



# 100% Digital Denmark

Presentation: 04/08-2017

Counsellor

*Gustav Christoffer Jensen*

*Danish Embassy Brasilia*

*... From Denmark with...*





# The Counsellor

## PROFILE

### Making Denmark Digital

- Person: Gustav Christoffer Jensen
- Experience: 16 years building ICT systems in Denmark.  
Everything is now online and digital – so **mission (almost) complete**.

### Goal for period 2015 – 2018

### Make Brazil more digital

- Through digitalization fight poverty and corruption
- Increase awareness on better regulation and digitalisation within the Brazilian government.
- Build strategic sector corporation
- Increase Danish awareness towards the Brazilian market.



# What is Denmark good at?



2016 Denmark **#1** on the European Digital Economy & Society Index (DESI)



2016 Denmark **#1** Transparency International

- Chile #24
- Brazil #79
- Columbia #90
- Peru #101



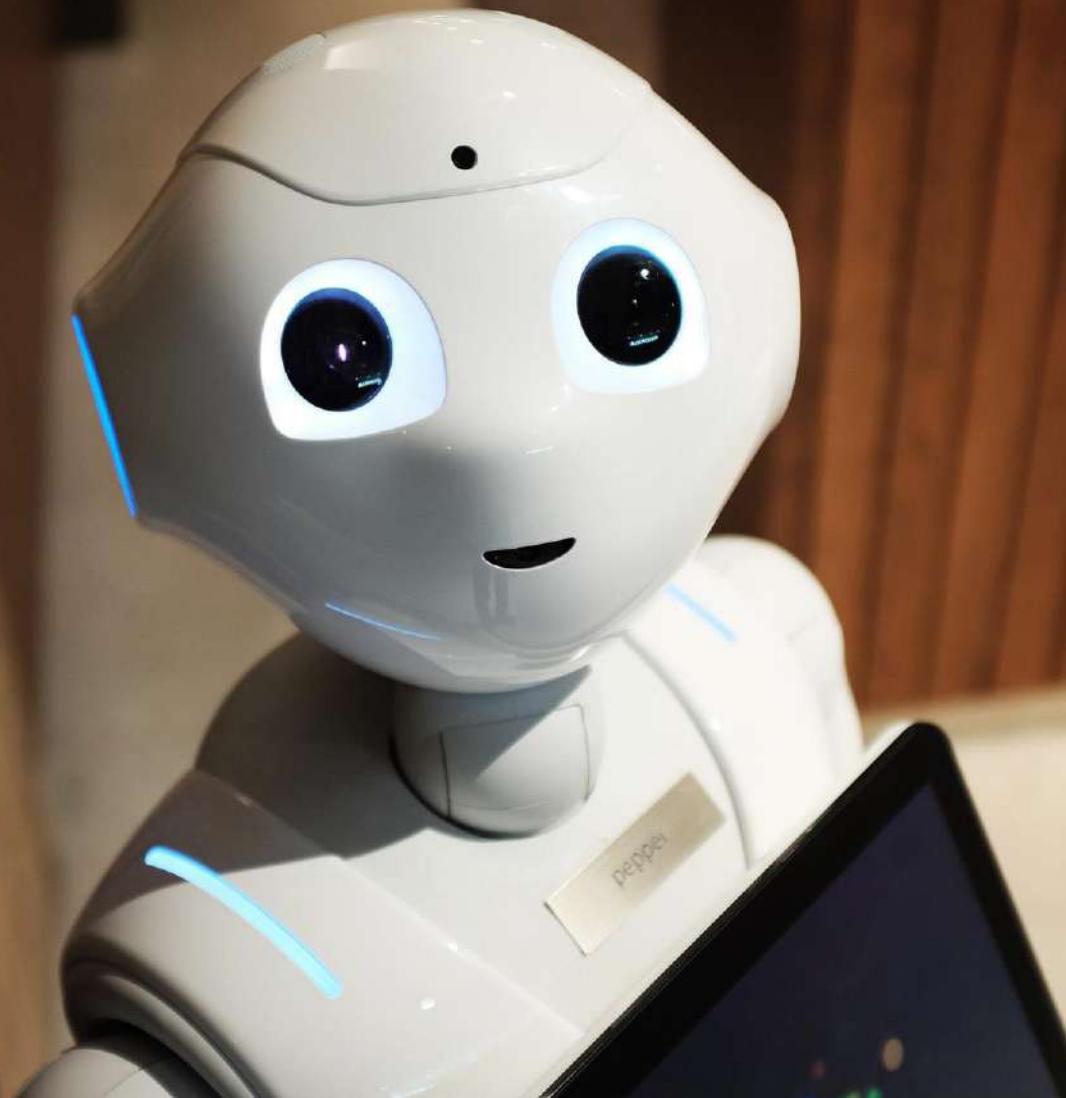
2016 Denmark **#3** Ease of doing business

- New Zealand #1 Singapore #2
- Columbia #53
- Peru #54
- Chile #57
- Brazil #123





# WHAT IS 100 % DIGITAL?

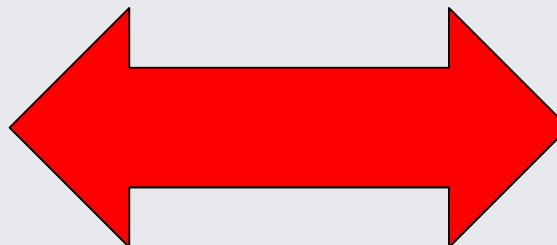




# All communication from public authorities is digital

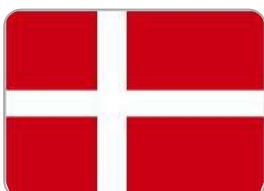


**Government**



**All communication!:**

Elderly people,  
Companies, Students,  
Teachers, Unemployed  
people, and so on...





# E-BOKS – just like a GMAIL - but without GOOGLE stealing info

The image displays three devices showing the eBoks.dk interface. The central device is a desktop monitor displaying a dashboard with a message from 'Alka Fønkskug' about a document. To the left is a tablet showing a list of documents, and to the right is a smartphone also showing the same dashboard. The interface includes a sidebar with 'Dine mapper' (Folders) and a main area with a message and a list of documents.

eBoks.dk

Høj Katharina

Alka Fønkskug har sendt dig et dokument du skal underskrive

1. AlkaFønkskug.dk  
Alderhafts Komite har sendt dig på en kursus/lektion

2. Veit.segebehandling.no/kursusfører

1. AlkaFønkskug.dk  
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eBoks.dk

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6



Before digital revolution

# G\*NOVA

The Story



G\*NOVA is the new policy lab (innovationcenter) within the Brazilian government. G\*NOVA participates in cooperation with the Danish Government Laboratory, aiming at experience exchanging and capacity building.





# G\*NOVA's opening - AUG 2016



# Daily life / Denmark on Call



# Succes with digitalization



## Citizen

### Streamlining

Deliver more for less

### Quality

Deliver better service

### Reliability

Deliver flawless service



## Government



### Priority



Focus on core services



### Innovation



Involve citizens in co-creation and delivery.



Activate civil society.



Use data to optimize and govern.



Take advantage of disruptive elements.





# DANISH Digital Strategy 2016-2020



# What is a digital strategy?



DIGITAL SOLUTIONS MUST BE EASY-TO-USE,  
**QUICK AND ENSURE HIGH QUALITY**

1

A USER-FRIENDLY AND  
SIMPLE DIGITAL PUBLIC  
SECTOR

2

BETTER USE OF DATA  
AND QUICKE CASE  
PROCESSING

3

BETTER AND MORE  
COHESIVE WELFARE  
SERVICES



DIGITISATION MUST PROVIDE GOOD  
**CONDITIONS FOR GROWTH**

4

BETTER FRAMEWORK FOR  
THE BUSINESS  
COMMUNITY

5

PUBLIC-SECTOR DATA  
AS A GROWTH DRIVER

6

AN EFFICIENT  
UTILITIES SECTOR



**SECURITY AND CONFIDENCE**  
MUST BE IN FOCUS AT ALL TIMES

7

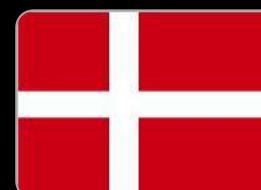
THE PUBLIC SECTOR  
PROTECTS DATA

8

ROBUST DIGITAL  
INFRASTRUCTURE

9

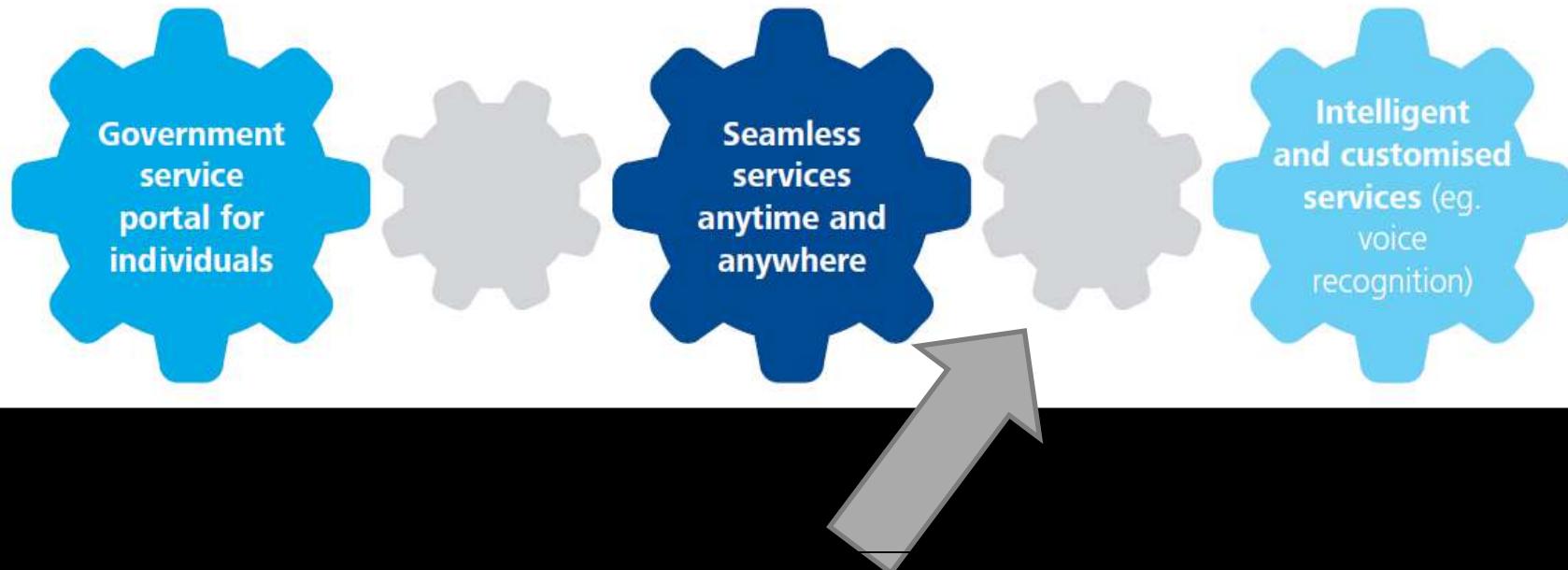
DIGITISATION FOR  
EVERYONE





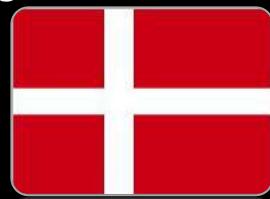
# Vision 100% DIGITAL

Figure 2.7: The future of digital Government



## DENMARK IN THE DIGITAL LEAD

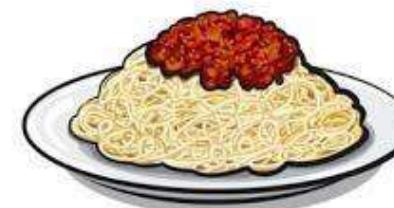
*Over the past 15 years, Denmark has undergone a unique transition to digital public administration, communication and services. A number of solutions originating from previous digital strategies have now become routine.*



# SOFTWARE ARCHITECTURE

## 1990's

SPAGHETTI-ORIENTED  
ARCHITECTURE  
(aka Copy & Paste)



## 2000's

LASAGNA-ORIENTED  
ARCHITECTURE  
(aka Layered Monolith)



## 2010's

RAVIOLI-ORIENTED  
ARCHITECTURE  
(aka Microservices)



## WHAT'S NEXT?

PROBABLY PIZZA-ORIENTED ARCHITECTURE

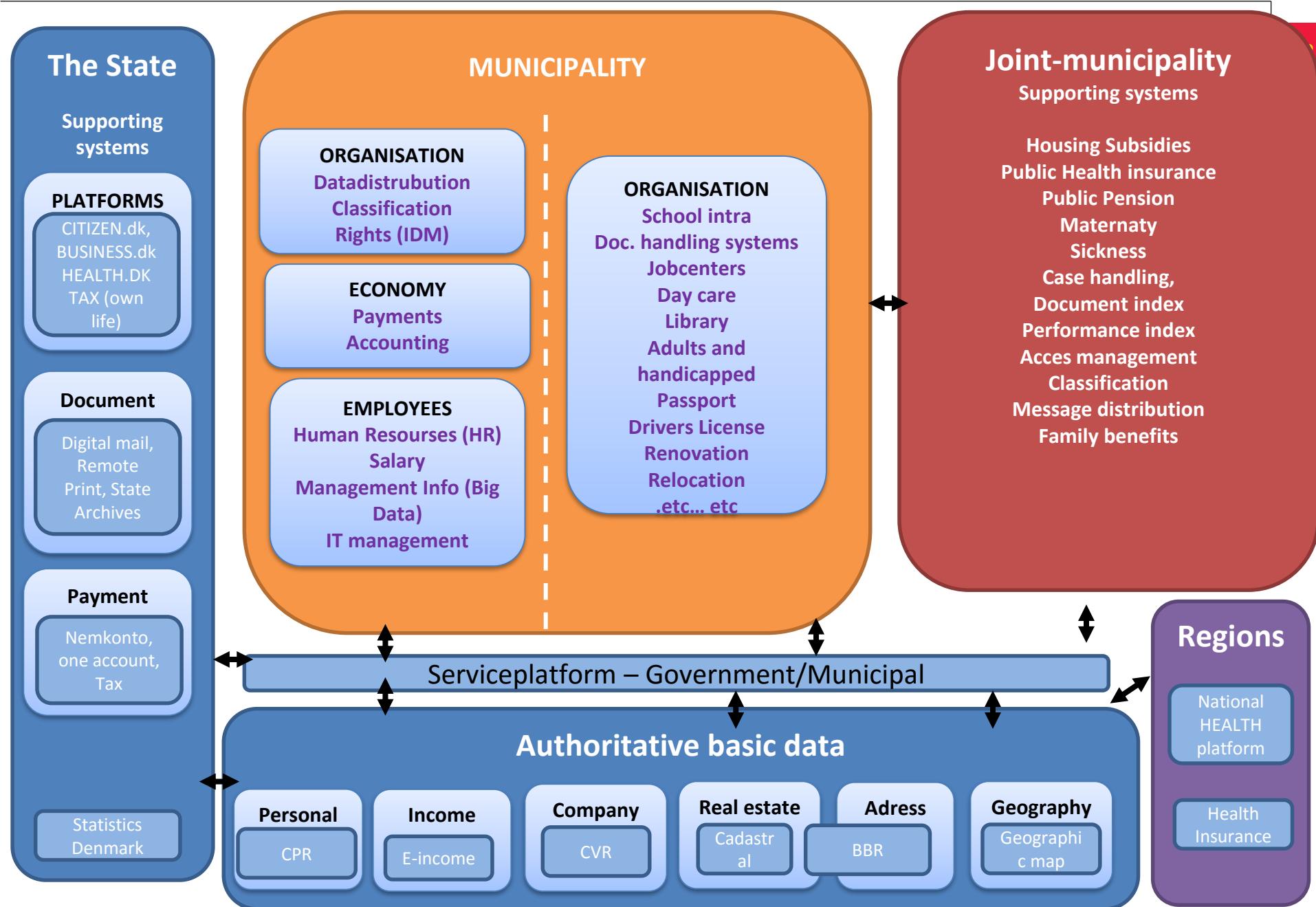




# Tasks handled by government tiers

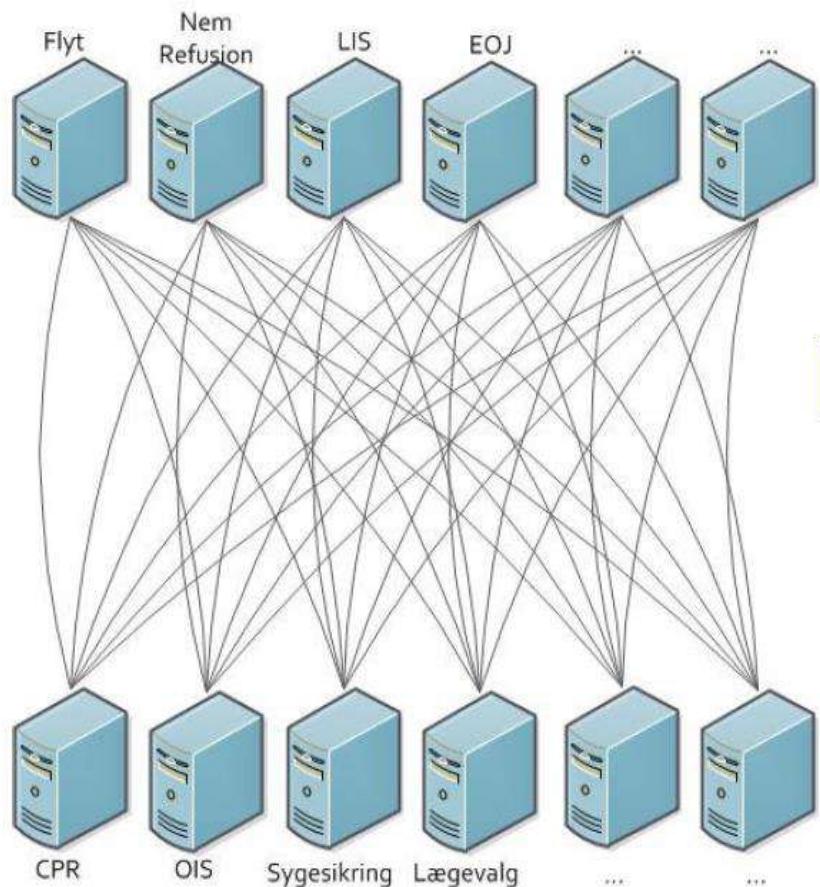
<b>The State</b>	<b>The 5 Regions</b>	<b>The 98 municipalities</b>
Nature & Environment supervision	Healthcare (hospitals, doctors etc.)	Healthcare (rehabilitation and preventive activitise)
Taxation		Occupation (jobcenters)
Culture		Culture (library and music schools)
Traffic		Park & Roads (maintenance & supervision)
Social service (advice to municipalities)		Social Service (children & adults with special needs/handicapped. Elders)
Education (guidelines in general & education after secondary school)		Education (pre-school, secondary school, special education)
		Citizen services in general

# The Future system landscape

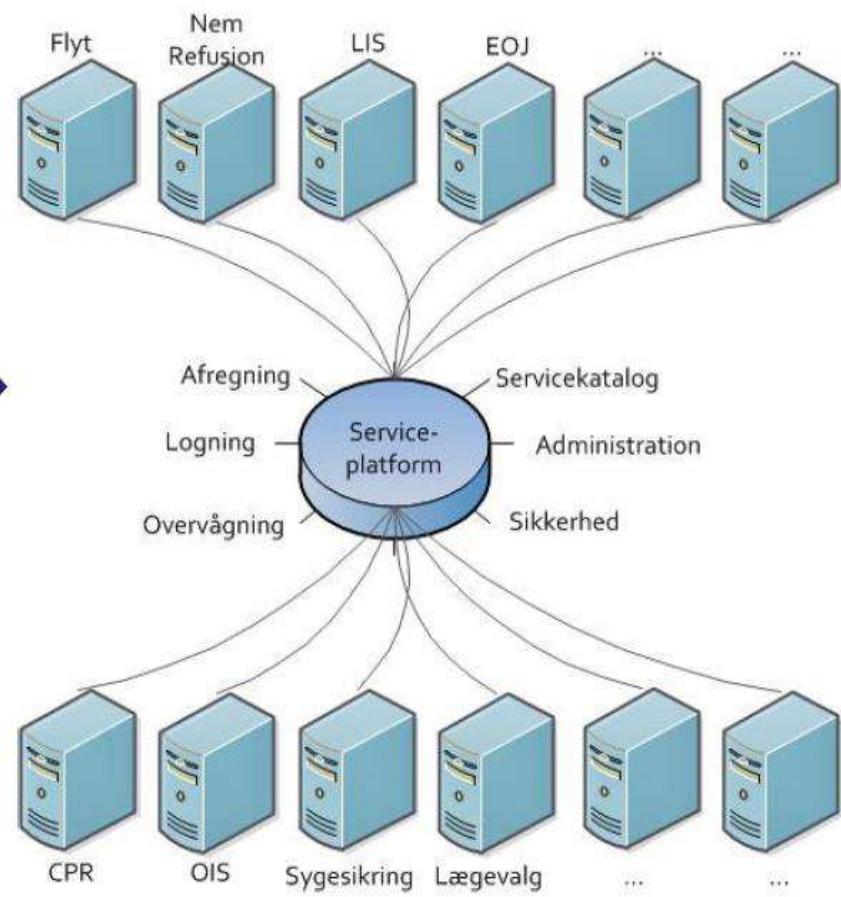


# Why a Serviceplatform?

From Chaos today



To the future, with order



# REMEMBER !!!!



# BORGER.DK

- Citizen

## ACCES – DANISH NEM-ID



Danish inspired log-in solution for Brazilian government websites ready to launch.

Published on February 22, 2017

Gustav Christoffer Jensen  
Counsellor at Royal Danish Embassy, Brasilia at Min... 126 7 15 1

Digital news from Brazil. The first public login system in Brazil is ready to be launched, with strong influence from Danish NEM-ID( <https://en.wikipedia.org/wiki/NemID> ).

In March 2016, Brazil and Denmark signed a partnership agreement for increased innovation and digitization of the public sector in Brazil. The agreement is designed to help Brazilians to reduce corruption and at the same time pave the way for growth of Danish companies in the South American country. Two Brazilian delegations visited Denmark to learn about our experience.



# QUIZZ

## Government VS Banks

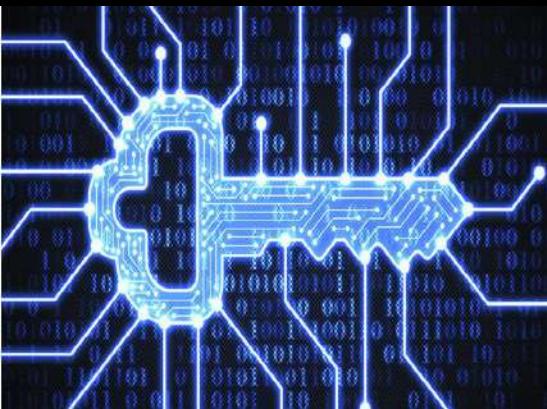
Question....  
Who wants the highest login safety

Banks or...Government

AND

WHY???

(Prize to win!!)





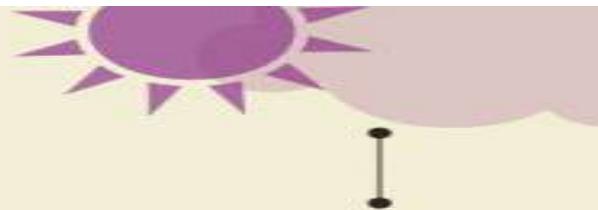
# Right answer

- Bank can take out insurance on loosing money.
- Governments can't. If they loose personal data they are in big big trouble...



# DEN SMARTE BY

Fra Mumbai til Vordingborg skyder nye teknologiske fix, der gør byerne smartere, frem.



**PARKERING:** Sensorer på offentlige pladser sladrer om ledige pladser – men giver også bøder for ulovlig parkering.

**GADELYGTER:** Lysstyrken i lygterne kan reguleres fra et centralt sted.

**AIR QUALITY:** Målere på udvalgte steder hjælper borgere med at undgå de mest partikelfyldte områder.



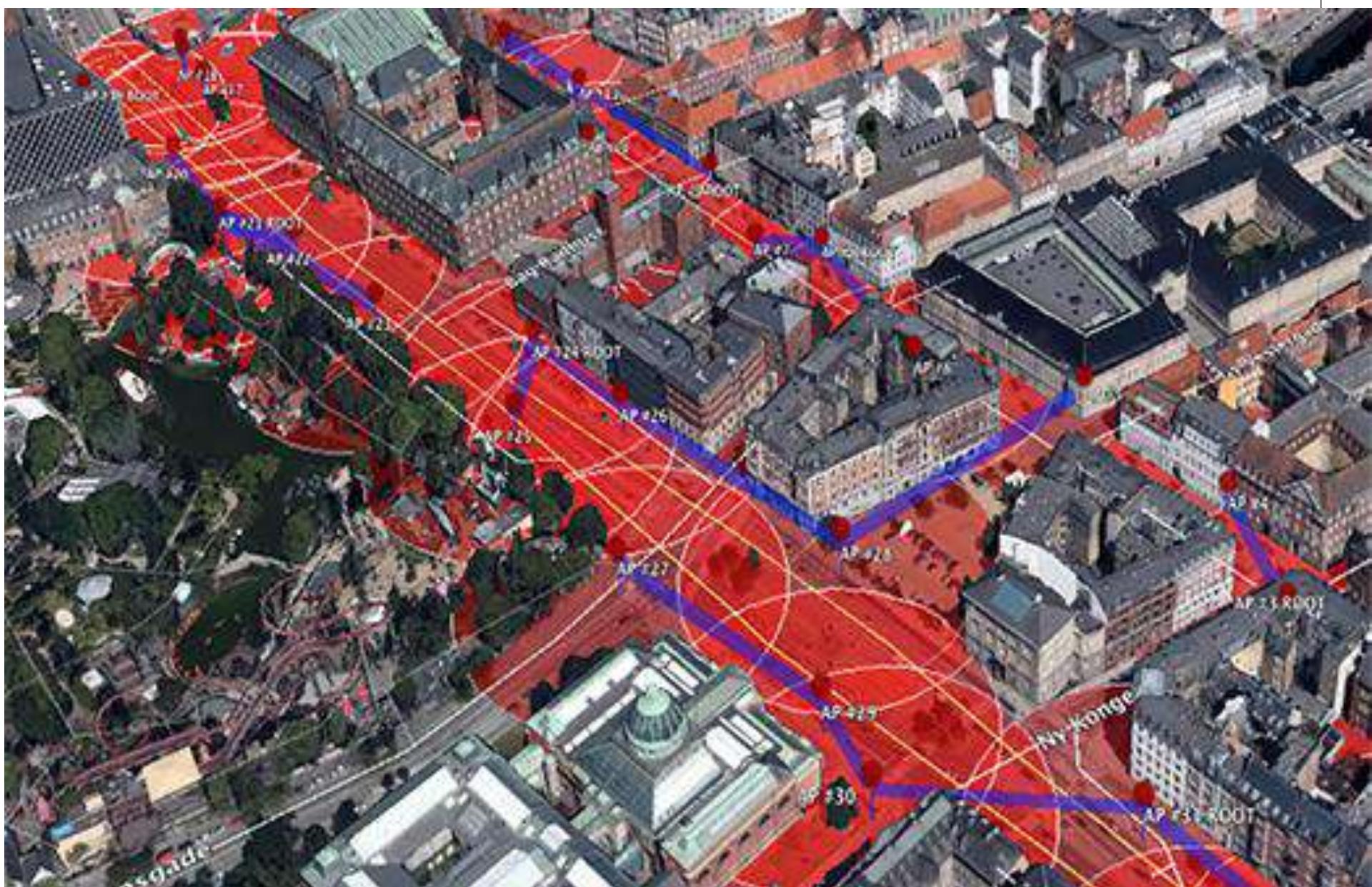
**Biler:** Styring af trafiksinaler til hurtigere flow af trafik baseret på data fra bilisternes smartphones.

**Politiet:** Placeringen af betjente i byen bestemmes ud fra analyser af konstant opdaterede data for, hvor forbrydelser bliver begået.

**Elnet:** Computerstyring af strømflowet i forhold til vejrdata, elpriser og forbrug.

**Skraldespande:** Komprimerer skraldet løbende og sender besked, når spanden er tæt på fyldt.

# Copenhagen Living Lab

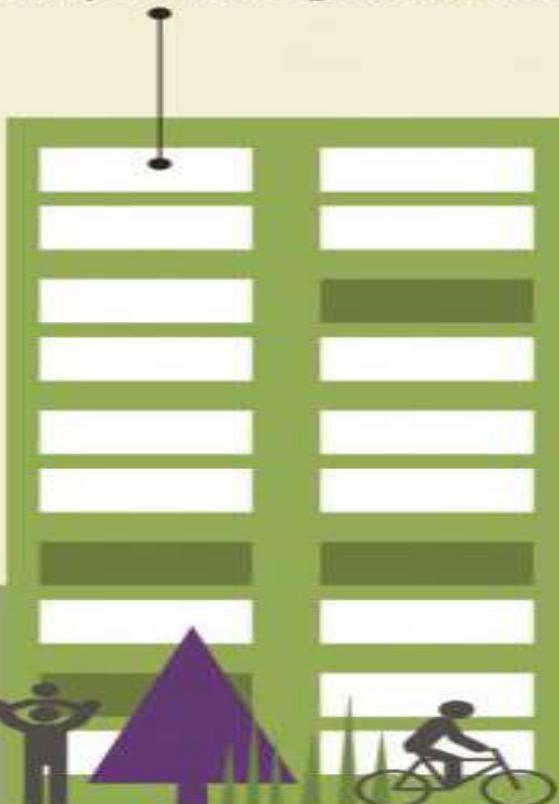




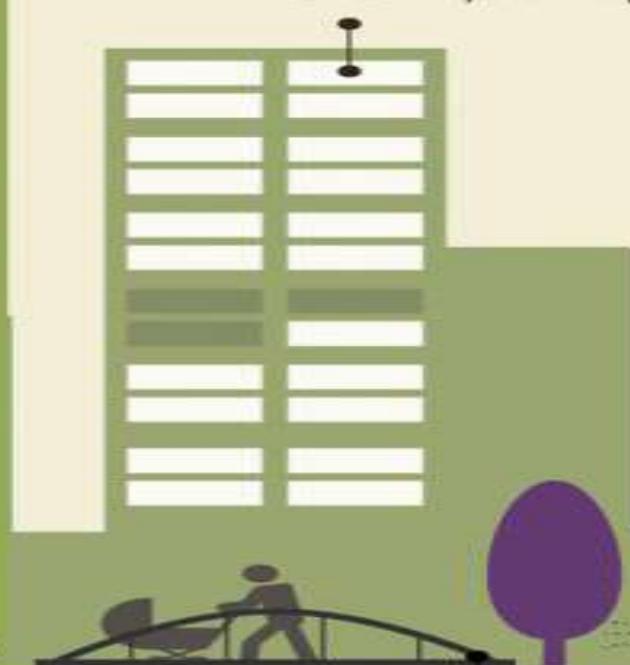




**DRIKKEVAND:** Sensorer i vandledninger overvåger tryk, temperatur og forurening.



**Elmålere:** Digitale, netopkoblede elmålere tænder for f.eks. vaske-maskinen, når elprisen er lav.



**Busstop:** Viser real-time stoppetider og er samtidig wifi-hotspot.



**VANDING:** Computersystem styrer vanding af planter i byens parker baseret på input fra sensorer.



**BROER:** Frostskader og revner i broer kan opdages af sensorer, der måler svingninger.

**CYKLER:** RFID-tags gør det muligt at finde stjålne cykler. Bycykler rapporterer deres position én gang i minuttet.

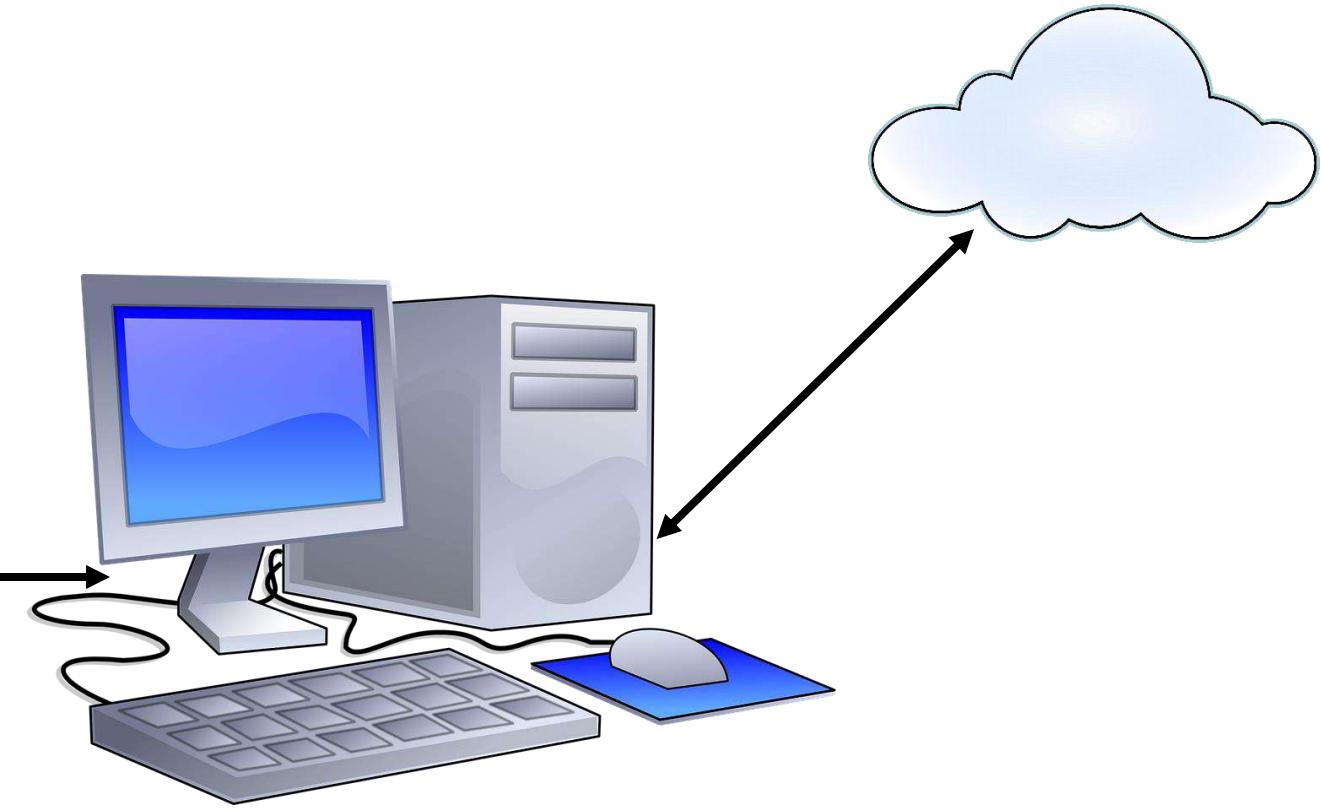


**KLOAK:** Ved oversvømmelser forhindres forurening med kloakvand af sensorer, der advarer borgerne mod at skylle ud i toiletten på kritiske tidspunkter.





# Byg og Miljø - Buildings and Environment storage... Geo coding and/or Unik ID!!!



# Our House ... in the middle of the street..





Being 100% digital of course means all municipalities have a digital case-handling system... also when communicating with citizens...





# Online Presentation....

- Citizens
  - Business
  - Case Handling (Byg og Miljø)
  - Health
- 
- The tragic story... 100%



# Borger.dk (Citizens.DK)

The screenshot shows the homepage of borger.dk. At the top, there's a navigation bar with tabs for "Digital Post", "Min Side", and "Log på". A search bar is also present. Below the header, there are three main service cards:

- Opgørelse af pension**: An older man looking at a tablet. Text: "Læs om opgørelsen for 2016 og betal pension tilbage".
- Feriepenge**: A child standing in the water. Text: "Læs, hvordan du får dine feriepenge udbetalet".
- Pas på falske sms'er**: Two hands holding a smartphone. Text: "Læs mere om falske sms'er og snydemails, og om hvordan du undgår dem".

Below these cards, there's a section titled "Genveje" (Quick links) with two columns of links:

> <a href="#">Ansøg om eller formy dansk pas</a>	> <a href="#">Flytning</a>
> <a href="#">Valg af læge</a>	> <a href="#">Studiegæld</a>
> <a href="#">Folkepension</a>	> <a href="#">Boligstøtte</a>
> <a href="#">Barsel og orlov</a>	> <a href="#">Det blå EU-sygesikringskort</a>
> <a href="#">Danskerlisten</a>	> <a href="#">Falske mails - phishing</a>

At the bottom, there's a section titled "Alle emner" (All topics) with four categories:

<b>Familie og børn</b> > <a href="#">Når I vil giftes</a> > <a href="#">Barsel og orlov</a>	<b>Skole og uddannelse</b> > <a href="#">Privatskoler, lilleskoler og friskoler</a> > <a href="#">Indskrivning til skolestart</a> > <a href="#">Mere ...</a>	<b>Sundhed og sygdom</b> > <a href="#">Nyt sundhedskort</a> > <a href="#">Valg af læge</a> > <a href="#">Mere ...</a>	<b>Aldre</b> > <a href="#">Hjemmehjælp</a> > <a href="#">Ældrecheck</a> > <a href="#">Mere ...</a>
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The browser's address bar shows the URL <https://www.borger.dk/borgerapi/PerformLogin>. The taskbar at the bottom includes icons for File, Copy, Paste, Windows, Task View, Start, Edge, Google Chrome, and File Explorer.



# VIRK.DK (Business.DK)

The screenshot shows a web browser window with the URL <https://indberet.virk.dk>. The page is divided into two main sections: 'Indberet' on the left and 'mit virk' on the right.

**Indberet Section:**

- Mest anvendte indberetninger:**
  - Fakturablanketten > Send en faktura til det offentlige
  - NemRefusion - sygedagpenge > Søg om refusion af sygedagpenge
  - NemRefusion - barselsdagpenge > Søg om refusion af barselsdagpenge
  - NemRefusion - løntilskudsrefusion > Søg om løntilskud - erstatter AB250
  - Indberet årsrapport > Indberet virksomhedens årsrapport digitalt
  - Moms > Indberet moms til SKAT
- Search Bar:** Søg på Virk | Indberet
- Links:** Se alle indberetninger og myndigheder, Log ind for at: Få og give rettigheder, Tjekke din digitale postkasse, Se virksomhedens oplysninger, Oprette genveje til indberetninger, Læs mere om Mit Virk.

**mit virk Section:**

- Log in:** Log ind, Hjælp til log ind
- Log in for at:**
  - Få og give rettigheder
  - Tjekke din digitale postkasse
  - Se virksomhedens oplysninger
  - Oprette genveje til indberetninger
- Læs mere om Mit Virk

At the bottom, there is a navigation bar with icons for Windows, search, file, etc., and a status bar showing the date and time: 02:23 DAN 04-08-2017.



# Sundhed.DK (Health.DK)

Få fx. adgang til:

- Sundhedsjournalen
- Behandlinger på sygehus
- Medicinkortet

Dine sundhedsdata ét sted

Log på med NemID og se dine sundhedsdata fra det  
offentlige sundhedsvæsen

Få mere at vide

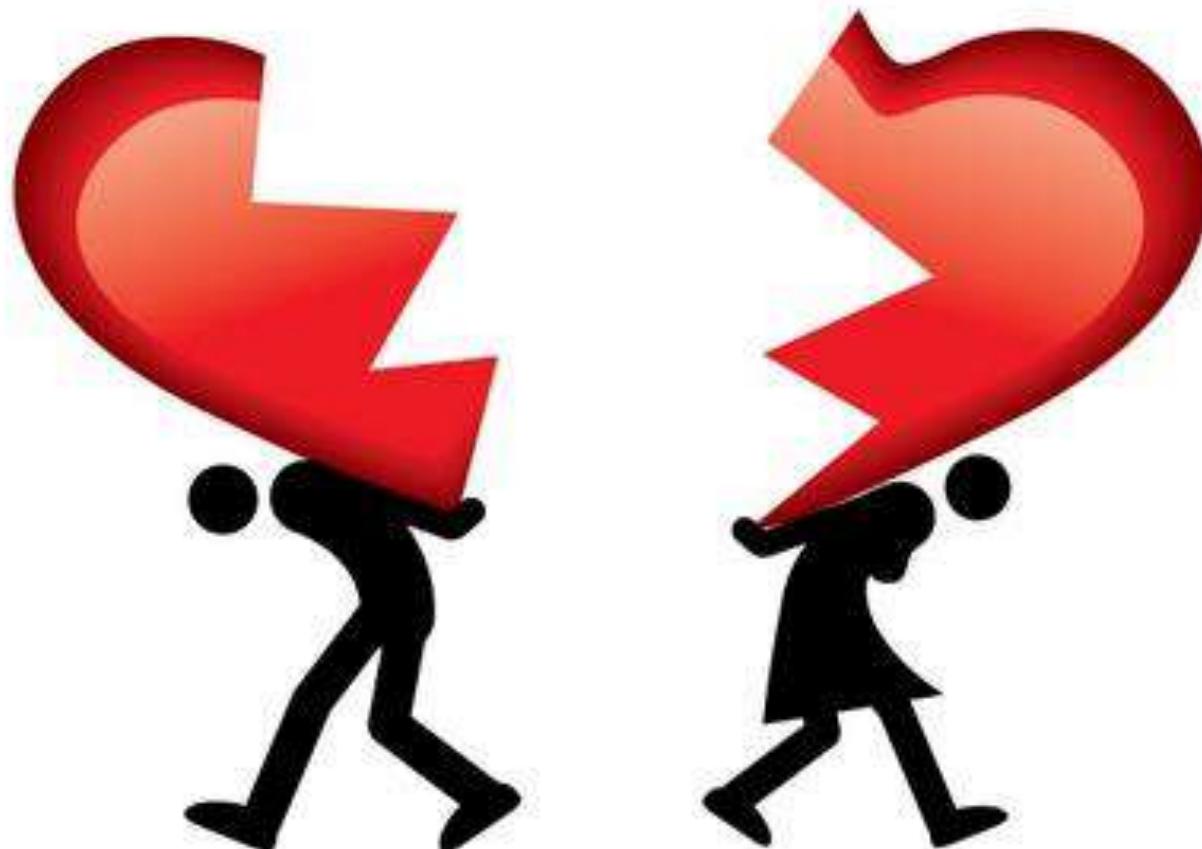
Log på NemID





# Back to 100% Digital

- The Break-up... a tragic story...







## We will probably never get to grips with the state's IT disasters

**Computer Views:** Something may indicate that the main reason for the large public IT scandals to be found deep in the public system structures. Can we all do something about it?

February 21, 2017 at 09:00

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8 comments



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Beskyt din virksomhed mod katastrofale nedbrud



**Computer Views:** It is 16 years ago that the then Technology Council published the so-called **Bonnerup report**, named after Erik Bonnerup, former Permanent Secretary in the Ministry of Finance and chairman of the review committee.



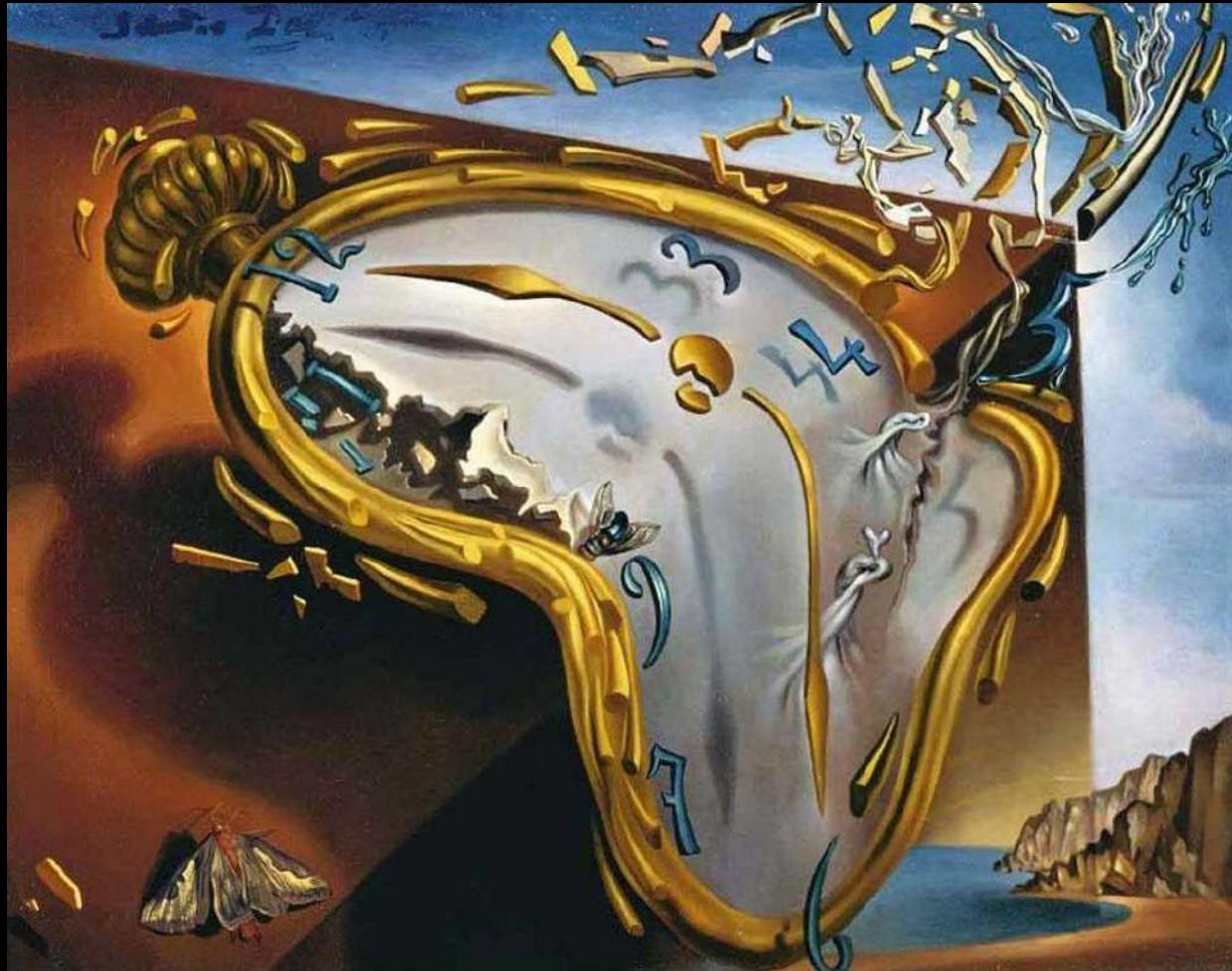
# 'Think big, act small, fail fast'

**“I have not failed,  
I’ve just found  
10,000 ways that  
won’t work”**

— Thomas Edison  
Inventor, Scientist



Time is UP ☹





Thank you for Listening  
Any Questions?

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