

The European Commission has launched a special project called the Lead Market Initiative to encourage innovation in the 27 member states of the European Union. The Commission chose six specific industry markets in which to try the idea out, listing Personal and Protective Equipment as one of them, which could be good news for companies throughout the textile supply chain.



Lead market initiative

Everyone around the world wants to find a better way of turning good ideas into products that take the commercial market by storm, and companies in the European Union are no different. In 2006, the trading bloc's executive arm, the European Commission, came up with a plan for making it easier for businesses and academic institutions to share new ideas and turn them into winning products and services. It called the plan the Lead Market Initiative (LMI), picking out six areas of the global economy that demand high levels of innovation and offer good prospects for commercial success, and committing to an action plan that will, it hopes, allow European players to enter these markets with something of a competitive edge.

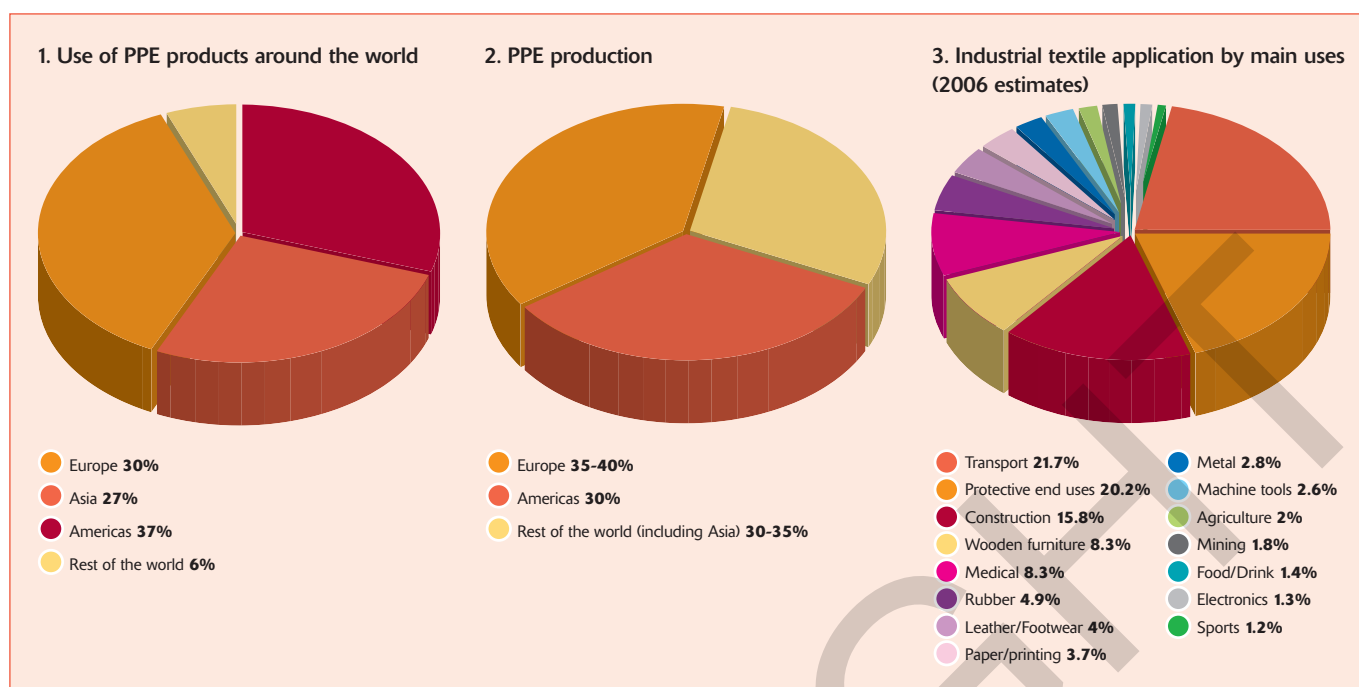
One of the markets that the Commission has decided to approach in this way is the one for Personal and Protective Equipment (PPE). Now, it's worth emphasising that LMI does not mean that Europe's leaders have set out to pick

winners, as though they were betting on a horse race. Nor are they attempting to create a market artificially for particular kinds of technology. Instead, the list—as well as PPE, it comprises 'eHealth', sustainable construction, bio-based products, recycling and renewable energies—consists of application areas that are broader than a single product or single technology. They are markets that already have a strong technology and industry base in Europe, and innovation already plays a key role in all of them.

Crucially, the Commission also estimates that they are markets that have a strong global future because demand for the products and services arising from them will be intense; they are, and will continue to be, demand-driven markets, not push-led with the technology providers themselves trying to drum up support for their ideas. Also, they each provide solutions that can help European society in its battle against "broader strategic, societal, environmental and economic challenges".

A fire officer tackling a forest fire in Cyprus. The European Commission wants emergency personnel to have access to the most innovative protective clothing on the market.

 European Commission



Sources: (1), (3) Euratex
(2) European Safety Federation

Its conclusion is that public policy actions—concerning research funding, procurement and so on—can help these markets grow quickly and steeply. If this proves to be true of PPE, it will be excellent news for suppliers the length and breadth of the textile supply chain, from polymer producers to the manufacturers of finished products.

The current size of the Personal PPE market in the European Union is estimated at around €10 billion, accounting for around 200,000 jobs, directly or indirectly. Forecasts of fast growth in certain parts of the world suggests that EU exports of products and services in this sector could grow by about 50% over the next few years. Advances in this area include novel speciality fibres, the use of nanoparticles and the integration of micro-electronic components into fabrics and garments, all areas that we have looked at in some depth in WSA before.

Industry leaders

EU industry expertise in the fields of polymer technology, yarn and fabric manufacture and textile finishing will play a pivotal role in reinforcing the leadership the community claims to have in new-generation PPE products. Part of its justification for this claim is that Europe also has a prominent position in high-tech domains such as the aerospace and military sectors, which have traditionally been a good source of applications that can transfer to the broader market (as well as to the sports and outdoor sectors); the LMI will seek to keep this going.

But in terms of exploiting applications that come out of the scheme, European companies will receive encouragement to spread their nets far and wide. In terms of spending on PPE, the value of the non-EU markets doubles that of the

European one, offering possibilities to increase EU exports substantially, a notion the European Commission is very keen on. It regards eastern European states, especially Russia and Ukraine, China and south-east Asia as the areas that hold the greatest promise, with the Asian markets the fastest to grow. There, though, European producers of fire-resistant suits, ballistic clothing and masks, clothes for medical professionals, suits that protect against dust or harsh weather, and those that offer high-visibility, will face plenty of competition from the US, as well as from Japan, Korea, China and Taiwan.

If European producers are to claim a healthy share of these countries' PPE spend, openness of market access will be an important factor. If EU companies can secure what the Commission calls "real market access", it will be possible for them to increase exports "by at least 50% over the next five-to-ten years".

In many instances, PPE equipment purchases come out of public sector budgets. The public sector is a very significant purchaser of PPE products, most obviously those worn by fire-fighters, emergency services, police forces and the military sector, or for healthcare professionals in public hospitals. The share of public procurement is close to 100% in some fields—such as defence, civil security or emergency operations—and at least significant in areas like healthcare, energy or infrastructure works. The Commission has said on this subject (in 2008): "While no precise data are available for protective equipment, a rough estimate of the turnover that public markets represent for the textile and clothing industry is of the order of €10 billion. Public authorities are therefore crucial customers with respect to the development of a new generation of PPE products."



A joint airborne initiative between Dutch and US soldiers. Public sector purchasing managers need to look at more than just price when choosing protective clothing and equipment. If they place high importance on innovation, too, the European Commission believes textile manufacturers across Europe stand to gain.

 Liesl Marelli/USArmy

Public purse

And here we arrive at the area in which the LMI hopes to make its biggest contribution. The aim is to convince those involved in awarding public procurement contracts to take into account criteria other than price alone. The European Commission has recently published its own guide to dealing with public procurement of products with high levels of innovative technology in them. Among other recommendations, the guides highlight the importance of selecting “the right product at the right price”, meaning that the best offer should take into account price, quality, environmental and social criteria. Moreover, the guide proposes that public tenders could specify functional requirements, but accept “variant bids”, giving suppliers the opportunity to propose innovative solutions that meet and may (within reason) go beyond the basic requirements. Incentives for innovative solutions could even be included in tenders for public purchases of protective clothing and equipment.

The guide spoke of the need for a “cultural shift” among procurement professionals: public tenders should express product requirements and awarding criteria in terms of performance or problem-solving, rather than limit themselves to “a limited definition of technical specifications that often restrict the possibilities to present innovative proposals”.

For Nick Walker, manager of a European project called ProeTEX, this is about adding value to the output of the European textile industry, which is suffering in the face of competition from other parts of the world. The project aims to coordinate academic and business developments in textile-based micro and nanotechnologies to create “integrated smart wearables” for emergency disaster intervention personnel. He has no doubt that some of the innovation that comes out of it will filter its way into sports and outdoor clothing applications in time.

“Quite a lot of the companies involved are from Italy,” he explains. “The textile industry there is under a very large threat, and it has a large combined workforce. So we must look to innovation and try to create next-generation products, whether they are made here or not in the end because we can at least develop the intellectual property in Europe.”

He points out that civil emergencies are on the rise. We expect emergency workers to deal with complex problems, working in exceptionally difficult environments for long periods of time. The best service the textile industry can offer to people who have to perform under these conditions is to “focus on what is really new in textiles”, he says. Mr Walker envisages clothing with electronic devices capable of communicating with colleagues at an operations base so that a worker in an emergency situation can receive information on medical conditions, dangers ahead, the best route out and so on. Outer garments will be able to act as an energy source strong enough to provide power for these devices; these garments can even be equipped to detect potential hazards in the working environment. Meanwhile, the industry is well down the road towards developing inner garments that can monitor the health of the wearer, possibly also checking stress levels.

ProeTEX will combine the input from its partner universities and companies to produce three generations of prototype products, with each generation bringing in new work and new research, making garments more advanced, but also more wearable (for example, by making them lighter in weight) all the time. The technology providers in this interesting space will keep pushing back the boundaries of the garments and footwear emergency workers wear. The European Commission, as part of the LMI, is trying to make sure they receive a decent commercial return for all their hard work. 