

# Clever clothes in a smart world

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Pretty soon your gym gear will be more high tech than the groaning treadmill beneath you. Smart textiles and wearable devices can monitor your vital signs as you go about daily life. These clever clothes already exist and look set to find a market niche especially in elite sport and healthcare, say European researchers. Source: [ICT Results](#)

“If I want to monitor a whole body, why not use clothes?” says Danilo De Rossi of Smartex, an Italian firm developing clothes that, according to a recent article in Wired Magazine, do more than look stylish and keep the cold out. Their new line looks great and can keep you healthy and active at the same time.

Tiny sensors woven into the fabric collect information about the wearer’s vital signs (respiration, heart rate, surface and core temperature) and movement, which can be monitored remotely using embedded GPRS transmitters.

And who stands to benefit most from these clever clothes? People with heart conditions or undergoing rehabilitation that require constant monitoring, athletes, newborns and people with sleep apnoea are among the potential users. Coupled with location-based services (LBS), sensitive clothing could also help keep soldiers and emergency crews safe in extreme conditions.

“There are a vast number of applications,” Smartex’s Rita Paradiso earlier told ICT Results, “though the garment would need to be customised for each task.” Work in the EU-funded Wealthy and MyHeart projects were critical to the prototype garments that her company is hoping to take to market soon, together with Spanish wearable technology firm, WearTech.

The Wealthy prototype is technically very competent, she recently confirmed, but its advantage is in the wearing. “It has to be comfortable, like underwear really, if people are going to use it,” she concluded.

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