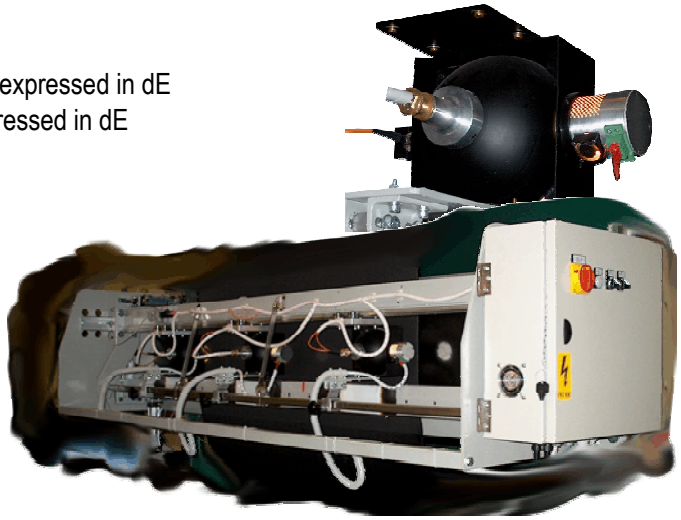
Automatic System for Continuous Colour Control in the Textile Sector

COLTEX Consortium has developed an automatic system for the **continuous control of colour defects on orthogonal dyed fabrics**, in order to provide the textile-finishing industry of an **efficient**, **cost effective tool for monitoring and improving production**.

Its main features are:

- ❑ centre-selvage colour control measurement expressed in dE
- ❑ measurement of the difference between start and end of roll expressed in dE
- ❑ measurement of the difference between sample and roll expressed in dE
- ❑ graphical signalling of uneven



System Architecture

The spectrograph is equipped with specific **integrating spheres** and high accuracy **CCD camera**. It allows continuous and multi-point colour measurements with performances comparable to common spectrometers.
Software can work both *on-line* and *off-line*, storing real-time results, in order to allow revaluation or changes in colour calculations formulas.

Inspection criterions as thresholds and calculations formulas can be set at any inspection, or modified afterwards, so that the system can perform in the best way.

System Highlights

- ❑ modular, compact, low costs
- ❑ customized application programs
- ❑ automatic fabric inspection during the finishing process
- ❑ on-line display of colour variation map of textile web (textile surfaces)
- ❑ maps storage for following off-line reprocessing
- ❑ triggers alarm for out of tolerance colours
- ❑ rapid, real-time inspection
- ❑ no limits on fabric width

The partnership

The research and development of the system is based on the experience of the Consortium that involves **IrisDP** as Coordinator, **D'Appolonia**, **Citeve** and **DV** as researchers.