

LEAPFROG Coordination Action

- Project Rationale, Structure & Expected
Results -

General Presentation

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LEAPFROG

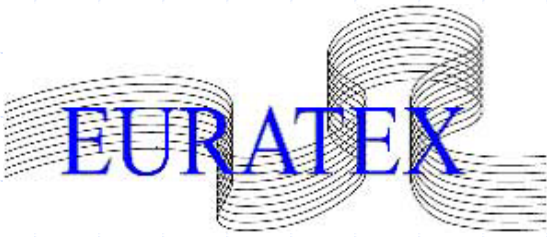
Coordination of Multidisciplinary Knowledge and
Research Activities to Support
**Leadership for European Apparel
Production From Research along Original
Guidelines**

Coordination Action project funded under the Nanotechnologies,
Multifunctional Materials and Production Process Programme NMP,
which is part of the European Union's 6th Framework Programme
for Research and Technological Development





Project Data



Key Facts

- ◆ Coordination Action under FP6 NMP Programme
- ◆ Duration: 30 months (June 04 – Nov. 06)
- ◆ Budget: 1.63 m€, EC funding: 1.47 m€
- ◆ EC Project Officer: Mrs. Odile Demuth
- ◆ Project Coordinator: Euratex
- ◆ 37 project partners from 14 countries

Partners list (1)

N°	Organisation	Country	Activity
1	Euratex (Coordinator)	Belgium	Industry Association
2	ITV-Denkendorf	Germany	Research Performer
3	IFTH	France	Research Performer
4	ATC	Greece	Technology Company
5	D'Appolonia	Italy	Technology Company
6	ENEA	Italy	Research Performer
7	TXT e-Solutions	Italy	Technology Company
8	MSO concept	Germany	Technology Company
9	Politecnico di Milano	Italy	Research Performer
10	Tecnotessile	Italy	Research Performer
11	Gruppo SOI	Italy	Technology Company
12	Gerry Weber Services	Germany	Industrial User
13	Fratelli Piacenza	Italy	Industrial User
14	MIRALab	Switzerland	Research Performer
15	Hohenstein Institutes	Germany	Research Performer
16	Lectra	France	Technology Company
17	Bivolino.com	Belgium	Industrial User
18	Fraunhofer-IGD	Germany	Research Performer

Partners list (2)

19	ATL	Romania	Industry Association
20	Centexbel	Belgium	Research Performer
21	Gaetano Rossini	Italy	Industrial User
22	IRIS	Italy	Technology Company
23	Jemtex	Israel	Technology Company
24	TNO	Netherlands	Research Performer
25	Shishoo Consulting	Sweden	Research Performer
26	Citeve	Portugal	Research Performer
27	TRA	Netherlands	Industry Association
28	Grado Zero Espace	Italy	Industrial User
29	Angles Textil	Spain	Industrial User
30	STAM	Italy	Technology Company
31	DIMEC- University Genova	Italy	Research Performer
32	IFN	Germany	Research Performer
33	TWI	United Kingdom	Research Performer
34	Büro Moll	Germany	Technology Company
35	Kings College London	United Kingdom	Research Performer
36	Fratelli Corneliani	Italy	Industrial User
37	Australian Wool Innovation	Australia	Industry Association



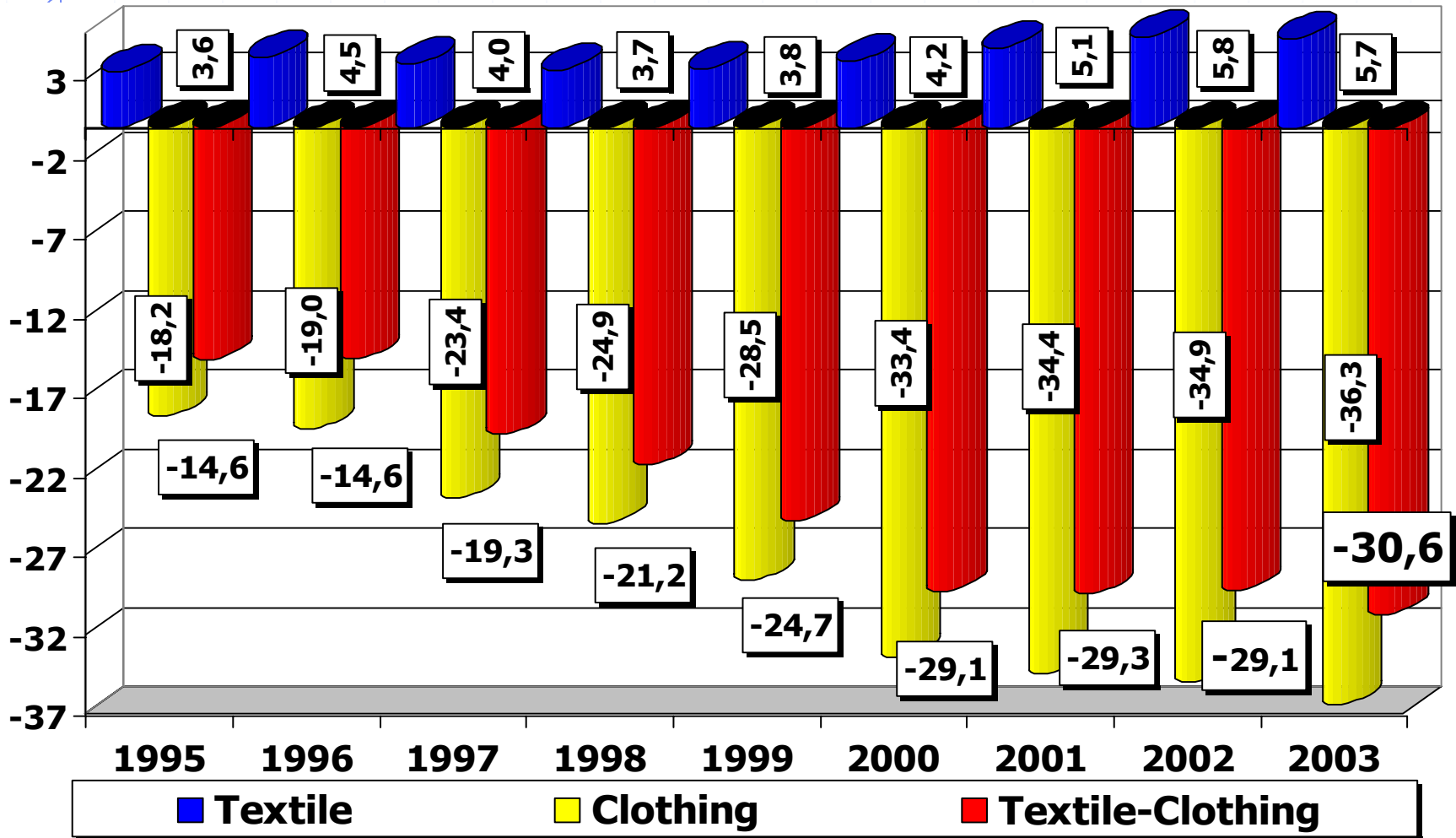
Project Background & Rationale



The Situation Today

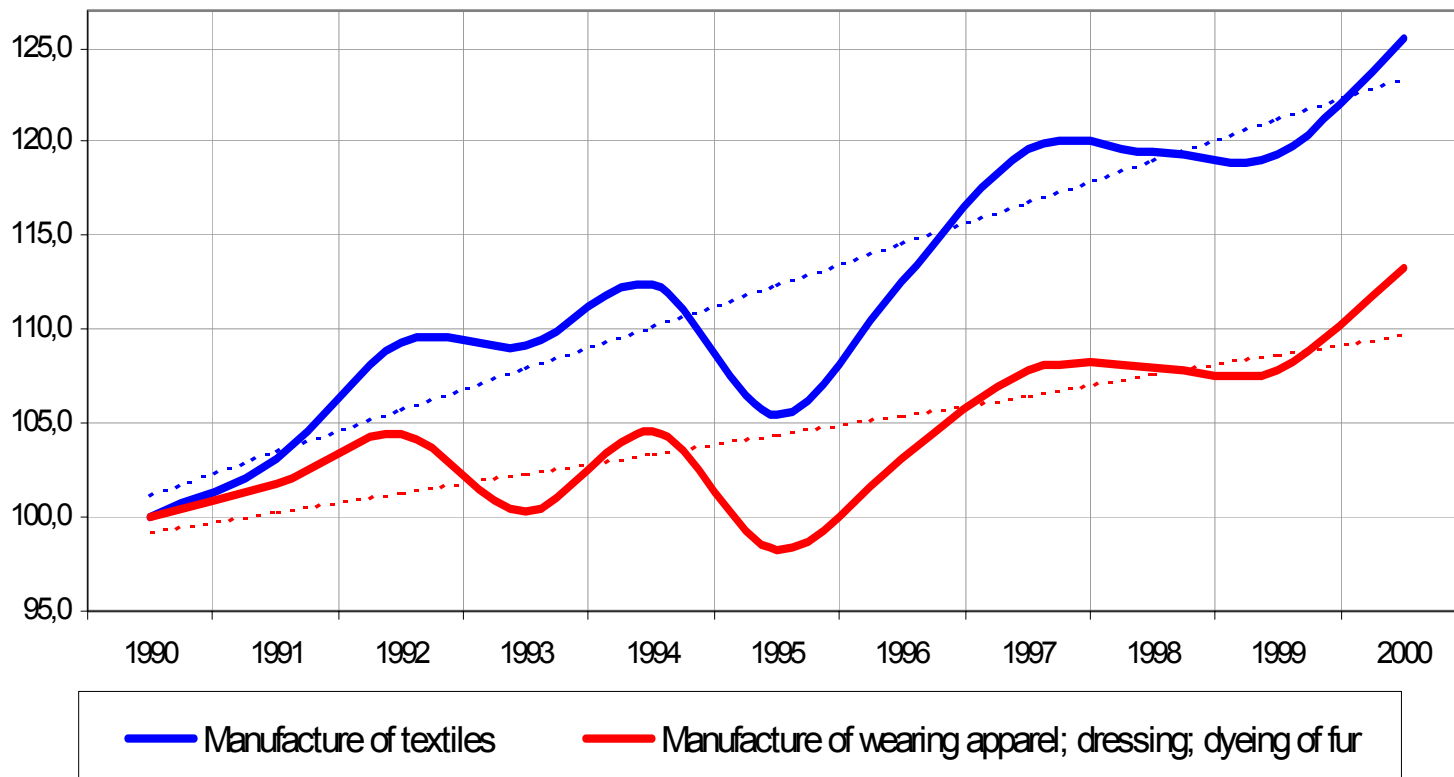
- ◆ EU-25 T/C industry: ~200 B€ turnover, 2.5 Mio. Employees, >150.000 companies, 96% SME's
- ◆ Low investment in research and technological innovation
- ◆ Fashion creation stronghold in EU
- ◆ Clothing retail dominated by large, globally sourcing multinationals
- ◆ Considerable trade surplus in textiles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

1. PRODUCTIVITY

+

2. Drive down total costs and increase speed by erasing inefficiencies in the textile/clothing/retail network.

2. TIME-TO-MARKET

+

3. Launch new product-service offerings to retailers and end consumers, which favour European production.

3. Added Value Concepts



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 scientific-technological developments that together can bring about the needed breakthrough (new materials, new surface treatment options, spherical sewing, advanced robotic devices, virtualisation, collaborative web tools, 3D body scanning ...)

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

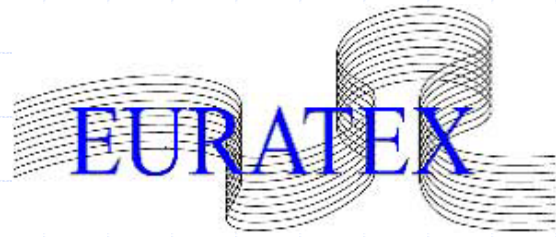
- ◆ Reduction of stocks, over-capacities and out-of-stock situations (real-time information and sophisticated forecast systems across the production-retail network)
- ◆ Reducing time and cost from design idea to ready-for-production prototype
- ◆ Reducing the human error in information processing
- ◆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

3. New Product-Service Offerings

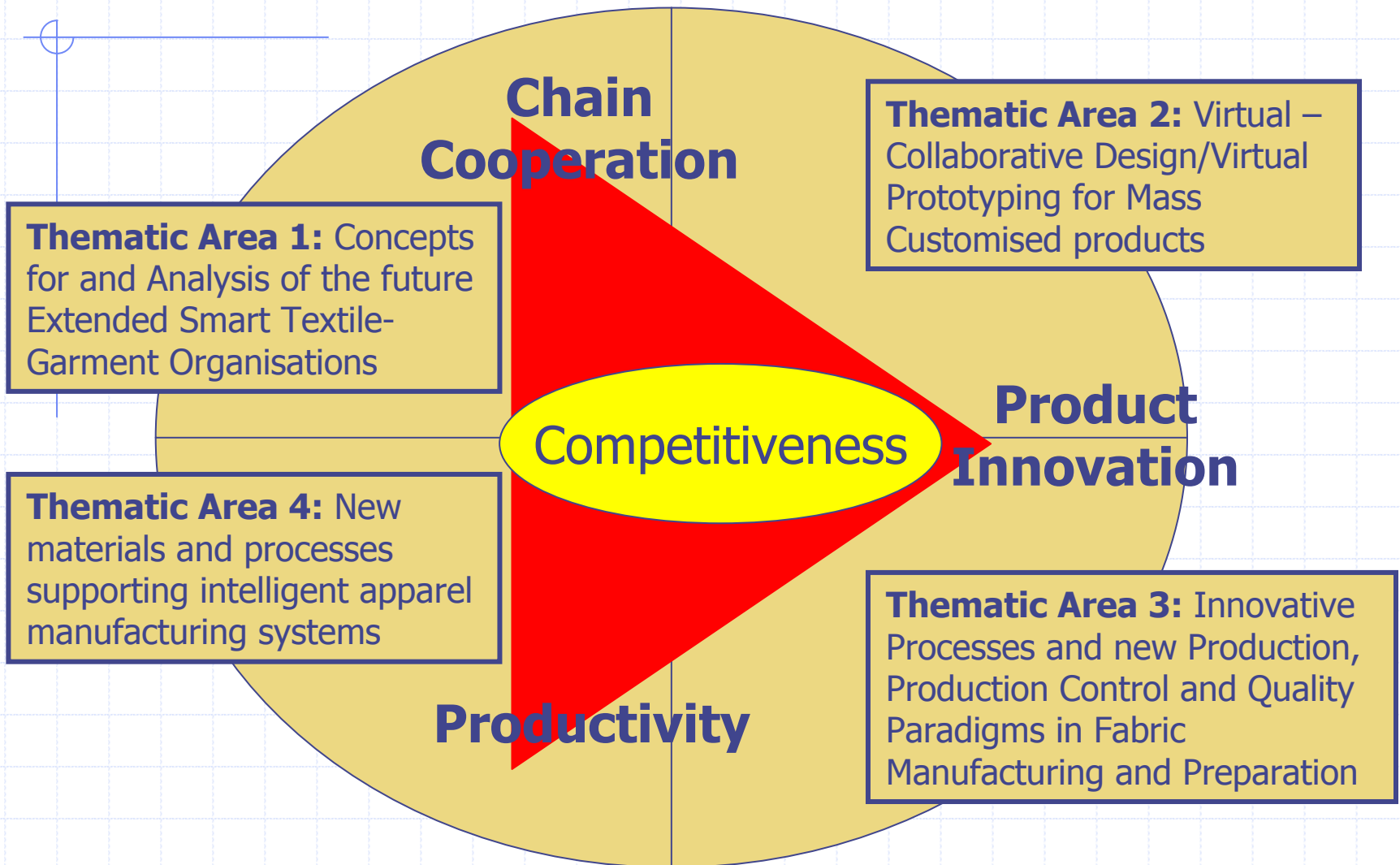
- ◆ Increase market share of Made-to-Order/Made-to-Measure concepts
- ◆ Increase product-value through quality, functionality & pre- and after-sales services
- ◆ Improve CRM (personalised advice, increased shopping convenience, better use of customer feedback)
- ◆ Increase reaction time to make close-to-season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



Project Structure & Activities



3 Objectives - 4 Thematic Areas



Project Activities

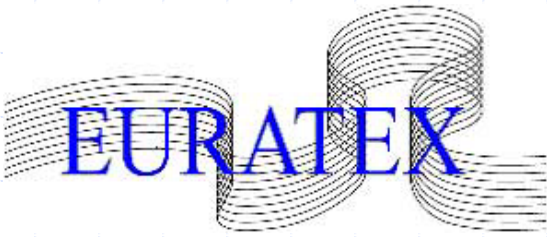
- ◆ International State-of-the-Art (scientific-technical & industrial) **WP1**
- ◆ Needs->Bottlenecks->Future Vision->Roadmap **WP2**
- ◆ International coordination & set-up of permanent cooperation structures **WP3**
- ◆ Dissemination & industrial awareness **WP4**
- ◆ Project Management **WP5**

Matrix Organisation of Thematic Areas and Work Packages

Thematic Areas (TA) / Work Packages (WP)	TA1: Analysis and Concepts of xSGO (Area Leader AL1: ITV)	TA2: Virtualisation and New Product Development (AL2: IFTH)	TA3: Fabric Preparation Processes (AL3: CTB)	TA4: Garment Manufacturing Processes (AL4: DAPP)
WP1: Knowledge Aquisition and Structuring (ITV)				
WP2: Analysis of Knowledge and Strategy Development („Roadmap“) (IFTH)				
WP3: Set-up and Operation of the Knowledge Community (ATC)				
WP4: Exploitaion and Dissemination (DApp)				



Expected Project Results



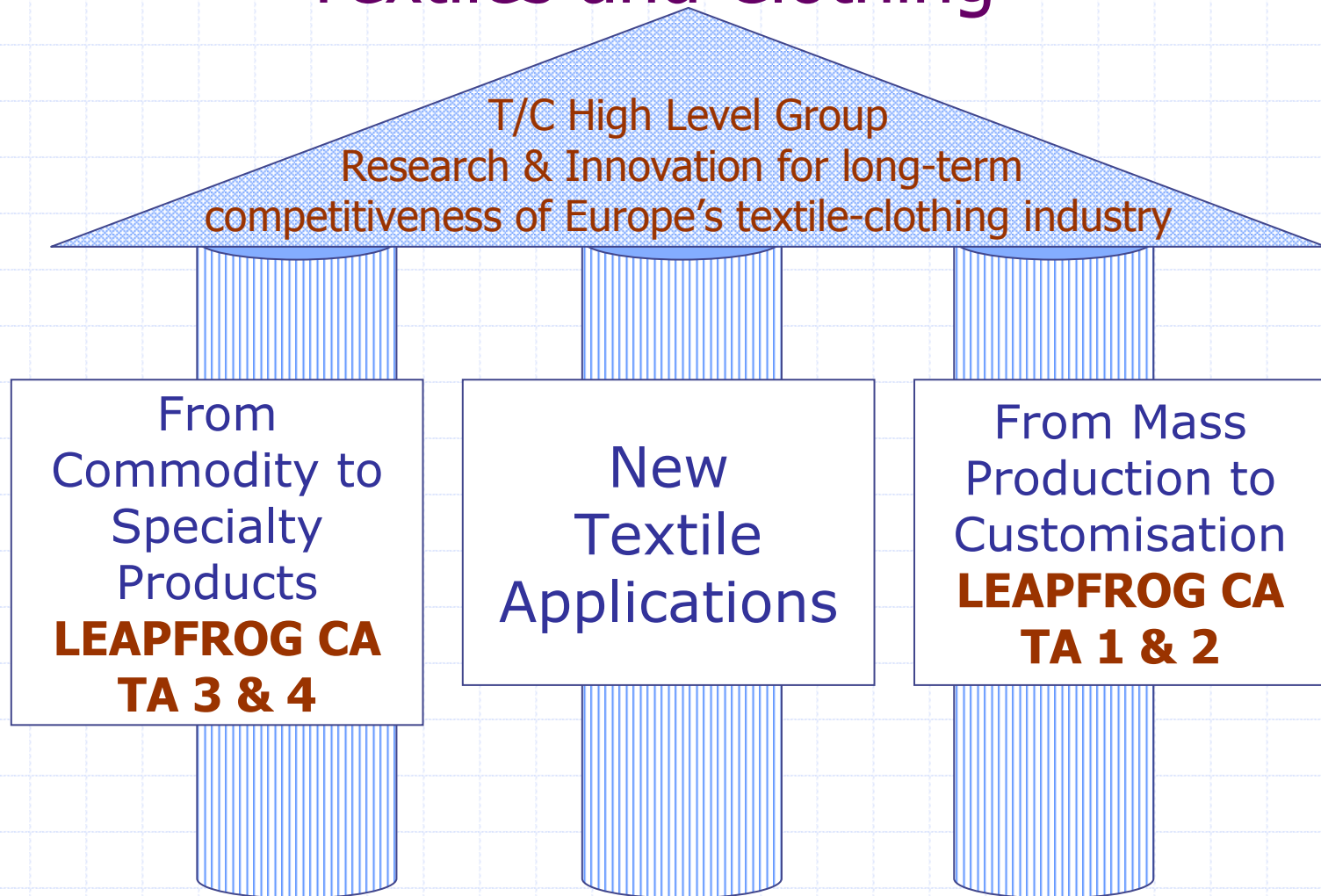
Expected Project Results

- ◆ SoA & Roadmap reports, Innovation & technology updates
 - ◆ Virtual knowledge & cooperation platform
 - ◆ Conferences, workshops
 - ◆ Print publications & web portal
- => Permanent scientific & industrial expert network for long-term knowledge-based transformation of Europe's clothing industry**

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Leapfrog CA as part of the European Technology Platform for the Future of Textiles and Clothing



In Summary

LEAPFROG CA will:

- collect, structure, analyse scientific technological and organisational knowledge
- develop visions, projections and recommendations for research, industry and policy
- build a permanent European expert network

to support long-term competitiveness of Europe's clothing/fashion industry and its suppliers based on **productivity**, knowledge-based **chain cooperation** and customer-oriented **product innovation**