>
<tr>
<td>Hercigonja-Szekeres, Mira</td>
<td>Croatia</td>
</tr>
<tr>
<td>Lhotska, Lenka</td>
<td>The Czech Republic</td>
</tr>
<tr>
<td>Lovis, Christian</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Mantas, John</td>
<td>Greece</td>
</tr>
<tr>
<td>Masic, Izet</td>
<td>Bosnia Herzegovina</td>
</tr>
<tr>
<td>Mayorow, Oleg</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Nilsson, Lina</td>
<td>Sweden</td>
</tr>
<tr>
<td>Parra-Calderón, Carlos Luis</td>
<td>Spain</td>
</tr>
<tr>
<td>Pattichis, Constantinos</td>
<td>Cyprus</td>
</tr>
<tr>
<td>Rejc, Tanja</td>
<td>Slovenia</td>
</tr>
<tr>
<td>Sacchi, Lucia</td>
<td>Italy</td>
</tr>
<tr>
<td>Scott, Philip</td>
<td>The United Kingdom</td>
</tr>
<tr>
<td>Serroussi, Brigitte</td>
<td>France</td>
</tr>
<tr>
<td>Shifrin, Michael</td>
<td>The Russian Federation</td>
</tr>
<tr>
<td>Staemmler, Martin</td>
<td>Germany</td>
</tr>
<tr>
<td>Stoicu-Tivadar, Lácrămioara</td>
<td>Romania</td>
</tr>
<tr>
<td>Surján, György</td>
<td>Hungary</td>
</tr>
</tbody>
</table>

6.2  Working Group Chairs

Please refer to chapter 0.

6.3  Institutional Members Representatives

The Institutional Members (chapter 4) are represented in the Council by electing one representative of the academic institutions or non-profit organizations and one representative of the industrial or corporate organizations. The representatives are:

- non-profit and academic institutions: Christophe Gaudet-Blavignac
- industrial and for-profit organizations: Jacob Hofdiijk
## 6.4 Honorary Fellows

<table>
<thead>
<tr>
<th>Name</th>
<th>Elected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andersen, Stig Kjaer</td>
<td>2015</td>
</tr>
<tr>
<td>Barber, Barry</td>
<td>1989</td>
</tr>
<tr>
<td>Baud, Robert</td>
<td>2008</td>
</tr>
<tr>
<td>Blobel, Bernd</td>
<td>2014</td>
</tr>
<tr>
<td>Engelbrecht, Rolf</td>
<td>2012</td>
</tr>
<tr>
<td>Gell, Günther</td>
<td>2004</td>
</tr>
<tr>
<td>Hasman, Arie</td>
<td>2010</td>
</tr>
<tr>
<td>Hercigonja-Szekeres, Mira</td>
<td>2022</td>
</tr>
<tr>
<td>Hofdijk, Jacob</td>
<td>2012</td>
</tr>
<tr>
<td>Lovis, Christian</td>
<td>2022</td>
</tr>
<tr>
<td>Mantas, John</td>
<td>2015</td>
</tr>
<tr>
<td>Masic, Izet</td>
<td>2016</td>
</tr>
<tr>
<td>McNair, Peter</td>
<td>2004</td>
</tr>
<tr>
<td>Mihalas, George</td>
<td>2012</td>
</tr>
<tr>
<td>Moen, Anne</td>
<td>2019</td>
</tr>
<tr>
<td>Rossing, Niels</td>
<td>1994</td>
</tr>
<tr>
<td>Weber, Patrick</td>
<td>2022</td>
</tr>
</tbody>
</table>

EFMI will always remember its deceased Honorary Fellows:

<table>
<thead>
<tr>
<th>Name</th>
<th>passed away</th>
<th>Elected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott, Bud</td>
<td>2011</td>
<td>1987</td>
</tr>
<tr>
<td>Anderson, John</td>
<td>2002</td>
<td>1985</td>
</tr>
<tr>
<td>Bryden, John</td>
<td>2012</td>
<td>2009</td>
</tr>
<tr>
<td>Grémy, François</td>
<td>2014</td>
<td>1987</td>
</tr>
<tr>
<td>Hansen, Rolf</td>
<td>1993</td>
<td>1991</td>
</tr>
<tr>
<td>Jorgensen, Mogens</td>
<td></td>
<td>1988</td>
</tr>
<tr>
<td>Nordberg, Ragnar</td>
<td>2020</td>
<td>07.04.2019</td>
</tr>
<tr>
<td>O’Moore, Rory</td>
<td>2022</td>
<td></td>
</tr>
<tr>
<td>Peterson, Hans</td>
<td>2021</td>
<td>1988</td>
</tr>
<tr>
<td>Reichert, Assa</td>
<td>2015</td>
<td>2010</td>
</tr>
<tr>
<td>Reichertz, Peter L.</td>
<td>1987</td>
<td>1985</td>
</tr>
<tr>
<td>Remond, Antoine</td>
<td>1998</td>
<td>1985</td>
</tr>
<tr>
<td>Roger-France, Francis</td>
<td>2021</td>
<td>1991</td>
</tr>
<tr>
<td>Scherrer, Jean-Raoul</td>
<td>2002</td>
<td>2002</td>
</tr>
<tr>
<td>Wagner, Gustav</td>
<td>2006</td>
<td>1987</td>
</tr>
<tr>
<td>Weber, Albert</td>
<td></td>
<td>1987</td>
</tr>
<tr>
<td>Zvárová, Jana</td>
<td>2017</td>
<td>2014</td>
</tr>
</tbody>
</table>
6.5 Auditing Committee
The Auditing Committee has been elected last on 26.5.2022 at the council meeting at MIE 2022 in Nice:

Name
Hercigonja-Szekeres, Mira
Rejc, Tanja
Shifrin, Michael

6.6 Council Meetings
There were seven meetings since 2020. Due to the Covid-19 pandemic only the last one in May 2022 was in presence.
Minutes and additional material of the meetings are available at the EFMI archive².

² www.efmi-server.com/owncloud
7 Appendix 1: Statutes

Article 1 NAMES AND AIMS
The name of the association is European Federation for Medical Informatics (EFMI), hereinafter known as EFMI. EFMI is a not-for-profit organization involved with the scientific work on theory and practice of information and communication technology as applied in biomedical sciences and health care in a European context. EFMI facilitates the activities of its member national associations and institutions.
The main objectives of the association are to:
A. Advance international co-operation and dissemination of information in the field of Biomedical and Health Informatics on a European basis;
B. Stimulate the scientific work in this field and the evaluation of its applications;
C. Promote research and development in this field;
D. Encourage high standards in education in this field; and
E. Function as the autonomous European Regional Association of the International Medical Informatics Association (IMIA).

Article 2 SEAT
The seat of the association is in Switzerland at the following address:
Chemin de Maillefer 37, CH-1052 Le Mont-sur-Lausanne, Switzerland.

Article 3 MEMBERSHIP
EFMI shall be open for membership by National Societies from European Countries with objectives compatible with its own, by institutions, organizations and affiliated societies. In general, Europe shall be defined as comprising the countries within the European Region of the World Health Organization. The national boundaries and names adopted shall be those of member states as represented at the United Nations. The EFMI Council shall decide on the admission of Full Members, taking into account the membership arrangements of IMIA, ensuring that EFMI and IMIA have the same European countries as Full Members.
EFMI's members are obliged to collaborate in a tolerant and peaceful way, transcending nations, cultures, and political or social structures.

3.1 Full Members
In each country, a national scientific, technical society or group of such societies, may become a Full Member with the restriction that there shall be only one Full Member for each country, and that this member shall be representing the national activities in the field of Biomedical and Health Informatics. Only Full Members have the rights to the assets of EFMI.
Each Full Member is entitled to delegate one representative to the Council. Each representative of a Full Member shall be elected by the member society.
Each Full Member shall pay membership annual dues as decided by the Council.

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3 accepted at the 72nd EFMI Council, 2014
3.2 Institutional Members
The Council may accept academic institutions, public or private organizations, non-profit institutions as well as industrial and corporate organizations as Members to EFMI, hereinafter called Institutional Members.

The Institutional Members are represented in the Council by electing one representative of the academic institutions or non-profit organizations and one representative of the industrial or corporate organizations. The representatives’ term is two years. The election procedure is monitored by an Officer of the Executive Board. Besides the two representatives, each other Institutional Member may be represented at the Council meetings by ex officio delegates without voting rights.

The membership annual dues of all the Institutional Members are decided by the Council.

3.3 Affiliated Societies
The Council may at any time accept other international societies, organizations or associations as affiliated members of EFMI in order to enhance co-operation in achieving the aims of EFMI, as stated in Article 1.

Such affiliated members have the right of representation in the working groups of EFMI and may be represented at Council meetings by an ex officio delegate without voting rights. A prerequisite for affiliation is that reciprocal arrangements are made by the affiliated member society.

3.4 Honorary Fellows
In order to enhance and promote the work of EFMI, the Council is empowered to elect individuals, who have made a distinguished contribution to the field of Biomedical and Health Informatics or who have contributed significantly to the activities respectively objectives of EFMI, to be associated with EFMI as Honorary Fellows. Such Honorary Fellows shall have the right of attending and speaking at the Council, but shall not be entitled to vote, except for the admission of other Honorary Fellows.

3.5 Admission
The Council shall decide on the admission of Full Members, Honorary Fellows, Affiliated Societies and Institutional Members upon recommendation of a Full Member or the EFMI Executive Board. All admissions must be accepted by a majority vote of the EFMI Council.

3.6 Suspension
The membership of Full Members and Institutional Members shall be automatically suspended under the present conditions:

A. For being more than two years in arrears with payment of membership annual dues, including the current year;
B. A written statement has been sent to the member at the last known address two months before suspension, with a copy to the national representative or legal representative.
C. For a long-term inactivity as defined in the Bylaws.

The suspension means that the Full Member or Institutional Member has temporarily lost the rights of a Full Member or Institutional Member, but is allowed to take the role of an observer. As such, a representative can attend the Council Meeting as a delegate, but is without voting rights.

The suspension is automatically cancelled when the payment of membership annual dues, including the years of suspension, is received in the bank account of EFMI.
3.7 Termination

The membership of Full Members or Institutional Members shall be terminated by:

A. Declaration of the member, the resignation to take effect from the beginning of the ensuing year;

B. A two-thirds majority of all Full Members and the two representatives of the Institutional Members:
   i. for a serious offence;
   ii. if the conditions of membership are no longer fulfilled;
   iii. if being more than two years in arrears with payment of membership dues;
   iv. for a long-term inactivity as defined in the Bylaws.

C. A simple majority of all Full Members and the two representatives of the Institutional Members:
   if the member is more than three years in arrears with the payment of membership dues.

Article 4  OPERATION

The main bodies of EFMI shall be in descending order of authority: the Council, the Executive Board, and the Working Groups.

4.1 Council

The Council shall be composed of one representative from each Full Member, the Members of the Executive Board, the Chairpersons of the Working Groups, the Honorary Fellows and two representatives of the Institutional Members.

4.1.1 Authority

A. The Council is the supreme authority of EFMI.

B. The Council shall determine fundamental policy, adopt the programme of activities, hear and approve the reports of any subordinate bodies it may have established, decide on admission and exclusion of members, elect the President and the Members of the Executive Board, adopt and revise statutes and bylaws, adopt the budget, review the incomes and expenditures, accept the audit reports and approve the annual accounts.

C. The Council may establish subordinate bodies for clearly defined permanent or temporary purposes. It shall decide on the composition, the terms of reference and the duration of existence of such bodies.

D. The Council may establish Working Groups to elaborate on specific domains of knowledge in the field of Biomedical and Health Informatics.

E. The Council will elect an Auditing Committee that consists of 3 members, one of them elected as chair person. Each committee member will be elected for a period of 3 years and can be re-elected once, for a total duration of 6 years. The Auditing Committee will review and audit all EFMI's monetary and financial statements in correspondence to the Council approved budget. The committee will issue a written report to be presented at the Council meeting at least once in every calendar/financial year.

F. The Council shall take decisions necessary for the implementation of the main objectives of EFMI.
4.1.2 Quorum, Majority and voting rights

A. **Quorum.** The Council shall be able to conduct business only if at least half of the Full Members and the two representatives of the Institutional Members are present. Proxies (Article 4.1.2.C) are counted for attaining the Quorum. If this is not the case, another assembly of the Council shall be convened within three months, having ensured that all members can be given at least one month’s notice in advance. During that meeting the Council shall operate without any quorum restriction.

B. **Voting Rights.** Only Full Members and the two representatives of the Institutional Members have voting rights in the Council for electing members of the Executive Board, approving the budget, approving future locations/organizers for Medical Informatics Europe Conferences (MIE) as well as Special Topic Conferences (STC) and accepting new Members to EFMI. The Honorary Fellows vote for accepting new Honorary Fellows. The Working Group chairs may vote for accepting the reports of the WGs, establishing new WGs, endorsing chairs/co-chairs. For all other issues all Council members may vote based on the corresponding articles of the statutes and corresponding bylaws.

C. **Proxy.** Only Full Members may give proxy. A representative of a Full Member may be given proxy to vote for a maximum of two other Full Members. For electing Members of the Executive Board no proxies are accepted.

D. **Single vote.** Each representative of Full Members has one vote unless he is recipient of proxy/proxies (see 4.1.2.C). Each other Council member has only one vote.

E. **Simple majority.** Decisions of Council shall be taken by a simple majority of those members present or represented by proxy by those who have the right to vote, except otherwise specified in the statutes.

F. **Waiving vote or abstention.** On a particular issue addressed by the Council, a member may waive the voting right. However, the abstention from voting shall be noted and the member shall be counted for the quorum.

G. **Electronic and Postal Voting.** The President may authorise the Secretary to conduct a postal or an electronic ballot on some issue if a quorum cannot be achieved at a Council meeting, or if other urgent business requires the attention of all Council members with voting rights between scheduled meetings. In this instance a formal proposal shall be put to each member with a copy to the Chair of the corresponding Full Member and the Institutional Members at their official address. At least one month shall be allowed for replies to be received and they shall be counted as if they were votes in a meeting of Council.

If the voting is deemed to require confidentiality and in particular anonymity of the casting votes, as may be the case for election of Members of the Executive Board, a postal ballot shall be given with an inner unmarked sealed envelope which contains the vote of the Member with no sender given and an enclosed signed letter indicating who issued the vote. Based on the rules for a confidential postal vote a similar system will be implemented for electronic votes guaranteeing anonymity.

In the event of any difference in a view being expressed between a Full Members of Institutional member representative and information sent by a letter from the Secretary or Chair of the same Full Member or Institutional Member, the Full Member or Institutional Member representative's views will be taken as subordinate to their Full Member or Institutional Member. The view as expressed by the Full Member’s or Institutional Member’s Chair will prevail.

4.1.3 Meetings

A. The Council shall decide on the dates and places of its meetings, but there shall be at least one Council Meeting each year. It may, however, be convened at any time if the President, after consultation with the Executive Board, deems it necessary.

B. The Secretary shall be supplied with an up-to-date address for each Member of the Council and shall issue minutes and agendas to these addresses. The dates of Council Meetings shall
be notified to Council members at least two months in advance of each meeting with a request for items for the agenda. The agenda will be issued one month before the meeting.

C. The minutes of meetings shall be prepared by the Secretary, endorsed by the President, and approved by the Council at the next meeting.

4.2 The Executive Board

The Executive Board shall execute and implement the decisions taken by the Council. The Executive Board is liable to the Council.

4.2.1 Composition and Election

A. The Council shall elect an Executive Board consisting of President, Vice-President, Past President, Secretary, Treasurer, and a number of Officers. Allocation in elected Officers’ roles and responsibilities as well as additional Officers is to be justified by a Council decision. Each Officer shall have tasks and duties assigned by the Council.

All members of the Executive Board shall be members of Council at the time of their election, with the possible exception of the Past President. Members of National Associations (Full Members of EFMI) nominated by its corresponding National Association may become candidates for an Executive Board position. In the latter case a 2/3 majority vote is required to accept the nomination.

B. Election of President

The Council elects every two years a President-elect, who takes up the position of the President for a term of two years. The election takes place at least three months before the end of the term of the current President. Candidates for the position of President-elect should be members of the Council or the Executive Board who served for at least four years in total. When the President-elect takes up the position of the President, the former President becomes Past President and serves the Executive Board for two years.

The President is responsible for the electoral procedure. The President initiates the procedure at least three months before the expiration date by informing all Members of the Council and calling for tender for the position of President-elect. The election is held during the Council meeting by secret ballot. The person that receives the majority vote of the present Council is elected to the position of the President-elect. The President-elect attends all Executive Board and Council meetings without voting rights.

C. The positions of Secretary and Treasurer are elected by the Council for a period of four years. Their term can be extended for a maximum of another one term.

D. The Vice-President and the Officers are elected directly by the Council for two years. The term of the Vice-President and the Officers can be extended, if re-elected, for a maximum of another two consecutive terms in the same or another Executive Board position.

E. The Past President represents EFMI in IMIA and has, while EFMI is accepted as an IMIA Regional Member under the IMIA Bylaws, the right of attendance and voting at the IMIA Board and General Assembly. The Past President after serving for two years in his/her position ceases to be a member of the Executive Board.

F. The Members of the Executive Board shall commit themselves to assist to all the meetings of the committee.

G. If a Member of the Executive Board resigns or the office is terminated for any reason, a successor shall be elected for the unexpired portion of the term. In case of emergency, the Executive Board shall be entitled to elect a temporary successor for the period until the next Council meeting. Incomplete terms shall not count as complete term. For unexpected and force majeure circumstances the Council may decide with 2/3 majority of all Council members to extend the term of any Board member.

H. A Member of the Executive Board can be discharged for misdemeanour by a two-thirds vote of the Full Members and two representatives of the Institutional Members.
4.2.2 Authority
A. The Executive Board shall conduct the day-to-day operations of EFMI.
B. The President applies the policies of EFMI, represents EFMI and convenes and conducts both the Council and the Executive Board meetings. The President defines the agenda of the meetings, moves proposals for voting, and oversees the execution of all resolutions.
C. The Vice-President replaces the President whenever the President is absent or incapacitated. The Vice-President is responsible for initiating Working Groups and for monitoring the progress of existing ones.
D. The Past President represents EFMI in IMIA Executive Board and its meetings.
E. The Secretary is responsible for Membership of EFMI, supervises voting procedures, keeps records for each Member of the Council, and keeps minutes, resolutions and archives of the Council and the Executive Board meetings.
F. The Treasurer keeps records of payments of membership dues, reports to the Council and Executive Board about overdue payments from Full and Institutional Members, and initiates the procedure of suspension and termination of membership. The Treasurer keeps records of the bank accounts of EFMI and provides financial reports to the President and the Secretary during the Executive Board meetings. The bank accounts are held in the country where the EFMI registered office is located. The Treasurer prepares and reports the annual budgets and accounts to the EFMI Council and keeps all documentation, submits them for auditing, and reports the outcome of these audits to the Council and Executive Board. The Treasurer will cooperate with the Auditing Committee (Article 4.1.1.E) and supply it with all relevant materials and information.
G. The Officers authority and duties will be defined in the Bylaws.

4.2.3 Meetings
A. The President and the Members of the Executive Board shall decide on the dates and places of the Executive Board meetings, and shall meet at least twice each year.
B. The minutes of meetings shall be prepared by the Secretary, endorsed by the President, and approved by the Council and the Executive Board.

4.3 EFMI Working Groups
A. An EFMI Working Group is established by a Council decision upon the submission of a proposal by (a) Council member(s) describing the scope, objectives, outcomes, and the timeline of the deliverables of the Working Group. The term of a Working Group will be decided by the Council.
B. Each Working Group shall be composed by experts of the specific domain working together in a specified area. Membership in a Working Group is neither restricted to EFMI members nor EFMI countries.
C. A Working Group may develop workshops, cooperate with other Work Group(s) to propose Special Topic Conferences, produce scientific documents and papers, and whatever else that promotes the domain of the Working Group as specified by the Council decision of its establishment.
D. A Working Group operates under the Council and the Executive Board. Each Working Group is chaired by a person endorsed by the Council. The Chairperson of the Working Group may propose a co-chairperson (endorsed by the Council) among the working group membership. Consequently, the chairperson attends the meetings of the Council. The co-chair may act as a proxy to the chairperson in the Council, whenever the chairperson is not attending.
E. The Working Group Chairs shall communicate Working Group activities to the Vice-President, who monitors and encourages activities in all Working Groups. The Chairperson of
the Working Group shall submit a report to the EFMI Executive Board via the Vice President once a year, reporting previous and forthcoming activities and deliverables. The report is examined by the Vice-President and the Vice-President reports to the Executive Board and to the Council about the progress of each Working Group.

F. If no report has been delivered on two consecutive occasions, the Working Group shall automatically be dissolved.

G. The term of office of the Working Group Chairperson is four years but can be renewed for one further four-year period.

Article 5 FINANCE
EFMI shall be financed by membership annual dues from Full Members and Institutional Members, by royalties from publications, interest on funds, contributions and surplus from events such as Congresses, Conferences and Symposia including funds arising from activities of subordinate bodies.

The Council shall decide on the scale of annual membership dues for Full Members and Institutional Members for the ensuing year. It may accept donations and subsidies.

Article 6 LIABILITIES
In the event of dissolution of EFMI or as contributions to a financial loss in any year, no Full Member shall be held liable to pay a sum in excess of an amount equivalent to twice the annual membership dues to EFMI.

Article 7 LIQUIDATION
Any proposal to dissolve EFMI shall be brought to the notice of all Members of the Council at least three months in advance of the Council meeting, at which it will be discussed. Approval of such a proposal shall require a two-thirds majority of all the Full Members.

If the two-thirds majority is achieved for liquidation, the Council shall then decide by a simple majority of the full members on the method of liquidation and the disposal of its assets which may be given to the Full Members’ National Societies or other purpose(s).

Article 8 COMMITMENTS
Any documents committing EFMI to expenditure or other liability shall be signed by two members of the Executive Board, normally the President and the Secretary, in accordance with and subsequent to an explicit minute action within a Meeting of the Council or an Executive Board meeting.

All legal actions, whether as plaintiff or as defendant, shall be the responsibility of the Executive Board represented by the President or his legal representative.

Article 9 OFFICIAL LANGUAGE
The official language for conducting business of EFMI is English. Therefore, all minutes are kept and recorded in English as well as the communication with Members and during Board and Council meetings are conducted in English.
Article 10  BYLAWS
The Bylaws are the internal rules of operation implementing the EFMI policy and are approved by the Council. Therefore, procedures and operating actions related to the above mentioned Articles not provided within the Statutes will be defined and detailed in the Bylaws.

Article 11  APPLICABLE LAW
Anything not provided for in these Statutes and the Bylaws, and any dispute shall be resolved in accordance with the corresponding Swiss legal framework.

Article 12  AMENDMENT
All proposals for modification of these statutes must be submitted by at least one Full Member. Any such proposal shall be brought to the notice of all Members of Council at least one month in advance of the Council meeting at which it will be discussed. Approval of such proposals shall require a two-thirds majority of all Full Members.

DECISIONS
The statutes were adopted at Council Meeting in Toulouse, 23 March, 1977.
Amended at Council Meeting in Ljubljana, 13 March, 1999.
Suggested Amendments at Executive Board Meeting in Geneva, 26 August, 2005.
Extended Editing at Executive Board Meeting in Madrid, 4-5 March, 2007.
Amended at Council Meeting in Brijuni, Croatia in 30 May, 2007.
Approval for submission to the Court at Exec. Board meeting in Antalya, 17 November, 2007.
Approved by the Council in the Council meeting in Copenhagen on 19 Aug, 2013.
Approved by the Council in the Council meeting in Budapest on 26 April, 2014.
Approved by the Council in the Council meeting in Istanbul on 31 August, 2014.
8 Appendix 2: Full reports from the Board Members

8.1 President – Lăcrămioara Stoicu-Tivadar / Catherine Chronaki

8.1.1 Lăcrămioara Stoicu-Tivadar (January to November 2020)

During the second year of presidency my focus was to consolidate all initiatives started during 2019 related to the cohesion and growth of the EFMI community to team up to work actively for visibility and cooperation.

2020 came with an unusual challenge due to COVID-19 pandemic, the coronavirus pandemic by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). That reflected heavily on day-to-day life and consequently on the f2f events planned for 2020. The MIE2020 conference had to be cancelled, 1 month before the date, due to Swiss national restrictions. The SPC and chair Christian Lovis together with the PCO, MCO, had many issues to overcome and the EFMI Board was grateful for their sustained work to close the event as good as possible in the current conditions. The EFMI Board followed all activities and supported the organizing team to finalize the activities in good conditions: the publication of the IOS Press volume and the financial side. I proposed and coordinated the virtual events associated with MIE2020 workshops, to add value for the participants that did not have a paper published but wanted to present their activities in a more interactive manner. We had a great team organizing the virtual workshops on Zoom: Parisis Gallos, Mihaela Crișan-Vida, Patrick Weber. The community was grateful, and we have got many congratulation messages and thanks for organizing the 12 events during June and July. Colleagues from Finland National society were brave and organized during these unusual times the STC conference working together with MCO, the PCO with which EFMI signed a 3-year contract for 2021-2023. Both events had ups and downs and we all learned for better future processes.

The MIE2021 preparation was in progress during 2020, the new contract with MCO started and is fundamental for the event organization. We learn that both, EFMI and MCO, must work more for a good cooperation, understanding responsibilities and make it more and more a smooth process in the future. The SPC team and the EFMI Executive officer work hard for this pioneering process success.

The yEFMI initiative I started in 2019 in Hanover continued during 2020 with a new workgroup chaired by Ivana Ognjanovic voted during the EFMI Council Meeting in July, and the process ended with the voted position in the Board for the new Officer in November during STC2020. Ivana started to create a networking activity with specific incentives for early career professionals in digital healthcare in line with EFMI policy. Paris, Arriel, Romaric, Mihaela are active supporters for Ivana in this new task.

EFMI continued cooperation with European partners as FEAM, EUSEM, ESOC, expanding its potential influence.

As a good practice in EFMI during the last years, the Association is participating in EU projects as an important activity. Board, national members, and workgroups continued the proactive developments in this area with the EU projects in which EFMI was involved and EFMI’s contribution in CrowdHealth and FAIR4Health projects was very well appreciated by the members of the consortia and EU reviewers. I am grateful to the contributing EFMI members mentioning the professional and administrative coordinators: John Mantas, Carlos Luis Parra Calderón and Patrick Weber. During spring 2020 I was invited to contribute to an EU project proposal and together with John Mantas and Patrick Weber worked for the EFMI proposal. The proposal for HOSMARTAI project was very successful in evaluation, ranking first with 14.5/15. The project starts 01.01.2021 with a duration of 41 month. A short description of the project is done in Appendix 4 of the current Report.
During 2020 the AC2 Committee in EFMI had successfully started the accreditation process, giving the first EFMI AC2 accreditation badge for a Master’s degree in Medical Informatics from UMIT in Austria. More activities will follow.

I enjoyed working with a great team and am grateful to Board colleagues. I coordinated the Board virtual meetings, having a solid support, being productive, and getting specific results. The Council members were supportive and helped the Board to work better. We did good, but still have many things to improve and change, and we can do this if we keep close and are dedicated to our community. The world as we knew it is changing, and we are living unique times and need to mobilize ourselves and change behavioral attitudes, finding new ways to reach fulfilment in our professional and personal life. I know the EFMI community will contribute to a better one.

Lacramioara Stoicu-Tivadar
EFMI President
nov. 2018- nov. 2020
#myHome, Timisoara, April 2021

8.1.2 Catherine Chronaki (from November 2020)

8.1.2.1 Report 2021

This year marks the 45th anniversary of EFMI and was recognized in MIE2021, run virtually along with the 200 years of the Hellenic revolution that led to the establishment of the Greek state. It has been a busy year for EFMI characterized by an ambitious workplan and launching of internal projects managed by board members along the lines of Renew – Connect – Grow. COVID-19 has been a barrier to traditional cooperation, exchange of ideas, and collaboration, challenging EFMI to engage in more digital activities. COVID-19 has also been an opportunity for higher attendance in the council meetings. In my role as president, I fostered relations with European and International Organizations, represented EFMI in advisory boards, and participated in digital events. Overall, more than 15 keynotes and invited speeches fostering relations with European umbrella organizations were delivered. As part of EFMI’s participation in the FAIR4Health project, under the leadership of EFMI Treasurer, Carlos Parra Calderon, we organized a 3-hour EU-US AMIA workshop on FAIR data policy in March 2021. Follow-up workshops conference elaborating the FAIR data certification roadmap for Healthcare Research Organizations are already planned. Towards the end of the year, the EFMI Executive Board investigates its strategic position in the post-COVID era characterized by the transformation of health and care with renewed focus on data and AI.

Looking forward to 2022 more and more activities towards Renew – Connect – Grow with the 3rd EU-China Health Summit and engagements and collaboration with EU level societies active in digital health, as well as WHO Europe.

8.1.2.2 Report 2022

In 2022, the second year of my Presidency a lot of the efforts concentrated on the reorganization of EFMI with the establishment of the Managing Director. Additionally, the board worked hard to support the organization of MIE2022, the first in person conference after the COVID-19 pandemic. In an effort to support the open access policy of EFMI, a new publication policy was adopted by the 88th meeting of the EFMI Council, which supports researchers of the EFMI Community in their publication efforts, if this is not otherwise possible.

Meet EFMI

An important initiative initiated in 2022 has been the meet EFMI luncheon at MIE, were members of the Board introduced initiatives of EFMI in an effort to attract new members and
engage the community. Several members of the Board joined the president to discuss yEFMI, participation in EU projects, collaborations of EFMI with other societies, etc. My hope is that this initiative will continue in future EFMI STC and MIE conferences. Continuing our engagement with the European Open Science Cloud, where EFMI is an observer, represented by Carlos Parra Calderon, the current EFMI treasurer, I attended the annual Assembly. This engagement creates significant opportunities for EFMI members.

This year, so the escalation of the Ukranian crisis. EFMI and its members supported Ukranian scientists in all ways possible and we joined forces with IMIA in asking for peace.

3rd Europe-China Health IT Summit
MIMTT2022, the 3rd Europe-China Health IT Summit is planned for 24-27 of August as a virtual event. Until June the hope was to connect it to the Czech Presidency of the European Union and organize it in person with the Czech National Member of EFMI as the local organizer. Unfortunately, in the end this was not possible since China was not fully open until June. Outreach efforts to EUPHA the European Public Health Alliance and the HTAi, Health Technology Assessment International, took the form of a joint session at the conference.

EFMI Inside 2022
The second issue of EFMI Inside was published in May 2022 on the occasion of the MIE2022 conference. It was published both online and in paper.

EU Funded Projects
Following my personal engagement along with other EFMI members in Research Proposals to European Commission we were successful in the proposal oneAquaHealth, which is connected to the ODH Working Group, as well as in the first step of the research proposal ECHO zones. These proposals broaden the scope of EFMI activities and support its mission in Biomedical and Health Informatics, increasing its visibility and impact in the European Union.

Publications 2021-22
11. EFMI, Chronaki C, Benis, J Mantas, P Gallos, J Delgado, CLP Calderón, Yearbook of Medical Informatics, 2022


Speeches 2020-22
4. An Agile Approach to Accelerate Development and Adoption of Electronic Product Information Standards, Studies in Health Technology and Informatics MIE2022, Nice, France

8.2 Vice President – Catherine Chronaki / Louise Pape-Haugaard / Lars Lindsköld (interim)

8.2.1 Catherine Chronaki (to November 2020)
In 2020, my main activities as EFMI Vice President for WGs have been:

- **Stimulate the activities of EFMI WGs.** In 2020, the cancellation of MIE2020 adversely affected the WG activities. Several workshop proposals originating from WG were submitted and accepted by the Scientific Program Committee of MIE2020. Some of these workshops turned into virtual events, other were cancelled.

- **Stimulate EFMI WG participation in EU projects and proposals.** In 2020, I encouraged participation of WGs and EFMI in several EU funded proposals. In the end, EFMI has been approved as a collaborative partner in the x-eHealth project, the policy support action for the European Electronic Health Record Exchange Format. The actual form of engagement for specific EFMI WGs will be explored in the next period.

- **2nd EU-China Health Summit on Medical Innovation, Informatics, Imaging, and Medical Technology Transfer (MIMTT): Building a Healthier world with AI and MI3.**
  The 2nd EU-China Health Summit was held on October 17 to Oct 23 online and was dedicated to Ragnar Norberg (1936-2020) esteemed member of the EFMI Family and past treasurer. The summit offered 3 tutorials, 2 preconference workshops, 7 Keynotes, 33 long presentations, 17 ePosters. 3 student posters awards were bestowed. The material of the summit will be soon available online in the EUSEM digital academy site and EFMI.org. Publication of the abstract book is under discussion.

- **EFMI Cooperation with the European Society for Emergency Medicine (EUSEM).**
  In the 2020 the activities of the EUSEM-EFMI task force slowed down and at the same time focused. A second webinar was organized in March on the topic of AI. A review paper is under preparation on the role and standard (or not) ways to capture chief complaints. A joint workshop was planned in the frame of the Croatian Presidency, but it was cancelled due to the COVID-19 pandemic. The material is the source of a seminar planned for Nov 19 in cooperation with GMDS, EUSEM, and ECHAlliance. Meanwhile, at the time of this writing the strategic roadmap for EFMI-EUSEM cooperation is under preparation. As previously reported the roadmap will drive future cooperation also with the digital health WG of EUSEM, addressing areas of common interest:
o common description of processes/workflows, performance indicators, structures in Emergency Medical Systems and Emergency Departments with emphasis on the use of digital health technologies. A specific project of interest is the standardization of the main concern/complaint and its link to care protocols and health records. There is an internally supported EUSEM project on this topic.

o development of educational module(s) related to medical informatics that could be offered in the EUSEM congresses. We could also consider a module developed by EUSEM for medical informatics offered as tutorial in EFMI congresses. For accreditation of educational modules, EUSEM works with EUMS, the European Union of Medical specialists.

- **EFMI WG Updates: activities, initiation, change in leadership, termination.** The activities of EFMI WGs are presented in the [www.efmi.org](http://www.efmi.org) web site. Several WGs also have a linkedin website. Leadership change expected in 2020 for HIME and PPD, change pending. The WGs EHR and PCI have been inactive and are expected to be disbanded 2020. Draft proposals have been put forward to establish a working group on One Health and Regulator Aspects of Digital Health in cooperation with other associations related to digital health.

- **Other activities: speeches, workshops, meetings.** During 2020, I was invited to deliver a keynote in the Annual Meeting of the XVII Brazilian Symposium on Health Informatics and participated in several online workshops organized after the cancellation of MIE2020. I was moderator of a government round table at HIMSS2020 with Head US Office of the National Coordinator and the General Secretary of Dutch Ministry of Health. Besides that, I have been active in the IC2 committee and actively participated in board and council meetings held via teleconferencing. Participated on two panel organized by the World Public Health Congress, discussing immunity passports and patient summaries and will also be part of a workshop in STC2020.

8.2.2 Louise Pape-Haugaard (to November 2021)

8.2.3 Lars Lindsköld (interim from November 2021)

8.3 **Past President – Christian Lovis / Lăcrămioara Stoicu-Tivadar**

8.3.1 Christian Lovis (to November 2020)

*Meetings of IMIA*

**Board meeting of April 28th, 2020 - virtual**

Sabine Koch, President (SK), Johanna Westbrook, Treasurer (JW), Petter Hurlen, Secretary (PH), Jack Li, President-elect (JL), Christoph U Lehmann, Past President (CUL), Najeeb Al-Shorbaji, VP Medinfo (NAS), Daniel Luna, VP Membership (DL), Brigitte Sérousse, VP Services (BS), Jennifer Bichel-Findlay, VP Special affairs (JBF), Luis Fernandez-Luque, VP WGs and SIGs (LFL), Elaine Huesing, CEO (EH), IMIA Regional VP, James Cimino, North America (JC), Christian Lovis, EFMI (CL), Vajira Dissanayake, APAMI (VD), Riyad Al Shammarri (RS), Marcelo Lucio da Silva, IMIA-LAC (MS), IMIA Liaison officers, Michio Kimura, ISO (MK), Patrick Weber, WHO (PW), Reinhold Haux, IAHSI (RH)

Regrets: Hiroshi Takeda, IFIP (HT), Ghislain Kouematchoua Tchuitcheu, (GK)
Both VP Services elect and VP Medinfo resigned after the last GA meeting due to job position change. BS can continue until next GA for an election. Najeeb Al-Shorbaji could take the VP Medinfo position to be ratified at next GA.

Conferences

Nursing Informatics 2020
Postponed due to covid and will be held in 2021 with Medinfo/Australia

Medinfo Conference
The Congress has been held every two years since 2013, previously it was held every three years.

Call for Bids for MedInfo 2027 will be announced in late 2022/early 2023.

MedInfo 2021
MedInfo 2021 submission deadline will be announced soon. Due to COVID IMIA will be hosting a virtual version of MedInfo for 2021, a MedInfo Lite, if you will, to align with the different global travel restrictions. We will also provide you with the update on MedInfo 2023 and MedInfo 2025 at that same time.

VP MedInfo: Najeeb Al-Shorbaji
Scientific Program Co-Chairs: Paula Otero (Argentina) & Philip Scott (United Kingdom)
Editorial Committee Co-Chairs: Jessica Ancker (U.S.A.) & Mark Merolli (Australia)

2020 Class of IAHSI Members of the EFMI Region
Kouroubali, Angelina, Martins, Henrique Manuel, Vivian Vimarlund

IMIA François Gremy Award of Excellence
The recipient of this Medical Informatics Award of Excellence is an individual whose personal commitment and dedication to medical informatics has made a lasting contribution to medicine and healthcare through her or his achievements in research, education, development or application in the field of medical informatics.

Next call for nominations for this award will be announced in late 2020 and will be presented at MedInfo 2021 in Australia.
8.3.2 Lăcrămioara Stoicu-Tivadar (from November 2020)

**IMIA VP for region Europe (Dec.2020-Nov.2022)**

**IMIA Board**

- Sabine Koch, President
- Jack Li, President Elect
- Chris Lehmann, Past President
- Petter Hurlen, Secretary
- Phil Robinson, Treasurer
- Najeeb Al-Shorbaji, VP MedInfo
- Jen Bichel-Findlay, VP Special Affairs
- Lina Soualmia, VP Services
- Luis Fernandez Luque, VP WGs and SIGs
- Daniel Luna, VP Membership
- Elaine Huesing, CEO

Jim Cimino, VP North America Region
Marcelo da Silva, VP IMIA LAC
Lăcrămioara Stoicu-Tivadar, VP EFMI
Dari Alhuwail, VP MENAHIA
Naoki Nakashima, VP APAMI
Ghislain Kouematchoua Tchuitcheu, VP HELINA
Bill Hersh, IAHSI Liaison
Patrick Weber, WHO Liaison
Michio Kimura, ISO Liaison
Ursula Huebner, Secretary Elect

**Meetings of IMIA**

*Virtual meeting, April 18, 2021 – 12 Noon – 2:00 PM UTC*

Welcoming new members to their first official IMIA Board meeting:

- Ursula Huebner, Secretary Elect
- Phil Robinson, Treasurer
- Lina Soualmia, VP Services
- Naoki Nakashima, VP APAMI
- Lăcrămioara Stoicu-Tivadar, VP EFMI
- Dari Alhuwail, VP MENAHIA

Topics discussed, updates for: IMIA administration, MedInfo 2021, Educational Guidelines, Yearbook, History Book, and Discussion.

**Educational Guidelines Update** - Recommendations from 2000 – revised in 2010, need further revision based on the last decades advances in the field. The VP Special Affairs revitalizes the task force that was established to address this, reviewing the recommendations in light of recent advances in the field and updated recommendations or framework from national and regional societies.

**History Book Update and Discussion** - The book was intended to be published in 2017 in relation to the IMIA anniversary. The original proposal presented to the GA in Munich, 2016 included the following content: PART 1: Collection of Short Personal Narratives PART 2: Summaries of IMIA-affiliated national and regional Biomedical and Health Informatics (BMHI) PART 3: Brief IMIA Special Interest Group and Working Group histories, Summaries of BMHI Projects and Themes/Topics of Research Internationally. A Sampling of Major Projects, as well as IMIA collaborations/interactions.


*October 24, 2021, Virtual Board meeting, 12 Noon UTC*

Topics: Medinfo, new applications, financial status - in summary, IMIA seems to be in economic balance. There was a $71k surplus in 2020 and a $74k deficit in 2019, mainly because the revenue from MEDINFO 2019 was only registered in 2020.


The conference lasted 3 days, and there were 283 accepted submissions that will be published in Open Access Proceedings by IOS, available at the end of this year. Most of the presentations had been
recorded in advance. Panels and recorded presentations are available at the IMIA YouTube channel, accessible from the conference web site. There were more than 100 live participants for each session.

Medinfo 2023 is scheduled for Sydney, Australia, 7-12 July 2023 (www.medinfo2023.org). Medinfo 2025 will take place in Taiwan, as previously approved by the GA. The 2022 Yearbook will have the theme “Inclusive Digital Health: Addressing Equity, Literacy, and Bias for Resilient Health Systems”. The main structure and content list are already established.

November 21, 2021, Virtual IMIA General Assembly Meeting
EFMI initiative to cooperate stronger between WGs (connect Louise with Luis) and young professionals groups (connect Ivana and IMIA WG for young researchers activities). Work in progress.

IMIA Board Meeting, 24/10-21 12:00 – 14:00 UTC
Topics
- The IMIA history book is ready and can be accessed online. Http://Imia-medinfo.org/wp/history-book/. It was published at the cost of 1,500.00 USD, much lower than budgeted. The President thanked the WG, the editors, the CEO and IMIAs webmaster for their hard work making it possible.

- MedInfo 2021 was organized as a virtual conference. https://imia-medinfo.org/medinfo21/

- Medinfo 2023 is scheduled for Sydney, Australia, 7-12 July 2023 (www.medinfo2023.org). Medinfo 2025 will take place in Taiwan, as previously approved by the GA.

- A task force of volunteers to revise recommendations for “Education Guidelines” has been established.

- WG activities, new members, financial updates

January 2022, Regional VP meeting with the new President, Jack Li – topics: membership categories review and identify new motivation to become member, develop solid membership value, values programs for students and emerging professionals

IMIA Board Meeting – 24 April 2022 - 12 Noon UTC
- Topics: administrative, financial, and legal updates, organizing virtual conference series in 2024 that is mainly organized by the Working Groups.

8.4 Secretary - Alfred Winter

8.4.1 Report 2020
Last year I reported that we had placed the organization of the STC and MIE conferences in the hands of a Professional Congress Organizer. The rules agreed at that time are implemented for the first time at MIE 2021. We will evaluate the experience later.
In 2020, the Secretary has done his usual job:
- Maintaining the EFMI Archive https://www.efmi-server.com/owncloud and organizing technical support.
- Organizing and journalizing board meetings: For details see “Synopsis of board activities” before (with support from assistance to the board).
- Organizing and journalizing council meetings (with support from assistance to the board).
- Organizing and filing membership matters.
- Preparing the 2019 Annual Report.

In addition, he participated as a keynote speaker at the virtual Workshop “Interprofessional Education for Capacity Building in Digital Health” organized by the European Federation for Medical Informatics and the European Society for Emergency Medicine in November 2020. To improve relations with the medical community, he has initiated a collaboration agreement with the Federation of European Academies of Medicine (FEAM) and now serves as EFMI’s liaison to FEAM (see more at 0).

8.4.2 Report 2021 - 2022

8.4.2.1 Secretary Business
- Maintaining the EFMI Archive
- Organizing and journalizing board meetings (supported by Patrick Weber)
- Organizing and journalizing council meetings.
- Organizing and filing membership matters.
- Managing director
- Interviews with national societies
- Checklists/instructions for (new) board members
- Report 2020-2022

8.4.2.2 Federation of European Academies of Medicine (FEAM)
- Liaison person to FEAM
- 2 Meetings of the FEAM European Biomedical Policy Forum

8.4.2.3 Interviews with national societies
The President, Vice-President and Secretary had started discussions with the presidents and representatives of member societies in January 2022. The following topics in particular have been addressed:
- Characteristics of the Member Society (Number of members, board members, conferences and workshops, Journals, working groups)
- Society’s expectations towards EFMI

8.5 Treasurer - Andrej Orel / Carlos Luis Parra-Calderón

8.5.1 Andrej Orel (January to April 2020)
No report for 2020

8.5.2 Carlos Luis Parra-Calderón (from April 2020)

8.5.2.1 Report 2020
Carlos Luis Parra-Calderón was appointed Treasurer at Council on April 28, 2020. No information is available from the previous treasurer nor the 2020 budget.
From an accounting and treasury point of view, the most relevant information available is as follows:

The MIE 2020 virtual conference generated a profit for EFMI of 3,933.43 €, and the STC Virtual Conference caused a loss of 1,804.40 €.

In cash, EFMI has a balance at the end of 2020 of 97,262.96 CHF in its bank accounts.

Membership income amounted to 6,006.00 €, with 4,100.00 € receivable at the end of the year.

In the provisional balance sheet before the accounting audit, EFMI shows a loss for the year 2020 of 21,875.10 CHF.

8.5.2.2 Report 2021-2022

The bank balance at the end of 2020 was 225,337.46 € (exchange date December 31, 2020), and in 2021 it was 277,315.48 € (exchange date December 31, 2021).

In 2021 the net result after auditing was 11,739.83 €.

Concerning member country dues, in 2022, they amounted to 9,006.00 €, with 7,306.00 € to be collected at the end of August 2022. The countries with significant debt and without expectations of collection at the end of August 202 are Turkey, with a debt of 1,200 €, and Iceland, with a debt of 600 €.

Regarding institutional membership dues, in 2022, the amount amounts to 4,100 €, with 3,900.00 € pending collection at the end of August.

8.6 Executive Officer - Rebecca Randell / Arriel Benis

8.6.1 Rebecca Randell (to May 2021)

*MIE 2021:*

Scientific organisation of MIE 2021 had been led by John Mantas (SPC Chair) and Lacramioara Stoicu-Tivadar (SPC Co-Chair) on behalf of EFMI. They have been supported by SPC members Catherine Chronaki, Parisis Gallos, Mihaela Vida, and Patrick Weber. The conference will be online and will take place from May 29th to 31st, 2021. The theme of the conference is ‘Public health and informatics’. Keynote presentations will be given by Patricia Dykes, Carina Dantas, George Demiris, Yu-Chuan Jack Li, Christian Lovis, and Konstantina Nikita. MCO has supported the practical organisation of the conference. More than 360 submissions were received.

*STC 2021:*

Preparation for STC 2021 is underway, led by Carlos Luis Parra Calderón on behalf of the Spanish Society of Health Informatics. The conference theme is ‘Applying the FAIR principles to accelerate health research in Europe in the post-Covid19 era’. It is to be held on November 22nd and 23rd 2021; whether this will be an online, face-to-face, or hybrid conference will be decided nearer the time. The members of the SPC:

Chair: Jaime Delgado

Co-Chair: Alicia Martínez-Garcia

Members: Paula de Toledo Heras, Mauro Giacomini, Dario Salvi member.

Practical organisation of the conference is being undertaken by MCO, in discussion with Carlos Luis Parra Calderón and Rebecca Randell.

*MIE 2022:*

Interest in organising EFMI MIE 2022 has been expressed by Philip Scott on behalf of the British Computer Society. There is also the possibility of MIE 2022 being organised by the
Greek Biomedical and Health Informatics Association, due to not being able to hold a face-to-face conference in Greece for MIE 2021.

**STC 2022:**

Interest in organising EFMI STC 2022 has been expressed by the Russian National Association of Medical Informatics and a letter of intent has been submitted. The proposal is to hold the Conference in parallel with the international congress Information Technologies in Medicine (ITM, itmcongress.ru). The preliminary dates are October 5th to 7th, 2022. The first day, Wednesday, will be fully devoted to STC sessions, on Thursday and Friday the plan is to have common plenary sessions and simultaneous oral sessions. The proposed topic of the conference is ‘Medical Knowledge in the Era of Digital Health’.

8.6.2 Arriel Benis (from June 2021)

8.6.2.1 Report 2021

**STC 2021: Applying the FAIR principles to accelerate health research in Europe in the post-Covid19 era**

Jaime Delgado (SPC Chair) has led the Scientific organisation of STC 2021 on behalf of the Spanish Society of Health Informatics (SEIS), represented by Carlos Luis Parra-Calderón. The SPC members included Arriel Benis, Paula de Toledo, Paris Gallos, Mauro Giacomini, Alicia Martínez-García and Dario Salvi. The involved WGs are SSE, THI and ODH. The conference is presented online November 22nd to 24th, 2021. Distinguished guests, Mark Wilkinson and Alfonso Valencia will give keynote presentations. The proceedings volume is available at https://ebooks.iospress.nl/volume/applying-the-fair-principles-to-accelerate-health-research-in-europe-in-the-post-covid-19-era-proceedings-of-the-2021-efmi-special-topic-conference

**ICIMTH 2021**

The 19th International Conference organized by the Greek Biomedical and Health Informatics Association due to the pandemic the conference ICIMTH 2021 (www.icimth.com) was implemented as a Virtual Conference on 16 and 17 October 2021. The annual series of the conference examines the field of Biomedical and Health Informatics in a very broad framework presenting the research and application outcomes of Informatics from cell to populations, including a number of technologies such as Imaging, Sensors, and Biomedical Equipment and Management and Organizational aspects, including legal and social issues and setting research priorities in Health Informatics. Essentially, Data, Informatics, and Technology inspires health professionals and informaticians to improve healthcare for the benefit of patients. As it was expected a significant number of papers is related to the COVID-19 pandemic The proceedings titled “Informatics and Technology in Clinical Care and Public Health”, Eds. J. Mantas, et.al, is published by IOS Press, contains 130 papers, which emphasize the fact that a significant percentage of submitted papers were addressing the current epidemiological situation spanning from US and South America through Europe, Asia, Oceania and Africa, as it was being handled by the Informatics experts. Reinhold provided a keynote speech as his farewell speech in the field of Biomedical and Health Informatics with significant remarks and advice to the colleagues sharing his fifty years’ experience across the world by broadcasting this speech live to IMIA, EFMI, AMIA, and ACMI communities. Additional keynote speech was provided by Anne Moen on the international milestone project Gravitate Health with significant impact on Digital Health.

**MIE 2022: Challenges of Trustable AI and Added-value on Health**

In May 2022, the European Federation for Medical Informatics (EFMI) is organizing the 32nd Medical Informatics Europe Conference (MIE2022), in Nice, France. The special theme of the conference is “Challenges of Trustable AI and Added-value on Health”. The Conference is
organized by “MCO Congress” and the Scientific Programme Committee is chaired by Professor Brigitte Séroussi from the French Association for Medical Informatics (AIM). The SPC members included Ferdinand Dhombres (France), Cyril Grouin (France), Jan-David Liebe (Germany), Sylvia Pelayo (France), Bastien Rance (France), Lucia Sacchi (Italy), Adrien Ugon (France), Patrick Weber (Switzerland) and the editorial committee is co-chaired by Paris Gallos (Greece) and Arriel Benis (Israel).

**STC 2022**

Interest in organizing EFMI STC 2022 has been expressed by the British Computer Society (BCS). The related bid is currently processed by the board.

**MIE 2023 or**

Interest in organizing EFMI MIE 2023 has been expressed by the Swedish Federation for Medical Informatics (SFMI). The declaration of interest has been approved by the board and the council during the meetings in Nice, France, in May 2022. MIE 2023 will take place, in Gothenburg, together with VITALIS.

**STC 2023**

Interest in organizing EFMI STC 2023 has been expressed by the Società Scientifica Italiana di Informatica Biomedica. The declaration of interest has been approved by the board and the council during the meetings in Nice, France, in May 2022. STC 2023 will take place, in Torino, in September/October 2023.

**STC 2024 and MIE 2024**

The board is still searching for societies for declaration of interests.

**STC 2025**

Interest in organizing EFMI STC 2025 has been expressed by the German Association for Medical Informatics, Biometry and Epidemiology (GMDS). We will start to deal with this declaration of interest in the next weeks.

8.6.2.2 **Report 2022**

EFMI organizes two main conference series: Medical Informatics Europe - MIE and the Special Topic Conferences - STC. Working groups (WGs) contribute to organizing topic-specific workshops, tutorials, and seminars in the EFMI series and elsewhere in conjunction with or independent of the main congress series.

**MIE2022**

After two years of the COVID-19 pandemic, the EFMI board decided to take a critical challenge in mid-2021 by designating France as the hosting country of the first fully face-to-face conference after this period of online-based meetings. France also holds the EU presidency at the time of this EFMI event.

Thus, Professor Brigitte Séroussi from the French Association for Medical Informatics (AIM) has accepted to chair the Scientific Programme Committee with the following members: Ferdinand Dhombres, Cyril Grouin, Jean-David Liebe, Sylvia Pelayo, Andrea Pinna, Bastien Rance, Lucia Sacchi, Adrien Ugon, Patrick Weber, Parisi Gallos, Arriel Benis.

The SPC decided to have for special topic for MIE 2022, “Challenges of trustable AI and added-value on health,” and planned to organize the 32nd Medical Informatics Europe Conference (MIE2022) in Nice, France, between 27-30 May 2022.

The Submissions and participations from all around the globe but as expected from Europe. On 25 April 2022, more than 450 participants were registered.
The administrative and logistic organization has been processed by the MCO Congress group in the framework of the currently running three-year contract, under the supervision of Arriel Benis as EFMI Executive Officer and assisted by Brigitte Séroussi and Patrick Weber as SPC chairs for the services offered to participants.

It is essential to highlight that MIE 2022 is the first face-to-face event organized by MCO Congrès. Therefore, it has been challenging for the MCO Team (Julia Schroeder, Céline Burel, Lior Saba/Charlotte Martin) and for EFMI (EO, SPC Chairs, Board) to define and get the largest possible number of services in a limited incomes budget.

**MIMTT 2022**

MIMTT 2022 is the 3rd Europe-China Health IT Summit on Medical Innovation, Medical Informatics, Medical Imaging, and Medical Technology Transfer. MIMTT 2022 will be held as a hybrid conference on 23-27 August 2022 and hosted by the Czech Technical University of Prague (CTU). The leading topic of this meeting will be “Artificial Intelligence as a driver for Innovation: healthcare before Healthcare.”

EFMI and CTU carry out the organization of MIMTT2022. EFMI and CTU are jointly responsible for the scientific content and for reaching the scientific goals of the conference in cooperation with the Chinese Partners.

The SPC is led by Catherine Chronaki (EFMI, Belgium/Greece, Chair), Zhi Yang (CMIA, China, co-Chair), and Lars Lindsköld (EFMI, Sweden, Innovation Chair); the LOC chair is Lenka Lhotska (EFMI, Czech).

The organizers expect around 60 participants to this meeting.

**STC 2022**

STC 2022 will be held on 7-8 September 2022, Cardiff, Wales, United Kingdom. This event will be hosted by the British Computer Society (BCS) in collaboration with the University of Wales Trinity Saint David (UWTSD) and the Wales Institute of Digital Information (WIDI).

The Special topic of this conference is “Digital Professionalism in Health and Care: Developing the Workforce, Building the Future.”

The SPC comprises the following members: Philip Scott (Chair), John Mantas (co-Chair), Kaija Saranto, Ian Wells, Andrew Ware, Arriel Benis, Parisis Gallos.

Due to organizational constraints, the Submission deadline is 20 June 2022. The SPC expects around 100-120 participants.

MCO has accepted following the EFMI request not to be involved in the organization of this event.

**MIE 2023**

The Swedish Medical Informatics Association (SFMI) proposes to the EFMI council to arrange MIE 2023 in Gothenburg, together with VITALIS (similarly to MIE 2018). One key factor is that Sweden also will hold the EU presidency at that time (Spring 2023). Moreover, SFMI nominates Maria Hägglund as the SPC Chair for MIE 2023.

**STC 2023**

The Italian Society for Biomedical Informatics (SIBIM) has submitted a proposal to organize STC 2023 in Torino in October 2023.

If the Council accepts this proposal, the leading topic of this meeting will be “Telehealth ecosystems in practice.” The SPC will include Mauro Giacomini (Chair), Gabriella Balestra (co-chair), Alessio Bottighi, Sara Marceglia, Lucia Sacchi, Stefano Bonacina, Lenka Lhotska, Arriel Benis, Alejandro Pazos Sierra, Lacramioara Stoicu-Tivadar, Paris Gallos.

At this time, the proposal considers using the service of a PCO (e.g., MCO Congrès).
8.7 Publication Officer - Parisis Gallos

8.7.1 Report 2020

As a Publication Officer, my activities have been as follows:

1. Followed up the Endorsement of the European Journal for Biomedical Informatics. After a lot of contacts with Professor Giacomini (who was the Editor-in-Chief of this journal) and Professor Blobel, the EFMI Council decided to terminate the endorsement of the journal (April 2020).

2. I served as a member of the Scientific Programme Committee of the EFMI STC 2020 and EFMI MIE 2021.

3. The EFMI Inside is the annual Newsletter of the European Federation for Medical Informatics aimed to promote the theory and practice of Biomedical and Health Informatics (BMHI) in the European Region and also promotes EFMI’s actions and initiatives on this field of study since 1976. The first volume was published in March 2020 and is available on the EFMI website. https://efmi.org/news/efmi-inside-newsletter/ Izet Masic, Caterine Chronaki, Lăcrămioara Stoicu-Tivadar, John Mantas, Jaime Delgado, Kristina Fister, Carlos Luis Parra Calderón, and Bernd Blobel were the authors of the first volume of EFMI Inside. The book has 44 colored pages.

4. In collaboration with the “EFMI Virtual Team” we gave the opportunity to MIE 2020 Workshop chairs and Panelist, to conduct their session online during the June and July 2020. 12 Workshops and Panels were presented through “EFMI Virtual Meetings”.

5. Supporting EFMI’s communication. I engaged with the content and structure update of the EFMI’s website and EFMI’s activity on the Social Media. In collaboration with Mr. Dimitris Petkousis we managed the content of the website and tried to expose EFMI actions and events on Social Media Platforms following a social media strategy. The new website is using Web 2.0 technologies in order to cover all the needs on information and collaboration between the stakeholders of medical informatics in Europe. The new website is currently offering a direct access to all information regarding EFMI (Members, History, Working Groups etc.) and EFMI’s actions (Accreditation and Certification, Conferences and Meetings, Research Projects), as well as, a link to EFMI’s social media accounts. On the new website, every person who is interested in medical informatics can create an account and gain access on specific content and to publish his/her ideas or opinions about a subject. The idea is to build an active on-line community for medical informatics in Europe where scientists will exchange knowledge, trends, discuss about challenges, and forming the future of medical informatics. The content of the new website can easily be published to the social media in order to gain more visibility and “reads” to achieve any dissemination requirements.

6. By the end of 2020 EFMI had 908 followers on Twitter, 294 tweets, 54,455 tweet impressions. In addition, EFMI page on Facebook has reached 956 likes and has 244 followers on LinkedIn. EFMI website had 13,341 visits in 2020.


8.7.2 Report 2021

EFMI Journals:

Current Endorsed Journals:

1. Methods of Information in Medicine
2. Acta Informatica Medica
3. International Journal of Medical Informatics
Yearbook of Medical Informatics 2020:

**EFMI Conferences:**


**EFMI Communication:**

The EFMI’s website presents all the required information about EFMI. Updates on the content are taking place regularly. EFMI presence on social media is in good status. Currently, EFMI’s account on Twitter has more than 1000 followers. In 2020, 294 tweets have been published having 54,455 tweet impressions. The EFMI’s Page on Facebook has over 1000 followers who are having access and get informed about the EFMI news and actions. LinkedIn account has 430 connections from all over the world. The EFMI website had 13,341 visits in 2020. From January 2021 until mid-November 2021 the EFMI website had approx. 36,800 views.

“Honorary Fellows” roster is available on the EFMI website. https://efmi.org/members-2/honorary-fellows/

In collaboration with Mr. Dimitris Petkousis we have launched on March 2021 the EFMI Monthly Newsletter which has until now 6 issues. The newsletter includes news from National Societies, Working Groups, Institutional Members, Projects and any other actions related to EFMI. A newsletter plan has been created to schedule the upcoming issues and the newsletter content.

To subscribe on the EFMI newsletter please sign up here: https://mailchimp.com/b6d60fd587/efmi-newsletter-signup

**8.7.3 Report 2022**

**EFMI Journals:**

Current Endorsed Journals:

1. Methods of Information in Medicine
2. Acta Informatica Medica
3. International Journal of Medical Informatics
4. Applied Clinical Informatics

Yearbook of Medical Informatics 2021:

EFMI Inside 2022:

EFMI Conferences:

EFMI STC 2022: As a member of the Scientific Programme Committee of the STC 2022, I would like to report that Conference Proceedings will be published by IOS Press. Call for Papers is currently open. Full papers and Poster Presentations are welcome in EFMI STC 2022. Conference SPC is chaired by Philip Scott and co-chaired by John Mantas.

EFMI Communication:
The EFMI’s website presents all the required information about EFMI. Updates on the content are taking place regularly. EFMI presence on social media is in good status. Currently, EFMI’s account on Twitter has almost 1100 followers. In May 2022, tweets have been published having 6,404 tweet impressions. The EFMI’s Page on Facebook has over 1000 followers who are having access and get informed about the EFMI news and actions. LinkedIn account has 573 connections from all over the world.

EFMI is on Instagram!! EFMI account has been initiated on Instagram efmi_for_medical_informatics
For all the users on Instagram, you can now follow us and learn about our news and the history of EFMI
EFMI on Instagram has already 50 followers.

The EFMI website had 13,341 visits in 2020. From January 2021 until mid-November 2021 the EFMI website had approx. 36,800 views. From December 2021 until mid-May 2022 the EFMI website had approx. 24,734 views and 10,421 visitors.

In collaboration with Mr. Dimitris Petkousis we have launched on March 2021 the EFMI Monthly Newsletter which has until now 10 issues. The newsletter includes news from National Societies, Working Groups, Institutional Members, Projects and any other actions related to EFMI. A newsletter plan has been created to schedule the upcoming issues and the newsletter content.
To subscribe on the EFMI newsletter please sign up here: https://mailchi.mp/b6d60f0df587/efmi-newsletter-signup
8.8 Institutional Membership Officer – Lars Lindsköld (from November 2020)

8.8.1 Report 2020
During 2020 a new Institution member officer was elected, we have prepared a new strategy to engage new institutional members and to raise visibility for the current institutional members. We aim to strengthen cooperation among national societies, working groups and institutional members through transparency using digital events, as webinars, support in finding valuable information from EFMI Working groups as well as EFMI Council members.

Several other minor activities to create awareness and visibility of IM, EFMI has been done during the year. Invitation for participating in EFMI Newsletter etc.

- EU-China 2020 in Digital event only where IM Officer was represented in the EU-China Health Summit on Medical Innovation and Technology Transfer: No specific activity were done.

Organization of the Board & Council members as Institutional Members
It is worth noting that the Corona pandemic has been slowing down a lot of the planned activities despite encouragement to both Council and Board to engage their organization to become IM, there has only been a one new IM during the year.

IM representatives in the Council are:
- Representing academia and NON-profit organizations: Christophe Gaudet-Blavignac
- Representing industry: Jacob Hofdijk

Both gentlemen were elected during an online meeting late June. For 2020 we strive for a new approach in recruiting IM. The approach is to create value, based on the core EFMI values represented by the scientific work and the network of researchers, EFMI conference attendees, members of Working groups and other friends of EFMI. We are looking forward to bring the pieces in place during 2021.

8.8.2 Report 2021-2022

During 2021 we have been continuously in the Corona Pandemics window, so no meetings in real Life have occurred for IM. Instead, we have aimed to strengthen cooperation among national societies, working groups, and institutional members through transparency and sharing of information.

- Personal communication with each IM member (Ongoing – an invitation to a newsletter, possibilities, etc.)
- Finalizing the new strategy with Academy and Industry representatives for IM in February 2021
- Presentation for the EFMI board at March board meeting
- Presentation for the Country Councils in May meeting
- In June 2021, elections among the IM were done to select Academy and Industry representatives to EFMI Council.
- Result: Christophe Gaudet-Blavignac (Academy) and Jacob Hofdijk (Industry) were elected for the period of July 1, 2021, to July 1, 2023
- Institution members hold a separate EFMI IM session during Digihealthday in Germany on November 12, 2021.
- MIE 2022 design on new fee were taken; . The fee is 200 € / year. This also includes any SME with funding from EU or national programs. The invoice will be sent out in January each year. Large organisations can donate more than 200 €. Additional costs can be offered depending on the type of services requested.
- During Institution member meeting during MIE 2022, we decided to create a knowledge graph based on EFMI’s contribution to conferences and other events. Support during summer 2022 from AI Sweden.

Several minor activities to create awareness and visibility of IM, EFMI has been done during the year. Invitation for participating in EFMI Newsletter, contact with working groups, discussions with industry on expectations on EFMI etc.

We have as per today 12 Institution members, 1 from Industry and the rest from Academia, two new members during 2021, University of Gothenburg, Sweden and UMIT, Austria. So, there is a growth opportunity to increase the numbers of members, in the strategy this should be harmonized with the Country councils, to get the most effects.

8.9 Young EFMI Professional Officer – Ivana Ognjanović (from November 2020)

See report of the working group yEFMI in section 0.

8.10 Managing Director – Patrick Weber (from May 2022)

Since the election on May 26th 2022 activities were concentrated to administrative effort on:

- Terminating the first step the update of Commercial Register Vaud. Preparation of the second step.
- Terminating the FAIR4Health accounting situation.
- HosmartAI participation to the plenary meeting June 8 and 9 in Athens. Preparation for the next phase in the preparation of accreditation and certification.
- Preparing the Swiss participation in OneAquaHealth research project accepted by EU
- Preparing the Swiss participation in ECHO Zone EU project authorized to compete for the second phase.
- Preparing the terms of the managing director contract.
- Collaborating in the financial organization of STC 2022 Cardiff.
Appendix 3: Working group reports

9.1 CHD - Citizen and Health Data

9.1.1 Report 2020

Chair: Maria Hägglund, Uppsala University, Sweden
Co-Chairs:
Anne Moen, University of Oslo, Norway
Monika Johansen, Norwegian Center for eHealth Research, Norway
Isabella Scandurra, Örebro University, Sweden

The working group was founded in April 2019 with the aim to leverage and converge activities for personal health data for empowerment, engagement, independence and thrive and be instrumental to ensure every European citizen opportunity to collect, curate, and control relevant health information from multiple sources.

Our LinkedIn group for communication and engaging with our members currently has 73 members (https://www.linkedin.com/groups/8809587/).

Organization of scientific meetings in 2020:

- EFMI STC (online, November 26-37, 2020): MH (as chair of the WG) participated in the Scientific Programme Committee and overall organization of the conference. CHD participated in the organization of a workshop (see further below).

Funding applications / Collaborations:

- Nordic eHealth for Patients: Benchmarking and Developing for the Future
  A funding application for a 3-year research and innovation project involving partners from four European countries (Sweden, Norway, Estonia and Finland) and partners from the US, was granted by the NordForsk research foundation. Project start 2021-01-01. https://nordehealth.eu/
- Gravitate-Health Empowering and Equipping Europeans with health information for Active Personal Health Management and Adherence to Treatment
  Application to IMI2 JU, call 18, topic #3, RIA (public – private partnership). Stage II application, start of project in the late fall 2020. www.gravitatehealth.eu

Scientific Publications

Papers related to Patients Online Access to Electronic Health Records:


Papers related to electronic Medicine Management:

• Manskow, Unn & Kristiansen, Truls Tunby. Challenges Faced by Health Professionals in Obtaining Correct Medication Information in the Absence of a Shared Digital Medication List. Pharmacy, ISSN 2226-4787. https://doi.org/10.3390/pharmacy9010046

Other relevant publications:


9.2 EDU – Education in Health Informatics

9.2.1 Report 2020

Chair:
Professor Kaija Saranto, Department of Health and Social Management, University of Eastern Finland, Finland
email:kaija.saranto[at]uef[dot]fi

Co-Chair:
Professor John Mantas, Health Informatics Laboratory, National and Kapodistrian University of Athens, Greece
email:jmantas[at]nurs.uoa[dot]gr

Website: http://efmi-wgedu.bmhi-edu.org/

Main Objectives:
The introduction of eHealth applications as well as of the Biomedical and Health Informatics (BMHI) discipline into the health care domain requires high quality educated and trained health care professionals in the field. Education is considered as the most appropriate tool to improve greatly the acceptance attitudes and behaviour of the professionals working in the health care
environment towards eHealth applications. EFMI is well-aware of the importance of Education and in its history the working group on education was the first working group to be established. Since education has an international value and there are no borders in its objectives, the working group seeks to achieve International cooperation in its main objectives which they may be summarised as follows: information on existing programs and curricula in the field, dissemination of experiences in implementing educational programs, evaluation, and assisting of programs, and finally promoting certification of users in BMHI knowledge and skills.

A more detailed reference to the objectives can be found below:

- to disseminate and exchange information on Biomedical and Health Informatics (BMHI) programs and courses
- to exchange experiences of how BMHI is taught and to improve the implementation
- to utilize the developed by AC2 database on programs in BMHI education
- to assist the AC2 process of certification of knowledge and skills of users in BMHI
- to promote and foster the accreditation process of BMHI programs in Europe based on AC2 Initiative
- to enhance the cooperation between EFMI and IMIA in the accreditation process
- to disseminate and participate in developing international recommendations on BMHI education
- to support BMHI courses and exchange of students and teachers within the EFMI countries
- to investigate the possibility of establishing summer courses organised by the WG EDU
- to present WG EDU activities during STCs, MIEs and MEDINFOS.

Communications:
The activities of the WG EDU and important outcomes will be cited in the new website of the WG EDU. http://efmi-wgedu.bmhi-edu.org

Activities:

- The third joint EFMI & EUSEM panel with the theme Interprofessional Education for Capacity Building in Digital Health it was organized in November 2020.
- A panel was organized at EFMI STC 2020 virtual conference in November 2020.
- A joint EFMI & EUSEM panel was organized at ICIMTH virtual conference in July 2020 sharing experience of education collaboration.
- The joint EFMI & EUSEM webinars continued in June 2020 with the theme Big Data and e-Health.

Relevant Recent Publications:


9.2.2 Report 1.1.2021 – 30.6.2022

Chair:
Professor Kaija Saranto, Department of Health and Social Management, University of Eastern Finland, Finland
Main Objectives:
The introduction of eHealth applications as well as of the Biomedical and Health Informatics (BMHI) discipline into the health care domain requires high quality educated and trained health care professionals in the field. Education is considered as the most appropriate tool to improve greatly the acceptance attitudes and behaviour of the professionals working in the health care environment towards eHealth applications. EFMI is well-aware of the importance of Education and in its history the working group on education was the first working group to be established. Since education has an international value and there are no borders in its objectives, the working group seeks to achieve International cooperation in its main objectives which they may be summarised as follows: information on existing programs and curricula in the field, dissemination of experiences in implementing educational programs, evaluation, and assisting of programs, and finally promoting certification of users in BMHI knowledge and skills.

A more detailed reference to the objectives can be found below:

- to disseminate and exchange information on Biomedical and Health Informatics (BMHI) programs and courses
- to exchange experiences of how BMHI is taught and to improve the implementation
- to utilize the developed by AC2 database on programs in BMHI education
- to assist the AC2 process of certification of knowledge and skills of users in BMHI
- to promote and foster the accreditation process of BMHI programs in Europe based on AC2 Initiative
- to enhance the cooperation between EFMI and IMIA in the accreditation process
- to disseminate and participate in developing international recommendations on BMHI education
- to support BMHI courses and exchange of students and teachers within the EFMI countries
- to investigate the possibility of establishing summer courses organised by the WG EDU
- to present WG EDU activities during STCs, MIEs and MEDINFOs.

Communications:
The activities of the WG EDU and important outcomes will be cited in the new website of the WG EDU. http://efmi-wgedu.bmhi-edu.org

Activities:
- Several members of the WG EDU and EFMI have contributed to the Recommendations of the International Medical Informatics Association (IMIA) on Education in Biomedical and Health Informatics: Second Revision, to be published in autumn 2022.
- A panel was organized at MIE2021 virtual conference in May 2021 with focus on Interprofessional Health Informatics Education: A View from the Field.
- The third joint EFMI & EUSEM panel with the theme Interprofessional Education for Capacity Building in Digital Health was organized in November 2020.
- A panel was organized at EFMI STC 2020 virtual conference in November 2020.
- A joint EFMI & EUSEM panel was organized at ICIMTH virtual conference in July 2020 sharing experience of education collaboration.
- The joint EFMI & EUSEM webinars continued in June 2020 with the theme Big Data and e-Health.
- During the joint Board meetings of IMIA and EFMI in 2019 the issue of representation of EFMI in the accreditation process of academic programs was raised and it was agreed that EFMI will be presented in the accreditation committee and EFMI will be mentioned in the accreditation certificate whenever an accreditation is taking place in an EFMI country.
- The first joint EFMI & EUSEM meetings were held in Hannover in April and Prague in October and the first joint webinar with the theme Structured Data was held in December 2019.
- The first EU-China Health Summit on Medical Innovation and Technology Transfer was held in Connection to MedInfo 2019 in Lyon.
- An Educational Plenary Panel Session was organized at MedInfo 2019.
- WG EDU meeting was organized at the EFMI STC in Hannover 2019.
- An Educational Plenary Panel Session was organized at MIE2018.
- WG EDU co-organised the EFMI STC in Zagreb 2018. One of the two major themes was on Education.

**Relevant Recent Publications:**

- Arief M, Rissanen S, Saranto K. Influence of previous work experience and education on Internet use of people in their 60s and 70s. J Innov Health Inform. 2018; 25(3):132-141


• Jaspers MW, Mantas J, Borycki E, Hasman A. IMIA Accreditation of Biomedical and Health Informatics Education: Current State and Future Directions. Yearb Med Inform. 2017;26 (01), 252-256.


9.3 EHR - Electronic Health Records

Working group has been terminated in 2022.

9.4 EVAL - Assessment of Health Information Systems

9.4.1 Report 2020

Chair:
Philip Scott, University of Portsmouth, UK.
Email: philip.scott@port.ac.uk

Co-Chair:
Elske Ammenwerth
UMIT - University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria.
Email: elske.ammenwerth@umit.at
Website: https://efmi.org/workinggroups/eval-assessment-of-health-information-systems/

Main Objectives:
Information and communications technologies (ICTs) are being used increasingly in health care. It is evident that the use of modern ICT offers tremendous opportunities to reduce clinical errors, to support health care professionals, and to increase the efficiency of care. However, there are also hazards associated with such technologies. Therefore, rigorous, generalizable evaluations of ICT applications in health care are absolutely necessary. Based on this, the aims of the working group are:

• to foster transdisciplinary dialogues between experts from informatics, medical informatics, economics, health care, health services research, clinical epidemiology, biometry, psychology, sociology, ethnography, organizational development, operations research and other evaluation fields, on a European level, and to encourage exchange on methodological issues between researchers from different traditions;
to offer an opportunity to share knowledge with the aim of obtaining profitable cross-fertilization among different fields of expertise and especially between quantitative and qualitative research;

- to promote a combined research agenda to develop frameworks and toolkits for information systems evaluation, offering guidelines for an adequate combination of evaluation methods and tools;

- to discuss and clarify the networking needs for long-term evaluation research in medical informatics, and to promote combined research proposals at a European level.

Relevant Activities 2020:

- The working group continued its joint activity with the IMIA Working Group on Technology Assessment and Quality Development. Regular online meetings of the combined WG were organized.

- WG chair Dr Scott served on the SPCs for MIE 2020 and STC 2020 and co-edited the proceedings of MIE 2020.

The WG held two strategic discussions with our IMIA counterpart group in February 2020 and identified two key themes for the WG, for which strategic goals and sub-groups have been established.

- Learning Health Systems: Our discussions have shown that a Learning Health System perspective provides a valuable and dynamic framework to take forward evaluation and the key concepts held by the Working Group (e.g. evidence-based health informatics, the role of theory etc.). Drs Magrabi, de Keizer and Medlock have formed a sub-group to develop the strategic orientation for our Working Groups.

- Translational Impact: Having a translational impact has been a goal of our WG. Our strengths clearly lie in our academic expertise, methodological rigour and evidence-based approaches. But it is not an easy task given our limited resources, time constraints and geographical impediments. Nevertheless, there is a strong desire to continue to pursue opportunities to impact on policy and broaden our connections and capacity. Drs Scott, Rigby and Wong have formed a sub-group to develop ideas and perspectives in this area. This may take the form of grant funding opportunities, alliances or collaborations.

Publications and events


Scott P, Andrikopoulou E, Medlock S, Mitchell J, How can EFMI working groups remain vibrant, inclusive and relevant? Ideas from the evaluation working group. (Online workshop, MIE 2020.)

Outreach

We are committed to involving, mentoring, training and developing our future WG leaders. Two new members, Drs Kathrin Cresswell and Stephanie "Ace" Medlock were recruited.

List of joint EFMI/IMIA WG members:

Elske Ammenwerth, Institute for Medical Informatics, UMIT TIROL - University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria.

Jytte Brender, Emeritus Associate Professor, Aalborg University, Denmark.
Kathrin Cresswell, Senior Lecturer, Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, UK.

Nicolette de Keizer, Professor, Department of Medical Informatics, Academic Medical Center, Amsterdam, The Netherlands.

Andrew Georgiou, Professor, Centre for Health Systems & Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia.

Hannele Hyppönen, Research Manager, National Institute for Health and Welfare, Finland.

Farah Magrabi, Associate Professor, Centre for Health Informatics, Australian Institute of Health Innovation, Macquarie University, Australia.

Stephanie "Ace" Medlock, Assistant Professor, Department of Medical Informatics, Academic Medical Center, Amsterdam, The Netherlands.

Pirkko Nykänen, Professor emerita, Tampere University, Faculty for Information Technology and communication Sciences, Finland.

Mirela Prgomet, Research Fellow, Centre for Health Systems & Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia.

Michael Rigby, Emeritus Professor of Health Information Strategy, Keele University, United Kingdom.

Philip Scott, Reader in Health Informatics, Centre for Healthcare Modelling & Informatics, University of Portsmouth, United Kingdom.

Zoie Shui-Yee Wong, Associate Professor, Graduate School of Public Health, St. Luke’s International University, OMURA Susumu & Mieko Memorial St. Luke’s Center for Clinical Academia, Japan.

9.4.2 Report 1.1.2021 – 30.6.2022

Chair:
Kathrin Cresswell, University of Edinburgh, UK.
Email: Kathrin.cresswell@ed.ac.uk

Co-Chair:
Philip Scott, University of Wales Trinity Saint David, UK.
Email: Philip Scott <philip.scott@uwtsd.ac.uk>

Main Objectives:
Information and communications technologies (ICTs) are being used increasingly in health care. It is evident that the use of modern ICT offers tremendous opportunities to reduce clinical errors, to support health care professionals, and to increase the efficiency of care. However, there are also hazards associated with such technologies. Therefore, rigorous, generalizable evaluations of ICT applications in health care are absolutely necessary. Based on this, the aims of the working group are:

- to foster transdisciplinary dialogues between experts from informatics, medical informatics, economics, health care, health services research, clinical epidemiology, biometry, psychology, sociology, ethnography, organizational development, operations research and other evaluation fields, on a European level, and to encourage exchange on methodological issues between researchers from different traditions;
- to offer an opportunity to share knowledge with the aim of obtaining profitable cross-fertilization among different fields of expertise and especially between quantitative and qualitative research;
• to promote a combined research agenda to develop frameworks and toolkits for information systems evaluation, offering guidelines for an adequate combination of evaluation methods and tools;
• to discuss and clarify the networking needs for long-term evaluation research in medical informatics, and to promote combined research proposals at a European level.

Relevant Activities 2021/22:
• Dr Cresswell has taken over the role of chair, and Dr Scott is now co-chair of the working group.
• The group has recruited two new members (see below): Polina Kukhareva and Catherine Craven.
• WG chair Dr Cresswell and Dr Scott organized a workshop on UN Sustainable Development Goals in Socio-technical Evaluation Frameworks for Health Information Technology at MIE 2022 in collaboration with Dr Kukhareva, and Dr Noor.

The WG held several strategic discussions with our IMIA counterpart group and identified key themes for the WG, for which publications have been prepared (see below).

• Health equity
• Artificial Intelligence-based decision support systems

Publications and events
• Cresswell K et al. How Artificial Intelligence-based decision support systems have highlighted gaps in evaluation practices in healthcare (in preparation).
• Cresswell K et al. Evaluating the introduction of Artificial Intelligence-based health information technologies – let’s not reinvent the wheel (in preparation).

Outreach
We are committed to involving, mentoring, training and developing our future WG leaders. A key strategic priority will be recruitment of further members from a variety of disciplinary backgrounds.

List of joint EFMI/IMIA WG members:
Elske Ammenwerth, Institute for Medical Informatics, UMIT TIROL - University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria.
Jytte Brender, Emeritus Associate Professor, Aalborg University, Denmark.
Kathrin Cresswell, Senior Lecturer, Usher Institute of Population Health Sciences and Informatics, The University of Edinburgh, UK.
Nicolette de Keizer, Professor, Department of Medical Informatics, Academic Medical Center, Amsterdam, The Netherlands.
Andrew Georgiou, Professor, Centre for Health Systems & Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia.
Hannele Hyppönen, Research Manager, National Institute for Health and Welfare, Finland.
Farah Magrabi, Associate Professor, Centre for Health Informatics, Australian Institute of Health Innovation, Macquarie University, Australia.
Stephanie "Ace" Medlock, Assistant Professor, Department of Medical Informatics, Academic Medical Center, Amsterdam, The Netherlands.
Pirkko Nykänen, Professor emerita, Tampere University, Faculty for Information Technology and communication Sciences, Finland.
Mirela Prgomet, Research Fellow, Centre for Health Systems & Safety Research, Australian Institute of Health Innovation, Macquarie University, Australia.
Michael Rigby, Emeritus Professor of Health Information Strategy, Keele University, United Kingdom.
Philip Scott, Reader in Health Informatics, Centre for Healthcare Modelling & Informatics, University of Portsmouth, United Kingdom.
Zoie Shui-Yee Wong, Associate Professor, Graduate School of Public Health, St. Luke’s International University, OMURA Susumu & Mieko Memorial St. Luke’s Center for Clinical Academia, Japan.
Polina Kukhareva, Assistant Professor of Biomedical Informatics, University of Utah, USA.
Catherine Craven, Division of Clinical Research Informatics, Population Health Sciences, University of Texas Health San Antonio, USA.

9.5 FAIR - FAIR data in Health Research Performing Organizations

9.5.1 Report 2022
Chair: Alicia Martínez-García (ORCID 0000-0001-5614-7747), Group of Research and Innovation in Biomedical Informatics, Biomedical Engineering and Health Economy, Institute of Biomedicine of Seville, IBiS / Virgen del Rocío University Hospital / CSIC / University of Seville, Seville, 41013, Spain.
Co-Chair: Matthias Löbe (ORCID 0000-0002-2344-0426), Institute for Medical Informatics (IMISE), University of Leipzig, Leipzig, 04107, Germany.

The working group (WG) was established in November 2021 at the 87th EFMI-Council Meeting. It was founded at the beginning of 2022 with the aim to offer a place for people interested in the scientific research related to the FAIR principles, more specifically:

- To promote FAIR data in Health Research Performing Organizations (HRPOs) promoting tools, processes (e.g. Sinaci et al. 2020), and standards to raise awareness and advance education on FAIR in the EFMI community.
- Develop an HRPO maturity model for the adoption of the FAIR principles that can be adopted as an accreditation model for HRPOs, in line with the RDA FAIR data maturity model.

This WG expands the work performed and the achievements reached in the FAIR4Health project.

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At the beginning of 2022, the EFMI website for the ‘FAIR data in Health Research Performing Organizations’ WG was created.

Additionally to internal meetings between chair and co-chair or EFMI members, in December 2021, this WG was disseminated in a Research Data Alliance (RDA) HRPOs WG monthly meeting to consider possible synergies.

**Contributions in conferences:**

- **Workshop:** Martínez García A, Löbe M, Draeger C, Perbix M. How to make health data FAIR: Using the NFDI4Health and FAIR4Health research data infrastructures - Introduction and greetings from the EFMI WG FAIR Data. DMEA-Satellitenveranstaltung von GMDS und BVMI. April 2022.


**Activities planned for the 2nd semester of 2022 and 2023:**

- Plan and disseminate in the scientific community with a Call for participants a kick-off meeting, starting regular bi-monthly meetings with all participants.
- Create a google mailing list for all WP participants.
- Create a LinkedIn page for the WG.
- Create a report about tools, processes, and standards related to FAIR, with the final aim of publishing a scientific paper. Including the creation, dissemination, and results analysis of a short survey to collect information related to FAIR tools/processes/standards.

### 9.6 HIIC - Health Informatics for Interregional Cooperation

#### 9.6.1 Report 2020

**Chair:**
Arriel Benis  
Faculty of Technology Management  
Holon Institute of Technology, Israel  
E-mail: arrielb@hit.ac.il

**Co-chair:**
Mihaela Crisan-Vida

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9. RDA Raising FAIRness in health data and HRPOs WG website: https://www.rd-alliance.org/groups/raising-fairness-health-data-and-health-research-performing-organisations-hrpos-wg
Faculty of Automation and Computers
UPT - Politehnica University of Timisoara

Website: http://www.efmi.org/index.php/workinggroups/hiic-health-informatics-for-interregional-cooperation

Relevant Activities 2020:

- The WG HIIC is continuing to communicate its activities and projects in order to initiate new collaboration and partnerships. A workshop has been submitted to MIE 2020, Geneva (canceled):31-34.
- The WG “HIIC” is actively involved in the task force “EFMI-EUSEM”.
- Arriel Benis has been to "Romania Society of Medical Informatics (SRIM) online live event: Adapting Education during COVID-19 Pandemic: Instruments and Solutions on 14th December 2020" for discussing: "A multilingual thesaurus for Medical Informatics as an educational tool".

Activities planned for 2021:

- Continuing expanding the WG HICC over Europe by recruiting new members
- Continuing research, development, implementation, and dissemination of the Health and Medical Informatics thesaurus (previously, EFMI dictionary).
- Continuing being involved in different taskforces of EFMI for proving the Interregional Cooperation perspectives
- The WG HIIC is a part of the HosmartAI project
- The WG HIIC will lead a workshop at MIE 2021 "Collaboration and cooperation as factors for mutual professional expertise growth in health informatics".


Chair (from November 2021):
Mihaela Crișan-Vida
Faculty of Automation and Computers, University Politehnica Timisoara
e-mail: mihaela.vida@upt.ro

Co-chair (from November 2021):
Arriel Benis
Faculty of Industrial Engineering and Technology Management and Faculty of Digital Technologies in Medicine, Holon Institute of Technology, Israel
e-mail: arrielb@hit.ac.il

Website: http://www.efmi.org/index.php/workinggroups/hiic-health-informatics-for-interregional-cooperation

Relevant Activities 2021:

- The WG HIIC is continuing communicating its activities and projects in order to initiate new collaboration and partnerships.
  - A workshop has been led at MIE 2020:
    - Benis A. Crisan-Vida M, Stoicu-Tivadar L, Darmoni S.: Collaboration and cooperation as factors for mutual professional expertise growth in health informatics
HosmartAI/EFMI meeting in May:

- Benis A, Crisan-Vida M, Stoicu-Tivadar L, Darmoni S: EFMI Medical Informatics and Digital Health Thesaurus

HosmartAI satellite event of STC 2021:


- The workgroup has continued its effort on developing an online multilingual dictionary/thesaurus/ontology (MIMT/MIMO) focusing on Medical Informatics terms, as reported 2 presentations of ongoing work were done. Today this project is funded by HosmartAI and specific extensions to the project are "work in progress".

- Election for renewing the leadership of the WG has been done. Starting by November 2021 Mihaela Crișan-Vida will chair the WG and Arriel Benis will be co-chair.

**Relevant Activities 2022:**

- The WG HIIC is continuing communicating its activities and projects in order to initiate new collaboration and partnerships.

  - At MIE 2022:
    - Workshop: Benis A, Crisan-Vida M, Darmoni S, Stoicu-Tivadar L, Improving communication in digital health using EFMI Medical Informatics Multilingual Ontology

**Activities planned for 2022:**

- Continuing expanding the WG HICC over Europe by involving/recruiting new members

- Continuing research, development, implementation, and dissemination of MIMT/MIMO.

- Continuing being involved in different taskforce of EFMI for proving the Interregional Cooperation perspectives.

- A manuscript on MIMO to be submitted to a journal is in preparation. Other communications will be submitted to EFMI and other scientific conferences in the different research fields of the WG.

### 9.7 HIME - Health Information Management Europe

#### 9.7.1 Report 2020

*Chair:*

Prof. Dr. Rolf Engelbrecht  
USMF Chisinau  
E-mail: Engelbrecht@EFMI.info

*Co-Chairs:*

Angelika Haendel  
President of IFHIMA  
DVMD board member
Main Objectives:
The group operates as a "think-tank" drawing together leading-edge expertise not only from across the medical documentation and medical informatics spectrum but also from other professions with relevant generic input to focus on selected topic areas in support of clinical and healthcare research and routine processes.

- To promote exchange of experience in development, implementation, education, and use of health record systems
- To promote exchange of standards in close co-operation with SDOs (standard development organisations) and institutions working in the field on national and European level.
- To investigate the needs, opportunities and obstacles for health information management.
- To disseminate results and experiences across EFMI members
- To facilitate access to European educational facilities and EFMI members

Activities in general

- Supporting activities of EFMI, its members (resp. their national societies) and IFHIMA-Europe, especially MIE and STC conferences.
- Organising workshops on national and European level
- Initiation of a Forum using internet and other publication media.
- Making educational and promotional material available

Relevant Activities 2020:

- LinkedIn group EFMI-HIME. Number of connections: 914
- Participation in ICIMTH2020 16th International Conference on Informatics, Management and Technology in Healthcare Athens, Athens
- Support of and participation in ICIST2020 Kaunas, Lithuania, Session “eHealth Information Management Systems” October 2020
- Discussion of possible conferences in Europe during MICE virtual events IBTM, MICE-peak, etc.

Activities planned for 2021:

- Organisation of discussions and promotions on the LinkedIn group EFMI-HIME
- Organisation of a workshop at MIE2021, Athens, in cooperation with TU Kaunas
- Participation in ICIMTH2021 18th International Conference on Informatics, Management and Technology in Healthcare Athens
- ICIST2021, Kaunas/Lithuania, Session or seminar “eHealth Information Management Systems” at Kaunas Technical University (KTU)
- Preparation and support of the All-Russian conference on Cardiology 2021 April 28 in Tomsk, Russia
9.8 HOFMI - Human and Organizational Factors of Medical Informatics

9.8.1 Report 2020

Chair:
Romaric Marcilly
Univ. Lille, CHU Lille, ULR 2694 - METRICS: Évaluation des technologies de santé et des pratiques médicales, F-59000 Lille, France
Inserm, CIC-IT 1403, F-59000 Lille, France Lille, France
E-mail: romaric.marcilly@univ-lille.fr

Co-Chair:
Valentina Lichtner
Leeds University Business School, University of Leeds, Leeds, UK
E-mail: V.Lichtner@leeds.ac.uk


Main Objectives:
- To establish a network of researchers and practitioners interested in the role of human and organisational factors in the use of healthcare technologies.
- To organise workshops, panels and tutorials dedicated to this topic at the Medical Informatics Europe (MIE) conference and other events.
- To disseminate knowledge about the role of human and organisational factors in the use of healthcare technologies through various activities, including journal publications.
- To support exchange and discussion between researchers and practitioners as well as European collaborations.

Relevant Activities 2020:
- HOFMI WG activities were hampered by the COVID-19 pandemic: activities planned for MIE 2020 (e.g., video booth, panels) were cancelled.

Activities planned for 2021:
- A HOFMI WG panel has been proposed to MIE 2021: R. Marcilly, C. Kuziemsky, Ch. Nøhr, L. Peute, V. Lichtner. Ethics Reviews and Human and Organizational Factors’ Research in European Countries: a panel from the HOFMI working group
- A survey exploring the possibilities of making short promotional videos on HOFMI themes is being filled out by WG members (deadline, April 20, 2021). Depending on
the conclusions of the survey, short videos will be made and disseminated online to promote HOFMI themes.

- Members of the WG are planning to attend MIE 2021, NI 2021, MEDINFO 2021 and CSHI 2021 virtually.

**Relevant Publications 2020:**

WG members were involved in several publications on human and organizational factors of medical informatics, for example:


*Chair:*
Romaric Marcilly
Univ. Lille, CHU Lille, UL 2694 - METRICS: Évaluation des technologies de santé et des pratiques médicales, F-59000 Lille, France
Inserm, CIC-IT 1403, F-59000 Lille, France Lille, France
E-mail: romaric.marcilly@univ-lille.fr

*Co-Chair:*
Valentina Lichtner
Leeds University Business School, University of Leeds, Leeds, UK
E-mail: V.Lichtner@leeds.ac.uk


*Main Objectives:*

- To establish a network of researchers and practitioners interested in the role of human and organisational factors in the use of healthcare technologies.
- To organise workshops, panels and tutorials dedicated to this topic at the Medical Informatics Europe (MIE) conference and other events.
- To disseminate knowledge about the role of human and organisational factors in the use of healthcare technologies through various activities, including journal publications.
To support exchange and discussion between researchers and practitioners as well as European collaborations.

**Relevant Activities (January 1st, 2021 – June 30th, 2022):**

- HOFMI WG activities in 2021 were hampered by the COVID-19 pandemic: no face-to-face activities were performed.
- Members took part in an expert inquiry about the “challenges related to user-based testing with vulnerable older adults”. The results of the inquiry led to a publication.
- HOFMI WG organized, took part in, or supported several panels or workshops during international conferences: e.g.,
  - MIE 2021: R. Marcilly, C. Kuziemsky, Ch. Nøhr, L. Peute, V. Lichtner. Ethics Reviews and Human and Organizational Factors’ Research in European Countries: a panel from the HOFMI working group
  - MIE 2022: C. Kuziemsky, L. Peute, C. Nøhr, P. Kukhareva. Improving Research Ethics Review in Human and Organizational Factor Studies
  - MIE2022: Lichtner V and Dowding. Mindful workarounds in Bar Code Medication Administration
- HOFMI WG actively supported the scientific and logistic organization of the CSHI 2021 conference that was held in a virtual environment on November 15th and 16th. The proceedings “*Context Sensitive Health Informatics: The Role of Informatics in Global Pandemics*” have been published in the IOS press Studies in Health Technology and Informatics collection ([https://ebooks.iospress.nl/volume/context-sensitive-health-informatics-the-role-of-informatics-in-global-pandemics](https://ebooks.iospress.nl/volume/context-sensitive-health-informatics-the-role-of-informatics-in-global-pandemics))
- Possibilities of making short promotional videos on HOFMI themes have been explored through an online survey that HOFMI members could complete. The results were analyzed and a video plan was developed.
- Members of HOFMI WG attended international conferences MIE 2021, MIE 2022, NI 2021, MEDINFO 2021, CSHI 2021

**Activities planned for 2022-2023:**

- Members of the WG are planning to attend MIE 2023, MEDINFO 2023 and CSHI 2023. They will propose panels, workshops and scientific presentations to stimulate the community.
- Production of promotional videos on HOFMI themes
- R. Marcilly will step down as chair as the WG. He will help V. Lichtner proposed as chair to find a co-chair to assist her.
- The WG will support the scientific organization of CSHI 2023.

**Relevant Publications (January 1st, 2021 – June 30th, 2022):**

WG members were involved in several publications on human and organizational factors of medical informatics, for example:


9.9 IDeS - Information and Decision Support in Biomedicine and Health Care

Chair:
Zdenko Sonicki
Andrija Stampar School of Public Health
School of Medicine
University of Zagreb, Croatia
E-mail: zdenko.sonicki@snz.hr
Website: https://www.efmi.org/workinggroups/ides-information-and-decision-support-in-bio-medicine-and-health-care

No report

9.10 LIF OSS - Libre/Free and Open Source Software

Chair:
Tom Kane
University of Stirling,
Management School,
Stirling, FK9 4LA, Scotland, U.K.
E-Mail: t.b.kane@stir.ac.uk

Co-Chair:
Thomas Karopka
BioCon Valley GmbH
Greifswald, Germany
E-mail: tk@bcv.org
Website: https://efmi.org/category/blog/lifoss-wg-libre-free-and-open-source-software/

No report

9.11 MIP - Medical Image Processing

9.11.1 Report 2020

Chair:
Thomas M. Deserno
Department of Medical Informatics
Uniklinik RWTH Aachen, Germany
E-mail: deserno@ieee.org

Co-Chair:
Jamshid Dehmeshki
Faculty of Science, Engineering and Computing
Kingston University London, Kingston upon Thames, UK
E-mail: j.dehmeshki@kingston.ac.uk
Website: https://www.efmi.org/index.php/workinggroups/mip-medical-image-processing

The activities of the working group focus on identification of key persons being active in the field of medical image processing in the national member societies and institutional members of EFMI. In addition, EFMI WG MIP co-coordinates conferences and in-person meetings in
the field of medical image processing. In particular, the German annual meeting “Bildverarbeitung für die Medizin” (Image Processing for Medicine) was co-organized by the EFMI WG MIP. Due to the Corona crisis, the event was cancelled. Three days before it was supposed to start in person, the local government in Berlin decided to stop all larger in person meetings, and over the weekend, it was impossible to organize a virtual substitution.

9.11.2 Report 2021

Chair:
Thomas M. Deserno
Department of Medical Informatics
Uniklinik RWTH Aachen, Germany
E-mail: deserno@ieee.org

Co-Chair:
Jamshid Dehmeshki
Faculty of Science, Engineering and Computing
Kingston University London, Kingston upon Thames, UK
E-mail: j.dehmeshki@kingston.ac.uk
Website: https://www.efmi.org/index.php/workinggroups/mip-medical-image-processing

Again, one of the main activities of EFMI WG MIP was co-organization of meetings and events – in the Covid year a challenging task. The German annual meeting “Bildverarbeitung für die Medizin” (Image Processing for Medicine) was planned to be held in Regensburg, then changed to a hybrid (virtual & in person) meeting, and finally completely transformed into a virtual meeting. However, the local organizers There were keynote presentations from Prof. Marleen de Bruijne, The Netherlands & Denmark, Prof. Alexandre Xavier Falcão, Brazil, and Prof. Helmut Messmann, Germany.

There was a new leadership of the working group elected. For 2022, the following team took over the leadership:

Chair:
Jamshid Dehmeshki
Faculty of Science, Engineering and Computing
Kingston University London, Kingston upon Thames, UK
E-mail: j.dehmeshki@kingston.ac.uk

Co-Chair:
Christoph Palm
Faculty of Computer Science and Mathematics
Regensburg Center of Health Sciences and Technology, Regensburg, Germany
E-mail: christoph.palm@oth-regensburg.de
9.12 NI - Nursing Informatics in Europe

9.12.1 Report 2020

Chair
Inge Cort Madsen
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Hedeager 2,
8200 Aarhus N, Denmark
Email: cort@via.dk

Co-Chair
Patrick Weber
Nice Computing SA
Le Mont-sur-Lausanne, Switzerland
Email: patrick.weber@nicecomputing.ch

Secretary
Laura-Maria Peltonen
Department of Nursing Science
20014 University of Turku
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Communication officer
Mattias Georgsson
Postdoctoral Researcher in eHealth,
University West, Sweden.
Email: mattias@georgsson.com

Assistant to the board
Daniel Flemming
Nursing and Social Work Informatics
Director of the Institute for Further Education and Training
@KSH München
Email: Daniel.Flemming@ksh-m.de

Website: https://www.efmi.org/workinggroups/nursie-nursing-informatics-in-europe
Facebook: Nursing Informatics in Europe, @efmi.ni

Main objectives
Vision:
Our vision is to be an active and progressive network, which supports nursing informatics across settings in Europe.
Mission:
To function as a working group under the European Federation for Medical Informatics (EFMI).
To support nurses and nursing organizations in the European countries with information and
contacts in the field of health informatics.
To use social media to share knowledge between members.

Relevant activities in 2020
We have continued to work with our strategy that was accepted in Lyon 2019: “More activity
between the members”. We have recruited a new member, Dr. Daniel Flemming. We have been
active on social media and we have sent newsletters to our country members. The board is
presenting Daniel Flemming to be elected to the Board at the next General Assembly. We have
started a collaboration with NI IMIA by developing a joint help website for Nursing Informatics:
https://imia-medinfo.org/wp/educational-videos-and-teaching-tools/ and are currently
working on a new joint strategy with NI IMIA.
Inge Cort Madsen attended EU / China summit in November 2020 and the board presented:

- Laura-Maria PELTONEN, Patrick WEBER, Christelle PROGIN, Inge CORT MADSEN &
  Mattias GEORGSSON.
- A nursing response to digital health service needs - engaging users and producers. European
  Federation Medical Informatics, STC conference nov 2020, Helsinki.

Activities planned

- The board are working on a panel for MIE STC 2021, Barcelona.
- We had planned during the MIE STC 2022 to have a possibility to attend our General
  Assembly online and face to face.
- And finally we will continue to work with our strategy.

9.13 ODH - One Digital Health


Chair:
Oscar Tamburis
Institute of Biostructures and Bioimaging, National Research Council, Naples, Italy
e-mail: oscar.tamburis@unina.it

Co-Chair:
Arriel Benis
Faculty of Industrial Engineering and Technology Management, Holon Institute of Technology, Israel
Faculty of Digital Technologies in Medicine, Holon Institute of Technology, Israel
e-mail: arrielb@hit.ac.il

Website: http://www.efmi.org/index.php/workinggroups/odh/

Relevant Activities 2021/2022:

- The WG ODH has been created in June 2021.
- The working group has been created after the publication of the following seminal manu-
  script by the initial WG members:

- A workshop has been led at MIE 2021 (May 2021):
  - Benis A, Tamburis O, Chronaki C, Moen A: Workshop Defining One Digital Health or how training the future generations of One Health professionals.

- An invited panel session has taken place at MedInfo 2021 (October 2021):

- An invitation has been received in November 2021 to contribute a publication in the Focus Theme (co-ed.: Prof. Jaime Delgado) “Applying the FAIR principles to accelerate health research in the post-Covid19 era” in the “Methods of Information in Medicine” journal:
  - Tamburis O, Benis A: One Digital Health for more FAIRness (final publication scheduled for 2022).

- “One Digital Health” has been presented:
  - at MedExpo 2021, organized from the Italian Association of Telemedicine and Medical Informatics (as invited speech) in May 2021 – Tamburis O;
  - at Paulista School of Medicine, Federal University of São Paulo, Brazil in July 2021 (as invited lecture) – Benis A;
  - at “ForumPA Sanità” event (as invited speech) in October 2021 – Tamburis O;
  - at EFMI STC Conference (as poster) in November 2021 – Benis A, Tamburis O;
  - at the Israeli Association for Medical Informatics Conference (as poster) in November 2021 – Benis A;
  - at the Annual Israeli meeting for Industrial Engineering and Management (oral presentation) in November 2021 – Benis A;
  - at the Annual meeting of the Israel Society for Quality (as invited speech) in November 2021 – Benis A.

- “One Digital Health” has been moreover discussed:
  - with advisors for the German ministry of international development – Benis A, Tamburis O, Chronaki C, Moen A.
  - with academics around the World – Benis A, Tamburis O.

Activities planned for July/December 2022:
- Continuing expending the WG ODH over Europe by involving/recruiting new members;
- Mirroring the group at the International Medical Informatics Association (IMIA);
- Continuing research, development, implementation, and dissemination of ODH.

9.14 PCI - Primary Health Care Informatics
Working group has been terminated in 2022.
9.15 PPD - Personal Portable Devices

9.15.1 Report 2020

Chair:
Lenka Lhotska
Czech Institute of Informatics, Robotics and Cybernetics, Czech Technical University
Prague, Czech Republic
E-mail: lhotska@cvut.cz

Co-Chair:
Peter Pharow
Fraunhofer IDMT Ilmenau
Germany
E-Mail: peter.pharow@idmt.fraunhofer.de
Website: http://wg.efmi.org

Main Objectives:
EFMI Working Group (WG) Personal Portable Devices (PPD) aims at being a European competence center to watch ongoing activities and to provide knowledge to policy makers and architect designers involved in the deployment of projects related to personalized, portable devices (PPD) such as cards, tokens, wearable and portable devices, sensors and actuators, and similar technologies including advanced network infrastructures mainly in the domain of healthcare and welfare. WG PPD links its activities to the domain of Ambient Assisted Living by liaising with the IMIA WG on Smart Homes and AAL.

Furthermore, WG PPD representatives are actively involved in standardization activities in various fields and domains including security, safety, management, ethics, medical devices, and sensor networks. Members of WG PPD act as a kind of ambassador to additional standards developing organizations in various other domains, where aspects of personal portable (mobile) devices are addressed.

Moreover, WG PPD actively supports the organization of meetings of various kinds to disseminate the WG achievements, and to exchange knowledge and information about any topic linked to the interest of the WG PPD members. The main topics the WG PPD is focused on are:

- Personal(ized) Portable Devices, sensors and actuators as well as the underlying networks enable personal and even personalized health service provision going far beyond traditional care procedures. It includes wellness aspects, lifestyle aspects, and safety aspects. Applications from other domains stimulate the respective paradigm shift towards personalized services (addressing citizens rather than patients) also in the healthcare and welfare domain.

- The paradigm shift from health cards to personalized devices and sensor networks for providing personal health services addresses various technical, medical, organizational, legal, and standardization aspects of portable devices (EFMI WG PPD) and related work on sensor networks (ISO/IEC JTC1 SGSN). What EFMI WG PPD is aiming at from a technological viewpoint, are aspects of the present and the near future of personal health service provision supported by devices of any technology, any kind and any size either directly applied to the human body, or placed even inside the body.

- Patient safety, data and communication security, ethics and legal issues become more important as the personal devices, wearables and related technologies are penetrating the market. With the expected interconnection with Internet of Things these non-technical issues must be analyzed in depth and recommendations prepared for development
of new applications. The new EU regulation (Medical Device Regulation 2017/745 poses new requirements on PPDs and software that are to be used as medical devices. EFMI WG PPD actively participates in the process and is following new development to be able to consult the issues.

**Relevant Activities 2020:**

- Strengthening the links to relevant societies and their working groups
- Organization of the pHealth 2020, Prague, Czech Republic – Lenka Lhotska was chair of the Organizing Committee. Peter Pharow was member of the SPC.
- Active participation in pHealth 2020, Prague, Czech Republic – Lenka Lhotska and Peter Pharow were members of the SPC and Lenka Lhotska was invited as invited speaker

**Activities planned for 2021:**

- Strengthening the links to relevant societies and their working groups
- Planned active participation in the pHealth 2021 – Lenka Lhotska is member of the SPC.

**9.15.2 Report 1.1.2021 – 30.6.2022**

**Chair:**

Lenka Lhotska  
Czech Institute of Informatics, Robotics and Cybernetics, Czech Technical University  
Prague, Czech Republic  
E-mail: lhotska@cvut.cz  
Website: [http://wg.efmi.org](http://wg.efmi.org)

**Main Objectives:**

EFMI Working Group (WG) Personal Portable Devices (PPD) aims at being a European competence center to watch ongoing activities and to provide knowledge to policy makers and architect designers involved in the deployment of projects related to personalized, portable devices (PPD) such as cards, tokens, wearable and portable devices, sensors and actuators, and similar technologies including advanced network infrastructures mainly in the domain of healthcare and welfare. WG PPD links its activities to the domain of Ambient Assisted Living by liaising with the IMIA WG on Smart Homes and AAL.

Furthermore, WG PPD representatives are actively involved in standardization activities in various fields and domains including security, safety, management, ethics, medical devices, and sensor networks. Members of WG PPD act as a kind of ambassador to additional standards developing organizations in various other domains, where aspects of personal portable (mobile) devices are addressed.

Moreover, WG PPD actively supports the organization of meetings of various kinds to disseminate the WG achievements, and to exchange knowledge and information about any topic linked to the interest of the WG PPD members. The main topics the WG PPD is focused on are:

- Personal(ized) Portable Devices, sensors and actuators as well as the underlying networks enable personal and even personalized health service provision going far beyond traditional care procedures. It includes wellness aspects, lifestyle aspects, and safety aspects. Applications from other domains stimulate the respective paradigm shift towards personalized services (addressing citizens rather than patients) also in the healthcare and welfare domain.
- The paradigm shift from health cards to personalized devices and sensor networks for providing personal health services addresses various technical, medical, organizational,
legal, and standardization aspects of portable devices (EFMI WG PPD) and related work on sensor networks (ISO/IEC JTC1 SGSN). What EFMI WG PPD is aiming at from a technological viewpoint, are aspects of the present and the near future of personal health service provision supported by devices of any technology, any kind and any size either directly applied to the human body, or placed even inside the body.

- Patient safety, data and communication security, ethics and legal issues become more important as the personal devices, wearables and related technologies are penetrating the market. With the expected interconnection with Internet of Things these non-technical issues must be analyzed in depth and recommendations prepared for development of new applications. The new EU regulation (Medical Device Regulation 2017/745 poses new requirements on PPDs and software that are to be used as medical devices. EFMI WG PPD actively participates in the process and is following new development to be able to consult the issues.

Relevant Activities 2021:
- Strengthening the links to relevant societies and their working groups
- The COVID-19 period showed the importance of telemedicine and wearable electronics applications for remote monitoring of health state and monitoring of daily activities and rehabilitation, in particular at elderly people. These topics together with data privacy and ethical issues were reflected in the work and publications of the WG PPD members.
- Active participation in pHealth 2021, Genoa, Italy – Lenka Lhotska was member of the SPC and Lenka Lhotska was invited as invited speaker

Activities planned for 2022:
- Strengthening the links to relevant societies and their working groups
- Discussion on recently appearing issues connected with increased use of wearables, transfer of artificial intelligence methods from lab to practical applications and accompanying questions of ethics, etc. Identification of hot topics that should be followed in the next period.
- Planned active participation in the pHealth 2022 – Lenka Lhotska is member of the SPC.

9.16 SSE - Security, Safety and Ethics

9.16.1 Report 2020

Chair:
Jaime Delgado
Universitat Politècnica de Catalunya (UPC)
Barcelona, Spain
E-Mail: jaime.delgado@upc.edu

Co-Chair:
Andrej Orel
Ljubljana, Slovenia
E-Mail: andrej.orel@better.care

Website: https://www.efmi.org/workinggroups/sse-security-safety-and-ethics
Main Objectives:
Speed up the use of ICT to increase trustworthiness, security and safety of health care solutions and infrastructure deployed. Promote research, development, education and training on the field of security and privacy in health care. Close collaboration with other EFMI WGs and beyond, as well as with IMIA, to find solutions for trustworthy interoperable health systems and to analyze the impact of new healthcare and health management models to security and privacy.

Relevant Activities 2020:

- Work of SSE is mainly based on Workshops organized in MIE Conferences. However, due to the restrictions because of the covid pandemics, no specific Workshops have been organized this year.
- However, SSE has supported two conferences: EFMI’s STC and pHealth, both as virtual events.
- STC2020, 26-27 November 2020, Special Topic Conference organized by EFMI. The topic was “Integrated citizen centered digital health and social care – Citizens as data producers and service co-creators”. WG SSE was one of the supporting WGs. Jaime Delgado was member of the Scientific Program Committee and chaired a session on “Confidentiality, data integrity and data protection to guarantee trustworthy services”.
- pHealth 2020, 14-16 September 2020. Supported by WG SSE and other EFMI’s WGs. 17th Conference in a series of scientific events bringing together expertise from medical, technological, political, administrative, and social domains, and even from philosophy or linguistics. It opens a new chapter in the success story of the series of international conferences on wearable or implantable micro and nano technologies for personalized medicine. Scientifically chaired by Bernd Blobel.

Activities planned for 2021:

- Develop a long-term activity plan for SSE, to be discussed during the next face-to-face MIE Conference.
- Prepare for Workshops including research papers, theory papers, methodology and conceptual papers, all mixed to provide the widest possible view on the chosen topic. Workshops should be as interdisciplinary as possible, including researchers from different institutions and research fields. Furthermore, reserve an important part of the workshop’s time for discussions and interaction.
- Develop the visibility of SSE’s work and encourage young experts to participate more actively in the work of the SSE. Promote the LinkedIn group of the WG (https://www.linkedin.com/groups/8624068).

Relevant Publications 2020:


Chair:
Jaime Delgado
Universitat Politècnica de Catalunya (UPC)
Barcelona, Spain
E-Mail: jaime.delgado@upc.edu

Co-Chair:
Carlos Serrão
Iscte - Instituto Universitário de Lisboa (ISCTE-IUL)
Lisboa, Portugal
E-Mail: carlos.serrao@iscte-iul.pt

Website: https://www.efmi.org/workinggroups/sse-security-safety-and-ethics

Main Objectives:
Speed up the use of ICT to increase trustworthiness, security and safety of health care solutions and infrastructure deployed. Promote research, development, education and training on the field of security and privacy in health care. Close collaboration with other EFMI WGs and beyond, as well as with IMIA, to find solutions for trustworthy interoperable health systems and to analyze the impact of new healthcare and health management models to security and privacy.

Relevant Activities 2021/01/01 – 2022/06/30:

• Work of SSE is mainly based on Workshops organized in MIE Conferences, but because of the covid pandemics restrictions, no specific Workshops have been organized this period. However, SSE has supported two conferences: EFMI’s STC, as hybrid event in Sevilla, and pHealth, as virtual event.
• STC2021, 22-24 November 2021, Special Topic Conference organized by EFMI, in Sevilla (Spain) but in hybrid mode (all presentations online with a few presenters on-site). The topic was “Applying the FAIR principles to accelerate health research in Europe in the post-Covid19 era”. WG SSE was one of the supporting WGs. Jaime Delgado was the Chair of the Scientific Program Committee. He also opened the Conference and chaired the Closing session.
• pHealth 2021, 8-10 November 2021. Supported by WG SSE and other EFMI’s WGs. 18th Conference in a series of scientific events bringing together expertise from medical, technological, political, administrative, and social domains, and even from philosophy or linguistics. This edition emphasized the interrelated aspects of pHealth, i.e. personalized, participative, preventive, predictive precision medicine (5P medicine) in health and social services. Scientifically chaired by Bernd Blobel.
• An EFMI Working Group business meeting took place during the STC2021. In that meeting, the action plan was discussed and Chair and Co-Chair were elected. The Chair continued, but a new Co-Chair was elected.

Activities planned for 2022-23:

• Develop a long-term activity plan for SSE, to be discussed during the next face-to-face MIE Conference.
• Prepare for Workshops including research papers, theory papers, methodology and conceptual papers, all mixed to provide the widest possible view on the chosen topic. Workshops should be as interdisciplinary as possible, including researchers from different
institutions and research fields. Furthermore, reserve an important part of the work-
shop’s time for discussions and interaction.

- Develop the visibility of SSE’s work and encourage young experts to participate more
actively in the work of the SSE. Promote the LinkedIn group of the WG
  (https://www.linkedin.com/groups/8624068).

Relevant Publications 2021/01/01 – 2022/06/30:

- Ruotsalainen, P.; Blobel, B.; Pohjolainen, S. Privacy and Trust in eHealth: A Fuzzy
  https://doi.org/10.3390/jpm12050657
- Ruotsalainen P.; Blobel, B. Transformed Health Ecosystem -- Challenges for Security,
- Blobel, B.; Giacomini, M. Implementation of privacy and security for a genomic infor-
- Blobel, B.; Giacomini, M. How a service user knows the level of privacy and to whom
- Llorente, S.; Delgado, J. Implementation of Privacy and Security for a Genomic Informa-
tion System Based on Standards. J. Pers. Med. 2022, 12, 915.
  https://doi.org/10.3390/jpm12060915
- Delgado, J.; Llorente, S.; Reig, G. Implementation of privacy and security for a genomic
  https://ebooks.iospress.nl/doi/10.3233/SHTI210609
- Naro, D.; Delgado, J.; Llorente, S. Side channel attack on a partially encrypted MPEG-
  G file. Multimed Tools Appl. 2021; 80 (13), 20599-20618
- Delgado, J.; Llorente, S. FAIR aspects of a Genomic Information Protection and Man-
  https://ebooks.iospress.nl/volumearticle/58254
- Delgado, J.; Álvarez Romero, C.; Martínez García, A.; Parra Calderón, C.L. Ap-
  proaches to the integration of TRUST and FAIR principles. Short papers proceedings
  of the First SWForum Workshop on Trustworthy Software and Open Source 2021: vir-

9.17 THI - Translational Health Informatics

9.17.1 Report 2020

Chair:
Mauro Giacomini
DIBRIS, University of Genova, Italy
E-mail: Mauro.Giacomini@dibris.unige.it

Co-Chair:
Carlos Luis Parra Calderón
Andalusian Health Service
E-mail: carlos.parra.sspa@juntadeandalucia.es

Website: http://www.efmi.org/index.php/workinggroups/thi-translational-health-informatics
Main Objectives:

Translational medicine is a relatively new discipline targeted at removing barriers in utilizing new scientific discoveries in healthcare, moving from bench to bedside, on to communities and finally to policy. The biomedical discoveries need to be accompanied by studies in areas such as health economy as well as sociological and psychological aspects. In order to manage the information generated by each of these disciplines, it is crucial to use advanced informatics that could fuse the various types of data into computerized systems that support the translational processes.

This Working Group will be focused on the health informatics needed for accommodating the translational challenges. In particular, we will target the following goals:

- Explore a proposal for a Translational Health Information Language to underlie translational info-structure (see details in the document "Towards Translational Health Information Language" under the Files tab)
- Demonstrate feasibility of common translational infostucture for the currently distinct environments of biomedical research and health care
- Support studies focusing on informatics underlying translational research and medicine
- Foster better interrelation of bioinformatics and medical informatics
- Discuss major challenges in the new OMICS era with regard to translational health informatics and analytics
- Discuss how standards in data treatment can improve the development of translational health informatics
- Set up a stable communication with the Security, Safety and Ethics working group of EFMI to discuss issues of common interest

Relevant Activities 2020:
- Participation to pHealth 2020 in Prague (https://phealth2020.ciirc.cvut.cz/)

Activities planned for 2021:
- Organization and Participation of EFMI STC 2021 to be held in fall in Seville, Spain
- Held a business meeting of the THI WG during this event.
- Participation of pHealth 2021 to be held in Keele University, Staffordshire, United Kingdom, 15 – 17 September 2021


Chair:
Mauro Giacomini
DIBRIS, University of Genova, Italy
E-mail: Mauro.Giacomini@dibris.unige.it

Co-Chair:
Carlos Luis Parra Calderón
Andalusian Health Service
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Website: http://www.efmi.org/index.php/workinggroups/thi-translational-health-informatics
Main Objectives:
Translational medicine is a rapidly growing multidisciplinary field which aims to promote enhancements in healthcare as relates to prevention, diagnosis, and therapeutics. Translation medicine focuses on integrative methods for biomedical research and for the delivery of clinical care, taking into account the availability of high-throughput bio-molecular instrumentation, the increasing availability of genomic profiles of patients for personalized healthcare delivery, and the realization of systems for the collection, management, analysis and dissemination of large and heterogeneous data sets. The development of translational medicine brings about a faster development of new diagnostics and medicinal products and a better access to care for people at reasonable costs. Such developments are based to a great extent on the interaction between biomedical-clinical knowledge and biomedical informatics. This interaction plays a key role for multidisciplinary information systems that support healthcare data analysis and its interaction with other fields such as economics. This Working Group will be focused on the health informatics needed for accommodating the translational challenges. In particular, we will target the following goals:

- Explore a proposal for a Translational Health Information Language to underlie translational info-structure (see details in the document "Towards Translational Health Information Language" under the Files tab)
- Demonstrate the feasibility of common translational infostructures for the currently distinct environments of biomedical research and health care
- Support studies focusing on informatics underlying translational research and medicine, fostering a better interrelation of bioinformatics and medical informatics
- Discuss major challenges in the new OMICS era with regard to translational health informatics and analytics
- Discuss how standards in data treatment can improve the development of translational health informatics
- Set up a stable communication with the Security, Safety and Ethics working group of EFMI to discuss issues of common interest

Relevant Activities 2021:
- Organization and Participation of EFMI STC 2021 – online participation
- Business meeting of the THI WG on November 22nd with the re-election of the chair and co-chair as indicated in this document.
- Participation of pHealth 2021 organized online by the University of Genoa from November 8th to November 10th.
- Initial connections with members of the European Infrastructure for Translational Medicine (EATRIS) for possible common initiatives

Relevant activities for 2022:
- Organization and Participation to MIE2022 held in Nice (from May 27th to May 30th)
- Specifically, within MIE 2022
  - organization and leading the “A coordinated US-European FAIR Health Research Data policy based on lessons learned during the Covid-19 pandemic” panel presented on Saturday May 28th
  - organization and chairing the “Standards-Based Management of Integration and Interoperability in Advanced Health Ecosystems” workshop presented on Sunday May 29th

Other Activities planned for 2022:
- Organization and Participation of pHealth 2022 to be held in Oslo, United Norway, 8 – 10 November 2021
• Organization and Participation of EFMI STC 2023 to be held in October 2023 in Turin, Italy
• Specific meetings with persons form European infrastructure for translational medicine (EATRIS) to set up a stable collaboration.

9.18 yEFMI - Young EFMI

9.18.1 Report 2020

Chair: Ivana Ognjanović, University of Donja Gorica, Montenegro

yEFMI WG (Working Group of Young professionals and scientist within EFMI) was founded in June 2020 with the aim to support young professionals and leaders in the field of medical and health informatics, addressing specific issues of education, research, and professional development. With the aim to enhance their future contributions in digital health community, yEFMI defines the following key objectives and strategic goals:

- To attract young MI/HI professionals to be actively involved in EFMI working groups;
- To exchange of experience in high quality research and promote potentials for gaining financial support for innovations;
- To promote exchange of standards and best practices, making balance between different regions and countries from the perspective of the potentials for education, research and innovation,
- To disseminate results and experiences across EFMI members.

Activities:

All activities in 2020 were focused on attracting young MI/HI professionals and spreading visibility of yEFMI, as follows:

- ICIMTH2020 workshop „Young EFMI (yEFMI) - An EFMI Initiative“ aimed on discussing key challenges facing young professionals and leaders. Panelists: Ivana Ognjanović, University of Donja Gorica, Montenegro; Romaric Marcilly, Centre Hospitalier Régional Universitaire de Lille, France; Felix Holl, Hochschule Neu-Ulm University of Applied Sciences, Germany; Birgit Saalfeld, Peter L. Reichertz Institute for Medical Informatics, Germany

- yEFMI participated at live event “Adapting Education During COVID-19 Pandemic: Instruments and Solutions” organised by Romanian Society of Medical Informatics; topic: “Young EFMI (yEFMI)- What About the Education and Professional Development of the Next Generations”, presented by Ivana Ognjanović, University of Donja Gorica, Montenegro

- yEFMI actively participated at 2nd EU-China Summit, by having presented e-poster and co-chairing session „AI in the Hospital of the future / Health and Wellness Technology“

- prepared and initiated surveys targeting three different groups:
  - All the Young Scientists in the field of Medical and Health Informatics across the Globe are invited to help EFMI to develop an innovative program to support the young scientists and professionals, by expressing their interests and expectations from yEFMI and completing the survey available at following link.
  - All the National Societies in the field of Medical and Health Informatics are invited to contribute to yEFMI activities and help in aligning joint activities involving young researchers and professionals. The survey is open for interested representatives of the national societies and available at following link.
Leaders and co-leaders of all Working Groups that are established within EFMI are invited to help in creating joint activities with yEFMI supporting active involvement of young generations in EFMI’s actions and the Working group activities, as well as in designing and implementing modern training and educational opportunities. The survey is open and available at following link.

Activity plan for 2021:

yEFMI plans intensive activities in 2021 aimed at spreading the network and increasing visibility, organisation of workshops presenting survey analysis and designed actions with National societies and other EFMI Working groups; as well as active support in organisation of international conferences and establishing links with other similar associations.

Recent Publications

Chair: Ivana Ognjanović, University of Donja Gorica, Montenegro

yEFMI WG (Working Group of Young professionals and scientist within EFMI) was founded in June 2020 with the aim to support young professionals and leaders in the field of medical and health informatics, addressing specific issues of education, research, and professional development. With the aim to enhance their future contributions in digital health community, yEFMI defines the following key objectives and strategic goals:

- To attract young MI/HI professionals to be actively involved in EFMI working groups;
- To exchange of experience in high quality research and promote potentials for gaining financial support for innovations;
- To promote exchange of standards and best practices, making balance between different regions and countries from the perspective of the potentials for education, research and innovation,
- To disseminate results and experiences across EFMI members.

Activities:
During 2021, all activities were focused on spreading visibility of yEFMI, attracting young MI/HI professionals, as well as active support to other EFMI activities, as follows:

- **MIE2021 social media promotion**: yEFMI representatives (Verena Dornauer, Rachelle Krajnc, Ivana Ognjanović) were granted a registration and acted as a key promoters of MIE2021 in social media during each conference day
- **Pre-conference event ICIMTH 2021**: Ivana Ognjanović participated as a panellist in the round table of discussions providing inputs and expertise regarding the current issues and future challenges of Biomedical and Health Informatics.
- **STC2021 panel** “Public Health Response in Southern Europe: What should be the role of EFMI?”, Mira Hercigonja-Szekeres, Ivana Ognjanović, Izet Mašić, Elena Petelos-Lacramiora Stoicu Tivadar
- **Distributed questionnaires previously reported in 2020-year report**:
  - survey targeting Young Scientists in the field of Medical and Health Informatics link;
  - survey targeting National Societies in the field of Medical and Health Informatics link;
- survey targeting leaders and co-leaders of all Working Groups that are established within EFMI link;
- collected data is currently being analysed and prepared for presentation/publication

- yEFMI promotion at social networks:
  - Recorded interviews with current and perspective yEFMI members awarded with MIE2021 Best Paper Award (Jenny Stritzel, PhD student; Research Associate at the Peter L. Reichertz Institute for Medical Informatics of TU Braunschweig and Hannover Medical School, Hannover, Germany), Best Student Award (Charalampia SOILEMEZI, MSc; Faculty of Nursing, School of Health Sciences, National and Kapodistrian University of Athens, Athens, Greece), Best Poster Reward (Cyril R. ZGRAGGEN, BSc student; Bern University of Applied Sciences, Bern, Switzerland; Sebastian B. Kunz, BSc student; Bern University of Applied Sciences, Bern, Switzerland; Kerstin Dencke, Professor; Bern University of Applied Sciences, Bern, Switzerland) – interviews are presented in EFMI Inside and promoted via social newtorks

- Cooperation with other association and national societies:
  - Initiated cooperation with IMIA young professional groups: on-line meeting with the following participants was scheduled; yEFMI representatives: Ivana Ognjanović, Paris Gallos, Romaric Marcilly, Arriel Benis; IMIA representatives: Elaine Huesing, Max Topaz, Laura-Maria Peltonen, Dari Alhwail, Luis Fernandez-Luque; but cancelled due to health issues
  - Prepared article about yEFMI for the Bulletin of the Croatian Society for Medical Informatics (Croatian Society for Medical Informatics)
  - yEFMI introduced to newly established Montenegrin Association for Medical Informatics (MAMI)
  - yEFMI co-chair is selected and his nomination is prepared for upcoming EFMI Council meeting:
    - Mr Felix Holl is a PhD candidate in medical informatics at the University of Munich and research associate at Neu-Ulm University of Applied Sciences in Germany. I have a background in Health Information Management & Global Health Sciences. As Co-Chair of yEFMI, he hopes to be able to support yEFMI chair in expanding the activities of the group and increase participation. He also hopes to link yEFMI with the AMIA student working group. He personally hopes to gain leadership experience in a professional organization and widen his network.

Activity plan for 2022:

yEFMI plans intensive activities in 2022 aimed at providing mentoring support to young MI&HI students and young professionals, all aimed on encouraging and supporting their career development and close links with EFMI WGs and other activities; active support in organisation of international conferences, establishing links with National societies and other similar associations.

Recent Publications
10 Appendix 4: Reports from Council Task Forces, Committees and Projects

10.1 Accreditation and Certification Committee (AC2)
The AC2 committee coordinates the EFMI initiative on accreditation of academic programmes in BMHI and the BMHI certification process for professionals in the field. In addition, a survey of existing programmes in European member states of EFMI has been developed in the last years establishing a database of the programmes. During the last year we were glad to inform the Council members of the positive conclusion on UMIT’s Master’s programme accreditation. The Committee is thankful to the site visit members, Lăcramioara Stoicu-Tivadar, Inge Madsen, and Arie Hasman. The programme director Elske Ammenwerth was commended for her excellent preparation. The official announcement of the accreditation was done at a special ceremony at MIE2021. This is a policy agreed by the Board and the Council.

Application for Accreditation for the Master’s programme of the University of Porto
The Chair informed of the next application by University of Porto. Due to Covid-19 pandemic the process will be implemented by virtual visit of the site visit members. The site visit members are: Alfred Winter (chair), Inge Madsen, Ivana Ognjanovic. The site visit is scheduled for July 29, 2022. The report will be submitted to AC2 Committee for approval. By the time of the site visit, the University of Porto has assigned the programme director Ricardo Correia as contact person, and they have provided on time all the required documentation including the self-assessment report.

Further potential applications
Additional Colleagues have expressed interest in applying on behalf of their Institutions academic programmes to initiate the EFMI Accreditation process. We have already received emails expressing their interest from Germany and Montenegro.

Continuation of Accreditation
The AC2 Committee suggests that the next candidates for Accreditation, as a first priority, should be programmes at the Academic Institutional Members. For that end, contacts with the respective reps will be done as soon as possible, with the assistance of the Board. A proper leaflet will be prepared for dissemination purposes.

Database updating and maintenance.
The AC2 Committee suggests the continuation of the validation of the contents of the database by the national representatives. Until now only a small percentage of the national associations have returned final verification of their programmes. Actions will be initiated during the next 3 months to inform national reps how to proceed with the verification.

The EFMI Board in recent decision has approved the financial support with 4000 Euros for keeping, updating, and maintaining both the database and the website of academic programmes for the next 2 years. Dr. Emmanouil Zoulias supports already this action on the system and for updating the data.

Certification
In the next weeks, the Certification process will be initiated by developing a standard curriculum based on a number of stages allowing the flexibility of certification implementation in
BMHI for different categories of professionals related to BMHI and required skills and competencies. The HosmartAI project requires implementation of the Certification process and EFMI will provide the required process.

- John Mantas (chair)
- Catherine Chronaki
- Arie Hasman
- Inge Madsen
- Anne Moen
- Kaija Saranto
- Lăcramioara Stoicu-Tivadar
- Alfred Winter

10.2 Fair4Health

Report prepared by:
Carlos Luis Parra-Calderón

The main objective of FAIR4Health was to facilitate and encourage the EU health research community to FAIRify, share and reuse their datasets derived from publicly funded research initiatives by demonstrating the potential impact such a strategy has on health outcomes and health and social research.

The FAIR4Health solution was validated with the two pioneering case studies based on FAIRified data through the PPDDM framework.

- Identification of multimorbidity patterns and correlation of polypharmacy on mortality risk in the elderly.
- Early prediction service of 30-day readmission risk in patients with chronic obstructive pulmonary disease (COPD).

The objective of these case studies was to test the tools developed in the project. The prototypes were developed, using federated machine learning methodologies and algorithms implemented on the FAIR4Health platform.

The FAIR4Health project results and achieved impact are listed below:

1. FAIRification Workflow (doi.org/10.1055/s-0040-1713684), to provide a conceptual blueprint for how sensitive, protected patient health information can be made available for medical research in a secure and compliant manner.
2. Open-source software published in the FAIR4Health GitHub repository (github.com/fair4health), under Apache 2.0 license. Data Curation and Data Privacy Tools, to technically implement the FAIRification Workflow, and FAIR4Health Platform and Privacy-Preserving Distributed Data Mining service, to support popular algorithms of machine learning for deriving new knowledge, allowing to train statistical/machine learning models using the FAIRified datasets of different health care/research data sources. FAIR4Health Common Data Model, to include the configuration files for onfhir.io FHIR repository.
3. FAIR4Health Open Community.
4. HL7 ‘FAIRness for FHIR’ project (confluence.hl7.org/pages/viewpage.action?pageId=91991234), to develop a new HL7 FHIR Implementation Guide called FHIR4FAIR (build.fhir.org/ig/HL7/fhir-for-fair).
5. RDA WG on Raising FAIRness in health data and HRPOs.

7. Working item proposal for Standardization Technical Committee 251 (CEN TC/251).


EFMI has played a relevant role as responsible for the dissemination activity of the advances and results of the project and connecting and encouraging the scientific community of health informatics to develop the application of FAIR principles in the European region.

The project ended at the end of November 2021.

Some of the most relevant dissemination actions in which EFMI has led or participated are the following:

- EFMI has led a workshop on applying FAIR principles to Health research data in MIE 2021 using the FHIR standard, in collaboration with other consortium partners, among them HL7 and with the Research Data Alliance (RDA).
- EFMI has participated in a paper for Medinfo 2021 following the Medinfo 2021 workshop, entitled "FAIRness for FHIR: Towards Making Health Datasets FAIR using HL7 FHIR" in collaboration with other consortium partners and the Research Data Alliance.

The complete Special Topic Conference 2021 is being organized by EFMI in collaboration with the Spanish Society of Health Informatics and the Institute of Biomedicine of Seville (Spain), whose topic is "Applying the FAIR principles to accelerate health research in Europe in the post-COVID19 Era", scheduled from November 22-24, 2021.

10.3 EU-China, EFMI-EUSEM

10.4 HOSMARTAI

Report prepared by:
Lăcrămioara Stoicu-Tivadar

Project Acronym: HosmartAI
Grant Agreement number: 101016834 (H2020-DT-2020-1 – Innovation Action)
Project Full Title: Hospital Smart development based on AI

EFMI is partner in the HosmartAI project. The project starts January 2021 for 41 months with 24 partners.

HosmartAI will create a common open Integration Platform with the necessary tools to facilitate and measure the benefits of integrating digital technologies (robotics and AI) in the healthcare system. A central hub will offer multi-faceted lasting functionalities (Marketplace, Co-creation space, Benchmarking) to healthcare stakeholders, combined with a collection of methods, tools and solutions to integrate and deploy AI-enabled solutions. The Benchmarking tool will promote the adoption in new settings, while enabling a meeting place for technology providers and
end-users. To ensure a user-centered approach, harmonization in the process (e.g. regarding ethical aspects, standardization, and robustness both from a technical and social and healthcare perspective), the living lab methodology will be employed.

EFMI contributes in HosmartAI for **Dissemination and communication activities**, to inform target groups about the project and engage the audience with the project’s outputs and results, in **developing training modules** based on the requirements and needs of the healthcare professionals regarding the employment of the new tools and methods delivered in the project, followed by **Accreditation and Certification activities**. EFMI will expand the **EFMI Medical Informatics multilingual thesaurus** to support the overall communication efficiently and effectively between different actors of the project.

During 2021 EFMI was involved in the activities related to development of the Thesaurus, starting from the EFMI MIMT initiative, and refining it for different languages (WP1), also activities related to investigating and recommend the needs for specific standards and legislation (WP6/T6.3). EFMI is involved in the dissemination, certification, and training activities that will take into action in the second part of the project (WP6/T6.4). In 2021, the EFMI Team had a first presentation of the HosmartAI activities during STC 2021, in a Satellite event, Nov 23, 2021 "Presenting HosmartAI H2020 project – EFMI Perspective and Contribution”.

In January 2022 the EFMI Team participated in the internal Review process of the Deliverable D1.7 and in June-July activated in the internal Review for the D6.4 deliverable.

In July 2022 started the work for WP6 Task 6.4 and during ICIMTH in Athens took place the first meeting of the team, initiating the process.

During MIE2022 the project activity and EFMI Team’s contribution were presented in 2 events: Rh 9-1 **Workshop**, Room: Rhodes 9-1 (Location: Acropolis, Number of seats: 120), Chair: Arriel Benis, Improving communication in digital health using EFMI Medical Informatics Multilingual Ontology (Arriel Benis, Mihaela Crisan-Vida, Stefan Darmoni, Lacramioara Stoicu-Tivadar) and **Meet EFMI Programs and Initiatives Luncheon** section European Projects and Policy, HosmartAI, Professor Lacramioara Stoicu-Tivadar, Past EFMI President.

### 10.5 European Open Science Cloud (EOSC)

*Report prepared by:*  
Carlos Luis Parra-Calderón

The European Commission's decision towards a Co-programmed European Partnership on EOSC required the incorporation of a new legal entity able to enter into a contractual arrangement / Memorandum of Understanding (MoU) with the European Commission: the EOSC Association.

The EOSC Association was established on 29 July 2020 as a not-for-profit international association (AISBL) in Belgium, involving research and innovation stakeholders across the EU and beyond.

EFMI has been a member in the observer category since the 1st Assembly in December 2020.

The EOSC Partnership is based on the Memorandum of Understanding (MoU), which has been officially signed by all parties in early September 2021.

EOSC Association has established 5 advisory groups including 13 Task Forces. The 5 advisory groups are as follows:

- Implementation of EOSC
- Metadata and Data Quality
- Research Careers and Curricula
- Sustaining EOSC
- Technical Challenges on EOSC

Carlos Luis Parra Calderón has actively participated in the Task Force "FAIR Metrics and Data Quality" during the foundational period.

**The EOSC Strategic Research and Innovation Agenda (SRIA)**

A very important issue is the contribution of the association to the development of the EOSC SRIA. The EOSC Strategic Research and Innovation Agenda (SRIA) was finalized and shared with the member base in February 2021. Its overall purpose is to define the general framework for future research, development and innovation activities in relation to EOSC.

This framework will be further developed in the context of the EOSC Partnership, drawing inputs from Association members and Task Forces. Version 1.0 is expected to be published soon in the European Commission’s bookstore.

**The Horizon Europe Co-Programmed EOSC Partnership**

The Horizon Europe Co-Programmed EOSC Partnership was officially launched on 23 June 2021.

- The European Commission (EC) envisages to dedicate up to EUR 490 million to actions within the scope of the Co-programmed European Partnership.
- Furthermore, EOSC-A envisages to dedicate up to EUR 500 million in kind for the period 2021-2030 in activities in the area of the Co-programmed European Partnership, engaging their constituents and affiliated entities in order to make such investments. These contributions will complement the EU contribution and will, at a minimum, match the EU contribution.

The 3rd General Assembly of the association was held on December 10.

The 4th General Assembly was held on May 24, where its updated work plan was approved. Members of the EFMI Community, especially its working groups, are relevant actors to contribute and identify opportunities for collaboration with EOSC-A task forces.
11 Appendix 5: Reports from the National Members

11.1 Austria (OCG AK-MI)

EFMI representative: Elske Ammenwerth


AK-MI represents the medical informatics community in Austria. Topics that are covered comprise electronic health records, eHealth, health information systems, telemonitoring and telehealth, information security and IT in medical research.

Chair of AK-MI is Dr. Günter Schreier (Austrian Institute of Technology), co-chair is Dr. Elske Ammenwerth (UMIT TIROL).

AK-MI is representing Austrian within EFMI and IMIA.

The main event of AK-MI is the annual dHealth-conference.

**dHealth 2022, 24. – 25.5.2022**

More than 300 participants met at Schloss Schönbrunn in Vienna for the first “live” dHealth conference since 2019. The conference program comprised keynotes, applied tracks as well as scientific tracks.


**dHealth 2021, 11. – 12. Mai 2021**

The special topic for dHealth 2021 was “Navigating healthcare through challenging times”. Due to the still ongoing COVID-19 pandemic at the time, dHealth 2021 was taking place online. Nonetheless, we have found the pandemic situation made the world of digital health more relevant than before. Experts, innovators and visionaries from the fields of ICT, healthcare and politics came together to discuss how we can further improve digital health.

dHealth 2020, 19. – 20.5.2022

Unfortunately, we had to cancel the physical event as a consequence of the Covid-19 crisis that had gained control of Austria and most other home countries of our international authors and visitors. Nevertheless, we decided to go ahead with publishing the proceedings. On the one hand side, to keep the momentum and to avoid an empty space in the rather long row of proceedings of this conference, which spans 14 years already. On the other hand, we think that this year’s special topic: “Biomedical Informatics for Health and Care” is also very timely. Proceedings are available online and open access: dHealth 2021 – Navigating Healthcare Through Challenging Times. https://ebooks.iospress.nl/ISBN/978-1-64368-084-2

dHealth pulse

In addition to the yearly dHealth conference, AK-MI is organizing the dHealth Pulse Series, a free online event series! Join the dHealth Pulses for free to hear presentations about current digital health topics and have a chance to discuss them with invited experts! Since 2020, six dHealth pulse events took place. https://dhealth.at/dhealth-pulse-series/

11.2 Croatia / Croatian Society for Medical Informatics (CroSMI)

Representative: Mira Hercigonja-Szekeres

11.2.1 Report 2020

The year 2020 was completely different from the previous ones. Since March 13, 2020, when the complete lock down started in all areas of activity due to Covid-19, and nine days later Zagreb and its surroundings were hit by a strong earthquake, we feel all consequences in personal, social, business, scientific, teaching, cultural, traffic, and I do not know in which more, parts of everyday life. And so, since then earthquakes have alternated with the rise and fall of the number infected in the Covid-19 pandemic, and sometimes even all bad news were at the same time. The second strong earthquake at the end of December, very close to Zagreb, was a very bad end to this complex year and a bad start of the new one.

After the shocks from these unpleasant events and the knowledge that the “new normal” will last for some time, the CroSMI Board initiated activities that could have been realized in indirect and / or online contacts.

CroSMI Board meetings have been held online. The CroSMI web pages have been redesigned and efforts have been made to regularly publish current content on members’ activities and curiosities related to biomedical and health informatics, in Croatia and abroad.

In the year 2020, both issues of CroSMI newsletter (its name is 'Bulletin') were published with good articles.

At the end of the year, two working groups were formed and started working:

SEKA - Working Group for Secondary Use of Biomedical and Health Data. Its initiators determined that its mission is to contribute to a better understanding and strengthening of the secondary use of biomedical and health data in Croatia.

ELVIS - Working group for evaluation and development of education in biomedical and health informatics and employment opportunities for experts in the Croatian health system. Its initiators determined that its mission is to evaluate and develop educational and employment opportunities in biomedical and health informatics in Croatia.
CroSMI continued to cooperate, as much was possible, with various institutions and societies related to the field of medicine, health, IT, etc.: Ministry of Health (Commission for developing a strategy of informatization of Health in Croatia), HL7 Croatia, Croatian Biomedical Engineering and Medical Physics Society, Croatian Biometric Society, Croatian Standards Institute (Technical Committee for Health Informatics), Academy of Medical Sciences of Croatia (E-health Committee).

11.2.2 Report 2021/2022

In the year 2021, many troubles from the previous year continued, primarily all of us, including CroSMI, had to face the COVID-19 pandemic every day in all aspects of everyday life: personal, social, business, scientific, teaching, cultural, traffic. An additional problem in Zagreb was un repaired buildings: public, institutional, private, and particularly additionally damaged in the earthquake at the very end of 2020. Namely, Zagreb is home to the majority of CroSMI members, so most of the activities take place there. The possibilities of face-to-face work were very, very limited, so the activities were mostly on a virtual platform or, as a bit better, mixed.

At the end of 2021 and in the first six months of 2022, the situation with the pandemic is improving. Activities were less on the virtual platform, and more were held face to face.

In 2021, CroSMI held two annual assemblies. The first in February, which was held instead of 2020, and the second, regular, in September.

At the first, among other things, it was decided that our biennial symposium, the 15th CroSMI Symposium, Medical Informatics 2021, will still be held in November 2021 in Rijeka.

The second annual assembly had to be held in September due to the expiration of the mandate of the previous leadership. The new/old president is still Dr. Marijan Erceg, PhD. At that assembly, the establishment of the CroSMI Working Group for Information and Cyber Security (IKS) was confirmed.

In the year 2021, both issues of CroSMI newsletter (its name is 'Bulletin') were published with good articles. In the first issue from 2021, three contributions should be highlighted: https://hdmi.hr/images/bilteni/2021/bilten_2021_%20br_1.pdf: “Declaration on eHealth - 1st Revision”, “Guidelines for the Advancement of Electronic Health Records” and “Interview with Professor Gjuro Deželić, Former President of the Yugoslav Association of Medical Informatics and EFMI Council member (1990-1992), Honorary President of the Croatian Society for Medical Informatics”.

In the second issue, https://hdmi.hr/images/bilteni/2021/bilten_2021_br_2.pdf: Professor John Mantas did the honor with the his article “Accreditation and Certification in Europe on Biomedical and Health Informatics as provided by EFMI”, and Ivana Ognjanović with her article: “yEFMI WG - Working Group of Young professionals and scientists within EFMI”.

At the beginning of 2022, the first issue of the CroSMI Bulletin for 2022 was published with very interesting contributions.

However, the most significant professional event in 2021 was the 15th CroSMI Symposium "Medical Informatics 2021" held in November 2021, unfortunately only virtually, and the main organizer was the Department of Medical Informatics, Faculty of Medicine in Rijeka. The main topic was very current: “Information systems in crisis situations - experiences of the COVID-19 pandemic”. Two more topics were relevant: “Education in biomedical and health informatics” and “Application and evaluation of new technologies in health care”. A key-note speech and two panels were also held. In total, more than 50 authors actively participated with 25 professional and scientific papers. The submissions, abstracts or in the whole were published in the Proceedings of the Symposium.

CroSMI members participated in several professional online workshops and panels organized or co-organized by CroSMI itself.
CroSMI continued to cooperate, as much was possible, with various institutions and societies related to the field of medicine, health, IT, etc.: Ministry of Health (Commission for developing a strategy of informatization of Health in Croatia), Croatian Standards Institute (Technical Committee for Health Informatics), Academy of Medical Sciences of Croatia (E-health Committee), HL7 Croatia, Croatian Biomedical Engineering and Medical Physics Society, Croatian Biometric Society.

11.3 Denmark / The Danish Society for Digital Health

Representative: Christian Nøhr

The Danish Society for Digital Health is a scientific organization which aims to develop and disseminate knowledge about the use, opportunities and limitations of digital technologies in dealing with health and disease of the population.

The society has an international outlook. This is pursued through cooperation with and representation in relevant international organizations and associations – EFMI, IMIA.

The society will work to create added value in the healthcare sector through digitalisation and reorganization, including contributing to the development and promotion of methods that bring added value.

The society will promote multidisciplinary science and practice based on health sciences, natural and engineering sciences, social sciences and the humanities. The purpose is to promote the digitalisation of health care tools and services in order to increase quality, productivity and efficiency or reduce costs and errors in treatment and care.

Activities in 2019

Annual Meeting

The annual meeting of the society is organized as a public professional meeting together with the general assembly for all members. In 2019 the meeting focused on how to support the data entry process to achieve a sufficient basis for applying modern health analytics methods.

The fundamental challenges in digitizing the healthcare sector lie partly in getting necessary data recorded to satisfy the various parties involved in the sector - clinicians, administrators, patients - but also researchers and health informaticians.

To meet all the requirements, data must be recorded in a structured way with some standardization. However, clinical activities with patient contact works to a greater extent through narratives with limited structure and very little standardization, which presents great challenges for clinicians when they need to update data in today's systems and perhaps even greater challenges when the relevant data is to be found again as basis for clinical decisions.

Many years of efforts to facilitate these processes have led us among technological solutions to facilitate the data entry process, but there is still some way to reach the level where we can reap the fruits of AI techniques such as data mining and deep learning. This is why this first annual meeting in The Danish Society for Digital Health sets spotlights on some of these fundamental challenges. It was an honour for he society to welcome Professor Peter Elkin, University of Buffalo, as the keynote speaker of the annual meeting.

Member meeting

How data sets the agenda for the patient doctor of the future contact?

With the rapid spread of health apps on smartphones, smartwatches and other wearables the population has access to more and more measurements of their health, both in relation to exercise, rest and sleep as well as diet. The many data can be difficult to understand for the individual user and the quality of the data may vary. This causes more people to visit the doctor with
concerns about, for example, fast or slow heart rate. These dilemmas were introduced by three
speakers and discussed by the members.

Members of the board:
President: Lars Kayser
Vice President: Christian Nøhr
Secretary: Finn Kensing
Treasurer: Gert Galster
Board: Louise Pape-Hauggaard, Per Loubjerg, Taric Osman Andersen, Thomas Schmidt, Astrid
Karnøe Knudsen, Klaus Phanarath.

Web site (in Danish only): https://www.dsds-dk.dk/

11.4 Finland/Finnish Social and Health Informatics Association (FinnSHIA)

Representative: Kristiina Häyrinen

The main objective of the Finnish Social and Health Informatics association is to maintain both
international and national links between actors of the social and health care informatics.
The activities of the association focus on international relations (IMIA, EFMI and HUSITA),
expanding the membership base and maintaining a web site and an e-mail list for information
dissemination.
The main event of the association is the annual national Social and Health Care Informatics
Research Days (SoTeTiTe-tutkimuspäivät).

FinnSHia has published the Finnish Journal of eHealth and eWelfare (www.finjehew.fi) since
2009. Finnish Journal of eHealth and eWelfare (FinJeHeW) is a scientific journal established
by the Finnish Social and Health Informatics Association (FinnSHIA) and the Finnish Society
of Telemedicine and eHealth (FSTeH).

Finnish Social and Health Informatics Association is also a Member Organization of IHE
International.
Members of the society actively participate in EFMI and IMIA working groups.

Board members 2019
Chairman: Dr. Kristiina Häyrinen, kristiina.hayrinen(at)gmail.com
Vice-chairman: Dr. Juha Mykkanen, juha.mykkanen(at)thl.fi
Secretary: Ms. Pirjo Hilama, pirjo.hilama(at)essote.fi
Information Officer: Dr. Ulla- Mari Kinnunen, ulla-mari.kinnunen(at)uef.fi
Treasurer: Mr Timo Ukkola, timo.ukkola(at)kuntaliitto.fi
Responsible for marketing: Dr. Laura-Maria Peltonen, laura-maria.peltonen(at)utu.fi
Dr. Alpo Värri, alpo.varri(at)tut.fi
Dr. Persephone Doupi, persephone.doupi(at)thl.fi
Ms. Sari Nissinen, sari.nissinen(at)ttl.fi

FinnSHIA web site: https://www.stty.org/in-english

11.5 France / Association française d’Informatique Médicale (AIM)
Representative: Brigitte Seroussi

11.5.1 Report 2020
Organization of scientific meetings in 2020:
- Angers, June 29th to July 3rd 2020: co-organization of a workshop “Artificial Intelligence and Health” within the framework of the Artificial Intelligence Platform, and in partnership with the French Association for Artificial Intelligence (AFIA) (https://ia-sante-2020.sciencesconf.org)

Participation to the works of scientific societies or National boards (work in progress)
- Member of the French “Strategic Council of Digital Tools for Healthcare”: co-leader of the Working group “Training and Teaching” with clinicians and AIM members. Elaboration of the French national curriculum in Biomedical Informatics for physicians, pharmacists, nurses, physiotherapists, etc.

Preparation of scientific meetings in 2021 (work in progress):
- Co-organization of the 4th symposium on “Big Data, AI and Medical Decision” (Rennes, December 9th 2021) with Elsevier: “Learning Health Systems and Reliable Health Decision Support Systems”

Involvement in the preparation of the IMIA YearBook of Medical Informatics in 2020 and 2021 (member of the editorial board)

11.5.2 Report 2021
Organization of scientific meetings in 2021:
- Bordeaux, June 29th 2021: co-organization of a virtual workshop “Artificial Intelligence and Health” within the framework of the Artificial Intelligence Platform, and in partnership with the French Association for Artificial Intelligence (AFIA) (http://pfia2021.fr/journees/sante/)
- Co-organization of the 4th symposium on “Big Data, AI and Medical Decision” (Rennes, December 9th 2021) with Elsevier and Dedalus: “Learning Health Systems and Reliable Health Decision Support Systems”. 130 people present, 170 people in distance learning, and 34 speakers (France, Germany and USA)
Involvement in the preparation of the IMIA YearBook of Medical Informatics in 2020 and 2021 (member of the editorial board)

Participation to the works of scientific societies or National boards (work in progress)

- Member of the French “Strategic Council of Digital Tools for Healthcare”: co-leader of the Working group “Training and Teaching” with clinicians and AIM members. Elaboration of the French national curriculum in Biomedical Informatics for physicians, pharmacists, nurses, physiotherapists, etc.

Preparation of scientific meetings in 2022 (work in progress):

- Support for the organization of MIE2022 in Nice from 27 to 30 May 2022, with Brigitté Séroussi who was the chair of the Scientific Program Committee (SPC): “Challenges of trustable AI and added-value on health”. It was attended by nearly 500 people. Many research works in medical informatics were submitted (430 submissions) from 43 countries with Germany (16.9%), France (13.5%) and the United States (7.8%) leading the submissions. The submissions were mainly scientific papers (70.4%).
- Saint Etienne, June 28th 2022: co-organization of a workshop “Artificial Intelligence and Health” within the framework of the Artificial Intelligence Platform, and in partnership with the French Association for Artificial Intelligence (AFIA) (https://ci.mines-stetienne.fr/pfia2022/journees/sante-ia/)
- Co-organization of the 5th symposium on “Care, Real Life Data and Territories; Contributing to strategic decision-making in health” (Bordeaux, December 2nd 2022) with Elsevier, and Dedalus

Members of the board:

- President: Pascal Staccini

11.6 Germany / German Association for Medical Informatics, Biometry and Epidemiology (GMDS)

Representative: Martin Staemmler

The German Association of Medical Informatics, Biometry and Epidemiology (GMDS, www.gmds.de) besides Medical Informatics encompasses the disciplines Medical Biometry, Epidemiology, Health Data Management and medical Bio-Informatics. Currently about 2.000 scientists and professionals are member of GMDS.

GMDS organizes two main conferences annually. In spring GMDS co-organizes a congress, academy and networking program as integral part of the industrial fare DMEA - Connecting Digital Health. However, due to the COVID-19 pandemic situation the DMEA in 2020 and 2021 had to virtual, thereby resulting in a limited program. Autumn is time for its scientific congress “GMDS-Jahrestagung”. In 2020 the Jahrestagung took place as a joint conference GMDS & CEN-IBS. It had the motto "Bringing Data to Life ". In 2021 and 2022 the scientific congress was held jointly with the TMF, in both cases as virtual conference with the motto "Digital Medicine – recognize, understand, heal". In 2021 it attracted more than 650 participants. A collection of presented paper has been published in IOS proceedings with open access. Video recordings of the keynotes and other talks are presented in the GMDS youtube channel at https://www.youtube.com/watch?v=CTKUiry9BrQ&list=PLKqpXo9n2005NeHWSdpQuqMDI7BOOfaE.

GMDS is platform for more than 50 working groups. Some of them organized additional congresses with more than 100 participants each.
The open access journal “GMS Medizinische Informatik, Biometrie und Epidemiologie” https://www.egms.de/dynamic/en/journals/mibe/index.htm are the official journals of GMDS. Activities in 2020 and 2021 include:

- advisory statements for government bodies regarding legal initiatives in digital health;
- awards and prices for young scientists;
- mentoring programs for young scientists seeking leadership positions;
- seminar for PhD students.

GMDS is governed by a board representing its disciplines Medical Informatics, Medical Biometry, Epidemiology, Health Data Management and Medical Bioinformatics. The board is currently chaired by Harald Binder; names of all board members can be found at https://gmds.de/ueber-uns/organisation/#c309.

11.7 Greece / Greek Biomedical and Health Informatics Association (GBHIA)

Representative: John Mantas

11.7.1 Report 2020

Greek Biomedical Informatics and Health Informatics Association aims to evolve and promote the scientific field of Health and Biomedical Informatics in Greece and abroad. GBHIA is a non-profit scientific association which specializes in research, training and documentation of Health Informatics in terminology, documentation and standardization.

The website of the association is: www.gbhia.com

Health Informatics is the scientific discipline concerned with the systematic processing of data, information and knowledge in health care.

The domain covers computational and informational aspects of processes and structures in health care. Its aim is to study all the applications of informatics and computer science in Health Sciences (Medicine, Nursing, Dentistry, Biology, and Pharmacy) and health care. Nowadays, GBHIA has over 130 members including scientists, professionals and students in the field of Health Informatics.

Recently, the Association has introduced the Fellowship Award to honor distinguished scientists who have contributed to the aims of the field and to the objectives of the GBHIA. The honorary fellows may bare the insignia FGBHI. George Demiris, Arie Hasman, Reinhold Haux, Rolf Engelbrecht, George Mihalas, and Patrick Weber are elected Fellows of GBHIA.

GBHIA organizes every year an International Scientific Conference in Informatics, Management and Technology in Healthcare (ICIMTH – www.icimth.com) with 200 participants from all over the world. Approximately, 30% of the participants are from Greece. ICIMTH conference proceedings are published by IOS Press and the papers are indexed in Medline/PubMed, Scopus.

The current 19th ICIMTH Conference will be as a Virtual Conference on 16-17 October 2021. However, at the usual July meeting (10 July 2021) we will organize a Pre-Conference open event with invited distinguished guests.

GBHIA supports the national reforms in the Healthcare domain and the IT strategies for primary healthcare, family doctors, national electronic health records and other actions. Many members of the society evolve with Health IT education on plenty Masters’ Degree programs which are conducted in Greece.
GBHIA is leading and supporting the SPC of MIE 2021 according to the EFMI Council decision.

11.7.2 Report 2021/2022

Recently, the Association has introduced the Fellowship Award to honor distinguished scientists who have contributed to the aims of the field and to the objectives of the GBHIA. The honorary fellows may bare the insignia FGBHI. Theo Arvanitis, George Demiris, Arie Hasman, Reinhold Haux, Rolf Engelbrecht, George Mihalas, and Patrick Weber are elected Fellows of the GBHIA.

GBHIA organizes every year an International Scientific Conference in Informatics, Management and Technology in Healthcare (ICIMTH – www.icimth.com) with 200 participants from all over the world. Approximately, 30% of the participants are from Greece. ICIMTH conference proceedings are published by IOS Press and the papers are indexed in Medline/PubMed, Scopus.

The current 20th ICIMTH Conference was held as a live face to face conference allowing also virtual presentations on 1-3 July 2022. The celebration of 20 years of the conference coincided with the maximum number of presentations and articles ever accepted and published in this series of Conference. We were very proud to have distinguished invited speakers in this conference, namely, Professor Reinhold Haux, Professor Sabine Koch, Professor Theo Arvanitis, Professor George Demiris, and the EFMI President-elect Professor Thomas Deserno.

Among the social cultural events, we mention the visit to the first Olympic Games stadium in Athens, to the old port of Piraeus, and attendance at the concert held at the Odeon Herod Atticus.

GBHIA supports the national reforms in the Healthcare domain and the IT strategies for primary healthcare, family doctors, national electronic health records and other actions. Many members of the society evolve with Health IT education on plenty Masters’ Degree programs which are conducted in Greece.

GBHIA has supported the SPC of MIE 2021 according to the EFMI Council decision and currently supports also the SPC of the EFMI STC 2022 to be held in Cardiff.

GBHIA is member of European consortia implementing European Commission research projects.

11.8 Israel / The Israeli Association for Medical Informatics (ILAMI)

Representative: Arriel Benis

The Israeli Association for Medical Informatics was established in 1984 as a nonprofit membership organization dedicated to promoting knowledge, excellence, and development and using of information systems in the health services in Israel.

The members of ILAMI come from a variety of organizations (Governmental, HMO’s, private and business’ organizations and academic institutions) and professional backgrounds (information systems specialists and managers, physicians, nurses, pharmacists and more). Being as such, the association provides an arena for a mutual information exchange and professional interaction at all levels of knowledge.

ILAMI represents Israel at the European Federation for Medical Informatics (EFMI) and the International Medical Informatics Association (IMIA).

ILAMI has two elected institutions: the association’s counsel, whose members are elected by the association’s members and the board of directors, whose members are elected from the counsel and by its members. The current association’s institution’s members come from a variety of professions and originate from various sections of health services, non-profit and for-
profit organizations and the academic world and being as such, represent the multi-dimensional character of ILAMI.

ILAMI is holding an annual conference, which provides its members an arena for presenting activities, ideas, and innovations on the one hand and exchange of knowledge and fruitful discussion on the other hand.

ILAMI is holding throughout the academic year a variety of one-day courses and tutorials on relevant issues in the realm of medical Informatics. These tutorials give ILAMI’s members the chance to be updated in new developments and recent innovations in their field of interest.

The vision of ILAMI is to be the main body dealing with initiation, consolidation, training and implementation of medical Informatics standards and regulations in Israel, through adopting and adapting accepted international standards in that realm.

ILAMI has organized its annual conference face-to-face on November 23, 2021 (after canceling the 2020 conference due to the COVID-19 pandemic) with a special topic focus entitled: “COVID-19 as an accelerator of digital health revolution”.

11.9 Italy / Italian Biomedical Informatics Society – Società Scientifica Italiana di Informatica Biomedica (SIBIM)

Representative: Lucia Sacchi

11.9.1 Report 2020

The Italian Biomedical Informatics Society was born in 2016, under the initiative of a group of Italian Medical Informatics academic researchers. It is aimed at promoting and coordinating scientific activities focused on Biomedical Informatics, both in Italy and abroad.

During 2020 General Assembly, SIBIM has elected its new board:

- Lucia Sacchi (President),
- Pierangelo Veltri (Vice President),
- Roberto Gatta (Secretary),
- Giorgio Leonardi (Treasurer),
- Alessio Bottrighi,
- Gabriella Balestra,
- Sara Marceglia,
- Silvana Quaglini,
- Vincenzo Della Mea.

Among the activities carried out during 2020, SIBIM has promoted 5 awards dedicated to PhD students and Master students, who could use the prize for registering to a set of Medical Informatics conferences.

In addition, a group of SIBIM members have contributed to the organization of the XXXIX Annual School of the Italian National Bioengineering group titled “AI-enabled healthcare: from decision support to autonomous robot”.

11.9.2 Report 2021 - June 2022

During the period January 2021 – June 2022 SIBIM held two general assemblies, on May 20th 2021 and on May 20th 2022, both carried out online.

On May 20th, 2021, in conjunction with the General Assembly, SIBIM organized a workshop on the activities the members carried out in response to the COVID-19 pandemic. The results
of a survey on the activities was presented by the President, and it was followed by 8 selected presentations by the members.

SIBIM was partner of pHealth 2021, which was held virtually 8-10 November 2021. The President of the society was involved in the welcome session on November 8th 2021.

On February 14th, 2022, SIBIM organized the Second Workshop of Process Mining, a hybrid event that took place at the University of Brescia and online. During the workshop, SIBIM members presented their activities on Process Mining and there was room for discussion on current and future collaboration. An invited talk was given by Carlos Fernandez Llatas (Universitat Politecnica de Valencia), one of the founders of the Process-Oriented Data Science in Healthcare (PODS4H) Alliance.

On May 20th, 2022, in conjunction with the General Assembly, SIBIM organized a workshop on the activities the members carried out on the topic of telemedicine.

During the EFMI Council meeting on May 26th 2022, SIBIM presented the bid for the organization of STC 2023 conference in Torino, Italy. The proposed topic for the conference is: telehealth ecosystems in practice. The bid was accepted, and the organizing committee is currently kicking-off its activities.

Current SIBIM board members:
- Lucia Sacchi (President)
- Pierangelo Veltri (Vice President)
- Roberto Gatta (Secretary)
- Giorgio Leonardi (Treasurer)
- Alessio Bottrighi
- Gabriella Balestra
- Sara Marceglia
- Silvana Quaglini
- Vincenzo Della Mea.

11.10 Portugal / e-mais - Movimento Associação dos Sistemas de Informação na Saúde

Representative: Ricardo Correia

11.10.1 Report 2020

The year 2020 was particularly difficult due to COVID19 pandemic. The members of e-mais are very active in the healthcare ecosystem and being so were called to help all types of institutions to react to COVID. The participation of e-mais board members was notorious in COVID projects in the ministry of health, several hospitals, and software companies. This led to less time to address e-mais needs and to adapt our initial plan for 2020 activities.

During 2020 we had none of our regular dinner events for the promotion of health informatics. Nevertheless, the board members were present in many on-line events that allowed the participation of e-mais in discussions and decisions related to the digital response to COVID19.

Currently, we have 103 members, 752 followers on Facebook, 220 followers on linked-in and 48 members in our slack group.

Regarding the participation at EFMI activities:
- Present of the Portuguese representative at the EFMI Council in April
- Present of the Portuguese representative at the EFMI Council in July
- Present of the Portuguese representative at the EFMI Council in November
• Presence at the “STC 2020: Integrated Citizen centered digital health and social care – Citizens as data producers and service co-creators, 24-25 November 2020” on a Workshop on Medical Informatics Education.
• Verification of the list of academic programs in Portugal started.

At the beginning of 2020 a previously existing Portuguese interest group on openEHR, was incorporated in e-mais. The activities of this group are now performed under e-mais association. Other groups like these are being identified to be asked to join in.

In 2021 there will be elections for the board of e-mais, and also a national scientific conference sponsored by e-mais is expected to occur in October 13-15. We are also aiming to resume normal activities of e-mais as the dining get-together events and the magazine on health informatics.

11.10.2 Report 2021/2022

The year 2021 followed up with some of the hurdles faced in the year 2020 due to the COVID19 pandemic. The healthcare professionals, health information system’s companies and the healthcare ecosystem as a whole were under major stress and paradigm shift. The members of the association and especially the board were still in high demand to help and provide support to several national and international initiatives to tackle the pandemic.

Moreover, the pandemic legal framework created some barriers regarding physical meetings, so during 2021 we had none of our regular dinner events for the promotion of health informatics. Nevertheless, the board members were present in many on-line events that allowed the participation of e-mais in discussions and decisions related to the digital response to COVID19.

Currently, we have 118 members, 727 followers on Facebook, 644 followers on LinkedIn and 48 members in our slack group. We are now choosing LinkedIn and email as our preferential method of communication, not only with our associates but society as well. This seems to be an adequate strategy supported by the ~300% increase in followers for our LinkedIn Page.

Regarding the participation at EFMI activities:
• Present of the Portuguese representative at the EFMI Council in May
• Followed up on the list of academic programs in Portugal from last year and the list was sent to EFMI for the educational website

In 2022, a new board was elected. The new board took possession in a ceremony in the Hospital of Aveiro, on April 22nd. This created the need to welcome and onboard new board members. Under the new board, scheduled meetings exist every 2 weeks to address the activities occurring under the e-mais association scope. From these activities, some should be highlighted like:
• Information security best practices shared with all the Portuguese hospitals' CIOs to tackle the wave of cyber-attacks occurring in the Portuguese hospitals.
• Online event with all the portuguese hospitals’ CIOs to share experiences and perspectives for cyber-security
• Analysis of the History of Healthcare Information System in Portugal.
• Analysis of the academic programs teaching BHMI in Portugal.
• Public comment on the new development and paradigm for the Portuguese PHR.

Additionally, a few collaboration protocols are being signed with other health-related institutions, namely:
• Chapter HL7 Portugal
• Portuguese Association for Telemedicine
• Health Cluster Portugal
Finally, we are also aiming to resume usual activities of e-mais like the dining gettogether events and the magazine on health informatics. In addition, we are starting the organization of a scientific conference to be occurring mid 2023.

11.11 Romania / Romanian Society of Medical Informatics

The Romanian Society of Medical Informatics organized on 14th of December 2020 the virtual event with a current topic: “Adapting education during COVID19 pandemic – instruments and solutions”.

Romanian experts in the field of Medical informatics education presented their experiences during an almost one year of on-line education. The specific titles included Education in the context of synchronous e-learning platforms: Microsoft Teams and Blackboard collaborate, Pre-recorded vs. Live Lecture in Teaching Biostatistics and Medical Informatics: Student’s Preferences. 2 PhD students, one with IT background and one with medical background gave insights related to their research connected with educatin: Multimodal interaction for training and education in IT and medicine, and Assessment of anatomy knowledge of undergraduate medical students using Wooclap. Invited colleagues from EFMI presented themes related to the support of communication in healthcare as A multilingual thesaurus for Medical Informatics as an educational tool (Arriel Benis), support of AC2 EFMI for accreditation degrees in biomedical education as European Accreditation for Master degrees in digital health (Lăcrămioara Stoicu-Tivadar), and the yEFMI WG activities as Young EFMI (yEFMI)- What About the Education and Professional Development of the Next Generations (Ivana Ognjanovic).

Members of RSMI had contributions to MIE2020: Continuous Monitoring and Statistical Modelling of Heart Rate Variability, Adina Nitulescu, Mihaela Crisan-Vida, Lacramioara Stoicu-Tivadar, Optimization of Entropy-Based Automated Dyslalia Screening Algorithm, Emilian Erman Mahmut, Dorin Berian, Michele Della Ventura, Vasile Stoicu Tivadar, Gesture Classification for a Hand Controller Device Using Neural Networks, Stelian Nicola, Oana Sorina Chirila and Lacramioara Stoicu-Tivadar and also to STC2020, Word-final phoneme segmentation using cross-correlation, Emilian Erman Mahmut, Stelian Nicola, Vasile Stoicu-Tivadar. For all EFMI endorsed conference RSMI acted as reviewers.

RSMI was invited with presentations in October 2020 to the BeHealth event organized by RO-HEALTH - HEALTH AND BIOECONOMY CLUSTER, https://international-brokerage-event-in-healthcare.b2match.io/page-2621.

RSMI members were invited and actively participated during Oct-Nov 2020 in the Updating of the national fields of intelligent specialization, Digital economy. RSMI members coordinated 2 panels: Sorana Bolboacă, RSMI President coordinated the e-Health panel and Lacramioara Stoicu-Tivadar coordinated the Healthy Aging panel. The results of the discussions are the basis for the future national projects.

During 2021-2022 RSMI had a strong activity of reorganization and update of its structure. RSMI adhered to EOSC and FEAM activities, and TEHDAS initiatives. RSMI members are active in EFMI, as members of the Board, Council, yEFMI and chairing WGs. The work in EFMI and other EU projects was presented in autumn 2021 at BeHealth 2021 brokerage event.
11.12 Spain / Sociedad Española de Informática de la Salud (SEIS)

Representative: Carlos Luis Parra-Calderón
President: Luciano Sáez Ayerra.

11.12.1 Report 2020

The Sociedad Española de Informática de la Salud SEIS (Spanish Society of Health Informatics) is a non-profit scientific society at the national level, made up of more than 500 professionals interested in the application of informatics to health and with the mission of promoting research, development, and innovation, implementation and good practice of ICTs in the field of health for the benefit of society and with full respect for the rights of individuals, in particular their privacy.

The Awards and the Data Protection Forum took place normally. The Infosalud 2020 Health Informatics National Conference began normally, although it had to be adapted to the circumstances of the Covid-19 crisis during its development.

From the beginning of the confinement, the activities have been affected by the pandemic. The Interoperability Forum, which had already changed its date, finally had to be held virtually. The National Conference on Innovation and Health in Andalusia had to be rescheduled twice and was finally held in hybrid format on September 21, 22, and 23, 2020.

The VI Edition of the Master has also adapted to the current circumstances, as face-to-face classes have been suspended.

The Meeting of the Technological Platform for Innovation in Health had been integrated into Infosalud as a section of that conference and had been decided as early as the program of activities the previous year.

Organization of scientific meetings in 2020:


Other regular activities:

- EFMI Membership.
- IMIA Membership.
- VI Master in IT Management for Health, 2019-2020 edition, in collaboration with the National School of Health.
- I+S Informatics and Health Journal, bimonthly.
- XXV National Awards of Informatics and Health, Venue: Main Hall of the School of Medicine of the Universidad Autónoma de Madrid. Date: January 23th, 2020.
- SEIS Index 2019. Set of 88 indicators of the impact of Information Technology on the National Health System (6-year time series), based on the annual survey reported by the Regions (https://seis.es/indice-2019/).
Organization of scientific meetings in 2021 (work in progress):


11.12.2 Report 2021

Organization of scientific meetings in 2021:


Other regular activities:

- EFMI Membership.
- IMIA Membership.
- VII Master in IT Management for Health, 2021-2022 edition, in collaboration with the National School of Health.
- I+S Informatics and Health Journal, bimonthly.
- SEIS Index 2020. Set of 92 indicators of the impact of Information Technology on the National Health System (7-year time series), based on the annual survey reported by the Regions (https://seis.es/indice-2020/).

11.12.3 Report 2022

Organization of scientific meetings in 2022:


Other regular activities:

- EFMI Membership.
- IMIA Membership.
- VIII Master in IT Management for Health, 2022-2023 edition, in collaboration with the National School of Health (Application period open).
- I+S Informatics and Health Journal, bimonthly.
• XXVII National Awards of Informatics and Health, Venue: Madrid. Date: March 1, 2022.
• SEIS Index 2021. Set of 95 indicators of the impact of Information Technology on the National Health System (8-year time series), based on the annual survey reported by the Regions (https://seis.es/indice-2021/).

11.13 Sweden / Swedish Association for Medical Informatics (SFMI)

Representative: Lina Nilsson (2022–)

11.13.1 Report 2020-2022

The Swedish Association for Medical Informatics (SFMI) is an independent organisation for Medical Informatics. SFMI encourages increased knowledge and interdisciplinary as well as interprofessional networking through education, academic meetings, member meetings and distribution of information. SFMI assists the Swedish Society of Medicine with advice, participates in public debate and is a consultative body for informatics. SFMI welcomes those interested in informatics working within or towards the health care sector. SFMI is open for all professions. The association is part of the Swedish Society of Medicine (SLS), the European Federation for Medical Informatics (EFMI) och International Medical Informatics Association (IMIA).

Conferences & webinars

From 2020 through 2022 (June), SFMI participated in preparations for and co-arranging conferences. For instance, SFMI co-arranged a digital eHealth Day with the eHealth Committee of the Swedish Society of Medicine (April 2021). The theme of the day was digital healthcare meetings. SFMI participated in preparing the program for Vitalis conference in 2021 (May) and 2022 (May). Both years, the Vitalis conference was held as a hybrid conference. In 2021, SFMI’s members could register for free at the Vitalis conference, as SFMI procured a group ticket for all members. In 2022, board members of SFMI participated in the conference programme and the exhibition. In November 2021, SFMI organised the 25th ‘Days on Laws’ conference. The conference was conducted as a hybrid event due to the pandemic. The ‘Days on Laws’ meeting attracted many participants, including lecturers and organisers.

Also, SFMI hosted several webinars from 2020 through 2022 (June). At the webinars, invited lecturers focused on, i.e., the National Medication list, the shareability of data for a more integrative focus, the final report from Vinnova’s SWElife project, terminology, standardisation and structuring of documentation.

Collaborations and hostess

In collaboration with the eHealth Committee (the Swedish Society of Medicine), SFMI primarily works with a diploma/certification for physicians and other healthcare professionals, and in the long term, an additional medical speciality with the working title Clinical Informatics. During the annual meeting 2022, Professor John Mantas from EFMI talked about the certification program from EFMI.

SFMI participated in the Swedish Society of Medicine’s Committee for Medical Language.

SFMI is a Swedish Institute for Standards (SIS) member and has been represented in standardisation work in SIS, CEN and ISO.

SFMI hosts the Swedish openEHR administration. The administration's work has been focusing on developing processes and guidelines, translating archetypes into Swedish, supporting international review of archetypes, creating relevant implementation guides, developing archetypes for precisely Swedish phenomena, and spreading word knowledge about openEHR.
Members of the Board

- President: Anna Rossander (2022-)
- Vice president: Claudia Ehrentraut
- Secretary: Lars Lindsköld
- Treasurer: Göran Karlström
- Members: Anders Thurin, Helen Broberg, Mikael Nyström, Madeleine Blusi, and Lina Nilsson
- SFMI’s website (in Swedish): www.sfmi.se

11.14 Switzerland / Swiss Society for Medical Informatics (SGMI)

Representative: Christian Lovis

Activities of SGMI

- The usual annual conferences have been cancelled or virtualized, the latter with a good attendance. Annual congress 2020 was skipped, 2021 only a remote congress (with about 300 online participants) was performed.
- Since about 10 years, the major annual event of SGMI was a joined event with HIMSS. Publications. The submissions to the scientific journal of SGMI has massively decreased over years. This journal is not indexed in PubMed, which could explain this situation. However, it is interesting to consider that the volume of papers indexed in PubMed from Switzerland seems to have a decreasing trend overall.
- MENTOR recommendations by SGMI were launched, the first recommendation focusing on proximity tracing, the second on nationwide electronic patient record (prior to parliamentary discussions on how and if to proceed with the national EPR)

Collaboration with HIMSS Europe

- After several very successful events, the collaboration agreement has been stopped in 2022 as HIMSS has decided to stop supporting national and/or local events in Europe.

National elements worth noting to medical informatics

- Since 2022, the Swiss government has started to limit the number of physicians who can bill to the national health Social Security system. The application of the federal landscape will be dependent of their implementation in each of the 26 cantons. There are many constraints, such as needs, market, costs, etc., but an important point is that it is getting mandatory to be part of the National Shared Patient Record to get the authorization to have a billable private activity, which is now enforced for example in Geneva starting September 2022.
- The president of SGMI (Dr Marc Oertle) has been invited to be member of the advisory board of Mr Bercet, Swiss Minister Affair of Internal Affairs for the digital transformation health in Switzerland.

11.15 The Czech Republic / Czech Society for Biomedical Engineering and Medical Informatics (CSBMEMI)

Representative: Lenka Lhotska

11.15.1 Report 2020

The Czech Society for Biomedical Engineering and Medical Informatics is a non-profit scientific and educational organization in the field of medical, clinical and biological engineering
and medical informatics. It joins together physicians, biomedical engineers, medical and health care informaticians and other professionals from related areas. The Society aims at encouraging research and the application of knowledge, and to disseminate information both to professionals and general public, and promote collaboration.

The Society’s main aims are to:

- Foster interdisciplinary research activities comprising medicine/biology and engineering sciences and informatics (both in basic and applied research)
- Provide platform for joint activities of the Society members, inform about latest development and events in the field
- Support organization of conferences and workshops
- Actively participate in negotiations on legislative issues on the ministerial level in favour of the Society members and research and educational institutions working in the area of biomedical engineering and medical informatics
- Develop job profiles for biomedical engineers
- Develop guidelines for under- and postgraduate education and lifelong learning in biomedical engineering and medical informatics
- Support and develop publishing activities – the Society has its own journal “Physician and technician” and closely cooperates with the official EFMI journal “European Journal for Biomedical Informatics”

Since 2014 Jana Zvarova and Lenka Lhotska have been members of the Working Group of the Czech Medical Society for preparation of the eHealth strategy in the Czech Republic. After designing the concept and basic principles, the documents were handed over to the Ministry of Health of the Czech Republic. When the Ministry developed a detailed strategy, the WG members were asked to perform a critical review of the strategy. Finally, the strategy was adopted by the government. However, activity of the Working Group of the Czech Medical Society continues and its main focus is on critical review of documents connected with the eHealth that are being prepared by the Ministry of Health of the Czech Republic and its institutions. After Jana Zvarova passed away, Michal Huptych (Czech Technical University in Prague, Czech Institute of Informatics, Robotics and Cybernetics) took over and continues her work together with Lenka Lhotska. In 2019, the new law on electronic health was prepared by the Ministry and reviewed by the professional medical societies, including the Czech Society for Biomedical Engineering and Medical Informatics.

Events

pHealth 2020. Several Society members are members of the organizing committee of the planned conference. Lenka Lhotska is Chair of the organizing committee.

Cooperation

CSBMEMI actively cooperates with various institutions and societies related to field of medicine, health, IT, education, etc.:

- Ministry of Health of the Czech Republic
- HL7 Czech Republic
- Czech Technical University in Prague
- Charles University in Prague and University Hospitals
- Czech Academy of Sciences

11.15.2 Report 1.1.2021 – 30.6.2022

Main national activities were focused on activities related to introduction of the eHealth strategy in the Czech Republic into health care practice. The law on electronic health was adopted in 2021 and its introduction started in January 2022. Its full implementation is scheduled for 2026. Two Society members Lenka Lhotska and Michal Huptych are active members of the Working
Group of the Czech Medical Society. This working group continues its critical revision of documents and work of the Ministry of Health of the Czech Republic and its subordinate organizations. Recently, the Society and the Working Group were the main driving forces in implementation of telemedicine into regular health care practice and its recognition for reimbursement by the health insurance companies. Three Society members Lenka Lhotska, Michal Huptych and Lenka Vyslouzilova are participating in the community initiative and platform hSOC (Hospital Security Operation Center) that is focused on the cyber security of data, communication and information systems in hospitals and health care institutions. Many Society members participate actively in introduction of the MDR into practice. They also introduced this topic in undergraduate education in biomedical engineering and biomedical informatics.

Events

*pHealth* 2021. Several Society members were co-authors of contributions at the conference. Lenka Lhotska was SPC member.

Cooperation

CSBMEMI actively cooperates with various institutions and societies related to field of medicine, health, IT, education, etc.:

- Ministry of Health of the Czech Republic
- HL7 Czech Republic
- Czech Technical University in Prague
- Charles University in Prague and University Hospitals
- Technical University Ostrava
- Czech Academy of Sciences

11.16 The Russian Federation / National Association of Medical Informatics (NAMI)

*Representative: Michael Shifrin*

11.17 The United Kingdom / British Computer Society (BCS)

*Representative: Philip Scott*

11.17.1 Report 2020

*Introduction*

The BCS strongly supports EFMI, with leadership from the Health & Care Executive and BCS staff. This report covers relevant areas of BCS activity in 2020.

*BCS Health & Care leadership team*

The BCS Health & Care Executive created a new role for a Vice-Chair for Social Care, to lead on integration with health and other services. We also invited informal representation from the NHS CIO community and Health Data Research UK (HDR UK: [https://www.hdruk.ac.uk/](https://www.hdruk.ac.uk/)). The Exec members are listed at [https://www.bcs.org/membership/member-communities/bcs-health-and-care-specialist-group/meet-the-team/](https://www.bcs.org/membership/member-communities/bcs-health-and-care-specialist-group/meet-the-team/).

*Conference and webinar activities*

Under pandemic conditions, all events have obviously had to be virtual. The principal events were with Digital Health Media. BCS contributed to their Digital Health Rewired trade show and continued to run regular Journal Club webinars based around selected papers from *BMJ Health & Care Informatics* (the official journal of BCS Health & Care).
Dr Philip Scott served on the Scientific Programme Committee for MIE 2020 and STC 2020, and on the EFMI reviewer task force.

The BCS nursing informatics group made a successful bid to host the IMIA Nursing Informatics conference in 2024.

**Collaborations**

BCS works collaboratively with other bodies within the Federation for Informatics Professions (https://www.fedip.org/), which maintains a public register of suitably qualified health informatics practitioners. The other member bodies are the Faculty of Clinical Informatics (FCI, restricted to clinically registered professionals), CILIP (the society for library professionals), the Institute of Health Records and Information Management, and SOCITM (the local authority IT leaders’ group).

BCS is hosting the UK chapter of College of Healthcare Information Management Executives (CHIME), and promoting adoption of the Certified Health CIO (CHCIO) exam. See https://www.bcs.org/membership/member-communities/chime-international-uk-chapter/.

BCS also has close working relationships with HL7 UK and the Professional Record Standards Body for health and social care (PRSB: https://theprsb.org/).

In 2020, we formed a joint working group with FCI on computable biomedical knowledge. This is linked with the international initiative led by the University of Michigan: https://mobilizeck.med.umich.edu/.

**Projects**

During 2020, we initiated projects on continuing professional development (CPD), digital maturity and health data science. The CPD project aims to determine what BCS should offer and to co-design it with our membership and aspiring members. The digital maturity project will develop simplified guidance on validated instruments to assess outcomes of digital technology, not merely what technology is in place as measured in typical industry frameworks. The health data science initiative is aiming to bring together the UK health data analytics community and wider IT expertise to support not just pandemic data requirements but to help to promote the management of NHS and social care as information-driven services.

11.17.2 Report 2021-22

**BCS Health & Care leadership team**

The BCS Health & Care Executive created a new role for a Equality & Diversity Lead, as we wish to make our leadership more diverse and bring in fresh thinking.

**Conference and webinar activities**

As pandemic restrictions have receded we have begun to hold in-person events, though webinars are more frequent. The principal in-person events were the BCS Primary Health Care Specialist Group conference and the Digital Health Media “Rewired” trade show. We continued to run regular Journal Club webinars based around selected papers from BMJ Health & Care Informatics (the official journal of BCS Health & Care). In 2021 we organized a series of three webinars specifically planned as accredited Continuing Professional Development (CPD). The topics were artificial intelligence in healthcare, symptom checker apps and an introduction to project management. We also ran a webinar series on business process modelling.

Dr Philip Scott has chaired the Scientific Programme Committee for STC 2022.

**Collaborations**

We work closely with the Federation of Informatics Professions (FEDIP) which includes related bodies such as the Association of Professional Healthcare Analysts, the Faculty of Clinical
Informatics and the Chartered Institute of Library and Information Professionals. FEDIP maintains a public register of suitably qualified health informatics practitioners.

We have a joint working group with FCI on computable biomedical knowledge. This is linked with the international initiative led by the University of Michigan: https://mobilizecbk.med.umich.edu/. BCS commissioned a White Paper to improve awareness and understanding of computable knowledge in healthcare decision support and this received significant media coverage: https://www.bcs.org/policy-and-influence/health-and-care/building-a-clinical-satnav-for-practitioners-and-patients/

Projects
We continued our work on developing CPD materials, in collaboration with FEDIP. Our digital maturity project has continued to advance discussions about what to measure and how to measure it when considering not merely what technology is in place but what difference it is making to healthcare. We are also working on a White Paper about social care informatics to raise the profile of this specialist field.

11.18 Ukraine / Ukrainian Association for "Computer Medicine" (UACM)

Representative: Oleg Yu. Mayorov

11.18.1 Report 2020
Detailed information is on the UACM website (http://uacm.kharkov.ua/eng/).

UACM members participate in the creation of eHealth in Ukraine and implementing the Hospital Information Systems created by them, diagnostic equipment (hardware and software complexes qEEG, ECG, HRV, REG), telemedicine equipment and technologies.

UAKM publishes the scientific journal “Clinical Informatics and Telemedicine” (ISSN 1812-7231). Well-known scientists from different countries participate in the editorial board of the journal.

Organization of scientific meetings in 2019:

Scientific-practical conference with international participation "Information technologies and systems in medicine" (ISM-2019) 28 - 29 November 2019, Kharkiv, Ukraine

Organization of scientific meetings in 2020:
Conference "Topical Issues of Transformation of Municipal Health Care Facilities into Public Utilities" February 22, 2020, Kyiv, Ukraine

All-Ukrainian scientific and methodological video conference with international participation “Actual issues of distance education and telemedicine 2020” 22-23 April, 2020, Zaporizhia, Kharkiv, Kyiv, Ukraine

Participation to the works of scientific societies or established bodies:
- Membership of EFMI
• Membership of the International Medical Informatics Association (IMIA)
• Membership of the European Association of Healthcare IT Managers (HITM)
• Membership of the Coordination Council for Health Informatization of the Ministry of Health of Ukraine.
• Collaboration with the WHO Digital Health Division

11.18.2 Report 2021/2022

Organization of scientific meetings in 2021-2022:

Conference "XII International Medical Forum "Medicine Innovations – the Nation's Health" 25 - 27 May 2021, Kyiv, Ukraine

Scientific-practical videoconference with international participation "Medical and psychological aspects rehabilitation and abilitation in turbulent conditions", October 21, 2021, Konstantinivka

Organization of scientific meetings in 2022:

XIII International Medical Forum "Medicine Innovations – the Nation's Health"
May 17 – 19, 2022, Kyiv, Ukraine

XVII Scientific and practical videoconference with international participation "Actual problems of clinical and technological medicine”. November 11, 2022, Kostantynivka, Ukraine

V-International Scientific and Practical Videoconference "Information Systems and Technologies in Medicine". November 24 - 25, 2022, Kharkiv, Ukraine

Participation to the works of scientific societies or established bodies:

• Membership of EFMI
• Membership of the International Medical Informatics Association (IMIA)
• Membership of the European Association of Healthcare IT Managers (HITM)
• Membership of the Coordination Council for Health Informatization of the Ministry of Health of Ukraine.
• Collaboration with the WHO Digital Health Division
12 Appendix 6: Congresses and Publications

EFMI organizes two main series of conferences: the Special Topic Conferences (EFMI-STC) and Medical Informatics Europe (EFMI-MIE). In conjunction or independent of the main congress series, working groups in addition organize topic specific workshops, tutorials and seminars.

12.1 Medical Informatics Europe Conferences (MIE)

So far, 29 MIE congresses (Medical Informatics Europe) have been organized by the national members and EFMI with up to more than 1000 participants each. The concept includes peer-reviewed presentations according to the type of paper as oral or poster presentation. Workshops and tutorials prepared or supported by EFMI working groups are an essential part of EFMI MIE conferences.

- MIE 2022 - Nice, France
- MIE 2021 - Athens, Greece: Due to the world pandemic of coronavirus SARS-CoV-2 (covid-19) the conference could only be held online.
- MIE 2020 - Geneva, Switzerland: Due to the world pandemic of coronavirus SARS-CoV-2 (covid-19) the planned conference has been cancelled. The proceedings have been published as planned.
- MIE 2018 - Gothenburg, Sweden (together with VITALIS 2018)
- MIE 2017 - Manchester, UK (part of Informatics for Health 2017)
- MIE 2016 - Munich, Germany (part of HEC 2016)
- MIE 2015 - Madrid, Spain
- MIE 2014 - Istanbul, Turkey
- MIE 2012 - Pisa, Italy
- MIE 2011 - Oslo, Norway
- MIE 2009 - Sarajevo, Bosnia-Herzegovina
- MIE 2008 - Gothenburg, Sweden
- MIE 2006 - Maastricht, Netherlands
- MIE 2005 - Geneva, Switzerland
- MIE 2003 - Sant Malo, France
- MIE 2002 - Budapest, Hungary
- MIE 2000 - Hanover, Germany
- MIE 1999 - Ljubljana, Slovenia
- MIE 1997 - Thessalonica, Greece
- MIE 1996 - Copenhagen, Denmark
- MIE 1994 - Lisbon, Portugal
- MIE 1993 - Jerusalem, Israel
- MIE 1991 - Vienna, Austria
- MIE 1990 - Glasgow, Scotland
- MIE 1988 - Oslo, Norway
- MIE 1987 - Roma, Italy
- MIE 1985 - Helsinki, Finland
- MIE 1984 - Brussels, Belgium
- MIE 1982 - Dublin, Ireland
- MIE 1981 - Toulouse, France
- MIE 1979 - Berlin, Germany
- MIE 1978 - Cambridge, UK
12.2 Special Topic Conferences (STC)

STCs are conferences, specialized in current topics. Special Topic Conferences follow a successful concept including the following components:

- Organization by a member society (often in combination with its annual meeting)
- Topic defined to the needs of the member society
- Relevant EFMI Working groups are engaged for the content
- Contributions mostly on invitation
- Small 2-day conference with 100+ participants

So far, 20 STC congresses have been organized by our member societies:

- STC 2021 - Seville, Spain: Due to the world pandemic of coronavirus SARS-CoV-2 (covid-19) the conference could only be held online.
- STC 2020 - Kuopio, Finland: Due to the world pandemic of coronavirus SARS-CoV-2 (covid-19) the conference could only be held online.
- STC 2019 – Hanover, Germany
- STC 2018 – Zagreb, Croatia
- STC 2017 – Tel Aviv, Israel
- STC 2016 – Paris, France
- STC 2014 – Budapest, Hungary
- STC 2013 – Prague, Czech republic
- STC 2012 - Moscow, Russia
- STC 2011 - Lasko, Slovenia
- STC 2010 - Reykjavik, Iceland
- STC 2009 - Antalya
- STC 2008 - London, UK
- STC 2007 - Brijuni Island, Croatia
- STC 2006 - Timisoara, Romania
- STC 2005 - Athens, Greece
- STC 2004 - Munich, Germany
- STC 2003 - Rome, Italy
- STC 2002 - Nicosia, Cyprus
- STC 2001 - Bucharest, Romania

12.3 Publication

*IOS Press series “Health Technology and Informatics”*

Publication of the conference proceedings of the EFMI conference series was done in close cooperation with IOS Press in its Medline indexed series “Health Technology and Informatics” in the last years. Selected papers from the EFMI conferences were also published in Methods of Information in Medicine. The proceedings are for open access.

*European Journal for Biomedical Informatics*

The European Journal for Biomedical Informatics endorsement has been terminated (April 2020).

*International Journal of Medical Informatics*

International Journal of Medical Informatics provides an international medium for dissemination of original results and interpretative reviews concerning the field of medical informatics. The Journal emphasizes the evaluation of systems in healthcare settings.
The scope of journal covers: 1) Information systems, including national or international registration systems, hospital information systems, departmental and/or physician's office systems, document handling systems, electronic medical record systems, standardization, systems integration etc.; 2) Computer-aided medical decision support systems using heuristic, algorithmic and/or statistical methods as exemplified in decision theory, protocol development, artificial intelligence, etc. 3) Educational computer based programs pertaining to medical informatics or medicine in general; and 4) Organizational, economic, social, clinical impact, ethical and cost-benefit aspects of IT applications in health care. More information can be found at: http://www.ijmijournal.com/

Methods of Information in Medicine
Good medicine and good healthcare demand good information.
Since the journal’s founding in 1962, Methods of Information in Medicine has stressed the methodology and scientific fundamentals of organizing, representing and analyzing data, information and knowledge in biomedicine and health care. Covering publications in the fields of biomedical and health informatics, medical biometry, and epidemiology, the journal publishes original papers, reviews, reports, opinion papers, editorials, and letters to the editor. From time to time, the journal publishes articles on particular focus themes as part of a journal’s issue. More information can be found at: https://www.thieme-connect.com/products/ejournals/journal/10.1055/s-00035037.

Acta Informatica Medica
Acta Informatica Medica (Acta Inform Med) is a peer-reviewed, open access journal publishing original articles, professional articles, reviews, viewpoints, and case studies, covering issues in Medical and Health informatics.
The journal is the official organ of the Society for Medical Informatics of Bosnia and Herzegovina, European Federation for Medical Informatics (EFMI) and published by the Academy of Medical Sciences of Bosnia and Herzegovina. Issues are published quarterly in March, June, September, and December.
Specific scope of interests of the journal relates to System and System analysis, Medical documentation, Electronic health records, Clinical decision-making, Artificial intelligence, Expert systems, Science editing, E-learning in medicine, On-line biomedical databases, Information and Communication technologies, Health information systems.
More information can be found at: http://www.actainformmed.org/

ACI – Applied Clinical Informatics
ACI as an Official eJournal of EFMI, AMIA, and IMIA, publishes approximately 100 peer-reviewed articles per year. It aims to establish a platform that allows sharing of knowledge between clinical medicine and health IT specialists as well as bridging gaps between visionary design and successful and pragmatic deployment.
The core editorial subject matters of ACI are: clinical information systems (including electronic medical records and systems, personal health records, physician/provider order entry, electronic prescribing, clinical decision support, nursing information systems, patient scheduling and tracking tools, lab information systems, radiology information systems, PACS, GP information systems), administrative and management systems, eHealth systems, mobile health and quantified self-applications, information technology development, deployment, and evaluation, socio-technical aspects of information technology and health IT training, accreditation, and certification. More information can be found at: https://www.thieme.com/books-main/clinical-informatics/product/4433-aci-applied-clinical-informatics.
13 Appendix 7 Awards

13.1 Peter L Reichertz Young Scientist Prize
Peter L Reichertz Young Scientist Prize is awarded to a
- Young scientist (<35 years);
- First author of an MIE-paper,
- Excellent presentation.
- There should not be an EFMI- council member as co-author of the paper.
The winner receives a check of 1,000€. Peter L. Reichertz Young Scientist Prize is funded by EFMI.
In 2021, Charalampia Soilemezi (Greece) and her co-authors won the price for the paper “A Smartphone App for Bedside Recording of Nursing Handovers in Haemodialysis Units” (pubmed-id 34042660).
In 2022, Diego Rabinovich (Argentina) and his co-authors won the price for the paper “User satisfaction with an AI system for chest x-ray analysis implemented in a hospital’s emergency setting” (pubmed-id 35612006).

13.2 Rolf Hansen Memorial Award
Rolf Hansen Memorial Award will be awarded for
- Outstanding paper discussing innovative aspects of clinical information systems, preferably the Electronic Health Record or other tools or resources to support clinical work / delivery of health care, actively acknowledging the end-user, i.e. Health Providers;
- First author should have a health professional degree, e.g., MD, RN;
- Excellent presentation.
The winner receives a check of 1,000 €. The Rolf Hansen Memorial Prize is administered by EFMI.
In 2021, Jenny Stritzel (Germany) and her co-authors won the price for the paper “Image Processing of Conventional Computer Tomography Images for Segmentation of the Human Cochlea” (pubmed-id 34042708).
In 2022, Jan-Oliver Kutza (Germany) and his co-authors won the price for the paper “Patient Safety Informatics: Criteria Development for Assessing the Maturity of Digital Patient Safety in Hospitals” (pubmed-id 35612236).

13.3 Best Poster Award
Best Poster Award will be awarded for
- Promising project, concluded or work in progress;
- Aligning with the chosen topic of the actual conference ;
- The chosen poster employs the variety of features and modalities available for a poster.
The winner receives a check, decided by the actual conference LOC and SPC.
In 2021, Cyril R. Zgraggen (Switzerland) and his co-authors won the price for the paper “Crowdsourcing for Creating a Dataset for Training a Medication Chatbot”.
In 2022, M Pierre-Jean (France) and her co-authors won the price for the paper “Phenotyping of Heart Failure with preserved ejection faction using health electronic records and echocardiography”.

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13.4 Mantas’ Prize for Best Paper on Education in Biomedical and Health Informatics

The Mantas’ Prize for Best Paper on Education in Biomedical and Health Informatics will be awarded for one paper meeting the following criteria

- Outstanding paper about Education in Biomedical and Health Informatics.
- The paper may discuss curriculum development, program and course implementation and evaluation, guidelines and accreditation processes, courseware and software development in education, continuing education of healthcare professionals of all disciplines and levels, distance learning, and even patients/citizens empowerment and increased digital health literacy through education.
- Excellent presentation

The winner receives a check of 500€

Mantas’ Prize for Best Paper on Education in Biomedical and Health Informatics is funded by the Mantas Foundation through the national Greek Biomedical Informatics and Health Informatics Association (GBHI) and administered by EFMI.

In 2021, Heini Utunen (Switzerland) and his co-authors won the price for the paper “Global Reach of an Online COVID-19 Course in Multiple Languages on OpenWHO in the First Quarter of 2020: Analysis of Platform Use Data” (pubmed-id 32293580).

In 2022, Daniel Kalthoff (Germany) and his co-authors won the price for the paper “‘ai4health’ - Development and Conception of a Learning Programme in Higher and Continuing Education on the Fundamentals, Applications and Perspectives of AI in Healthcare” (pubmed-id 35612204).