



## 11<sup>th</sup> NanoTrust Conference – Workshop and Matchmaking

Date: 31. October 2018, 10:00 – 15:00

Location: Vienna University of Technology

Institute of Applied Physics

Wiedner Hauptstrasse 8-10/134

1040 Vienna

Content: The main theme of this year's event is advanced materials and

circular economy. We seek to further promote the contact between Austrian and Thai research institutions which was established within the framework of the Asian Nanoforum (ANF) and followed up by a visit of the ITA at KMUTT facilities in Bangkok in August 2017. The conference offers the opportunity to exchange the results of the scientific research on the subject of sustainable development of new technologies. We wish to discuss issues regarding innovation, safety and sustainability to identify common fields of interest for further joint

activities, both scientific and educational in nature.

## **Expectations:**

Paripol Tangtrongchit	KMUTT	Learn about the Austrian scene in bringing biomaterials into construction, and understand the supply chain
Charoenchai Khompatraporn	KMUTT	Learn from Austrian counterpart the supply chain management modelling related to SDGs/CE- needs; Adoption of Industry 4.0 and Block Chain technologies adoption; Battery recycling through supply chain management etc
Suvaluk Asavasanti	KMUTT	Seek collaboration on Graduate program in Food engineering focusing on food processing and food by products (conversion to value add materials, food additives, functional ingredients). Wish to learn from Austrian counterpart the food processing, the practice of energy efficiency and high productivity. Wish to learn how Austrian counterpart in process scale up and engineering design and the adoption industry 4.0.
Marisa Raita	KMUTT	Learn from Austrian counterpart the technical aspect on biomass conversion to fuel and chemicals; scale up producing, product purification technologies etc.
Surawut Chuangchote	KMUTT	Learn from the Austrian counterpart innovations in production purification, waste water treatment, new catalyst for conversion of biomass.
Kunnika Changwichan	KMUTT	Seek collaborations in Life cycle sustainability assessment including environment, social and economic- food, feed, fuel and fiber and fertilizer. Practice in economy and social assessment for policy maker, producer and people.







Ille Gebeshuber	TU	I am interested in collaborations regarding positive technologies, that are neutral or positive for people, plants, animals and microorganisms. I am especially interested in collaboaration on phytomining (mining with plants), biomineralization, and structural colours as well as science outreach activities in the nanosciences and positive technologies.
Johannes Kisser	Alchemia- nova	"Waste is a permanent topic and there above all the separate recycling of organic waste - either a decentralized collection can be suggested, e.g. in the size of a block and then the anaerobic co-fermentation together with e.g. the solids from the waste water (if necessary also organic waste together with the waste water). organic waste can also be collected together with the waste water) - then a targeted composting must take place in closed systems (odour) with built-in odour elimination (current innovation from us) - energy, food, oxygen and fertilizer can be obtained - we are working on exactly this in two H2020 projects and are preparing several more for it
		Establishment of food supply and innovation hubs in supported and existing infrastructures at logistically determined intervals based on cycle nutrient management - at the same time these can also become repair centres and push innovations (innovation niches)
		Air pollution is also a permanent issue - it can be managed with certain functional green infrastructures, which for example also supply themselves with water, look beautiful and may also provide food (in more hidden floors).
		Flood management - again with specifically planned green infrastructures and the introduction of rain drains into ground-based systems for renewed evaporation.
		Public urination is always a topic in cities - a mobile toilet system that works with plants could be a remedy and at the same time tackle several topics at the same time - also an innovation from us with the name LooPi - this will be seen in November in the Kunsthaus (Hundertwasser) and next year at the Danube Canal on Schwedenplatz. If water supply and waste water utilisation are issues that need to be addressed, they can also be addressed with targeted nature-based solutions"
Florian Part	BOKU	We are working on Safe-by-Design (SbD) or Recycling-for-Design concepts, as we believe that such approaches are urgently needed for motivating companies to consider as early as possible all aspects associated with circular economy, sustainability and environmental protection. Therefore, we are looking for universities or private companies as cooperation partners who are interested in implementing case studies. The BOKU covers many disciplines, such as material or environmental sciences (from nanoparticle synthesis to life cycle or risk assessment). Asian cooperation partners would be very interesting not only because of their culture but also because of their comparatively huge markets.
Marion Huber- Humer	BOKU	In addition to Nano-safe issues within a circular economy (comprehensive recycling activities, what happens with nano-particles in waste streams?), we are also interested in cooperations in the field of bio-economy, valorisation of (municipal) biogenic waste streams (e.g. food waste) and the development and design of sustainable (municipal) waste management systems in rapidly growing cities and urban areas (e.g., according to SDG 11), inclusive impact of informal waste management activities.