

CYBERSECURITY

THE HUMAN FACTOR

ESREL 2018

Trondheim – 18th June 2018

Specialist Director Roar Thon



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People and technology



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People and security



Pictures: Colourbox.com

Human behavior






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Picture: Colourbox.com



“Society's ability to get full effect out of investments in new technology and digital services, depends on the trust of its citizens.

Our technology must be safe, secure and it should work when we need it”



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Picture: NSM

Increased security measures for election procedures

Press release | Date: 2017-09-01

- Our election administration system is well tested and secure. We wish, however, to avoid any speculation or uncertainty pertaining to the election results. Security and trust are vital for the conduct of elections. We are therefore augmenting security measures, says Minister of Local Government and Modernisation Jan Tore Sanner. The Ministry of Local Government and Modernisation now asks that all municipalities complete at least one manual count of the votes in the upcoming parliamentary elections. Security measures for computer systems and ICT services will also be enhanced.



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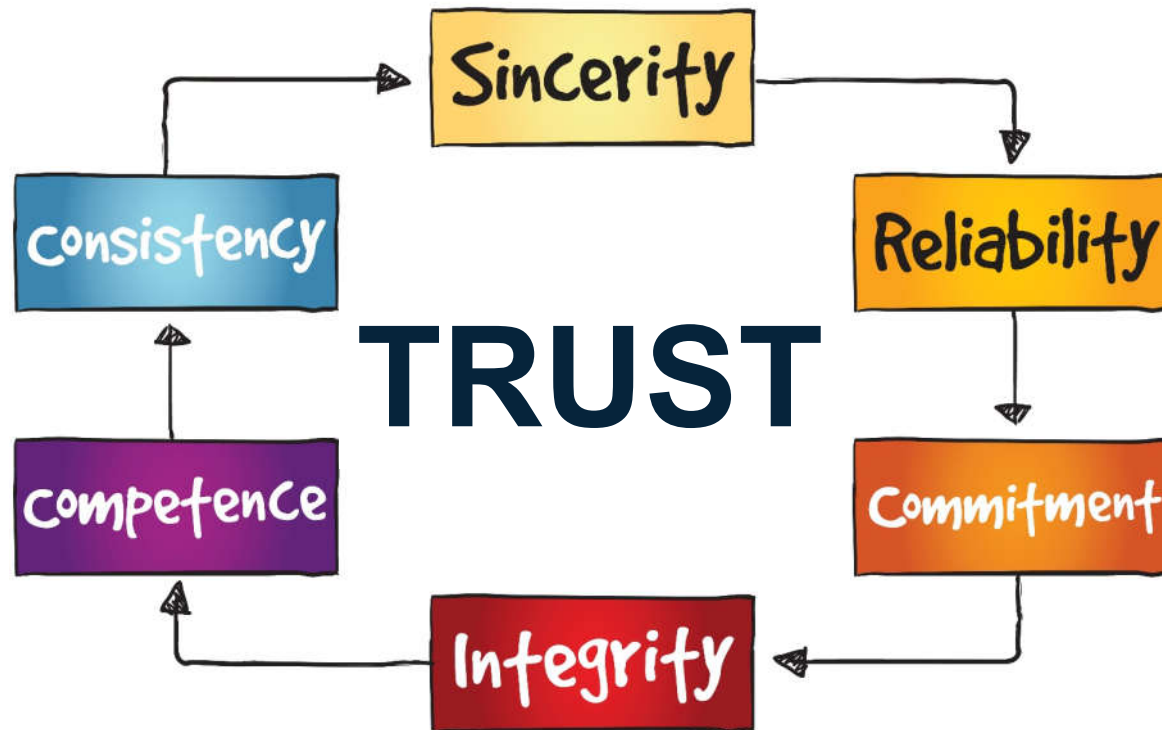
Stortinget - the Norwegian Parliament in Oslo. Photo: Thomas Nilsen

Norwegian votes to be counted manually in fear of election hacking

Norway is the second European country this year to announce trust in good old paper counting.

Source: Aftenposten/Regjeringen

HARD TO GET



EASY TO LOOSE



**«NO BUSINESS HAS EVER
BEEN STARTED WITH THE
MAIN BUSINESS IDEA OF JUST
BEING SECURE!»**





THE SECURITY
SURE IS
GOOD TODAY,
HUH?

YEAH. THIS
HAS BEEN A
VERY SECURE
MORNING.

GOOD WORK
ON THE
SECURITY
TODAY,
PEOPLE.

I CAN
JUST FEEL
THE SECURITY.



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klasser

www.jklossner.com



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Picture: Roar Thon NSM

Are we moving to fast?



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Picture: Colourbox.com



50 000 000



75 years



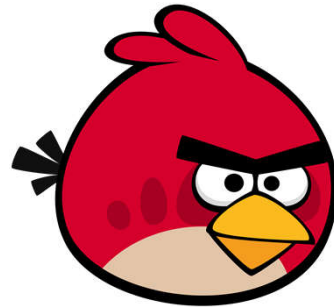
38 years



13 years



7 days



35 days



1 years

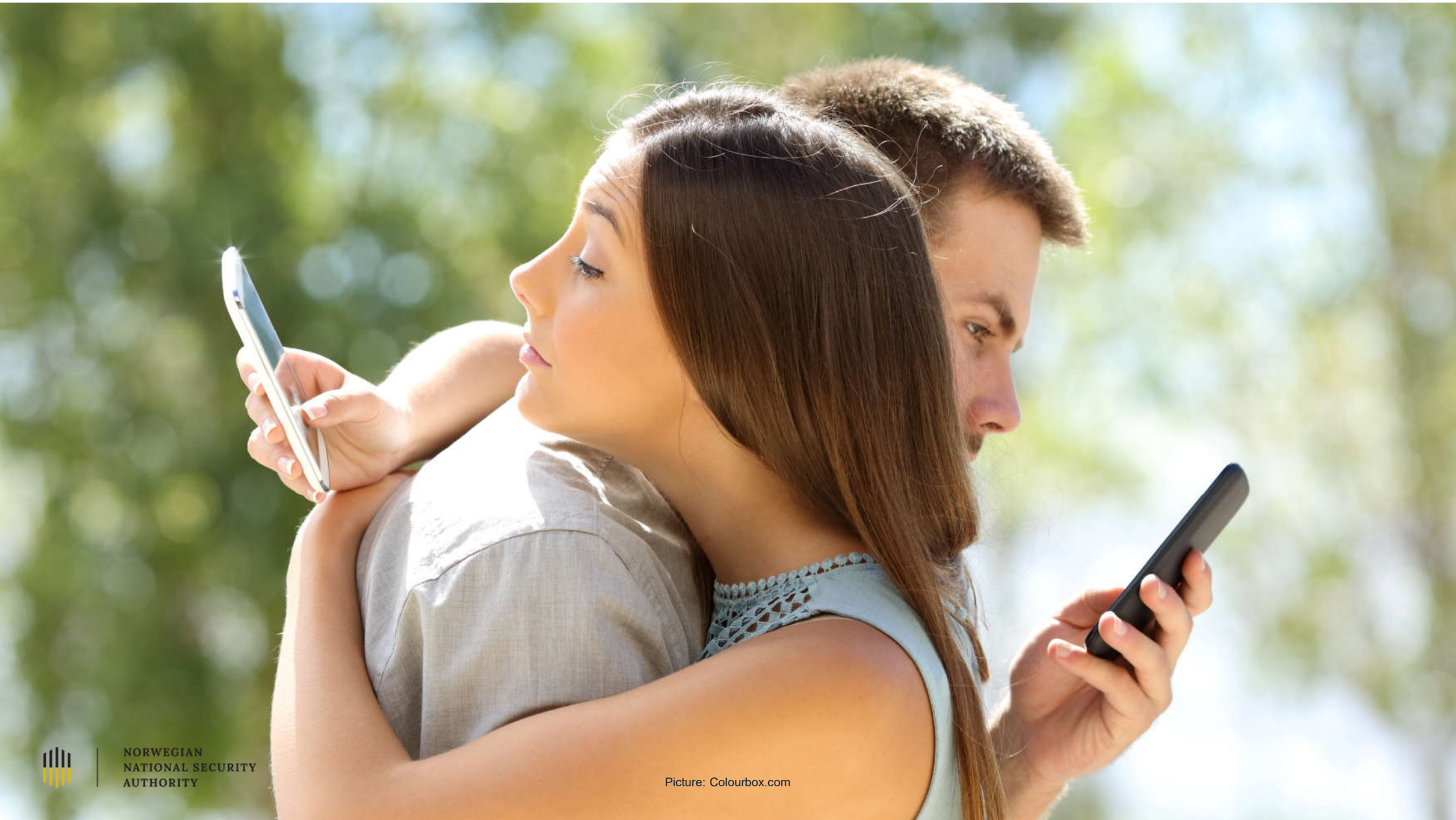


4 years



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Pictures: Colourbox.com



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Picture: Colourbox.com



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Picture: Telehuset



INCREASED DIGITAL THREATS



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Pictures: PST/NSM/ETJ/Colourbox



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- Increased risk of being hit by a large scale cyber attack.
- Intelligence operations are still a prominent threat
- Technology creates vulnerabilities
- **Humans – A risk factor**
- Lack of ICT competence and cybersecurity competence
- Effective risk management and incident management are inadequate

Picture: NSM

COINCIDENCE

**PLANNED
or
TARGETED**



BECAUSE IT'S POSSIBLE

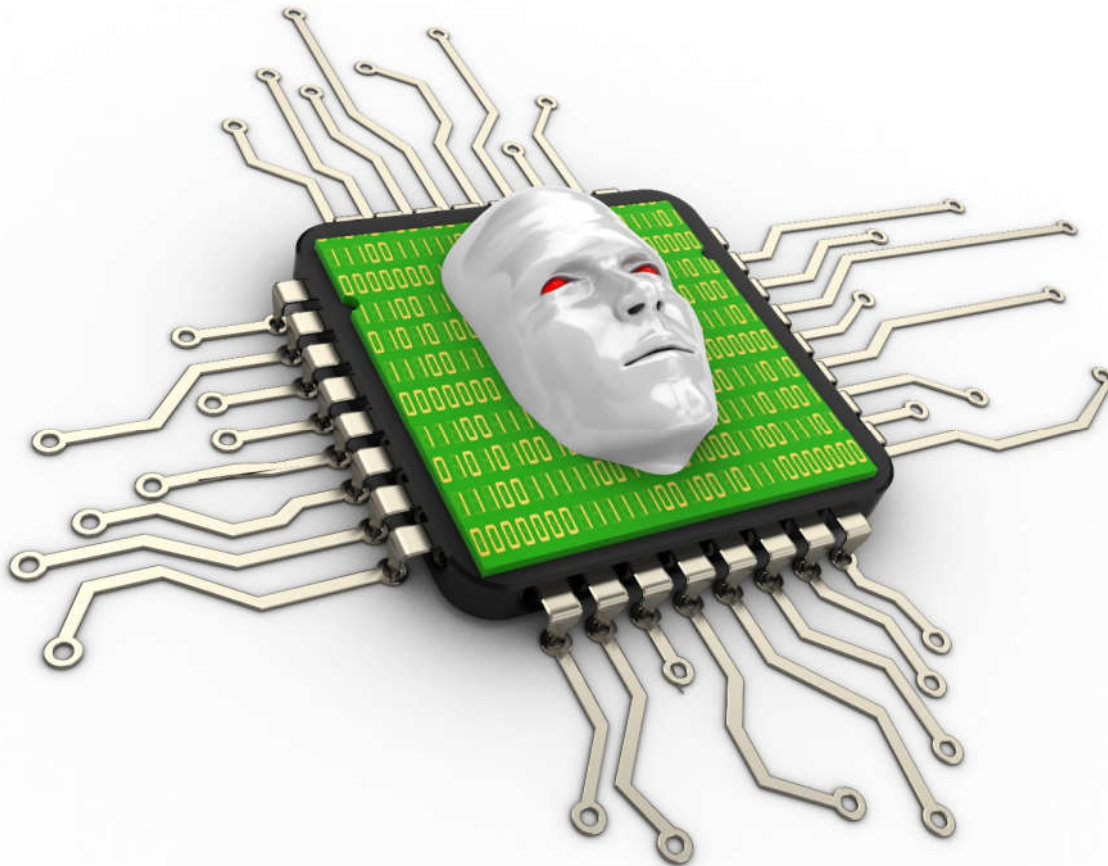


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EVIL COMPUTERS

OR

**PEOPLE
ATTACKING
OTHER PEOPLE
WITH
TECHNOLOGY**



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Picture: Colourbox.com

CYBERSECURITY?
SHOULD WE JUST BUY
MORE TECHNOLOGY?

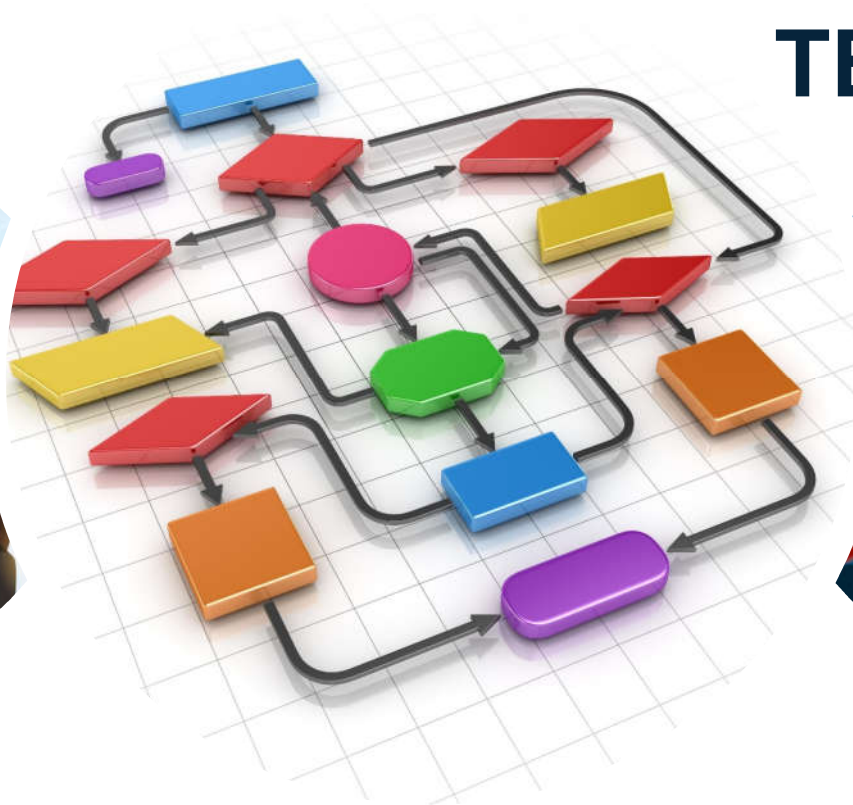
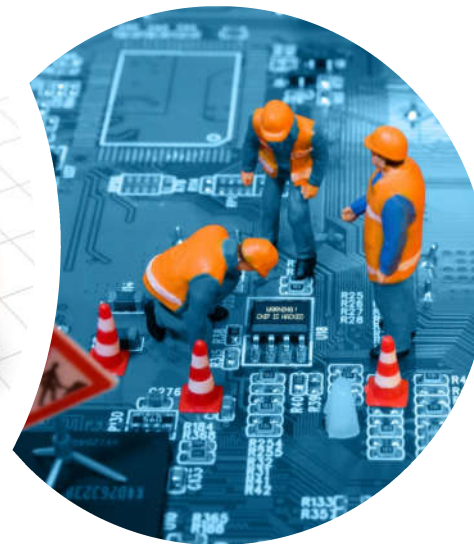


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HUMANS



TECHNOLGY



PROCESS

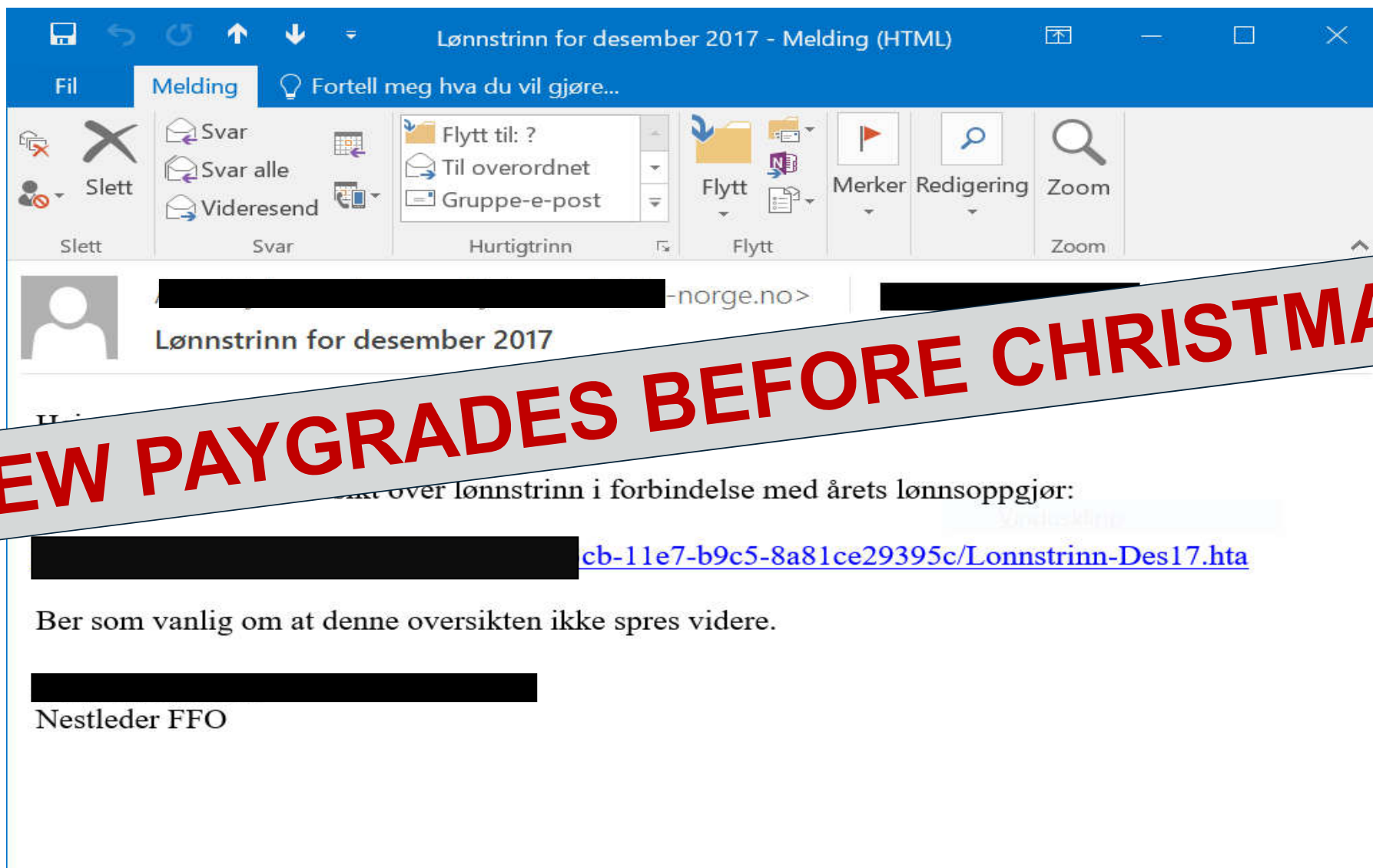


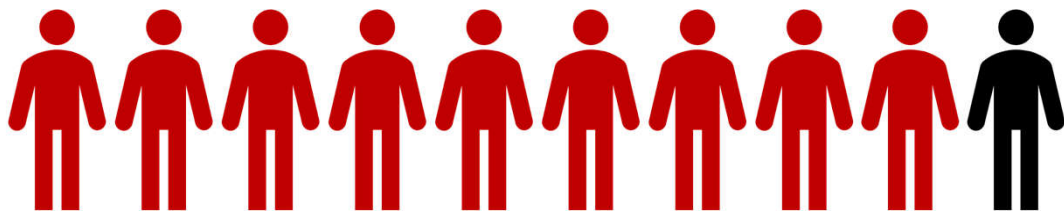
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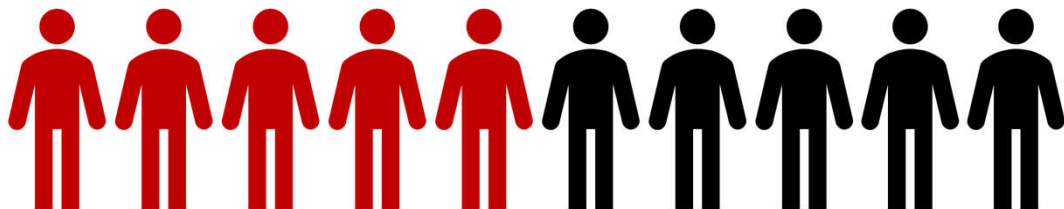
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Pictures: Colourbox.com

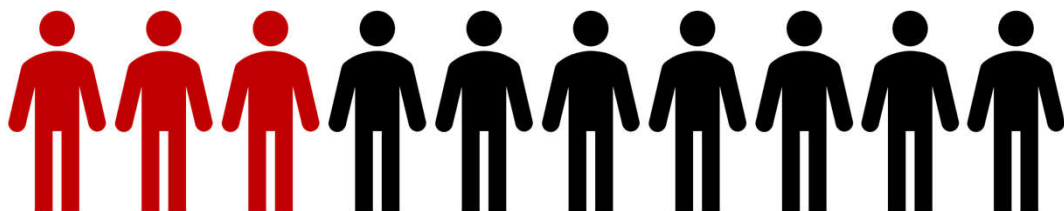




9 of 10
Opened the link



5 of 10
Activated the malware



3 of 10
**Gave up the username
and password**



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Illustration: NSM

84% of CTOs finds the human factor to be the largest cybersecurity risk to their company.

2018 - Solvero/Citrix Sweden



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Picture: Colourbox.com

«Employees must be given knowledge, motivation and understanding of the situation to help enhance security at the workplace and at home»



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Picture: Colourbox.com



In cyberspace we only use our sight and hearing

We cannot touch it
We cannot smell it
We cannot taste it

We do not experience **fear**,
threat and **risk** in the same way
we do in “real life”



Congratulation!
You have won a iPhone!
Just click here!



Picture: Colourbox.com



Gissur Simonarson @GissiSim · 19 t

Norwegians waiting for a bus. Great at keeping equal distance from 1 another. You could measure distances in "Norwegians waiting for a bus"



321



549



«Security that nobody is able to implement and follow, only results in lousy security»



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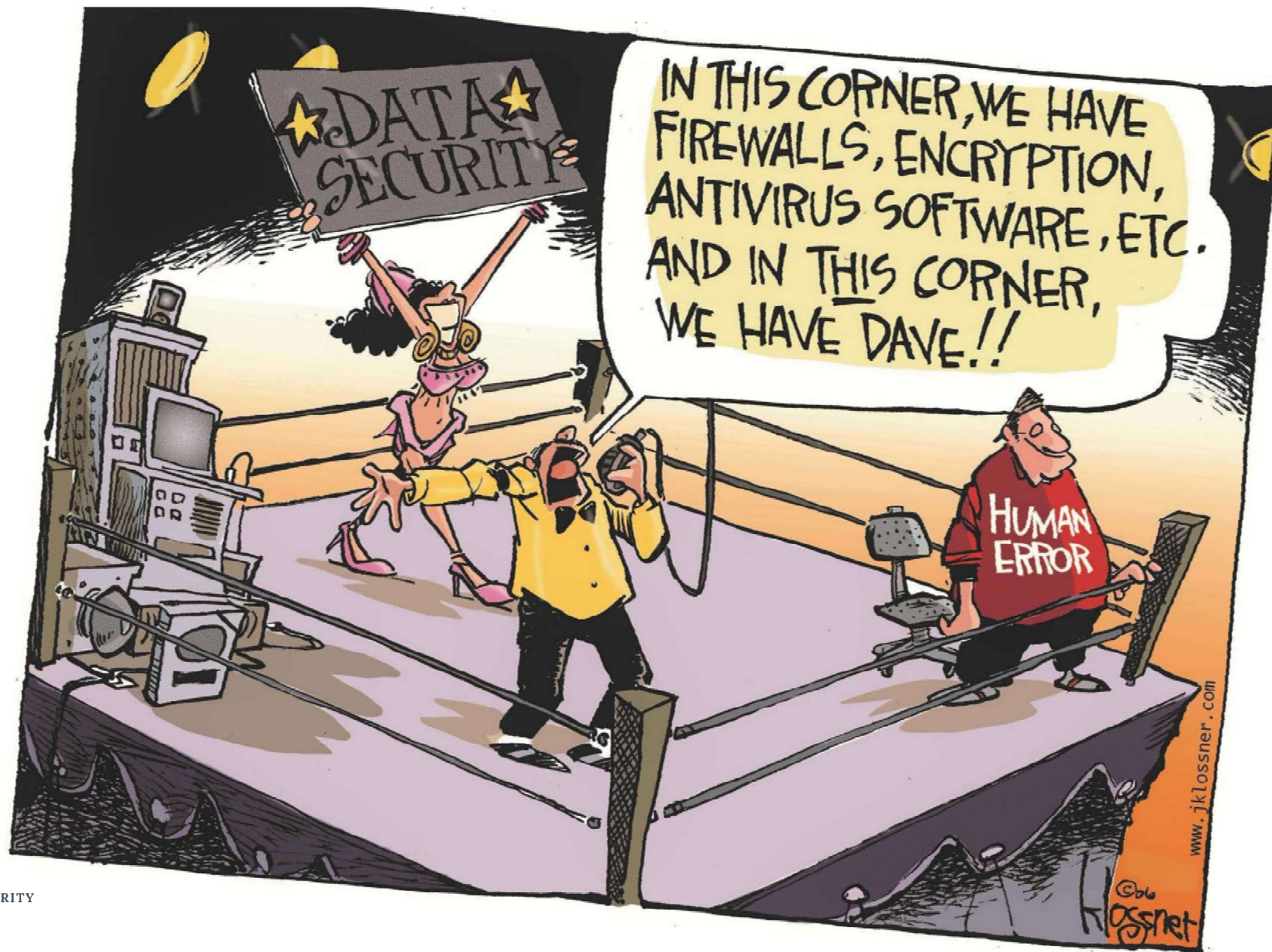
Picture: Colourbox.com

Unique
Long
Cømpl3x
Change
Remember

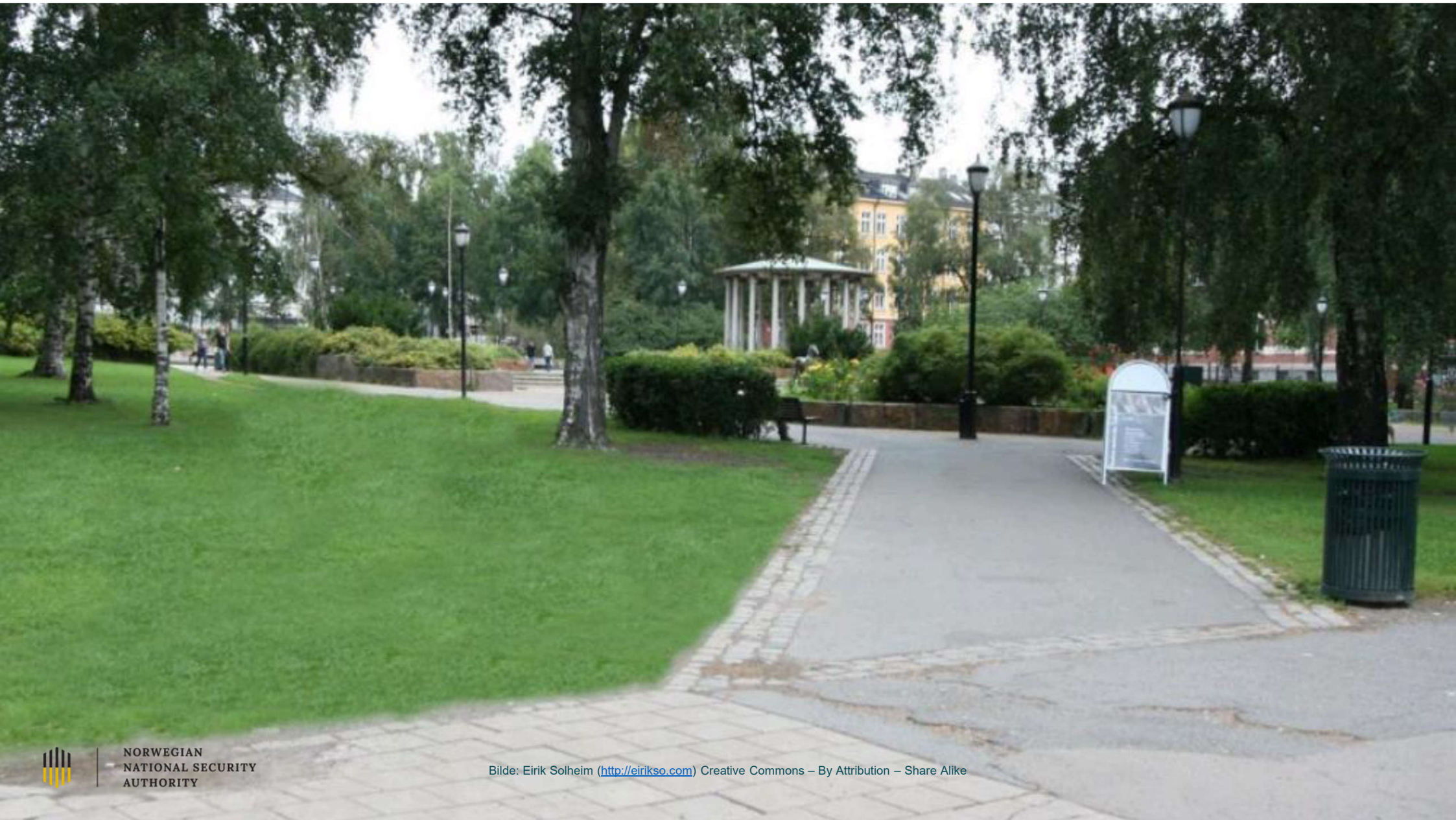


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Picture: Colourbox.com

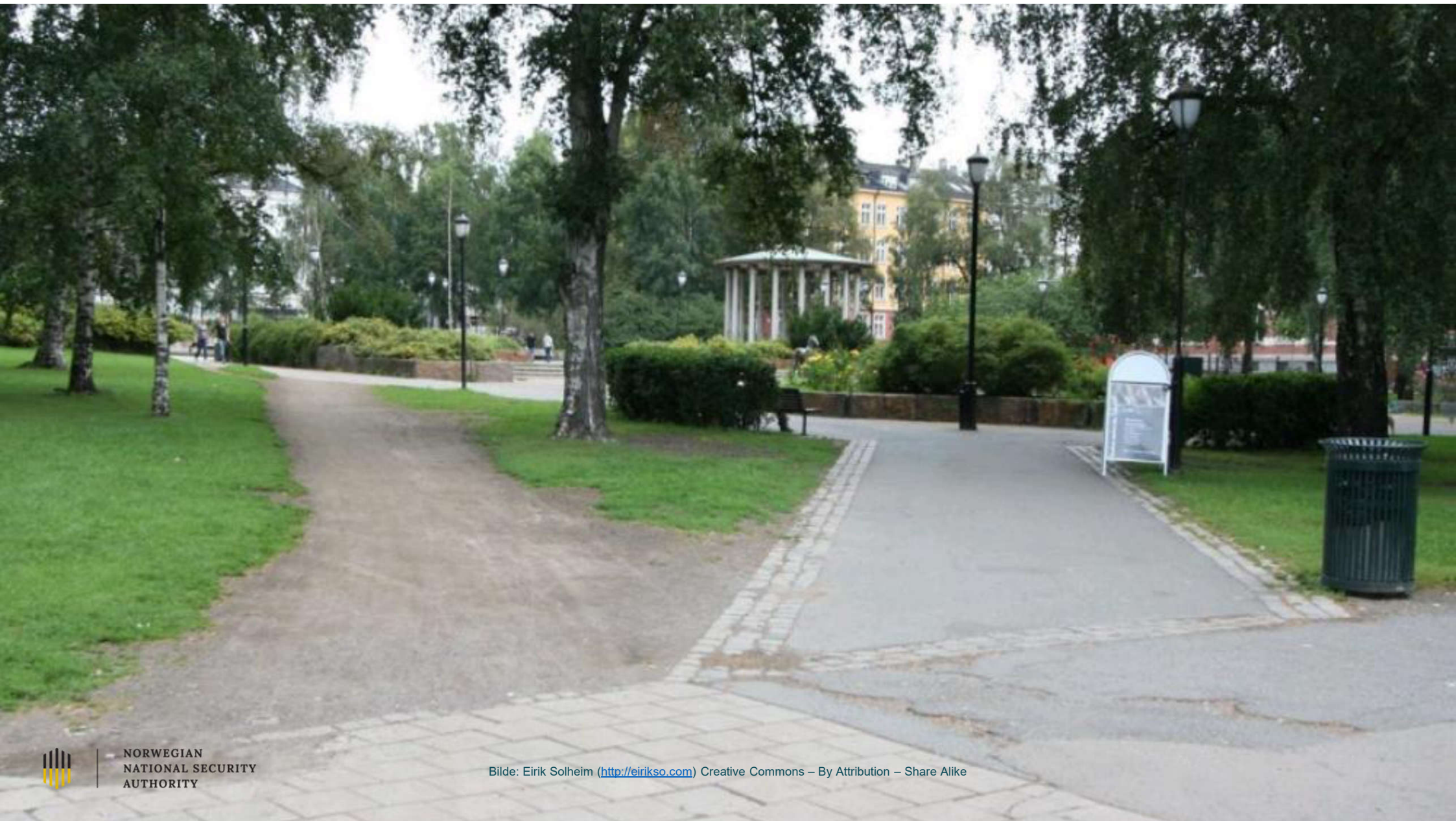


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A close-up photograph of a black computer mouse with a brown leather strap with white stitching, resembling a watch strap, attached to its side. The mouse is on a dark, textured surface. In the background, a portion of a black keyboard is visible. The text is overlaid in yellow.

«THE COMPUTER GOES TO SLEEP AFTER 5
MINUTES»

«NOT ON MY WATCH»



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«We have reorganized ourselves a number of times, but fortunately, we have not changed»



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Picture: Colourbox.com

- ENVIROMENT
- ECONOMY
- **CYBERSECURITY**



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WORLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

Insight Report

The Global Risks Report 2018 13th Edition

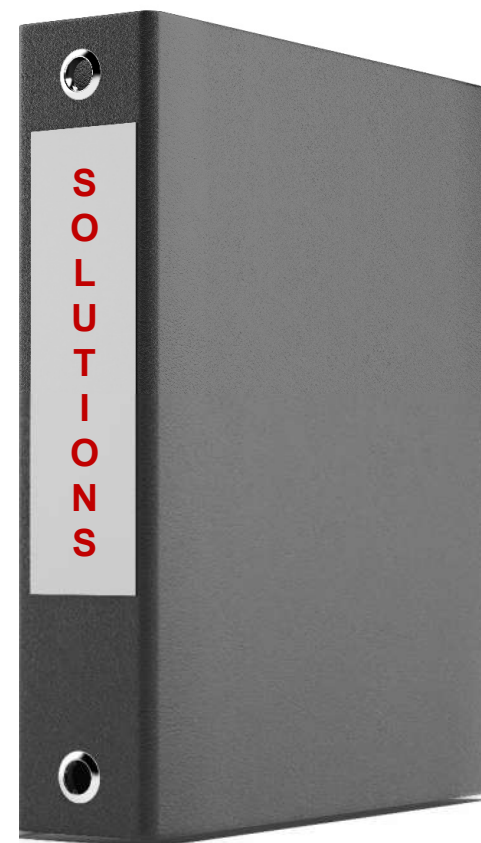




Picture: Colourbox.com



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Picture: Colourbox

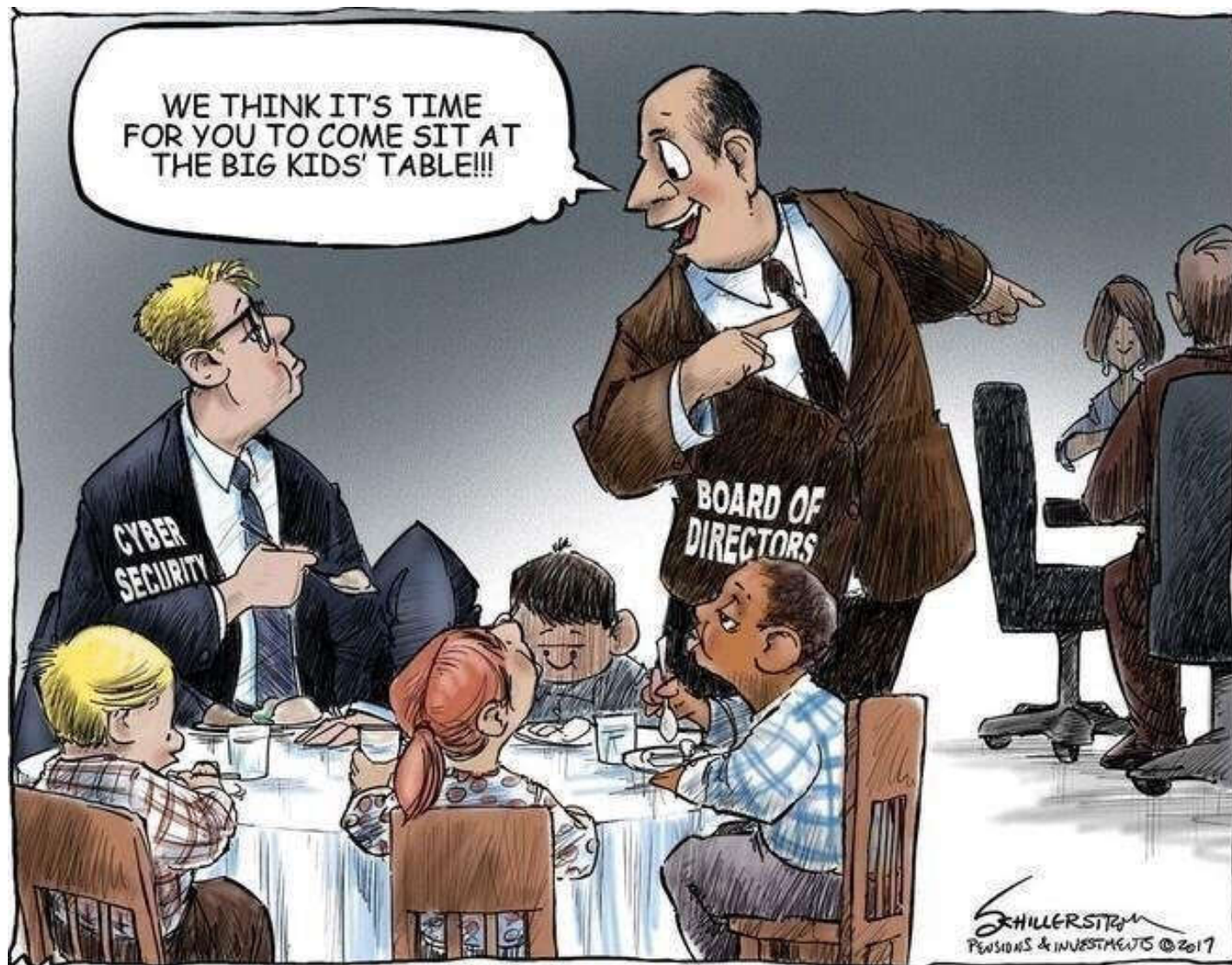
CYBERSECURITY

HALL OF FAME - ROLE MODELS



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Pictures: NRK/Universal/Disney/Sony



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"Security is an interdisciplinary, continuous process owned by the organization's top executive"



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Picture: Colourbox.com



CONFIDENTIALITY



INTEGRITY



AVAILABILITY



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Pictures: Colourbox.com



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Picture: Colourbox.com



Globalt angrep

Den britiske statsministeren, Theresa May, sier angrepet er verdensomspennende og ikke spesielt rettet mot Storbritannia. Hun beroliger britene med at så langt regjeringen kjenner til, har ikke sensitive pasientdata lekket ut.



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Pictures: Dagbladet/colourbox.com



Picture: Roar Thon

“Hackers”
have read my
information
CONFIDENTIALITY

“Hackers”
have
changed my
information
INTEGRITY


“Hackers”
have
overtaken
control
AVAILABILITY

What's the worst
thing that can
happen?



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Picture: Colourbox



**IN CASE OF
CYBERATTACK**

**BREAK GLASS
AND PULL CABLES**

«We have to find the balance between security and privacy and still be able to use the fantastic opportunities that technology gives us»



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«We should understand processes as well as we understand technology, but most of all should we understand people»



THANK YOU FOR YOUR ATTENTION



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Presentation # 1053
#81/2018

@NSM_no
@NorCERT

www.nsm.stat.no

