

End-Term Message of the IFToMM President

Dear all IFToMMists, individuals and officers of IFToMM bodies

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

I thank for the honor you gave me in servicing IFToMM as President leader and I hope to have fulfilled your expectations. Any mistake, misunderstanding, and lack of attention is my fault for which I beg your pardon, although I tried to attach any aspect or problem that have been addressed for attention or not, also in cooperation with the whole Executive Council (EC), Fig.1.

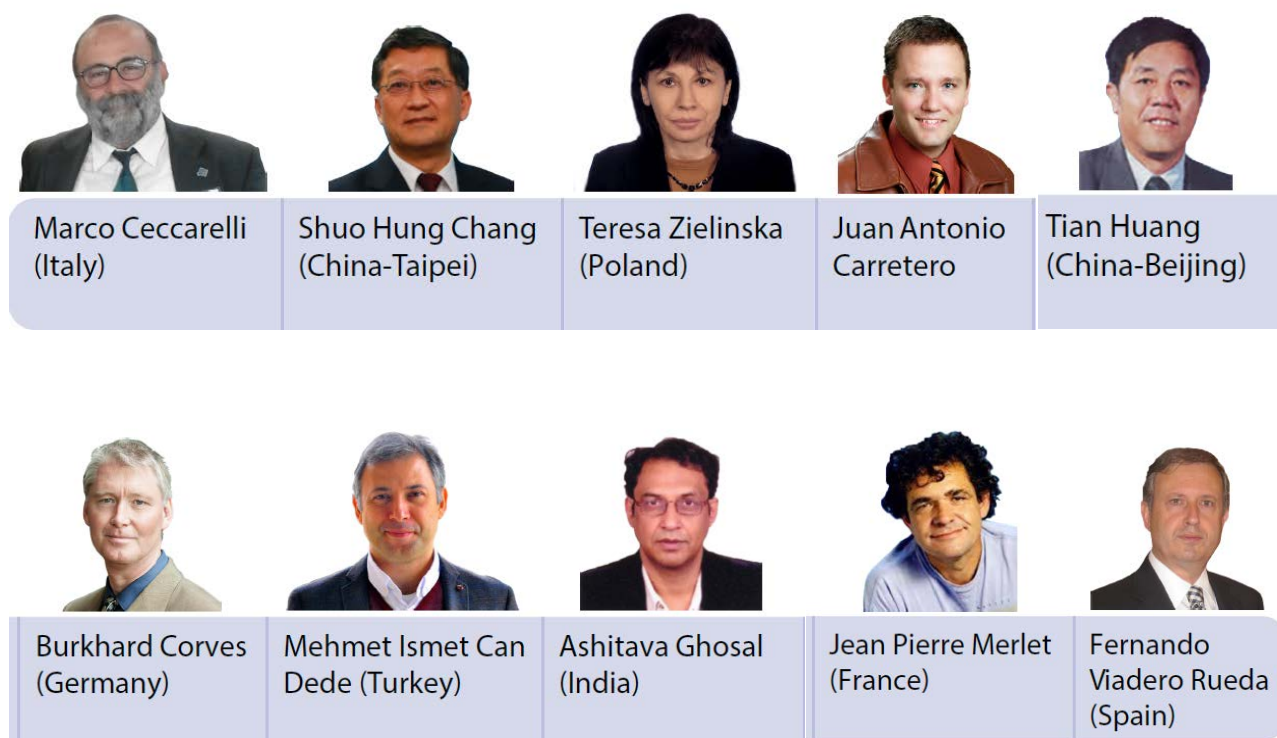


Fig.1 The members of IFToMM Executive Council of the term 2016-2019: top row (left to right): President, Vice-President (resigned from 9 June 2017), Secretary General, Treasurer, Acting Vice-President (from 10 June 2017); bottom row: ordinary EC members

The activity has addressed matters not only referring to the plans at the time of the candidature in terms of Visibility-Activity-Benefits but also problems and trends that were brought to the attention to the President and EC during this term, even coming from the previous terms.

In particular, one of the essential part of the service as President has been spent with almost a diary dedication in planning, coordinating, soliciting, summarizing, email exchanges and communications, and chairing problem discussions and solution proposals with indications coming not only within the EC but also from the IFToMM community, even at the level of individual IFToMMists. A measure of this dedication

(also for most of the EC members) can be 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 no.1), that have been worked out during the term with a plan to have EC discussions every three-four months, and by the number of Working Groups (WGs) (in total 21) that were established to attach specific problems to have well studied proposals for the EC. Special care and time have been devoted to assist IFToMM Member Organizations (MOs), Technical Committees (TCs), and Permanent Commissions (PCs) in critical situation (with weak activity and irregular status) in order to help each of them with specific actions to recover proper functioning and contribution to the success of IFToMM (they are not listed here for the delicate matter referring to that; however documents are recorded with details in the EC-meeting minutes that are restricted to EC members and stored in the IFToMM the archives).

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

Matters for Activity

Plans: to increase the quantity and quality of the initiatives for the IFToMM aim of promoting MMS in technological-scientific frames for the benefits of mankind and peace (as per the 1969 founding principles still valid)

Results: reinvigorated action of TC/PC also with increased TC/PC members representing MOs; start of a new TC; new IFToMM MOs; new affiliations of publications frames; support (also with presence) to old and new initiatives (conferences, summer schools, Olympiads, meeting); coordination of activities to avoid overlapping of time schedule and topics; considerations and solutions for better activity and new matters (like procedures for IFToMM functioning as in the Manual for IFToMM procedures, and ethical issues); improved participation of individuals and MOs in IFToMM activity and its planning

Open issues: better coordination of activities to avoid overlapping of time schedule and topics; influent action of EC on IFToMM bodies, influent action of PCs and TCs in the world wide community; influence and representative 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: initiating new TCs in hot topics, even at border of MMS (a first interest was expressed for a TC on Mechanism Manufacturing); increasing the activity of PCs and TCs with coordination; campaign of recruitment of individuals from MOs for PCs and TCs; better coordination among IFToMM bodies; influent presence and action in governmental entities not only for funding; planning training for future IFToMM leaders

Matters for Visibility

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

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

Open issues: IFToMM is still unknown in several (scientific and professional) frames and countries; IFToMM is not fully understandable to the young 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; items in social media, IFToMM sponsorship of events organized by MOs and IFToMM topics, not yet under IFToMM umbrella; exhibit of the posters and distribution of the flyer; presentations of IFToMM by any IFToMM officer in other frames, even for general public

Matters for Benefits

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

Results: increase of publication frames and conference events with 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 3 categories (research, application, student) and possibly in 3 levels (gold, silver, bronze); establishment of IFToMM fellow grade

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

Suggestions for future actions: new and update proper 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/PC representatives to 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 - 4 July 2019, Fig. 2, [2].



Fig.2 The reveal of the commemorating plaque for the 50th anniversary of IFToMM on the opening with prof Tadeusz Uhl, Chair of the organizing committee of the 2019 IFToMM World Congress

In addition, as President I have been involved as chair of the Committee for Honors and Awards with activity with the following summary content (see report in the IFToMM webpage): increasing interest and

visibility of IFToMM awards with establishing BPA (Best Paper Awards) and fellow grade; soliciting nominations; chairing the evaluation of the nominees; participating personally at the award ceremonies; working and writing on the updates of the manuals (available in the IFToMM webpage).

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

The following main matters were considered during 2019 with discussions that led to actions also at 2019 General Assembly:

- analysis of the situations in the MOs (Member Organizations) with critical conditions in terms of due arrears and weak participation to IFToMM activity; this brought to the decision in the 2019 General Assembly for membership loose of MO UK and MO Ukraine; a campaign for membership promotion was also continued with different strategies;
- analysis of the situations of TCs (Technical Committees) with critical conditions in terms of weak activities and silent members by getting good results in the revitalization of two TCs also with additional recruiting of TC members from several other MOs; activation of a new TC on Engines and Powertrains;
- analysis of improvements for the functioning of IFToMM bodies, also with suggestion of Constitution changes and updates of the Manual of IFToMM procedures;
- promotion of an increased number of IFToMM sponsored conference events and other Initiatives (summer schools, tutorials, meetings) even with an increased financial support in the YDP (Young Delegate Program) grants;
- supervising and discussing the organization of the 2019 World Congress, including a special program for the ceremony of 50th year 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 frames (not only through IFToMM affiliated journals even with new affiliations of journals and book series) with different structures for 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/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, main aspects have been outlined, as reported in the minutes, for the attention to new EC as challenges and opportunities for the activities in the next term 2020-2023 for a better success of IFToMM.

More aspects and details are reported in the Minutes of the EC meeting and two Face-to-face EC meetings that 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]) by covering different position in IFToMM from a simple conference participant up to IFToMM President in 2008-2011 and in this last term 2016-2019, being in contact and collaboration with colleagues of different ages from different countries within different programs somehow promoted or linked to IFToMM.

IFTToMM was founded in 1969 to overpass political barriers preventing collaboration and friendly exchanges with a vision of MMS as a means for peace and mankind development. Today the activities of 45 Member Organizations and 14 Technical Committees show a significant role of IFTToMM community in scientific-technological developments in the broad areas of MMS in terms of formation, research, and application for the benefit of mankind society. New trends and innovations are the challenges facing the future of IFTToMM like in the past with a fourth generation of IFTToMMists working in international collaboration frames for the developments of modern (mechatronic) systems for which mechanics can be still considered the core of activity 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 IFTToMM can also be considered for inspiration for the future developments of IFTToMM not only in the well-established aspects but even to identify new horizons, needs, and benefits for the IFTToMM community in promoting and enhancing MMS. The main challenges for IFTToMM can be summarized in the following aspects, as coming from my experiences in the IFTToMM leadership and as IFTToMMist:

- Attraction and interest of young generation and national communities to IFTToMM and its activity
- Aggregation and activity of more MOs from all continents, even with better coordination among MOs, not only on geographic bases
- Enlargements of the domains of interests, with more interdisciplinary activity, in research, formation and profession in MMS, looking to old areas not yet in IFTToMM and new topics in emerging technology and science
- Start collaboration with other federations and communities, not only in engineering
- Improvement and increase of the benefits in being in IFTToMM for the communities and IFTToMMist individuals
- increase of visibility and influence of IFTToMM in scientific, professional, industrial frames at national and international levels
- increase of interest and quality of leadership in IFTToMM, also with training events
- improvement of the participation and share of IFTToMM initiatives and challenges not only within the IFTToMM bodies but even with individual IFTToMMists

Even if the above aspects can be well understood as challenges for future activities in IFTToMM leadership and MMS activities, the practical implementation of solutions and initiatives as specific issues for short-medium schedules requires flexibility in the actions as to try to satisfy all the expectations from the variety of conditions and communities which IFTToMM is characterized by as coming from a world community with different cultural backgrounds and economic conditions. One key point is the understanding and appreciation of the benefits that IFTToMM can offer or can start with a view for all IFTToMM community avoiding that those benefits can be either impossible to reach or even to be considered constraints for the personal promotion. An emblematic example of such not yet common situations is in the area of publications where in some countries there is a need or even obligation to have indexed publications in well scored publication frames both for career promotion and project funding, whereas in other community is already asked to have the dissemination of knowledge and results available and free for the public and not linked to those indexed frames. Therefore, although one of the missions of IFTToMM is to guide towards the future for new publication frames, IFTToMM should provide yet those possibilities for communities and individuals in all the variety of conditions for their promotion, impact, and influence with their publications.

One another general issue with specific impact on IFTToMM even in short time is the feeling in the new generations (but not only) that an aggregation in societies or entities with common interests and targets is not useful and the fragmentation in individuals or in small groups, even only in social media, seems to give the proper sufficient benefits that young people is looking for a short horizon. This seems to happen also

for the IFToMM community as also motivated by both ignorance and not-understanding on the motivations and mission of IFToMM and by limited or not properly attractive benefits of being involved in IFToMM. These two last aspects can reflect also the considerably 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 activity with argues, suggestions, and requests in several matters at different levels. I thank all the IFToMM officers for the collaboration they have given and particularly the EC members for their continuous attention and participation to the EC activities, including the Working Groups. Particular thanks go to Prof. Tian Huang acting as Vice President for his continuous listening with advices, Prof. Juan Antonio Carretero for the frequent preliminary matters discussions, Prof. Fernando Viadero for his friendly opinion exchanges, and Prof. Can Dede for his availability to bring the young generation views. Very special thanks go to my family and mainly to my wife Brunella for the patience and support for the time and attention I spent away from them at home or in travelling on behalf of IFToMM.

Finally, I like to express my warm wishes to the new elected President and EC members for a very successfully activity during next term 2020-2023, hopefully following and improving what has been done during the past term 2016-2019.

It has been a challenging term requiring lot of efforts at personal levels but also a very exciting time for the success of IFToMM for which I am proud to have appreciation from most of you while hoping the understanding of those of you who are not satisfied of my service.

Roma, 16 December 2019: Marco Ceccarelli

References

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.

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



Figure. Participants at the 2016 EC meeting in Leganes, Spain on 19-20 October 2016:

(from left to right) first row – prof Juan Carlos Prada (Chair of PC Education), prof Fernando Viadero (EC member), prof Marco Ceccarelli (IFTToMM President), prof Teresa Zielinska (Secretary General), prof Juan Carlos Carretero (IFTToMM Treasurer); second row – prof Cristina Castejon (Deputy Chair of PC Education), prof Olga Egorova (Chair of PC of History of MMS), prof Burkhard Corves (EC member), prof Daizhong Su (Chair of TC for Gearing and Transmission), prof Can Dede (EC member), prof Erwin Lovasz (Chair of TC for Linkages and Mechanical Controls); third row – prof Juan Carlos Juaregui (Chair of TC for Vibrations), prof Dae-Eun Kim (Chair of TC for Tribology), prof Carlo Ferraresi (Chair of TC for Biomechanical Engineering), prof Alfonso Hernandez (Chair of MO Spain); fourth row – prof Victor Petuya (Deputy Chair of TC for Linkages and Mechanical Controls), prof Stanislav Žičan (Chair of MO Slovakia), prof Manfred Husty (Chair of Constitution Commission).



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



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



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



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

APPENDIX- Agendas of 2019 EC meetings

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,
(www.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