



PRODUCTION TECHNOLOGIES OF THE FUTURE:

EOS SURVEY CONFIRMS: E-MANUFACTURING IS READY FOR THE MASS MARKET

Krailling near Munich, January 28th, 2008: Mass production in the Western world is on the brink of a silent revolution and e-Manufacturing is an important part of that change. These are some of the conclusions of a survey conducted by EOS at recent trade shows in Germany. EOS, the world-leading manufacturer of laser-sintering systems, interviewed industry experts at the K 2007 show in Duesseldorf and Euromold 2007 in Frankfurt. Respondents were asked to focus on the following core questions:

- What will the production of tomorrow look like?
- Is individualized series production from CAD data going to prevail in the future?
- Which technologies will drive this type of production?

Their answers confirm that industrial production is facing a paradigm shift: e-Manufacturing with laser-sintering is a key technology that will strongly compete with conventional technologies, such as casting, in the future.

DEFINING e-MANUFACTURING

e-Manufacturing delivers end products, functional parts and tools directly from CAD data – that is where the ‘e’ in e-Manufacturing derives from. A laser heats and melts powdered plastics or metals layer by layer, until the build is complete and a final product can be taken out of the system. Whether it is jewellery, clothes, lamps, chairs or functional parts for industry that are being manufactured, e-Manufacturing enables the creation of products with highly complex and filigreed structures and forms that are unthinkable geometries for conventional series production.

IS e-MANUFACTURING READY FOR THE MASS MARKET?

70% of the interviewees answered “yes” to this question. 33% believe that individualized production with laser-sintering is already market-ready, while 37% predict the establishment of the technology in the market within the next three years. The rest anticipate establishment of e-Manufacturing within five years, with only 4% seeing a lag of ten years.

PHRASE OF THE FUTURE: MASS CUSTOMIZATION

What actually drives e-Manufacturing? The key answer is the trend towards individualized series production – also called Mass Customization. Both industry and end consumers increasingly request individually manufactured products, creating a potential demand for mass customization of those products. And this is exactly where e-Manufacturing comes into play:

- 28% of those interviewed said that the trend towards individualized series production is the most important factor for the success of the technology.
- Nearly a quarter of the interviewees saw greater “cost savings compared to conventional technologies”.
- 22% judged that e-Manufacturing will overtake traditional technologies due to “shorter product life cycles”.
- Significantly fewer interviewees counted factors such as “automated, unmanned production” (15%) and “decentralized production” (11%) as primary success factors.

CHALLENGES, BARRIERS, OBSTACLES

As with every innovative technology, e-Manufacturing with laser-sintering is not completely immune to competition from other methods; conventional technologies still offer some advantages, according to survey participants.

- 29% of the interviewees called the limited choice of materials as the greatest barrier to implementation of e-Manufacturing technology.
- Approximately a quarter of the respondents judged the “lack of know-how in the industry” as a hindrance.
- Another quarter think that lack of awareness about the technology is the main obstacle.
- The rest cited “lack of innovative power across companies” (12%) and “outdated production structures” (11%).

The majority of the interviewees thus felt that the difficulty is not so much the emerging technology itself, but rather a lack of knowledge and openness in the industry.

WILL TODAY'S MASS PRODUCTION DIE OUT?

Finally the interviewees were asked for their predictions about production methods 20 years in the future.

- A clear majority (63%) forecast the establishment of individualized mass production in the Western world.
- 21% believe that end customers will have their own mini-factories and produce their own products with Rapid Manufacturing.
- About 9% of those asked went so far as to remark that, in 20 years time, manual manufacturing will only take place on the PC.

Dr. Hans J. Langer, founder and CEO of EOS, feels that the results of the survey confirm his evaluation of the market: "We have been observing the trend towards Mass Customization for a few years already," he says. "The number of consumer goods applications is increasing significantly, and manufacturers are seeing clear advantages with e-Manufacturing, especially when it comes to freedom of design."

"EOS is currently working intensively on the development of new materials," he adds. "We are fully aware that material choice is going to be a significant driver for our future business."

About EOS

EOS was founded in 1989 and is today the world leading manufacturer of laser-sintering systems. Laser-sintering is the key technology for e-Manufacturing, the fast, flexible and cost-effective production of products, patterns or tools. The technology manufactures parts for every phase of the product life cycle, directly from electronic data. Laser-sintering accelerates product development and optimizes production processes. EOS has completed its business year 2006/2007 with revenues in laser-sintering of 59.7 million Euro, which is an increase of 14 percent compared to the previous year.

Press contact for further information / photos:

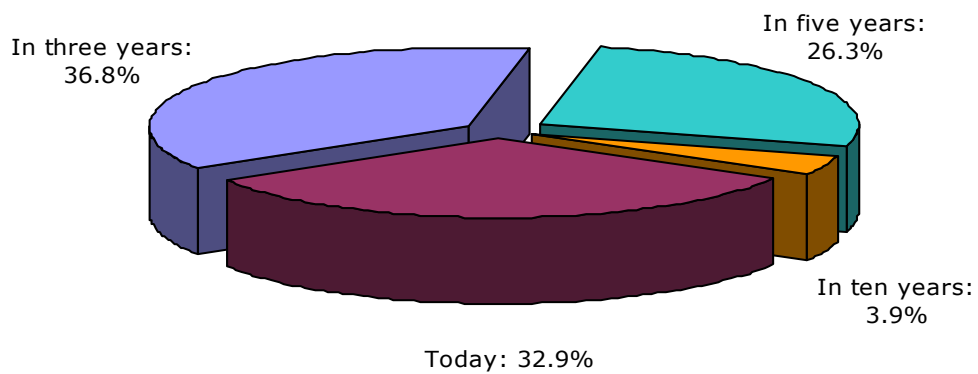
EOS GmbH Electro Optical Systems
Martina Methner
Robert-Stirling-Ring 1
D-82152 Krailling

Tel: +49 89 893 36-134
Fax: +49 89 893 36-288

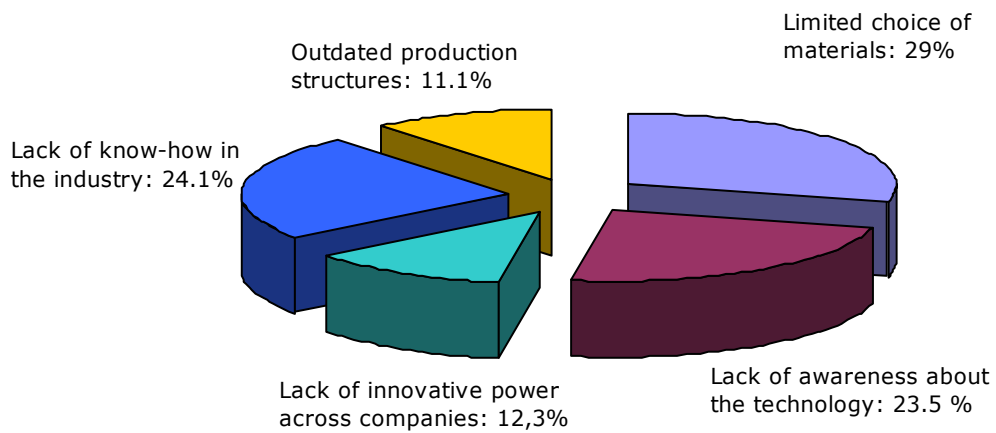
Email: martina.methner@eos.info

Charts for EOS Industry survey 2007/2008

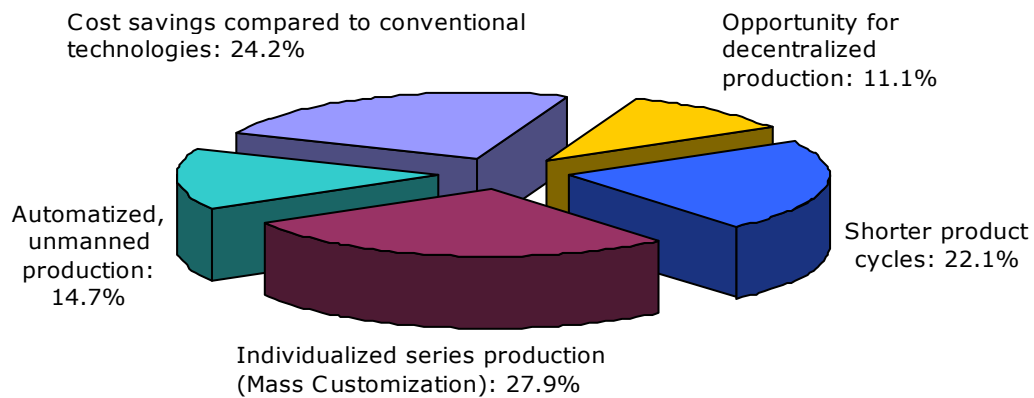
When is e-Manufacturing with laser-sintering ready for the mass market



Which are the most important current risks for the laser-sintering market?



What are the most important reasons for the success of the laser-sintering technology?



Which prediction is the most realistic one? In 20 years...

