



## Advancement of European Countries in Real-Time Economy Index

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## PART I: INTRODUCTION

### OBJECTIVES AND SCOPE

The general purpose of the study is the assessment of advancement of European Union countries and Switzerland in Real-Time Economy (RTE) and preparation of the RTE-advancement index of the respective countries.

The study was done for Eera Oy between April and September 2014 to support the consortium of companies in the field of accounting and financial services.

Definition of what Real-Time Economy stands for and how to assess the state of RTE in a country was another objective of the research project.

In summary, the goals of the project were:

- Identification of relevant criteria for assessment of countries' RTE advancement
- Development of a measurement model with metrics to measure the state of a given country with respect to the criteria
- Compilation of a 'RTE Advancement Index' to rank the countries with respect to their RTE capabilities

- Collection qualitative information about the countries' through interviews with local experts.

### PROJECT TEAM AND MANAGEMENT

Project team consisted of the research team from Aalto University School of Business and two representatives of Eera Ltd. The research team from Aalto included three researchers during the 1<sup>st</sup> phase - Jukka Kulokoski, Kasper Eerola and Nikolay Tarasov, and the research team manager - Esko Penttinen. During the 2<sup>nd</sup> phase was carried out by Nikolay Tarasov. Tomi Torri and Risto Särelä represented Eera Ltd.

### PROJECT STAKEHOLDERS

The stakeholders in the study include the consortium of client companies, Eera Ltd., Aalto University Research Team, Leinonen group and country experts. The stakeholders and their respective roles in the study are listed in the Table 1.

It is important to note that the research, when published, is likely to have an extended group of stakeholders, such as governmental institutions, accounting firms in European countries, SMEs and even general public.

Stakeholder Group	Role in the Project
Consortium of Companies	End customers of the research
Eera Ltd.	Project Management, Project Steering
Aalto University researchers	Research planning and execution, conducting interviews, reporting
Leinonen Group	Access to country experts in the markets where Leinonen is present
Country Experts	Qualitative knowledge about the markets, leads to other professionals

Table 1: Project stakeholders and their roles.

## PART II: METHODOLOGY AND INDEX DESCRIPTION

### DESCRIPTION OF THE MEASUREMENT MODEL

The most important goal of the project was to construct a measurement model to assess the countries' advancement with respect to RTE, which could then be used in evaluating the countries' potential as new market areas.

The measurement model fundamentally consists of a large set of qualitative and quantitative data columns formulated into metrics-specific RTE-relevant processes or aspects in which the advancement of a given country market can be somehow measured if not always truly quantified.

The metrics are then grouped into higher-level themes (named and color-coded in the Excel sheets) and ultimately into averaged (sub-) indices that reflect the advancement of a given country with respect to e.g. e-invoicing or banking infrastructure.

### IDENTIFICATION OF THE METRICS

The first step of the project was to define RTE and the ways of measuring RTE advancement of countries. This has been done using three information sources:

#### Source 1: Interviews with the representatives of the companies behind the study

Through a series of four interviews with the representatives of the consortium companies the research team was able to:

- Better understanding of companies' service proposition, customers and goals;
- Better understanding of factors related to RTE that are the most relevant to business activity of the particular company
- Better understanding of future goals of the company, including international expansion, and

what factors are likely to be more important when selecting a country for market entry.

### Source 2: Interviews with RTE experts

In total the research team conducted interviews with four experts in RTE. The interviews were constructed in a way that allowed an open conversation about the subject.

The experts are listed in the Table 2, along with the positions they hold and areas of expertise.

PARTICIPATING REAL-TIME ECONOMY EXPERTS	
Expert	Areas of expertise
 <b>Pirjo Ilola</b> Development Manager Federation of Finnish Financial Services	- General RTE - E-Payments
 <b>Esko Penttinen</b> Head of XBRL Finland	- General RTE - Accounting Infrastructure
 <b>Vuokko Mäkinen</b> CEO at Hawcon	- E-invoicing - Government reporting
 <b>Bo Harald</b> Chairmen of the Board ZEF	- E-invoicing

Table 2: Participating RTE expert

### Source 3: Background scan of published sources

Multiple published reports in fields related to RTE were examined to identify metrics relevant in studies related to this one.

### DESCRIPTION OF THE RTE READINESS INDEX

The main index of the measurement model - the RTE Readiness Index - is based on four sub-indices, and is broken down as shown in the Table 3.

The RTE Readiness Index is calculated as the simple average of these four sub-indices. The details of the indices can be found in the separately provided Excel file ("Project Database"). These four sub-indices each comprise multiple lower-level metrics (listed in Appendix Y).

The sub-indices are calculated as weighted averages of the metrics' values. Not all metrics collected during the research are included in the model. They are, however,

available in the general project database.

The results printed out in the Results section have been calculated with metric weights chosen by the research team, and the results presented here may change if the weights are chosen differently by the end-users of the model. The metric weights can be changed in the Excel file.

### DATA SOURCES USED FOR POPULATING THE MODEL

#### Public Databases

Public databases have played an important role in composition of the index as they provided verified statistical data on macro economic indicators, usage of e-invoicing by SMEs and share of grey economy among others.

The following sources have been used the most for the purposes of this research:

- Eurostat
- European Central Bank (ECB)
- World Bank

These, however, are only some examples.

#### Industry Reports

Reports published by organizations that are stakeholders in RTE have

provided comprehensive insight into the state of RTE in different countries. The organizations that have published reports and surveys that have had significant impact on this research were Billentis, EESPA, WKO

#### Interviews with Country Experts

Interviews with experts have been the most valuable source of information about the countries. By dedicating their time to the study the Country Experts shared their practical knowledge of how the industry and ecosystem work.

#### Risks and Limitations

The following factors may have had an effect on the accuracy of the results:

#### Subjective and Anecdotal Information

Due to the subjectivity of interview data, there is a possibility of misinformation. Interview data is difficult to verify from other sources.

RTE READINESS INDEX					
Potential Purchasing Power Index	E-Invoicing Index	E-Payment Index	Infrastructure and Ecosystem Index		
			E-invoicing Adoption Score	Accounting Ecosystem Score	Banking Ecosystem Score

Table 3: RTE Readiness Index and its components.

### Missing or Inaccurate Data

On occasion, some statistical data is not available for a given country. Moreover, the accuracy of some statistical data cannot be verified with certainty.

### Possible Incompleteness of the Measurement Model

Possibly, some RTE-related indicators were overlooked by the research team are not included in the current model

### Quantifying Information

Much of the raw interview data is not in a quantified form. Quantifying such data required some degree of subjective interpretation.

### COUNTRIES INCLUDED IN THE STUDY

The present study covers 28 EU countries plus Switzerland and Norway. All participating countries are listed in the Table 4.

As of 29.12.14, relatively complete results have been obtained for 10 following countries (the countries for which an expert interview could be arranged).

### COUNTRIES INCLUDED IN THE STUDY



EU28



Switzerland



Norway

### COUNTRIES INCLUDED IN THE INDEX<sup>1</sup>



Austria



Germany



Norway



Belgium



Greece



Poland



Bulgaria



Hungary



Portugal



Croatia



Ireland



Romania



Cyprus



Italy



Slovakia



Czech Republic



Latvia



Slovenia



Denmark



Lithuania



Spain



Estonia



Luxembourg



Sweden



Finland



Netherlands



Switzerland



France



Malta



UK

<sup>1</sup> Both quantitative and qualitative data is collected for the highlighted countries.

Table 4: Countries included in the study

## PART III: SUMMARY OF RESULTS

## RTE READINESS INDEX

Country	RTE Readiness Index		Potential Purchasing Power Index		E-invoicing Index		E-Payment Index		Infrastructure and Ecosystem Index	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Finland	0,98	1	1,29	7	0,64	1	1,00	1	0,97	1
Norway	0,97	2	2,26	1	0,27	8	0,56	26	0,80	2
Denmark	0,88	3	1,56	3	0,45	2	0,90	3	0,61	10
Sweden	0,82	4	1,54	4	0,23	14	0,84	6	0,67	5
Austria	0,77	5	1,29	9	0,24	11	0,87	4	0,68	4
Switzerland	0,74	6	1,54	5	0,24	12	0,54	27	0,63	7
Belgium	0,73	7	1,31	6	0,26	10	0,83	11	0,55	15
Germany	0,73	8	1,22	12	0,19	22	0,92	2	0,61	9
Netherlands	0,72	9	1,29	8	0,17	26	0,83	9	0,61	11
Ireland	0,70	10	1,24	10	0,27	8	0,77	17	0,50	18
United Kingdom	0,68	11	1,08	13	0,17	25	0,83	8	0,63	8
Spain	0,65	12	0,89	15	0,20	17	0,81	14	0,69	3
France	0,64	13	1,24	11	0,19	20	0,81	13	0,34	20
Italy	0,63	14	1,05	14	0,19	23	0,75	18	0,54	16
Estonia	0,57	15	0,61	20	0,23	13	0,85	5	0,60	12
Latvia	0,56	16	0,52	23	0,32	4	0,82	12	0,57	14
Lithuania	0,56	17	0,51	24	0,36	3	0,71	21	0,64	6
Greece	0,50	18	0,71	18	0,15	28	0,63	25	0,49	19
Poland	0,49	19	0,47	27	0,19	20	0,70	23	0,58	13
Hungary	0,47	20	0,48	26	0,18	24	0,71	22	0,52	17
Bulgaria	N/A	N/A	0,34	29	0,32	4	0,83	7	N/A	N/A
Croatia	N/A	N/A	0,51	25	0,20	17	0,45	30	N/A	N/A
Cyprus	N/A	N/A	0,78	16	0,07	30	0,50	29	N/A	N/A
Czech Republic	N/A	N/A	0,60	21	0,21	16	0,73	20	N/A	N/A
Luxembourg	N/A	N/A	2,20	2	0,23	15	0,54	28	N/A	N/A
Portugal	N/A	N/A	0,67	19	0,29	7	0,78	16	N/A	N/A
Romania	N/A	N/A	0,38	28	0,15	28	0,74	19	N/A	N/A
Slovakia	N/A	N/A	0,57	22	0,32	6	0,83	10	N/A	N/A
Slovenia	N/A	N/A	0,72	17	0,16	27	0,80	15	N/A	N/A
Malta	N/A	N/A	N/A	N/A	0,19	19	0,69	24	N/A	N/A

## SUB-INDECES

## Potential Purchasing Power Index

Country	Potential Purchasing Power Index		GDP/capita (€)	Wage level (€, hourly cost)	Price level (Relative to EU average, 2012)	GDP growth (2011-2013)
	Score	Rank	Score	Score	Score	Score
Norway	2,26	1	100 318	48,5	158,8	2,1%
Luxembourg	2,20	2	110 424	35,7	122,1	1,3%
Denmark	1,56	3	59 191	38,4	140,5	0,4%
Sweden	1,54	4	57 909	40,1	128,6	1,8%
Switzerland	1,54	5	81 324	0	159,9	1,6%
Belgium	1,31	6	45 384	38	108,6	0,6%
Finland	1,29	7	47 129	31,4	121,7	0,1%
Netherlands	1,29	8	47 634	33,2	107,6	-0,4%
Austria	1,29	9	48 957	31,4	105,5	1,2%
Ireland	1,24	10	45 621	29	117	0,8%
France	1,24	11	43 000	34,3	108,1	0,7%
Germany	1,22	12	44 999	31,3	101,1	1,5%
United Kingdom	1,08	13	39 567	20,9	116,5	1,0%
Italy	1,05	14	34 715	28,1	102,5	-1,3%
Spain	0,89	15	29 150	21,1	94,9	-0,9%
Cyprus	0,78	16	24 761	17,2	87,4	-2,5%
Slovenia	0,72	17	22 756	14,6	82,9	-1,0%
Greece	0,71	18	21 857	13,6	92,1	-6,0%
Portugal	0,67	19	20 728	11,6	85,9	-2,0%
Estonia	0,61	20	19 032	9	76,9	4,7%
Czech Republic	0,60	21	18 858	10,3	72,2	0,0%
Slovakia	0,57	22	17 706	8,5	70,4	2,4%
Latvia	0,52	23	15 205	6,3	71,6	4,9%
Lithuania	0,51	24	16 003	6,2	63,9	4,3%
Croatia	0,51	25	13 562	8,8	69,9	-1,5%
Hungary	0,48	26	13 405	7,4	60,3	0,3%
Poland	0,47	27	13 394	7,6	56,7	2,6%
Romania	0,38	28	8 910	4,6	55,4	2,1%
Bulgaria	0,34	29	7 328	3,7	48,3	1,1%
Malta	N/A	N/A	N/A	12,8	N/A	N/A

## E-Invoicing Index

Country	E-Invoicing Index		SMEs sending e-invoices**	SMEs receiving format**	SMEs sending OR receiving e-invoices**
	Score	Rank	Score	Score	Score
Finland	0,64	1	59%	59%	73%
Denmark	0,45	2	53%	24%	58%
Lithuania	0,36	3	15%	45%	48%
Bulgaria	0,32	4	9%	43%	45%
Latvia	0,32	4	18%	38%	41%
Slovakia	0,32	6	13%	39%	43%
Portugal	0,29	7	17%	31%	38%
Ireland	0,27	8	14%	32%	36%
Norway	0,27	8	17%	29%	36%
Belgium	0,26	10	11%	31%	35%
Austria	0,24	11	9%	30%	34%
Switzerland*	0,24	12	14%	27%	32%
Estonia	0,23	13	16%	24%	30%
Sweden	0,23	14	21%	18%	29%
Luxembourg	0,23	15	7%	29%	32%
Czech Republic	0,21	16	11%	24%	28%
Croatia	0,20	17	12%	22%	27%
Spain	0,20	17	6%	26%	29%
Malta	0,19	19	13%	21%	24%
France	0,19	20	9%	22%	26%
Poland	0,19	20	5%	25%	27%
Germany	0,19	22	8%	22%	26%
Italy	0,19	23	6%	24%	26%
Hungary	0,18	24	5%	24%	26%
United Kingdom	0,17	25	11%	18%	23%
Netherlands	0,17	26	10%	18%	23%
Slovenia	0,16	27	9%	17%	21%
Greece	0,15	28	5%	20%	21%
Romania	0,15	28	8%	18%	20%
Cyprus	0,07	30	5%	7%	9%

\* Because of the unavailability of data for Switzerland, the average for countries was taken.

\*\* E-invoice here implies an electronic invoice in a standard structured format.

## E-Payment Index

Country	E-Payment Index		SEPA implemented	ISO 20022 implemented	Share of SEPA transactions of all transactions	Average B2B payment delay, days
	Score	Rank	Score	Score	Score	Score
Finland	1,00	1	Yes	Yes	100%	6
Germany	0,92	2	Yes	Yes	100%	9
Denmark	0,90	3	Yes	Yes	100%	10
Austria	0,87	4	Yes	Yes	98%	12
Estonia	0,85	5	Yes	Yes	100%	15
Sweden	0,84	6	Yes	Partially	100%	7
Bulgaria	0,83	7	Yes	Yes	100%	18
United Kingdom	0,83	8	Yes	Yes	95%	16
Netherlands	0,83	9	Yes	Yes	97%	17
Slovakia	0,83	10	Yes	Yes	100%	19
Belgium	0,83	11	Yes	Yes	98%	18
Latvia	0,82	12	Yes	Yes	99%	22
France	0,81	13	Yes	Yes	84%	15
Spain	0,81	14	Yes	Yes	98%	25
Slovenia	0,80	15	Yes	Yes	100%	30
Portugal	0,78	16	Yes	Yes	94%	35
Ireland	0,77	17	Yes	Yes	89%	30
Italy	0,75	18	Yes	Yes	82%	31
Romania	0,74	19	Yes	Partially	98%	13
Czech Republic	0,73	20	Yes	Partially	99%	14
Lithuania	0,71	21	Yes	Partially	100%	17
Hungary	0,71	22	Yes	Partially	99%	18
Poland	0,70	23	Yes	Partially	100%	20
Malta	0,69	24	Yes	Yes	76%	0
Greece	0,63	25	Yes	Partially	89%	43
Norway	0,56	26	Yes	Partially	0%	8
Switzerland	0,54	27	Yes	Partially	0%	9
Luxembourg	0,54	28	Yes	Yes	14%	0
Cyprus	0,50	29	Yes	Partially	79%	30
Croatia	0,45	30	Yes	Partially	0%	20



## GENERAL OBSERVATIONS

### E-invoicing Adoption Factors

E-invoicing implementation seems to be the most important use case measuring SMEs progress in their transition to RTE. Two positive customer-related adoption factors emerged across the interview countries.

- Pressure from supply chain leaders, that is, from major companies in industries such as automobile or retail grocery, is an effective way to encourage SMEs supplying them to adopt e-invoicing or even implement a wider electronic supply chain integration.
- Pressure from public sector drives the supplier SMEs to e-invoicing.
- It would be interesting to study industry-specific supply chains from a market potential point of view. In addition, it would be interesting to investigate any ongoing initiatives by countries' public sectors to make e-invoicing mandatory.

On the other hand, many interviewees suspected that most SMEs do not really have a reasonable cost-savings business case in e-invoicing, when implementation cost and complexity are compared to savings when invoice volume is low. Interviewees referred to e.g. craftsmen sending bills to each other with established manual

### Market Situation for SME Accounting Products

The interviews have revealed something about the accounting products of the countries the interviewees have represented. The first impression is that the mix of local and interregional accounting software suppliers varied significantly across the countries. We are under the impression that we have only seen the tip of the iceberg through the fog, and that further, deeper study of the market and product capabilities would provide useful.

Some patterns could be observed, though. For example in the Baltics, i.e. Estonia, Latvia and Lithuania, the products from Hansaworld, the Estonian company were consistently named when asking for key accounting product offerings. From ERP systems, especially Microsoft NAV Dynamics was mentioned as key offering Hungary, Italy, Latvia and Lithuania, with slightly differing names: Microsoft Dynamics, MS Navision, Navision, Navison (Microsoft). The countries were classified from accounting product market perspective accordingly, albeit this classification contains a fair amount of interpretation from the research team.

### Market Situation for SME-relevant Banks

The market view to SME-serving banks in the countries is limited for similar reasons as for the accounting product

#### Factors Encouraging E-Invoicing Adoption

- Industry supply chain leaders enforce e-invoicing
- Public sector enforces e-invoicing

#### Factors Discouraging E-Invoicing Adoption

- Implementation cost, effort
- High complexity relative to savings with low invoice volume
- Grey economy
- Resistance by authorities (e.g. Latvia)

Table 6: Factors encouraging and factors discouraging e-invoice adoption.

procedures.

It is expected that in some country contexts, the grey economy and the intent to avoid increased transparency discourage companies from using e-invoicing.

Also the authorities or the existing regulation can still hinder electronic financial documentation such as e-invoicing, like was observed in the case of Latvia.

### Characteristics of SME Population Subgroups

The SME population contains a range of companies the characteristics of which vary considerably. The smallest and also most numerous companies have one or few people, whereas the largest ones near large companies at the upper border of 250 persons and €50m annual revenue.

It seems at the first sight that targeting smallest and largest SME companies means targeting two quite different market segments. Subdividing SMEs to subgroups like 1-10, 11-50, and 51-250 employee companies and looking at their transition to RTE should provide further insight into the subgroup differences.

markets. However, also in banking, interregional characteristics emerge. Nordic banks are major players in the Nordics, but also across Baltics.

Elsewhere, Italian Unicredit is mentioned in German, Hungarian and Italian context. Also Raiffeisen bank is mentioned in multiple countries. It seems Raiffeisen in Hungary, Germany and Italy refers to Austrian Raiffeisen, and in Switzerland, to the Swiss bank.

An interesting question is how much the interregional banks would be promoting their own interregional standards of electronic interfaces and how much they would be following the possibly existing local interface standards.

### Market Situation for Connectivity Platforms

The interview outline contained questions about banking or payment connectivity as well as e-invoicing connectivity.

The aim of the research was to find out about existing standards and connectivity players both for payments and for e-invoices. If there were a universal country

standard for payment interface, the need for connectivity platform would be questionable.

Switzerland seems to be the only country so far where the interviewee referred to a common standard removing the need for a connectivity platform.

The overall perception from the limited interviews so far is that there is a lot of variation in all connectivity platforms across the interview countries. For e-invoicing,

interregional players like Basware and OpusCapita surely exist. However, the results are still inaccurate and inconclusive. To achieve accurate results, the connectivity interfacing area would probably require a research stream reviewing specifications of named connectivity interfaces and platforms across target countries.

Country	Market	Products Used
Estonia	Interregional	Directo, Hansaraama / Standard Hansa, Standard Books
France	Local	Invoke, Cegid, a few other major players
Germany	Local	DateV, Lexware, WisoKauffman, Fortnox
Greece	Local	SingularLogic, Altec, DataCommunication, EpsilonNet, SoftOne
Hungary	Interregional	SAP (service for SMEs, AIR1/AIR2), Oracle (JD Edwards), Microsoft Dynamics, Octopus, Revolution, Libra, Apollo, Cobra, Topinfo, Kulcsszoft, Combosoft
Italy	Local	Zuccenti, TIM Systems, Navison (Microsoft)
Latvia	Interregional	Tildes Jumis, HansaWorld/HansaFinancial, Gräls, Horizon, SolCraft, Scala, Navison, Accepta
Lithuania	Interregional	Navison, Hansa, SAP

Table 7: Popular accounting software in different countries; market characteristic.

Country	Banks relevant to SMEs	Regional
Estonia	Swedbank, SEB, Nordea, DanskeBank, DNB	Nordic banks
France	BNP Paribas, Société Générale, BPCE , (incl. Banque Populaire, BRED, Caisses d'Epargne), Crédit Agricole (includes LCL), CMCIC (Credit Mutuel CIC), HSBC, La Banque Postale	French banks incl. multinationals
Germany	DB, KfW, Unicredit and smaller associations of banks, Spaarhasse, VK-Banken, Raiffaisenbank	Unicredit, Raiffeisen
Greece	NBG, National Bank, Alpha Bank, Piraeus Bank, Eurobank	Greek banks
Hungary	Erste, Unicredit, K&H, CIB, Raiffeisen, OTB	Unicredit, Raiffeisen
Italy	Intessa San Paolo, Unicredit, Monte dei Paschi Siena (MPS), Circuit ICCREA, BP Bank	Unicredit, Raiffeisen
Latvia	Swedbank, SEB, Grant Thornton, Nordea, Citadel	Nordic banks
Lithuania	SEB, Swedbank, Danske Bank, Nordea, etc. Scandinavian banks	Nordic banks
Switzerland	Raiffeisen, Migros Bank, UBS, Credit Suisse, several local cantonal banks	Raiffeisen

Table 8: SME-relevant banks per country; relevant regional banks.

## APPENDICES

## APPENDIX 1: LIST OF METRICS

Potential Purchasing Power Metrics			
Index	Metric	Type	Description
PP	00001	Raw	Population
PP	00002	Raw	GDP/capita (nominal)
PP	00003	Calculated	GDP/capita (nominal) - Normalized
PP	00004	Raw	Wage level (average hourly cost of labor)
PP	00005	Calculated	Wage level (Average hourly cost of labor) - Normalized
PP	00006	Raw	Price Level 5
PP	00007	Calculated	Price Level - Normalized
PP	00008	Raw	GDP growth (2011-13 geomean) 6
PP	00009	Calculated	GDP growth (2011-13 geomean) + 1
PP	00010	Calculated	GDP Growth - Normalized
PP	00011	Calculated	Potential Purchasing Power Index
PP	00012	Calculated	Potential Purchasing Power Index (Rank)
PP	00013	Raw	# SMEs (Micro (1-9)) 1
PP	00014	Calculated	# SMEs (Micro (1-9)) per capita
PP	00015	Raw	# SMEs (Small (10-49))
PP	00016	Calculated	# SMEs (Small (10-49)) per capita
PP	00017	Raw	# SMEs (Medium (50-249))
PP	00018	Calculated	# SMEs (Medium (50-249)) per capita
PP	00019	Raw	# SMEs (0-249) 2
PP	00020	Calculated	# SMEs (0-249) per capita
PP	00021	Raw	SME total turnover 3
PP	00022	Calculated	SME total turnover per capita
PP	00023	Raw	% Grey economy 7
PP	00024	Calculated (H)	% Grey economy 2008
PP	00025	Calculated	% Grey economy growth 2008-12 (pp)
PP	00026	Calculated	GDP/capita (nominal) Rank
PP	00027	Calculated	Wage level (average hourly cost of labor) Rank
PP	00028	Calculated	Price Level 5 Rank
PP	00029	Calculated	GDP growth (2011-13 geomean) 6 Rank
PP	00030	Raw	SEPA Country? (Source: Nordea)
PP	00031	Raw	SEPA Country?
PP	00032	Notes	Notes

E-Invoicing Metrics			
Index	Metric	Type	Description
EI	00001	Raw	% Enterprises sending e-invoices in a standard structured format
EI	00002	Calculated (H)	% Enterprises sending e-invoices in a standard structured format - Normalized relative to Finland
EI	00003	Raw	% Enterprises receiving e-invoices in a standard structured format
EI	00004	Calculated (H)	% Enterprises receiving e-invoices in a standard structured format - Normalized relative to Finland
EI	00005	Raw	% Enterprises sending OR receiving e-invoices in a standard structured format
EI	00006	Calculated (H)	% Enterprises sending OR receiving e-invoices in a standard structured format - Normalized relative to Finland
EI	00007	Calculated	E-Invoicing Index
EI	00008	Calculated	Rank
EI	00009	Calculated	% Enterprises sending e-invoices in a standard structured format Rank
EI	00010	Calculated	% Enterprises receiving e-invoices in a standard structured format Rank
EI	00011	Calculated	% Enterprises sending OR receiving e-invoices in a standard structured format Rank

E-Payment Metrics			
Index	Metric	Type	Description
EP	00001	Raw	SEPA country?
EP	00002	Raw	ISO 20022 implemented? Non-Eurozone by 31 Oct 2016 latest
EP	00003	Raw	% SEPA credit transfers 1
EP	00004	Raw	% SEPA direct debits 1
EP	00005	Raw	% SEPA card payments 1
EP	00006	Calculated	% Total SEPA transactions
EP	00007	Calculated	-> % Non-SEPA transactions
EP	00008	Raw	% Other non-cash, non-SEPA payments 1
EP	00009	Raw	% Cash salary payments 2
EP	00010	Raw	Credit card taxes (%)
EP	00011	Raw	Penetration of standardized creditor reference (%)
EP	00012	Raw	Average B2B payment delay, days 3
EP	00013	Calculated	Average B2B payment delay, Normalized relative to Finland. Higher value = less delay
EP	00014	Calculated	E-Payment Index
EP	00015	Calculated	E-Payment Index Rank
EP	00016	Notes	Notes

E-Invoicing Adoption Metrics			
Index	Metric	Type	Description
EA	00017	Raw	Is e-invoicing mandatory in the public sector?
EA	00018	Calculated	Is e-invoicing mandatory in the public sector? (Yes=1, No=-1, No Data = 0)
EA	00019	Raw	Supply chain leaders enforcing e-invoicing (many/few/none)
EA	00020	Calculated	Supply chain leaders enforcing e-invoicing (many=1/few=0.5/none=0/N/A=N/A)
EA	00021	Raw	I&A: freedom of evidence - each trading partner (not: the trading partners together) determines how to meet the requirement of invoice integrity and authenticity. Council Directive 2010/45/EU. Implemented or not
EA	00022	Calculated	Each trading partner separately determines how to meet the requirement of invoice integrity and authenticity. Council Directive 2010/45/EU. (Yes = 1/No = 0)
EA	00023	Calculated	E-Invoicing Index
EA	00024	Calculated	E-Invoicing Index Category
EA	00025	Calculated	E-invoicing Index Score (High adoption = 1; Medium adoption = 0,5; Low adoption = 0)
EA	00026	Calculated	Final E-Invoicing Adoption Score

Accounting Ecosystem Metrics			
Index	Metric	Type	Description
AE	00001	Raw	Level of ERP usage among SMEs
AE	00002	Calculated	Level of ERP usage among SMEs (low/medium/high)
AE	00003	Raw	Main accounting software offerings (international/regional)
AE	00004	Calculated	Main accounting software offerings for SMEs
AE	00005	Calculated	Number of accounting processes that tend to be outsourced
AE	00006	Calculated	Typically outsourced accounting processes (Accounts receivable (AR), Accounts Payable (AP), General ledger (GL), Financial reporting (FR), Treasury and cash management (TC), Specialist processes such as yield management, shareholder accounting and risk analytics (SP))
AE	00007	Raw	Accounting firm has a partner role to an SME
AE	00008	Raw	Role of accounting firm for SMEs
AE	00009	Raw	Typical way of implementing SME accounting
AE	00010	Raw	Typical way of implementing SME accounting - (S)ME internal F&A, (A)ccounting firm, (T)ax consultant, (B)ig four type firms
AE	00011		Empty
AE	00012	Calculated	Share of non-electronic salary payments (%)
AE	00013	Raw	National standard for chart of accounts exists
AE	00014	Calculated	National standard for chart of accounts (yes/no)

AE	00015	Raw	Standardized format for e-archiving exists
AE	00016	Calculated	Standardized format for e-archiving (yes/no)
AE	00017	Raw	Storage in another EU country is allowed
AE	00018	Calculated	Storage in another EU country allowed (yes/no)
AE	00019	Calculated	Accounting Ecosystem Index
AE	00020	Raw	Interviewed?

#### Banking Ecosystem Metrics

Index	Metric	Type	Description
BE	00001	Calculated	Banking Ecosystem Score
BE	00002	Calculated	Share of non electronic salary payments (%) 0%=1, <10%=0.5, >10%=0
BE	00003		Top banks for SMEs (The more international, the better (category))
BE	00004		Top banks for SMEs (The more international, the better)
BE	00005	Calculated	Banks offering electronic account statements (All banks=1, some=0.5, none=0)
BE	00006	Calculated	Banks offering electronic account statements (All banks=1, some=0.5, none=0)
BE	00007	Calculated	Banking interfaces for electronic integration (Yes=1, no=-1. N/A=0)
BE	00008	Calculated	Banking interfaces for electronic integration (Yes=1, no=-1. N/A=0)
BE	00009	Calculated	E-payment interfaces for integration (Yes=1, No=-1, N/A=0)
BE	00010	Calculated	E-payment interfaces for integration (Yes=1, No=-1, N/A=0)
BE	00011	Calculated	When e-banking became available to SMEs (1990s=3, 2000s=2, 2010s=1, N/A=0)
BE	00012	Calculated	When e-banking became available to SMEs (1990s=3, 2000s=2, 2010s=1, N/A=0)
BE	00013	Calculated	Standardized bank payment reference code (Yes=1, No=-1, N/A=0)
BE	00014	Raw	Standardized bank payment reference code (creditor reference) Yes=1, No=0
BE	00015	Calculated	Electronic account statement format for top banks (SEPA or non-SEPA) SEPA=1, non-SEPA=-1, N/A=0
BE	00016	Calculated	Electronic account statement format for top banks (SEPA or non-SEPA) SEPA=1, non-SEPA=-1, N/A=0
BE	00017	Calculated	How frequently can account statement be retrieved from the bank Anytime=3, Daily/Weekly=2, Monthly=1, N/A=0
BE	00018	Calculated	How frequently can account statement be retrieved from the bank Anytime=3, Daily/Weekly=2, Monthly=1, N/A=0
BE	00019	Raw	Interviewed?

#### Infrastructure and Ecosystem Index Metrics

Index	Metric	Type	Description
EA	00026	Calculated	E-Invoicing Adoption Score
IE	00001	Calculated	Rank
AE	00019	Calculated	Accounting Ecosystem Score
IE	00002	Calculated	Rank
BE	00001	Calculated	Banking Ecosystem Score
IE	00003	Calculated	Rank
IE	00004	Calculated	Infrastructure and Ecosystem Index
IE	00005	Calculated	Rank

#### E-Government Reporting Metrics

Index	Metric	Type	Description
EG	00001	Raw	Owner
EG	00002	Raw	Reports
EG	00003	Raw	(N)ot available/ (V)oluntary/ (M)andatory
EG	00004	Raw	Since
EG	00005	Raw	Format
EG	00006	Raw	Total # entities
EG	00007	Raw	% filing XBRL
EG	00008	Raw	Publicly available format paper/pdf/structured
EG	00009	Raw	note
EG	00010	Raw	Owner

EG	00011	Raw	Reports
EG	00012	Raw	(N)ot available/ (V)oluntary/ (M)andatory
EG	00013	Raw	Since
EG	00014	Raw	Format
EG	00015	Raw	Total # entities
EG	00016	Raw	% filing XBRL
EG	00017	Raw	note
EG	00018	Raw	E- VAT reports?
EG	00019	Raw	E- Annual salary reports?
EG	00020	Raw	E- Pension insurance reports?

## APPENDIX 2: PROFESSIONAL POSITIONS OF COUNTRY EXPERTS

European Affairs Consultant, UK  
Product director, Ireland  
Senior Sales Manager, Sweden  
CTO, Sweden  
COO, Denmark  
Partner Sales Manager, Denmark  
Account/IT-auditor, Netherlands  
Managing Director, Belgium

Director. Norway  
Head of Research and Research  
Analyst, Italy  
Coordinator, Spain  
Consultant, France  
Professor, Switzerland  
Managing Director, Finland  
Accounting Manager, Lithuania

Assistant Professor, Greece  
Managing Director, Hungary  
Managing Director, Estonia  
Managing Director, Latvia  
Managing Director, Germany  
Head of E-Center, Austria  
Managing Director, Poland

## APPENDIX 3: COUNTRY EXPERT INTERVIEW QUESTIONS

### Accounting Ecosystem Questions

- 1 What is the % of SMEs using ERP systems?
- 2 What do you consider to be the main SME accounting software offerings (products or solutions) SMEs? (Top 5)
- 3 Which accounting processes do SMEs outsource?
- 4 How do you see the role of the Accounting firm for SMEs?
- 5 What is your estimate of the share of accounting software provided directly to SMEs vs. through accounting firms?
- 6 Does auditing have a business relevant role to SMEs or is it just a cost?
- 7 Who do you consider the main providers of SME accounting services to SMEs?
- 8 Which of the accounting service providers are top firms from SME market point of view? (Top 5)
- 9 What's the volume and % of non-electronic salary payments? (Also a gross estimate would be helpful)
- 10 Does national standard for chart of accounts exist (yes/no)?

### Banking Ecosystem Questions

- 11 What are the most SME relevant banks in the country? (Top-5 by size)
- 12 Are banks promoting e-integration with accounting systems?
- 13 Which banks offer electronic account statements that interface with the accounting software?
- 14 Do banks have e-payment interfaces for integration?
- 15 What are the banking e-connectivity service/platform (iPaaS) providers? (iPaaS = integration platform as a service)
- 16 When was corporate e-banking introduced for SMEs (year)?
- 17 Is standardized bank payment reference code (creditor reference) in use (yes/no)?
- 18 Is the Electronic account statement format for top 5 banks SEPA or non-SEPA?
- 19 How often is SEPA xml bank account statement issued (e.g. daily)?

### E-invoicing Ecosystem Questions

- 20 E-invoicing operators (SPs) - who are the operators that provide connectivity services for e-invoicing?
- 21 Which e-invoicing operators are EESPA compliant? (Refers to four-corner model, i.e. roaming)
- 22 Is E-Invoicing mandatory in the public sector?
- 23 Is E-Invoicing proactively mandated in the private sector? (many/few/no firms)
- 24 What are the standard e-invoicing formats?
- 25 Is there general certification procedure for e-invoicing solutions? (Yes/No)

### E-archiving Requirements Questions

- 26 Do standardized formats exist for e-archiving (yes/no)?
- 27 What is the archiving duration requirement by the law (years)?
- 28 Is it allowed to archive accounting documents in another EU country?
- 29 Is it allowed to archive accounting documents outside EU?



## COUNTRY PROFILES

**Market Information / Key Numbers**

Population	8 477 000
GDP/capita (€)	48 957
Total number of SMEs	300 732
Number of micro enterprises	263 585
Number of small enterprises	32 250
Number of medium enterprises	4 897
Total turnover of SMEs (€)	186 825
Salaries paid in cash (% of total)	5%
Share of grey economic activity (%)	7,6%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,77</b>	<b>5</b>
Potential Purchasing Power Index	1,29	9
Infrastructure and Ecosystem Index	0,68	4
E-Invoicing Adoption Score	0,63	4
Accounting Ecosystem Score	0,58	6
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,24	11
E-Payment Index	0,87	4

<b>Potential Purchasing Power Index</b>	<b>1,29</b>	<b>9</b>
GDP/capita (€, thousands)	48,957	6
Wage level (€, hourly cost)	31	8
Price level (Relative to EU average, 2012)	106	12
GDP growth (2011-2013)	1,2%	12

<b>E-Invoicing Index</b>	<b>0,24</b>	<b>11</b>
SMEs sending e-invoices in a standard structured format (% share of total)	9%	18
SMEs receiving e-invoices in a standard structured format (% share of total)	30%	9
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	34%	11

<b>E-Payment Index</b>	<b>0,87</b>	<b>4</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	98%	
Average B2B payment delay, days	12	

**Factors encouraging e-invoice adoption**

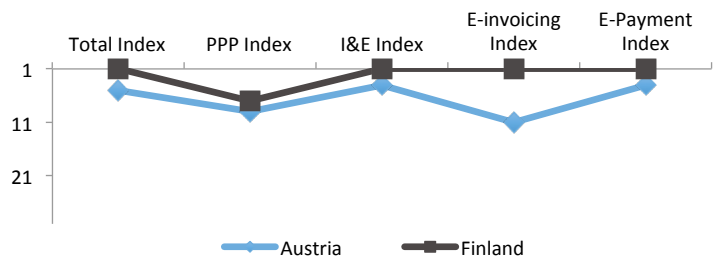
- IT sector
- Ministry of Finance
- Technical infrastructure

**Typically outsourced accounting processes**

Tax reporting (VAT declaration)  
Bookkeeping  
The smallest outsource everything

**Typical way of implementing SME accounting**

Mix of accounting firm and tax consultant  
Big Four for the larger SMEs (50-250)

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,68</b>	<b>4</b>
E-invoicing Adoption Score	0,63	4
Is e-invoicing mandatory in the public sector?	Yes	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,58	6
Level of ERP usage among SMEs	Medium	
Main accounting software offerings (international/local)	Mix	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	5%	
Relevance of international banks	Low	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Anytime	

**Factors discouraging e-invoice adoption**

- Lack of clear guidance from the Ministry of Finance (no certification procedures are offered)
- No business case for companies
- Reluctance of financial people (not interested in making their importance smaller).
- CIOs

**Role of accounting firm for SMEs**

No consulting or advisory role

**Top External SME Accounting Service Providers**

Very fragmented

Main accounting software offerings for SMEs	Top Banks for SMEs
Big: SAP BMD a popular Austrian option (Austria and Central Europe) Mesonic, Haude electronica	Erstebank Bankaustria Raiffeisen at the countryside Bawag/PSK

Top providers of connectivity services for e-invoicing	EESPA compliant operators (four corner model)
List at: <a href="https://www.wko.at/Content.Node/AUSTRIAPRO/ebInterface_Partner.html">https://www.wko.at/Content.Node/AUSTRIAPRO/ebInterface_Partner.html</a>  DIG - service provider for B2G (federal procurement agency)	No, not really. PDF is the standard format and there are not many e-invoice providers. 3 corner model.

Banking connectivity platforms (iPaaS)	Industries requiring SME integration to supply chain
EBPP	N/A (Goal for the Phase II of the research project)

## Interview observations

In Austria 53% of companies have financial software. About 50% of companies with 1 person (the majority of companies) and about 80% of companies with less than 10 employees. SMEs typically outsource tax reporting (VAT declaration) and bookkeeping to service providers that are best described as a mix of an accounting firm and a tax consultant. The smallest companies tend to outsource all accounting processes. In the segment of larger SMEs, the Big Four-type of firms are also relevant. An accounting firm does not offer any consulting as offering such services would mean assuming additional responsibility and would require the change in a business model. One service that does offer value-adding services is Epunet.at, which is a web service with an app and a reporting function. Austrian Economic Chambers (WKO) are not very active in this regard. In Austria the market of accounting services is very fragmented.

Auditing is seen as a cost. The mentality is as follows: "I am the boss and I know better, no figures can tell me what to do. Also, the software is not user-friendly. Services such as everbill are going in the right direction, usability and reporting. Not a big topic but the companies don't want change the process until they know it's 100% law-compliant.

E-payment interfaces for integration exist and companies can integrate directly through the bank (each bank wants to tie in a customer and has its own interface) or through a software such as Easybank (which is a subsidiary of Bawag, a bank owned by a trade union. There was a scandal in this particular case when Bawag went bankrupt and was bought by a foreign investor, signalling a more international strategy). As to SEPA, implementation period has been prolonged until August/September 2014. It is not easy to get access to SEPA and the implementation is different. The way to get the structure is different.

In 2000-2001 Austrian banks were leaders introducing EBPP (electronic bill presentment and payment), which was owned by Erstebank (commercial bank), Bank Austria and Raiffeisen (conservative). It was astonishing that the banks agreed to cooperate. Unfortunately, there was a problem: consent to every sender had to be given as without such a consent it wouldn't work for legal reasons. The service was not popular (50 or 60 customers used it) and was sold to the Post. Reasons for failure: (1) Flawed business process; (2) the marketing spend was too little."In Austria there is no standardized bank payment reference code and an invoice number is typically used. Other arrangements can be done on bilateral basis and are a matter of contract.

E-invoicing is mandatory in the public sector since 01.01.2014 on a Federal level. When communes are concerned, only 15/20% of the total number have e-invoicing adoption of about 50%. After that come "lindau", counties, railways, state owned companies. In the private sector supply-chain leaders in retail and telecommunications industries have moderate influence on e-invoicing adoption. Big retailers use EDI and do a lot of lobbying for the Ministry to accept EDI, while currently only XML is accepted (there are translation services). With a complain a paper invoice can be sent, which is free.

While EDI and SML are popular e-invoicing formats, PDF remains the most used format. There are not many e-invoice providers and they operate in a 3-corner model. The top provider of connectivity services for e-invoicing in the public sector (B2G) is DIG, while the list of other providers is available at: [https://www.wko.at/Content.Node/AUSTRIAPRO/ebInterface\\_Partner.html](https://www.wko.at/Content.Node/AUSTRIAPRO/ebInterface_Partner.html).

The process of e-invoice adoption is hindered by several factors. Firstly, the business case for switching to e-invoicing is not strong (or is not viewed as strong by CIOs) in the SMEs segment. Secondly, the legal section of the Ministry of Finance does not currently offer any certification procedures. Thirdly, those employed in the financial industry see e-invoicing as a threat to their profession and therefore resist it. At the same time, there are factors that encourage e-invoicing adoption. These factors are the promotion of e-invoicing by the IT sector and the Ministry of Finance (even though certification procedures by the Ministry are lacking), and highly developed IT infrastructure in Austria.

In Austria there are not many legal requirements regarding e-archiving. However, there is security of division - you have to be able to see that changes were done. E-invoices can be legally stored (while it is illegal in Germany) - otherwise SMEs would not accept e-invoicing (if they had to invest also in the e-archiving system). Additionally there is a privacy issue. In Austria legal persons also have the right to privacy. This is governed by separate agreements.

## Belgium

## RTE Readiness Index:

0,73 / 7

### Market Information / Key Numbers

Population	11 162 000
GDP/capita (€)	45 384
Total number of SMEs	511 726
Number of micro enterprises	480 906
Number of small enterprises	26 572
Number of medium enterprises	4 248
Total turnover of SMEs (€)	312 484
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	16,8%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,73</b>	<b>7</b>
Potential Purchasing Power Index	1,31	6
Infrastructure and Ecosystem Index	0,55	15
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,43	16
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,26	10
E-Payment Index	0,83	11

<b>Potential Purchasing Power Index</b>	<b>1,31</b>	<b>6</b>
GDP/capita (€, thousands)	45,384	10
Wage level (€, hourly cost)	38	4
Price level (Relative to EU average, 2012)	109	9
GDP growth (2011-2013)	0,6%	17

<b>E-Invoicing Index</b>	<b>0,26</b>	<b>10</b>
SMEs sending e-invoices in a standard structured format (% share of total)	11%	14
SMEs receiving e-invoices in a standard structured format (% share of total)	31%	7
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	35%	10

<b>E-Payment Index</b>	<b>0,83</b>	<b>11</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	98%	
Average B2B payment delay, days	18	

### Factors encouraging e-invoice adoption

- Potential cost savings
- Increased efficiency
- Combination with additional features: audit trail, purchasing BI, prove of transaction, etc.
- the benefit of keeping a client and value added services (in retail)

### Typically outsourced accounting processes

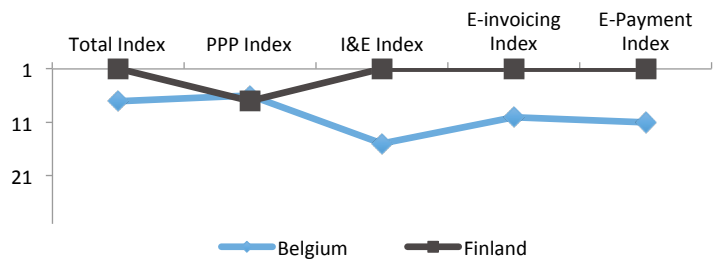
Some outsource everything  
Bookkeeping and tax accounting

Currently: move towards cloud solutions  
(Allows to bring software and bookkeeping back in-house)

### Typical way of implementing SME accounting

Internal  
Big Four  
Small accounting firms (6-10 employees)  
BDO

### Rank Comparison with Finland



	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,55</b>	<b>15</b>
E-invoicing Adoption Score	0,38	11
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,43	16
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	Local	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	0%	
Relevance of international banks	Low	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	No	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	Yes	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Daily/Weekly	

### Factors discouraging e-invoice adoption

- Complexity of implementation
- Efforts related integration with the accounting system
- Requires involvement of many people
- The lack of the real standard (less of a problem with new technology)

### Role of accounting firm for SMEs

Trend towards value-adding services

### Top External SME Accounting Service Providers

Very fragmented

#### Main accounting software offerings for SMEs

Mostly small local firms (few in cloud)  
Exact Online (Dutch, tries to go to Europe)

#### Top Banks for SMEs

BNP Paribas  
Belfis  
KBC Bank  
ING  
Bank Vanbreda

#### Top providers of connectivity services for e-invoicing

B2Boost  
Unified post  
Bassware (not Belgian based)  
Anachrome (Dutch and internationally) Fundtech (UK based)  
Trustweaver (secure signature. Linked to other companies)

#### EESPA compliant operators (four corner model)

Most of them are (not sure about UniPost)  
We can work with other providers.

#### Banking connectivity platforms (iPaaS)

Codabox (main shareholders are the banks themselves, every bank is involved),  
banks try to deliver by themselves.

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

"The level of usage of ERP systems among Belgian SMEs is rather low. ERP system is not a priority and is usually built upon the software system used for VAT declaration. The systems for the VAT declaration, are usually produced by small local software firms. Only a few of these systems are cloud-based, but the number is growing. With cloud-based solutions the tendency is to have your own software in-house and do book-keeping by yourself. The next step is scanning of an e-invoice in-house as well. This tendency is especially characteristic for growth companies.

It is thought that in about 5 years the role of an accounting firm as a bookkeeper will become obsolete. The clients will expect to receive management information from accounting. Auditors are facing the same expectations. Since, there is a high pressure on fees, the whole service model will have to be rethought to meet expectations. At EY the practice is to offer a platform that allows EY and its customer grow together - when all is outsourced, those clients who would have to move the practices back in-house, can do so.

The market of accounting services for SMEs is very fragmented. EY and Deloitte are players in the SME market. Then there is a great range of small SME accounting firms. At the same time, most SMEs prefer to do their own accounting with only a supervision from an accountant.

Speaking about the banking ecosystem, the banks do not promote interfaces for electronic integration. One way is to do the reporting with the help of coda files, but it is very difficult to get these files into the accounting system via bank. It seems that some banks have made intermediate companies to commercialize such data and keep the profit in-house. Such practice creates a barrier for easy access of the documents by customers. The name of the banking connectivity service (owned by banks themselves) is Codabox. Last years EY tried to put integration in place but faced a lot of bureaucratic difficulties and unwillingness of the banks to cooperate.

In the area of e-invoicing, specific e-invoicing standards are increasingly becoming irrelevant - operators ask for data from senders and can convert into the right format. PDF is, therefore, used quite a lot in both SMEs and large companies. Most of the operators operate in a 4 corner model (not sure about UniPost). Before January 2013 one could go to TAX authorities and ask for approval (discontinued from January 2013). Now, companies can come to EY for validation of their e-invoicing solutions. This is not an obligation but is done to give extra proof to clients that the system is tax compliant.

**Market Information / Key Numbers**

Population	5 612 000
GDP/capita (€)	59 191
Total number of SMEs	203 227
Number of micro enterprises	179 843
Number of small enterprises	20 037
Number of medium enterprises	3 347
Total turnover of SMEs (€)	113 040
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	13,4%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,88</b>	<b>3</b>
Potential Purchasing Power Index	1,56	3
Infrastructure and Ecosystem Index	0,61	10
E-Invoicing Adoption Score	0,63	4
Accounting Ecosystem Score	0,36	18
Banking Ecosystem Score	0,83	7
E-Invoicing Index	0,45	2
E-Payment Index	0,90	3

<b>Potential Purchasing Power Index</b>	<b>1,56</b>	<b>3</b>
GDP/capita (€, thousands)	59,191	4
Wage level (€, hourly cost)	38	3
Price level (Relative to EU average, 2012)	141	3
GDP growth (2011-2013)	0,4%	18

<b>E-Invoicing Index</b>	<b>0,45</b>	<b>2</b>
SMEs sending e-invoices in a standard structured format (% share of total)	53%	2
SMEs receiving e-invoices in a standard structured format (% share of total)	24%	15
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	58%	2

<b>E-Payment Index</b>	<b>0,90</b>	<b>3</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	10	

**Factors encouraging e-invoice adoption**

- Required in public procurement

**Typically outsourced accounting processes**

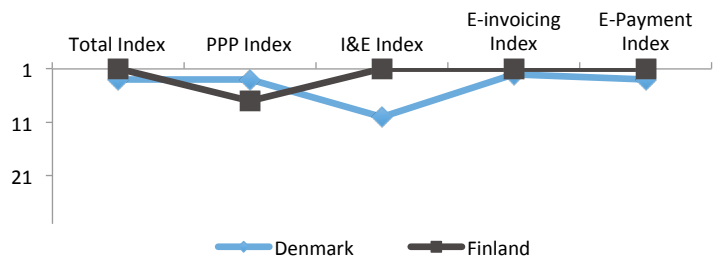
Outsourcing is not common  
Accounting is usually done by a relative  
Bookkeeping is done inhouse

Most outsourced:

- Tax return (main)

**Typical way of implementing SME accounting**

Internal, family member (smaller firms)  
Accounting firm:  
- 33% for <10 employees  
- 10% for 10-50 employees  
- Less than 5% for 50-250 employees

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,61</b>	<b>10</b>
E-invoicing Adoption Score	0,63	4
Is e-invoicing mandatory in the public sector?	Yes	
Influence of supply chain leaders on e-invoicing adoption	None	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Medium	
Accounting Ecosystem Score	0,36	18
Level of ERP usage among SMEs	High	
Main accounting software offerings (international/local)	Mix	
Number of accounting processes that tend to be outsourced	Low	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	No	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	High	
Banking Ecosystem Score	0,83	7
Share of non electronic salary payments	0%	
Relevance of international banks	Moderate	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	No	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	Yes	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Anytime	

**Factors discouraging e-invoice adoption**

- Cost of implementation
- Required update of the ERP system

**Role of accounting firm for SMEs**

Value-adding services are not common  
Consulting is not common

**Top External SME Accounting Service Providers**

Visma  
Accountor  
Audit companies  
(both can be done at the same time)

#### Main accounting software offerings for SMEs

E-conomic  
Microsoft  
(Together these packages hold ~95%)

#### Top Banks for SMEs

Nordea and Danske Bank  
(2 largest, 30-50% of SME market)  
Previously local banks (now national):  
- Jyske Bank (Gotland)  
- Spar Nord (North)  
- Sydbank (South)

#### Top providers of connectivity services for e-invoicing

Bassware  
VANS operators:  
- High Jump  
- Trade shift  
- Sproom

#### EESPA compliant operators (four corner model)

Christian: We create a PDF and send it to a converter. We have implemented an electronic system for receiving invoices. We only get PDF or paper.  
Camilla: This is not a used term in Denmark.

#### Banking connectivity platforms (iPaaS)

3 Bank Centrals  
SDC  
Bankdata  
BEC

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

In Denmark outsourcing is not very common if compared to Sweden and Finland. In a small firm it is typical for accounting to be done by a relative, especially bookkeeping. As an estimation, 30-50% of SMEs with fewer than 10 people of staff, about 10% of companies with 10-50 people, and fewer than 5% of companies with 50-250 people outsource. Dealing with Tax declaration is the main driver behind outsourcing for smaller companies. For bigger firms it is the strive for more efficient processes. Accounting firms do not usually provide value adding or consulting services. About 80% of SMEs buy accounting software directly, without going through an accounting firm. Main players in the market are Visma and Accountor, the rest are audit companies. The special thing about the Danish market is that you can do both at the same time.

All banks offer electronic account statements but at the moment there is no interface for integration with accounting systems, which has to be done separately. Procountor has done it for Nordea and Danske bank and is working on the interface with the other banks. There are companies providing integration to 3 Bank Centrals, SDC, Bankdata, BEC and serve as middlemen between banks and the accounting systems. When the banks establish integration (will probably take about 2 years from now), they will promote it.

Speaking about e-invoicing, PDF is a predominant format of invoices. Modern electronic systems for receiving invoices make PDF easily convertible. Currently, supply chain leaders do not enforce e-invoicing, but large enterprises are going in that direction and will enforce 100% e-invoicing in the future. Currently, there is still only a soft demand. Certification to e-invoicing solutions can be offered as an add-on service by Bassware, but no legal requirements exist.

## Market Information / Key Numbers

Population	1 283 000
GDP/capita (€)	19 032
Total number of SMEs	51 873
Number of micro enterprises	45 697
Number of small enterprises	5 151
Number of medium enterprises	1 025
Total turnover of SMEs (€)	16 093
Salaries paid in cash (% of total)	N/A
Share of grey economic activity (%)	28,2%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,57</b>	<b>15</b>
Potential Purchasing Power Index	0,61	20
Infrastructure and Ecosystem Index	0,60	12
E-Invoicing Adoption Score	0,33	17
Accounting Ecosystem Score	0,42	17
Banking Ecosystem Score	1,06	1
E-Invoicing Index	0,23	13
E-Payment Index	0,85	5

<b>Potential Purchasing Power Index</b>	<b>0,61</b>	<b>20</b>
GDP/capita (€, thousands)	19,032	20
Wage level (€, hourly cost)	9	21
Price level (Relative to EU average, 2012)	77	20
GDP growth (2011-2013)	4,7%	2

<b>E-Invoicing Index</b>	<b>0,23</b>	<b>13</b>
SMEs sending e-invoices in a standard structured format (% share of total)	16%	7
SMEs receiving e-invoices in a standard structured format (% share of total)	24%	15
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	30%	14

<b>E-Payment Index</b>	<b>0,85</b>	<b>5</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	15	

## Factors encouraging e-invoice adoption

N/A

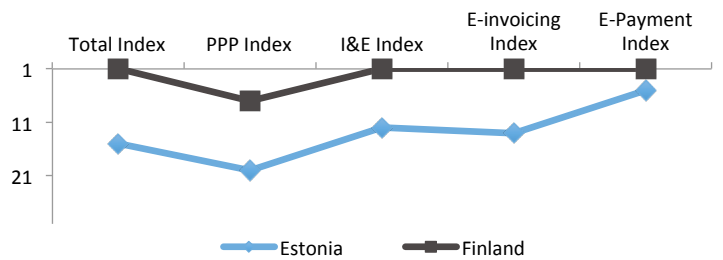
## Typically outsourced accounting processes

Payroll  
Varies from firm to firm

## Typical way of implementing SME accounting

N/A

## Rank Comparison with Finland



	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,60</b>	<b>12</b>
<b>E-invoicing Adoption Score</b>	<b>0,33</b>	<b>17</b>
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	N/A	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
<b>Accounting Ecosystem Score</b>	<b>0,42</b>	<b>17</b>
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	Moderate	
Accounting firm has a partner role to an SME	N/A	
National standard for chart of accounts exists	No	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
<b>Banking Ecosystem Score</b>	<b>1,06</b>	<b>1</b>
Share of non electronic salary payments	N/A	
Relevance of international banks	Moderate	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	Yes	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Anytime	

## Factors discouraging e-invoice adoption

N/A

## Role of accounting firm for SMEs

N/A

## Top External SME Accounting Service Providers

N/A

<b>Main accounting software offerings for SMEs</b>  Directo Hansaraama/Standard Hansa Standard Books	<b>Top Banks for SMEs</b>  Nordic banks: - Swedbank (42,01%) - SEB (19,72%) - Nordea (15,67%) - DanskeBank (10,56%) - DNB (2,60%)
<b>Top providers of connectivity services for e-invoicing</b>  Not in use	<b>EESPA compliant operators (four corner model)</b>  No information
<b>Banking connectivity platforms (iPaaS)</b>  No software that integrates everything	<b>Industries requiring SME integration to supply chain</b>  N/A (Goal for the Phase II of the research project)

### Interview observations

For Estonia, a low to medium level of ERP usage among SMEs was reported, which forms a rather weak basis for SMEs to adopt software solutions (e.g. e-invoicing). While about 50% of SMEs reportedly utilize ERP programs, mid-sized companies are more likely to have implemented them than small firms because of better investment capabilities. Among micro-companies and the self-employed (about 10% of population), pure cash transactions are mostly used.

The accounting and banking environment in Estonia is in parts very developed, in others not so much. There is no clear national standard for the chart of accounts, and international companies prefer formats consistent with their other (foreign) units' formats. The banking ecosystem is relatively highly developed as electronic banking interfaces integrated to accounting systems are available, and a standardized payment reference code is in use.

An e-invoicing ecosystem has not emerged in Estonia: structured e-invoicing is used scarcely and also online service providers for small firms usually create PDF invoices (instead e.g. Excel) to be sent via email.

The level of outsourcing of accounting and financial management processes in Estonia is not consistent among SMEs, and varies from one extreme to the other. Some firms may only outsource payroll; some may outsource everything from monthly VAT reporting to administration to bank payments.

## Market Information / Key Numbers

Population	5 436 000
GDP/capita (€)	47 129
Total number of SMEs	221 550
Number of micro enterprises	204 295
Number of small enterprises	14 822
Number of medium enterprises	2 433
Total turnover of SMEs (€)	72 208
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	13,3%

Score Rank

<b>RTE Readiness Index</b>	<b>0,98</b>	<b>1</b>
Potential Purchasing Power Index	1,29	7
Infrastructure and Ecosystem Index	0,97	1
E-Invoicing Adoption Score	1,00	1
Accounting Ecosystem Score	0,86	1
Banking Ecosystem Score	1,06	1
E-Invoicing Index	0,64	1
E-Payment Index	1,00	1

<b>Potential Purchasing Power Index</b>	<b>1,29</b>	<b>7</b>
GDP/capita (€, thousands)	47,129	8
Wage level (€, hourly cost)	31	8
Price level (Relative to EU average, 2012)	122	6
GDP growth (2011-2013)	0,1%	20

<b>E-Invoicing Index</b>	<b>0,64</b>	<b>1</b>
SMEs sending e-invoices in a standard structured format (% share of total)	59%	1
SMEs receiving e-invoices in a standard structured format (% share of total)	59%	1
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	73%	1

<b>E-Payment Index</b>	<b>1,00</b>	<b>1</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	6	

## Factors encouraging e-invoice adoption

- Obligatory in Public Sector
- Enforced by some Supply Chain Leaders

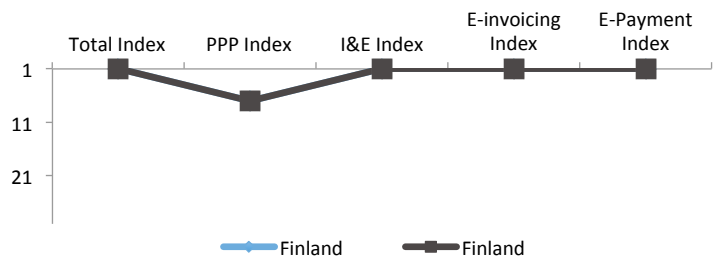
## Typically outsourced accounting processes

Varies from firm to firm

## Typical way of implementing SME accounting

Accounting Firm

## Rank Comparison with Finland



<b>Infrastructure and Ecosystem Index</b>	<b>0,97</b>	<b>1</b>
E-invoicing Adoption Score	1,00	1
Is e-invoicing mandatory in the public sector?	Yes	
Influence of supply chain leaders on e-invoicing adoption	High	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	High	
Accounting Ecosystem Score	0,86	1
Level of ERP usage among SMEs	High	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
Banking Ecosystem Score	1,06	1
Share of non electronic salary payments	0%	
Relevance of international banks	Moderate	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	Yes	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Anytime	

## Factors discouraging e-invoice adoption

- Resistance to change
- Limited operational experience
- Implementation is too expensive
- Too complex for low invoice volume

## Role of accounting firm for SMEs

Partner role  
Advisory role  
Provides insight into the industry

## Top External SME Accounting Service Providers

PreTax  
Rantalainen  
VismaPort  
Lemnsoft  
Eeros

Main accounting software offerings for SMEs	Top Banks for SMEs
Aditro (est. 2004/rev. 58,4 m€/G.1,1 %/HC 489) EmCe (est. 2006/rev. 5 m€/HC39) Lasso 2100 (Western Systems Oy) (est. 1981/rev 1,7 m€/HC 21) Lemonsoft (est. 2006/rev. 3m€/G.18%/HC 34) Procountor (2012/rev. 4m€/G. 55%/HC 27) Visma (est. 1988/rev.16,7 M€/G. 6,1%/HC 154) Efima (2013/rev. 3,6 M€/growth 41%) Fortnox	OP Nordea Danske Bank
Top providers of connectivity services for e-invoicing	EESPA compliant operators (four corner model)
Itella Tieto Enfo Basware Liaison	Basware Enfo Liaison Technologies Nordea Bank OpusCapita Group Tieto Finland
Banking connectivity platforms (iPaaS)	Industries requiring SME integration to supply chain
Apix Youredi	N/A (Goal for the Phase II of the research project)

## Interview observations

In Finland, a high fraction of SMEs use ERP systems. Even though most SMEs have ERPs, many of them may only use them partially, i.e. operate only with certain functionalities of the ERP system.

The most important factors encouraging further e-invoicing adoption in Finland are likely to be (1) the government mandating e-invoicing usage and (2) supply chain leaders enforcing e-invoicing with their suppliers. These are countered by (1) resistance to change, (2) limited operational experience with e-invoicing implementations and (3) large initial investment costs for low invoice volume. It would seem that many SMEs do not deem the cost-saving potential of e-invoicing high enough to justify the initial workload and costs associated with the transformation.

Finland is leading the European charts with respect to e-invoice penetration. There are generally used standards for e-invoice formats.

The accounting environment in Finland is comparatively developed: this is reflected by the fact that there are over 6000 accounting firms in the country. The role for an accounting firm is often not only basic accounting tasks (what processes specifically varies a lot between firms), but in many cases also one of advisory and business partnership. There is a national standard for the chart of accounts (“standarditilikartta”).

Throughout the years, Finland has been a leader with respect to the banking system’s electronic integration. This has been made possible by close cooperation between banks, and resulted in a highly integrated electronic interfaces, e-account statements, e-payment platform and a standardized payment reference code. Finland has been leading the way in SEPA and ISO20022 implementation.

## Market Information / Key Numbers

Population	66 475 000
GDP/capita (€)	43 000
Total number of SMEs	2 483 844
Number of micro enterprises	2 334 664
Number of small enterprises	128 552
Number of medium enterprises	20 628
Total turnover of SMEs (€)	926 205
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	10,8%

Score Rank

<b>RTE Readiness Index</b>	<b>0,64</b>	<b>13</b>
Potential Purchasing Power Index	1,24	11
Infrastructure and Ecosystem Index	0,34	20
E-Invoicing Adoption Score	0,13	19
Accounting Ecosystem Score	0,50	11
Banking Ecosystem Score	0,39	18
E-Invoicing Index	0,19	20
E-Payment Index	0,81	13

<b>Potential Purchasing Power Index</b>	<b>1,24</b>	<b>11</b>
GDP/capita (€, thousands)	43,000	12
Wage level (€, hourly cost)	34	6
Price level (Relative to EU average, 2012)	108	10
GDP growth (2011-2013)	0,7%	16

<b>E-Invoicing Index</b>	<b>0,19</b>	<b>20</b>
SMEs sending e-invoices in a standard structured format (% share of total)	9%	18
SMEs receiving e-invoices in a standard structured format (% share of total)	22%	20
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	26%	20

<b>E-Payment Index</b>	<b>0,81</b>	<b>13</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	84%	
Average B2B payment delay, days	15	

## Factors encouraging e-invoice adoption

N/A

## Typically outsourced accounting processes

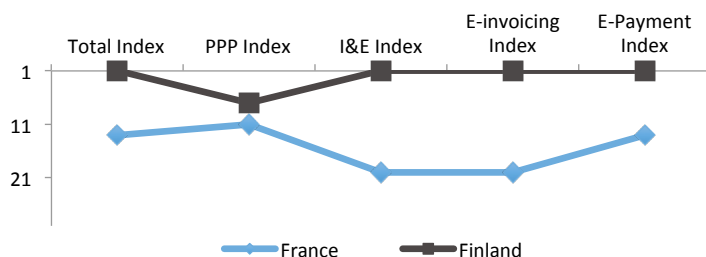
General Ledger  
Payroll

No companies with &lt;50 empl. have in-house accountant. If auditing is outsourced, so is accounting.

## Typical way of implementing SME accounting

Accounting Firm

## Rank Comparison with Finland



## Infrastructure and Ecosystem Index

Score Rank

<b>E-invoicing Adoption Score</b>	<b>0,13</b>	<b>19</b>
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	No	
Level of adoption of structured e-invoices	Low	
<b>Accounting Ecosystem Score</b>	<b>0,50</b>	<b>11</b>
Level of ERP usage among SMEs	High	
Main accounting software offerings (international/local)	Local	
Number of accounting processes that tend to be outsourced	Moderate	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	Low	

<b>Banking Ecosystem Score</b>	<b>0,39</b>	<b>18</b>
Share of non electronic salary payments	0%	
Relevance of international banks	Low	
Banks offer electronic account statements	None	
Banks offer electronic integration	No	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Daily/Weekly	

## Factors discouraging e-invoice adoption

N/A

## Role of accounting firm for SMEs

Provider of financial reports and analyses

## Top External SME Accounting Service Providers

CER France (network of CPAs)  
Big Four (for largest SMEs)

**Main accounting software offerings for SMEs**

Invoke  
Cegid  
A few other major players

**Top Banks for SMEs**

BNP Paribas  
Société Générale  
BPCE (includes Banque Populaire, BRED, Caisses d'Epargne)  
Crédit Agricole (includes LCL)  
CMCIC (Credit Mutuel CIC)  
HSBC  
La Banque Postale

**Top providers of connectivity services for e-invoicing**

N/A

**EESPA compliant operators (four corner model)**

No information

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

For France, a high level of ERP usage among SMEs was reported, which provides a firm basis for SMEs to adopt software solutions (e.g. e-invoicing). However, there is the caveat that many of these programs may be simpler in function than “real” ERPs.

The accounting and banking environment in France is somewhat undeveloped. While there is a national standard for the chart of accounts, electronic integration between banks and firms’ accounting systems appears to be virtually nonexistent. No standardized payment reference code is in use; the free comment field is used to link payments to invoices. The market leaders in banking for local SMEs are the largest French banks, the most prominent foreign player being HSBC.

Usage of e-invoices is unpopular among French SMEs and comparable to the situation in Germany and Italy, for example.

The role of an accounting firm may sometimes be extended from typical accounting tasks to financial analyses, but the mandatory financial statement format already includes lots of data that can be used for decision-making. Small firms often outsource the accounting tool, but do not purchase additional service packages. Payroll is almost always outsourced, and outsourcing general ledger is also typical.

**Market Information / Key Numbers**

Population	80 586 000
GDP/capita (€)	44 999
Total number of SMEs	2 147 568
Number of micro enterprises	1 763 465
Number of small enterprises	328 593
Number of medium enterprises	55 510
Total turnover of SMEs (€)	1 192 982
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	13,3%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,73</b>	<b>8</b>
Potential Purchasing Power Index	1,22	12
Infrastructure and Ecosystem Index	0,61	9
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,57	9
Banking Ecosystem Score	0,89	5
E-Invoicing Index	0,19	22
E-Payment Index	0,92	2

<b>Potential Purchasing Power Index</b>	<b>1,22</b>	<b>12</b>
GDP/capita (€, thousands)	44,999	11
Wage level (€, hourly cost)	31	10
Price level (Relative to EU average, 2012)	101	14
GDP growth (2011-2013)	1,5%	10

<b>E-Invoicing Index</b>	<b>0,19</b>	<b>22</b>
SMEs sending e-invoices in a standard structured format (% share of total)	8%	22
SMEs receiving e-invoices in a standard structured format (% share of total)	22%	20
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	26%	20

<b>E-Payment Index</b>	<b>0,92</b>	<b>2</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	9	

**Factors encouraging e-invoice adoption**

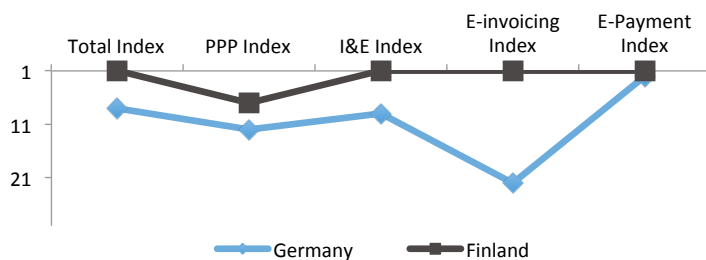
- No need for security certificate since 2013

**Typically outsourced accounting processes**

Accounts Receivable  
Accounts Payable  
General Ledger

**Typical way of implementing SME accounting**

Internal Accounting Function  
Accounting Firm  
Tax Consultant

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,61</b>	<b>9</b>
E-invoicing Adoption Score	0,38	11
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,57	9
Level of ERP usage among SMEs	High	
Main accounting software offerings (international/local)	Local	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	Low	
Banking Ecosystem Score	0,89	5
Share of non electronic salary payments	0%	
Relevance of international banks	High	
Banks offer electronic account statements	Some banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	Yes	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Daily/Weekly	

**Factors discouraging e-invoice adoption**

- Confidence in current solutions
- Resistance to change
- Implementation is too expensive and complex for low invoice volume

**Role of accounting firm for SMEs**

Assists in dealing with legal obligations  
Cover daily accounting routines

**Top External SME Accounting Service Providers**

Very fragmented

**Main accounting software offerings for SMEs**

DateV  
Lexware  
WisoKauffman  
Fortnox

**Top Banks for SMEs**

DB  
KFW  
Unicredit and smaller associations of banks  
Spaarhasse  
VK-Banken  
Raiffaisenbank

**Top providers of connectivity services for e-invoicing**

Paymill  
FastSpring

**EESPA compliant operators (four corner model)**

Paymill

**Banking connectivity platforms (iPaaS)**

S-Firm  
Gnu-cash (good and cheap, requires developer in the firm)

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

For Germany, a high level of ERP usage among SMEs was reported, which forms a good basis for SMEs to adopt software solutions (e.g. e-invoicing). However, only 2-3% of software were estimated to be cloud-enabled. The cloud is seen as potentially insecure, which reflects the German SMEs' cautious attitudes toward data security. Even though storage of information and accounting material in another EU country or outside the EU would be allowed, local SMEs generally prefer keeping the records within the country.

The most important factor encouraging e-invoicing adoption in Germany may be the removal of the security certificate requirement (for files to be sent) in 2013. Factors hindering e-invoicing adoption are (1) confidence in current solutions and resilience to change, (2) no clear return on investment and (3) the conservative tax authority. Paper and PDF invoices are preferred among small and mid-sized companies, respectively. However, some larger supply chain leaders are slowly beginning to enforce e-invoicing usage with their smaller suppliers.

The accounting and banking environment in Germany is quite developed. There are multiple (20-30) specific standards for the chart of accounts. An HBCI online banking interface is in use for connecting between banks and firms, and allows for payment transfers and account reports.

The level of outsourcing of accounting and financial management processes in Germany is estimated to be low, but small firms are more likely to outsource – especially accounts payable/receivable and general ledger – than larger companies that often have their own in-house staff and software.

**Market Information / Key Numbers**

Population	10 758 000
GDP/capita (€)	21 857
Total number of SMEs	831 059
Number of micro enterprises	813 780
Number of small enterprises	14 978
Number of medium enterprises	2 301
Total turnover of SMEs (€)	0
Salaries paid in cash (% of total)	10%
Share of grey economic activity (%)	24,0%

Score Rank

<b>RTE Readiness Index</b>	<b>0,50</b>	<b>18</b>
Potential Purchasing Power Index	0,71	18
Infrastructure and Ecosystem Index	0,49	19
E-Invoicing Adoption Score	0,25	18
Accounting Ecosystem Score	0,50	11
Banking Ecosystem Score	0,72	17
E-Invoicing Index	0,15	28
E-Payment Index	0,63	25

<b>Potential Purchasing Power Index</b>	<b>0,71</b>	<b>18</b>
GDP/capita (€, thousands)	21,857	18
Wage level (€, hourly cost)	14	17
Price level (Relative to EU average, 2012)	92	16
GDP growth (2011-2013)	-6,0%	29

<b>E-Invoicing Index</b>	<b>0,15</b>	<b>28</b>
SMEs sending e-invoices in a standard structured format (% share of total)	5%	27
SMEs receiving e-invoices in a standard structured format (% share of total)	20%	24
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	21%	27

<b>E-Payment Index</b>	<b>0,63</b>	<b>25</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	89%	
Average B2B payment delay, days	43	

**Factors encouraging e-invoice adoption**

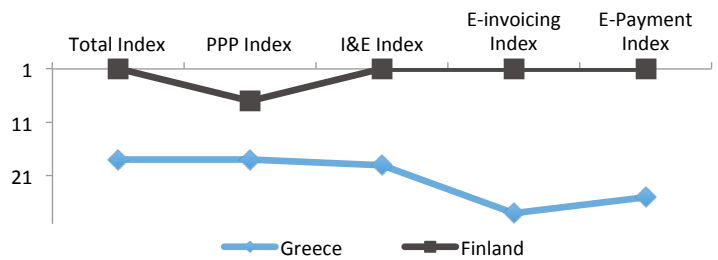
N/A

**Typically outsourced accounting processes**

Accounts Receivable  
Accounts Payable  
General Ledger  
Financial Reporting  
Payroll  
Treasury and Cash Management

**Typical way of implementing SME accounting**

Internal Accounting Function  
Accounting Firm  
Tax Consultant

**Rank Comparison with Finland**

Score Rank

<b>Infrastructure and Ecosystem Index</b>	<b>0,49</b>	<b>19</b>
E-invoicing Adoption Score	0,25	18
Is e-invoicing mandatory in the public sector?		No
Influence of supply chain leaders on e-invoicing adoption		None
Freedom of Evidence. Council Directive 2010/45/EU		Yes
Level of adoption of structured e-invoices		Low
Accounting Ecosystem Score	0,50	11
Level of ERP usage among SMEs		Medium
Main accounting software offerings (international/local)		Local
Number of accounting processes that tend to be outsourced		High
Accounting firm has a partner role to an SME		No
National standard for chart of accounts exists		Yes
Standardized format for e-archiving exists		No
Storage in another EU country is allowed		Yes
Share of accounting software provided directly to SMEs		High
Banking Ecosystem Score	0,72	17
Share of non electronic salary payments		10%
Relevance of international banks		Low
Banks offer electronic account statements		Some banks
Banks offer electronic integration		Yes
Banks offer interfaces for integration of e-payments		Yes
Year of e-banking introduction to SMEs		2000s
Standard bank payment reference code		Yes
Electronic account statement format for top banks		SEPA
How frequently can account statement be retrieved		Monthly

**Factors discouraging e-invoice adoption**

N/A

**Role of accounting firm for SMEs**

Handles accounting tasks related to tax compliance issues  
No consulting role

**Top External SME Accounting Service Providers**

Local Greek companies  
Few major providers:  
Grant Thornton  
Big Four

#### Main accounting software offerings for SMEs

SingularLogic  
Altec  
DataCommunication  
EpsilonNet  
SoftOne

#### Top Banks for SMEs

Greek banks:  
- NBG  
- National Bank  
- Alpha Bank  
- Piraeus Bank  
- Eurobank

#### Top providers of connectivity services for e-invoicing

Information Systems Impact  
Unisystems  
Retail Link  
Cosmoone

#### EESPA compliant operators (four corner model)

Roaming exists but not through EESPA

#### Banking connectivity platforms (iPaaS)

ESB (all integration to Eurobank)

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

For Greece, a moderate level of ERP usage among SMEs was reported, which forms a viable basis for SMEs to adopt software solutions (e.g. e-invoicing). About 30% of small firms and 60% of mid-size companies reportedly utilize ERP programs.

The accounting and banking environment in Estonia is in parts very developed, in others not so much. There is no clear national standard for the chart of accounts, and international companies prefer formats consistent with their other (foreign) units' formats. The banking ecosystem is not mature, and while electronic account statements are available, banks do not offer integration to accounting systems and it is a customized task left to the firm to implement.

The e-invoicing ecosystem is immature in Greece, as well; e-invoicing is not widespread in the SME segment.

The role of an accounting firm is usually limited to the most basic accounting tasks, and accounting software solutions are bought directly from a software provider most of the time, especially among a bit larger SMEs. Local accounting service providers dominate the market. firms may only outsource payroll; some may outsource everything from monthly VAT reporting to administration to bank payments.

## Hungary

## RTE Readiness Index:

0,47 / 20

### Market Information / Key Numbers

Population	9 894 000
GDP/capita (€)	13 405
Total number of SMEs	551 076
Number of micro enterprises	521 981
Number of small enterprises	24 883
Number of medium enterprises	4 212
Total turnover of SMEs (€)	60 435
Salaries paid in cash (% of total)	5%
Share of grey economic activity (%)	22,5%

Score Rank

<b>RTE Readiness Index</b>	<b>0,47</b>	<b>20</b>
Potential Purchasing Power Index	0,48	26
Infrastructure and Ecosystem Index	0,52	17
E-Invoicing Adoption Score	0,00	20
Accounting Ecosystem Score	0,71	2
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,18	24
E-Payment Index	0,71	22

<b>Potential Purchasing Power Index</b>	<b>0,48</b>	<b>26</b>
GDP/capita (€, thousands)	13,405	26
Wage level (€, hourly cost)	7	25
Price level (Relative to EU average, 2012)	60	26
GDP growth (2011-2013)	0,3%	19

<b>E-Invoicing Index</b>	<b>0,18</b>	<b>24</b>
SMEs sending e-invoices in a standard structured format (% share of total)	5%	27
SMEs receiving e-invoices in a standard structured format (% share of total)	24%	15
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	26%	20

<b>E-Payment Index</b>	<b>0,71</b>	<b>22</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	99%	
Average B2B payment delay, days	18	

### Factors encouraging e-invoice adoption

- Possibly cost saving with high volume

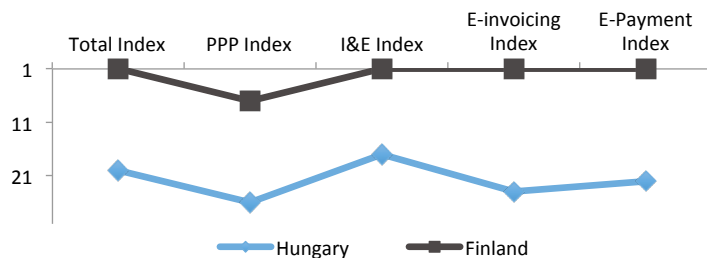
### Typically outsourced accounting processes

Accounts Receivable  
Accounts Payable  
General Ledger  
Financial Reporting

### Typical way of implementing SME accounting

Internal Accounting Function  
Accounting Firm

### Rank Comparison with Finland



Score Rank

<b>Infrastructure and Ecosystem Index</b>	<b>0,52</b>	<b>17</b>
E-invoicing Adoption Score	0,00	20
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	None	
Freedom of Evidence. Council Directive 2010/45/EU	No	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,71	2
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	Medium	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	5%	
Relevance of international banks	Moderate	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Monthly	

### Factors discouraging e-invoice adoption

- Implementation is too expensive and complex for low invoice volume
- Clients prefer want hard copies
- Both parties are required to agree on e-invoicing

### Role of accounting firm for SMEs

Provides accounting expertise  
Responsible for tasks that have clearly defined responsibility  
No consulting role

### Top External SME Accounting Service Providers

TMF  
UCMS Group  
Processsolutions  
BDO  
RSM DTM  
(Most are owned by foreign companies)

Main accounting software offerings for SMEs	Top Banks for SMEs
SAP (service for SMEs, AIR1/AIR2) Oracle (JD Edwards) Microsoft Dynamics Octopus Revolution Libra Apollo Cobra Topinfo Kulcsszoft Combosoft	Erste Unicredit K&H CIB Raiffeisen OTB
Top providers of connectivity services for e-invoicing	EESPA compliant operators (four corner model)
E-Szigno E-Szamla	E-Szamla

Banking connectivity platforms (iPaaS)	Industries requiring SME integration to supply chain
No (Bank provides all connectivity information upon request and the software should support required file extension)	N/A (Goal for the Phase II of the research project)

## Interview observations

For Hungary, a low level of ERP usage among SMEs was reported, which is a challenging starting point for promoting software solutions (e.g. e-invoicing). However, more and more firms are adopting cloud-based software, and the general attitude toward them is becoming more open-minded. Still, the critical mass has not yet been reached.

The possible cost savings were seen as the most important factor for e-invoicing adoption. However, slowing down the adoption progress is the high invoice volume needed for significant savings and the facts that clients often demand hard copies ad hoc and that both parties are required to agree on e-invoicing. Furthermore, to write a valid invoice in Hungary, one has to do it with either a registered Hungarian software or by hand.

The accounting and banking environment in Hungary is halfway-developed. Account organization is partially harmonized, and the bank's and the firm's systems can be electronically integrated. However, the connection protocols and file format are bank-specific, which creates a barrier for changing the bank after the initial setting-up. A standardized payment reference code is not in use.

The most often outsourced accounting processes in Hungarian SMEs are accounts payable/receivable, general ledger and financial reporting; cash management and treasury is seen as sensitive, so firms are reluctant to outsource them – moreover, it is seen as risky also from the accounting firm side.

Overall, the accounting firm is perceived as very valuable for the business: one can get a whole expert team for a lesser cost than one bookkeeper. The accounting software is provided directly to the firm (and not through an accounting firm) about half of the time.

## Ireland

## RTE Readiness Index:

0,70 / 10

## Market Information / Key Numbers

Population	4 662 000
GDP/capita (€)	45 621
Total number of SMEs	139 371
Number of micro enterprises	122 643
Number of small enterprises	14 249
Number of medium enterprises	2 479
Total turnover of SMEs (€)	76 908
Salaries paid in cash (% of total)	N/A
Share of grey economic activity (%)	12,7%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,70</b>	<b>10</b>
Potential Purchasing Power Index	1,24	10
Infrastructure and Ecosystem Index	0,50	18
E-Invoicing Adoption Score	0,50	8
Accounting Ecosystem Score	0,50	11
Banking Ecosystem Score	N/A	N/A
E-Invoicing Index	0,27	8
E-Payment Index	0,77	17

<b>Potential Purchasing Power Index</b>	<b>1,24</b>	<b>10</b>
GDP/capita (€, thousands)	45,621	9
Wage level (€, hourly cost)	29	11
Price level (Relative to EU average, 2012)	117	7
GDP growth (2011-2013)	0,8%	15

<b>E-Invoicing Index</b>	<b>0,27</b>	<b>8</b>
SMEs sending e-invoices in a standard structured format (% share of total)	14%	9
SMEs receiving e-invoices in a standard structured format (% share of total)	32%	6
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	36%	8

<b>E-Payment Index</b>	<b>0,77</b>	<b>17</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	89%	
Average B2B payment delay, days	30	

## Factors encouraging e-invoice adoption

N/A

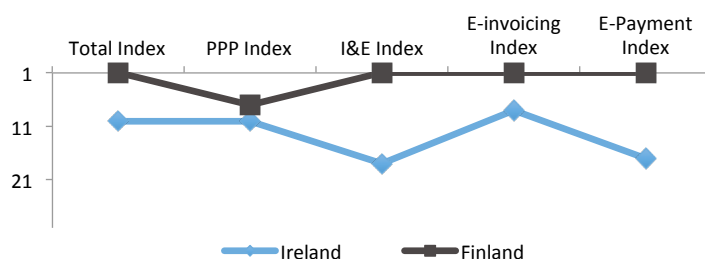
## Typically outsourced accounting processes

N/A

## Typical way of implementing SME accounting

N/A

## Rank Comparison with Finland



	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,50</b>	<b>18</b>

<b>E-Invoicing Adoption Score</b>	0,50	8
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Medium	

<b>Accounting Ecosystem Score</b>	0,50	11
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	N/A	
Accounting firm has a partner role to an SME	N/A	
National standard for chart of accounts exists	N/A	
Standardized format for e-archiving exists	N/A	
Storage in another EU country is allowed	N/A	
Share of accounting software provided directly to SMEs	N/A	

<b>Banking Ecosystem Score</b>	N/A	N/A
Share of non electronic salary payments	N/A	
Relevance of international banks	N/A	
Banks offer electronic account statements	N/A	
Banks offer electronic integration	N/A	
Banks offer interfaces for integration of e-payments	N/A	
Year of e-banking introduction to SMEs	N/A	
Standard bank payment reference code	N/A	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	N/A	

## Factors discouraging e-invoice adoption

N/A

## Role of accounting firm for SMEs

N/A

## Top External SME Accounting Service Providers

Very fragmented

<b>Main accounting software offerings for SMEs</b>	<b>Top Banks for SMEs</b>
Sage 50 TAS Books (Sage) Exchequer	N/A
<b>Top providers of connectivity services for e-invoicing</b>	<b>EESPA compliant operators (four corner model)</b>
N/A	No information
<b>Banking connectivity platforms (iPaaS)</b>	<b>Industries requiring SME integration to supply chain</b>
N/A	N/A (Goal for the Phase II of the research project)

#### Interview observations

In Ireland very few small companies use ERP - it would only be the middle-sized among the SME segment that would use products such as Microsoft Dynamics. Smaller companies would use accounting packages such as Sage 50, TAS Books, or Exchequer.

The market of accounting services for SMEs is a very fragmented market making it hard to identify top players.

Speaking about the banking ecosystem, there are only 2 pillar banks in Ireland and their technology is not very advanced.

Out of over 400 eInvoicing providers in Europe, there are probably 10 operating in Ireland and there is no inter-operability except in the EDI arena. There are no e-invoicing standards in place and e-invoicing is not mandatory in the public sector. It is, however, mandatory with major multi-nationals operating in Ireland.

**Market Information / Key Numbers**

Population	59 862 000
GDP/capita (€)	34 715
Total number of SMEs	3 694 289
Number of micro enterprises	3 491 826
Number of small enterprises	183 198
Number of medium enterprises	19 265
Total turnover of SMEs (€)	759 584
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	21,6%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,63</b>	<b>14</b>
Potential Purchasing Power Index	1,05	14
Infrastructure and Ecosystem Index	0,54	16
E-Invoicing Adoption Score	0,75	3
Accounting Ecosystem Score	0,33	20
Banking Ecosystem Score	N/A	N/A
E-Invoicing Index	0,19	23
E-Payment Index	0,75	18

<b>Potential Purchasing Power Index</b>	<b>1,05</b>	<b>14</b>
GDP/capita (€, thousands)	34,715	14
Wage level (€, hourly cost)	28	12
Price level (Relative to EU average, 2012)	103	13
GDP growth (2011-2013)	-1,3%	25

<b>E-Invoicing Index</b>	<b>0,19</b>	<b>23</b>
SMEs sending e-invoices in a standard structured format (% share of total)	6%	25
SMEs receiving e-invoices in a standard structured format (% share of total)	24%	15
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	26%	20

<b>E-Payment Index</b>	<b>0,75</b>	<b>18</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	82%	
Average B2B payment delay, days	31	

**Factors encouraging e-invoice adoption**

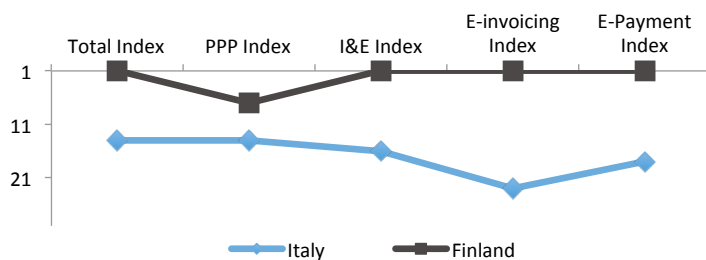
- Obligatory in public sector (from 6.2014)
- Enforced by some Supply Chain Leaders

**Typically outsourced accounting processes**

General Ledger

**Typical way of implementing SME accounting**

Internal Accounting Function (hired CPAs)

**Rank Comparison with Finland**

	Score	Rank
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<b>Infrastructure and Ecosystem Index</b>	<b>0,54</b>	<b>16</b>
<b>E-invoicing Adoption Score</b>	<b>0,75</b>	<b>3</b>
Is e-invoicing mandatory in the public sector?	Yes	
Influence of supply chain leaders on e-invoicing adoption	High	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
<b>Accounting Ecosystem Score</b>	<b>0,33</b>	<b>20</b>
Level of ERP usage among SMEs	High	
Main accounting software offerings (international/local)	Local	
Number of accounting processes that tend to be outsourced	Small	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	No	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	High	
<b>Banking Ecosystem Score</b>	<b>N/A</b>	<b>N/A</b>
Share of non electronic salary payments	0%	
Relevance of international banks	Moderate	
Banks offer electronic account statements	Some banks	
Banks offer electronic integration	N/A	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Monthly	

**Factors discouraging e-invoice adoption**

N/A

**Role of accounting firm for SMEs**

Basic accounting

**Top External SME Accounting Service Providers**

Very fragmented (200 000 CPAs)

**Main accounting software offerings for SMEs**

Zucchetti  
TeamSystem  
MS Navision

**Top Banks for SMEs**

Intessa San Paolo  
Unicredit  
Monte dei Paschi Siena (MPS)  
Circuit ICCREA  
BP Bank (ICBPI Circuits)

**Top providers of connectivity services for e-invoicing**

Separate list of 33 operators

**EESPA compliant operators (four corner model)**

No information

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

For Italy, a high level of ERP usage among SMEs was reported (about 80% of SMEs with 10-250 employees), which provides a solid starting point for promoting software solutions (e.g. e-invoicing).

The most important factor encouraging e-invoicing adoption currently in Italy is probably the government mandating its use in the public sector from June 2014. Moreover, many large local supply chain leaders effectively enforce e-invoicing by demanding that their suppliers use e-invoices.

Nevertheless, e-invoicing penetration among SMEs in Italy is very limited and comparable to the situation in Germany and France, for example.

The banking system in Italy is not very advanced in the sense that SEPA integration has been slow in the country (e.g. 18% of transactions are non-SEPA), and electronic integration and interfaces between banks and firms' accounting systems are not very far-developed.

The role of an accounting firm in Italy is limited, as well: it consists mainly of taking care of the daily bookkeeping tasks. There are more than 200 000 certified accountants in the country, who provide most of the accounting services to SMEs, often working within the firm. General ledger is the most typically outsourced accounting process at an Italian SME; other accounting processes are usually kept in-house.

**Market Information / Key Numbers**

Population	2 011 000
GDP/capita (€)	15 205
Total number of SMEs	70 173
Number of micro enterprises	61 788
Number of small enterprises	6 900
Number of medium enterprises	1 485
Total turnover of SMEs (€)	17 791
Salaries paid in cash (% of total)	20%
Share of grey economic activity (%)	26,1%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,56</b>	<b>16</b>
Potential Purchasing Power Index	0,52	23
Infrastructure and Ecosystem Index	0,57	14
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,50	11
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,32	4
E-Payment Index	0,82	12

<b>Potential Purchasing Power Index</b>	<b>0,52</b>	<b>23</b>
GDP/capita (€, thousands)	15,205	24
Wage level (€, hourly cost)	6	26
Price level (Relative to EU average, 2012)	72	22
GDP growth (2011-2013)	4,9%	1

<b>E-Invoicing Index</b>	<b>0,32</b>	<b>4</b>
SMEs sending e-invoices in a standard structured format (% share of total)	18%	4
SMEs receiving e-invoices in a standard structured format (% share of total)	38%	5
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	41%	6

<b>E-Payment Index</b>	<b>0,82</b>	<b>12</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	99%	
Average B2B payment delay, days	22	

**Factors encouraging e-invoice adoption**

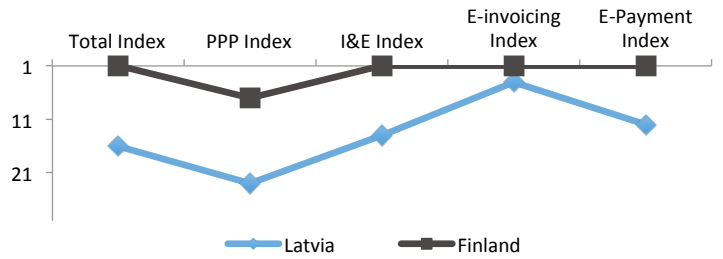
N/A

**Typically outsourced accounting processes**

Varies from firm to firm  
 Small companies (if legal) outsource everything  
 Outsourcing level: 15-20%

**Typical way of implementing SME accounting**

Internal Accounting Function  
 Tax Consultant

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,57</b>	<b>14</b>

<b>E-invoicing Adoption Score</b>	0,38	11
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	None	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Medium	

<b>Accounting Ecosystem Score</b>	0,50	11
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	Small	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	No	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	Low	

<b>Banking Ecosystem Score</b>	0,83	9
Share of non electronic salary payments	20%	
Relevance of international banks	High	
Banks offer electronic account statements	Some banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Anytime	

**Factors discouraging e-invoice adoption**

N/A

**Role of accounting firm for SMEs**

Advice, financial reporting and extra services to medium firms  
 Basic services to small firms

**Top External SME Accounting Service Providers**

Leinonen  
 Numeri  
 Grant Thornton

Main accounting software offerings for SMEs	Top Banks for SMEs
Tildes Jumis HansaWorld/HansaFinancial Gräls Horizon SolCraft Scala Navison Accepta	Swedbank SEB Grant Thornton Nordea Citadel

Top providers of connectivity services for e-invoicing	EESPA compliant operators (four corner model)
N/A	No information

Banking connectivity platforms (iPaaS)	Industries requiring SME integration to supply chain
N/A	N/A (Goal for the Phase II of the research project)

Interview observations
<p>For Latvia, a low level of ERP usage among SMEs was reported, which is a difficult starting point for SMEs for adopting software solutions (e.g. e-invoicing). Simpler local programs are generally perceived as good enough for small Latvian firms.</p> <p>While limited, e-invoicing is still somewhat more widespread in Latvia than in many other EU countries. A significant hindering factor for e-invoicing adoption is the very conservative tax office.</p> <p>The accounting and banking environment in Latvia is quite undeveloped, with some degree of integration between banks and accounting systems available (a non-real time but machine-readable import/export system for payment instructions, for example), but no standardized payment reference code.</p> <p>Outsourcing of accounting and financial management processes in Latvia varies significantly across SMEs, with small firms often outsourcing either almost everything or nothing. There may be trust issues arising with the large proportion of grey economy in the SME segment. Payroll is the most often outsourced process, especially among larger companies. Mid-sized firms buy more “extra” financial services than the smallest ones. Price of the solution is seen as a very important factor. Overall outsourcing level of accounting processes was estimated to be 15-20%.</p>

**Market Information / Key Numbers**

Population	2 956 000
GDP/capita (€)	16 003
Total number of SMEs	107 843
Number of micro enterprises	95 037
Number of small enterprises	10 655
Number of medium enterprises	2 151
Total turnover of SMEs (€)	19 216
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	28,5%

Score Rank

<b>RTE Readiness Index</b>	<b>0,56</b>	<b>17</b>
Potential Purchasing Power Index	0,51	24
Infrastructure and Ecosystem Index	0,64	6
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,71	2
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,36	3
E-Payment Index	0,71	21

<b>Potential Purchasing Power Index</b>	<b>0,51</b>	<b>24</b>
GDP/capita (€, thousands)	16,003	23
Wage level (€, hourly cost)	6	27
Price level (Relative to EU average, 2012)	64	25
GDP growth (2011-2013)	4,3%	3

<b>E-Invoicing Index</b>	<b>0,36</b>	<b>3</b>
SMEs sending e-invoices in a standard structured format (% share of total)	15%	8
SMEs receiving e-invoices in a standard structured format (% share of total)	45%	2
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	48%	3

<b>E-Payment Index</b>	<b>0,71</b>	<b>21</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	17	

**Factors encouraging e-invoice adoption**

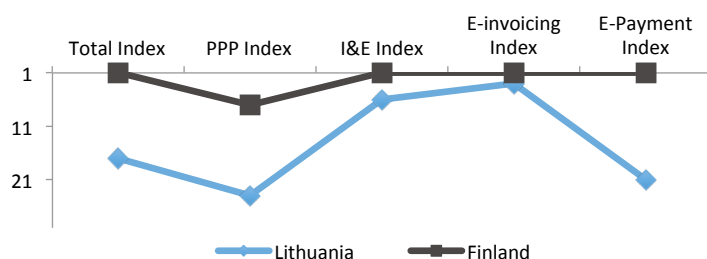
N/A

**Typically outsourced accounting processes**

Accounts Receivable  
Accounts Payable  
General Ledger  
Financial Reporting  
Payroll  
Treasury and Cash Management

**Typical way of implementing SME accounting**

Big Four  
Combination of tax consultant and auditor

**Rank Comparison with Finland**

Score Rank

<b>Infrastructure and Ecosystem Index</b>	<b>0,64</b>	<b>6</b>
E-invoicing Adoption Score	0,38	11
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	None	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Medium	
Accounting Ecosystem Score	0,71	2
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	0%	
Relevance of international banks	Moderate	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	2000s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Anytime	

**Factors discouraging e-invoice adoption**

- Conservative attitude
- Lack of technical knowledge

**Role of accounting firm for SMEs**

Basic accounting  
Business development  
Accounting process optimization Evaluation

**Top External SME Accounting Service Providers**

Big Four  
Rödl & Partner  
BDO  
Grant Thornton  
Leinonen

**Main accounting software offerings for SMEs**

Navision (Microsoft)  
Hansa  
SAP

**Top Banks for SMEs**

Scandinavian banks:  
- SEB  
- Swedbank  
- Danske Bank  
- Nordea, etc.

**Top providers of connectivity services for e-invoicing**

N/A

**EESPA compliant operators (four corner model)**

No information

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

For Lithuania, a low level of ERP usage among SMEs was reported, which restricts the adoption of new software solutions (e.g. e-invoicing). Mainly foreign companies use ERPs, and the usage level depends on firm size (the larger the more) and also the industry.

The accounting and banking system in Lithuania seems to be relatively well-developed. There is a national standard for the chart of accounts, accounting firms are often seen as important from business perspectives, and integration exists between banks and accounting systems. A standardized payment reference code, however, is not in use.

The most important factors hindering e-invoicing adoption in Lithuania are (1) the conservative atmosphere and (2) lack of technical knowledge in firms. Still, based on official figures, Lithuania is one of the more e-invoicing-using countries in the EU.

The role of an accounting firm was seen as important for Latvian SMEs. Other services than just basic accounting may also be asked for, including business development, process optimization etc. Small firms often outsource almost every accounting process; mid-sized firms outsource somewhat less. Payroll still remains almost always outsourced.

## Market Information / Key Numbers

Population	16 795 000
GDP/capita (€)	47 634
Total number of SMEs	655 725
Number of micro enterprises	602 149
Number of small enterprises	45 079
Number of medium enterprises	8 497
Total turnover of SMEs (€)	447 380
Salaries paid in cash (% of total)	0-5%
Share of grey economic activity (%)	9,5%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,72</b>	<b>9</b>
Potential Purchasing Power Index	1,29	8
Infrastructure and Ecosystem Index	0,61	11
E-Invoicing Adoption Score	0,63	4
Accounting Ecosystem Score	0,36	18
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,17	26
E-Payment Index	0,83	9

<b>Potential Purchasing Power Index</b>	<b>1,29</b>	<b>8</b>
GDP/capita (€, thousands)	47,634	7
Wage level (€, hourly cost)	33	7
Price level (Relative to EU average, 2012)	108	11
GDP growth (2011-2013)	-0,4%	22

<b>E-Invoicing Index</b>	<b>0,17</b>	<b>26</b>
SMEs sending e-invoices in a standard structured format (% share of total)	10%	17
SMEs receiving e-invoices in a standard structured format (% share of total)	18%	25
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	23%	25

<b>E-Payment Index</b>	<b>0,83</b>	<b>9</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	97%	
Average B2B payment delay, days	17	

## Factors encouraging e-invoice adoption

- Business case with bigger volume
- Move towards a single standard - UBL

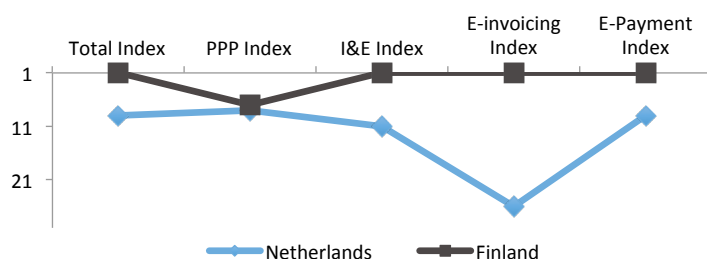
## Typically outsourced accounting processes

Bookkeeping  
(Easy to do by yourself through cloud)  
Payroll  
Tax matters (to tax advisors)

## Typical way of implementing SME accounting

N/A

## Rank Comparison with Finland



	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,61</b>	<b>11</b>
E-invoicing Adoption Score	0,63	4
Is e-invoicing mandatory in the public sector?	Yes/No	
Influence of supply chain leaders on e-invoicing adoption	High	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,36	18
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	Local	
Number of accounting processes that tend to be outsourced	Moderate	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	0-5%	
Relevance of international banks	Low	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	N/A	
How frequently can account statement be retrieved	Anytime	

## Factors discouraging e-invoice adoption

- No business case with low volume
- We don't have one standard but many
- Exchange of information used to be the biggest problem (no more with a unified standard)

## Role of accounting firm for SMEs

Advisory and value-adding services are not strong yet

## Top External SME Accounting Service Providers

Big Four  
BDO  
SRA (independent accounting firms working together, 40% market share)  
Rfer

#### Main accounting software offerings for SMEs

Two types: of-the-shelf and saas  
Exact Online - the biggest, offers both options (9 packages cover ~100% of the market)  
Unit 4  
King  
Muis  
Reeleeze  
Twinfield  
Relevant sources:  
- [www.softwarepakketten.nl](http://www.softwarepakketten.nl)  
- Gerard Bottemanne

#### Top Banks for SMEs

Rabobank (biggest for SMEs)  
ABD-AMRO (2nd biggest for SMEs)  
ING (3rd biggest for SMEs)  
SNS  
Foreign banks: RBS, BNP and smaller ones

#### Top providers of connectivity services for e-invoicing

TNT

#### EESPA compliant operators (four corner model)

Most of the companies work in netherlands. Mostly 4corner

#### Banking connectivity platforms (iPaaS)

N/A

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

In the Netherlands small firms tend to outsource all bookkeeping to an accounting firm. At the same time, these days you see more and more cloud-based applications that makes it easy to do bookkeeping internally even for very small companies. In the website you don't need to be an accountant to do the bookkeeping. In summary, there are two types of solutions -installed and saas. The biggest is Exact Online (offer both, even dash, both installed and online). 9 packages that cover almost 100% of the market. Most accounting firms don't make customers to choose a specific software. It is more cost efficient for the client of the firm. AF have a connection to one platform.

Accounting firm is a reliable partner for SMEs but advisory and value-adding services by accounting firms are not strong yet, but the situation should change. The branch organizations are aware that they should change their business and provide advisory and intelligence. There is a program of voluntary compliance that is encouraged by several states. All companies work together to get their bookkeeping and tax declaration in order. That means that a lot of advisors, also have special awareness of auditing and the process. Tax authorities declare their future initiatives and accounting firms pass information to their clients. This leads to horizontal monitoring (monitoring is done by the accounting firm to ensure that companies comply with tax rules). Tax advisors are part of the program. Auditing is not seen only as a cost but also as a source of advisory services.

All banks offer electronic account statements (SNS might be an exception). Electronic integration has been available for a long time and is done automatically. Banks offer interfaces for e-payment integration and there are 3 companies that work specifically for banks doing integration.

In the area of e-invoicing, most of the operators that work in the Netherlands use 4 corner model. UBL is expected to become a common standard in the country. In the public sector, if you want to send an invoice to tax administration and you have an old contract, then you don't have to send an e-invoice. Otherwise, e-invoicing is obligatory. In municipalities and universities it is not mandatory. There is a government portal that should be used and if you cannot deliver that, there are companies that do such services. It used to be done by government (common platform), but not anymore, and UBL is preferred. In the private sector e-invoices are often mandated (food sector, e.g. Albert Heijn and in the construction business).

**Market Information / Key Numbers**

Population	5 077 000
GDP/capita (€)	100 318
Total number of SMEs	267 610
Number of micro enterprises	244 911
Number of small enterprises	19 967
Number of medium enterprises	2 732
Total turnover of SMEs (€)	119 255
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	14,2%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,97</b>	<b>2</b>
Potential Purchasing Power Index	2,26	1
Infrastructure and Ecosystem Index	0,80	2
E-Invoicing Adoption Score	0,88	2
Accounting Ecosystem Score	0,57	9
Banking Ecosystem Score	0,94	3
E-Invoicing Index	0,27	8
E-Payment Index	0,56	26

<b>Potential Purchasing Power Index</b>	<b>2,26</b>	<b>1</b>
GDP/capita (€, thousands)	100,318	2
Wage level (€, hourly cost)	49	1
Price level (Relative to EU average, 2012)	159	2
GDP growth (2011-2013)	2,1%	7

<b>E-Invoicing Index</b>	<b>0,27</b>	<b>8</b>
SMEs sending e-invoices in a standard structured format (% share of total)	17%	5
SMEs receiving e-invoices in a standard structured format (% share of total)	29%	10
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	36%	8

<b>E-Payment Index</b>	<b>0,56</b>	<b>26</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	0%	
Average B2B payment delay, days	8	

**Factors encouraging e-invoice adoption**

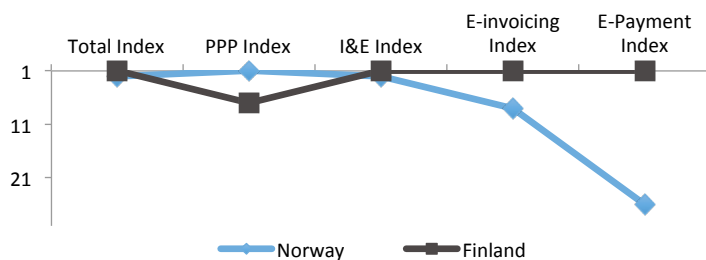
- Cheaper
- More efficient
- Faster
- Required investment is not that big
- All software have ready solutions

**Typically outsourced accounting processes**

All processes  
 Not so much treasury and cash management  
 Not so much specialist processes (advisory)

**Typical way of implementing SME accounting**

Accounting firm

**Rank Comparison with Finland**

<b>Infrastructure and Ecosystem Index</b>	<b>0,80</b>	<b>2</b>
E-invoicing Adoption Score	0,88	2
Is e-invoicing mandatory in the public sector?		Yes
Influence of supply chain leaders on e-invoicing adoption		High
Freedom of Evidence. Council Directive 2010/45/EU		Yes
Level of adoption of structured e-invoices		Medium
Accounting Ecosystem Score	0,57	9
Level of ERP usage among SMEs		Low
Main accounting software offerings (international/local)		International
Number of accounting processes that tend to be outsourced		High
Accounting firm has a partner role to an SME		Yes
National standard for chart of accounts exists		Yes
Standardized format for e-archiving exists		No
Storage in another EU country is allowed		No
Share of accounting software provided directly to SMEs		High
Banking Ecosystem Score	0,94	3
Share of non electronic salary payments		0%
Relevance of international banks		Moderate
Banks offer electronic account statements		All banks
Banks offer electronic integration		Yes
Banks offer interfaces for integration of e-payments		Yes
Year of e-banking introduction to SMEs		1990s
Standard bank payment reference code		Yes
Electronic account statement format for top banks		Non-SEPA
How frequently can account statement be retrieved		Anytime

**Factors discouraging e-invoice adoption**

- Many feel they need invoices on paper
- People over 55 yo, tend to prefer paper
- The standard of B2B e-invoicing is new
- Change process is needed
- Automation reduces revenues of accountants

**Role of accounting firm for SMEs**

Ongoing trend toward more value-adding services  
 Demand for advisory along the whole value chain  
 BI is expected give the real-time data

**Top External SME Accounting Service Providers**

Visma  
 Accountor  
 SpareBank 1 (group of banks)  
 Amestu

#### Main accounting software offerings for SMEs

Visma (8-10 systems, >50% market share)

Top 3 Visma:

- Visma Business (used by accounting service providers, not so much by SMEs)
- Visma Global
- Visma Mummert

Additionally :

- Visma Enterprise (separate offer to the public)
- Visma cloud solutions
- Visma hybrid solutions

Other players:

- X I Erlaer

#### Top providers of connectivity services for e-invoicing

EVRY (157K)

Visma Software (125K)

Basware (75K)

NETS (66K)

OpusCapita (51K)

#### Top Banks for SMEs

Regional banks (e.g. Sparebanken Vest)

DnB

Nordea

SpareBank 1

Eika

Handelsbanken

#### EESPA compliant operators (four corner model)

In Norway, we have one Norwegian standard and all are compliant. Not very familiar.

In case of other countries. The head of EESPA is Norwegian, so we are in the forefront.

#### Banking connectivity platforms (iPaaS)

NETS (owned by banks, dominant)

Visma (they do all integration themselves)

Accountor does it directly through OpusCapita

Basware and Readsoft for SMEs

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

Accounting firms are the main external providers of accounting services. An increasing number of companies are outsourcing their services and they outsource more than one process to an accounting company (usually the same one). Usually everything is outsourced especially among the smaller companies. All the main vendors provide additional services, some times advisory (providing the whole value chain). BI is defined as advisory services on how to go forward, and is valuable, especially with the access to real time information. In Norway, many companies buy of-the-shelf solutions themselves. Also, the rules were changed a few years ago - accounting does not to be audited unless yearly you earn more than 5 million nok.

In banking there are different levels of electronic integration. Recently introduced Accountor software is integrated with all major banks. The question is who owns the transactions and who gets transaction fees for payments. All major do have it. All major accounting companies push the issue hard. Speaking about e-connectivity platforms, there are a lot of different connections. Integration is done in 2 ways. OpusCapita can help to integrate with banks, and sometimes there are integration partners in both sides. Banks own NETS and provide connectivity through NETS, but Accountor do it directly with the help of OpusCapita. NETS is very dominant and provides a lot of services. It is owned collectively by the banks. On the accounting system there is VISMA and they do all integration themselves. There are also Basware, Readsoft (they are for SMEs).

In Norway, there is one Norwegian standard (EHF) and all are compliant. E-invoicing is obligatory for the public sector. All authorities implemented it in summer 2013, while municipalities did it in the summer of 2014 (not 100%). In the public sector there are vendors that demand e-invoicing. It's a trend that quite many are saying it as mandatory. E-archiving in another country without any legal application is allowed only in the other Nordic countries (Denmark, Sweden, Iceland), sending the information to the TAX authorities.

**Market Information / Key Numbers**

Population	38 548 000
GDP/capita (€)	13 394
Total number of SMEs	1 477 670
Number of micro enterprises	1 410 335
Number of small enterprises	51 129
Number of medium enterprises	16 206
Total turnover of SMEs (€)	225 443
Salaries paid in cash (% of total)	ny in small firms)
Share of grey economic activity (%)	24,4%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,49</b>	<b>19</b>
Potential Purchasing Power Index	0,47	27
Infrastructure and Ecosystem Index	0,58	13
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,58	6
Banking Ecosystem Score	0,78	16
E-Invoicing Index	0,19	20
E-Payment Index	0,70	23

<b>Potential Purchasing Power Index</b>	<b>0,47</b>	<b>27</b>
GDP/capita (€, thousands)	13,394	27
Wage level (€, hourly cost)	8	24
Price level (Relative to EU average, 2012)	57	27
GDP growth (2011-2013)	2,6%	4

<b>E-Invoicing Index</b>	<b>0,19</b>	<b>20</b>
SMEs sending e-invoices in a standard structured format (% share of total)	5%	27
SMEs receiving e-invoices in a standard structured format (% share of total)	25%	14
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	27%	18

<b>E-Payment Index</b>	<b>0,70</b>	<b>23</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	20	

**Factors encouraging e-invoice adoption**

- All VAT has to be done electronically
- VAT change might trigger further development.
- SMEs see everything as a cost and avoid it.

**Typically outsourced accounting processes**

If a company outsources, it outsources everything

Payroll

E-invoicing

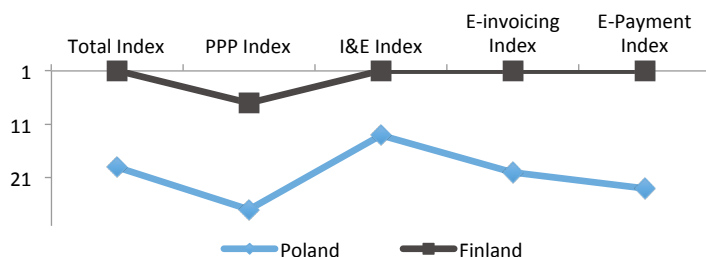
Payments

**Typical way of implementing SME accounting**

Internal (smaller firms)

Insource back inhouse (bigger end of SMEs)

Outsourcing is becoming more expensive

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,58</b>	<b>13</b>
E-invoicing Adoption Score	0,38	11
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,58	6
Level of ERP usage among SMEs	N/A	
Main accounting software offerings (international/local)	Mix	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	No	
Share of accounting software provided directly to SMEs	Low	
Banking Ecosystem Score	0,78	16
Share of non electronic salary payments	0% (there might be)	
Relevance of international banks	High	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	No	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Anytime	

**Factors discouraging e-invoice adoption**

- Everything is on paper, it's culture
- Low awareness of what e-invoicing is
- Invoices need to be on paper and stamped.

**Role of accounting firm for SMEs**

Accountant serves as financial advisor to smaller firms

Some companies prefer minimal services

80% of international companies need additional services

**Top External SME Accounting Service Providers**

Big Four

TMF

Bigger local firms

Trinity

Very fragmented - both foreign and domestic players (tens of Swedish, a lot of German firms)

**Main accounting software offerings for SMEs**

Symfonia (mostly used and taught)  
RAKS  
Microsoft NAV (Navision)

**Top Banks for SMEs**

PKO  
Citibank  
Deutsche Bank (popular in some regions)  
Some regional banks

**Top providers of connectivity services for e-invoicing**

OpusCapita (one of many)

**EESPA compliant operators (four corner model)**

No information

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

In Poland outsourcing is not new, but the traditional approach is to keep the accounting in-house, especially outside Warsaw. Typically, accounting is done by a family member. In Poland, small companies do not need auditing, so it is not done. In the companies that do it, it is done usually to lower the risk of tax controls. Bigger end of SME segment insource back again as outsourcing is becoming more expensive. Production companies keep it internal due to a large number of documents. For smaller companies, the accountant is a financial advisor, CFO in many ways. It can be the only person in the company providing this information. For some companies they do minimum, what's the law requires. International companies 80% need something that is more than minimum, consultation.

Speaking about banking services for SMEs the field is dominated by a few internationals (Citibank, Deutsche Bank; Scandinavian banks are not relevant for the whole country) and PKO -the biggest bank in Poland. There are also some regional banks. With some banks, from the beginning of 2010 and on. All the banks offer interfaces for electronic integration (the question is what tool to use to upload to account systems) but not for e-payment integration.

**Market Information / Key Numbers**

Population	46 610 000
GDP/capita (€)	29 150
Total number of SMEs	2 239 814
Number of micro enterprises	2 103 390
Number of small enterprises	120 940
Number of medium enterprises	15 484
Total turnover of SMEs (€)	461 339
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	19,2%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,65</b>	<b>12</b>
Potential Purchasing Power Index	0,89	15
Infrastructure and Ecosystem Index	0,69	3
E-Invoicing Adoption Score	0,63	4
Accounting Ecosystem Score	0,60	5
Banking Ecosystem Score	0,83	9
E-Invoicing Index	0,20	17
E-Payment Index	0,81	14

<b>Potential Purchasing Power Index</b>	<b>0,89</b>	<b>15</b>
GDP/capita (€, thousands)	29,150	15
Wage level (€, hourly cost)	21	13
Price level (Relative to EU average, 2012)	95	15
GDP growth (2011-2013)	-0,9%	23

<b>E-Invoicing Index</b>	<b>0,20</b>	<b>17</b>
SMEs sending e-invoices in a standard structured format (% share of total)	6%	25
SMEs receiving e-invoices in a standard structured format (% share of total)	26%	13
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	29%	15

<b>E-Payment Index</b>	<b>0,81</b>	<b>14</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	98%	
Average B2B payment delay, days	25	

**Factors encouraging e-invoice adoption**

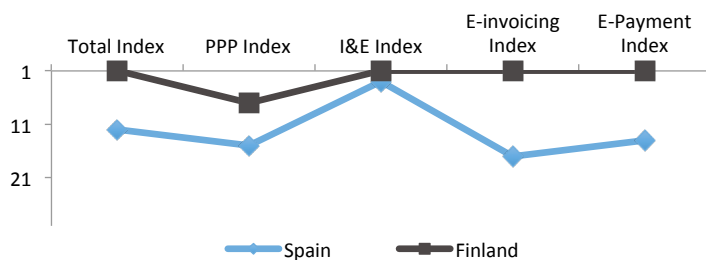
N/A

**Typically outsourced accounting processes**

Accounts Payable  
Accounts Receivables  
General Ledger  
Payroll

**Typical way of implementing SME accounting**

Accounting Firm

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,69</b>	<b>3</b>
E-invoicing Adoption Score	0,63	4
Is e-invoicing mandatory in the public sector?	Yes	
Influence of supply chain leaders on e-invoicing adoption	Moderate	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	
Accounting Ecosystem Score	0,60	5
Level of ERP usage among SMEs	N/A	
Main accounting software offerings (international/local)	N/A	
Number of accounting processes that tend to be outsourced	High	
Accounting firm has a partner role to an SME	No	
National standard for chart of accounts exists	Yes	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	Low	
Banking Ecosystem Score	0,83	9
Share of non electronic salary payments	0%	
Relevance of international banks	Low	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Yes	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	SEPA	
How frequently can account statement be retrieved	Daily/Weekly	

**Factors discouraging e-invoice adoption**

- Security concerns
- Regulation issues

**Role of accounting firm for SMEs**

Basic accounting  
Solve bureaucratic work  
Fulfill legal duties  
No consultancy role

**Top External SME Accounting Service Providers**

Very fragmented

**Main accounting software offerings for SMEs**

N/A

**Top Banks for SMEs**

Traditional commercial banks:

- Santander
- BBVA

Former Saving and loans regional banks, now consolidated:

- Caixa
- Bankia

**Top providers of connectivity services for e-invoicing**

Edicom

**EESPA compliant operators (four corner model)**

No information

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

For Spain, a medium level of ERP usage was reported. Moreover, all issues related to software integration with banks are handled by the accounting firms.

Small enterprises limit their accounting activities to those that are required by law. In general, accounting firms do basic accounting, solving bureaucratic work and, fulfilling legal duties. As a rule, they do not provide any consulting role. Accounting firms are in general small and specialize in the same type of SMEs.

Most of the companies do not use auditors. The companies that use auditors do it only when partnering with another firm is considered or to increase transparency to be eligible for public funds. In the Spanish market the roles of auditor and advisor is usually different, and auditing is seen only as a cost. Advisory is left to a consulting firm. The auditing is done only for the purpose of increased transparency in situation where a partnership is considered.

## Sweden

## RTE Readiness Index:

0,82 / 4

### Market Information / Key Numbers

Population	9 595 000
GDP/capita (€)	57 909
Total number of SMEs	631 790
Number of micro enterprises	599 821
Number of small enterprises	27 354
Number of medium enterprises	4 615
Total turnover of SMEs (€)	169 077
Salaries paid in cash (% of total)	0%
Share of grey economic activity (%)	14,3%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,82</b>	<b>4</b>
Potential Purchasing Power Index	1,54	4
Infrastructure and Ecosystem Index	0,67	5
E-Invoicing Adoption Score	0,50	8
Accounting Ecosystem Score	0,67	4
Banking Ecosystem Score	0,83	7
E-Invoicing Index	0,23	14
E-Payment Index	0,84	6

<b>Potential Purchasing Power Index</b>	<b>1,54</b>	<b>4</b>
GDP/capita (€, thousands)	57,909	5
Wage level (€, hourly cost)	40	2
Price level (Relative to EU average, 2012)	129	4
GDP growth (2011-2013)	1,8%	8

<b>E-Invoicing Index</b>	<b>0,23</b>	<b>14</b>
SMEs sending e-invoices in a standard structured format (% share of total)	21%	3
SMEs receiving e-invoices in a standard structured format (% share of total)	18%	25
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	29%	15

<b>E-Payment Index</b>	<b>0,84</b>	<b>6</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	100%	
Average B2B payment delay, days	7	

### Factors encouraging e-invoice adoption

Positive:  
Public sector have built up numbers of buyers so it is "worth it" for SME's to use E-invoice  
Svefaktura message format very much used and most System vendors have modules for E-invoice/Svefaktura  
Banks have SME support for E-invoice in Netbanks

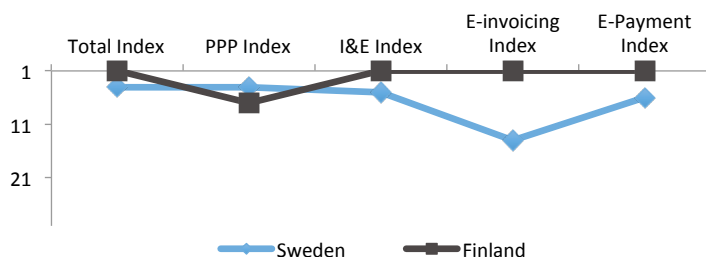
### Typically outsourced accounting processes

N/A

### Typical way of implementing SME accounting

Accounting firm

### Rank Comparison with Finland



	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,67</b>	<b>5</b>
E-invoicing Adoption Score	0,50	8
Is e-invoicing mandatory in the public sector?		No
Influence of supply chain leaders on e-invoicing adoption		High
Freedom of Evidence. Council Directive 2010/45/EU		Yes
Level of adoption of structured e-invoices		Low
Accounting Ecosystem Score	0,67	4
Level of ERP usage among SMEs		N/A
Main accounting software offerings (international/local)		International
Number of accounting processes that tend to be outsourced		N/A
Accounting firm has a partner role to an SME		N/A
National standard for chart of accounts exists		N/A
Standardized format for e-archiving exists		No
Storage in another EU country is allowed		Yes
Share of accounting software provided directly to SMEs		High
Banking Ecosystem Score	0,83	7
Share of non electronic salary payments		0%
Relevance of international banks		Moderate
Banks offer electronic account statements		Some banks
Banks offer electronic integration		Some
Banks offer interfaces for integration of e-payments		Yes
Year of e-banking introduction to SMEs		1990s
Standard bank payment reference code		Yes
Electronic account statement format for top banks		Non-SEPA
How frequently can account statement be retrieved		Anytime

### Factors discouraging e-invoice adoption

Negative:  
Still a bit cumbersome for a SME to choose operator and technique in the start-up phase  
Still it is difficult to find out which of your business partners are "E-invoice enabled" (no public register like Tiekies in Finland) and setting up the message flow.

### Role of accounting firm for SMEs

N/A

### Top External SME Accounting Service Providers

Trend: bigger firms acquire smaller firms  
Big Four-type firms  
Small accounting firms in smaller cities (personal relationships are valued)

#### Main accounting software offerings for SMEs

Visma SPCS (client on premises, the biggest)  
FortNox CloudService (the only cloud-based)  
HOGIA Systems  
Pyramide  
Jeeves

#### Top Banks for SMEs

Svedbank (SME) (formar Spar, local profile)  
Handelsbank (local profile)  
Nordea

#### Top providers of connectivity services for e-invoicing

Tieto  
CGI  
Inexchange  
Opus Capita  
Strålfors  
Evry  
Reedsoft/Experts systems

#### EESPA compliant operators (four corner model)

In Sweden more or less all. you have to. One thing is to comply. Another thing is how you live according it. All operators have agree, enmtn. 99%. Also e-trade. Difference between Finland and Sweden. It seems that in e-trade when you send orders and order responses, it's a 3 corner in Finland, but not in Sweden. Less number of service providers but it's a 4 corner. Oldest e-invoice operators (since 1990 SGI, Tieto, Opus, Strollfosh (PostNord), Evry (Norwegian).

#### Banking connectivity platforms (iPaaS)

Tieto (all e-invoices for SvedBank)  
Bank Jiro (payments and e-invoices for other banks)

#### Industries requiring SME integration to supply chain

N/A (Goal for the Phase II of the research project)

#### Interview observations

In the accounting industry there is a trend of bigger firms buy smaller firms. Big Four-type of firms grow through such acquisitions and target SMEs. In the mid size cities personal relationships with an accounting firm are important, there are small firms that are based on relationships. It is also very common to buy off-the-shelf solutions, for example Visma SPCS. Auditing is seen only as a cost and it is not common for auditors to provide value adding services.

The situation with interfaces for electronic integration is different from bank to bank. Banks do offer e-payment interfaces for integration. Most commonly, SMEs send payments (domestic payment format) to bank where the payments are processed and sent to bank Bank Jiro. Banks try to get it directly to their systems and that will allow them to have add ons in the netbanks. Nordea owns PlusJiro, a clearing house for domestic payments. Clear trend – banks want to leave this set up and have all payments to themselves and offer better service, account statements, status on payments etc.

In Sweden more or less all operators comply with the four-corner model. The difference between Finland and Sweden is that in Sweden four-corner model is also applied to e-trade, while it seems that in e-trade when you send orders and order responses, it's a 3 corner in Finland. The oldest e-invoice operators are in business since 1990s, examples are SGI, Tieto, Opus, Strollfosh (PostNord), Evry (Norwegian).

Public sector drives the market in e-invoicing and e-trade. At the same time in the public sector e-invoicing is soft mandatory, that is, public sector should receive and send e-invoices, but if someone wants to send paper invoice then that is also acceptable. In the private sector mandating the use of e-invoicing is very common. There are two sides – (2) big buyers who see it as efficiency and cost cut (demand from suppliers), and (2) supplier side - you need to keep your relationship with important suppliers. In utilities and telcos sectors it is common. Then, there are lot of industry communities (car, construction) which chose their own solutions for doing their business. Their practices are a little different but now you can interact using standards SveaFactura (simple invoice message format, owned by the Swedish state and is very common, especially when there are orderless invoices its common to interaction between buyers and supplier). On the B2CSweden is ahead of Finland, and in B2B Sweden is trying to catch up.

**Market Information / Key Numbers**

Population	8 075 000
GDP/capita (€)	81 324
Total number of SMEs	311 521
Number of micro enterprises	262 763
Number of small enterprises	41 480
Number of medium enterprises	7 278
Total turnover of SMEs (€)	805 719
Salaries paid in cash (% of total)	2%
Share of grey economic activity (%)	7,6%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,74</b>	<b>6</b>
Potential Purchasing Power Index	1,54	5
Infrastructure and Ecosystem Index	0,63	7
E-Invoicing Adoption Score	0,38	11
Accounting Ecosystem Score	0,58	6
Banking Ecosystem Score	0,94	3
E-Invoicing Index	0,24	12
E-Payment Index	0,54	27

<b>Potential Purchasing Power Index</b>	<b>1,54</b>	<b>5</b>
GDP/capita (€, thousands)	81,324	3
Wage level (€, hourly cost)	0	#N/A
Price level (Relative to EU average, 2012)	160	1
GDP growth (2011-2013)	1,6%	9

<b>E-Invoicing Index</b>	<b>0,24</b>	<b>12</b>
SMEs sending e-invoices in a standard structured format (% share of total)	14%	N/A
SMEs receiving e-invoices in a standard structured format (% share of total)	27%	N/A
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	32%	N/A

<b>E-Payment Index</b>	<b>0,54</b>	<b>27</b>
SEPA implemented	Yes	
ISO 20022 implemented	Partially	
Share of SEPA transactions among all transactions	0%	
Average B2B payment delay, days	9	

**Factors encouraging e-invoice adoption**

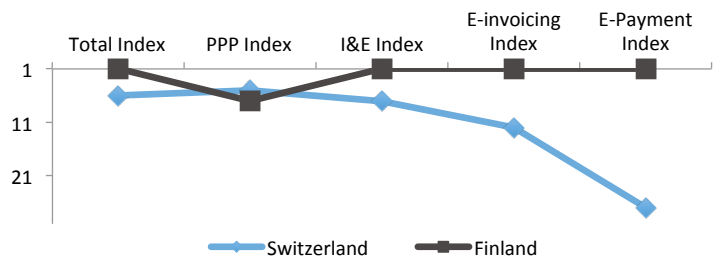
- Big companies demand structured e-invoices, not just PDFs

**Typically outsourced accounting processes**

General Ledger  
Payroll

**Typical way of implementing SME accounting**

Accounting Firm

**Rank Comparison with Finland**

	Score	Rank
<b>Infrastructure and Ecosystem Index</b>	<b>0,63</b>	<b>7</b>

<b>E-invoicing Adoption Score</b>	<b>0,38</b>	<b>11</b>
Is e-invoicing mandatory in the public sector?		No
Influence of supply chain leaders on e-invoicing adoption		Moderate
Freedom of Evidence. Council Directive 2010/45/EU		Yes
Level of adoption of structured e-invoices		0

<b>Accounting Ecosystem Score</b>	<b>0,58</b>	<b>6</b>
Level of ERP usage among SMEs		High
Main accounting software offerings (international/local)		Mix
Number of accounting processes that tend to be outsourced		Small
Accounting firm has a partner role to an SME		No
National standard for chart of accounts exists		Yes
Standardized format for e-archiving exists		No
Storage in another EU country is allowed		Yes
Share of accounting software provided directly to SMEs		High

<b>Banking Ecosystem Score</b>	<b>0,94</b>	<b>3</b>
Share of non electronic salary payments		2%
Relevance of international banks		High
Banks offer electronic account statements		All banks
Banks offer electronic integration		Yes
Banks offer interfaces for integration of e-payments		Yes
Year of e-banking introduction to SMEs		2000s
Standard bank payment reference code		Yes
Electronic account statement format for top banks		Non-SEPA
How frequently can account statement be retrieved		Anytime

**Factors discouraging e-invoice adoption**

- Implementation is too expensive and complex for low invoice volume
- Paper invoices are cheap enough
- Requires changes in processes, e.g. in archiving etc.
- No incentive unless it is mandatory
- Conversion between e-invoicing formats is a big issue (EDI is not)

**Role of accounting firm for SMEs**

Extensive bookkeeping  
Very important consulting role:  
- profitability  
- financial processes  
- software implementation

**Top External SME Accounting Service Providers**

Very fragmented  
BDO  
~ 900 small service providers

Main accounting software offerings for SMEs	Top Banks for SMEs
Acabus Sage SAP BusPro SQL Ledger ProFix	Raiffeisen Migros Bank UBS Credit Suisse Several local cantonal banks
Top providers of connectivity services for e-invoicing	EESPA compliant operators (four corner model)
Swisscom SIX Payment Services B2Bnet PostFinance STEPcom Pentag	Swisscom SIX Payment Services B2Bnet PostFinance STEPcom Pentag
Banking connectivity platforms (iPaaS)	Industries requiring SME integration to supply chain
No intermediaries are necessary	N/A (Goal for the Phase II of the research project)

## Interview observations

For Switzerland, a high level of ERP usage among SMEs was reported, with about 80% of SMEs estimated to use ERPs. Many smaller firms only have an accounting program without additional functionalities.

An important factor encouraging e-invoicing among SMEs is big companies' propensity to demand structured e-invoices, not just PDFs from their supplier. However, e-invoicing is not generally deemed to be a significant cost factor, as paper invoices are cheap enough. Furthermore, the required changes in company practices associated with e-invoicing implementation induce additional costs. Also the use of EDIs may be a hindering factor. It is not, however, necessarily the biggest hindering factor, as the conversion between e-invoicing formats is what is believed to require the most efforts. All in all, it appears that the Swiss SMEs do not currently have incentives to implement e-invoicing (unless it is made mandatory).

E-invoicing usage has increased lately in Switzerland, and there are government efforts, part of an e-government project, to mandate its use. Also some powerful supply chain leaders, such as the largest retailers, have successfully enforced e-invoicing. E-invoice providers often have their own formats – SAP IDoc is most often used when converting formats.

The accounting and banking environment in Switzerland is very developed. There is a standard for the chart of accounts (Swiss GAAP), banks offer electronic integration, electronic payment interfaces and electronic account statements. The payment interface is standardized and very integrated. Thus, no third party banking connectivity service providers are necessary in the market. E-banking was introduced well over 10 years ago, and a standardized payment reference code ("ESR") has been in use for a long time.

The role of an accounting firm for SMEs in Switzerland is extensive: its responsibilities may range from all the bookkeeping tasks all the way into business consulting, including profitability and financial analyses and software (most of the time a third party) implementation. Indeed, the SMEs often have a long-lasting contract with a so-called "trustee".

## United Kingdom

## RTE Readiness Index:

0,68 / 11

### Market Information / Key Numbers

Population	64 097 000
GDP/capita (€)	39 567
Total number of SMEs	1 666 725
Number of micro enterprises	1 495 648
Number of small enterprises	145 350
Number of medium enterprises	25 727
Total turnover of SMEs (€)	676 512
Salaries paid in cash (% of total)	early care markets
Share of grey economic activity (%)	10,1%

	Score	Rank
<b>RTE Readiness Index</b>	<b>0,68</b>	<b>11</b>
Potential Purchasing Power Index	1,08	13
Infrastructure and Ecosystem Index	0,63	8
E-Invoicing Adoption Score	0,50	8
Accounting Ecosystem Score	0,50	11
Banking Ecosystem Score	0,89	5
E-Invoicing Index	0,17	25
E-Payment Index	0,83	8

<b>Potential Purchasing Power Index</b>	<b>1,08</b>	<b>13</b>
GDP/capita (€, thousands)	39,567	13
Wage level (€, hourly cost)	21	14
Price level (Relative to EU average, 2012)	117	8
GDP growth (2011-2013)	1,0%	14

<b>E-Invoicing Index</b>	<b>0,17</b>	<b>25</b>
SMEs sending e-invoices in a standard structured format (% share of total)	11%	14
SMEs receiving e-invoices in a standard structured format (% share of total)	18%	25
SMEs sending OR receiving e-invoices in a standard structured format (% share of total)	23%	25

<b>E-Payment Index</b>	<b>0,83</b>	<b>8</b>
SEPA implemented	Yes	
ISO 20022 implemented	Yes	
Share of SEPA transactions among all transactions	95%	
Average B2B payment delay, days	16	

### Factors encouraging e-invoice adoption

Factors that encourage: in SMEs they do a lot of PDF, a large use of electronic paper or PDF. For truly einv, the main reason is that the buyer requirement. Largest motivating cause. If you stop doing it, you may have a problem getting paid unless u find a hannel to buyers systems. You need to have incentive knowing that the buyer is prepared to receive. Buyer-led market, they organize it. 1. Satisfy the buyer.

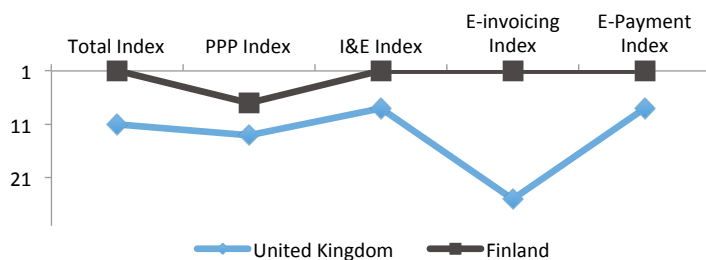
### Typically outsourced accounting processes

Mostly accounting is kept in-house  
Accounting and tax are outsourced together

### Typical way of implemeting SME accounting

Internal

### Rank Comparison with Finland



### Infrastructure and Ecosystem Index

E-invoicing Adoption Score	0,50	8
Is e-invoicing mandatory in the public sector?	No	
Influence of supply chain leaders on e-invoicing adoption	High	
Freedom of Evidence. Council Directive 2010/45/EU	Yes	
Level of adoption of structured e-invoices	Low	

Accounting Ecosystem Score	0,50	11
Level of ERP usage among SMEs	Low	
Main accounting software offerings (international/local)	International	
Number of accounting processes that tend to be outsourced	Low	
Accounting firm has a partner role to an SME	Yes	
National standard for chart of accounts exists	N/A	
Standardized format for e-archiving exists	No	
Storage in another EU country is allowed	Yes	
Share of accounting software provided directly to SMEs	N/A	

Banking Ecosystem Score	0,89	5
Share of non electronic salary payments	Happens in self-	
Relevance of international banks	High	
Banks offer electronic account statements	All banks	
Banks offer electronic integration	Some	
Banks offer interfaces for integration of e-payments	Yes	
Year of e-banking introduction to SMEs	1990s	
Standard bank payment reference code	No	
Electronic account statement format for top banks	Non-SEPA	
How frequently can account statement be retrieved	Anytime	

### Factors discouraging e-invoice adoption

- Need to create e-invoices of special standards
- Installation of software (a disincentive).
- E-invoice operators can transform any data into an e-invoice easily.

### Role of accounting firm for SMEs

Advisory and consultancy are common

### Top External SME Accounting Service Providers

Very fragmented

**Main accounting software offerings for SMEs**

Sage Instant Accounts  
QuickBooks  
Business Accountz  
Xero

**Top Banks for SMEs**

All major banks  
Lloyds might be the biggest for SMEs

**Top providers of connectivity services for e-invoicing**

Tangsten Network (previously OB10)  
Ariba  
Bassware  
RBS (unique among banks in working with e-invoicing)  
Causeway (construction business)  
Tradeshift (small but growing)

**EESPA compliant operators (four corner model)**

All

**Banking connectivity platforms (iPaaS)**

N/A

**Industries requiring SME integration to supply chain**

N/A (Goal for the Phase II of the research project)

**Interview observations**

Impression is that accounting outsourcing is quite low and it is mostly done internally. Auditing is required. If accounting is outsourced, so will be the tax. Most done themselves. Advisory and consultancy are common. The market of accounting services is very fragmented, accounting firms are small.

All of the major banks in the UK are active in the SME segment. Lloyds would claim to be bigger than most for SMEs. All banks offer electronic banking services and interfaces for e-payment integration. The integration itself is up to software.

Connectivity is important but there is much more to that service. The main operators are Tangston Network (used to be OB10), other operators Ariba, Bassware, RBS (as a bank does some invoicing and is unique in that), Causeway (construction business). Tradeshift (small but growing). All are compliant with the four corner model.

E-invoicing in the public sector is beginning to grow, but still in early days. The government is going to implement (obliged by the EU directive). The about e-invoicing is in the context of e-procurement. Some people say it should be integrated and some want to do it separately. Purchase-to-order might be the last process. A lot of people would argue, however, against the idea of waiting until e-procurement is perfected. In private sector, the development in e-invoicing is dominated by large multinational corporations. Some industries are ahead – automotive (EDI), Pharma, Hi Tech, consumer retail.

Speaking about e-invoicing standards, people don't use them much. The required data is simply delivered to the service provider. They create the required format. Standards are growing. Even if you give a printed unstructured invoice. The service expectation is that turning it into a structured invoice is not a problem. Some service providers expect a structured message from supplier – which is asking too much.