

International Brokerage Event
Brussels, 26-27/10/2017



***Selcuk University
Advanced Technology Research &
Application Center***

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Description of the Organization

Materials Technologies and Biotechnology Divisions

- R&D
- Analysis&Testing
- Collaboration with Industry

Nanotechnology & Surface Engineering Laboratory



- ✓ **Track Recors**
- ✓ **H2020-MSCA-RISE-NanoFEED** Nanostructured Carriers for Improved Cattle Feed
- ✓ **FP7-NMP**, Large Area Molecularly Assembled Nanopattern for Devices (LAMAND)
- ✓ **FP7-INFRA-2012**, The European Solar Infrastructure for Concentrated Solar Power (EU-SOLARIS)
- ✓ **FP7-SME-2012**-"Enhanced chitin-based biosorbents for drinking water purification "ChitoClean"
- ✓ **FP7-SME-2013** ""Ingredients for Food and Beverage industry from a lignocellulosic source (LIGNOFOOD)

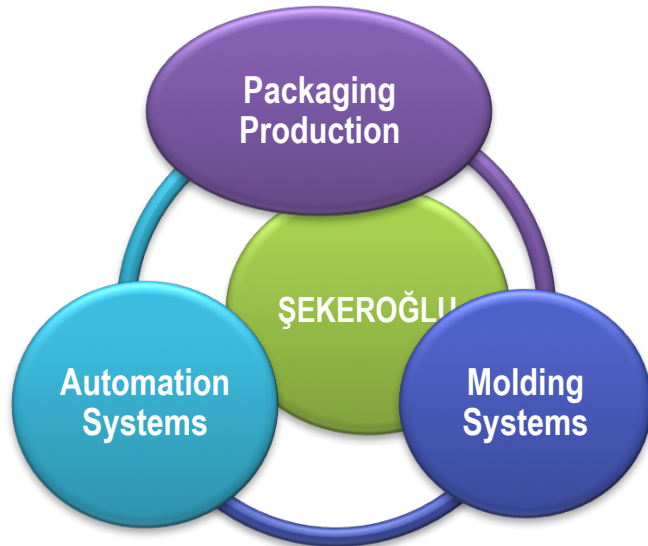
Description of the your research interest



- Nanomaterials & Semiconductor Tech.
- Magnetic NPs (synthesis, patterning, functionalization, surface treatment),
- CVD systems / Processing techniques (films, fibers, fillers, coatings, etc).
- Graphene chemistry & applications (materials, optoelectronics, sensors, flexible electronics,)
- Directed self assembly of nanostructures for CMOS technologies
- Membrane technologies, hybride systems
- Extraction and adsorption processes for isolation and concentration of active ingredients from natural materials
- Recovery technologies (raw materials, metals, minerals, food waste)
- Eco-innovation (Materials Recycling, Food and Drink Sector, Water)
- -Physico-chemical treatment processes

COLLABORATION INDUSTRY

❑ Chemical and Plastic industry



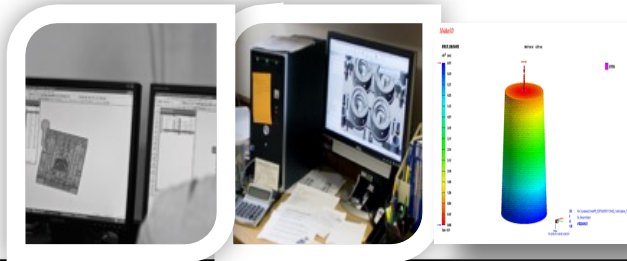
❑ AB Cooperation (11 Campuses 44 Factories)

Sugar Industry
Bioethanol production
Polymer industry
Dairy Industry
Fruit juice production
Embryo production center
Energy



❑ BioTechnology/Health

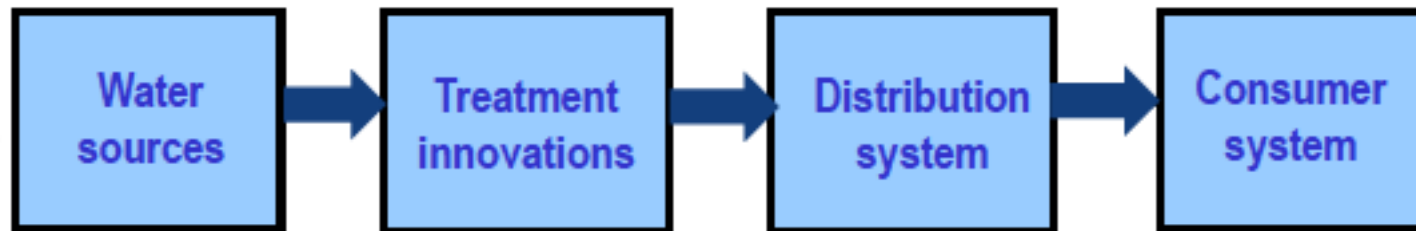
Natural Supplements
Turkey's first **healthy living** brand
Nutritional Supplements
Vitamin/Minerals



SC5-12-2018: EU-India water co-operation



Water Safety Plans (WSPs) entails the safety of a drinking-water supply through the use of a comprehensive *risk assessment* and *risk management* approach that encompasses all steps in water supply from catchment to consumer.



Key issues: Assessing water quality-Availability, accessibility, quantity, ecological safety and risk management.

Expected Impacts

- improved water/wastewater treatment efficiency, combined with recovery and reuse of substances and treated water;
- increased performance of quality monitoring of drinking water, and access to drinking water from both surface and groundwater, inc. in rural areas;
- supporting the implementation of relevant water and environmental policies, SDGs and the decarbonisation of the Indian water sector;
- water cooperation in support of climate-resilient development;
- supporting the Ganga Rejuvenation Initiative, fostering the emergence of quick-win business solutions based on EU best practices in the areas;
- innovations real-time monitoring and sampling and ozone polishing to remove pharmaceutical residues and pathogens.
- creating a level playing field for European and Indian eco-innovative companies.
- high-resolution measurements of nutrient /pollutants NO₃, NO₂, PO₄, Fe, silicate etc., using sensors
- develop in situ chemical sensors

SC5-12-2018: EU-India water co-operation



No	Partner Name	Type	Coun.	Role in the Project
01	KTH Royal Institute of Technology	RTD	S	
02	Geological Survey of GTK	RTD	Fi	
03	Aqua-q	SME	D	
04	KWR, NL	RTD	NL	
05	AUTORCON	SME	D	
06	Mahavir Cancer Inst. India		India	
07	Jawahalal Nehru University (JNU)		India	
08	Indian Institute of Technology,		India	

Looking for partners, particularly SME, IND for demonstration/joint development etc



Information & Networking event: EU-India Joint Call on Water

Information & Networking Event: to provides first-hand information by the funders about the scope, modalities and expected impact of the EU-India call on Water. The event is also a good opportunity to build quality partnerships with academics, researchers, industrial stakeholders, SMEs and government actors from Europe and India.

When: Friday, 3rd November 2017 | 9h30 -17h30

Where: Venue: Gulmohar Hall, India Habitat Centre, New Delhi, India

Information provided in this form will not be shared with any third party.

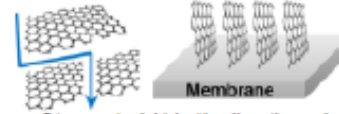
DT-NMBP-03-2019: Open Innovation Hubs for nano-enabled surfaces and membranes

Objectives:

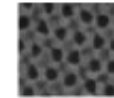
- Self-organize into different morphologies with characteristic sizes in the nanometer scale .
- Fabricate nanoporous materials with well defined morphology, pore size and distribution, porosity, and surface chemistry.
- **Applications**, health sector, food industry, sustainable water treatment, biomedical separations, energy conversion and storage
- New chemistry with tailored functionalities and specific stimuli responses, working as chemical gates for challenging separations



Nanoporous Material
(Additional Channel)



Channeled / Vertically aligned



Block Copolymer
(Well-ordered Pore)

Expected results

- Generate tiny chanelns in molecular level
- Design, development, testing, safety assessment, and upscaling of nano-enabled surfaces and membranes for enhance flux
- Modify interior of nano-channels or pores to maximixe performance of nano-enabled surfaces
- Industrial productivity, reliability, environmental performance, durability, and reduction of life-cycle costs of these nano-enabled surfaces or membranes.

Consortium - required partners



Partner Search	
Profile	Roles in the project
R&D Institute/Universities	Technology providers in the fields of: advanced materials/polymer-surface chemistry application techniques/new manufacturing technologies For scale-up/demonstration/joint development in the various sectors
Large Industry	
SMEs	

LOOKING FOR PARTNERS



- **CE-SC5-01-2018:** Methods to remove hazardous substances and contaminants from secondary raw materials CE-SC5-06-2018: New technologies for the enhanced recovery of by-products
- **DT-NMBP-01-2018:** Open Innovation Hubs for Lightweight nano-enabled multifunctional composite materials and components (IA)
- **DT-NMBP-12-2019:** Sustainable Nano-Fabrication (CSA)
- **DT-FoF-03-2018:** Innovative manufacturing of opto-electrical parts (RIA)
- **DT-NMBP-18-2019:** Materials, manufacturing processes and devices for organic and large area electronics (IA)
- **CE-NMBP-25-2019:** Photocatalytic synthesis (RIA)
- **CE-NMBP-26-2018:** Smart plastic materials with intrinsic recycling properties by design (RIA)
- **NMBP-33-2018:** Innovative and affordable solutions for the preventive conservation of cultural heritage (IA)

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