



## PRESS RELEASE

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### *2007 MEMS Foundry Ranking:*

#### **Healthy growth and new MEMS foundries identified**

*June 9th, 2008 - For the 4th year YOLE Développement has published **the annual ranking of the MEMS foundries**, and there have been major changes since the 2006 ranking! The MEMS foundry business is quite complex with more than 23 companies proposing foundry services worldwide. And the field is not static, at YOLE Développement we are seeing new players enter regularly, for example TSMC who recently added a foundry service and will very likely enter our future rankings.*

Yole analysts have identified that MEMS foundry players have been adopting two main business models:

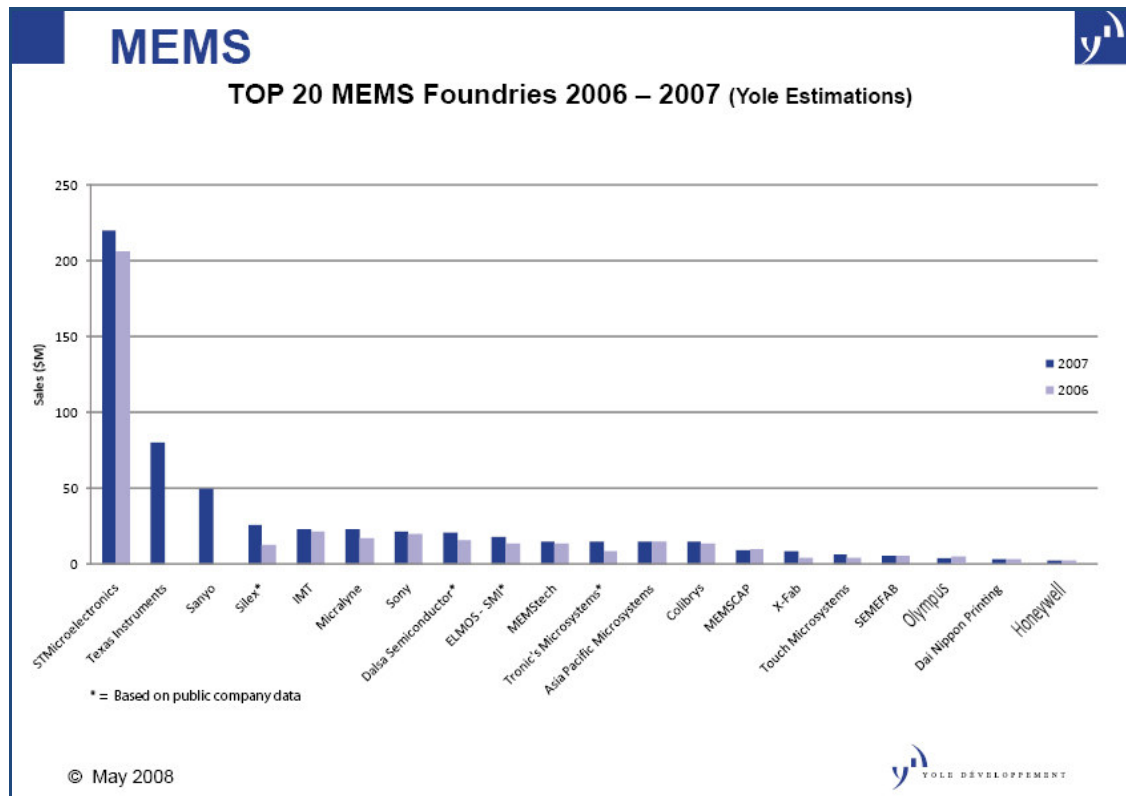
**One group is focusing on a limited number of customers:**

Several key semiconductor manufacturers like STMicroelectronics, Sony, Texas Instruments, Sanyo... are focusing on a few customers, becoming the absolute masters of the processes needed to serve their limited customer base allowing them superior cost positioning (STMicroelectronics has a very strong partnership with HP and another ink jet manufacturer, Sony is producing for Knowles Acoustics, Texas Instruments for Lexmark...).

**Another group is following an open foundry business model:**

They are working for a large number of customers, providing process development support and perfecting their ability to deliver flexible manufacturing services. For example, Silix has announced that they now have more than 70 customers.

It is important to include both types of MEMS foundry in this ranking because at the end they are proposing the same service. Just the business model is different.



The main results of the 2007 MEMS foundry business are the following:

- **STMicroelectronics** is still by far the number one MEMS foundry worldwide with a record **\$220M sales in 2007** (9% increase compared to 2006). Ink jet head business leads, but their microfluidic foundry services have become very popular and they continue targeting new applications.
- **Two new companies have entered the MEMS foundry ranking**, Texas Instruments and Sanyo. YOLE Développement, using its in-depth industry understanding, has discovered in 2007 that these 2 companies are providing MEMS foundry services for a limited number of customers. For example, Texas Instrument is manufacturing ink jet head structures for Lexmark.
- **Silix is now the 4th MEMS foundry worldwide** and also the number one open foundry, before IMT which was the open foundry leader in 2006. Silix has garnered very important new customers and now 50% of their revenue is coming from manufacturing. Its involvement in the manufacturing of devices for the mobile phone market (especially 3D silicon engineered interposer) and medical applications are fueling the growth.
- IMT is in 5th place, down from 2nd place in 2006. One of the key customers of IMT has stopped its business and so the growth has been limited in 2007.



- Micralyne is in 6th place worldwide with growth of the manufacturing activities.
- **The 2007 ranking is different compared to 2006 due to the entrance of new players like Texas Instruments and Sanyo.** These 2 companies have been involved in MEMS foundry business for several years but their activities have only become really visible last year.

For Mathieu Potin, MEMS analyst at Yole Développement *“It is very interesting to look at the growth rate of the different companies (see the table below): Silex has had the strongest growth with more than 100% (in dollar value, 78% in Swedish currency value), followed by X-Fab and Tronic’s Microsystems. All these players are fueling their growth with strong volume production and increasing demand from both existing customers and new customers.”*

Only Memscap is losing ground with custom production decreasing by 11% compared to 2006. Asia Pacific Microsystems is also flat in 2007 compared to 2006: the company has been involved in its merger with ChipSense and its integration within the UMC/Unimicron group and sales have been stable.

**MEMS**

**Table 2006 – 2007 comparison (Yole Estimations)**

Ranking 2007	Ranking 2006	MEMS Foundry	Sales	
			2006	2007
1	1	STMicroelectronics	206	220
2	-	Texas Instruments	NA	80
3	-	Sanyo	NA	50
4	10	Silex*	13,1	26,3
5	2	IMT	21,4	23
6	3	Micralyne	17	23
7	4	Sony	20	22
8	5	Dalsa Semiconductor*	16,2	21,1
9	7	ELMOS - SMI*	14	18,4
10	8	MEMStech	13,5	15,5
11	12	Tronic’s Microsystems*	8,7	15,4
12	6	Asia Pacific Microsystems	15	15
13	9	Collbrys	13,5	14,9
14	11	MEMSCAP	10,3	9,2
15	15	X-Fab	4,5	8,5
16	16	Touch Microsystems	4	6,5
17	13	SEMEFAB	6	6
18	14	Olympus	4,6	5,5
19	17	Dai Nippon Printing	3	3
20	18	Honeywell	2,5	2,5
21	19	Bosch	2	2
22	-	Jazz Semiconductor	NA	1
23	20	China ressources Semiconductor	2	0

\* = Based on public company data

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For Jean Christophe Eloy , CEO at Yole Développement , *“ 2007 was another very good year for MEMS foundries: strong and healthy growth for most of the players, but in 2008, the road will certainly be bumpier”*. Several MEMS foundries will suffer from a decrease of key customer sales, like Sony with the sales decrease of Knowles Acoustics due to limited growth of Knowles Acoustics sales and entrance of a second source for the microphone, IMT with the end of the production for one of its’ major customers, *“but we think that in general the MEMS foundry business will have a growth rate of 25% to 30% in 2008, which is not bad...”*



### **About Yole Développement**

*Yole Développement is a market research and strategy consulting company, specialised in the MEMS fields. Yole Développement offers various kinds of services:*

- *Custom market research and technology/strategy analysis*
- *Marketing and communication services through MicroNews*
- *Market reports*

*Founded in 1998, Yole Développement is the world leader in the analysis of the microtechnologies and compound semiconductors markets. Each day, Yole's team of 18 consultants is in worldwide contact with key industrial companies, R&D institutes and investors in order to help them to understand the market and technology trends. Yole consultants take into account the complete value chain including materials and equipment suppliers, device & system manufacturers*

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