



# HOW TO SUPPORT JOINT INNOVATION BETWEEN EU AND CHINA – EXPERIENCE OF BILATERAL COOPERATION

如何支持中欧联合创新-双边合作经验

**Mika Klemettinen, PhD** 米卡 博士

Trade and Innovation Consul, Consulate General of Finland in Shanghai

贸易和创新领事, 芬兰驻上海总领事馆

Head of Shanghai Office, Business Finland

上海办公室负责人, 芬兰国家商务促进局



# FINLAND IS ONE OF THE GREENEST COUNTRIES IN THE WORLD

芬兰是世界上最绿色的国家之一

The Environmental Performance Index 2016-2020

**THE BEST**  
business  
environment  
in the world \*<sup>1</sup>

**THE BEST**  
primary  
education  
in the world \*<sup>2</sup>

**THE BEST**  
in the  
world in  
innovation \*<sup>4</sup>

**THE BEST**  
university –  
industry research  
collaboration  
in the world \*<sup>1</sup>

**THE BEST**  
destination  
in EU for  
international  
business  
expansion \*<sup>3</sup>

# FINLAND IS **THE BEST** IN INNOVATION 芬兰是创新领域的佼佼者



SUSTAINABLE  
DEVELOPMENT

**GOALS**

**THE BEST**  
in the availability  
of scientists and  
engineers \*<sup>4</sup>

**3RD MOST**  
professionals  
working in  
research and  
development,  
relative to the  
population \*<sup>6</sup>

**THE BEST**  
in the availability of  
latest technologies  
\*<sup>4</sup>

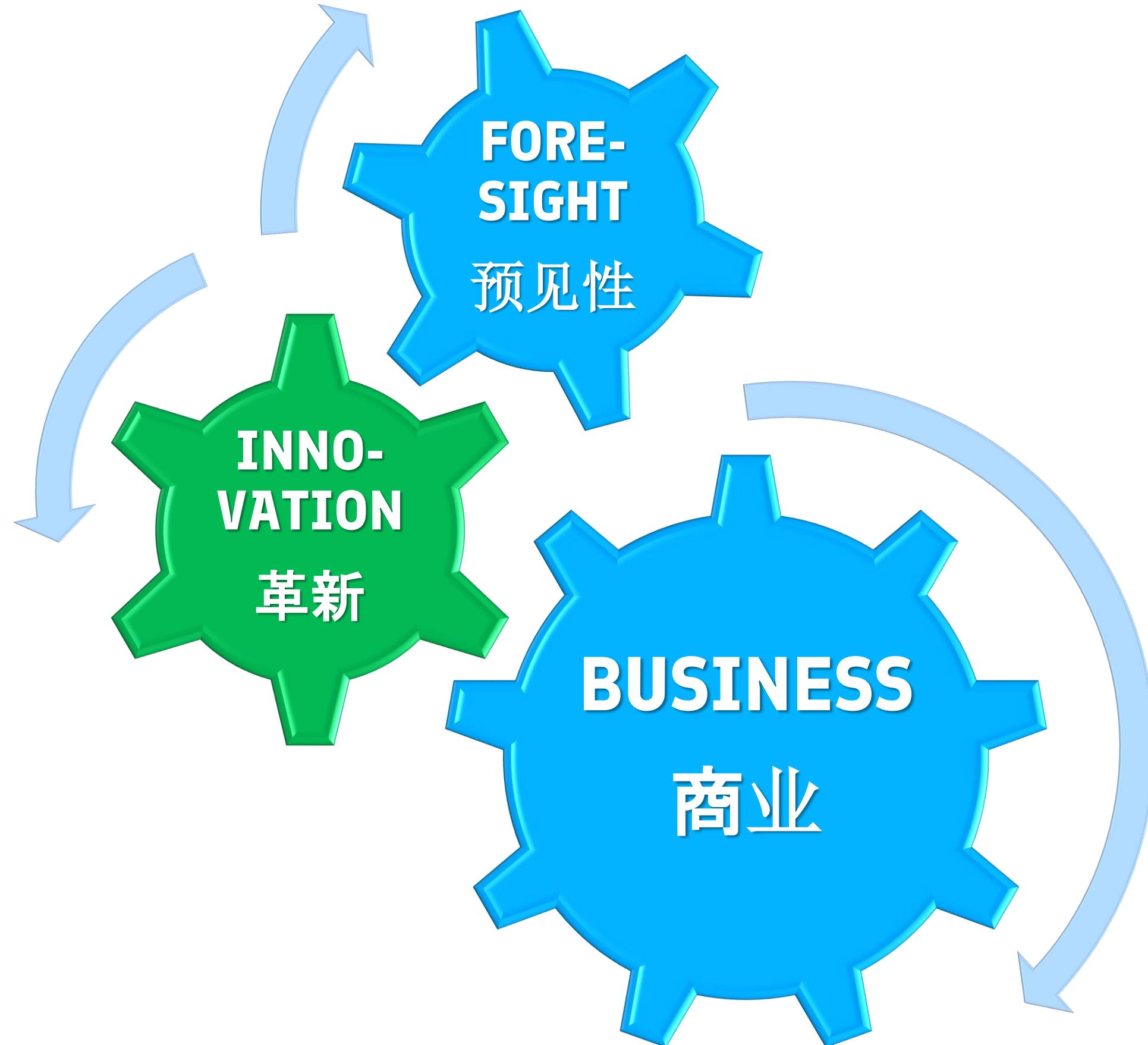
**3RD BEST**  
economic  
environment for  
business growth  
in the world \*<sup>5</sup>

**5TH BEST**  
English skills  
among the  
adults in  
the world \*<sup>7</sup>

<sup>1</sup> Global Innovation Index 2016 / <sup>2</sup> World Economic Forum, The Global Competitiveness Report 2016-2017 / <sup>3</sup> FDI attractiveness scoreboard, Copenhagen Economics 2016

<sup>4</sup> World Economic Forum Global Competitiveness Report 2017-2018 / <sup>5</sup> Grant Thornton, Global Dynamism Index 2015 / <sup>6</sup> Bloomberg, Bloomberg 2017 Innovation Index

<sup>7</sup> Education First (EF), The world's largest ranking of countries by English skills / <sup>8</sup> The Consumer Technology Association (CTA)™ 2018



# Innovations → Renewal, Transformation and Competitiveness

创新 →  
更新, 转型 和 竞争力

Individual Companies 个人公司

Co-innovation 共同创新

Research 研究

Current Business  
当前业务

Innovate & Transfer  
创新与转移

Future Promise  
未来的承诺

climate change

气候变化  
气候  
变化

Sustainable solutions

可持续解决方案

Emission reduction

减排

Circular economy

循环经济

Energy efficiency

能源效率

Renewable energy

可再生能源

Hybrid  
紫  
晶  
碳  
木

Global  
Growth

# ENERGY PILOTS

能源试点

## Local flexibility 本地灵活性

- Aggregator business models
- Local Flexibility Market

## Smart mobility 智能出行

- Smart EV charging
- Silent Refuse Truck

## Building level intelligence

### 智慧建筑

- Building level intelligence
- Underground thermal energy storage
- Novel integration of prosumers and hybrid energy systems

## Platforms, connectivity and enabling technologies

### 平台, 连接性和支持技术

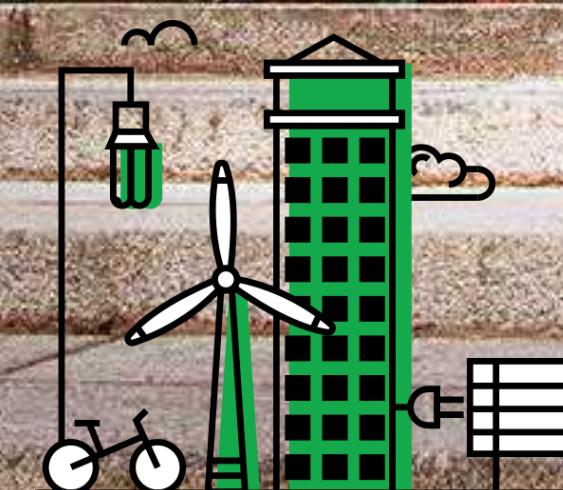
- Platforms & Connectivity
- Enabling Technologies: AI & DLT/Blockchain
- Operational reliability in smart energy systems



[www.smartotaniemi.fi](http://www.smartotaniemi.fi)



SMART OTANIEMI



5G TNF



BUSINESS  
FINLAND

Waste to  
Energy

Biofuels

Hydrogen &  
Power-to-X

## ENERGY GENERATION

能源生产

Pumps &  
Boilers

Valves &  
Storage

## DISTRICT HEATING AND COOLING

区域供热和制冷

Digital  
solutions

# FINNISH SMART ENERGY OFFERING FOR CHINA

面向中国的芬兰智能能源产品

Pilots

智能电网

## SMART GRIDS

Real-time  
billing

Distr. power  
generation

智能建筑解决方案

## SMART BUILDING SOLUTIONS

Energy  
efficiency

Building  
automation

# CHINA INNOVATION COLLABORATION

中芬创新合作



BUSINESS  
FINLAND



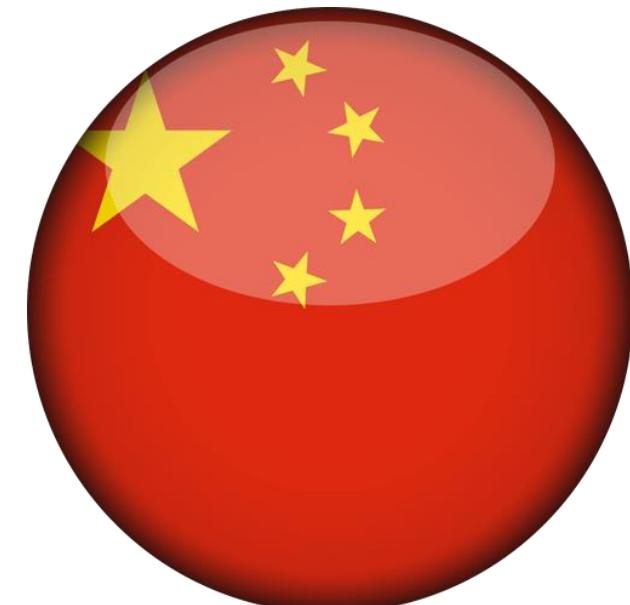
Ministry for Foreign  
Affairs of Finland

team  
**FINLAND**



Ministry of Economic Affairs  
and Employment of Finland

**MoUs, seminars, visits, reports, demonstrations, pilots, innovation projects – and business**  
**谅解备忘录, 研讨会, 访问, 报告, 示范, 试点, 创新项目 – 和业务**



Collaborate

合作



BUSINESS  
FINLAND

Thank You!

谢谢！

**MIKA KLEMETTINEN, PHD** 米卡 博士  
Trade and Innovation Consul 贸易和创新领事  
Head of Shanghai Office 上海办公室负责人

Mobile: +358 50 483 6661 (Finland)

Mobile: +86 1348 2746 884 (China)

Email: [mika.klemettinen@businessfinland.fi](mailto:mika.klemettinen@businessfinland.fi)

Twitter: @MikaKlemettinen

WeChat: mikkleme

[fi.linkedin.com/in/mikaklemettinen](https://fi.linkedin.com/in/mikaklemettinen)

[www.businessfinland.fi](http://www.businessfinland.fi)



**Business Finland China** 芬兰国家商务促进局

Finland Trade Center, Consulate General of Finland

FinChi, Room 402, Building 2, 690 Bibo Road, Shanghai 201203, China

芬兰驻上海总领事馆商务处

芬华创新中心，上海市浦东新区碧波路690号2号楼402室，201203