



**Yrityksen
digitalous**

E-invoice metrics

2020–2023

Real-Time Economy | June 2024



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1 Background

Government agencies and large companies (annual turnover more than EUR 50 million or more than 250 employees) make extensive use of e-invoicing. According to a Statistics Finland estimate for 2021, about 83% of companies with more than ten employees send e-invoices. In 2020, about 97% of purchase invoices and 38% of sales invoices of government agencies were e-invoices. Sales invoices also include consumer invoices.

It is estimated that many small companies continue to rely on traditional invoicing, which means that they do not send or receive invoices in structured format. These companies still send most of their invoices in paper form or as PDF files attached to email messages. The cost of e-invoicing and one-time consumer invoicing may have discouraged small companies from adopting e-invoicing. Furthermore, e-invoicing does not generate the same process savings in sales invoicing as in purchase invoicing. One reason is that it takes the same time to generate a sales invoice irrespective of the method used whereas the time it takes to process purchase invoices depends on the invoice format.

As a rule, e-invoices in Finland are transmitted in a network formed by e-invoicing operators in accordance with the four-corner model.

2 Situation at the start of the project

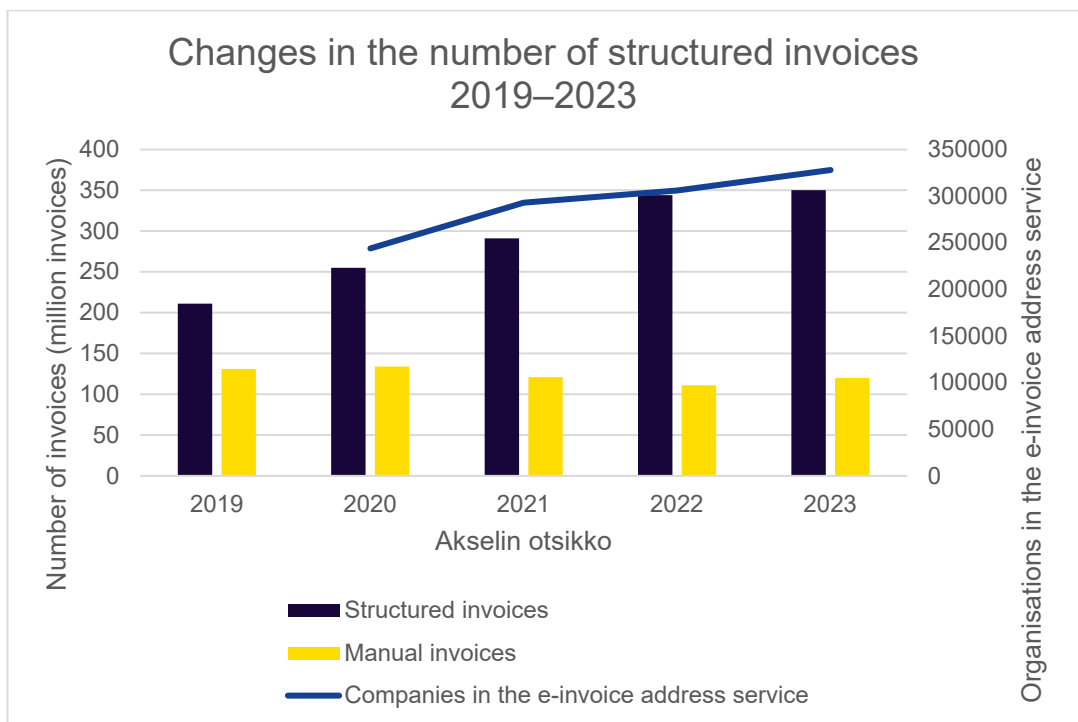
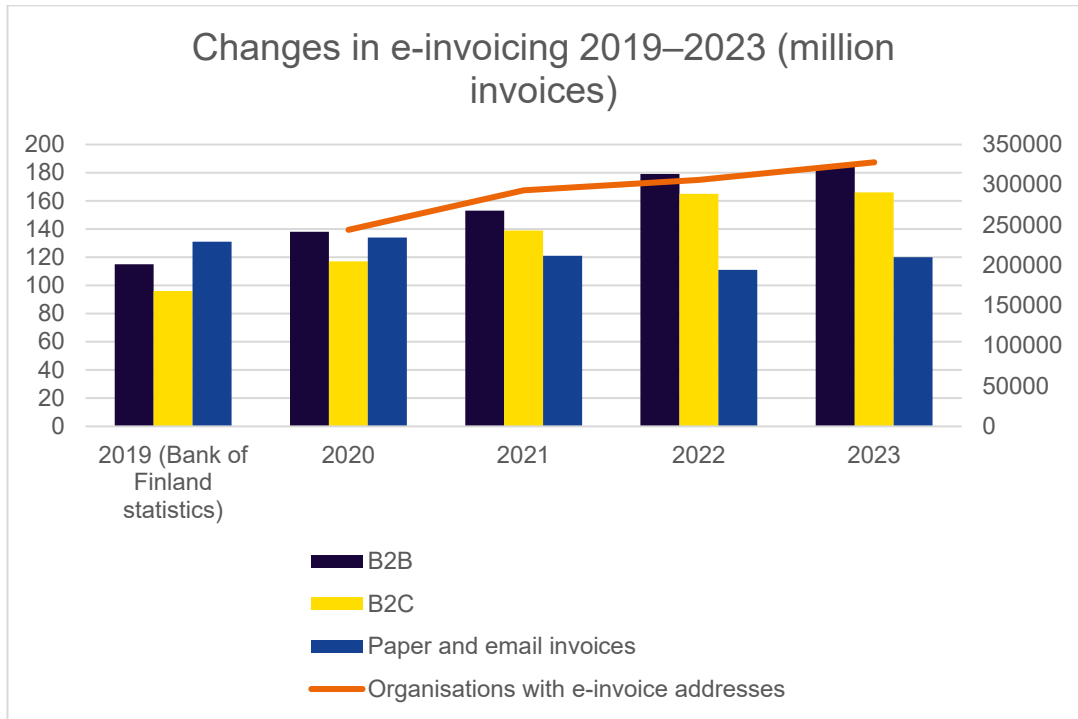
In September 2021, the State Treasury conducted a survey on e-invoicing penetration in municipalities and joint municipal authorities. About 64% of all municipalities and 68% of joint municipal authorities responded to the survey. According to the survey findings, municipalities and joint municipal authorities use e-invoices to a varying degree. On average, 80% of all purchase invoices processed by municipalities were e-invoices while for joint municipal authorities, the figure was 83%. In sales invoicing, the average penetration rate of e-invoices in municipalities was only 24% and in joint municipal authorities 31%. Sales invoices also include the invoices sent to consumers, many of which are still sent as paper documents. One-time consumer invoicing (such as invoices for permits and hospital fees) is one reason why a substantially lower proportion of sales invoices is sent as e-invoices. One-time consumer invoices cannot be digitalised with current equipment. Under the Electronic Invoicing Act, municipalities and joint municipal authorities should have the capacity to accept and send e-invoices meeting the European standard. However, this is not the case. Not all municipalities possess e-invoicing expertise or use existing services.

According to the e-invoicing operator data collected by the Bank of Finland, due to statistical reporting differences, the percentage of e-invoices seemed to be higher than it actually is.

The first analysis produced in the project showed that achieving the 90% target would require the digitalisation of between 35 and 45 million sales invoices. In December 2021, there were about 269,000 organisations in the Finnish e-invoice address service maintained by the Finnish Information Society Development Centre (TIEKE).

3 End situation

Activation of e-invoices has been carried out in a variety of different forums and communication channels. Digitalisation of consumer invoicing has also been a key issue in the project. According to statistics, about 95 million sales invoices were structured between 2020 and 2023 using a range of different channels. Of this total, about 46 million were B2B invoices and about 49 million consumer invoices.



3.1 Operator inquiries

At the start of the Real-Time Economy project it was agreed with the Bank of Finland that the reporting on operator-specific invoicing data would be transferred to the State Treasury. With the approval of the e-invoicing forum, the State Treasury has requested annual e-invoicing statistics from e-invoicing operators and has also received the figures for banks from the Bank of Finland.

According to the information provided by the State Treasury, at the start of the project, the number of e-invoices stood at 255 million, of which about 138 million were corporate e-invoices. Manual vouchers, such as email and paper invoices, totalled about 134 million. Since 2020, about 95 million invoices have been digitalised in Finland, and 46 million of them are invoices between organisations. In invoicing between organisations, growth is levelling off, indicating market saturation. E-invoicing is still less common in companies with a turnover of less than EUR 100,000 but in terms of transactions, such enterprises only account for a small proportion of the total volume.

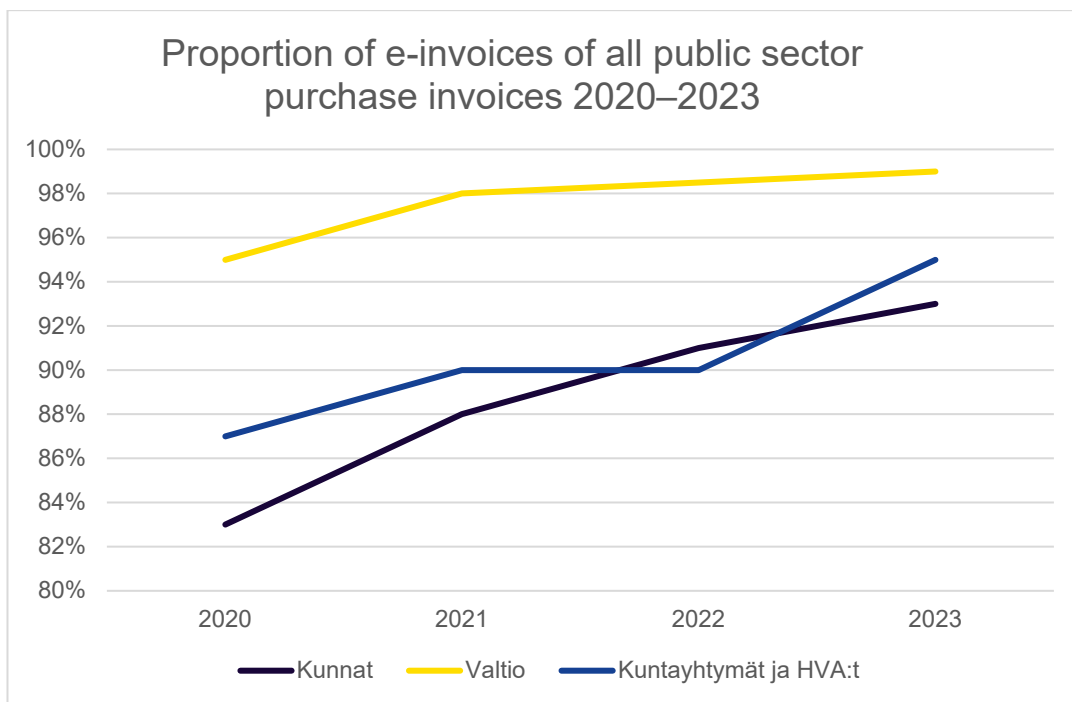
3.2 Public sector

3.2.1 Municipalities, joint municipal authorities and wellbeing services counties

The number of purchase and sales invoices of municipalities, joint municipal authorities/wellbeing services counties and central government, and the percentage of e-invoices of this total for the period 2020–2023 were determined in the Real-Time Economy project.

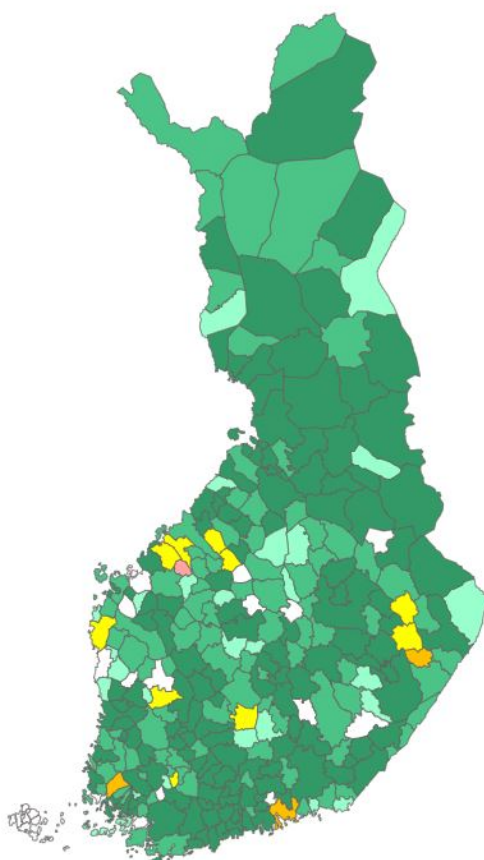
The proportion of e-invoices of all purchase invoices has increased from about 85% to 94%. This means that about 600,000 paper and email invoices have been converted into e-invoices. According to the calculation method used by the European Commission, the public sector has thus saved about five million euros each year. Moreover, the calculations produced by the European Commission show that the public sector actors sending invoices have accumulated savings of about EUR 3.1 million. In other words, based on the statistics covering a period of four years, the annual savings have totalled about EUR 8.1 million.

The public sector has made huge progress in the digitalisation of its purchase invoicing. However, based on the survey findings, there are substantial differences in the penetration of e-invoicing in the sector, and this applies to both sales and purchase invoices. According to the results of the survey conducted among municipalities, small rural municipalities are less well placed to receive e-invoices. The penetration of purchase e-invoicing varies between 22% and 100%. However, there are only two municipalities with a rate of less than 50% and only 31 municipalities with a penetration of less than 80%. Substantial progress has been made since 2020 because that year, a total of 96 municipalities were below the 80% mark and nine municipalities had a digitalisation penetration of less than 50%.



Penetration of purchase e-invoicing in Finnish municipalities

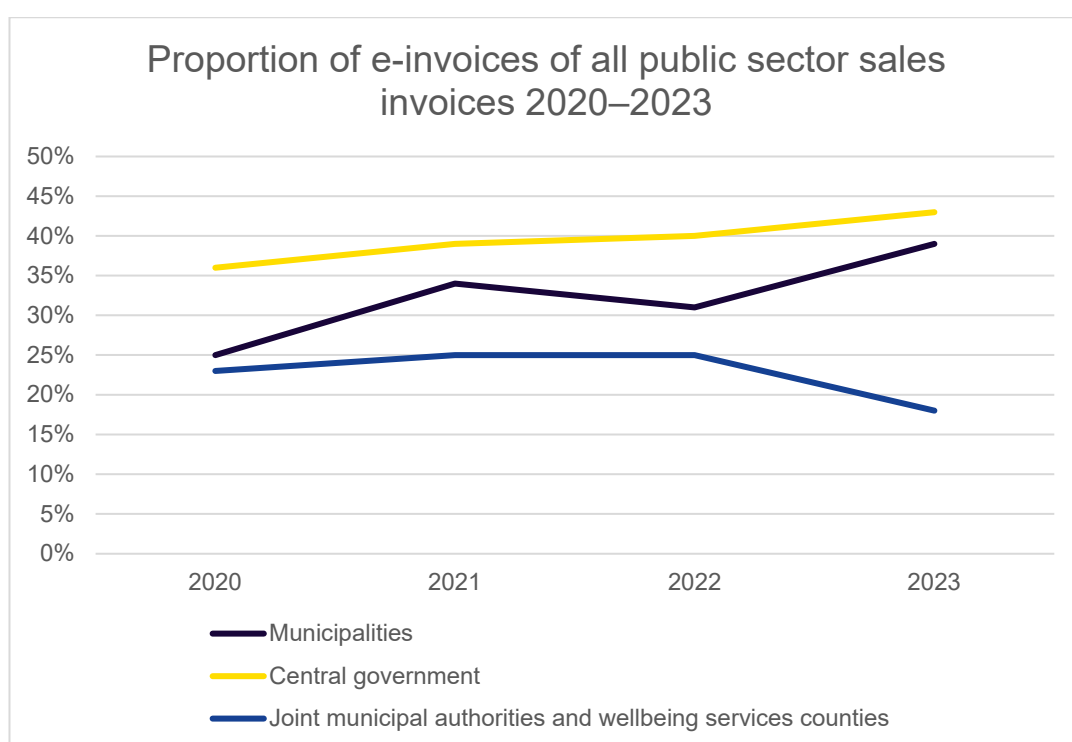
Ostolaskujen sähköistämistäaste Suomen kunnissa



Segmentti ● 20-39 ● 40-59 ● 60-69 ● 70-79 ● 80-89 ● 90-100 Segment

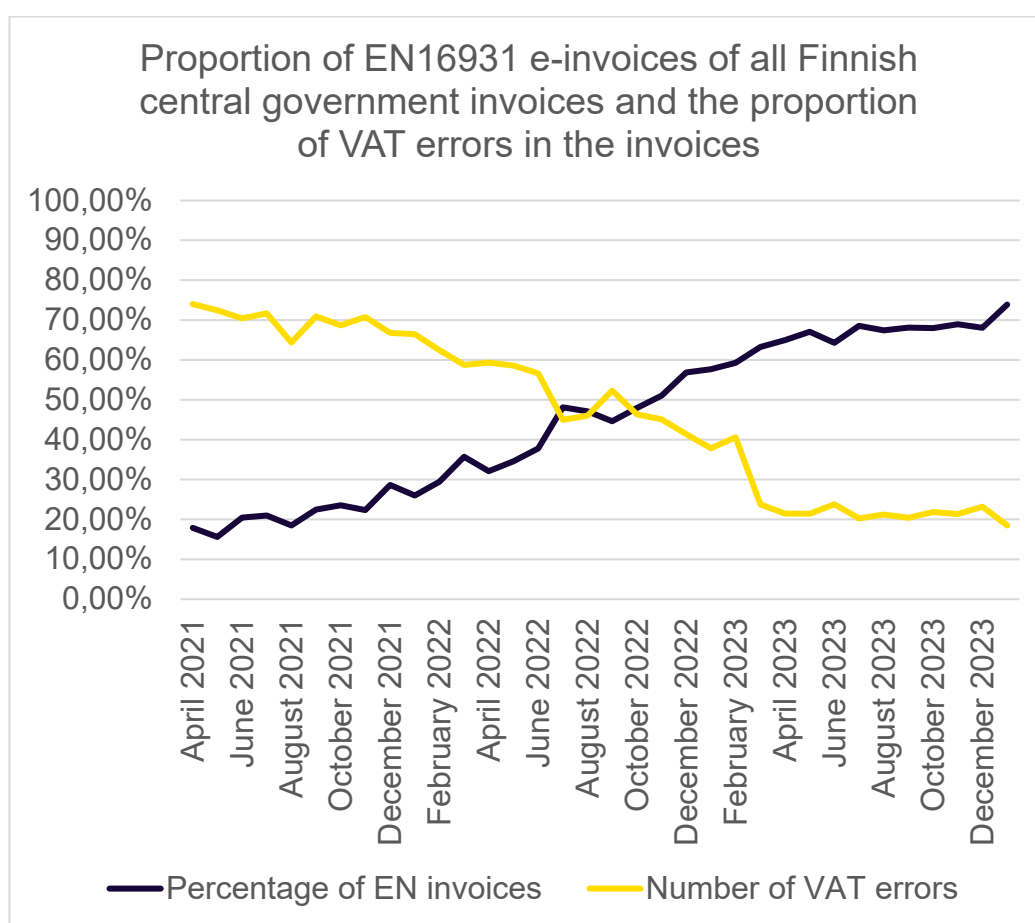
Less progress has been achieved in sales invoicing. Penetration of sales e-invoicing remains low even though the situation has improved since 2020. In sales invoicing, proportion of e-invoices has risen from 29% to 32%, corresponding to 1.2 million digitalised invoices. However, the public sector still has about 17 million sales invoices that are waiting to be digitalised. Digitalising a sales invoice generates savings of at least one euro (in printing and postal costs), and according to the European Commission, the sender of an e-invoice saves EUR 5.28 for each invoice. In other words, digitalisation of sales invoicing would generate direct savings of at least EUR 17 million. Based on the savings to sender estimated by the European Commission, digitalisation of sales invoicing would generate savings of up to EUR 88 million and a much better customer experience.

The current sales invoicing situation has resulted from the wellbeing services counties reform introduced in 2023, as a result of which most of the consumers using social welfare and healthcare services had to order the e-invoices again.



3.2.2 Central government

Most of the purchase invoices processed by central government have already been digitalised and for this reason, the share of e-invoicing has changed very little. Most of the manual invoices are invoices received from other countries, which are difficult to digitalise. Peppol invoices are expected to ease the problems arising from international invoicing in Europe and in global scale. Increasing use of invoices meeting the EN16931 standard is the most important change concerning central government purchase invoicing. Significant progress has been achieved between 2021 and 2024. Invoices meeting the standard now account for nearly 80% of the total invoice mass (compared to less than 20% in 2021). Technical errors in invoice contents have decreased in the same proportion, which has significantly facilitated invoice processing. The changes are the result of extensive activation of suppliers and provision of information.

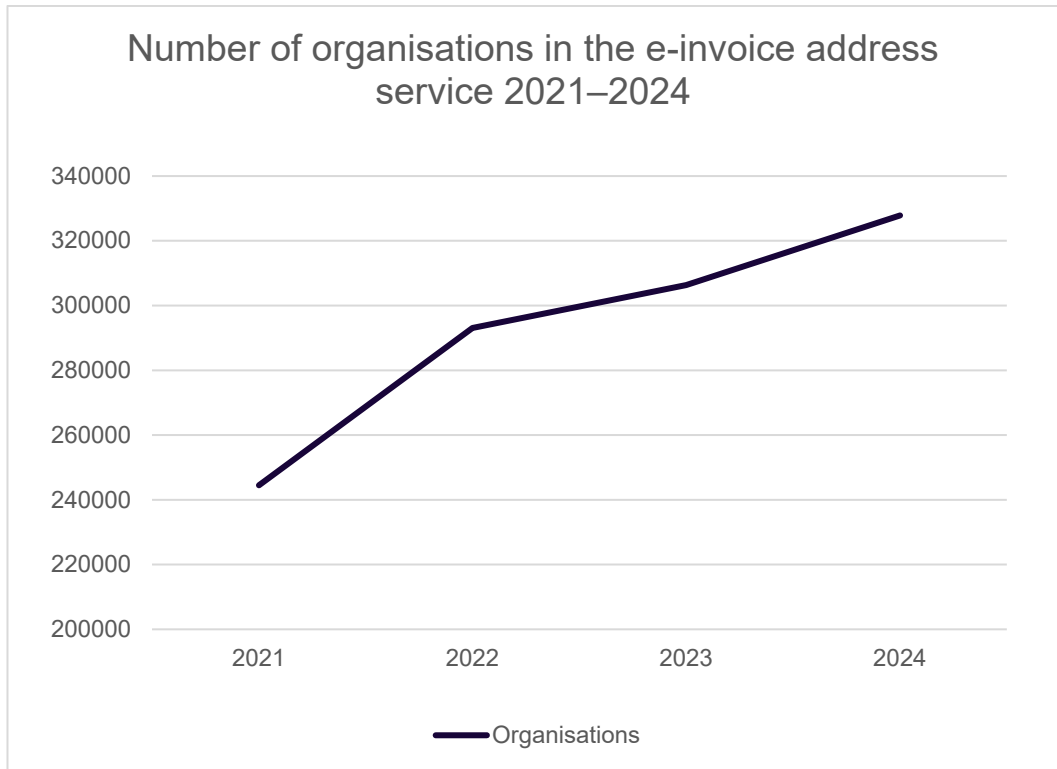


Digitalisation of central government sales invoices is making progress. Growth amounted to 7% in the period 2021–2023. However, central government took measures to activate consumers during 2023 but the impacts of these measures are not yet reflected in the statistics. In addition to using more traditional communications, the Finnish Tax Administration also piloted an e-invoice receiver proposal in cooperation with two banks, which prompted a large number of consumers to adopt e-invoicing. Results of the pilot project have also been communicated to other central government organisations, and there are plans to make more extensive use of the e-invoice receiver proposal in the municipal sector.

3.3 E-invoice address service

The e-invoice address service is a register maintained by Tieke and owned by e-invoicing operators where e-invoicing addresses of organisations are entered and where invoicers can check the recipient's e-invoicing address. The address service is freely accessible on web browsers, and you can also purchase downloading rights and integrate the service into your customer information system.

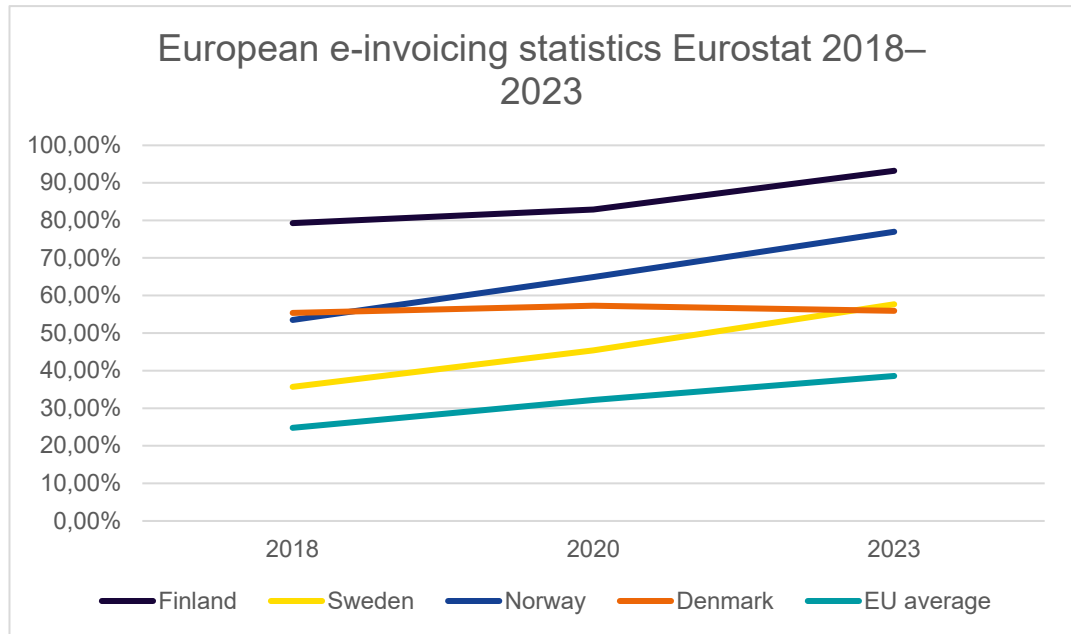
The e-invoice address service thus gives an accurate picture of organisations' capacity to send and receive e-invoices. The e-invoice address service has been downloaded for the project during four different years, which means that the number of organisations entered in the address system reflects the increase in e-invoicing capacity during the project. At the start of the project, the address service contained details of about 244,000 organisations, and in March 2024, the figure was about 328,000. E-invoicing capacity has increased by about 34% during the project.



3.4

Eurostat

Strong growth in our e-invoicing capacity is also illustrated by the Eurostat statistics, according to which Finland is the Nordic leader in e-invoicing and only second to Italy at European level. Using e-invoices is a statutory obligation in Italy. According to Eurostat, penetration in Finland is 93.2% (compared to EU average of 38.6%).



3.5

E-invoicing analysis produced by Deloitte

Finland's overall e-invoicing penetration can be reliably calculated from e-invoicing statistics (including B2B, B2G and B2C invoices). The problem is that B2B, B2G and B2C invoices cannot be reliably identified from among email and paper invoices. The proportion of B2B invoices must thus be calculated on the basis of mathematical models. Deloitte Consulting Oy was commissioned to produce an analysis in which a mathematical formula was created on the basis of municipalities' open e-invoicing data and operator-specific e-invoicing data. Based on the analysis, it could be concluded that consumer invoices account for a higher-than-expected proportion of email and paper invoicing. The data used in the e-invoicing analysis showed that already in 2022, more than 90% of B2B invoices were e-invoices.

The e-invoicing analysis was continued by examining the sectors in which less use is made of e-invoicing and the number of companies is high. The analysis showed the sectors that are, in terms of the proportion of companies, key to boosting e-invoicing capacity. The key sectors were contacted and understanding of their operating practices was created. Most of the enterprises outside the e-invoice address service are private traders and the most significant sectors are consumer oriented (such as the beauty care sector and the taxi services). The low e-invoice penetration in these sectors is due to the cash-payment and card-payment practices used in them. There is practically no customer invoicing. Furthermore, purchase invoices are often processed through personal online banking, which treats all e-invoices as consumer invoices.

4 Finally

The e-invoicing target was already met in 2022. The analysis produced by Deloitte Consulting Oy used statistical methods to show that B2B invoicing accounted for 90% of the total. This is also supported by an analysis of the e-invoice address service, on the basis of which it can be concluded that e-invoicing between organisations is the main operating method. Moreover, the Eurostat report produced by Statistics Finland showed that Finland is the first country in Europe that has achieved e-invoicing penetration of more than 90% without a statutory obligation. The target of between 35 and 45 million additional B2B e-invoices set at the start of the project has also been achieved. In fact, the increase has been 46 million.

A total of about 95 million invoices have been digitalised during the project. As a result, direct transaction costs have been reduced by at least EUR 95,000,000. Taking into account the changes in B2B e-invoicing alone, the savings amount to EUR 629 million,¹ compared to the situation in 2020. Digitalisation of consumer invoicing has also generated savings totalling EUR 259 million to the parties sending the invoices. E-invoicing generated permanent annual savings totalling EUR 888 million between 2020 and 2023.

¹The quantitative benefits generated by the automation of the invoicing process are put at about EUR 5.28 for each e-invoice sent and EUR 8.4 for each e-invoice received (with hourly labour costs of EUR 46). Preparatory study on the effects of the Directive 2014/55/EU on electronic invoicing in public procurement, European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciriello, C., Gray, E., Publications Office of the European Union, 2024, <https://data.europa.eu/doi/10.2873/27631>



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