The Journey of a Decade to Advancing Materials

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The International Association of Advanced Materials, IAAM, was founded as a non-profit organization on Wednesday, 20 January 2010, with the aim for promotion of advanced materials to global excellence. The organization works to create a highly interactive international network of researchers, students, professionals from academia and industries working in the interdisciplinary fields of advanced materials science, engineering, and technology.

As the technological era has emerged, all the sectors and industries have been undergoing a massive evolution with the inception of more efficient and smarter ways to carry out activities. Advanced Materials have been at the heart of all these developments. In the past two decades, the experts all over the world have realized the value of advanced materials and thus, the process of developing advanced materials has become extremely popular. The International Association of Advanced Materials, IAAM, was born out of a similar attempt to enhance and improve the field of advanced materials [**1-3**]. Since its establishment, the association has come a long way, overcoming all the challenges and hurdles, to create a rich legacy of global network that works to facilitate the Advancement of Materials to Global Excellence (**Fig. 1**). As the association completes ten years of existence, we take a look at the remarkable journey that it has undertaken and how various institutes, industries, members, and delegates have contributed to making the International Association of Advanced Materials, IAAM, the prestigious organization it is today (**Fig. 2**).

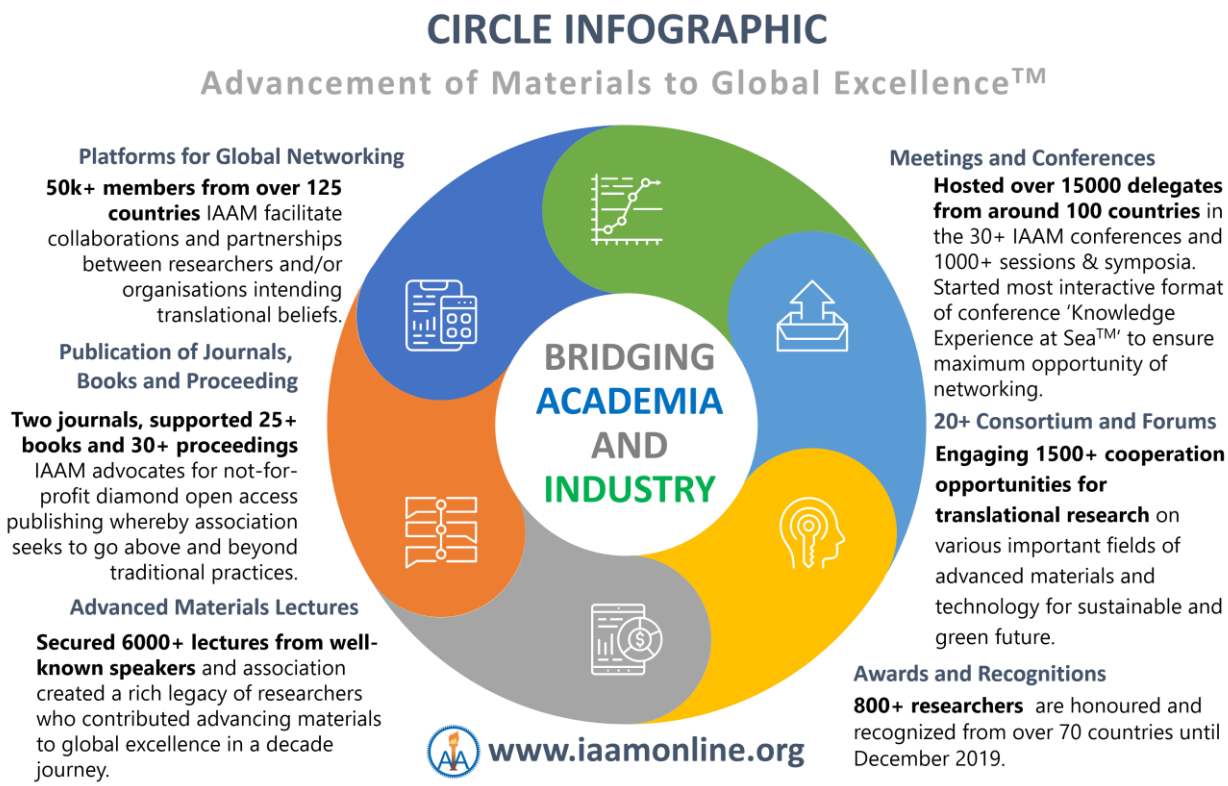

Fig. 1. International Association of Advanced Materials, IAAM, has created one of the largest global networks for advanced materials community. Its interdisciplinary activities provide one of the leading platforms in the world for delegates and members to indulge in global networking. The organization, over these ten years, has built the largest community of advanced materials researchers and associated organizations in the field.

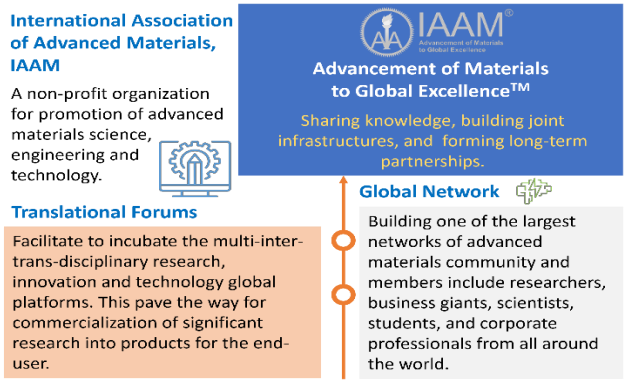

Fig. 2. International Association of Advanced Materials, IAAM, offers highly interactive networking platforms to all the delegates and members that allow them to come together with extremely innovative minds of the world to discuss critical issues, newly emerging research, ideas, form collaborations, and get an edge over their peers from around the world.

For ten years now, International Association of Advanced Materials, IAAM, has been working to address and find solutions for key global issues by embarking on various technological endeavors. The regular efforts of the organization have yielded results and stimulated the upgradation of processes across industries. Also, the association has successfully stimulated the dissemination of knowledge among the people, especially about the sectors of healthcare, energy, sustainability, water technology, and environmental safety.

International Association of Advanced Materials, IAAM, is offering five years complimentary membership of association on the occasion of its 10th anniversary, as part of which all the members would receive a wide range of benefits (**Fig. 3**). While the collective benefit for all is getting to know about the major advancements and the progresses from the scientific world, International Association of Advanced Materials, IAAM, also extends various opportunities to its members that can help them to build multi-phase complementary associations from academia and industry for the advancing materials [**4**].

Fig. 3. The International Association of Advanced Materials, IAAM, organizes symposiums to move forward with its goal of achieving global excellence.

International Association of Advanced Materials, IAAM, has made an effort to improve and increase its services every year since its inception and thus, has come a long way. The organization encourages students and professionals who conduct research in advanced materials and wish to promote it. By becoming a global member of International Association of Advanced Materials, IAAM, researchers can avail access to abundant opportunities. Till date, various conferences, sessions, symposia and exhibitions have been organized by the associations in the four major continents to show case the trends of Advanced Materials at the global scenario.

International Association of Advanced Materials, IAAM, has undoubtedly achieved a lot in these past ten years. In the upcoming years, the organization is going to launch new publications and organize events to facilitate the expansion of the field of advanced materials [**3**]. In the IAAM events and meetings, research & education forums are offered to the delegates for stimulating discussions. In 2011, IAAM organized the first ever Advanced Materials Congress, AMC, in China that covered the fields of materials science, engineering, and technology. The congress was widely accepted and received a great response and hosted as many as 1200 delegates from 36 different countries. Since then, International Association of Advanced Materials, IAAM, has gone on to organize 31 such congress assemblies in four major continents, Europe, Asia, Australia, and America that have been a resounding success. These assemblies have hosted more than 15,000 delegates and distinguished speakers from as many as 100 countries from all across the globe in the 1000+ sessions and symposia [**4, 5**] (**Fig. 4**). It is the organization's sincerest hope to bring together many more such congresses and forums in the future.

Fig. 4. The worldwide Advanced Materials hubs created by the International Association of Advanced Materials, IAAM. Till date, International Association of Advanced Materials, IAAM, has organized 31 assemblies of Advanced Materials Congress, AMC, that have been attended by above 15000 delegates from above 100 countries. The Advanced Materials Congresses were graced with the participation of around 2500 leading organization from both academia and industry.

International Association of Advanced Materials, IAAM, considers it important to recognize the outstanding contributions that people from the world of science, engineering and technology make. The organization is of the opinion that the young researchers should be

encouraged, and their advances should be appreciated. Therefore, in each of IAAM congresses, the association honours individual researchers and organizations to inspire them to conduct quality research and facilitate the Advancement of Materials to Global Excellence.

In the congresses and meetings, International Association of Advanced Materials, IAAM, also organizes symposia that offer discussions on a wide range of topics based on advanced materials science, engineering and technology [**4**]. These symposia include discussions, lectures, presentations, and more to increase awareness about the topics and think about some course of action regarding the topic at hand. International Association of Advanced Materials, IAAM, gives all its members an exclusive opportunity of submitting symposia proposals for the upcoming Advanced Materials congresses [**4**]. The members also get the chance to suggest interdisciplinary topics related to the broad theme, "Advancement of Materials to Global Excellence."

Around 1000 thematic sessions on various topics of advanced materials have been organized during the past Advanced Materials congresses and their symposia. Over the years, International Association of Advanced Materials, IAAM, has organized sessions and symposia on nanomaterials and nanotechnology, biomaterials and biodevices, composite materials, energy materials, graphene, 2D materials, nanoenergy, nanogenerator, piezoelectric, nanosystems, biosensors, bioelectronics materials, metamaterials, lighting materials research & technology, advanced materials innovations, electronic materials, sustainable construction & building materials, organic & composite thermoelectric materials, battery materials, etc.

There are certain flagship events, organized on a regular basis by the International Association of Advanced Materials, IAAM, to promote multi-inter-trans-disciplinary advanced materials research, innovation & technology:

- Advanced Materials World Congress, AMWC
- European Advanced Materials Congress, EAMC
- Asian Advanced Materials Congress, AMC Asia
- American Advanced Materials Congress, AMC America
- Composite Materials Congress, CMC
- Advanced Functional Materials Congress, AFMC
- Nanomaterials and Nanotechnology Congress, Nano
- Advanced Energy Materials & Technology Congress, AEMC
- Graphene and 2D Materials Congress
- Advanced Healthcare Materials Congress, AHMC
- Carbon Materials and Technology Congress, CMTC

With the technological revolution that the dawn of 21st century brought about; it was quite important to realize as a scientific community that technology could be used to 'empower society'. Gradually, it became quite clear that collaborations are integral to wholesome technological progress. When the association was moving forward with research networks, it was obvious that the area of advanced materials is a highly promising one and that it could be used to resolve a lot of societal issues. Ever since the establishment, International Association of Advanced Materials, IAAM, has been working to create a highly interactive community of researchers and organisations from the advanced materials sphere all around the world (**Fig. 5**).

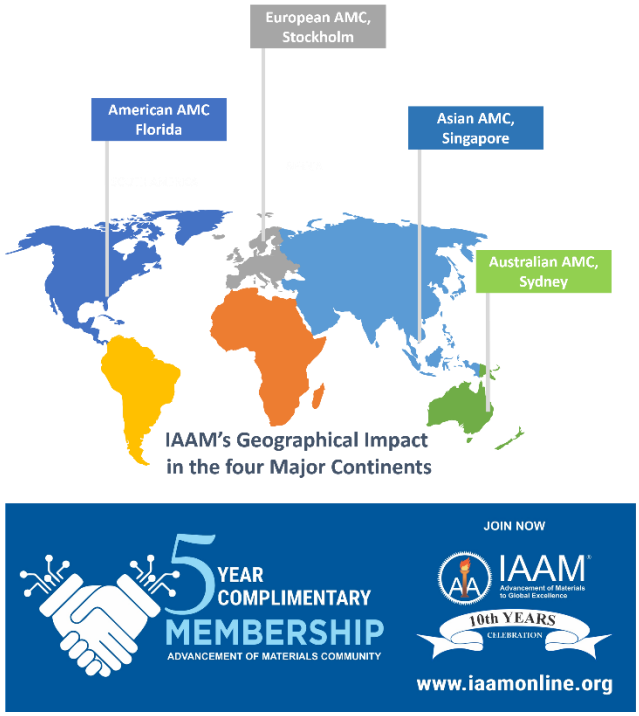

Fig. 5. The IAAM congresses and symposia help the advanced materials community to come together and have cross disciplinary discussions with the experts regarding pressing problems that can be solved by innovations and complementary cooperation.

The idea was to build an umbrella and include every established scientist as well as all the young and upcoming researchers so that the association could develop the advanced materials world with rapid speed [**6**]. Right from the very beginning, renowned scientists from prominent institutes around the world began joining International Association of Advanced Materials, IAAM, and gradually, the organization grew leaps and bounds.

International Association of Advanced Materials, IAAM, also conducts a consortium in each of its congresses to get esteemed professionals and experts to discuss the challenges and their solutions and the rising opportunities in the field of advanced materials. The primary aim behind these international consortiums is to connect academia and industry [**7**].

As International Association of Advanced Materials members, one also gets the exclusive option to nominate any researcher or organization for the prestigious awards and titles that International Association of Advanced Materials, IAAM, confers upon the delegates in its congresses. By filing in a nomination, you can give yourself

a chance to be recognized among the world's best scientific minds and their contributions (**Fig. 6**).

Fig. 6. International Association of Advanced Materials, IAAM has recognized till December 2019 around 800 researchers from 70 countries with the prestigious IAAM Awards for their contribution towards the "Advancement of Materials to Global Excellence".

Furthermore, the International Association of Advanced Materials, IAAM members get the opportunity to nominate fellow researchers that you think are worthy of being appreciated. The selections for the IAAM awards are done by a duly constituted awards committee and the awards are given to awardees at the IAAM award assembly in the Advanced Materials Congress, AMC. Below are major awards and recognitions conferred upon the delegates by IAAM, International Association of Advanced Materials:

- Advanced Materials Laureate
- Researcher of the Year
- Advanced Materials Award
- IAAM Fellow
- IAAM Award Lecture
- IAAM Medal
- IAAM Scientist Medals
- IAAM Young Scientist Medals

The International Association of Advanced Materials, IAAM, completes a decade of what has truly been an extraordinary and tremendous journey in 2020. Having deeply infused the sphere of advanced materials with the spirit of cooperation and collaboration, International Association of Advanced Materials, IAAM has reached remarkable heights and become a renowned global organization. As the association turns ten years old, IAAM glance at the journey of this decade and the boundless contributions that the organization has made to the sphere of advanced materials while working with the motto of 'Advancement of Materials to Global Excellence'.

Advanced Materials, new materials, or intelligent materials are materials with smart properties that are extremely vital for emerging technologies. At the beginning of this decade, although the area had immense potential to solve many problems, it was pretty evident that there was no forum or platform where the members from advanced materials community could come together and discuss ideas, collaborate on projects, or present their findings, and/or other contemporary subjects or issues. This lack of a common interactive platform was proving to be a huge barrier to the growth of this sphere.

International Association of Advanced Materials, IAAM's not-for-profit diamond open access publications like journals, books, and proceedings prove to be extremely helpful in spreading knowledge on advanced materials and giving opportunities to researchers to publish their research and read for free. International Association of Advanced Materials, IAAM, publishes two peer-reviewed international journals, known as Advanced Materials Letters, AML, and Advanced Materials Proceedings, AMP [**8-10**]. International Association of Advanced Materials, IAAM members get the prestigious privilege to avail the diamond open access of these peer-reviewed journals at no cost. If any member wishes to get a printed copy of these not-for-profit journals, they can do so by paying a yearly subscription fee or can opt for just one issue, depending on the requirement. Researchers looking to become an International Association of Advanced Materials, IAAM member and avail the benefits need to register at International Association of Advanced Materials, IAAM home page by completing few simple steps online.

The dissemination of scientific information and world-class research was critical for the development of the sphere of advanced materials. To realize this dream and to make the world of advanced materials more accessible to students, professionals, and researchers, International Association of Advanced Materials, IAAM, released a not-for-profit open-access international scientific journal called 'Advanced Materials Letters' within the very first year [**8**]. With this journal, International Association of Advanced Materials, IAAM, makes sure that all the interested researchers get access to the latest highlights and developments in the field of advanced materials, and that too, without any subscription fee or processing fee. Besides publishing peer-reviewed original research and review articles, the journal also offers discussions on a wide range of critical interdisciplinary topics like nanomaterials and nanotechnology, biomaterials and biodevices, magnetic and optical materials, green and sustainable materials, etc. [**11, 12**]. This splendid contribution of the association offers not-for-profit peer-reviewed journals at absolutely zero cost to the authors and online readers is widely appreciated in the advanced materials community.

The Advanced Materials Letters gears the world of Advanced Materials by a storm and drastically improved the availability of peer-reviewed diamond open access articles to researchers since its establishment in June 2010. Expanding on the attempts to spread knowledge,

International Association of Advanced Materials, IAAM, launched Advanced Materials Proceedings, another international journal that publishes peer-reviewed articles from the world of materials science and technology and conference proceedings. Some of the topics that the journal covers are nanotechnology, energy, environment, healthcare, etc. [**7**].

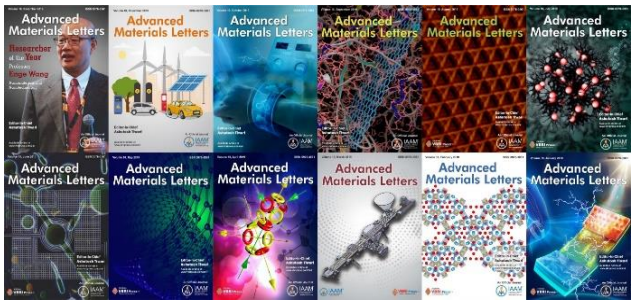

Fig. 7. IAAM not-for-profit two journals published a combined total of 126 issues and more than 1700 articles contributed by more than 7500 researchers from over 60 countries. Today, IAAM publication has become a name that requires no introduction, especially in the field of advanced materials. The journals receive a global outreach of 10,000 readers per month from over 125 countries [**11**].

Ten years after its establishment, International Association of Advanced Materials, IAAM, is one of the oldest not-for-profit scientific publishers in collaboration with VBRI Press, Sweden. In this decade, International Association of Advanced Materials, IAAM, has emerged as the leading not-for-profit publication organisation in the world of advanced materials [**8**]. While being the leader in publications, International Association of Advanced Materials, IAAM, has made sure that the materials science, engineering and technology community gets all the updates regarding the changes, progresses, and advances being made in terms of research and innovation (**Fig. 7**). By eliminating all the costs associated with the process, International Association of Advanced Materials, IAAM, is moving closer to achieving its goal of disseminating scientific research and knowledge among the researchers around the globe every day. Since the entire process involves no costs, the organization has successfully created an environment of ideating, innovation, and learning. At International Association of Advanced Materials, IAAM, organisation believes that financial inability should never become an obstacle in the path to gain knowledge and therefore, it offers access to its prestigious international journals for free to all.

All the international conferences organized by the International Association of Advanced Materials, IAAM, offer a highly extensive coordination of various contemporary research fields of advanced materials science, engineering, and technology. The general theme of the congresses, "the multi-inter-trans-disciplinary research, innovation, and technology" has been part of an attempt to highlight the progress made across various scientific fields and industries. The association has always designed the conferences in way that it presents the perfect amalgamation of important research areas and provide a truly multidisciplinary experience to the delegates (**Fig. 8**).

Fig. 8. **International Association of Advanced Materials, IAAM, aims to work on multi-inter-trans disciplinary areas.** The association has been working to facilitate collaborations and partnerships between researchers from different branches of science, engineering and technology.

In the last decade, the International Association of Advanced Materials, IAAM, has utilized its conferences to present opportunities for discussion on various important fields like nanomaterials, functional materials, energy materials, composite materials, healthcare materials, carbon materials, applied materials, metamaterials, etc. Another highlight of this decade-long journey of the International Association of Advanced Materials, IAAM, has been the extensive contribution that the organization has made towards facilitating the commercialization of significant research into products for the end-user. Till date, IAAM has secured above 6000 lectures of leading researchers in the field and currently are being published online for the promotion of Advanced Materials Research and Education [**13, 14**].

Moreover, International Association of Advanced Materials, IAAM, has regularly organized international consortiums as part of its various multidisciplinary events and conferences **[15]**. The aim of these consortiums has been to create an innovative forum and bring elite researchers, students, young professionals, and business executives on one platform and discuss various issues along with the possible ways forward. Over these ten years, these multiple consortiums have proven to be a healthy and strong bridge between the academia and industry.

At the International Association of Advanced Materials, IAAM, the leadership has always been of the opinion that the purpose of any research is to pave the way for real-life applications for users. To facilitate this

transition, International Association of Advanced Materials, IAAM, has always organized the consortiums and connected the academia and industry so that experts and professionals from these two or more areas can implement projects by sharing knowledge, high-quality publications, building joint infrastructures, and by forming long-term partnerships. Also, by bringing the business giants together with some of the best scientific brains of the world, International Association of Advanced Materials, IAAM, has improved the efficiency of the partnerships within the scientific world by giving them opportunities to obtain external funding. The philosophy of inventing minds, International Association of Advanced Materials, IAAM consortiums have paved the way for some cutting-age, modern, and highly useful technology for the market.

With the anticipation to reach new milestones, International Association of Advanced Materials, IAAM, objectives to form collaborations with universities and colleges and build campuses where the importance of advanced materials can be promoted, and knowledge can be disseminated to facilitate the rise of advanced materials by student councils. It is quite safe to say that in these ten years, the International Association of Advanced Materials, IAAM, has grown by leaps and bounds. It has been quite a remarkable and fruitful journey. What started as a small research organization has grown into the largest network of advanced materials researchers in the entire world. As we take a step forward into this year, the organization sees it as a realm of huge opportunities. In the time to come, the International Association of Advanced Materials, IAAM, plans to celebrate 2020 as a year of advancing materials for green and sustainable world. The association aims to trigger the enthusiasm for the betterment of society and achieve even greater heights of cooperation by perpetuation of academia and industry.

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