

Clothing Technology Breakthrough for Long-term Industry Transformation

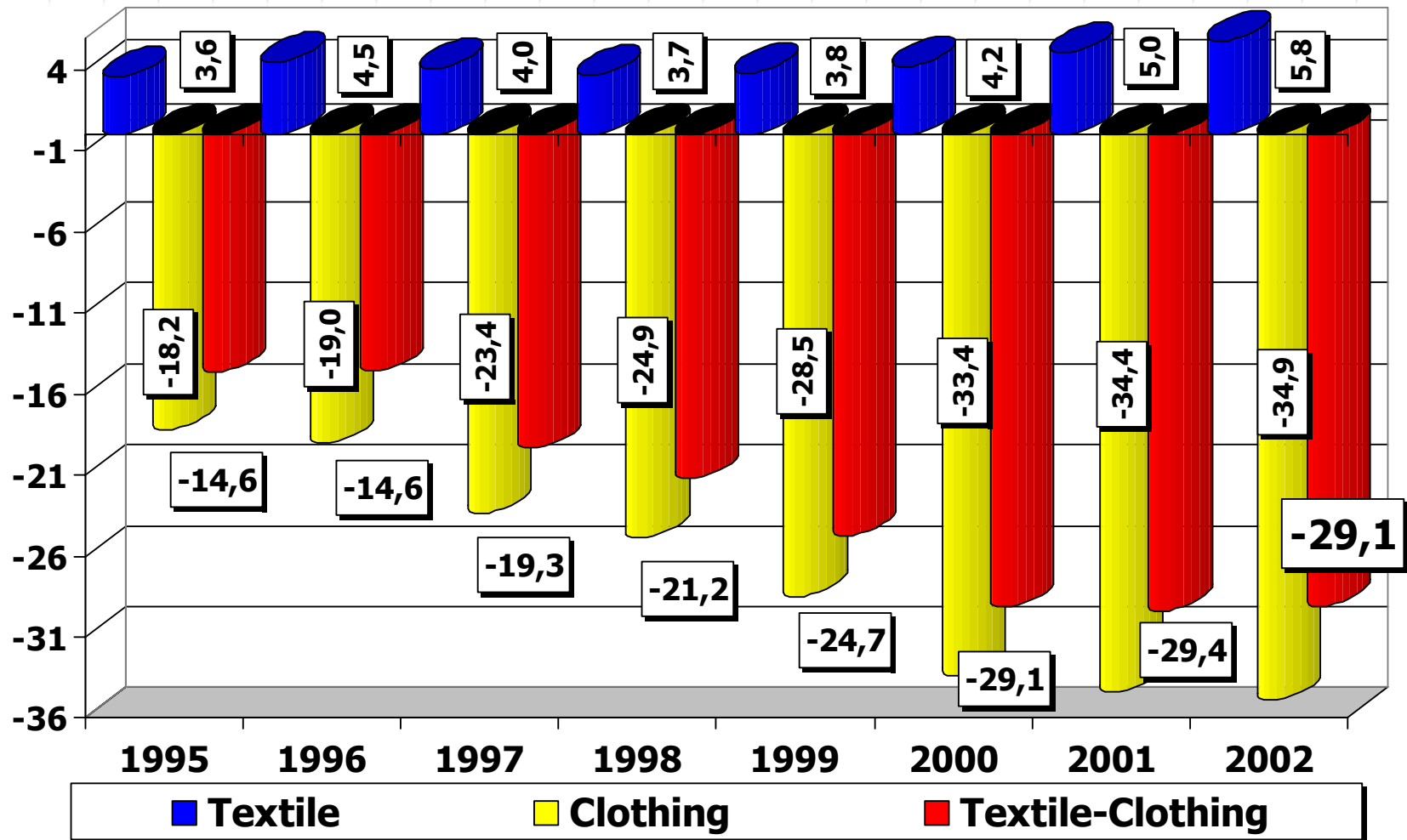
The LEAPFROG Project Initiative



The Situation Today

- ◆ EU-25 T/C industry: ~200 B€ turnover, 2.5 Mio. Employees, >150.000 companies, 96% SME's
- ◆ Low investment in research and technological innovation
- ◆ Fashion creation stronghold in EU
- ◆ Clothing retail dominated by large, globally sourcing multinationals
- ◆ Considerable trade surplus in textiles (6 B€), huge trade deficit in clothing (~35 B€)

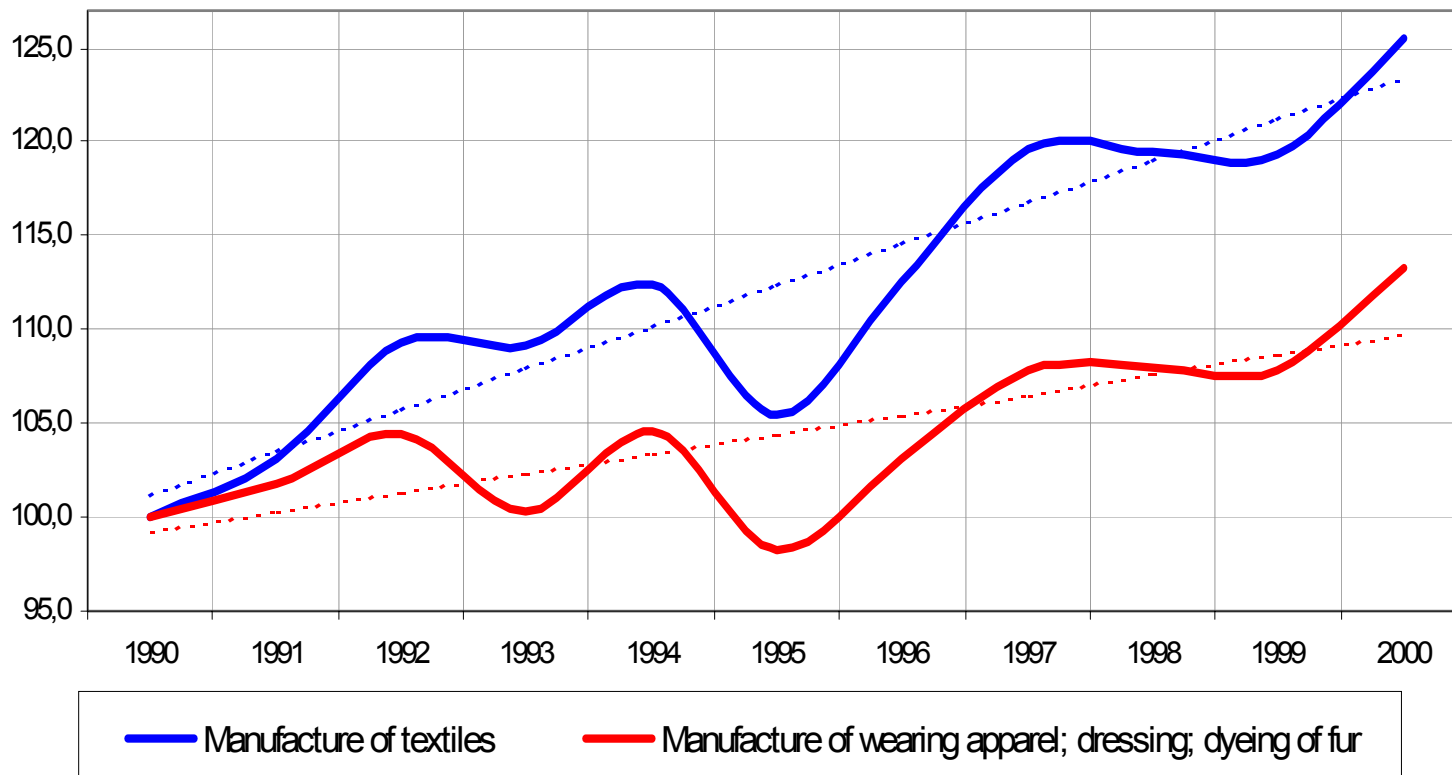
T/C Trade Development



The Productivity Gap

Productivity Growth Textile versus Clothing Industry

Added value per Employee at constant prices (1995) - Index 1990=100



The Evils

- ◆ High labour-cost factor in clothing manufacture
- ◆ Substantial deficiencies in the textile-clothing-retail chain
- ◆ Little innovation in clothing retail offerings to end consumer – predominant focus price
- ◆ Limited interest/ability to innovate and invest – wide-spread fatalism

The Results

- ◆ Continued clothing manufacturing migration to low-cost countries outside Europe
- ◆ Big risk of other parts of the chain following (espec. spinning, weaving)
- ◆ Erosion of the textile/clothing industry and knowledge base in Europe
- ◆ Bored consumers spend less and less of their disposable income on clothing

What Drives Manufacturing Migration ?

1. End Market Developments (natural and sustainable)
2. Manufacturing Cost Factors (deliberate and changeable)

The Objectives

- ◆ Stop manufacturing migration away from Europe.
- ◆ Enable the European industry to produce the majority of European end consumption at competitive cost in and around Europe (and successfully pursue export opportunities)

The Means

1. Drive down EU manufacturing costs significantly by way of intelligent production automation and integration & improve overall quality levels.
2. Drive down total costs and increase speed by erasing inefficiencies in the textile/clothing/retail network.
3. Launch new product-service offerings to retailers and end consumers, which favour European production.

The Right Competitive Mix

1. Drive down EU manufacturing costs significantly by way of intelligent production automation and integration & improve overall quality levels.
2. Drive down total costs and increase speed by erasing inefficiencies in the textile/clothing/retail network.
3. Launch new product-service offerings to retailers and end consumers, which favour European production.

1. PRODUCTIVITY

+

2. TIME-TO-MARKET

+

3. Added Value Concepts

1. Lowering Manufacturing Costs

- ◆ Rethink & reengineer complex, manual labour intensive processes (Automation of handling, sewing, ironing and related processes for cost cutting + quality improvement)
- ◆ Improve the preparation of the raw material going into clothing manufacture
- ◆ Reduce intra-production moving and storing (continuous automatic multi-step systems)

2. Erasing Chain Inefficiencies

- ◆ Reduction of stocks, over-capacities and out-of-stock situations (real-time information and sophisticated forecast systems across the production-retail network)
- ◆ Reducing time and cost from design idea to ready-for-production prototype
- ◆ Reducing the human error in information processing
- ◆ Improving logistics

3. New Product-Service Offerings

- ◆ Increase market share of Made-to-Order/Made-to-Measure concepts
- ◆ Increase product-value through quality, functionality & pre- and after-sales services
- ◆ Improve CRM (personalised advice, increased shopping convenience, better use of customer feedback)
- ◆ Increase reaction time to make close-to-season and in-season orders more attractive to retailers
- ◆ Increase retail-production integration to improve stability of relationships

The Time Is Now !

Why?



Convincing Arguments

- ◆ Urgent need to make EU and CEEC T/C industry fit for the post-2005 effects
- ◆ Favourable trends in retail (business acceleration, multiple order seasons + new business models like fast fashion, MC/MtM – speed, integration and proximity are key)
- ◆ Many recent technological developments that together can bring about the needed breakthrough (spherical sewing, advanced robotic devices, ink jet printing, virtualisation, collaborative web tools, 3D body scanning ...)

A possible solution...

To jointly tackle the problems in an Integrated European Research Project



The first steps are taken

- ◆ 2001 – Euratex Board of Directors defines it as key strategic initiative
- ◆ 2002 – 2 expert meetings with scientists & developers to assess the state-of-the-art, the feasibility and main lines of development
- ◆ 2003 – Preparation of a first stage project proposal submitted to the EC 6th Framework Programme in early March, successful evaluation by the EC in April

Further steps

- ◆ 2003 – Submission of second stage project proposal in June, successful evaluation, in September EC info about shortage of budget for immediate funding, start-up funding for networking and feasibility studies through LEAPFROG CA
- ◆ 2004 –re-submission of full project in March, successful first stage EC evaluation, **second stage submission in June, EC acceptance in September**
- ◆ 2005 – start of the full LEAPFROG project

The main lines of the proposal

- ◆ European Consortium of 35 partners (research centres, machine & technology developers, user companies) led by Euratex
- ◆ Establishment of AADLT with 60+ user companies (incl. 12 companies from CEEC) & Industrial Innovation Leader Committee
- ◆ Project with 4 years duration
- ◆ 26 Mio € budget (~50% EC funding)
- ◆ Starting with research & development work, extensive demonstration and training activities with companies later in the project

Schematic Project Overview

