

# MEMS Foundry Service Industry Committee

**Kazushi Tomii**, Matsushita Electric Works

Chair, Foundry Service Industry Committee of the MEMS Industry

## 1. Overview

As micro-electro-mechanical systems (MEMS) have gradually become more practical, a vast market has begun to open up for MEMS devices. In recent years, the role of foundry services has become increasingly important in developing and manufacturing MEMS devices. The MEMS Foundry Service Industry Committee (FSIC) has been involved in constructing a network of Japan's foundry services. This article outlines the activities of the FSIC.

## 2. Activities of the FSIC

Formed within the Micromachine center in 2002, the FSIC has regularly held conferences on issues shared by MEMS foundries and has performed activities for promoting services at MEMS foundries to potential users. The membership of the committee is currently at eleven businesses and organizations involved with MEMS foundries having varied strengths and specialties. Below I will describe the committee's primary activities and endeavors planned for the future.

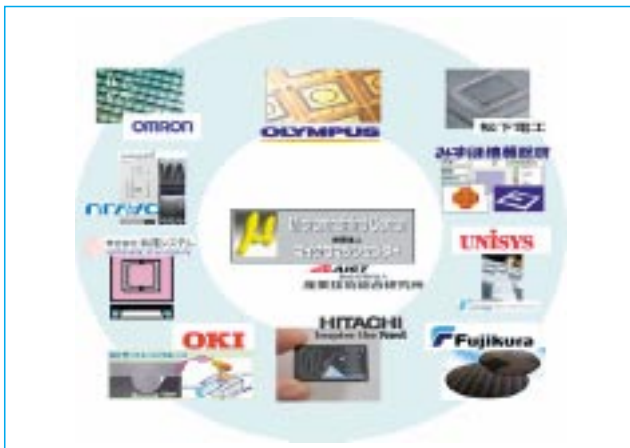


Photo 1 Members of the MEMS Foundry Network



Photo 2 How the MEMStation works

### (1) Managing the foundry service network

In order to enhance contact between users and manufacturers, we have provided a help desk on the FSIC Web site entitled MEMStation for accepting inquiries from users. Beginning services in July 2005, MEMStation provides a relatively easy approach to choosing a suitable foundry business.

### (2) Instruction and joint public relations activities through MEMS seminars

Since 2003 the FSIC has planned and conducted MEMS seminars targeting MEMS engineers. Held twice a year in Tokyo and Kyoto, for a total of seven times thus far, the seminars have received favorable reviews. We have also organized various joint seminars with exhibitors at the Micromachine Exhibition in order to promote the foundry network. Last year through the collaboration with regional public research and testing institutions, we were able to explain the services of various companies offering foundry services to more than 100 people.

### (3) Dissemination of the MemsONE MEMS design and analysis tool

The FSIC currently plans to participate in post-project dissemination activities for the NEDO project currently underway to develop a design and analysis support system for MEMS called MemsONE.

### (4) Motion to expand the MEMS industry

Conventionally, MEMS has been more difficult to standardize than semiconductors, with each company developing their own designs and processes. As a result, more time is often needed to commercialize MEMS devices, and small and medium sized companies using research findings from universities and the like cannot easily reach the stage of MEMS mass production and commercialization. In light of these problems, we would like to discuss and propose measures for enhancing the foundry's functions, such as creating design guidelines and developing process menus, in order to promote use of the foundries.

## 3. Conclusion

Beginning this year, the FSIC will operate within the MEMS Industry Forum under the Micromachine Center. Our objectives for this year include developing broader intercourse with the industrial world and strengthening the collaboration among industry, government, and academia, while continuing to advance the construction of the foundry network.