



LUT Solutions for Energy Union and Circular Economy

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LUT TRAILBLAZER STRATEGY 2020: SEARCHING FOR ANSWERS TO **KEY QUESTIONS**

Are we going
to burn up
everything?

Will waste
be the grave
of our future?

NO. WE ARE THE DIFFERENCE-MAKERS.

Is humanity condemned to
suffer from the water it has
polluted?

Will we let Europe
degenerate to the
world's back yard?

LUT TRAILBLAZER STRATEGY 2020: SCIENTIFIC RESEARCH **FOCUS AREAS**

CLEAN ENERGY

- Energy markets and solar economy
- Energy conversion and storage technologies
- Sustainability science

CIRCULAR ECONOMY

- Water purification and reuse
- Processing of secondary and renewable raw materials
- Products and life cycle assessment

SUSTAINABLE BUSINESS AND ENTREPRENEURSHIP

- Innovation and sustainable value creation
- SMEs and international entrepreneurship
- Business analytics and decision-making
- Digitalisation of businesses

CROSS-CUTTING THEMES

- Digitalisation and data science
- Focus area research in the Russian context and with the best Russian partners

OUR VALUES | COURAGE TO SUCCEED. PASSION FOR INNOVATION THROUGH SCIENCE. WILL TO BUILD WELL-BEING.

June 19, 2017

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LUT SOLUTION-ORIENTED PLATFORMS

REFLEX

Recycling carbon in a flexible competitive energy system

RE-SOURCE

Resource efficient production processes and value chains

DIGI-USER

Smart services for digitalisation

RED

Revealing emission discrepancies

SAWE

Safe water for all

SIM

Sustainable product processes through simulation

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"We disrupt fossil based industries - such as fuels and chemicals - by transforming CO₂ from an emission to a raw material by using renewable energy."

Jero Ahola, Director of REFLEX platform





"Expanding environmental data increases pressure and opportunities for decisions making and business but crucial uncertainties remain. We analyse the emission balances and reveal the discrepancies between reported inventories and monitored truth."

Heikki Haario, Director of RED platform





"We need to move from waste management to resource management: from the 'take, make and dispose' approach to maximised resource utilisation."

Mari Kallioinen, Director of RE-SOURCE platform



ENERGY UNION AND CLIMATE CHANGE POLICY

- A fully integrated energy market
- Decarbonizing the economy
- Energy security, solidarity and trust
- Energy efficiency
- Research, innovation and competitiveness

CIRCULAR ECONOMY PACKAGE

- Product design, production processes, and consumption
- Waste management
- The market for secondary raw materials and water reuse
- Priority areas: plastics, food waste, critical raw materials, construction and demolition, biomass and bio-based products
- Innovation, investment, and other horizontal measures
- Monitoring progress towards a circular economy

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CLEAN ENERGY at LUT

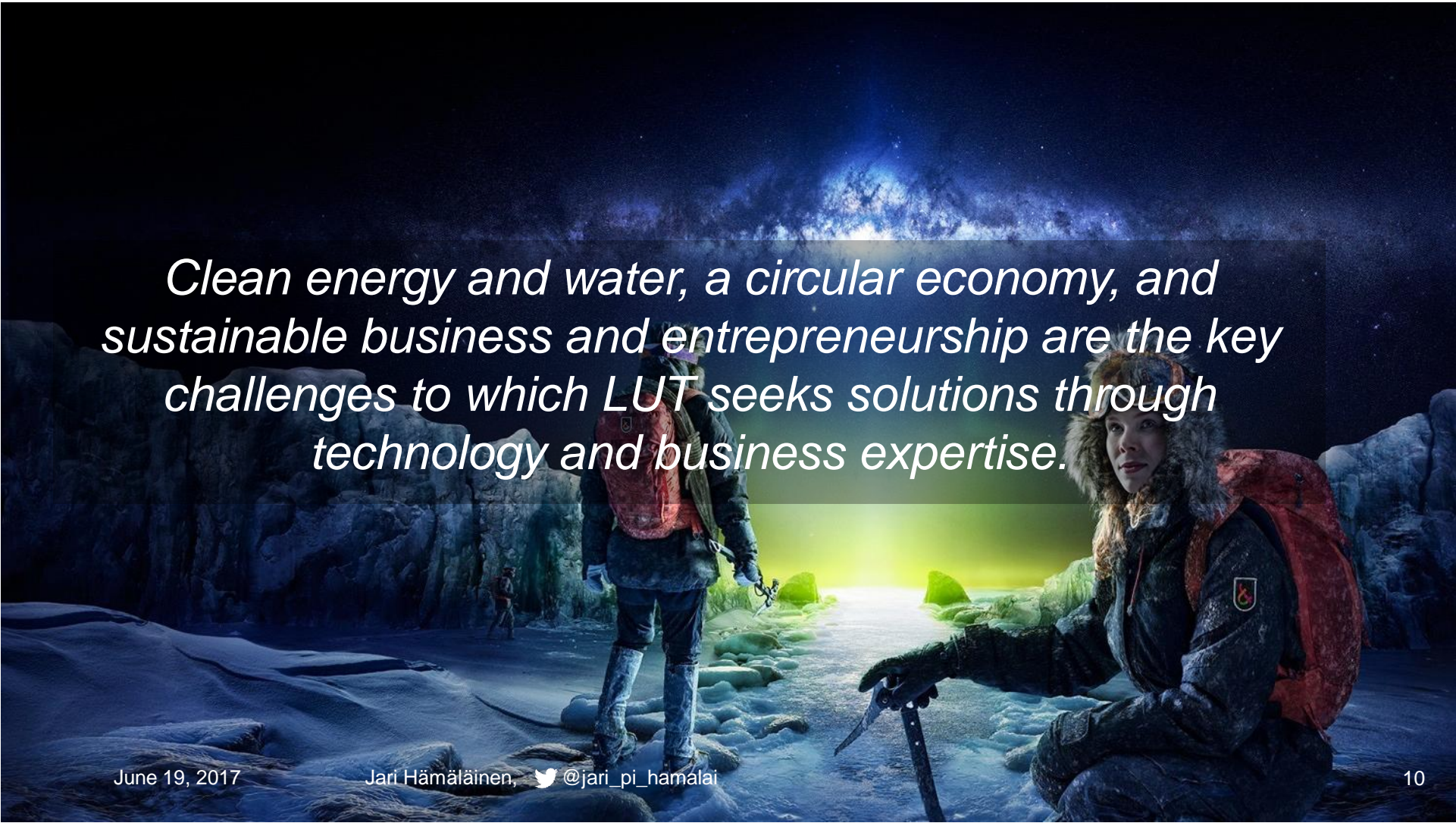
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Clean energy and water, a circular economy, and sustainable business and entrepreneurship are the key challenges to which LUT seeks solutions through technology and business expertise.

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