

Taking a look through Festo's crystal ball

Festo recently hosted a European press event at Audi's Gyor plant in Hungary, which houses an engine production facility and assembles the Audi A3, C and TT. (You can read more about that a future issue of *CEE*).

Dr Ansgar Kriwet, a member of the Festo management board, region and sales Europe, used the event to offer his vision of the future of global automation, and the role that Festo hopes to play.

There are many global problems which need to be solved, and in many instances automation technology can help to offer more efficient solutions. Firstly, Kriwet predicted that hybrid and electric vehicles will change the way that the automobile will look in the future. "This will, of course, also change automotive production and manufacturing requirements and we need to give this consideration now," he said. He presented a chart which showed the changing use of engines from 2000 to 2100. This showed that hybrid technologies will reach a peak from the 2040's to the 2080's, after which the market will be dominated by fuel cell powered vehicles.

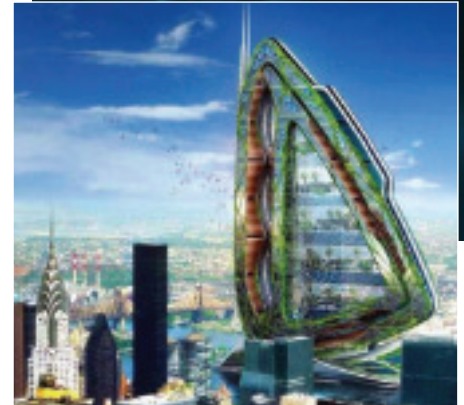
Another growth area that Kriwet looked at was personal and service

robots. Today this market is worth around €17 billion, but is expected to reach €51.7 billion by 2050.

He believes that food production will move in a more high-tech direction in the future, and will be harmonized with sustainability. Kriwet offered some impressive visions of high-tech farming scenarios – high-rise covered gardens run by intelligent automation technology. "So-called vertical farming is increasingly establishing itself in high-tech buildings cultivating vegetables and fruits under controlled conditions," he said. This trend is expected to continue in order to effectively and efficiently meet the food needs of the increasing world population in a changing environment.

Printed electronics is another area expected to see huge advances, as electronics become integrated into most consumer goods. "Printable electronics will become cheap and efficient enough to add functionality to most goods, to meet a variety of needs," he said.

Festo will need to evolve in order to keep pace with these changing trends. "We are continually developing our product offerings to ensure that we are ready to meet the future needs of customers," he said. "We are already



starting to see a higher degree of functional integration into products – requiring the use of both pneumatic and electric drives – and system competence is becoming more important.

"Festo will continue to drive innovation. With this higher degree of functional integration in products, system competence is becoming more important and we will drive innovation with functional solutions that combine pneumatics and electric drives. Of course, these systems will need to be easy to work with in the future, requiring an easy-to-use engineering software platform too."

Electric drives are currently seeing huge growth and are now responsible for 50% of development work currently being undertaken by Festo in the drives arena. "We want to offer customers the ability to combine pneumatics and electrics to offer the best solutions," said Kriwet.

Four major trends will influence the change in production technology from now until 2020, Kriwet predicted. More efficient utilization of energy, the integration of more information from around the enterprise, safety aspects and the trend towards more multi-purpose plants, and smaller processing units.

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