



# FINLAND AS A GLOBAL LEADER OF DIGITALIZATION



#### SUOMI FINLAND

## Digitalization - the next great industrial revolution

- Digitalization, sometimes called digital transformation, is the use of digital technologies to modify or create new organizational processes, culture, business models and experiences.
- Digitalization can help companies be more **profitable** at lower costs, while it can help public institutions improve services at lower costs.
- Efficiency is a key benefit, but digitalization can also boost innovation and creativity.





#### SUOMI FINLAND

# Finland - the most digitalized country in Europe

- Digital skills are the greatest relative strength of Finland. In particular,
  Finland has a very high share of ICT specialists, while also scoring well in
  basic skills and STEM graduation rates. (Digital Economy and Society Index).
- Today Finland is the most digitalized country in Europe, according to the European Commission's Digital Economy and Society Index (DESI).
- Finland has strengths also in other sectors, such as the IoT, cyber security,
   big data and AI.





### History about digitalization in Finland



- Finland's journey began back in the 1950s when universities and the military acquired computers.
- The history of Nokia is one reason why Finland is a global forerunner in digitalization today. In the 1990s public decision makers enacted rules to encourage digitalization, while educational institutions prioritized the skills needed for a global digital company.
- Nokia is the 3rd largest **5G network** provider in the world with a 22% market share, according to TrendForce (2020).





#### **Digital public sector**

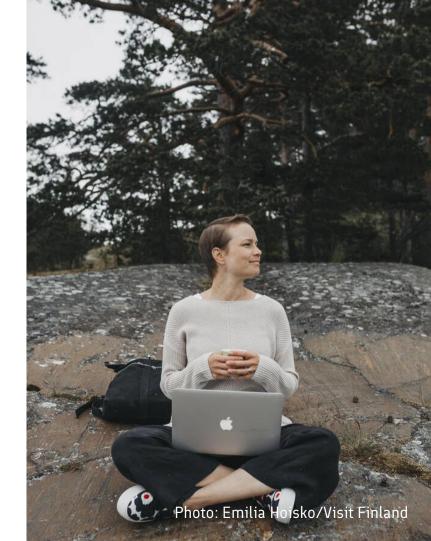


- Finland's online public services was ranked **2nd** in Europe and **6th** in the world in the UN E-Government Survey (2018).
- The public sector are early adopters of new digital technologies. For example,
   Finland has implemented the **Aurora AI program**, which uses machine
   learning to improve public services. Finland's public services are becoming
   primarily digital, although citizens are not forced to use digital channels.
- Some examples of Finland's online public services are pre-completed tax returns, tax cards, student applications, drug prescriptions and personal health records.



#### **Embracing open data**

- Finland is ranked 5th in the world in the Global Open Data Index (2020).
- Finland has embraced the idea of open source and open data. An example is Avoindata, a service for open data and interoperability standards and guidelines.





## **Cyber security**



- Finland is the #1 innovator in **cyber security capabilities**, according to the EU/Impact Assessment.
- Finland is not afraid to answer the big questions, such as how to have open data while protecting user privacy. For example, Finland has been a leader in building international technical and ethical standards.
- Finland is also the home to the European Centre of Excellence for Countering Hybrid Threats.



#### **Internet of Things**

- The Internet of Things (IoT) is also a thriving sector in Finland.
- Some major companies use the IoT for their own solutions, such as elevator manufacturer KONE, while others develop IoT products and services for others.



Finland has a very high share of ICT specialists, while also scoring well in basic skills and STEM graduation rates.

(Digital Economy and Society Index)





#### International co-operation



- Finland has a talented ICT workforce. Not only does Finland produce
  excellent homegrown talent, it also attracts international talent. For example,
  many ICT companies use English as their company language because of the
  high percentage of immigrant experts.
- International partners are welcomed by Finland. On the government level,
  Finland has ICT partnerships with the Nordic countries, Estonia, International
  Council for Information Technology in Government Administration, EU and
  OECD.



