



#keskisuomi



**IN ENGLISH** 



### The Facts:

275,000 inhabitants

Region capital:

Jyväskylä

A world-class university and University of Applied Sciences

Research organizations and research-oriented companies such as VTT, Metsä Spring

Strong economic boom (2016-2019)

#### **Easy connections**

to European cities by airplane or train+airplane combination







#### Nature:

4 seasons

**5** national parks

Thousands of lakeside cottages





# We offer to the world:

- Sustainable wood fibres that can replace plastics and synthetic & cotton textiles
- Cyber security know-how and facilities that prevent crime and terror
- Innovative wellbeing solutions that improve life quality
- And much more!



### Bioeconomy

The most sustainable fibres in the world replace plastics and synthetic & cotton textiles\*

Circular economy research breakthroughs

### Wood fibre based knowledge

- Novel biobased materials replace plastics in packaging
- Major pilot investments in wood fibre based textiles (Metsä Spring in Äänekoski, Spinnova), cooperation with e.g. the legendary fashion house Marimekko
- VTT Technical Research of Finland in Jyväskylä is world leader on this field
- Newest research focuses on wood-based hospital materials with antimicrobial resistance

MetsäSpring







## Circular economy & new research in Central Finland

- Precious metals (eg. gold) are extracted from waste water and electronic waste (University of Jyväskylä)
- Bio-based CO<sub>2</sub> is captured and used to produce fuels and chemicals (VTT)
- Äänekoski bioproduct mill: New products from the side streams of pulp industry







### Biogas production and consumption



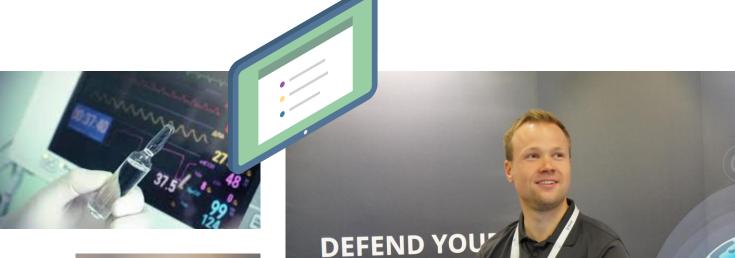


- Biogas production currently approximately 10 % of total technoeconomical potential
  - High unused potential in especially agricultural sector
- Strong increase in biogas as traffic fuel
- Strong commitment from public sector, active companies and R&D projects.
- Investments >20M€ in past 4 years.

# Digital economy

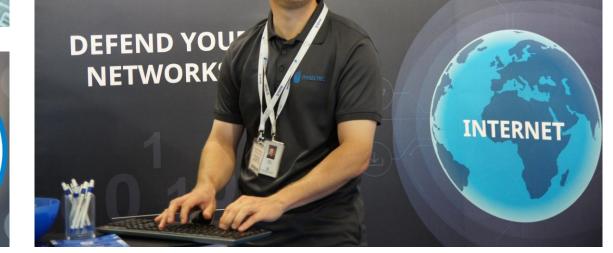
**Cyber security** 

**Artificial Intelligence in health care** 















#### **JYVSECTEC**

- Cyber security solutions through research, development and training
- Realistic Global Cyber Test environment for companies
- Test environment for health care is currently being built (Health Care Cyber Range)
- JAMK University of Applied Sciences, owner of JYVSECTEC, is a founding member of ECSO, European Cyber Security Organisation





IBM WATSON HEALTH – Artificial Intelligence in health care

- Data mining from Health Data
- Various examples, including identification of risks of an individual for social marginalisation.
- New, innovative diagnostics







## The Wellbeing Region

Health and Wellbeing Economy: Sports and physical activity, rehabilitation, aging, and Green Wellbeing

Partnerships, pilots, research, dissemination of new knowledge, co-operation forum for health and wellbeing

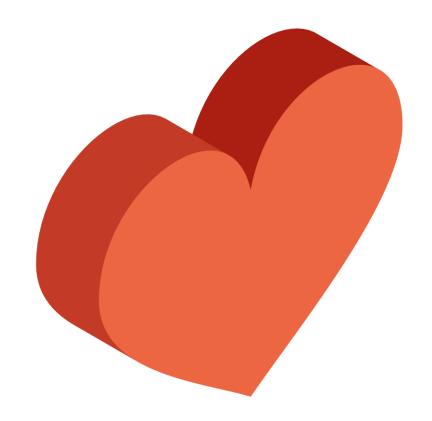






### The Wellbeing Region

- Focus on academic research and preventive, evidence-based approach in wellbeing
- Innovations and personalised tools that are supported by private, public and third sector partners
  - Technological innovations, personalised health monitoring that is combined with big data (Firstbeat)
  - Green Wellbeing



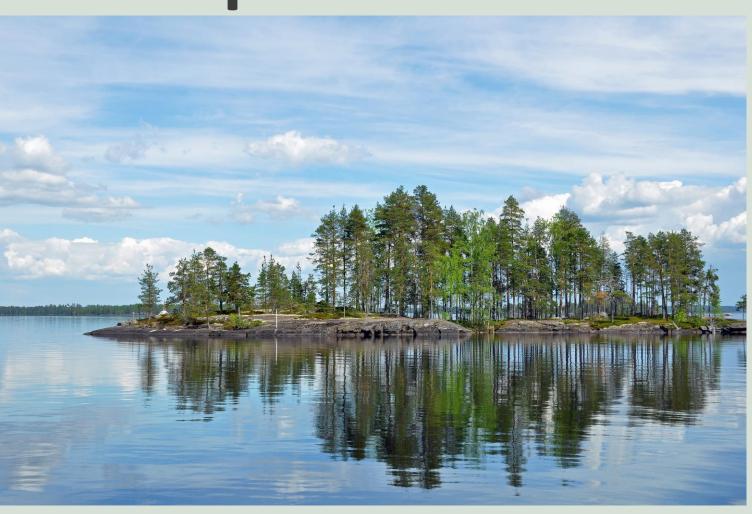
## Wellbeing Expertise Centre of Central Finland KeHO

- Interdisciplinary cooperation forum for experts on social welfare, healthcare and sports.
- Health-related innovations, business and projects
- 20 different operators (research, NGOs, hospital, education) with a total of approximately 100 specialists

https://www.kehofinland.fi/keho-in-english/



### **Hospital Nova**



- The construction of our new, modern central hospital (Hospital Nova) will be completed in 2020
- The hospital is inspired by the National Parks of Central Finland

# Hippos2020 – a new era in wellbeing platforms





- Academic and commercial sports research and education meets modern sports facilities
- Hub for wellbeing-related businesses and start-ups
- Expertise and facilities
  available to both professional
  athletes and ordinary fitness
  enthusiasts









# Knowledge based economy

World-class university research and education

International education export, import & exchange

Innovative company growth mentorship

The Heart of Finnish Education

### The Heart of Finnish Education

40 000+++

students from more than 100 countries

University education provided by

4 institutions

One of the largest hubs of secondary education in Finland



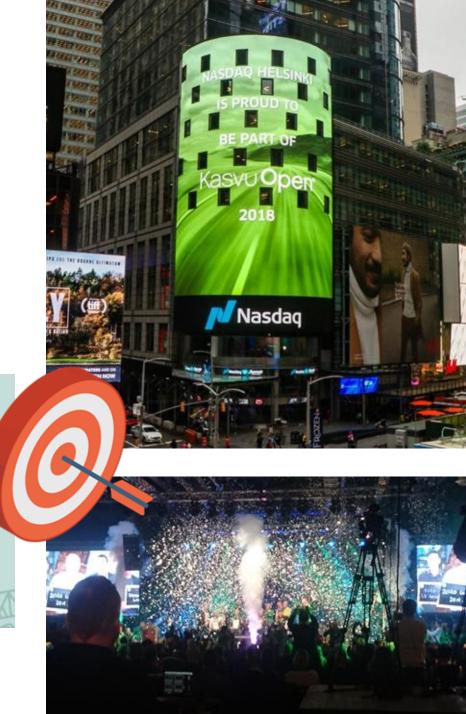


- World-class university research and education, internationally recognized University of Applied Sciences
- Top research fields include:
  - Learning and education
  - Wellbeing, health and sport
  - Cybersecurity
  - Natural Sciences, Bioeconomy



# Company growth and internationalisation – Kasvu Open







### **Tourism**

Urban services & nature

#### Lakeland Finland:

- 5 national parks
- thousands of lakes

Capital of Alvar Aalto's architechture

2 Unesco heritage sites

City of Light amidst northern darkness (over 100 permanent sites)

#### Wellbeing Region:

Sauna Region of the World, Capital of Sport

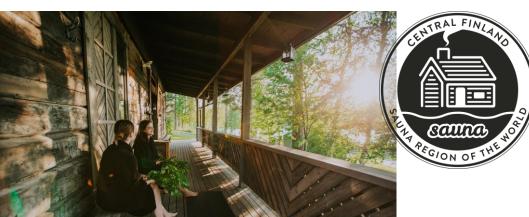
#### **Focus in 2019:**

digital customer experience, international networks











### Photo credits

Page 3: Julia Kivelä

Page 4: Timo Määttä, Keijo Penttinen

Page 8: Jyväskylä University

Pages 11-13: Jyvsectec, Jyväskylä University

Page 15: BusinessJyväskylä, City of Jyväskylä, Jyväskylä University, KeHOFinland

Page 17: KeHOFinland

Page 18: Reima Välivaara

Page 19: Hippos2020

Page 22: BusinessJyväskylä, Jyväskylä University

Page 23: Uljas Valkeinen, Council of Central Finland

Page 26: Lakeside view: Visit Jyväskylä, photographer Atacan Ergin

Petäjävesi Church: Visit Jyväskylä, photographer Eemeli Nättinen

Jyväskylä harbour: Julia Kivelä

Sauna: Julia Kivelä

Alvar Aalto: Visit Jyväskylä, photographer Tero Takalo-Eskola



Cygnaeuksenkatu 1, 40100 Jyväskylä, Finland www.keskisuomi.fi/in\_english