





# **Mission on Advanced Technical Textiles**

# September 4th to 7th 2019



- Consumption of technical textile=
  9.4 Bn USD in 2014 growing by 4 5% per year (\*)
- 10% imported from EU producers (medical applications)
- Strong upstream fibre industry with global players
- Strong indigenous technical textiles sector
- Focus on R&D intensive high-end technical textiles products



(\*) Source Gherzi Analysis- Final report Oct. 2016







#### **OBJECTIVES OF THE MISSION**

The mission consists in meetings with relevant Japanese stakeholders in the technical textile sector as well as in the participation to the International Symposium in Nara.

During the mission, several activities will be carried out including conferences by EU-TEXTILE2030 partners, visits to research facilities, meetings with companies and relevant stakeholders.

The objectives are :

- 1. To promote research activities in Europe related to advanced technical textile materials to Japanese companies and research centers.
- 2. To establish technological partnerships between research institutes/technological centers.
- 3. To establish collaboration partnerships between Japanese and EU companies: both for commercial or technological purposes.
- 4. To open new markets for European SMEs.

#### **PARTICIPANTS**

Cluster's managers from EU-TEXTILE2030 and clusters' members (SMEs or Research centers).









### **PROGRAMME (subject to modification)**

Arrival on September 3rd in Osaka

DAY 1/4 - Wednesday, September 4th - OSAKA				
MORNING	Meeting with TEIJIN FRONTIER – visit of the showroom and			
	presentation of the latest innovations			
	TEIJIN FRONTIER : business entity involved in the integrated			
	manufacture and sales of fibers, from fibers and yarns to fabric			
	and final products- www2.teijin-frontier.com			
AFTERNOON	Meeting with KURARAY, TOYOBO and TORAY – presentation of			
	their latest innovations			
	KURARAY : synthetic high performance fiber producer (Vectran <sup>®</sup> ,			
	Kuralon®) – www.kuraray.com			
	TOYOBO : high performance fiber producer (Zylon <sup>®</sup> )-			
	www.toyobo.co.jp			
	TORAY : fibers and textiles, carbon fiber composites materials -			
	www.toray.com			

In Osaka, travel to one place to another either walking or by public transportation & taxis.

DAY 2/4 - Thursday, September 5th - OSAKA		
MORNING	Meeting with MIZUNO – innovations in smart textiles for sport &	
	leisure activities	
	MIZUNO : manufacturer of sports equipment and sportswear for	
	golf, tennis, baseball, volleyball, football, running, rugby, skiing,	
	cycling, judo, table tennis, badminton, boxing and athletics.	
AFTERNOON	BtoB meetings with Japanese Textile SMEs	
EVENING - 18 :00	Transfer to NARA by train	

DAY 3/4 - Friday, September 6th - NARA		
MORNING	International Symposium (**)	
AFTERNOON	International Symposium	

DAY 4/4 - Saturday, September 7th - NARA		
MORNING	International Symposium	
AFTERNOON	BtoB meetings with JCFA members(*)	
LATE AFTERNOON	Debriefing and end of mission	
(*) ICEA Issesses Chemical Fiber Association data still to be confirmed		

(\*) JCFA = Japanese Chemical Fiber Association – date still to be confirmed







Comfort and Smart Textile and Thermal Comfort of Clothing in Nara, held by the Japan Research Association for Textile End-Uses (\*\*)

60th anniversary commemorative project

On Sept. 6th & 7th

### https://cscenter.co.jp/issttcc2019/

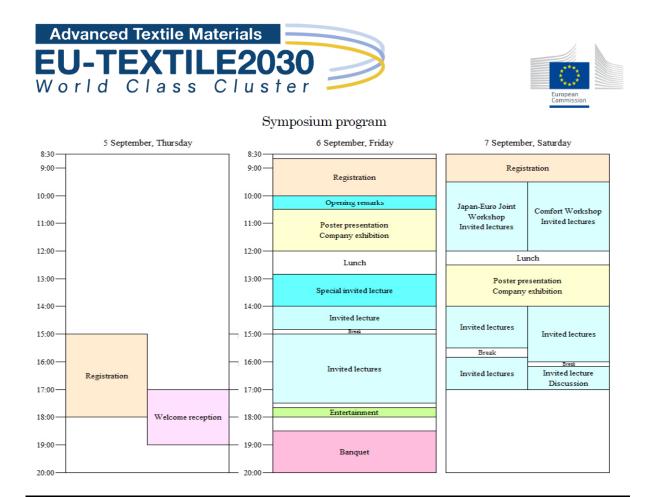
Location :

Nara Kasugano International Forum 101 Kasugano-cho, Nara-shi, 630-8212, Nara Tel: +81 742 27 2630 Fax: +81 742 27 2630 http://www.i-ra-ka.jp

« The fourth industrial revolution is upon us, as keywords like AI, robots, IoT, and the cloud herald the rapid advancement of digitalization. The textile industry is also actively developing smart textiles worldwide due to dramatic advances in ICT (information and communication technology). This is expected to lead to developments across many fields, including healthcare and sports, with innovations in nursing and rehabilitation. Amidst these revolutionary changes, we have called on those who are active in fields related to smart textiles and designed this symposium as an occasion for broad, global exchange with the aim of clarifying the challenges that lie ahead in the next decade, as well as furthering developments in the field.

Tokyo Olympic Games and Paralympics will be held in 2020. Risk of heatstroke will most likely increase among the players and the audience in the hot and humid environment. Therefore, we should understand a mechanism of heatstroke occurrence and grasp a signal of heatstroke and build the prevention system and feedback. So we will hold the Comfort Workshop to learn the mechanism of heatstroke occurrence under the hot humid environment and the heatstroke prevention by optimization of design of clothing. It is expected that we can get the clue for applying a smart textile to a heatstroke prevention system in the workshop. » The Japan Research Association for Textile End-Uses.





## Programm of the conferences

	September 6th
8:45–	Registration
10:00– 10:30	Opening Remarks Masaru Oya (President, The Japan Resarch Association for Textile End- Uses /Yokohama National University) Teruo Hori (Chairman of the Smart Textile Research Group /Fukui University)
10:30– 12:00	Poster Presentation and Company Exhibition
12:00– 12:50	Lunch
Special I	nvited Lecture
12:50– 14:00	Hiroshi Ishiguro (Osaka University /ATR Director of Special Laboratory /ATR Fellow) "Human Robots and Smart Textiles"







Invited L	ectures	
14:00– 14:50	Kelly Dobson (Google Technical Project Leader) "Soft Robotics and Smart Textile"	
14:50– 15:00	Break	
15:00– 15:50	Thomas Gries (Institut für Textiltechnik (ITA) der RWTH Aachen University, Leader) "Industry 4.0 and Smart Textile for Society 5.0"	
15:50– 16:40	Fabian Schroeter, Christian Boekels (BMW Group) "Smart Textile in Automobile Assembly"	
16:40– 17:30	Marc Frouin (BioSereniti, Coo) "Deployment of Smart Textile Applications to Medicine"	
17:40– 18:00	Entertainment	
18:30– 20:00	Banquet	
	September 7	
Japan-Eu	ıro Joint Workshop -A-	
8:30–	Registration	
9:30– 9:40	Opening Remarks Kenichi Tomiyoshi (Japan Chemical Fibers Association)	
9:40– 10:10	Kiyoshi Itao (WIN Representatives/Professor Emeritus of the University of Tokyo Makoto Komazawa (WINFrontier Director/Associate Professor of Shibaura Institute of Technology) "The development of physiologically-controlled comfortable clothes for all seasons"	
10:10– 11:10	UP-TEX (European cluster, France) – Virginie CANART – Last innovations in Smar Textiles in Europe, Strengths, Weaknesses and Opportunities. ENSAIT- Prof. Vladan KONCAR -	







11:10– 12:00	TECHTERA (European cluster, France)	
12:00– 12:30	Lunch	
12:30– 14:00	Poster Presentation and Company Exhibition	
14:00– 14:45	Hirokazu Sugihara·Naoki Asai (Toray Industries, Inc) "hitoe® - A Garment type wearable device –" Euichul Kwon (TOYOBO Co., Ltd.) "Flexible Conductive Material "COCOMI®" for Biological Information Measuring Clothing"	
14:45– 15:30	Ryosuke Ebina (TEIJIN FRONTIER Co., Ltd) "The future outlook on wearable development of Teijin Frontier" Shuhei Ogawa (Asahi Kasei Corporation) "The availability for wearable products of stretchable cable, ROBODEN"	
15:30– 15:50	Break	
15:50– 16:20	Ichiro Amimori (Xenoma Co-Founder&CEO) "e-skin -Next Generation Smart Apparel-"	
16:20– 16:50	Satoshi Maeda (IEC/TC124 Japan) "International Standardization for Wearable Electronics"	
16:50– 17:00	Closing Remarks	
Comfort \	Norkshop -B-	
8:30–	Registration	
9:30– 9:40	Opening Remarks	



# Advanced Textile Materials EU-TEXTILE2030 World Class Cluster



9:40– 10:20	Yoshimitsu Inoue (Osaka International University, Japan) "Aging and sweating function"	
10:20– 11:20	George Havenith (Environmental Ergonomics ResearchCentre, Loughborough University) "Physiological responses of the human body and their interaction with perception and thermal comfort of clothing"	
11:20– 11:30	Break	
11:30– 12:00	Yasunori Kotani (School of Environment and Society, Tokyo Institute of Technology) "Brain networks connecting body and mind"	
12:00– 12:30	Lunch	
12:30– 14:00	Poster Presentation and Company Exhibition	
14:00– 14:30	Joo-Young Lee (Seoul National Univ. Korea) "Thermal effects of graphene and its application to clothing"	
14:30– 15:00	Tatsuo Amano (Niigata University) "Regulation and adaptation of human sweating"	
15:00– 16:00	Jintu Fan (Hong Kong Polytechnics University) "Thermal Regulatory Clothing for Personal Thermal Management"	
16:00– 16:10	Break	
16:10– 16:40	Shingo Tsukada (Basic Research Laboratories Nippon Telegraph and Telephone Corporation) "Electro conductive polymer coated nanofiber textile electrodes for biomedical signal recordings"	
16:40– 16:55	Panel discussion	







16:55– 17:00

Closing Remarks

\*This program was updated on 4th June 2019 Language of Use : English (Simultaneous interpretation: September 6 only)

# REGISTRATION

		Regular	Student
Registration fee	Early registration, on or before July 19, 2019	¥50,000	¥20,000
•	Late registration, from July 20, 2019	¥60,000	¥25,000
Banquet fee		¥8,000	

#### Registration fees include

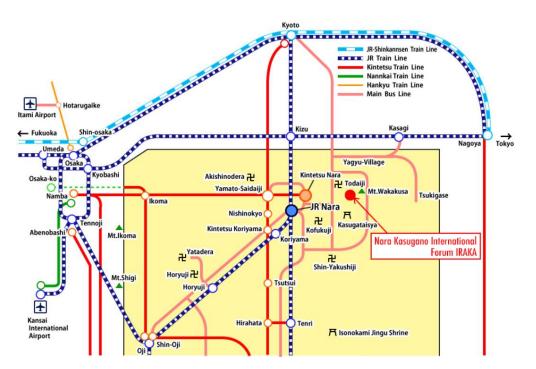
- Admission to all activities during the meeting
- Welcome reception (September 5)
- One abstract book
- Coffee breaks

**Payment** must be made in Japanese currency in the form of bank transfer or Credit card (VISA, MasterCard, AMEX or JCB). NO BANK DRAFT OR PERSONAL CHECK WILL BE ACCEPTED. All bank charges are to be borne by the remitter. Note that attendees can pay the registration fee at the venue by cash only (Japanese Yen).









#### **Ground transportation**

From Osaka (Itami) International Airport, approx. 60 min. by limousine bus bound for JR Nara Station/Kintetsu Nara Station.

From Kansai International Airport, approx. 80 min. by limousine bus bound for JR Nara Station/Kintetsu Nara Station.

Please use this convenient service, which runs every day.

Schedule: runs 15-16 times per day, each day

Fare: 2,050 Japanese Yen (one-way adult ticket between Kansai International Airport and Nara Station)









## **TRAVEL RECOMMENDATIONS**

Flights with departure on Monday, Sept. 2<sup>nd</sup> from Europe arrive in Osaka on Tuesday, Sept. 3rd in the afternoon.

#### <u>HOTELS</u>

#### In OSAKA

- RIHGA Royal Hotel Osaka
  5-3-68 Nakanoshima, Kita-ku, Osaka, Osaka-fu, 530-0005, Japan www.rihga.com/osaka
   about 142 €/ single room/ person/ night
- Mitsui Garden Hotel Osaka Premier
  3-4-15 Nakanoshima, Kita-ku, Osaka, Osaka-fu, 530-0005, Japon www.gardenhotels.co.jp/osaka-premier/eng/

#### In NARA

- Nara Royal Hotel
  254-1,Hokkejicho, Nara-shi, Kansai, Kansai, 630-8001
  www.nara-royal.co.jp/lang/index.html
- Hotel Fujita Nara
  47-1 Shimosanjo-cho, Nara-shi-, Nara-ken 630-8236 Japan
  https://en.fujita-nara.com/







#### MISSION REGISTRATION directly to your cluster with copy to <u>karine.wallois@clubtex.com</u>.

This mission includes the organization of the meetings, of the networking sessions and visits in Japan but **does not include** :

- Your travelling expenses (flights, transfers, accommodation, living expenses on site, etc.)
- Your registration to the conference in Nara.

As part of this mission, you may receive **financial support from the European Union** for eligible companies. Please contact your cluster.

Conditions:

Support for SMEs eligible for European subsidies according to the EU definition: an SME / SMI is a company employing less than 250 employees, achieving either an annual turnover of less than 50 million euros, representing a balance sheet total of less than 43 million euros and a non-subsidiary company with more than 25% of a group whose total workforce exceeds 250 people. Subsidy granted in the framework of de minimis - applied by the European Commission since 18/12/13: any company, whatever its size, can claim the grant of public aid not exceeding the amount of 200 000 € per consolidated enterprise over a period of three fiscal years.







#### ABOUT EU TEXTILE 2030

EU-TEXTILE2030 is a consortium of 7 partners: European clusters of advanced textile materials in Spain, France, Italy, Czech Republic and Germany and associated partners from other countries such as Portugal.



The activities which will be carried out are co-funded by the EU programme COSME – Clusters go to international. These activities include: 4 business trips to Colombia, South Africa, Israel and Japan/Taiwan; participation at 2 international fairs with a joint booth; creation of a EU association of advanced textile materials' clusters and the definition of its strategy in order to assure the continuation of the joint activities of the clusters.

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