



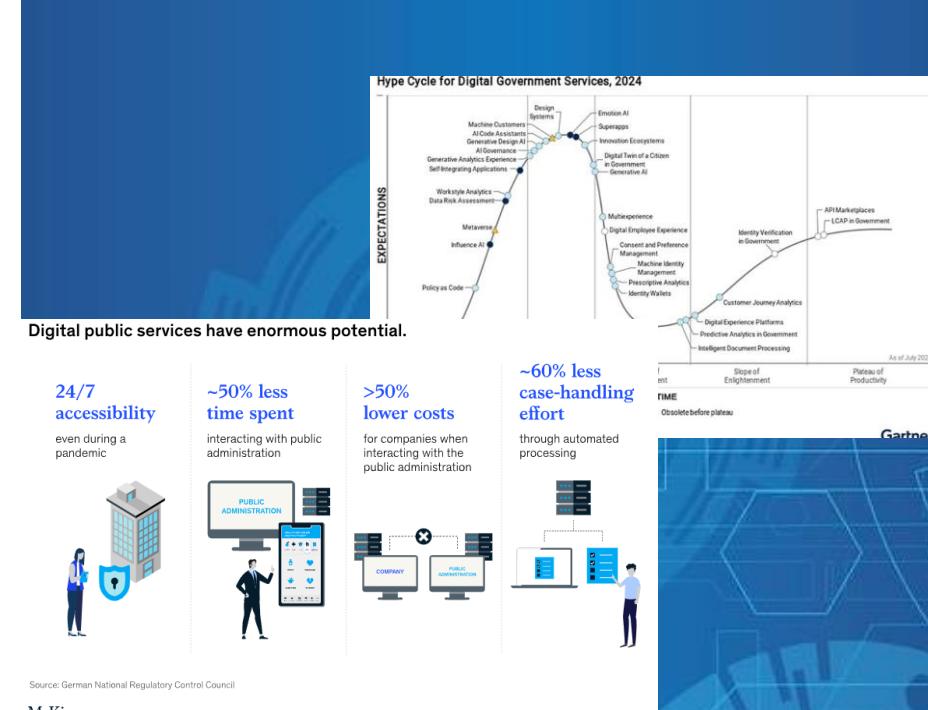
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SE

JOHAN LINÅKER, RISE/LUND UNIVERSITY

**Growing the courage to  
change what “works”**

# Technology is accelerating

- The opportunities are immense for increasing efficiency and innovation
- As are the expectations and planned outcomes
- There is a major risk, however, that these opportunities remain just opportunities (or come to an inconceivable cost)



Digital public services have enormous potential.

## 24/7 accessibility

even during a pandemic



## ~50% less time spent

interacting with public administration



## >50% lower costs

for companies when interacting with the public administration



## ~60% less case-handling effort

through automated processing



Source: German National Regulatory Control Council

McKinsey & Company

A Europe fit for the digital age  
Empowering people with a new generation of technologies



# We are digitally cuffed by dependencies

- Software solutions siloes people in our organizations rather than connecting them
- Vendors and big-bang platforms define the needs, not the end-users
- Complete trust is required into how our data is managed, and decisions and operations are performed. If we want access to it, we need to pay up.
- License fees we pay are defined by the vendor, not through competitive procurements

## IT-snurren: Skolor tvingas betala för att ta del av egen data

Häromåret fick Malmö stad, efter förlikning, betala 13 750 000 kronor i skadestånd till ett IT-företag för att man tagit ut historiska uppgifter om elever, till exempel betyg, ur ett system för elevadministration som man enligt avtal inte längre hade rätt att utnyttja.



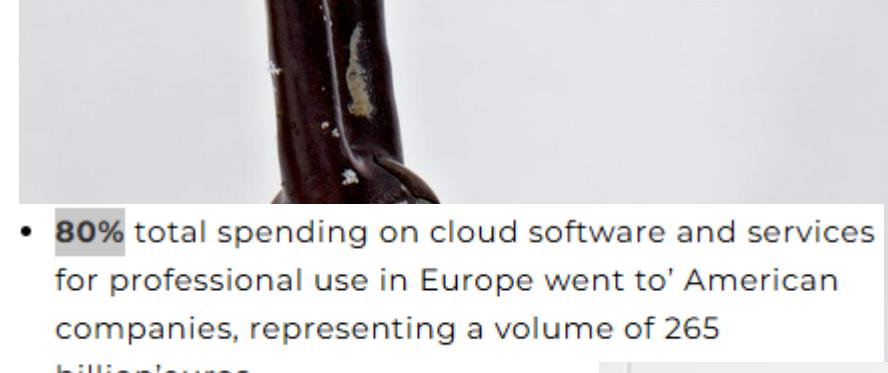
**Amerikanske it-giganter dominerer danske myndigheder:** »Der er nu en monopollignende tilstand«

Digitalisering · 27. oktober 2023 kl. 05:00 · 13 kommentarer

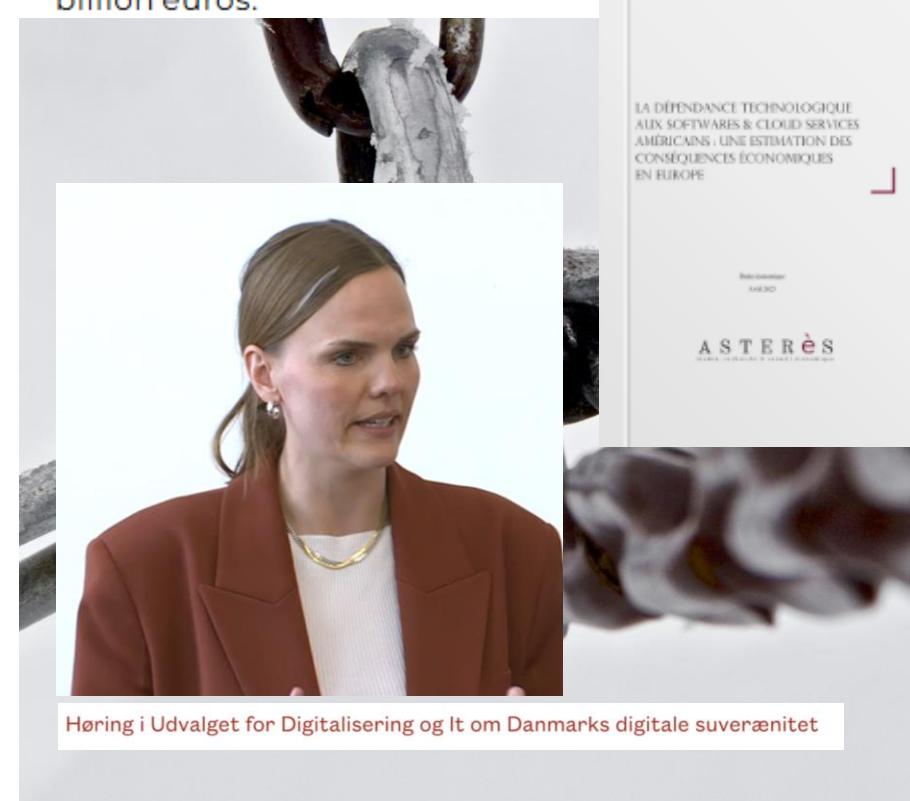
Det offentlige oplever enorme prisstigninger på it-licenser, der er så voldsomme, at det fik Region Hovedstaden til at fyre 150 medarbejdere i foråret. Kigger man på en af de største it-leverandører til kommunerne, er Region Nordjyllands udgifter til Microsoft de senere år steget med 44 procent.

# Dependencies few but strong

- We are heavily dependent on a few but very strong actors.
- The call to and need for breaking free of these dependencies is not something new.
- A worry about digital sovereignty of Denmark, or rather the lack of it.



- **80%** total spending on cloud software and services for professional use in Europe went to American companies, representing a volume of 265 billion'euros.



# Sovereignty is about control, not isolation

- It's about being able to maintain structural control of one's digital sphere, based on one's own values, norms and legislation
- Open strategic autonomy highlights how autonomy is gained by staying open to share and reuse, interoperability and collaboration
- Essentially nothing different from general vendor independence, but adding on a geopolitical dimension

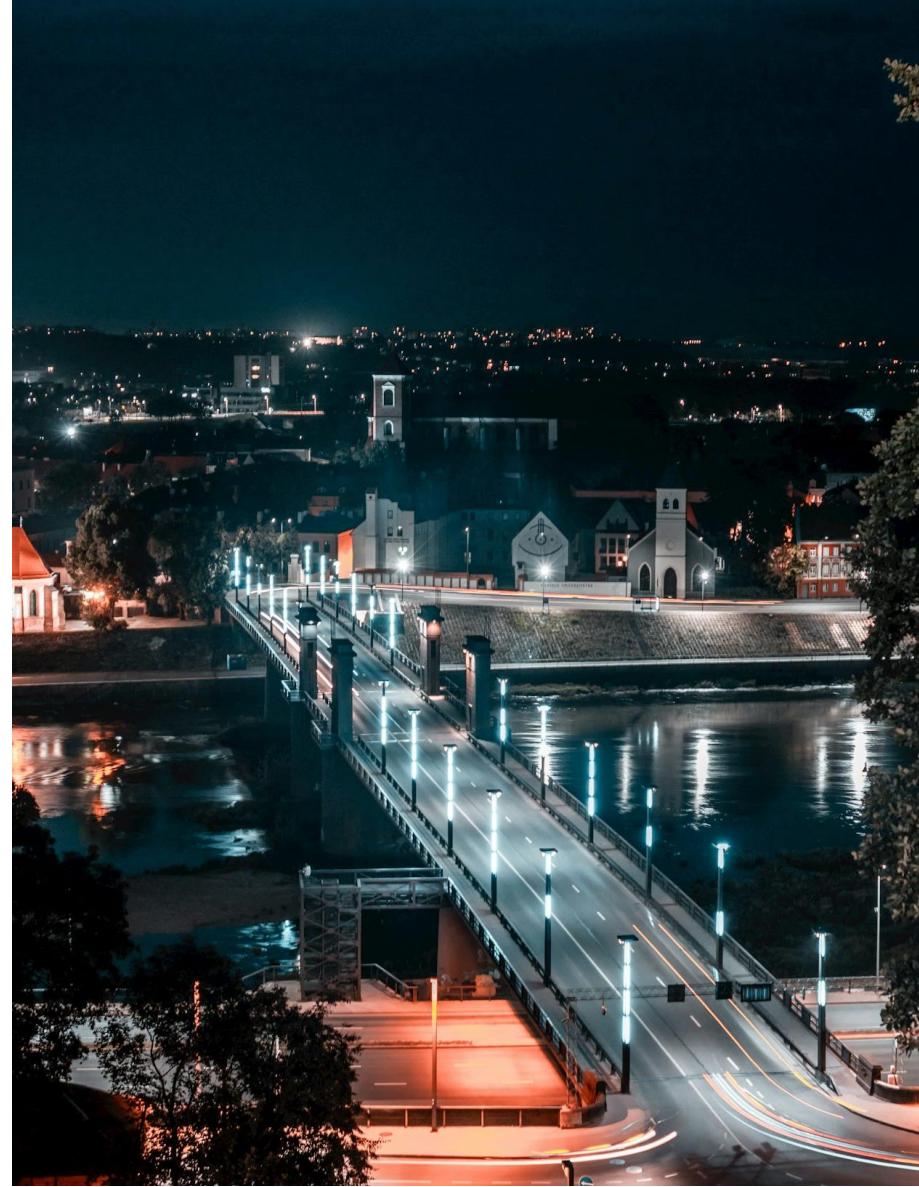


Photo by Adrià Crehuet Cano | [https://unsplash.com/photos/children-playing-soccer-LlhB1\\_mAGhY](https://unsplash.com/photos/children-playing-soccer-LlhB1_mAGhY)



# All parts of the infrastructure are equally critical

- Digital infrastructure is intertwined with the physical
- The amount of Analog Physical infrastructure is decreasing rapidly on behalf of the Digital Physical infrastructure
- The digital parts needs to be as robust, safe and secure as the rest of the infrastructure
- Question:
  - How does control and maintenance differ between the physical and digital parts of the infrastructure?





# It's a We-problem

- Achieving the change is not a question of technology, it's a question of people and culture
- It's a question of courage. It's a question of people's mindset and willingness to change.
- Courage to Act and Understanding the need for systemic change as key.
- But how do we grow the courage needed?

4. **Political leadership:** courage to act
5. **Understanding:** sovereignty requires systemic changes and not just technical replacements



# Instinct and reactions

- Denial is typically a first reaction, ignoring any kind of report or account of symptoms or issues.
- While accepting the mere existence of the issue, a next natural reaction is minimising the extent and impact of it.
- Rationalising and justifying one's own role and responsibility becomes natural
- Handing out blame, not to yourself of course, anyone else and preferably someone you oppose or compete with.

Digitalisering

Leverantören om Millennium: Kritiken felaktig

Sjukhusdirektören försvarar Millennium trots vårdpersonalens kritik

Cerner-vd: Både vi och regionerna har underskattat datalagstiftningen

NYHETER | INGÅR I: MILLENNIUM

VGR:s utvecklingsdirektör om Millennium: »Känner mig trygg«

NYHETER

Oracle skyller Millenniumhaveriet i Västra Götaland på negativ personal

Efter Millennium-stoppet – Oracle hävdar avtalsbrott

Nyhet  
17 jan. 2025 • 1 min

MILLENNIUM

Avtal mellan regionen och Oracle – Millennium pausas på obestämd tid

Photo by Rilsonav | https://pixabay.com/illustrations/ignorance-arrogance-bias-1993615/



# The Comfort factor

- The sense of enjoying the comfort of the known before the unknown
- Public organizations are essentially entrenched in comfort.
- Why change something that works?
- Why expose yourself to unknown risks, and the potential of feeling “discomfort”?
- If there’s a risk of discomfort, you just have to pick up the phone and get comforted by your sales contact, (and potentially golf buddy)



# Change = Same procedure as last year

- Tender is defined based on the obvious needs, e.g., need to be able to manage DOCX formats
- A conservative procurement culture promotes incumbent vendors, platforms and solutions that provides trust and comfort.
- Perceived requirements on what characterizes such vendors, platforms and solutions are enforced accordingly.
- Cost and risks implied by a potential exit further enforces the status-quo



Many procurement projects express mandatory requirements with reference to specific implementations in software. For example, one project expressed a mandatory requirement which required 'PDF from Raindance' (based on the information provided by this procurement project it is unclear how, and which version of the PDF file format is used by this specific SaaS solution for creation of PDF files). Similarly, another project expressed that support for exporting data from the procured application 'to the Google docs format' in a mandatory requirement (without providing any the SaaS solution is actually specified and implemented). Further, several procurement projects express (in many cases rather vaguely formulated) mandatory requirements that request integration and compatibility with the file formats used by 'iWork', 'Office 365', and 'MS Office'.



# Real change = Same thing, different name

- When things can't be ignored any longer and we again listen to vendors which we know and trust
- Again, filtered out mentally and legally through the qualification requirements defined accordingly
- This is the point, after which you take sit in your comfortable seat and rest by the sense of comfort that the consultants will do their job
- The real change envisioned and championed for, now risk repeating history



# **<Real change> = requires courage**

- Courage of standing up and questioning the status quo, and comfort
- Not being afraid of the personal consequences of questioning, but of the consequences of remaining in status quo.
- Won't win you any popularity contests (at least not in the beginning)
- But how do we grow the courage needed?

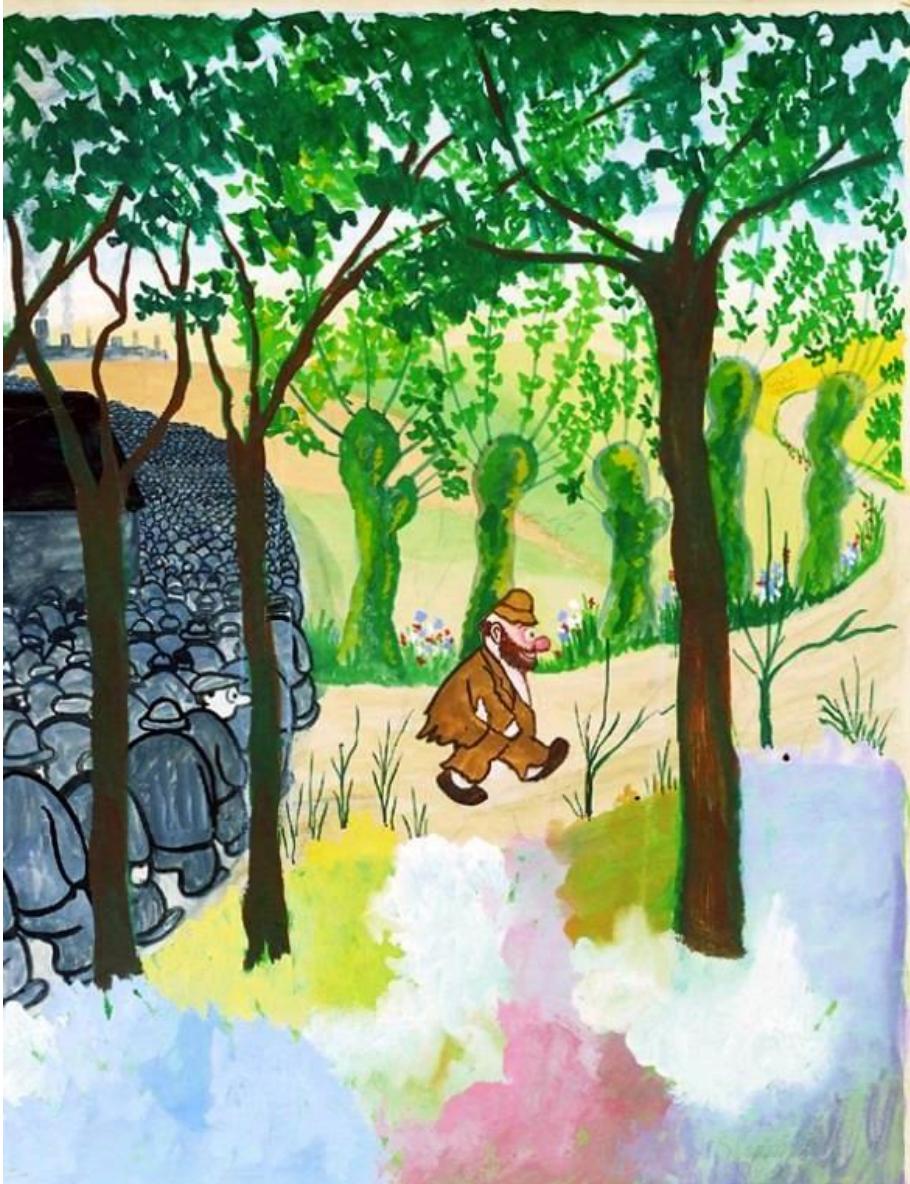


Photo by Storm P | [https://sv.wikipedia.org/wiki/Robert\\_Storm\\_Petersen#/media/File:Tilbage\\_til\\_naturen\\_-\\_Storm\\_P.jpg](https://sv.wikipedia.org/wiki/Robert_Storm_Petersen#/media/File:Tilbage_til_naturen_-_Storm_P.jpg)

# **Growing courage together**

- More courageous people are needed if any substantial and sustainable change
- By acting together, voices become both stronger and smarter.
- Together, the status quo and institutional sense of comfort can be confronted



# Collaboration is key

- We grow courage through collaboration, we establish change through collaboration.
- Still, triggering and growing collaboration and an open mind is as difficult for already said reasons.
- If others can grow the courage to achieve change, and to collaborate accordingly, so can you.



# **Open as a toolbox for enabling collaboration**

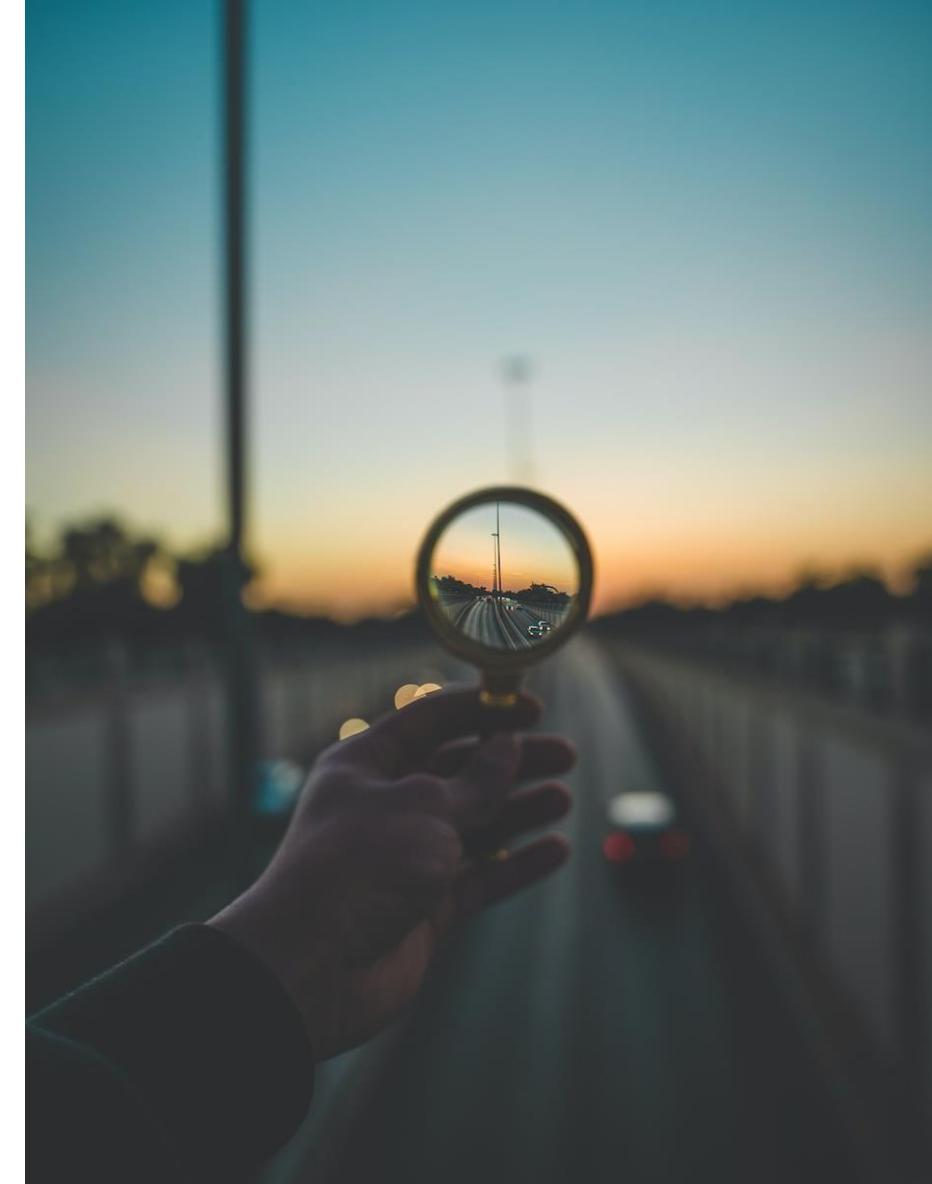
- If we study the many examples, including the ones represented in this room, the tools and means for enabling and facilitating collaboration spells open.
- Open source software, open standards, open data, open knowledge, open science, open hardware, open collaboration, open innovation...
- These are all tools and means to driving change, and realizing the many opportunities technology brings.





# Defining the goals to achieve

- Competition and diversity, not necessarily in the number of solutions, but in the services required to use the solutions.
- Interoperability between solutions and public services, increasing efficiency and quality of life for end users.
- Transparency and control over where and how data is managed and reused.
- Economic growth, sharing development costs, and more value for tax money.
- Collectively defining the needs and requirements of the solutions and validating the quality them.



# Designing policies for achieving the goals

- Policy focus:
  - Public sector vs. Industry
- Policy direction:
  - Inbound vs. Outbound
- Type of intervention:
  - High-level endorsement vs. Advisory vs. Prescriptive
- Form for definition
  - Legislative vs. Government instruction vs. Strategy documents
- Scope of policy
  - National gov. vs. Regional/Local gov. vs. Institution-specific



Photo by Elimende Inagella | [https://unsplash.com/photos/brown-wooden-chairs-on-gray-concrete-floor-7OxV\\_qDiGRI](https://unsplash.com/photos/brown-wooden-chairs-on-gray-concrete-floor-7OxV_qDiGRI)

# Support structures needed

- Planning and intent is not enough, knowledge and capabilities needed leverage the toolbox
- Need for creating joint support structures within and across organizations.
- The term Open Source Program Offices (OSPOs) are commonly used as a label of support centres
- Industry construct from 2000s but has today gained broad adoption in the public sector as well, with several examples across Europe.

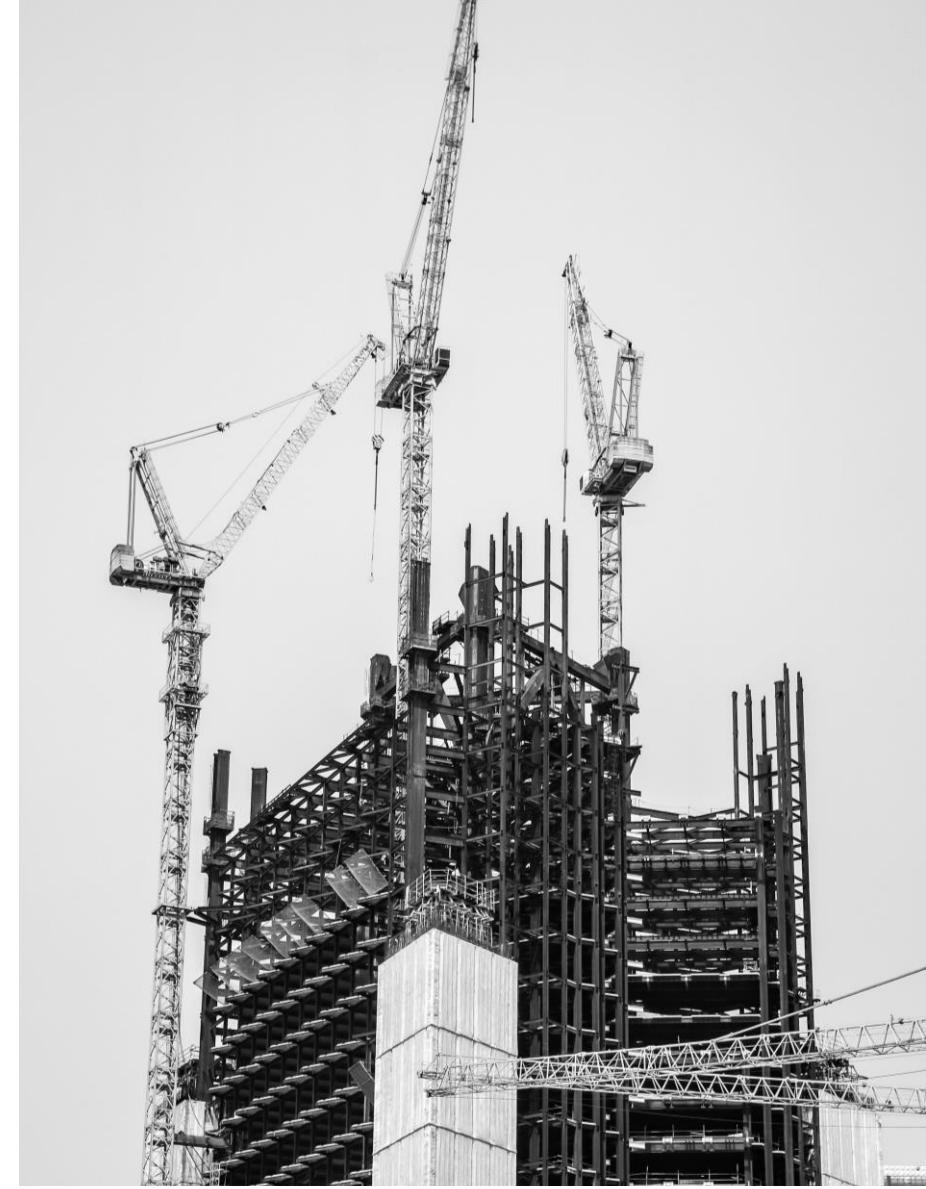


Photo by Nguyễn Hiệp | <https://unsplash.com/photos/grayscale-photo-of-crane-near-building-mvYyxn02rjk>



# National Government OSPOs

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## Hosting organisation

National administrations or ministries responsible for digital transformation and government (in general or for specific domains)

## Primary goal

Build and scale capacity in national public sector in adopting and collaborating on OSS



Free Software Unit at the French Interministerial Digital Directorate  
(*Direction interministérielle du numérique - DINUM*)



Developers Italia at the Department for Digital Transformation  
(*Dipartimento per la Trasformazione Digitale*)



Centre for Digital Sovereignty  
(*Zentrum Digitale Souveränität*)



Luxembourg House of Cybersecurity OSPO at the Ministry of the Economy  
(*Ministère de l'Économie*)



# Case study: Italy

-  Law mandating public administrations to consider using OSS when procuring software solutions
-  **Developers Italia**, founded in 2017 and jointly managed by the Department for Digital Transformation and the Agency for Digital Italy
-  Educates and supports **development and growth** of processes, knowledge, and culture
-  Guides, catalogues, and interactive **support** provided for users in terms of finding, choosing, and collaborating on open source
-  Developer **community** spanning public and private sectors, academia, and civil society supporting efforts



# Institution-centric OSPOs

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## Hosting organisation

Internal departments responsible for IT service provisioning to the overarching institution

## Primary goal

Build and scale capacity inside the institution in adopting and collaborating on OSS



European Commission OSPO at DG DIGIT  
(Directorate-General for Digital Services)



IT Department at the French Public Employment Service  
(*Pôle Emploi*)



Bureau Open Source Software at CTO's Office of Dutch Tax and Customs Administration  
(*Belastingdienst*)

A photograph of several European Union flags flying from a pole in front of a modern building with a grid-like facade.

# Case study: European Commission's OSPO

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-  Resides within the **Directorate-General for Digital Services**
-  Executes on the **EC OSS strategy** and facilitates its renewal
-  **Liaison** between the EC's departments and external actors on OSS matters
-  External **outreach and collaboration** through European OSPO network
-  Promotes consumption and contribution through relaxed yet controlled processes for **compliance and security**



# Local Government OSPOs

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## Hosting organisation

Departments responsible for IT service provisioning within local government (including municipalities, cities, and regions).

## Primary goal

Enable adopting and collaborating on OSS in the digital transformation of the local government



IT Department at City of Paris, France



Department for Digital Services and Innovation at  
City of Bratislava, Slovakia



Digital Centre at City of Ventspils, Latvia



# Case study: City of Bratislava

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- 📍 Part of the **Department for Digital Services and Innovation**, headed by the City's Chief Innovation Officer since 2019
- 📄 OSS highlighted through Digital Innovation **policy** and Bratislava 2030 policy
- ⭐ OSS **preferred** within the Department, but strong business case needed for other parts
- 💻 Develops, maintains, and provides **OSS-based services**, including the City's e-service platform
- ⌚ Works actively with **stakeholders** and uses **metrics** to improve and guide development



# Association-based OSPOs

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## Hosting organisation

Associations with PSOs as members or owners

## Primary goal

Enable members to initiate and collaborate on OSS projects addressing common needs



OS2 – Public Digitalisation Network, Denmark  
(OS2 - *Offentligt digitaliseringsfællesskab*)



Dutch Association of Municipalities, The Netherlands  
(VNG - *Vereniging van Nederlandse Gemeenten*)



Open Cities, Czech Republic  
(*Otevřená města*)



## Case study: Open Cities

- ➡ A Czech non-profit gathering **20+ cities** in the Czech republic to support their digitalisation
- 🕒 Receives and hosts OSS projects initiated by public entities. **Facilitates** joint requirements engineering and planning, and performs the main development of the projects
- 📅 Currently **hosts six projects**, including Cityvizor - an open source tool for transparent municipal management
- 💼 **Collaborates** with civic tech and hacker communities
- 🎙 Actively **engaged** and driving efforts in creating a Czech national OSPO, and driving the European transformation through the Brno declaration



## **Enables implementation of policy and strategy**

- The OSPO constitutes a change agent and policy enabler
- They constitute a champion for breaking the status quo, and ridding of institutional comfortness
- Helps enable execute but also design the policy and strategy to help you achieve your defined goals
- “Open Source” regards the full toolbox of open technologies in society at large



## Promotion critical for enabling reuse

- Critical need to show that successful and realistic options are available, and where to find them.
- Several nation catalogues available, e.g., Offentligkod.se in Sweden
- Corresponding available in Italy, France, Germany, Netherlands
- Currently being compiled through an EU federated catalogue using the meta data standard Publiccode.yml



# OpenDesk

- German initiative for creating a complete desktop solution for the general civil servant
- Packages existing open source solutions, and developing the glue in-between
- Enables solution to be run as SaaS or on prem
- Close dialogues conducted with vendors behind the solutions, e.g., Nextcloud, Element och Jitsi
- Today has 40 000+ users and growing

## Flexible Teamwork for the Public Sector

openDesk is the customisable office and collaboration suite designed specifically for your needs in public administration.

[Stay informed](#) →

Launched in autumn 2024.



### Project management

Plan and manage projects efficiently with kanban boards, Gantt charts, and more.



### Task management

Track your tasks with ease and stay on top of milestones.



### Contacts

Manage your personal contact details or create shareable address books.



### Document management

Create and edit text, spreadsheets and presentations — on your own or collaboratively with others.



### Chat

Communicate with colleagues and workgroups in real time.



### Calendar

Organise your appointments or share calendars across teams.



### Wiki

Capture, collect, organise and share your expertise, insights and processes in one central, searchable system.



### Email

Enjoy modern email functionality with additional support for group mailboxes.



### File storage

Securely store and share files in the cloud.



### Video conferencing

Hold stakeholder meetings in high-quality resolution, right from your browser.

Photo from <https://opendesk.eu/en/>

# OpenCode

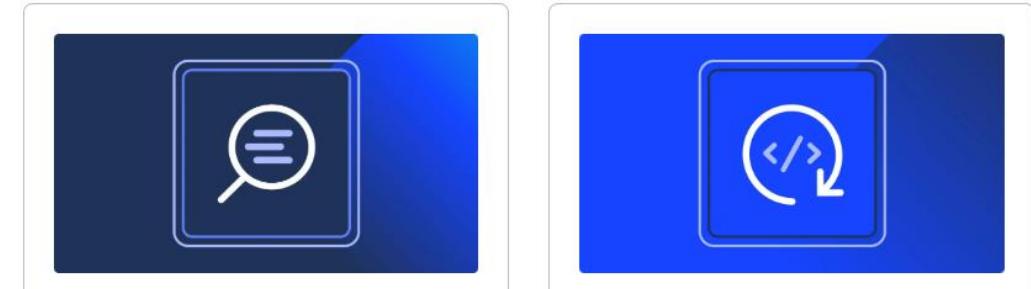
- Open Source collaboration platform for the German Public sector
- Builds on GitLab and provided by ZenDIS
- Studied and copied by other EU countries
- “Community Edition for Europe”
- Has about 5 400 users, and 2300 repositories

## The platform for Digital Sovereignty

openCode brings open source to the German public sector. Together, we develop and share software that shapes our digital future in a self-determined way.

[About Open Source](#)[Software Index](#)

## How would you like to use openCode?



# Gesundheitsamt-Lotse

- Health care system developed by and for the German Region of Hessen
- Developed through agile collaboration between Regional government and teams of externally procured suppliers
- New features developed iteratively
- Starting to see interest and contributions from other regions as well
- <https://gitlab.opencode.de/ga-lotse/ga-lotse-code>
- (Anecdotal reference to Millenium?)



The screenshot shows a news article from a Swedish newspaper. At the top right, there is a logo with a blue arrow pointing right and a green eye-like icon, followed by the text "Das Digitalisierungspaket der Zukunft". Below this, the word "tse" is partially visible. The main title of the article is "Hård kritik efter Millennium-granskningen: "Haveri som inte går att rädda"" (Hard criticism after the Millennium audit: "Catastrophe that can't be saved"). The text below the title discusses the audit of the Millennium project, mentioning sharp criticism from Västra Götalandsregionen and a lack of preparation for the implementation of the journal program. A quote from Liberalernas regionråd Pär Lundqvist is included. The bottom section is titled "Vision und Umsetzung" and describes the project as a "Digitalisierungspaket der Zukunft" designed to optimize processes in health departments.

**Hård kritik efter Millennium-granskningen: "Haveri som inte går att rädda"**

UPPDATERAD IDAG 05:21 PUBLICERAD IGÅR 17:01

Den externa granskningen av miljardprojektet Millennium riktar skarp kritik mot Västra Götalandsregionen. Utredningen visar att verksamheten inte var tillräckligt förberedd för införandet av journalprogrammet och att styrningen brast.

– Min bedömning är att tilliten inte bara är skadad – den är förlorad, säger Liberalernas regionråd Pär Lundqvist.

**Vision und Umsetzung**

„GA-Lotse – Das Digitalisierungspaket der Zukunft“ für den Einsatz in Gesundheitsämtern folgt der Idee durch eine gemeinsame, einheitliche Software die Abläufe in den Fachabteilungen für die Mitarbeitenden zu optimieren. Mit der Softwareentwicklung GA-Lotse entsteht eine hochgeschützte und effektive Datenverarbeitung. Sie wird die Gesundheitsämter in ganz Deutschland befähigen, für die Veränderungen in der Arbeitswelt und den

# La Suite

- A series of tools for promoting digital communication, collaboration, and productivity
- Functionality including instant messaging, email, desktop, video meeting...
- Building on extant solutions like OpenDesk
- Collaboration ongoing between France and Germany (recently also the Netherlands)



## France and Germany unveil Docs, a homegrown alternative to Google Docs

In a push for digital independence, Europe debuts its own collaboration tool

By Alfonso Maruccia March 20, 2025 at 1:33 PM | 23 comments

Create. Organize. Collaborate. An open source environment, designed for the public sector and open to the commons.





<< Further reading [5]

## **Public Sector Open Source - same but different**

- Public sector, policy and OSPOs, as well as vendors need to consider the differences in how public sector OSS is developed
- Same practices from industry and community cannot be copied straight off



Photo by adonyig | <https://pixabay.com/photos/glass-globe-fot%C3%B3g%C3%B6mb-buda-castle-4112627/>



# Type of sponsorship

- Centralized sponsorship
  - Development is carried out or sponsored by, and in extension dependent on, one or a few resourceful PSOs.
  - OSS typically originates main PSOs, and are of business critical character, warranting sponsorship
- Decentralized sponsorship
  - Multiple PSOs collaborate through pooled resources, using external service providers





<< Further reading [5]

# Development practices

- Development often centred to a core teams of 15 or less, who produce > 80 percent of the code base
- Open development and release using GitHub
- Formal and agile processes, with structured quality assurance processes
- Development typically performed within the bounds of one organization, generally using procured resources
- Planning and coordination performed top-down from the PSOs funding the development

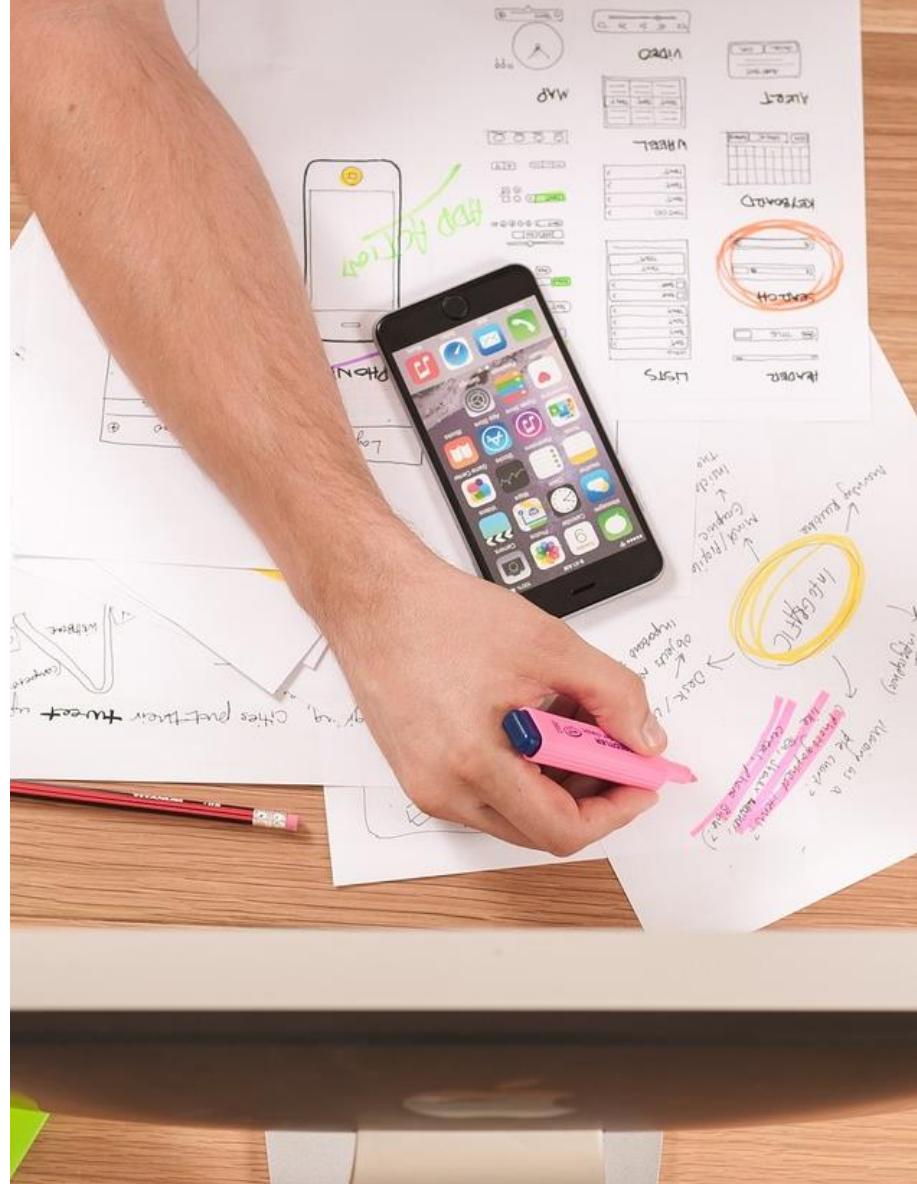


Photo: <https://pixabay.com/photos/ux-prototyping-design-webdesign-788002/>



# Community

- User community rather than developer communities (PSOs mainly), limited in size and contributions.
- Contributions typically in forms on
  - Funding,
  - Subject-matter expertise,
  - Requirements engineering,
  - Quality assurance
- While communities are limited in size, the number of end-users is much higher





<< Further reading [5]

# Sustainability

- Centralized sponsorship
  - Dependence of main PSO(s)
- Decentralized sponsorship
  - Dependence of collective funding
  - Dependence of supplier interest and presence



Photo: <https://pixabay.com/photos/economic-coin-business-money-graph-1050731/>



<< Further reading [6]

# What is does a healthy project look like?

- **Productivity**

There is an active development of the project.

- **Robustness**

The development is open and spread out on several (independent) individuals.

- **Openness**

Users of the project can influence and contribute to the development of the project.



Photo by Getty Images | [https://unsplash.com/photos/a-large-group-of-people-running-down-a-street-jG\\_dG9qzn\\_o](https://unsplash.com/photos/a-large-group-of-people-running-down-a-street-jG_dG9qzn_o)

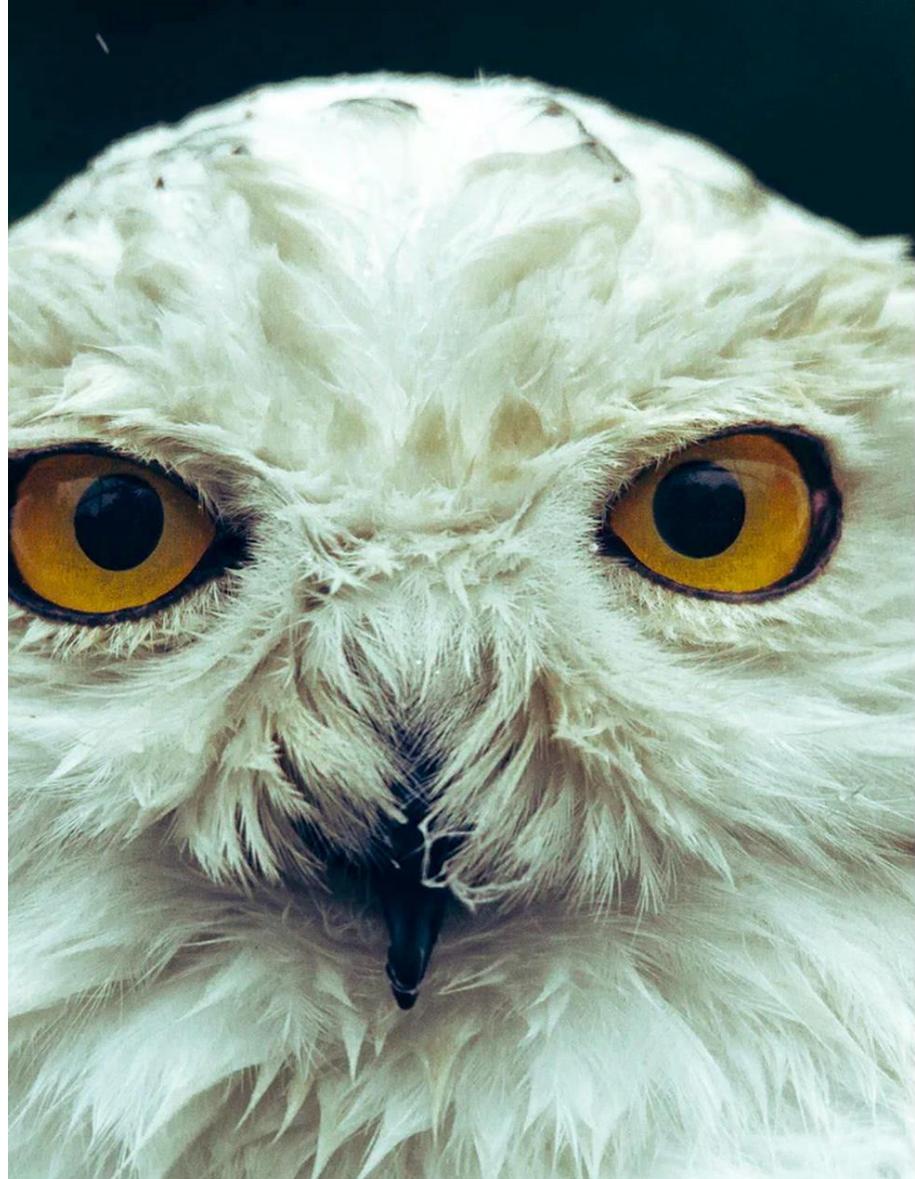


<< Further reading [6]

## Linus' law

*"Given enough eyeballs, all bugs are shallow"*

- Requires that enough eyeballs actually reaches the codebase
- Free-riding, for both good and bad





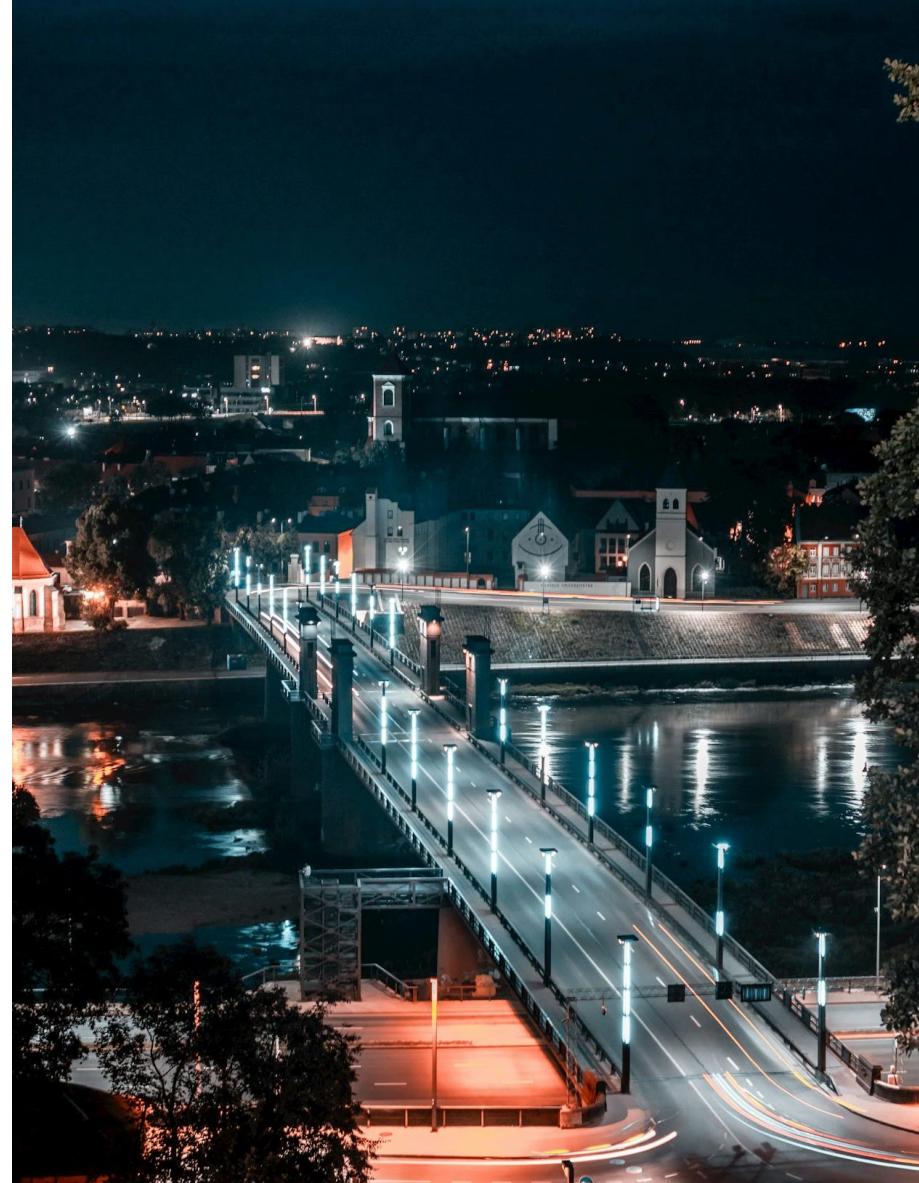
# Brain-time is a depletable resource

- “Brain-time” and maintenance effort is subtractable, meaning depletable
- Maintainers are humans, not robots
  - Burnout, changed family or working conditions
- Companies must adapt to stay competitive
  - Refactorization, new products, changed business model



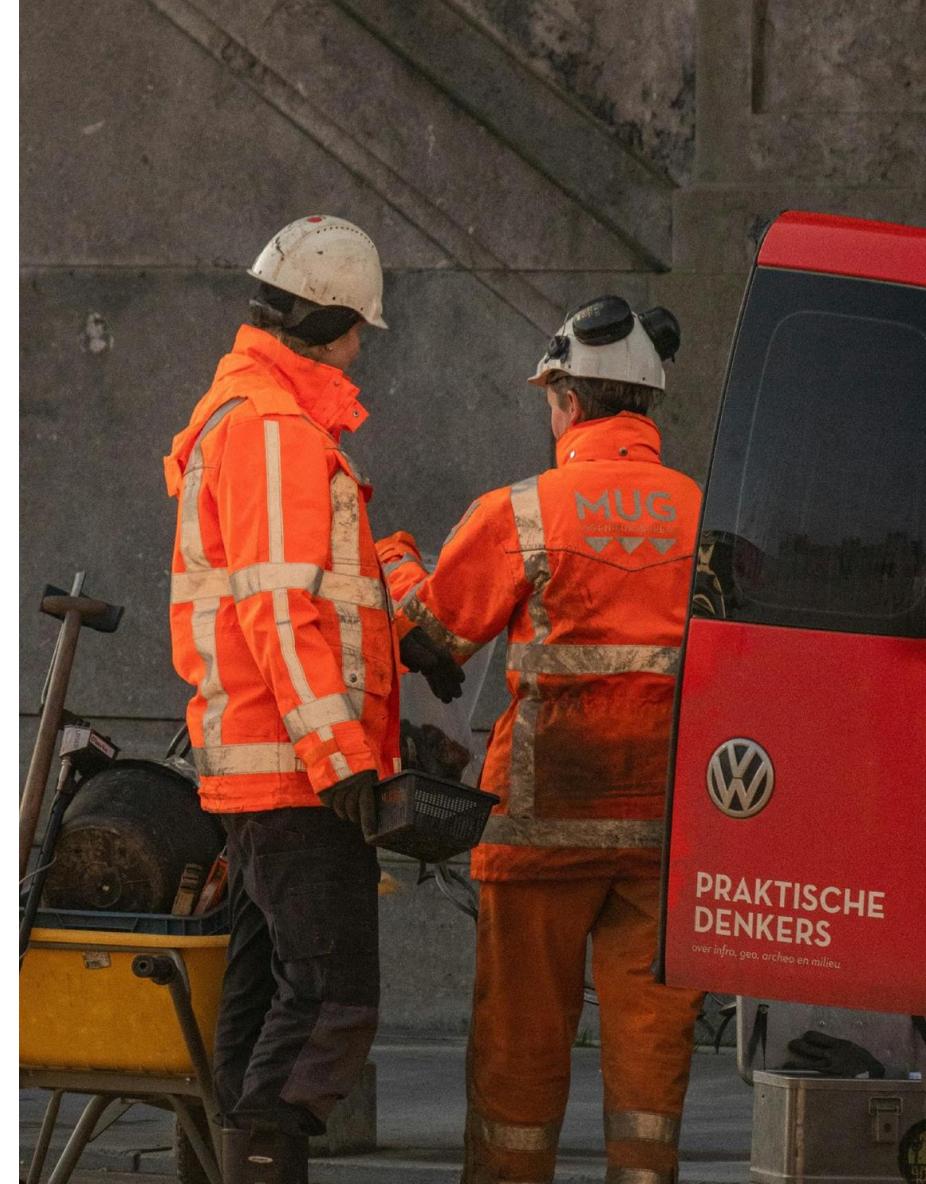
<< Further reading [1]

# How does control and maintenance differ between the physical and digital parts of the infrastructure?



# Sustainability = Collective responsibility of society

- Companies can and should contribute to the sustainability, also governments
- Funding one part of the solution
- Sovereign Tech Agency in Germany funds infrastructure considered critical for Germany
- AlphaOmega funds projects of commercial interests for its (BigTech) funders
- Maintenance and upstream contributions should be a requirement in all public procurements
- A mix of initiatives needed focusing on different parts of the infrastructure, balancing maintenance and innovation



# Sustainable vendors = Sustainable software

- Including vendors in the collaboration and maintenance
- Considering business friendly licenses while avoiding lock-in
- Using procurement as a tool for enabling sustainable business models, and by extension a sustainable maintenance
- EuroStack – an initiative of 200+ SMEs and Large companies pushing for new European industry policy

A complete digital ecosystem made and supplied in Europe.

European industry big win: Germany, France both support sovereign EU-based tech infrastructure

That was the easy part, now the real difficulties unfold.

Rival report to Knafo's on EU tech sovereignty: more content, more cautious

The recommendations in the working document are currently too cautious and will be made more ambitious, a source close to the matter told Euractiv.

Von der Leyen expresses timid support for Eurostack tech sovereignty project

German MEP Tiemo Wölken called von der Leyen's comments an important signal, but not everyone is convinced.

SKILLS, COMPETENCES, CERTIFICATIONS

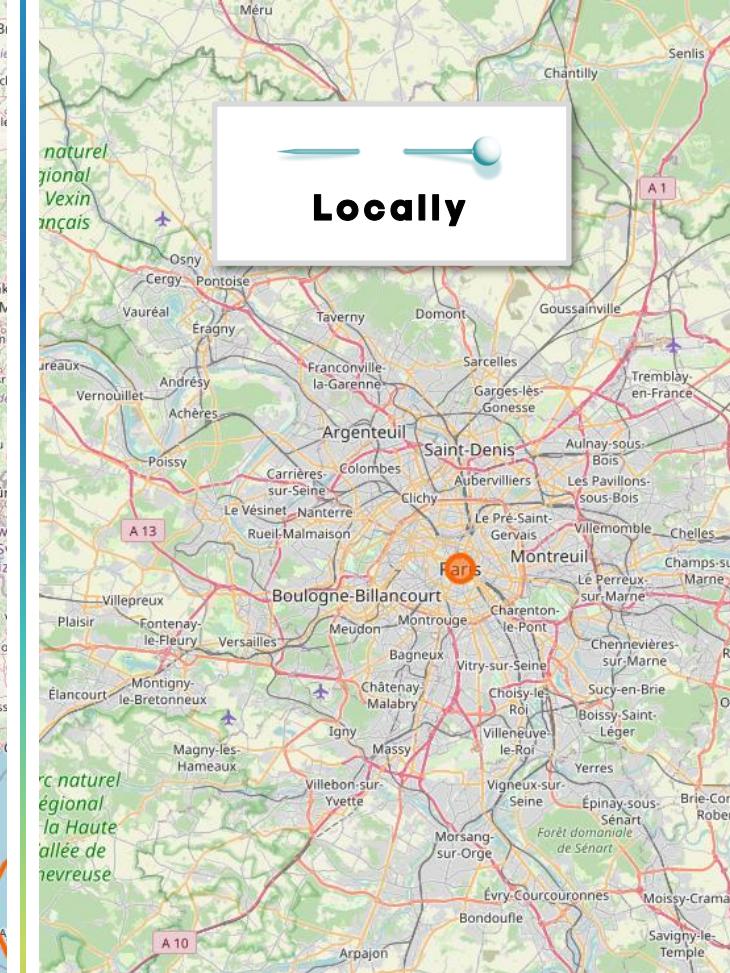
Photo from <https://euro-stack.eu>



**Internationally**



**Nationally**



**Locally**

**Need for building joint ecosystems and capabilities for real change to happen**

# What next?

- Sovereignty, Change, Capabilities, Courage
  - Won't happen over night
  - But we need to start somewhere
- How should the short-, medium- and long-term plan look?
- How do we move forward (without constantly backing up)?



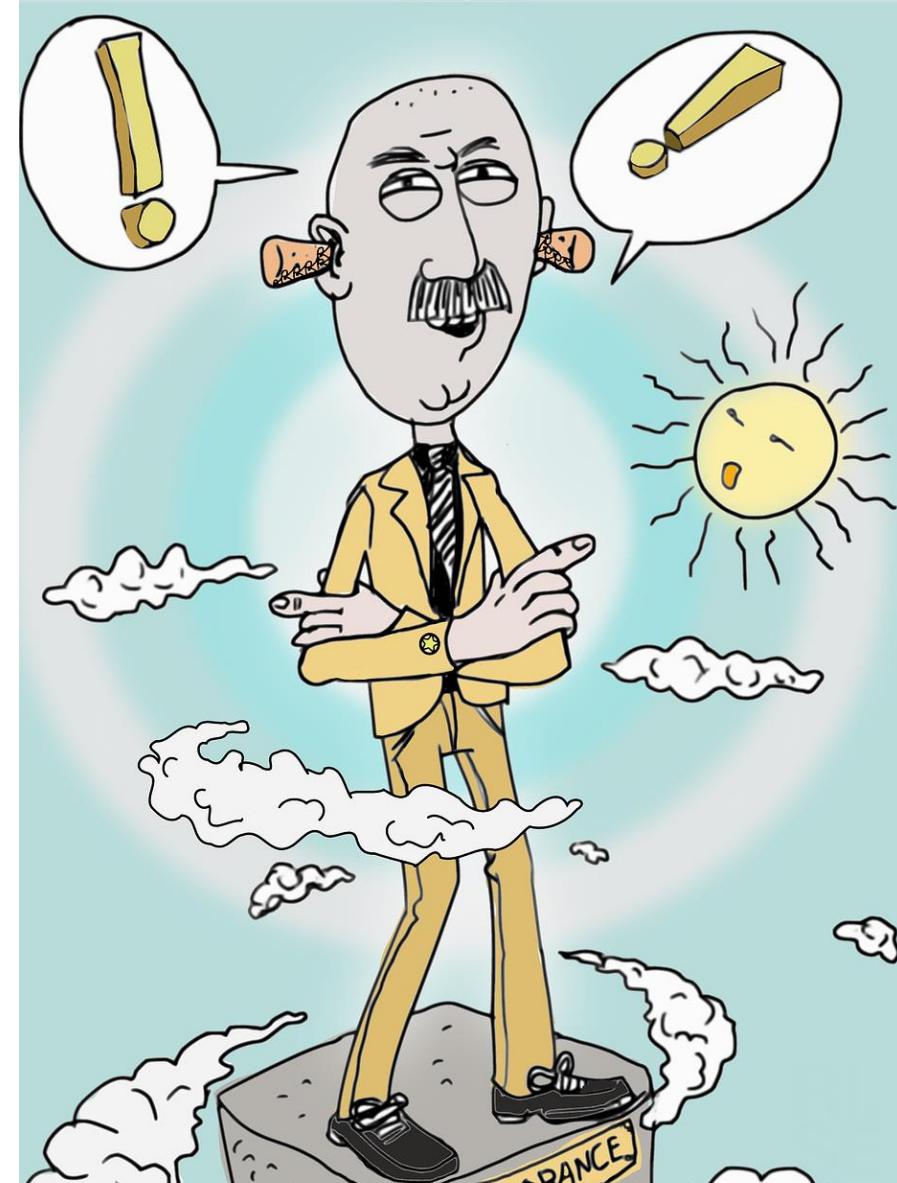
Photo by jplenio | <https://pixabay.com/photos/landscape-highlands-desert-blue-2565574/>



**Start Questioning the Status Quo, and the never-ending need for Comfort**

**Start Growing the  
courage to change  
what “works”**

**(and accepting that the world  
looks different from when that  
was the case)**



# Start mythbusting

- Address any questions and debate proactively
  - What concerns come up? What are the risks or reasons blocking the change?
- Typically, there are a lot of myths, both on the positive and negative ends
- Address the any reason for staying stuck in the comfort zone, openly and pragmatically



# Start doing while talking

- Start having weekly 30-minute calls with colleagues and peers. Talk to each other, share questions, plans, and concerns.
- As part and in connection:
  - Map your dependencies and what risks they come with. Define a plan for how to manage them.
  - Define your vision for your digital future, and the goals you aim to achieve.
  - Plan for how goals can be achieved with open source toolbox
  - Identify needs for support and help in using the tools accordingly

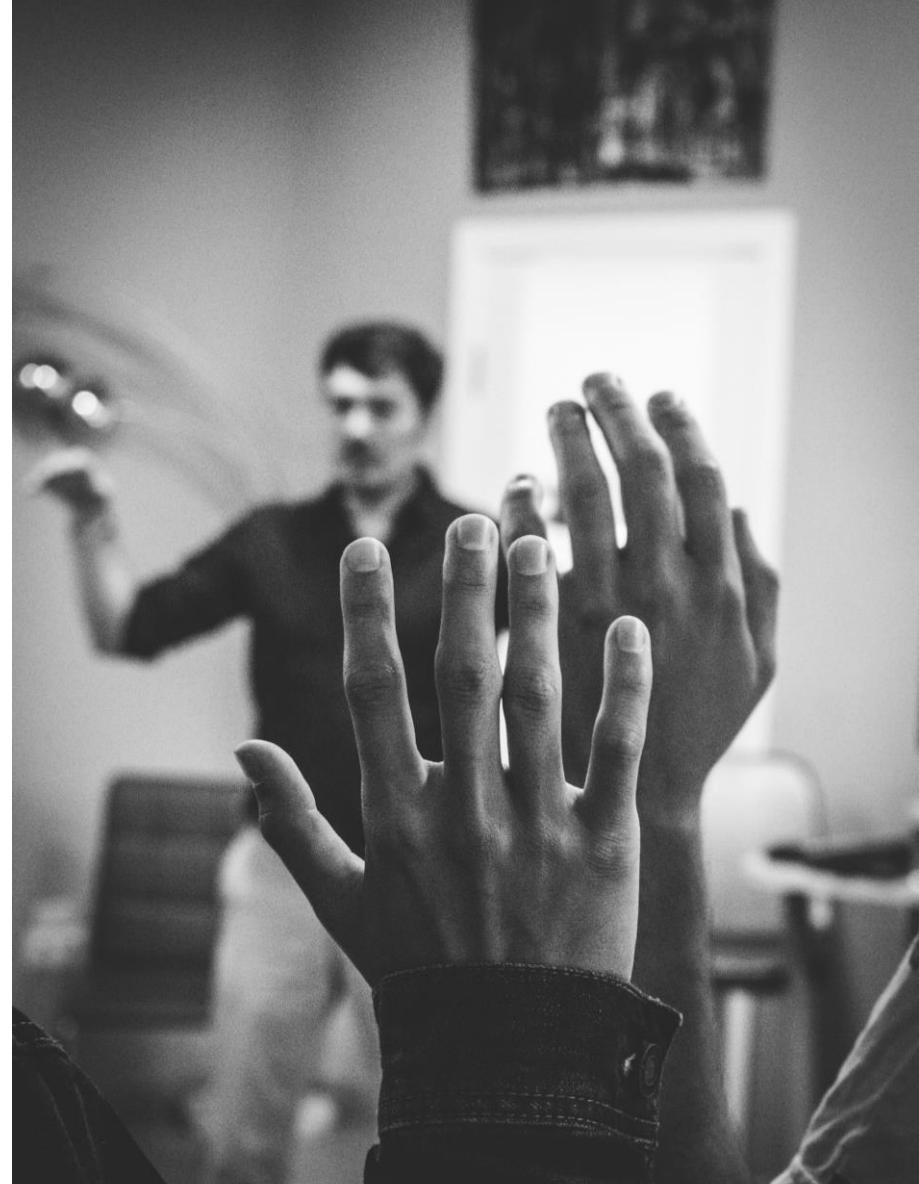


Photo by Artem Maltsev | <https://unsplash.com/photos/grayscale-photography-of-two-people-raising-their-hands-0CvHQ62gwY8>

# Questions for policy

- How can we achieve a collaborative approach to digital transformation, and achieving the opportunities that reside?
- What dependencies are of national concern? Where do we need to regain control?
- What policies and complementary support structures (e.g., OSPOs) are required accordingly?
- How can we sustain and balance both maintenance and innovation for a robust, safe and secure infrastructure?
- How should we collaborate internationally in achieving our goals and needs?

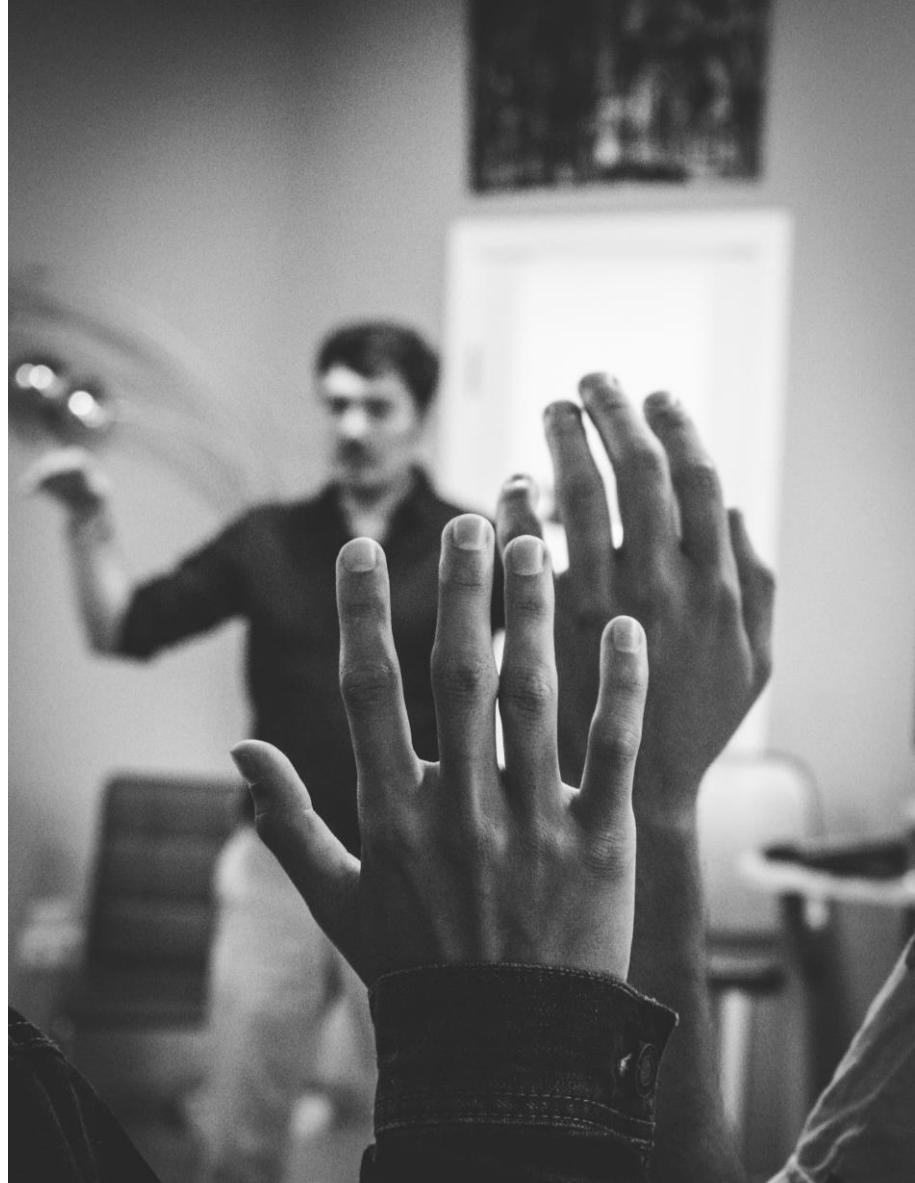
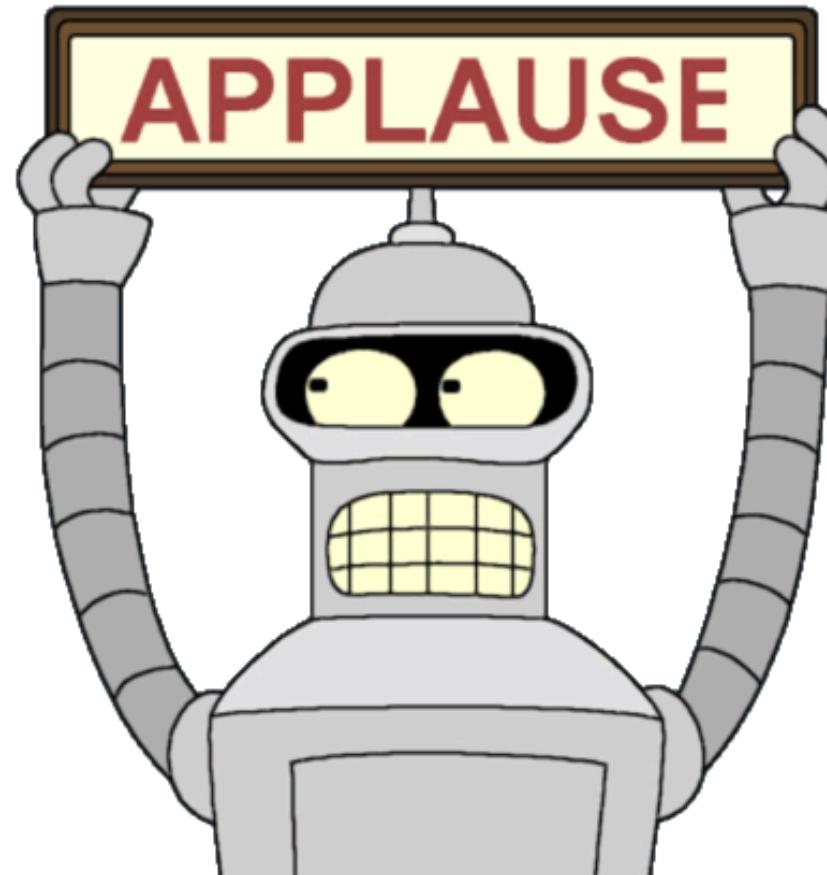


Photo by Artem Maltsev | <https://unsplash.com/photos/grayscale-photography-of-two-people-raising-their-hands-0CvHQ62gwY8>



**Kom nu ind i kampen...**



# Further reading

- [1] <https://www.linaker.se/blog/building-sovereignty-the-open-way/>
- [2] <https://arxiv.org/pdf/2409.01118>
- [3] <https://www.linaker.se/blog/report-software-reuse-through-open-source-software-in-public-sector/>
- [4] <https://www.linaker.se/blog/public-sector-open-source-program-offices/>
- [5] <https://www.linaker.se/blog/public-sector-open-source-software-projects-how-is-development-organized/>
- [6] <https://www.linaker.se/blog/sustaining-maintenance-labor-for-open-source-software-projects-through-human-Infrastructure-Copy/>
- [7] <https://www.linaker.se/blog/health-check-ups-on-open-source-software-projects/>