



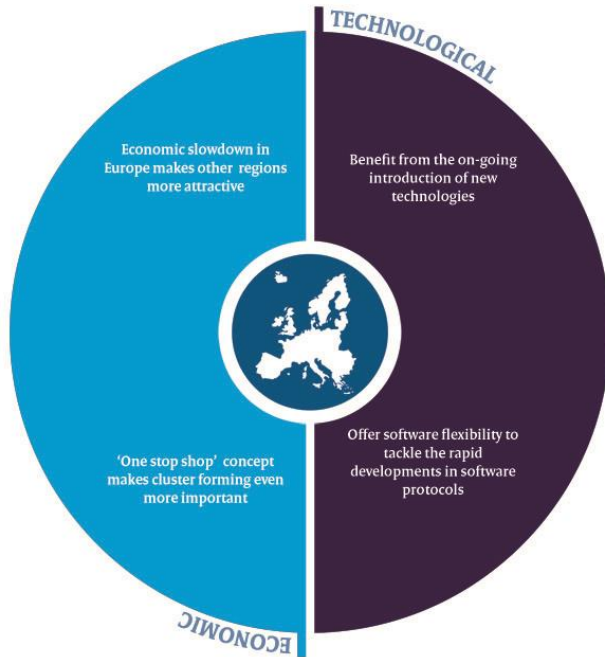
# CBI Trend Mapping - Motion, Drives, Control, and Automation: Mechatronics

*'Insights and foresights into key European market dynamics'*

Growth in demand, as well as growth in terms of products that feature in the mechatronics sector, can be expected well into the next decade and beyond. Companies are increasingly looking to automation to accelerate production methods and reduce manpower. For companies from developing countries that are involved in mechatronics, there is an ongoing requirement to stay up-to-date with the latest generation and development of software protocols. It is also recommended that companies in this area look to collaborate and form or join "clusters" with like-minded manufacturers. This will enable more complete "one-stop shop" solutions and integrated packages to customers.

Figure 1 reveals the main trends on the EU market.

**Figure 1: Overview of key trends on the European market for mechatronics**



Source: Peer group MDCA and interview with industry experts (2012)

### Technological market drivers

#### Ongoing introduction of new technologies

- The ongoing information technology innovation, developments in wireless communication, smart sensors design, and embedded systems engineering ensure that mechatronics design will continue to evolve throughout the next decade.
- Although state-of-the-art technology can be quite a challenge for DC exporters, this is not always required by EU customers. The “leapfrogging” technologies utilised are often not employed universally until they have proven themselves in application.

**CFA<sup>1</sup>:** Find the right partner with the right technology requirements. There could be an opportunity in contacting the EU manufacturers that are focused on new technologies and would like to outsource the mechatronics with the old technologies. This could even be a latent demand.

**CFA:** Understand the sectors that you can serve with your products. As mechatronics is such a developing product area, you will need to work hard at building up market intelligence through use of internet and trade magazines, in order to be aware of the latest trends.

<sup>1</sup> Consideration for Action for Developing Country Exporters.

### **Software flexibility is the answer to the quick developments in software protocols**

- Mechatronics companies need to use the latest software protocols and the software must be able to interface with a customer's existing systems. It is a challenging task, as software standardisation and sophistication are fast-moving and are likely to continue to innovate as the products employed in the integrated systems evolve.
- Software flexibility will be a key factor for DC exporters. Their opportunities will be drastically enhanced if they are able to offer open modules that can interface easily with existing systems. Therefore, stay up-to-date with the latest generation technologies, employed in mechatronics, is essential.

**CFA:** Include (software) flexibility in the module (open module), so it can interface with the many software protocols available.

**CFA:** Bring your company's software skills to a higher level: Put software skills and the awareness of current software systems at the heart of your company's development programme.

**CFA:** Develop your company's market intelligence function.

### **Economic market drivers**

#### **Growing demand for 'one-stop shop' concept**

- In the EU region, the major automation system builders have expanded their range to enable the supply and integration of complete systems. This is the result of a growing number of customers requiring integrated packaged supply that includes design, product supply, and commissioning from a single source.
- Over the next decade, more and more small alliances will be formed to compete with these largest automation system builders (such as Siemens, Festo, Beckhoff, ABB). There are already numerous alliances and clusters around Europe consisting of independent companies with cross-sectional disciplines, which collaborate to unite mechanics, electronics, pneumatics, and software to provide mechatronic solutions for clients. These clusters can also collaborate across national borders.

**CFA:** Make the European alliances and clusters aware of your existence as they could be potential customers. Find out where/who they are and contact ~~them~~ and visit them. They can also keep you informed and aware of technological advances.

**CFA:** Form a cluster or association in your own country.

**CFA:** Improve the sales skills of your staff (organise training sessions for your sales staff).

#### **More growth in regions outside Europe offers better opportunities there**

- In the EU, some "nice to have" projects might have been shelved or cancelled in the past few years, due to the difficult economic situation. However, as the economy is expected to continuously improve in the coming years, EU demand is expected to show higher growth rates. The economic climate of the recent past has led to more competitive pricing, which in itself may have offered opportunities for individual mechatronics product manufacturers. As process and industrial investment continues to pour in to DCs, there are significant opportunities for mechatronics companies in DCs to benefit from regional or domestic growth from multinational companies that are looking for automated equipment.

**CFA:** Improve the sales skills of your staff (organise training sessions for your sales staff).

**CFA:** Be aware of local investment by multinational companies that will need local support to provide automation for production methods. Success at this local level could enhance opportunities to provide mechatronic solutions on a global level for these companies.

This survey was compiled for CBI by Facts Figures Future  
in collaboration with CBI sector expert Malcolm Sheryn

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