



The Romanian Textile and Clothing Industry - from Tradition to Sustainability through Research and Innovation

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Summary:

- ✚ General context

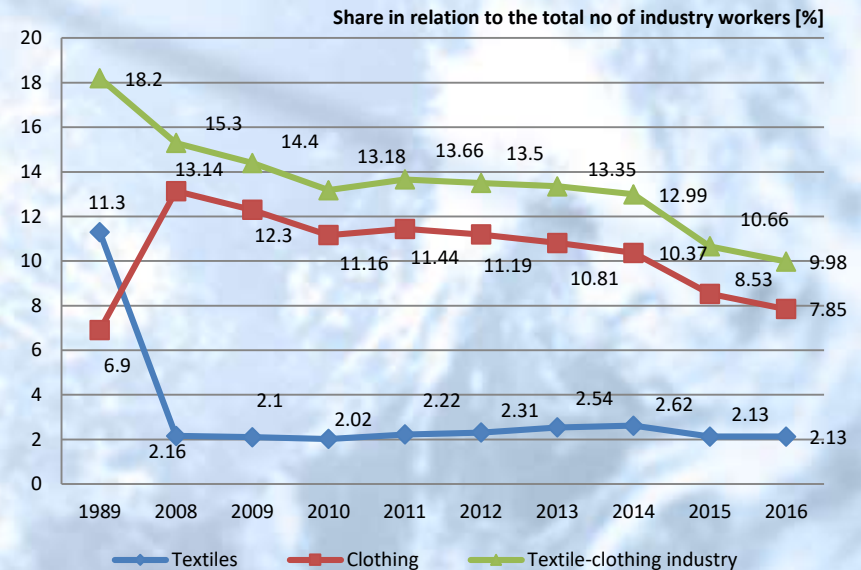
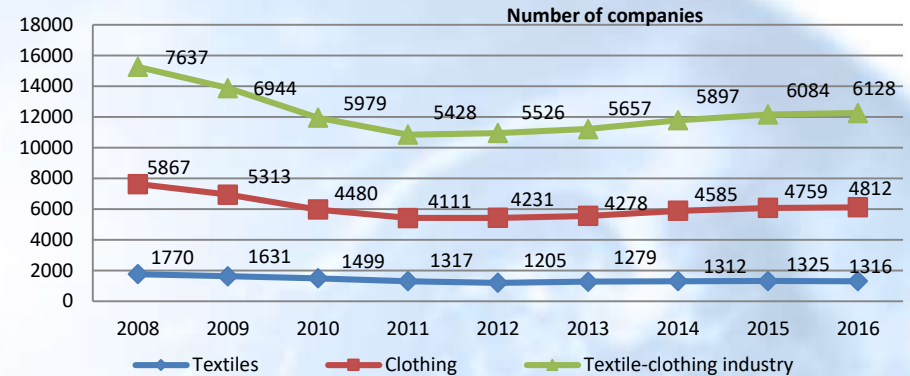
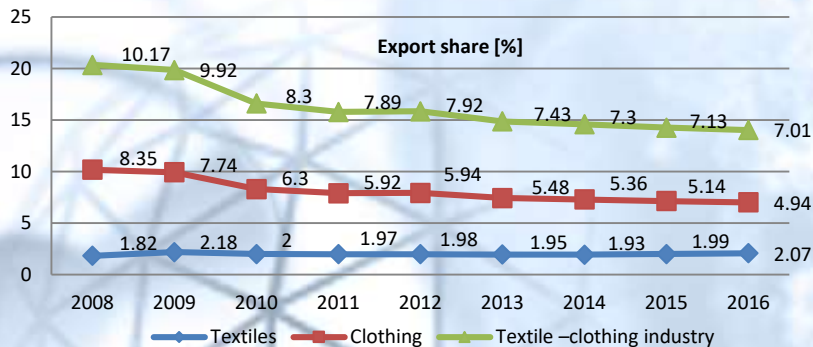
- ✚ INCDTP - promoter of innovation and development through research

- ✚ European representative projects, as partner or coordinator



In 2016: 2.14 % of GDP; 7 % of exports; 10 % of employees in the industry

- ✓ core economic sector nationwide, country-wide;
- ✓ currently about 171.500 employees ;
- ✓ it has significant share in the national export economy;
- ✓ is dependent on imports of raw materials;
- ✓ has a low volume of production of the primary sector.



Who are we?

The National RD Institute for Textiles and Leather is the only institute which has expertise and R&D facilities in the field of textiles, clothing and leather processing. INCDTP is celebrating last year 67 years of continue activity in the field of Scientific Research.

Some reference points in our history are:

1951

The **Textile, Leather and Rubber Research Institute** was established

1956

As a result of the high activity volume in the two domains, the Institute was divided into two separate entities: **Textile Research Institute** and **Research Institute for Leather, Rubber and Glass**.

1996

Over time, the activity has been developed and the organizational structure has been changed, so that in **1996**, by GD 1304/25.11.1996, **INCDTP** was set-up as National Institute



What are we doing?

Research activity:

- developed by National R&D Plan and European financing Programmes, together with the companies and universities and research centers;
- applicative and market oriented, with companies as coordinators (EUREKA, ERANET MANUNET, Innovation CEC, PTE, PTI programmes);
- flexible and dynamic process: 74 projects developed 2018.

Other related activities:

- technology transfer and valorization of research results through Experimental Pilot Unit;
- consultancy and testing services for the companies; 67 accredited tests (RENAR);
- technical expertise for MAI;
- ISI rated journal Industria Textila (the impact factor 2017 was 0,438);
- 2 international conferences, one/year;
- standardization and training activities: 10 ERASMUS+ projects 2018.

Support activities

- ✚ **Publishing activity:** INCDTP has its own Publishing House named CERTEX and publishes “Industria Textila” (Textile Industry) magazine (ISI rated) and The Leather-Footwear Journal (B+ rated).

The institute organizes on a regular basis:

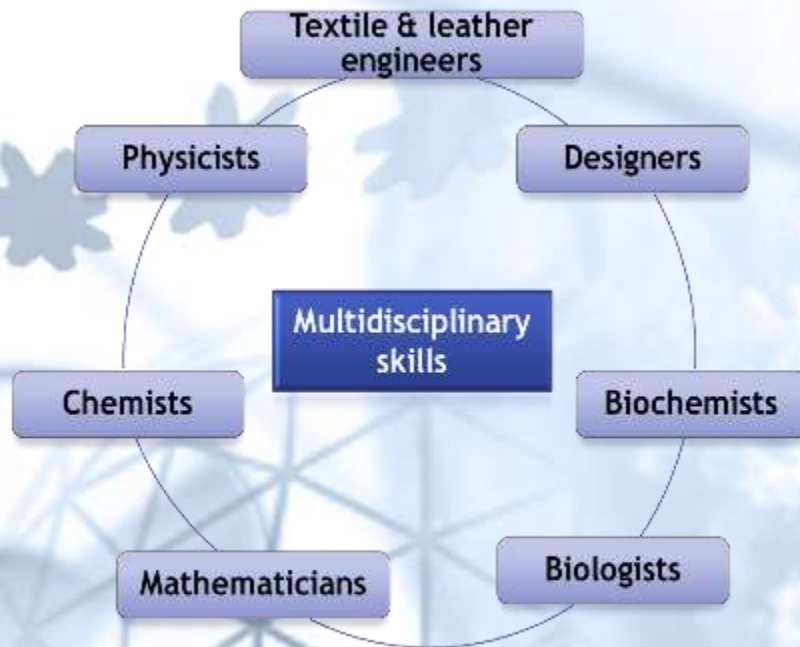
The TexTeh International Conference – 8th edition “Creating the Future of Textiles” - 19-20.10.2017 and **9th edition “Advanced Textiles for a Better World” – 24-25.10.2019**

The International Conference on Advanced Materials and Systems – ICAMS – 7th edition, 18-20.10.2018



INCDTP - promoter of innovation and development through research

Total personnel number - 172, of which 109 persons in research field, with multidisciplinary skills.



Ongoing strategic recruitment campaign, aimed toward the R&D activity – in 2018 we hired 11 young R&D personnel, for 3 new research projects; 35 young researchers (≤ 35 years old) in 2019.





Erasmus+

PNC DI



**SOUTH EAST
EUROPE**

Transnational Cooperation Programme



**Interreg
Europe**



European Union | European Regional Development Fund

SIINN



**INTELLIGENT
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FOR A SUSTAINABLE FUTURE



FASHION FORWARD
CONNECTING PATTERNS FOR SUSTAINABILITY
#TCBL_2019, Iași, ROMANIA, 28-29 May, 2019



FASHION COLLECTION INSPIRED BY ROMANIAN FOLKLORE

- **Description:** The fashion collection entitled “Influence Mix” is inspired by the traditional Romanian costume and its decorative motifs from different regions of the country. The traditional motifs taken from the Romanian folklore are digital printed on the clothes, arranged in various artistic compositions. This fashion collection contributes to the preservation of the national identity in the age of globalization and promote the history, the culture and national creativity.



New paradigm of processes and market services for garments of obese and elderly people

➤ **Programme:** EUREKA TRADITIONAL

➤ **Duration:** 2014 – 2015

➤ **Coordinator:** SC DATSA TEXTIL SRL, Romania

➤ **Partners:**

- The National R&D Institute for Textiles and Leather-INCOTEP, Romania
- SC Magnum SX SRL, Romania
- Textile Research Institute, Lodz Poland-IW, Polonia

➤ **Main objective:** development of a Web Portal that provides all the necessary information for the companies in the innovative and interactive manufacturing process of personalized clothing for elderly and obese people based on their specific 3D anthropometric data and body types.



NATIONAL STANDARDS

SR 13544:2010- Clothing. Men's Body Measurement and Garment Sizes

SR 13545:2010- Clothing. Women's Body Measurement and Garment Sizes

SR 13546:2012- Clothing. Body dimensions for children between 6 and 19 years old

- **Description:** The standards contain the 3D anthropometric data of the Romanian population aged between 6 and 65, the body types and the sizes of the garments;
- The 3D anthropometric data were measured using the 3D Body Scanner.



Manufacturing textiles with electromagnetic shielding and fire retardant properties by plasma based methods TexEMFiRe

- **Programme:** ERANET - COFUND-MANUNET III
- **Duration:** 2018 - 2020
- **Coordinator:** NATIONAL INSTITUTE FOR LASERS, PLASMA AND RADIATION PHYSICS (INFLPR)



<http://texemfire.inflpr.ro/>

➤ **Partners:**

- INCDTP - ROMANIA
- SC MAJUTEX SRL- ROMANIA
- TECNOLAB DEL LAGO MAGGIORE S.R.L. - ITALY
- UNIVERSITÀ DEGLI STUDI DEL PIEMONTE ORIENTALE “AMEDEO AVOGADRO” - ITALY

- **Main objective:** Design and manufacture innovative textile materials with metallic and insulating barrier layers



Manufacturing of value-added textiles for aromatherapy and skin care benefits

➤ **Programme:** ERANET - COFUND-MANUNET III

➤ **Duration:** 2018 – 2019

➤ **Coordinator:** INCDTP, Romania

➤ **Partners:**

- Gheorghe Asachi Technical University of Iasi, Faculty of Textile Leather and Industrial Management
- Doğal Destek Ürünleri Araştırma Sanayi Ve Ticaret A.Ş
- Magnum SX SRL Romania
- ÜNİTEKS Tekstil Gıda Motorlu Araçlar San. ve Tic. A.Ş

➤ **Main objective:** to produce aroma therapeutic garments and skin/body care products by using biologically active compounds. Encapsulation and transdermal delivery technologies will be expanded as a delivery path for essential oils and apiculture products.



Adaptive harness / container assembly for sportive skydivers *[prototype]*

- **Programme:** Nucleus
- **Developed:** 2016 – 2017
- **Main objective:** The development of a versatile harness container for sportive skydivers able to host a wide variety of parachute's volumes.
- **Characteristics:**
 - This is a container with variable volume for main and reserve parachute (patent pending), one size container can fit up to three standard size parachutes;
 - Developed for student use with AAD (automatic activation device), ergonomic design (spine fit) and three point adjustment harness (chest, legs and height) for almost any body shape.



Ultralight paraglider UAV for emergency response and remote sensing *[experimental model]*

- **Programme:** Nucleus
- **Developed:** 2018
- **Main objective:** The development of a low cost paraglider wing UAV for remote sensing and utility.
- **Characteristics:**
 - Single skin 33 cell paraglider wing (patent pending)
 - Wing span: 4m
 - Max takeoff weight: 35kg
 - Max cargo weight: 20kg
 - Hybrid propulsion, internal combustion engine and electric motor for up to 12h flight autonomy.



RESearch centers of Excellence in the Textile sector - RESET

- **Programme:** Interreg Europe
- **Duration:** 2016 - 2018
- **Coordinator:** Municipality of Prato (IT)
- **Partners:**
 - ✓ Next Technology Tecnotessile (IT)
 - ✓ Lodzkie Region (PL)
 - ✓ CLUTEX – cluster technical textiles (CZ)
 - ✓ Textile Research Institute AITEX (ES)
 - ✓ Textile Center of Excellence (Huddersfield & District Textile Training Company Ltd) (UK)
 - ✓ Saxony Institute Textile Research (DE)
 - ✓ Technological Centre for Textile and Clothing of Portugal CITEVE (PT)
 - ✓ INCDTP (RO)
 - ✓ Centre of European Textile Innovation (FR)
- **Main objective:** generating a policy change in the implementation of regional policies, for increasing the sustainability of the textile and clothing European sector.



Thank you for your attention!

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INCDTP - National Research and Development Institute for Textile and Leather

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The International Conference

Tex Teh IX

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October 24-25 2019
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