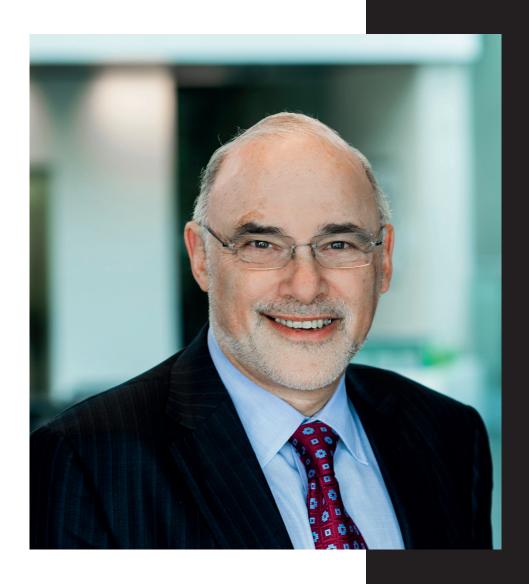


# **FOREWORD**



We live in a digital, connected and collaborative world. The internet and digital tools transform our everyday life. But citizens, businesses and governments cannot fully benefit from the digital opportunities due to existing barriers in Europe.

Europe is lacking behind. Therefore, it was timely when the Juncker-led Commission coined the Digital Single Market with an ambitious strategy to create the necessary regulatory and investment environment in Europe. It allows European-based companies in the digital sector to grow larger on a global scene.

A seamless Digital Single Market also calls upon seamless public administration and cross-border eGovernment solutions. We need to learn from best practices and success stories in the Member States.

One of the success stories is about Digital Denmark. Denmark has been at the forefront of using digital tools in the public sector to make the services accessible, better and efficient.

The aim of this White Paper is to show the potential of eGovernment in Europe and to put the experience of the Danish approach to digitization into play in a European context. Furthermore, the digitization of the public sector in Denmark has also created a few champions in Denmark. Among those champions is KMD A/S. It has been a key player for more than 40 years in developing and delivering Digital Denmark.

Léo Apotheker,

Chairman of the Board, KMD A/S and Member of the European Cloud Partnership

# UNLOCKING THE POTEN-TIAL OF eGOVERNMENT

It's time to make the EU's single market fit for the digital age – tearing down regulatory walls and moving from 28 national markets to a single one. This could contribute €415 billion per year to our economy and create hundreds of thousands of new jobs.

#### Andrus Ansip,

#### Vice-President in the European Commission

In today's Europe, citizens are free to work in and re-locate to any country within the European Union, and enterprises are similarly free to trade and carry out business. Operating across borders, citizens or businesses frequently have to interact with Member States' administrations. However, 28 different regulations and lack of interoperability of eGovernment solutions give rise to electronic barriers.

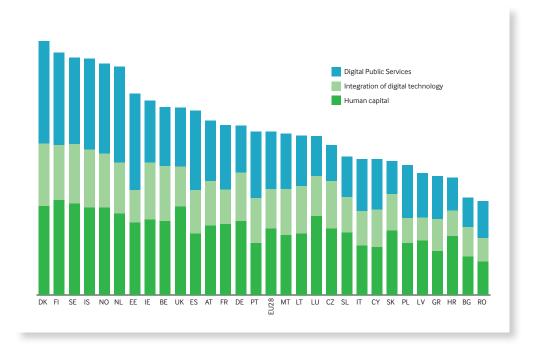
A *Digital Single Market* is necessary for Europe to realize its potential to lead in the global digital economy. As of now, fragmentation and barriers that do not exist in the physical Single Market are holding digital Europe back.

According to the newest calculations, bringing down the digital barriers within Europe could contribute an additional €415 billion to the European GDP by expanding markets, fostering better services at better prices, offer more choice and create new sources of employment¹.

This White Paper look into and analyzes the potential of interoperable standards and eProcurement solutions within Europe and puts the experiences of the Danish approach into play in a European context. Public Procurement represents 20% of EU's GDP. The potential savings is estimated to around €50-75 billion a year.

#### **DIGITAL DENMARK**

According to the recent EU-study DESI (The Digital Economy and Society Index), Denmark is the most digital country in the union<sup>2</sup>.



<sup>&</sup>lt;sup>1</sup> COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS – A Digital Single Market Strategy for Europe

 $<sup>^{2}</sup>$  The Digital Economy and Society Index - https://ec.europa.eu/digital-agenda/en/des/  $^{2}$ 

Denmark has a long tradition of digitization and has been ranked as world-leading and trendsetting in several international surveys<sup>3</sup>. Denmark's position as a digital frontrunner comes from a dedicated strategy to create Digital End-to-End Services, One Stop Shops and transparency, as well as the deployment of the Once-Only-Principle and the utilization of Open Data. Furthermore, the Danish model for digitization has succeeded due to a long tradition of public-private partnerships and a high level of trust and regulation.

We do not believe that EU or any of the 28 Member States could just copy the Danish approach. Different political cultures, local regulations, trust in the public sector and data privacy etc. across the different Member States all has an effect on the digitization strategies and the actual level of digitization.

### **ePROCUREMENT BARRIERS**

Digitizing the Supply Chain as well as administrative functions has been an ongoing task for decades. Document Standards started to develop in the Shipping industry in the early 1960's. EDI as a more generic standard was initiated in 1975 by the first EDI standard published by The Transportation Data Coordinating Committee and the first VANS (Value Added Network Services) company — Telenet was established the same year. In 1981 ANSI X.12 was established and UN launched EDIFACT in 1985. A very long list of competing data formats and transportation solutions have been around since and today we must realize the amount of competing and non-interoperable solutions are still growing.

The reason for the continuous growth of both competing and non-interoperable solutions is that the potential for savings and rise in efficiency is enormous. The potential power and profit fosters strong drivers for building new solutions and services based on either new technology, specific business sectors or simply the political or profitable potential.

As of today, we are looking into a wide-reaching and exhaustive amount of competing standards, networks, solutions etc.. In fact, all of these are reducing the value of EDI/eCommerce/Business-to-Business-to-Government/eSupply Chain. Branding and other marketing approaches have led to a confusing library of different words for the same solution or service and selecting the right solution is no longer an easy task for a SME or an enterprise.

To fight these barriers it is necessary to move past the debate about data formats (EdiFact vs. X.12 vs. XML) and focus on business procedures and business needs. To do so is not straightforward as we have to understand that huge financial interests are competing in this market.

A significant value of eProcurement is enablement of transparency and improved VAT recognition. Both are very important improvements seen from a public sector perspective, but at the same time there are forces in the market, working in other directions. Countries having issues with corruption, VAT fraud and nepotism will face barriers to implement transparency. The only solution for this barrier is legislation. However, legislations also happen to be a barrier. Despite of the current EU Directives there is not established common rules for elnvoices in Europe. Individual Member State legislations serves as barriers for cross boarder trading, for instance in Austria where a paper based summary of elnvoices still is required.

<sup>&</sup>lt;sup>3</sup> OECD – Value for Money in Government – Building on Basics – 2015

# EU'S POLITICAL ePROCUREMENT APPROACH

The European Commission has highlighted the importance of eProcurement as a part of driving greater efficiency in public sector organizations. eProcurement solutions has already demonstrated savings for public organizations between 5-20%. Based on the current spend, and with just a 5% saving, this would result in €100 billion per year according to the European Commission.

The goal of the European Commission is "to take eProcurement to a stage where users are offered services that allow for Europe-wide tendering processes and support for electronic ordering and invoicing across countries, regions and sectors. eProcurement is listed as one of five highly prioritized cross-border digital public services of vital importance for the Digital Single Market<sup>4</sup>." There are several underlying pains for the digitization initiative related to the field of eProcurement.

Firstly, the European Commission is concerned about the competitiveness of European SME's, which is too low, compared to USA and Asia. The European Commission wants to improve the competitiveness of the European SME's by digitization. A problem though, is that the European Commission cannot force the SME's to be digital. Instead, their focus is on Public Procurement, as a large amount of European SME's do business with the public sector or have public clients. Streamlining Public Requirements in Procurement will therefore empower the SME's (and larger companies) enabling eCommerce solutions. Lessons learned from local Public eProcurement projects, proves that the Data Formats and the eDelivery protocol will spread fast to the Business-to-business environment.

Secondly, currently when a Public Institution runs a Tender according to the EU Tender Process, bids from vendors residing in another European country are a very rare. EU wants to make it much easier for SME's and other companies to attend cross boarder tendering. The will create stronger SME's and better solutions and pricing for the Public Procurement.

Public Procurement represents 20% of EU's GDP or approximately € 2.400 billion per year<sup>5</sup>. The potential savings differs from €50 billion per year (Gartner Group) to €75 billion per year plus the added value of Transparency (Deutsche Bank Research). Savings come from the elnvoicing process costs, where 50-80% of the cost can be saved by a full digitized process (Billentis). Savings also comes from transparency, where a Digital Tender process will reduce corruption, nepotism and similar reasons for awarding a certain vendor the contract. Digital Pre-Awarding processes will implement transparency where the best and cheapest supplier will be awarded the contract.

Mandating Public eProcurement will force the Private sector to go digital. It is estimated that 45-65% of all European companies has Public Clients. Due to the high amount of business-to-government relationships, we can expect the technical solution for business-to-government also to be used in business-to-business trading and relationships. This expectation is underlined by the fact that the Danish business-to-government solution NemHandel. Today NemHandel is commonly used in business-to-business eCommerce in Denmark. All in all, from a political perspective Public eProcurement can:

- 1. Raise the competitiveness among European SME's by improved efficiency and access to the Single Market,
- 2. Allow for more and better bids to Public Tenders,
- 3. Reduce Public Sector costs.

### MANDATORY ePROCUREMENT SOLUTIONS IN DENMARK

Denmark has come a long way when it comes to the implementation of eProcurement tools.

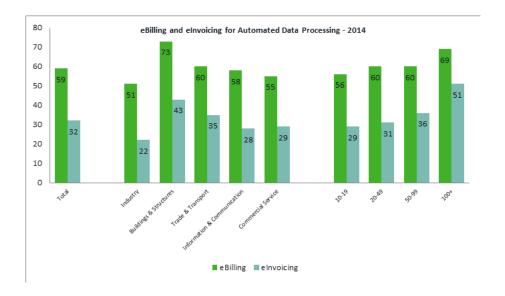
elnvoicing was mandated in Denmark in 2005, with 100% Public elnvoicing by day one. To support SME's, a government sponsored Scanning Service was established. This service offered SME's conversion from Paper invoice to elnvoice with no charge. The Scanning Service would scan the invoice and build a XML invoice. This invoice was sent to the actual receiver. At the same time, elnvoicing was established in most Danish municipalities, as well as in many other public institutions like for instance high schools, group homes for trouble youngster or disabled people etc.

<sup>\*</sup>Http://www.esens.eu/real-life-piloting/e-procurement/
\* European Commission, How to support SME Policy from Structural Funds – Public Procurement as a Driver of Innovation in SMEs and Public Services

As the Danish legislation forced all invoices from Danish suppliers to be electronic immediately, the savings was approximately €30 million per year.

The Governance of this elnvoicing environment was handled by the Danish Agency NITA (National IT and Telecom Agency). KMD was, and still are, a major contributor developing architecture and services for NITA or their inheritors The Agency for Digitisation. The later NemHandel (Easy-Trade) was the basis for the PEPPOL development headed by the CEN Workshops. Today KMD is contributing to the CEN standardization processes on elnvoicing (CEN PC434) and eProcurement (CEN PC440), while KMD has also joined the European Einvoicing Service Provider Association (EESPA) where the European elnvoicing Service Providers are working together to enable interoperability for eBilling and elnvoicing.

Today we see that the private sector have adapted the Public elnvoicing solution. Statistics Denmark have released following measurement in the "Danish companies use of IT, 2014":



We notice that 59% of the Danish companies are using eBilling, while 32% are using elnvoicing. More important is that the difference between SME's and large companies are low when it comes to eBilling (56% vs. 69%). Adoption of elnvoicing still lacks at the SME's (29% vs. 51%).

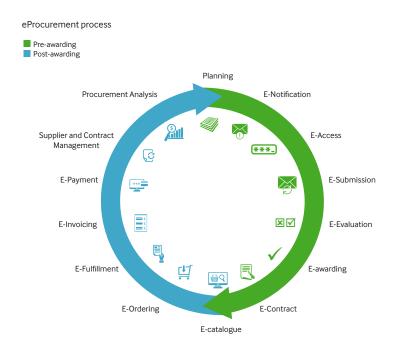
## THE KMD DELIVERABLES

The KMD Interoperability Services Portfolio supports Procure-to-Pay, Order-to-Cash, and Financial Supply Chain Management processes. In fact, the same portfolio delivers infrastructure services in the Danish Health Care sector. This environment handles more than 20 million messages/transactions every month.

The important achievement is the bridging between a very long list of different IT implementations. KMD Supply Chain Management Services delivers interoperability by bridging many different networks and infrastructures (ie. VANS, X.400, eMail, PEPPOL, NemHandel, TGMS, AS2, etc.) and bridging the different data syntaxes (EDIFACT, UBL, OIOXML, SVEFAK, CSV, PEPPOL BIS etc.). As an example, this portfolio enables our SAP based clients to stick to the IDOC formats in their IT landscape, while KMD Supply Chain Management Services will convert to/from a very long list of public and proprietary standards.

The eProcurement Service have been a core deliverable from KMD for decades, where a long list of municipalities are using the KMD eProcurement Service.

Another important achievement is the Procurement Analysis where KMD is a leading supplier and partner for the public sector when it comes to analyzing procurements and planning the next tender. Recently KMD has joined forces with SAS Institute, thereby establishing a significant presence in the Nordic market.



### KMD UNLOCKING THE DIGITAL SINGLE MARKET

The proven track record of KMD and the daily experiences from our business-to-business and business-to-government interoperability tasks gives KMD strong domain knowledge within this area. As it has already been illustrated KMD has worked with different Danish agencies and are on a daily basis working and cooperating with the private sector on solving issues in both eBilling and elnvoicing scenarios.

When the European Commission is setting the eProcurement agenda, KMD can identify that daily experiences with the market can deliver important inputs for setting up rules, giving advice, creating roadmaps, participating in workshops etc..

KMD sees several opportunities to add our domain knowledges, experiences and skills to the European eProcurement Project. In the following we will present our thoughts on some of the challenges that EU faces with the European eProcurement Project. Data Quality Management is one of the focus areas for KMD. When a high amount of business documents is digitized to initiate automatic or semi-automatic procedures, the focus on data quality is very important. Poor data will generate a high amount of disputes. A high amount of disputes will spoil the savings and will generate a negative approach in the market to the elnvoicing solution. Looking into the potential of 25 billion invoices per year, we would face major issues if just 10% of the elnvoices leads to a dispute. The business case for an effective Data Quality Management solution is obvious. On the Danish market, KMD has a clear footprint on technologies, procedures, skills and on organizing the elnvoicing 1st and 2nd line service.

Achieving cross-border interoperability is challenging, especially when it comes to the data syntax and semantics. Even though a particular standard is required, deviations to the standards will continue to develop when the eBilling community puts data in different places and might even add their own tags. These deviations pose a threat to the automated procedures required by the European Commission. KMD has many years of experience dealing with such issues.

Another aspect to achieving cross border interoperability is eDelivery. No matter the EU recommendation, we will see that the individual countries eProcurement implementation will support local eDelivery infrastructures side by side. This means that there is a need for Data Quality Management when the input to the elnvoicing process comes from many sources and in different syntaxes and semantics. For a leading EDI Service Provider like KMD, it is everyday business to work with a series of different eDelivery solutions in a broker environment in order to deliver a "One Network, One Data Format"-service to our clients.

In the following we will present specific active EU initiatives to improve cross-border interoperability within the area of eProcurement where KMD sees an opportunity to contribute:

- The ISA programme action 1.6 to 1.19 "Developing electronic procurement for Europe". Not only can KMD support the ISA action with our domain knowledge and skills, but we also have the strength to design and develop the Building Blocks in focus. KMD's strong reputation supporting the Governance of the Danish eProcurement environment, NemHandel, gives us the platform where the European development can utilize actual experiences.
- KMD have a special focus on the ISA programme action 1.15 "Making administrative data available for reuse". KMD has a strong footprint in Denmark, delivering the Data Distribution Platform presented in the Master Data-section. KMD's close to 45 year long history is paved with stories of data sharing, and often data covered by strong regulations from personal data protection legislations. Based on our long history, KMD can contribute to the European development with our domain know-ledge and skills in several areas.
- \_ KMD also have focus on the ISA programme action 1.22 "Big Data and Open Knowledge for Public Administrations". Based on the strong KMD footprint in Denmark and the Nordics on Procurement Analysis being the basis for improved quality of Tenders, KMD can help unlock the huge saving potential in these processes and procedures in Europe.

Lastly, improvement of eProcurement is a cornerstone of the Digital Single Market-strategy. However, KMD's experiences also demonstrate that unlocking the potential of eProcurement when it comes to efficiency, carbon footprint, process costs, lead times etc. is very important achievements. For many years, KMD has demonstrated innovative skills and services within procurement analysis. Just recently, KMD have launched a collaboration with SAS International to the Scandinavian market. Therefore, where the focus of the EU initiatives is on eProcurement processes and the tooling itself, KMD can also offer Procurement Analysis as well. This can offer insight information that can improve tenders and offer a dashboard that show the development within areas as cross-border, carbon footprint, supplier quality etc..



#### **SUBJECT EU'S AMBITION/PLAN** THE DANISH MODEL **KMD PROVIDES PROCUREMENT eProcurement** To take eProcurement to a stage Denmark has come a long way when where users are offered services it comes to the implementation of Managed Service Offering for a that allow for Europe-wide tendering eProcurement tools. complete eProcurement solution processes and support for electronic **Procurement Analysis** ordering and invoicing across coun-E.g. elnvoicing was mandated in tries, regions and sectors. Denmark in 2005, with 100% public eCatalogue Services elnvoicing by day one. Application Infrastructure NemHandel (EasyTrade) was the eDelivery support basis for the Peppol development. Multichannel support where the eProcurement solution can benefit from several eDelivery networks and several document standards (data conversion) Onboarding Services for Suppliers



# ABOUT KMD IT WITH INSIGHT

KMD's position as one of Denmark's leading IT and software companies is founded on insight – insight rooted in Denmark's public sector but now also being applied in the private sector.

For more than 40 years, KMD has played a key role in digitizing the Danish welfare state, helping make Denmark's public sector one of the best run, most efficient and highly digitized in the world.

The majority of our business revolves around software development, as we create and deliver IT solutions for local government, central government and private markets. KMD is one of Denmark's largest IT companies. KMD employs more than 3,500 employees and generated revenues of approximately EUR 650 million in 2015. KMD is majority-owned by equity firm Advent International, while Danish pension fund Sampension and KMD's management hold the remainder of its stock.

FOR MORE INFORMATION PLEASE CONTACT:

EU Affairs Manager, Anne Juel Jørgensen +45 4187 0275 ajj@kmd.dk



