Datatalous liikenteessä ja logistiikassa

“Liikennedata arvonluojana Suomessa ja viennissä”

Datatalouden kasvuohjelma, Datatalous liikenteessä ja logistiikassa –webinaari 25.11.2025

Kimmo Ylisiurunen

Traffic Data Service Cluster

Fintraffic, FINLAND

Funded by the European Union – NextGenerationEU

FINTRAFFIC – A unique setting for all modes - purely driven by data

Railway traffic

- More than 500,000 trains each year
- More than 82 million passengers
- Rail network 6500 km

Air navigation

- Air navigation services at 22 airports
- 206 000 operations in regional air traffic control every year.
- 137,000 at Helsinki Airport

Road transport

- Roads carry 90% of passenger transport in Finland
- More than 120 million km driven in vehicles every day
- Road network 78,000 km

Maritime traffic

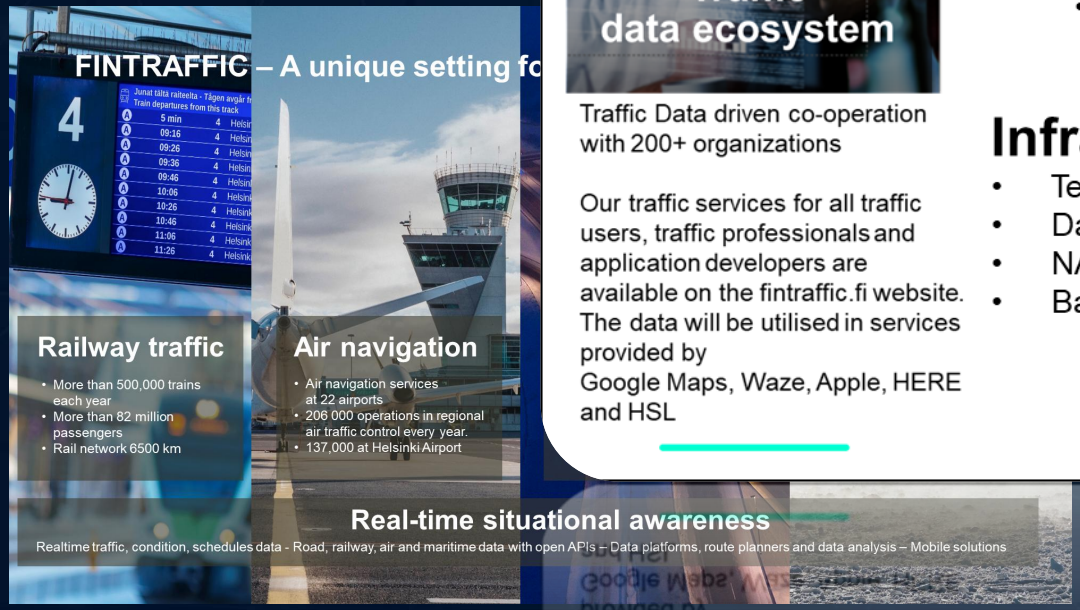
- 94% of exports, 91% of imports by sea
- Nearly 30,000 international traffic vessel visits annually

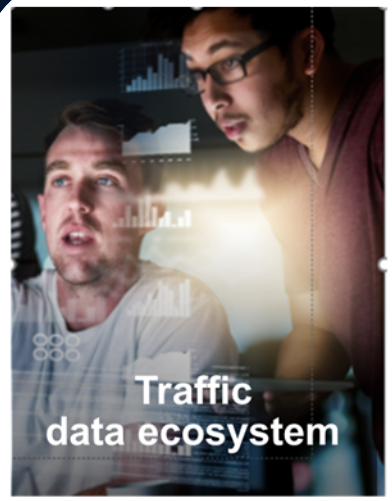
Real-time situational awareness

Realtime traffic, condition, schedules data - Road, railway, air and maritime data with open APIs – Data platforms, route planners and data analysis – Mobile solutions

DATA-DRIVEN ECOSYSTEM
– Innovations leads Fintraffic & partners to proven solutions

TRAFFIC DATA SERVICE CLUSTER





Traffic Data driven co-operation with 200+ organizations

Our traffic services for all traffic users, traffic professionals and application developers are available on the fintraffic.fi website. The data will be utilised in services provided by
Google Maps, Waze, Apple, HERE and HSL

TRAFFIC DATA ECOSYSTEM

+200 members

Cooperation
- Common targets
- Coordinating cooperation
- International partners
- Co-creation
- Investment

Digital rules
- Standardized collection of templates and standard contracts
- Standards for collaboration and data transfer

Infrastructure
- Technical data platform
- Data harmonization
- NAPs, EMDS, Directives…
- Basic gidital business services

Traffic Data Service Cluster

- Selected Forerunner Solutions from Finnish Traffic Data Ecosystem

TRAFFIC DATA SERVICE CLUSTER

Digitized and Smart
Rail Systems

Digitized and Smart
Logistics

Digitized and Smart
Maritime & Ports

Finnish data-driven innovation leading the way
Futureproof Airport

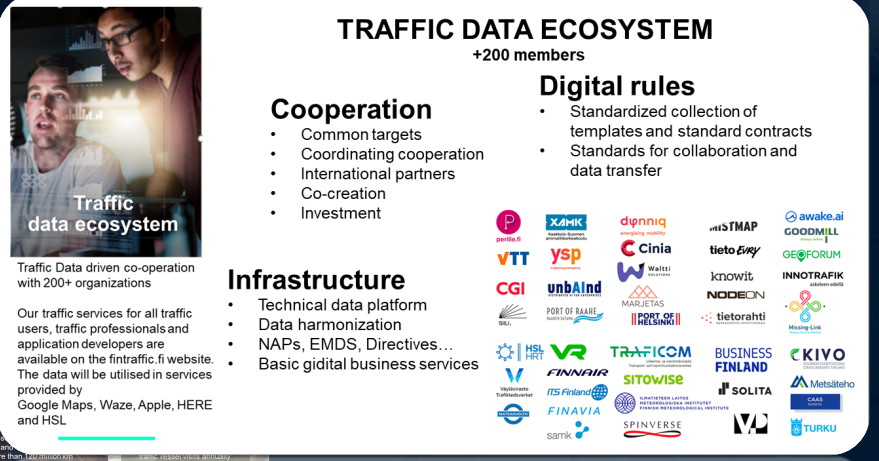
Digitized and Smart
Mobility Services & Analytics

Digitized and Smart
Traffic Management & Analytics

TRAFFIC DATA SERVICE CLUSTER

Partnering with world class companies

Led by Fintraffic



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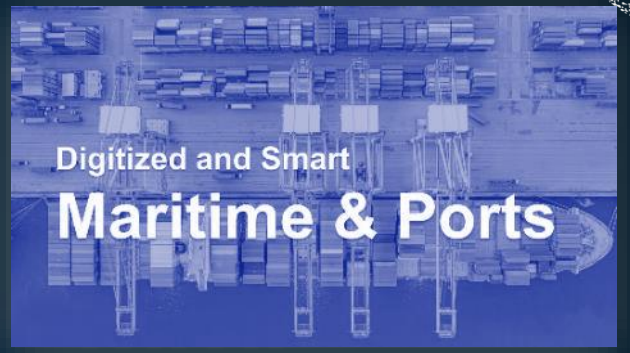
SOLUTION PORTFOLIO

- clustering companies' expertise & solutions

TRAFFIC DATA SERVICE CLUSTER

- Harmonized NAP services
- Data Analysis
- Situational & Condition Awareness
- Critical Infrastructure Management
- Traffic & Maintenance Optimization
- Digitraffic Road Data Platform

- Passenger Information
- Mobility as a Service
- Parking & Ticketing Systems
- Automated Driving
- MMTIS NAP
- Digitransit Route Engine



- Maritime Single Window
- Port Activity Service
- Port Marketplace
- Master's Guide

- ERTMS
- Autonomous Rail
- Data Analytics
- Living Labs

- Electronic Freight Transport Information (eFTI)
- Multimodal & Combined Transport
- Living Labs

- Air navigation & condition systems
- Digitized terminal management (AOP - Airport Operational Plan)
- Airport as a multimodal hub

Liikenteen datapalveluiden vientiklusteri

- ekosysteemistä uutta liiketoimintaa ja kasvu viennistä -

Vientiklusteri – konkreettista vientiä yhteistyössä

- ✓ **Suomalaiset liikenteen datapalveluiden viejät -** Fintraffic koordinoi ja avaa ovia
- ✓ Markkinan vahvana draiverina alan voimakas **regulaatio** – Suomi monessa edelläkävijä
- ✓ **Fintrafficin alustat ja IPR:n lisensointi** - ” laiskan IPR:n” aktivoiminen
- ✓ **Viennin systemaattinen ja konkreettinen askellus** – ovien avaamisen ”pipeline”
  1. Realistiset markkinavalinnat – tarjooma vs. markkinatarpeet
  2. Alan substanssiosaamisen, tarjooman ja vientiverkostojen synergia
  3. Tarkkaan kohdistetut tapaamiset, liidien generointi ja seuranta.

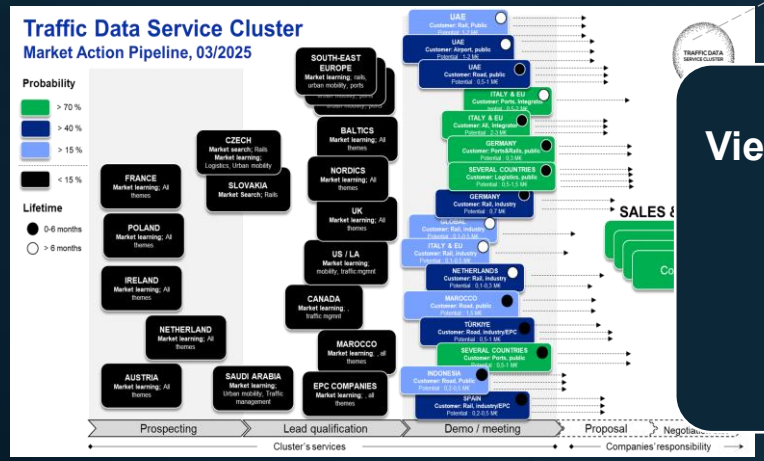
Highways, cities & PT
- Eu regulation & directives (ITS, C-ITS, NAPs, EMDS..)

Airports
- European regulation 2027 (APT, AOS, SWIM)

Logistics
- eFTI – European regulation 2027 (eFTI Gate, Nordics & Baltics Collaboration)

Railways
- EU regulation 2026 – (ERTMS)

Maritime & Ports
- IMO regulation 2026 – EU -> Global... (EMSW)



Vientiklusteri tuottaa uutta liiketoimintapotentiaalia

Arvio ensimmäisestä vuodesta:
- *Liidien määrä: n. 50 kpl*
- *Liidien arvo: n. 20 MEUR*
- *Tarjouksia: n. 4-5 MEUR*

Funded by the European Union – NextGenerationEU

Muutama esimerkki arvonluonnista liikenteen ja logistiikan haasteisiin

Services for Traffic Operators

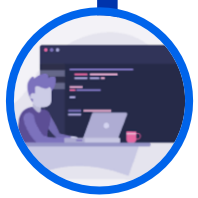
Services for citizens

Services for companies

Services for authorities

Data and platform services provide value for ecosystem

Service users create more data as they use the services.



Services for developers and data providers

Services implemented by the service operators

Services implemented by Fintraffic (Situational awareness, etc.)

Digital end user services

Ecosystem Orchestration (Fintraffic)

Ecosystem data platform (API) services

Digital Ecosystem Services

Data aggregation, cleansing and enrichment

Road | **Rail** | **Maritime** | **Air Traffic**

Fintraffic Traffic management & control services

Crowdsourced data

External data, partner data

Sensors, intelligen algorithms

Services are enriched with data from several sources

Data providers and developers provide data to be utilized by other parties in the ecosystem

Fintraffic traffic management services provide and consume data

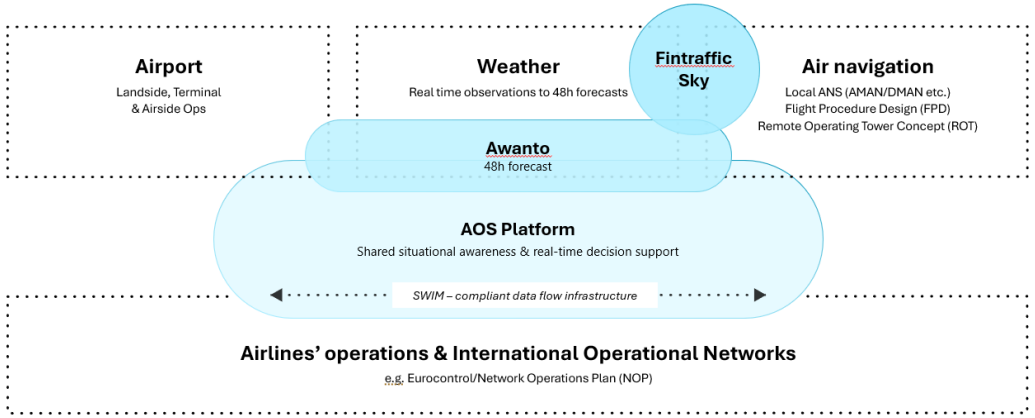
TRAFFIC DATA SERVICE CLUSTER

Finnish data-driven innovation leading the way

Futureproof Airport

Airport Digital Awareness System

Finnish data-driven solutions approving the airport's **AOP** to be compliant for **EU CP1**



AOS – Airport Operational Status

Shared situational awareness & real-time decision support

Watch video

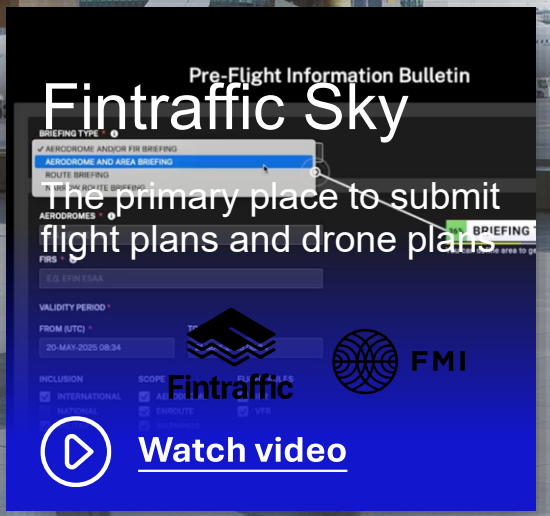
AWANTO

AK6066

SWIM compliant weather solution from real-time observations to 48h forecast

VAISALA FMI

Watch video



Fintraffic Sky

The primary place to submit flight plans and drone plans

Watch video

Fintraffic VTS

KEY ACTIVITIES

- Digitalization of maritime logistics and ports
- Maritime single window
- Port and coastal VTS operations
- eNavigation services
- Digital services for ships at sea

Ports, Port Authorities, Authorities

Shipping companies, Operators

Ship Brokers, Pilotage, Tugboats

Fintraffic · Port of Lübeck · Port of Gävle · Borealis · Rauman Satama Port of Rauma · Port of Helsinki · Port of Kokkola Ltd · Finnpilot · Alfons Håkans · Port of Kaskinen · EcoPorts Finland · InocoShipping · Porin Satama Port · Kvarken Ports · Port of Raahe · Kemin Satama · Finnlines · Port of Turku · Port of Oulu · Port of Naantali · Port of Jakobstad-Pietarsaari · Port of Kalajoki · Aeris Weather · Hangon Satama · Neste · Stamford · Euroports · Port of Joensuu · Mopro

POLO for Ports & Logistics

Digitalizes, Optimizes and Automates Port Operations

PORT COMMUNITY SYST
Integration platform & situational a

D/S POLO Digital Solutions for Ports and I

POLO – Unique Ecosystem Approach

Polo optimizes and streamlines port, maritime and logistic operations – locally and internationally

3rd party Operational Tools
- Shipping Company
- Pilots
- Towing
- VTS
- Terminal Operation System (TOS)
- Port Information Management (PMIS)

POLO Digital Solutions
- Port Community System
- Port Management System
- Ship Services
- Business Intelligence

Maritime Single Window
- Reporting Interface Module (RIM)
- NMSW Core

Authorities
- National Authorities
- National Customs

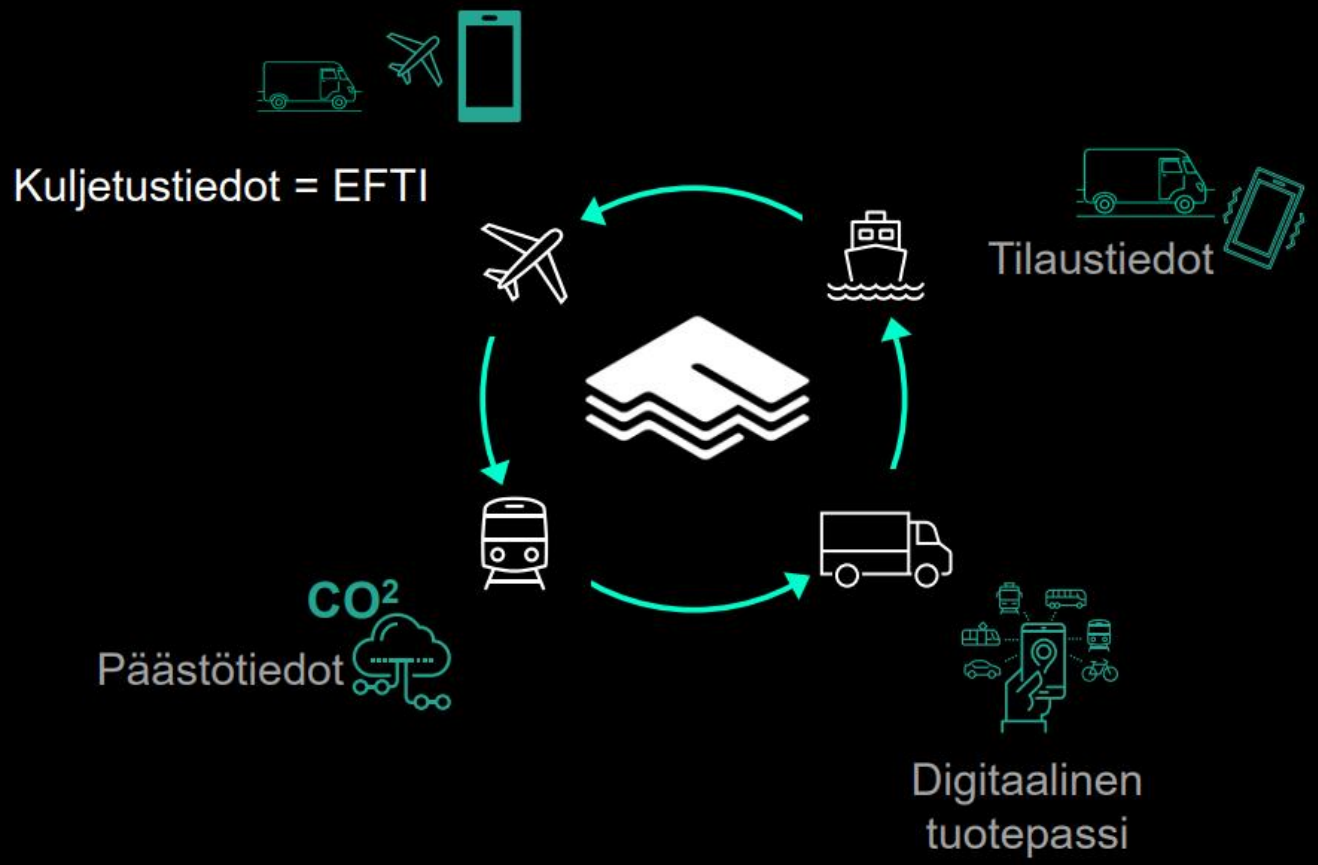
Background Data Sources
- AIS
- Weather
- Map / Charts
- Other

Local POLO Ecosystem

D/S POLO Digital Solutions for Ports and Logistics

Electronic freight transport information (eFTI)

“Linked data generates more value than separate solutions, where eFTI is one piece of the digital logistic puzzle”



SAFETY

TRUST

HARMONIZING

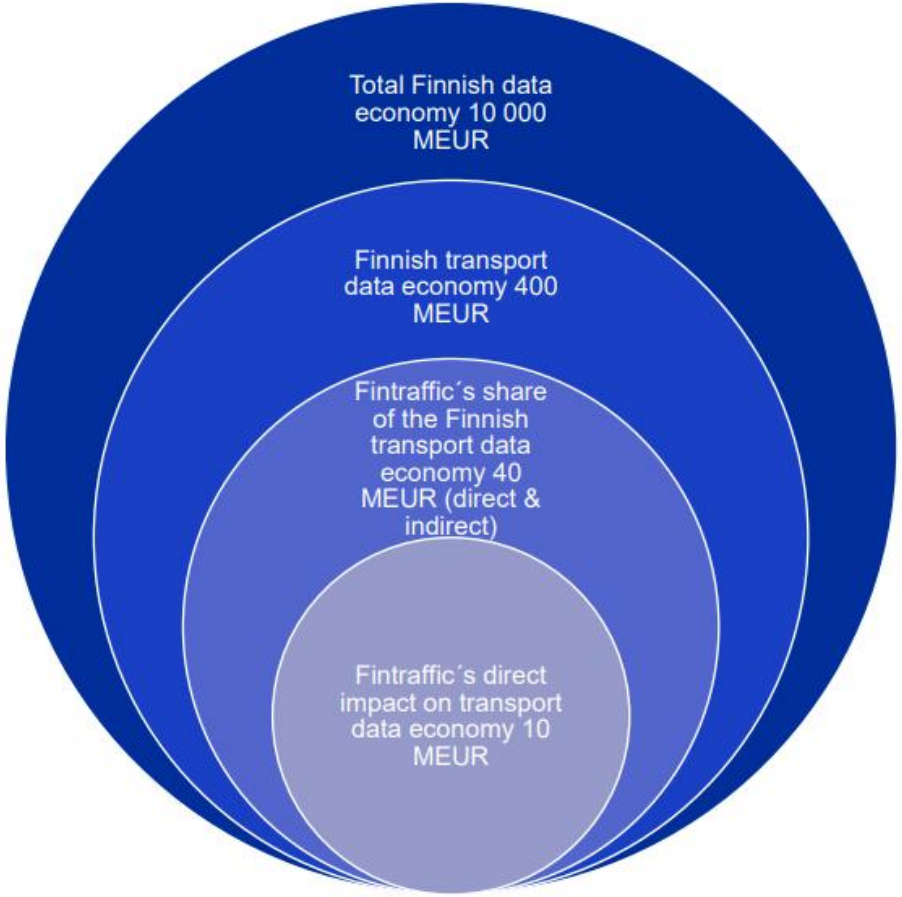
EFFICIENCY

SHARING

SPEED

LOWER EMISSIONS & COSTS

Value of Data



Source: Impact Potential of the Traffic Data Ecosystem - Report [link]

The data economy creates a value of hundreds of millions of euros in the transport data economy in Finland

The traffic data economy in Finland generates a value amounting to hundreds of millions of euros. This value creation occurs within a complex and diverse ecosystem, where the interactions among various stakeholders lead to significant outcomes. Understanding and verifying these outcomes are crucial for advancing the transport data economy and establishing the coordinated data ecosystem under Fintraffic's leadership.

During the spring and summer, Fintraffic conducted a study to assess the impact of the transport data ecosystem in collaboration with FLOU (https://www.flou.io). This research aimed to uncover strategies for enhancing and quantifying the level of digitization within the transport ecosystem.

The research primarily delved into the aspects of data and infrastructure, encompassing technical foundations, data model standards, APIs, and more. Additionally, it explored cooperative elements within the transport data ecosystem. Calculations from the previous year reveal that the value of the transport data economy surpassed 400 million euros, with Fintraffic's share amounting to approximately 40 million euros (as depicted in the provided image).

Miten digitalisaation hyödyt syntyvät yrityksille?

Kansantalouden hyötypotentiaali
5,8 mrd. €/v
+ n mrd. €/v

eKuitit
+223 milj. €/v

Verkkolaskut
+440 milj. €/v

Digitaaliset tilausasiakirjat
+2,7 mrd. €/v

Digitaaliset logistiikan asiakirjat
+2 mrd. €/v

Työ helpottuu, virheet vähenevät: kustannussäästö organisaatioiden taloushallinnolle jopa
– 50 %

Lisää resursseja mm. verovalvontaan ja -ohjaukseen
Verotuloja **+300 milj. €/v**

Transaktiokohtainen alv-raportointi
Verotuloja kansallisesti
+160 milj. €/v

Yritystieto sujuvasti tilastointia varten, säästö:
Yritykset **+145 htv/v**
Tilastokeskus **+1,4 milj. €/v**

Lähde: Yrityksen digitalous -hanke / Tomi Dahlberg 2024, arvio perustuu 60% käyttöasteeseen.

Kiitos!

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[Fintraffic]

Kiinnostunut viemään ratkaisusi maailmalle?

Ole yhteydessä!

Funded by the European Union – NextGenerationEU