

Sustainable procurement of workwear in Zürich

CITY OF ZÜRICH, SWITZERLAND

Procurement objectives

The City of Zürich purchases a wide variety of textiles to meet the needs of its police department and other municipal services. Its total cotton consumption, excluding hospitals, is estimated at 12 tonnes, or some 60,000 pieces per year. The production and processing of non-organic cotton has a serious impact upon soil fertility, water conservation, biodiversity and greenhouse gas emissions. A successful pilot in 2009 led to the decision to switch to 100% organic cotton shirts for Zürich's police force.

Criteria used

A pilot was conducted in which 525 100% organic cotton shirts were purchased and presented for user and laboratory tests. On the basis of better performance and user satisfaction, a tender procedure for the annual purchase of approximately 4,000 shirts was launched, using the following criteria:

Subject Matter of the Contract: Procurement of 100% organic cotton police shirts.

Specification: 100% organic cotton, non-iron long and short-sleeved shirts with detailed finishing. Fabric must comply with the Eco-Tex Standard 100 Class II or equivalent. The [criteria](#) underlying this standard set limit values for potentially harmful substances at all stages of processing for textiles which are in direct contact with skin. The standard also sets requirements for the use of biologically active and flame retardant products and minimum levels of colour-fastness.

Results

The police shirts previously in use were a polyester/non-organic cotton blend. Following the tender procedure, a contract was awarded to Metzler & Co AG for the supply of the 100% organic cotton shirts.

While the raw material costs for organic cotton are higher than non-organic, the overall effect on the price of the finished garments is minimal – the cost per shirt is approximately ten percent higher. However, the higher initial purchase price must be assessed in light of the improved quality and corresponding longer life expectancy of the shirts. 1,000 police officers have benefited from these higher-quality and lower-impact garments since 2009.

Environmental impacts

The production of non-organic cotton is an intensive agricultural process, with the use of pesticides and mineral fertilisers affecting soil and water quality and biodiversity, as well as generating greenhouse gas (GHG) emissions. Further GHG emissions accrue at the spinning, dyeing and finishing stages, as well as during transportation and use of the finished product. Zürich identified a potential difference of 5 kg CO_{2e} per kilogram of cotton fibre when organic and non-organic production methods were compared. Further reductions were realised by the use of 20% hydropower at the spinning mill and heat recovery at the dyehouse. While the total volume of GHG emissions saved is relatively low, the cost per tonne of CO_{2e} reduction compares favourably with other possible measures (such as building improvements), making the purchase of textiles a 'low-hanging fruit' for authorities wishing to implement greener purchasing.

Lessons learned

The success of this procurement was driven by the involvement of parties from the various stages of the production chain in the initial consultation and pilot, as well as the initial testing done both by users and in the laboratory. Zürich's care homes have now procured workwear for their staff based on the successful model used for the police shirts. As more units are expected to follow this example, in the future a coordinated and open tender between municipal services could result in lower prices for the delivery of 100% organic cotton garments.

For more information, please see European GPP criteria for [textile products](#) and [background report](#).

