

## Industrial Workshop

# Re-structuring of EU value chain on thermoelectrics - From supply chain to end user

**Event Time:** 9:00-17:00, Thursday, September 26<sup>th</sup>, 2024

**Event Address:** Clarion and Comfort Hotels Copenhagen Airport, Ellehammersvej 20, 2770, Kastrup, Denmark

**Registration link:** <https://forms.gle/K2RzamDAZBpjVpfR8>

**Registration deadline:** 31<sup>st</sup> July 2024 **extended to 19<sup>th</sup> August 2024**

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## Morning

Time	Session	Speaker	Title	
8:30-9:00	Registration			
9:00-9:40	Opening speeches	Adel El Gammal European Energy Research Alliance (EERA), Belgium	Review of energy research in EU	10 min
		Takao Mori (Online) National Institute for Materials Science (NIMS), Japan	TE Application in Japan	15 min
		Maarten den Heijer RGS Development, The Netherlands	Assessment of European thermoelectric value chain	15 min
9:40-10:40	Global overview	Doug Crane (Online) DTP Thermoelectrics, USA	TE Application in the US	20 min
		Martin Kober German Space Center (DLR), Germany	TE Application in the EU	20 min
		Sudong Park Hanyang University, South Korea	TE Application in South Korea	20 min
10:40-11:00	Break			20 min
11:00-12:15	Successful Stories I: Industrial applications	Ernst Bauer Vienna University of Technology, Austria	Update on TE in Austria	15 min
		Nils Katenbrink Quick Ohm, Germany	Assembling of TEGs	15 min
		Juyoung Lee Korea Advanced Institute of Science & Technology (KAIST), South Korea	Korea's thermoelectric power generation demonstration project	15 min
		Dan Wärja Wideco, Sweden	Power supply for wireless IoT	15 min
		Vicente Pacheco Fraunhofer IFAM, Germany	Supply Chain of TE	15 min
12:15-13:30	Lunch			75 min

## Afternoon

Time	Session	Speaker	Title	
13:30-14:30	Successful Stories II: R&D projects	Filipe Neves LNEG- Laboratório Nacional de Energia, Portugal	About START project	15 min
		Kornelius Nielsch IFW Dresden, Germany	About THERMOS project	15 min
		Zachary Davis Danish Technological Institute, Denmark	About FLEX-TEG project	15 min
		Discussion		15 min
14:30-14:45	Go to break-out rooms			15 min
14:45-15:45  <b>Session A, B and C in parallel</b>	Break-out session A: Excessive heat recovery	Vahid Khorshidi Danfoss, Denmark	Danfoss' demand on TE	12 min
		David Astrain University of Navarra, Spain	Geothermal application	12 min
		JinSung No Ninetech, South Korea	Cooling and automation technology for module production	12 min
		Gerhard Span Lambda Wärmepumpen, Austria	A cross-over of TE and solar-cells for heat recovery	12 min
		Discussion		12 min
	Break-out session B: Decentralized power supply	Kafil Razeeb Mahmood Tyndall National Institute. Ireland	Micro-TE generator for wearable sensors	12 min
		Oline Stærke Acembee, Denmark	Smart sensor application	12 min
		Raul Aragonés AEInnova, Spain	Steam trap monitoring	12 min
		Geoffrey Roy Thermopower systems, Belgium	Upscaled application with largely available raw materials	12 min
		Discussion		12 min
	Break-out session C: Supply chain	Jens Hüber Dr. Fritsch, Germany	Sintering of TE materials in industrial scales	12 min
		Oliver Anspach PV Crystalox Solar Silicon, Germany	Multi wire sawing technology for future TE-legs mass production	12 min
		Alvise Bianchin MBN Nanomaterialia, Italy	Powder metallurgy for TE materials	12 min
		Anika Mayer CREAVAC, Germany	PVD-Application of diffusion barriers on thermoelectric (TE) materials for the industrial production of high-temperature TE-modules.	12 min
		Discussion		12 min
12:45-16:30	Networking Break	Free talk with refreshment	Networking, collaboration, new ideas ...	45 min
16:30-16:50	Closing	Hao Yin TEGnology, Denmark	Summary and Outlook	20 min