



一般社団法人

日本機械学会

The Japan Society of Mechanical Engineers



# FY 2015 (93rd) JSME Management Policy

93rd President Shigeru AZUHATA

Because the Japan Society of Mechanical Engineers (JSME) is a society of specialists working primarily in academic and corporate environments, in order to proactively fulfill its mission, it is necessary for members in both environments to maintain and enhance their abilities, and to promote collaboration between them through academic research and technological developments.

In recent years, however, there has been a significant decrease in the number of corporate engineers joining JSME, which is undermining its ability to function as a society for promoting collaboration between academia and industry. Last fiscal year, as part of discussions on management issues, including the declining corporate engineer membership, the Council for Policy and Finance drafted a vision for the society 10 years from now, and studied measures that might close the gap between the current situation and the vision. As a result of these discussions, this year the Council will focus on the four items described below:

- (1) Invigorating engineering division activities
- (2) Making JSME more attractive
- (3) Improving member information services
- (4) Promoting globalization

## 1. A Vision for JSME 10 Years Hence

As directions for the future, the issues and basic guidelines JSME embraced in “The Bicentennial Future Vision,” which was issued in 1996 during the society’s centennial anniversary, remain relevant today, almost 20 years later. When drafting “A Vision for JSME 10 Years Hence”, we were guided by this bicentennial vision for the future together with six related basic directions, which will be discussed in the sections below.

### **【Direction 1】 Reinforce the function of information dissemination and exchange**

In order to perform as a global information hub capable of collecting the latest and most-advanced information pertaining to mechanical engineering and related subjects, and transferring the same to JSME members and society as a whole, JSME will promote the following:

- ① Academic journals that receive abundant contributions from both inside and outside Japan.
- ② A growing diverse human network of specialists from various backgrounds and positions, through which various kinds of information can be exchanged.
- ③ Easy and timely access to information by JSME members through ubiquitous communication devices.

### **【Direction 2】 Foster and assist creative activities by JSME members**

Provide members the assistance described below in order to enable people with different positions and levels of expertise to gather, discuss, and circulate information leading to the discovery of new technical needs and seeds:

- ① Provide student members with opportunities to enhance their skills and interact with fellow student members, as well as keep abreast of the latest industry information on the state of technology and engineering fields.
- ② Provide both young and experienced engineers with a framework for improving their skill set and develop their careers.
- ③ Provide senior members opportunities to participate in training young engineers.
- ④ Provide corporate members with opportunities to advertise, collect information, recruit, receive technical assistance, etc., through JSME.

### **【Direction 3:】 Enhance industry, general public, and regional community-based activities**

JSME will actively promote exchanges between academia and industry and encourage academic activity aligned with industry needs. Furthermore, in order to fulfill its social responsibility as a professional engineering organization, JSME will conduct public awareness and public relations activities aimed at raising recognition of the society. To achieve this, JSME will endeavor to realize the following:

- ① Host conferences that address the multiple issues faced by design, development, and production engineers, in which many engineers will participate.
- ② Conduct short-term projects that address serious accidents, disasters, and international events (such as the Olympic Games). This will include investigations and present proposals.
- ③ Promote general public recognition of JSME activities through events such as “Machine Day” and “Mechanical Engineering Heritage” certification.
- ④ Endorse active involvement in, and provide advice aimed at shaping, higher secondary education in order to train technical experts.
- ⑤ Sponsor educational activities for primary and secondary school students aimed at fostering interest in technology, and hold numerous events for junior members.

### **【Direction 4】 Proactively foster and assist research into new and emerging fields】**

Encourage research in cross-disciplinary new areas by flexible establishment, merging, and disbandment of engineering divisions.

### **【Direction 5】 Promote international activities focusing on Asian countries**

Provide and receive the same quality and quantity of information to and from foreign members as to and from Japanese members.

**[Direction 6] Promote membership diversity**

Aim at becoming a society with a balanced membership in terms of age, gender, nationality, and occupation.

**2. Current JSME status**

When considering the current status of JSME, it can be seen that membership has been declining over a long period of time, and that the society's finances have deteriorated. It is believed that these management issues can be resolved by adhering to the future vision described above.

JSME membership peaked at 45,733 in 1995, and has since dwindled to the current 35,407, a decrease of more than 10,000 members over the past 20 years (Fig.1). Currently, the number of corporate engineers in their 30s is about 60% of those in their late 40s and 50s (Fig.2). Therefore, finding ways to make JSME more attractive to young engineers is an urgent and critical issue.

The second issue, achieving fiscal health, is also serious. The real value of JSME dropped by ¥0.2 billion over the past five years (Fig.1). Currently, even though the fiscal results for 2013 and 2014 show some improvement, the intrinsic financial structure of the society is still weak. This year, the board of directors will consider ways to improve and revitalize the activities of the engineering divisions and branches, and then draft a plan aimed at restoring fiscal stability.

**3. Subjects of focus this year**

Since the two issues discussed above are the results of current JSME activities and policies, it is evident that the society's activities need to be revised. Basically, we believe we can resolve these issues by ensuring a conscientious application of "A Vision for JSME 10 Years Hence".

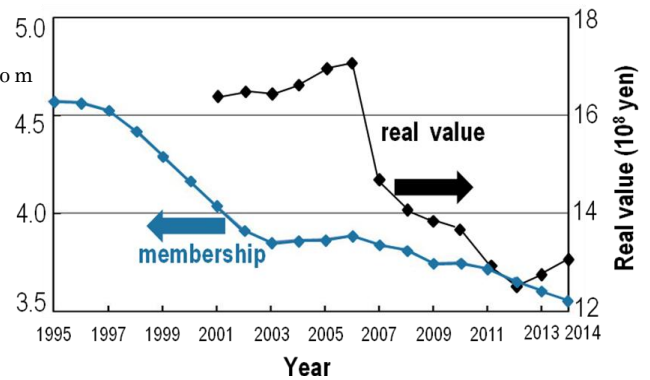


Fig.1 Membership and real value

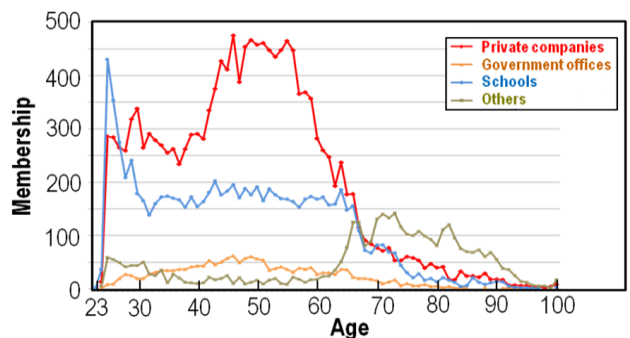


Fig.2 Age distribution of regular members (end of FY2014)

However, in order to fill the gap between the vision and the current situation, it is important for JSME to promote activities that meet industrial needs, accelerate globalization, and promote diversification. Based on these activities, the board will focus on the four items described below during this fiscal year:

**(1) Invigorating activity in the engineering divisions**

Since the 22 engineering divisions of JSME make up the foundation of the society, further efforts must be made to revitalize division activities. Figure 3 shows a breakdown of division registrations over the past 10 years. As can be seen in the Fig.3, membership levels fell in most divisions.

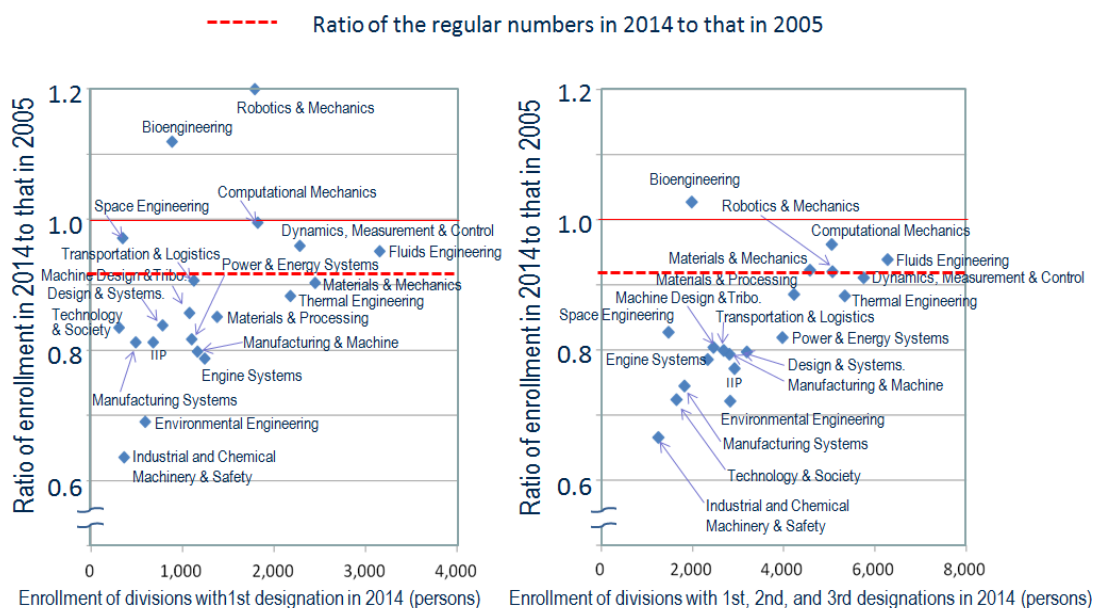


Fig.3 Member's registration of technology division

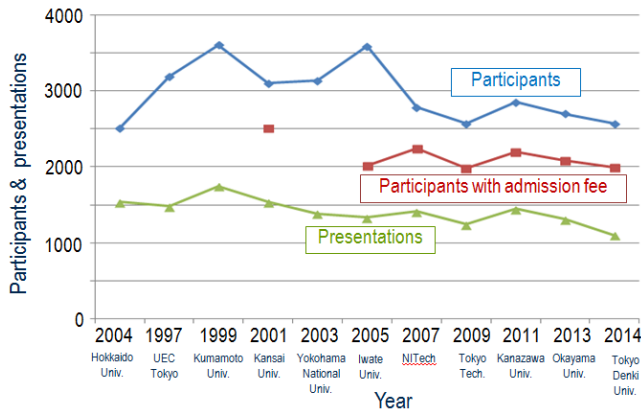


Fig.4 Annual conference participants and number of presentations



Fig.6 Website top page (English site, Japanese site)

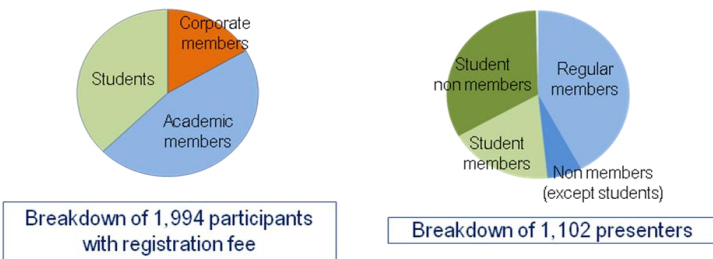


Fig.5 Breakdown annual conference participants and presenters

JSME, which covers a broad range of technical fields, is able to make mechanical engineering technologies applicable to various engineering topics. In order to take the lead in new areas such as the integrated interdisciplinary areas that are the forté of JSME engineering divisions, management of those divisions will need to be flexible and more active.

**(2) Making JSME more attractive**

JSME sometimes faces questions regarding member benefits asked by withdrawing members and young engineers. For example, only about 6% of the JSME membership participates in the annual JSME conference by paying the required registration fee, and Fig.4 shows that the number of participants has been decreasing over the long term. More specifically, corporate members now constitute less than 20% of total participants of the annual conference, and students give more than half of the presentations (Fig.5). This same pattern is repeated at branch and division conference levels.

Accordingly, since it is clear that special efforts must be made to make such events more attractive to young corporate engineers, we will review JSME conferences with an eye towards reforming them into venues where corporate engineers are able to obtain valuable information and expand their human networks. Therefore, this year's board will work to build a framework that incorporates the opinions of young engineers.

**(3) Improving information services for membership**

Since the ability to obtain high-quality relevant information in a timely manner is one of the most significant benefits of JSME membership, the society will continue to provide such

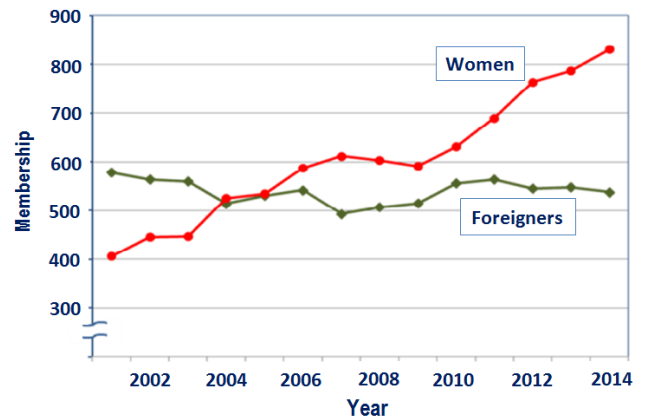


Fig.7 Foreign and female membership

information while simultaneously working towards making it easier to access on our website. To facilitate this, a working group will be organized in the Public Relations and Information Service Board during 2015, and current plans call for starting a new type of service in 2017. The website itself will be redesigned, and the English pages will be upgraded (Fig. 6).

**(4) Promoting globalization**

In order to perform as a global information hub and actively develop services that meet the needs of global engineering specialists, JSME should be open to the world and embrace human diversity. However, while the number of female members has been increasing, foreign (non-Japanese) membership, one measure of globalization, has remained steady at 550, approximately 1.5% of total membership, not changing for the last 10 years(Fig.7).

The first steps towards changing this situation will be to enroll foreign students, engineers, and researchers into JSME. To facilitate that, the English website will be upgraded, the number English sessions at the JSME technical conference will be increased, and foreign engineers in Japan will be encouraged to join the society.

#### 4. Action plan for the next three years

It is expected that JSME will be invigorated through activities such as those described above. In particular, two years from now in 2017, JSME will be celebrating the 120th anniversary of its foundation, and this is expected to be an important turning point for the society. This milestone will also provide opportunities for us to explore various measures aimed at changing the direction of the society, and thereby smooth the transformation progress to a new JSME(Fig.8).

The aim of “A Vision for JSME 10 Years Hence” is to help realize a society where members enjoy the advantages of membership, are recognized and valued by society as a whole, and are proud of their JSME affiliation. In order to achieve this vision and accomplish our aims as soon as possible, I ask for your continuing support and cooperation as we work together to build a stimulating, beneficial, and even better JSME.

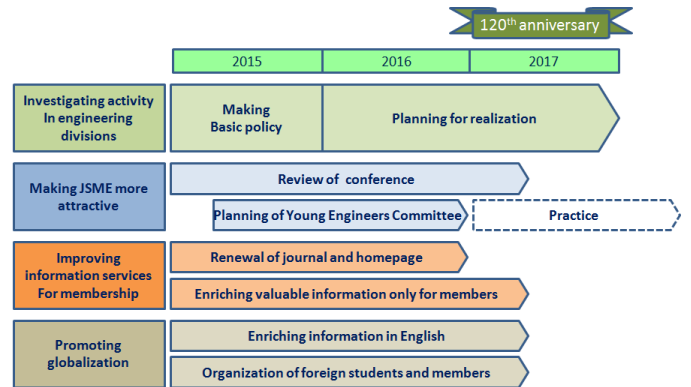


Fig.8 Action plan for the 120th anniversary