

# End-of-term message from the IFToMM President

Dear IFToMMists, individuals, and officers of IFToMM bodies,

this is my greeting you at the end of my service as IFToMM president during the term 2016–2019, with a message summarizing the activity of the term as well as results and open challenges in my leadership position as outlined already in the president’s report at the IFToMM General Assembly 2019 in Krakow during the IFToMM World Congress [1].

I thank you for the honor you gave me in serving IFToMM as president, and I hope I have fulfilled your expectations. Any mistake, misunderstanding, or lack of attention is my fault, for which I beg your pardon, although in cooperation with the whole Executive Council (EC) I have tried to address any problems (Fig. 1).



**Fig.1** The members of IFToMM Executive Council of the term 2016-2019. Top row (left to right): President, Vice President (resigned on 9 June 2017), Secretary General, Treasurer, Acting Vice President (from 10 June 2017); bottom row: ordinary EC members.

Our activities have addressed not only plans that were in place prior to my candidature regarding Visibility-Activity-Benefits but also problems and trends that were brought to the attention of the President and EC during this term, even issues from the previous terms.

In particular, one of the essential parts of my service as President has been an almost daily dedication to planning, coordinating, soliciting, summarizing, email exchanges and communication, and chairing problem discussions and solution proposals with input coming not only within the EC but also from the IFToMM community, even at the level of individual IFToMMists. A measure of this dedication (and that of most of the EC members) is indicated by the number of EC tele-meetings (12) (the EC tele-meetings were started during my presidency term 2008–2011) and face-to-face meetings (5; see appendix 1) that have taken place during the term, with a plan to have EC discussions every three to four months, and by the number of working groups (WGs) (in total 21) that were established to address specific

problems with proposals for the EC. Special care and time has been devoted to assist IFToMM Member Organizations (MOs), Technical Committees (TCs), and Permanent Commissions (PCs) in critical situations (with weak activity and irregular status) in order to help each of them with specific steps to recover proper functioning and contribute to the success of IFToMM (they are not listed here due to the delicate nature of the matter; however, documents are recorded in detail in the EC meeting minutes that are restricted to EC members and stored in the IFToMM archives).

Actions in Activity-Visibility-Benefit plans can be summarized as follows.

## **Matters for Activity**

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**Plans:** to increase the quantity and quality of the initiatives for the IFToMM aim of promoting MMS in technological–scientific frameworks for the benefit of mankind and peace (as per the 1969 founding principles).

**Results:** the reinvigorated action of TCs and PCs, with more TC and PC members representing MOs; the start of a new TC; new IFToMM MOs; new affiliations with publication frameworks; support for old and new initiatives (conferences, summer schools, Olympiads, meetings); coordination of activities to avoid overlapping time schedules and topics; consideration of and solutions for better activities and new matters (like procedures for IFToMM functioning as in the Manual for IFToMM procedures, and ethical issues); and improved participation of individuals and MOs in IFToMM activities and their planning.

**Open issues:** better coordination of activities to avoid overlapping time schedules and topics; influential action of ECs on IFToMM bodies, influential action of PCs and TCs in the world-wide community; influence and representation of IFToMM in funding programs; coordination with other federations in engineering; efficient response and interaction from IFToMM bodies with respect to EC indications.

**Suggestions for future actions** include initiating new TCs in hot topics, even at border of MMS (interest was expressed for a TC on Mechanism Manufacturing); increasing the activity of PCs and TCs with coordination; a campaign of recruitment of individuals from MOs for PCs and TCs; better coordination among IFToMM bodies; influential presence and action in governmental entities (not only for funding); and planning training for future IFToMM leaders.

## **Matters for Visibility**

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**Plans:** to make IFToMM well known and well reputed in the scientific community and even in the general public.

**Results:** an increased number of IFToMM events such as conferences, meetings, and tutorials at local and international levels; the improvement of visibility means (webpage, call for papers) and preparation of posters and flyers.

**Open issues:** IFToMM is still unknown in several (scientific and professional) communities and countries; IFToMM is not fully understandable to the younger generations; newsletter publication; publicity of IFToMM in technical–scientific and public frames as well as in social media.

Suggestions for future actions: improvement of webpage for better public consultation; more items in social media; IFToMM sponsorship of events organized by MOs for IFToMM topics not yet under the IFToMM umbrella; exhibit of the posters and distribution of the flyers; presentations of IFToMM by any IFToMM officer in other communities, even for the general public.

## Matters for Benefits

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Plans: to increase the quantity and quality of benefits for communities (MOs, TCs, PCs) and individuals, especially for younger generations; to reinvigorate the Student MMS Olympiad; to identify new benefits of interest and attraction towards IFToMM.

Results: an increase in publication frames and conference events with the desired aspects and benefits for individuals; reduced fees for conference participation and for publication of papers and proceedings; attention to ethical issues; conference Best Paper Awards in three categories (research, application, student) and possibly in three levels (gold, silver, bronze); establishment of a IFToMM Fellow Grade.

Open issues: understanding and planning proper benefits with significant value for young and senior IFToMMists and MOs.

Suggestions for future actions: new and updated benefits for individuals and MOs; attraction of individuals from professional and industrial worlds; continuous attention to new needs and benefits for the IFToMM community; participation of individuals and TC and PC representatives in WGs.

Special activity has been devoted to organizing the 50th year anniversary of IFToMM with a ceremony session and poster exhibition during the World Congress in Krakow on 30 June to 4 July 2019 (Fig. 2) [2].



**Fig.2** The reveal of the commemorating plaque for the 50th anniversary of IFToMM at the opening of the 2019 IFToMM World Congress, with Professor Tadeusz Uhl, chair of the organizing committee.

In addition, as President I have been involved as chair of the Committee for Honors and Awards, with the following tasks (see the report on the IFToMM web page): increasing the interest in and visibility of IFToMM awards by establishing BPA (Best Paper Awards) and a Fellow Grade; soliciting nominations; chairing the evaluation of the nominees; participating personally at the award ceremonies; working on and writing the updates of the manuals (available on the IFToMM web page).

This last year of the IFToMM term has been again full of activity, as summarized in the Agendas of the three EC meetings (one was a tele-meeting and two were face-to-face meetings) that are reported in Appendix 2 and finalized in the 2019 IFToMM General Assembly (minutes with enclosures are available on the IFToMM web page and archives).

The following matters were considered during 2019, with discussions that led to action also taking place at the 2019 General Assembly:

- analysis of the situations in the MOs, with critical conditions in terms of due arrears and weak participation in IFToMM activity – this led to the decision at the 2019 General Assembly for the membership loss of MO UK and MO Ukraine; a campaign for membership promotion was also continued with different strategies;
- analysis of the situations of TCs, with critical conditions in terms of weak activities and silent members, with good results being achieved through the revitalization of two TCs as well as the additional recruiting of TC members from several other MOs and the activation of a new TC on engines and powertrains;
- analysis of improvements for the functioning of IFToMM bodies, with the suggestion of Constitution changes and updates to the Manual of IFToMM procedures;
- promotion of an increased number of IFToMM-sponsored conference events and other initiatives (summer schools, tutorials, meetings) and even increased financial support for the YDP (Young Delegate Program) grants;
- supervision and discussion of the organization of the 2019 World Congress, including a special program for the celebration of the 50th anniversary of IFToMM, [2], with a bronze plaque that is now exhibited permanently in the hall of the School of Mechanical Engineering of AGV University in Krakow, Poland;
- addressing attention to publication frameworks (not only through IFToMM-affiliated journals but also with new affiliations with journals and book series) with different structures for the dissemination, visibility, and influence of the IFToMM activity outcomes;
- planning a successful 2020 IFToMM Student Olympiad (fifth edition) in Izhevsk, Russia;
- soliciting and supervising proposals for the 2023 IFToMM World Congress;
- soliciting and promoting nominations for IFToMM honors and awards (still too few during the year and in the whole term, with several vacancies in available positions); the new grade of IFToMM fellow was initiated and implemented;
- soliciting attendance at EC meetings not only by TC and PC chairs as part of a plan for IFToMM leadership training (very poor attendance has been experienced throughout the whole term).

In addition, the new elected EC was invited to join discussions in the second part of the EC meeting during the 2019 World Congress and in the final EC meeting on 21 November 2019 both for training and discussion sharing purposes. In particular, the main aspects have been outlined, as reported in the minutes, for the attention of new ECs, as challenges and opportunities for the activities in the next term 2020–2023 that will lead to the improvement and success of IFToMM.

More aspects and details are reported in the Minutes of the EC meeting and two face-to-face EC meetings. These are posted in the IFToMM web page and available in the IFToMM archives.

The following visionary considerations are matured from my personal experience in IFToMM since 1987 (partially summarized in [3]) through holding different positions in IFToMM, from a simple conference participant up to IFToMM President in 2008–2011 and in this last term 2016–2019, and through being in contact and collaboration with colleagues of different ages from different countries within different programs that are all somehow promoted by or linked to IFToMM.

IFToMM was founded in 1969 to overcome political barriers preventing collaboration and friendly exchanges, with a vision of MMS as a means for the peace and development of mankind. Today the activities of 45 member organizations and 14 technical committees show the significant role of the IFToMM community in scientific–technological developments in the broad areas of MMS in terms of its formation, research, and application for the benefit of mankind and society. New trends and innovations are the challenges facing the future of IFToMM, as they were in the past, with a fourth generation of IFToMMists working in international collaboration frameworks for the development of modern (mechatronic) systems for which mechanics can be still considered the core of the endeavour, as per the nature of the service and/or cooperation with humans, as summarized in my keynote at 2019 World Congress [4].

The past of IFToMM can also be considered for inspiration for the future developments of IFToMM, not only in the well-established aspects but also to identify new horizons, needs, and benefits for the IFToMM community in promoting and enhancing MMS. The main challenges for IFToMM can be summarized in the following aspects, coming from my experiences in IFToMM leadership roles and as an IFToMMist:

- attraction and interest of the younger generation and national communities to IFToMM and its activities;
- aggregation and activity of more MOs from all continents, with even better coordination among MOs, not only on geographic bases;
- enlargement of the domains of interests, with more interdisciplinary activity in research, formation, and profession in MMS, with a view to incorporating existing areas not yet in IFToMM as well as new topics in emerging technology and science;
- starting collaboration with other federations and communities, not only in engineering;
- improvement and increase in the benefits of being in IFToMM for the communities and IFToMMist individuals;
- increase in the visibility and influence of IFToMM in scientific, professional, and industrial frameworks at national and international levels;
- increase in the interest and quality of leadership in IFToMM, including training events;
- improvement of the participation and share of IFToMM initiatives and challenges not only within the IFToMM bodies but even with individual IFToMMists.

Even if the above aspects can be well understood as challenges for future tasks for IFToMM leadership and in MMS activities, the practical implementation of solutions and initiatives for short to medium schedules requires flexibility in the actions as to try to satisfy all the expectations from the variety of conditions and communities by which IFToMM is characterized, which include a world-wide community with different cultural backgrounds and economic conditions. One key point is the understanding and appreciation of the benefits that IFToMM can offer the IFToMM community, without any barriers to these benefits or constraints for personal promotion. An emblematic example of such a situation, which is not

yet so common, is in the area of publications, as in some countries there is a need or even obligation to have indexed publications in well scored publications both for career promotion and project funding, whereas in other communities already asked to have the dissemination of knowledge and results available and free for the public and not linked to those indexed sources. Therefore, although one of the missions of IFToMM is to guide towards the future for new publication frameworks, IFToMM should provide yet those possibilities for communities and individuals in a variety of conditions for their promotion, impact, and influence with their publications.

One another general issue with specific impact on IFToMM is the feeling in the new generations (although it is not exclusive to them) that an aggregation in societies or entities with common interests and targets is not useful, and the fragmentation into individuals or in small groups, even only in social media, seems to give the sufficient benefits that young people are looking for in the short term. This idea seems prevalent in the IFToMM community and is motivated by both ignorance and misunderstanding of the motivations and mission of IFToMM and by limited or insufficiently attractive benefits of being involved with IFToMM. These two last aspects could also reflect the considerable variability of situations in which IFToMM will have to act in the future.

I wish to thank the IFToMM officers (chairs of MOs, TCs, and PCs) and IFToMMists for supporting the President's work with discussions, suggestions, and requests in several matters at different levels. I thank all the IFToMM officers for their collaboration and particularly the EC members for their continuous attention to and participation in the EC activities, including the working groups. Particular thanks go to Professor Tian Huang for his work as Vice President and for his continuous listening and advice, Professor Juan Antonio Carretero for the frequent discussion of preliminary matters, Professor Fernando Viadero for his friendly opinion exchanges, and Professor Can Dede for his capacity to bring the younger generation's views. Very special thanks go to my family and mainly to my wife Brunella for their patience and support for the time and attention I spent away from them at home or in travelling on behalf of IFToMM.

Finally, I would like to express my warm wishes to the new elected President and EC members for a very successful term in 2020–2023, hopefully following from and improving on what has been done during the past term, 2016–2019.

It has been a challenging term requiring a lot of effort on a personal level but also a very exciting time for the success of IFToMM, for which I am proud to have appreciation from most of you, while I hope to have the understanding of those of you who are not satisfied with my service.

Rome, 16 December 2019: Marco Ceccarelli

## References

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1. Ceccarelli M., Report 2016-2019 of IFToMM President, in the Minutes of the 2019 IFToMM General Assembly, Iftomm 2019 (available in the IFToMM webpage and IFToMM archives)
2. Ceccarelli M., Huang T., Zielinska T., Carretero J.A. and Uhl T., Celebrations for the 50-Year Anniversary of IFToMM, *Machines* 2019, 7, 53; doi:10.3390/machines7030053 (published also in the other IFToMM affiliated journals)

3. Ceccarelli M., Twenty-five year of activity in IFToMM, journal Theory of Mechanism and Machine (<http://tmm.spbstu.ru>), St Petersburg State University, 2013, Vol.11. No.2, pp.3-14.
4. Ceccarelli M., IFToMM: yesterday, today, and tomorrow; keynote for the celebration session for 50th year anniversary of IFToMM at 2019 World Congress, Krakow, 2019, in: T. Uhl (ed.), Advances in Mechanism and Machine Science, Mechanisms and Machine Science 73, Springer Nature Switzerland AG 2019. pp. ix-xxi.  
[https://doi.org/10.1007/978-3-030-20131-9\\_96](https://doi.org/10.1007/978-3-030-20131-9_96).



## Appendix 1 – Group photos at the EC meetings 2016–2019

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**Figure 3.** Participants at the 2016 EC meeting in Leganes, Spain, on 19–20 October 2016. First row (from left to right): Professor Juan Carlos Prada (Chair of PC Education), Professor Fernando Viadero (EC member), Professor Marco Ceccarelli (IFTToMM President), Professor Teresa Zielinska (Secretary General), Professor Juan Carlos Carretero (IFTToMM Treasurer); second row: Professor Cristina Castejon (Deputy Chair of PC Education), Professor Olga Egorova (Chair of PC of History of MMS), Professor Burkhard Corves (EC member), Professor Daizhong Su (Chair of TC for Gearing and Transmission), Professor Can Dede (EC member), Professor Erwin Lovasz (Chair of TC for Linkages and Mechanical Controls); third row: Professor Juan Carlos Juaregui (Chair of TC for Vibrations), Professor Dae-Eun Kim (Chair of TC for Tribology), Professor Carlo Ferraresi (Chair of TC for Biomechanical Engineering), Professor Alfonso Hernandez (Chair of MO Spain); fourth row: Professor Victor Petuya (Deputy Chair of TC for Linkages and Mechanical Controls), Professor Stanislav Žiaran (Chair of MO Slovakia), Professor Manfred Husty (Chair of Constitution Commission).





**Figure 4.** Participants at the 2017 EC meeting in Krakow, Poland, on 9–10 October 2017.



**Figure 5.** Participants at the EC meeting of 17–18 December 2018 (Bangalore, India).





**Figure 6.** Participants at the EC meeting of 30 June and 4 July 2016 in Krakow, Poland, during the 2019 World Congress.



**Figure 7.** EC meeting 21 November 2019 in Ankara, Turkey.  
First row (from left to right): Teresa Zielinska, Juan Antonio Carretero; Eres Solymerez; Burkhard Corves; second row: Erwin Lovasz, Can Dede, Andres Kecskemethy, Marco Ceccarelli, Ashitava Ghosal

## Appendix 2 – Agendas of 2019 EC meetings

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### AGENDA for 48th meeting of IFToMM Executive Council on Sunday 30 June and Thursday 4 July 2019

Venue place: World Congress at Auditorium of Jagiellonian University in Krakow, Poland, (<http://iftomm2019.com/>)

#### time 9.00–19.00 of Sunday 30 June 2019

1. Opening of the Meeting and approval of the Agenda	9.00
2. Apologies for absence	9.05
3. Approval of the Minutes of the 01-2019 Executive Council tele-Meeting	9.10
4. Report of the President and information	9.15
5. Report of the Secretary General	9.25
6. Report of the EC members	9.30
7. IFToMM Member Organizations with critical situation	9.40
8. Candidates for the new Membership in IFToMM – Changes in the Memberships	10.00
9. Report of Working Groups	10.10
10. Report for 15th World Congress by Organizers in 2019	10.20
11. IFToMM sponsorship of conferences and other initiatives	10.30
12. Memorandum of Understanding (new and old)	10.45
13. Report of IFToMM affiliated journals	11.00
14. Report by the President on IFToMM Honors and Awards	11.30
15. Agenda of 2019 IFToMM General Assembly	11.40
16. Candidatures for 2023 World Congress	11.50
Lunch break and Group Photo	12.00
17. TC reports and new TC members	13.00
TC for Computational Kinematics (chair Prof. Federico Thomas)	13.10
TC for Gearing and Transmission (chair Prof. Frank H. Schaefer)	13.25
TC for Linkages and Mechanical Controls (chair Prof. Victor Petuya)	13.40
TC for Micromachines (chair Prof. Lena Zentner)	13.55
TC for Multibody Dynamics (chair Prof. Paulo Flores)	14.10
TC for Reliability (chair Prof. Wojciech Żurowski)	14.25
TC for Robotics and Mechatronics (chair Prof. Yukio Takeda)	14.40
TC for Rotordynamics (chair Prof. Katia Lucchesi)	14.55
TC for Sustainable Energy Systems (chair Prof. Ion Visa)	15.10
TC for Transportation Machinery (chair Prof. Vladimir Vantsevich)	15.25
TC for Tribology (chair Prof. Dae-Eun Kim)	15.40
TC for Vibrations (chair Prof. Juan Carlos Juaregui)	15.55
TC for Biomechanical Engineering (chair Prof. Carlo Ferraresi)	16.10
TC for Engines and Powertrains (Prof. Tigran. Parikyan)	16.25
18. PC reports and a and new PC members	
PC for Education (chair Prof. Cristina Castejon)	16.40
PC for History of TMM (chair Prof. Alessandro Gasparetto)	16.55
PC for Standardization of Terminology (chair Dr. Torsten Brix)	17.05
PC for Communications, Publications and Archiving (chair Prof. Tian Huang)	17.20
19. Appointment of Chairs of PCs and TCs for term 2020-23	17.35
20. New initiatives	17.50
21. Treasurer's report and budget for 2020	18.05

22. Report and plans for YDP	18.25
23. Other matters	18.40
24. Closure and Group Photo	19.00

**time 9.00–12.30 of Thursday 4 July 2019**

25. Opening of the Meeting and record of presence	9.00
26. Presentation of the new Executive Council for term 2020-23	9.05
27. IFToMM Member Organizations with critical situation	9.20
28. Updates of TC reports and new TC members	9.40
29. Updates of PC reports and new PC members	10.40
30. Appointment of Chairs of PCs and TCs for term 2020-23	11.00
31. Update of Treasurer's report and budget for 2020	11.20
32. Date of the next tele-Meeting of Executive Council	11.40
33. Place and date of the 49th Executive Council Meeting in 2020	11.50
34. Other matters	12.00
35. Closure and Group Photo	12.30

**AGENDA for 49th meeting of IFToMM Executive Council on Thursday 21 November 2019**

Venue place: room Council of Dept of Mech Engineering at Middle East Technical in Ankara, Turkey

**time 9.00–12.00**

36. Opening of the Meeting and approval of the Agenda	9.00
37. Apologies for absence	9.05
38. Approval of the Minutes of the 2019 face-to-face Executive Council Meeting	9.10
39. Report of the President and information	9.15
40. Report of the Secretary General	9.20
41. Report of the EC members	9.25
42. Candidates for the new Membership in IFToMM – Changes in the Memberships	9.30
43. Report of Working Groups	9.40
44. IFToMM sponsorship of conferences and other initiatives	9.50
Coffee break	
45. Report of IFToMM affiliated journals	10.10
46. IFToMM Honors and Awards	10.20
47. New TC members	10.25
48. New PC members	10.35
49. Appointment of Chairs of PCs and TCs for term 2020-23	10.45
50. New initiatives	10.50
51. Treasurer's report and budget for 2020	11.00
52. New challenges and opportunities for the next Executive Council	11.15
53. Place and date of the 50th Executive Council Meeting in 2020	11.30
54. Other matters	11.40
55. Closure and Group Photo	12.00

**Agenda for 01-2019 EC tele-meeting of 18 March 2019 at 13.00 ECT (+1.00 GMT)**  
<http://time.is/CET>

**Agenda**

1. Welcome of the President and apologies for absences
2. Agreement on the Agenda
3. Approval of the minutes of the 2018 face-to-face EC meeting
4. Information from President and EC members
5. Updates on the organization of 2019 World Congress
6. IFToMM sponsorship of conferences and other initiatives
7. Appointment of new PC/TC chairs and members
8. MOs, PCs and TCs with critical situation
9. Reports and proposals of WGs
10. MoUs for renew and new proposals
11. Budget issues and expenditure plans
12. Nominations for IFToMM Honors and Awards
13. Candidatures for 2023 IFToMM World Congress
14. Results of email ballots
15. Schedule of tele-meetings for PD and EC
16. Other matters