



EU OS for European Commission Staff

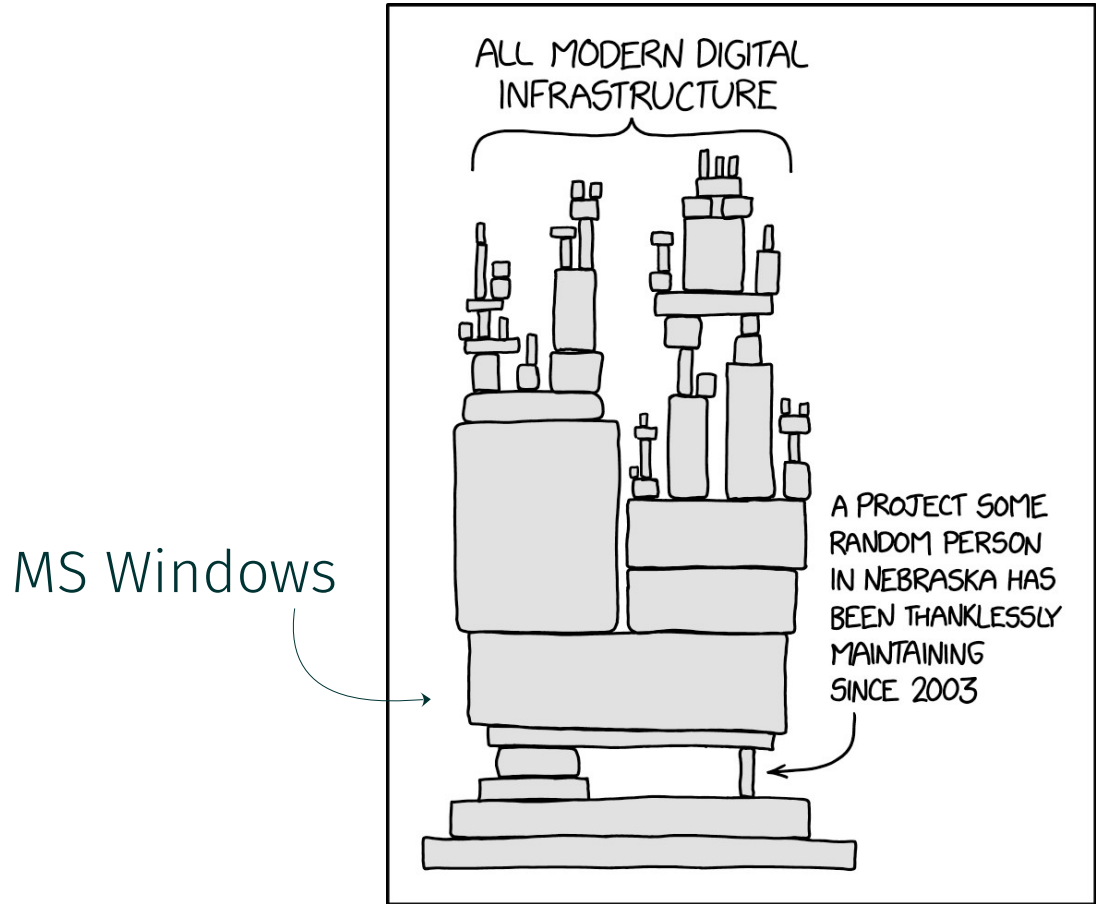
Promises and Status Q4 2025

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EU OS: Why?



Source:
<https://xkcd.com/2347/>

OS to support older Hardware

- With Windows 10 end-of-life, older hardware does not meet requirements for an update on Windows 11 (planned obsolescence of 240 Mio devices).
- With Linux, older (and newer) hardware can be used longer.
 - Schools and universities, libraries, public administration, etc.

OS to support high regulatory requirements (security, sovereignty, privacy)

- With Windows 10 and 11, connected (cloud) services are difficult to control.
- With open source software like Linux, a high level of control is achievable
 - Government: competition authorities, data protection authorities, courts
 - Embassies, secret services, armed forces, critical infrastructure sector

Perceived Problems

- During migration two systems must be supported: Windows and Linux
- Expensive migration: cost-saving effects only for large desktop fleets
- Little in-house know-how and small ecosystems: shortage of expertise
- In the absence of role models: many unknowns and risk to fail
- User aversion against new or non-standard software (or change in general)

Possible Solution

- Synergies between organisations: common approach to Linux and its migration
- Synergies between building blocks: reuse cloud technologies and expertise

What is EU OS not?

- It is not a project of the European Union, but [it should be](#).
- It is not a new Linux distribution. It is not for private home users.
- It is not a project producing original code. EU OS reuses existing software.

What is EU OS then?

- It is a Proof-of-Concept (PoC) for the deployment of a [Fedora-based](#) Linux OS with a KDE Plasma desktop environment and [bootable container technology](#) in a typical public sector organisation (corporate environment).
- Private sector organisations with similar requirements may also use EU OS.
- EU OS is also a community and a knowledge data base.

EU OS: How?

What is already proven?

- Several public sector organisations have migrated to Linux, so that's proven.
 - [French Gendarmerie](#) (fleet with 82k seats)
 - [Chinese Government](#) (90% of seats in government on Linux, [video](#))
- The European Commission has studied Linux on the desktop already in [2005](#):
 - ‘In general, the Linux platforms that were tested **show a very fair level of usability and compatibility**. An environment based on **Linux is today technically feasible for limited groups** with specific needs. Although there are many other factors that could play a role in the decision in favour of the implementation of an environment based on Linux, the present testing shows that is **not possible** to implement it at this moment in time **on a large scale**. Amongst the most **blocking factors** is the availability of Commission and local **applications**.’
 - ‘Apart from this technical evaluation, it must be said that the Commission has a political role to play in ensuring that the competition rules are respected.’

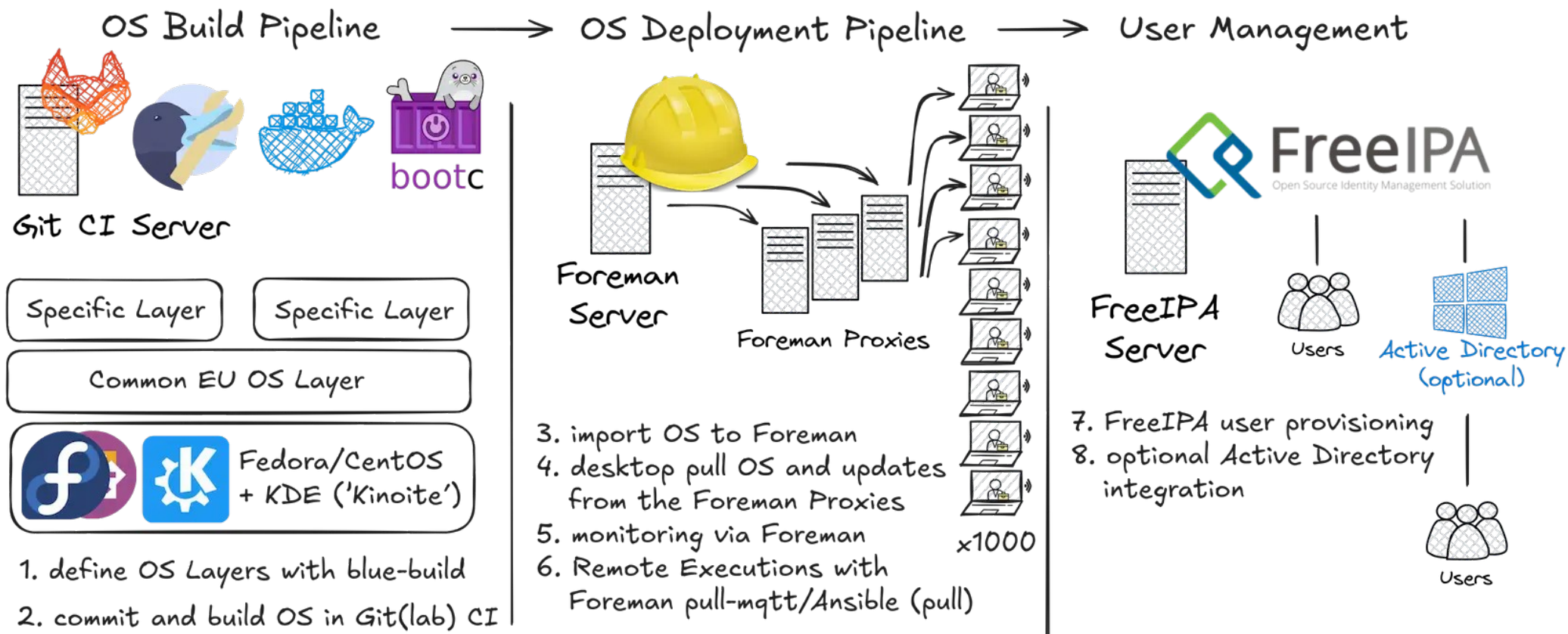
Map of Linux-on-the-Desktop in the European Public Sector



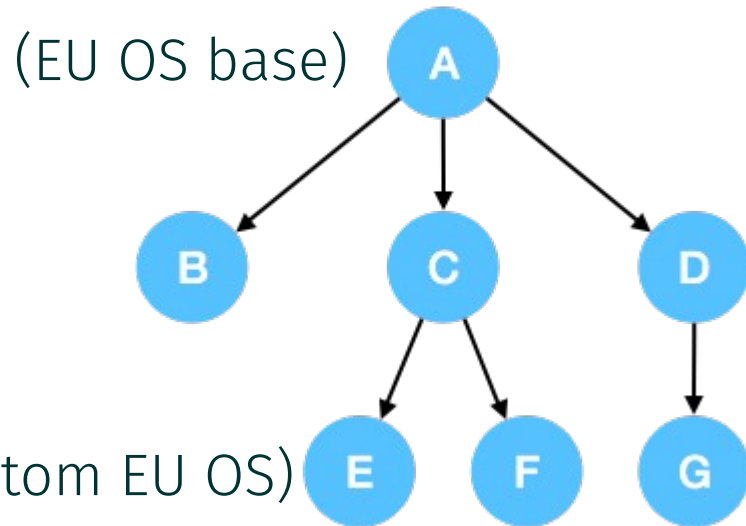
EU OS wants to proof that ...

- enough **synergies** exist, so that migration to Linux (EU OS) is feasible and economically viable in much more public sector organisations
- a migration is doable in **rather 2 years than 20 years** (check out [use cases](#))
- Linux offers today an alternative to Windows that is **more secure, sovereign, sleek** (efficient/eco-friendly)
- Linux deployments can scale to thousands of users

Hence, EU OS PoC is more about **developing a *common* vision for and collaboration in digital transformation** than it is about code or technology.



- Bootable Containers (bootc) have each one base container to inherit
- Collaboration on the highest (most generic) level possible
- Subsidiarity on the lowest level (custom EU OS variant)



EU OS common upstream Linux OS	
Country 1	Country 2
Region 1 in Country 1	Sector Education in Country 2
City 1 in Region 1	Primary Schools in Country 2



```
user@laptop> sudo bootc status -v
```

- Booted ostree

```
    Commit: b23063e41c9e2bd5fe115d78ef376188e ...
    StateRoot: fedora
    Deploy serial: 0
    Staged: no
    Soft-reboot: yes
```

```
Rollback ostree
```

```
    Commit: 4e2da3123fc1000924ccee67952e8c13e ...
    StateRoot: fedora
    Deploy serial: 0
    Staged: no
    Soft-reboot: no
```

```
user@laptop> sudo bootc upgrade
```

```
user@laptop> sudo bootc switch registry.code.europa.eu/eu-os/eu-ec/jrc:latest
```

```
user@laptop> sudo bootc switch registry.code.europa.eu/eu-os/eu-ec/jrc-gnome
```

```
user@laptop> sudo bootc rollback
```



bootc-dev.github.io

‘Your laptop is a git repo!’



CLOUD NATIVE
COMPUTING FOUNDATION

```
name: eu-os-demo
base-image: registry.code.europa.eu/eu-os/base
image-version: 2025.10

modules:
- type: default-flatpaks
  configurations:
    - notify: true # notify users
      scope: system
      install:
        - org.mozilla.firefox
        - org.kde.okular

- type: dnf
  repos:
    copr:
      - rriemann/eu-os
  install:
    packages:
      - eu-os-backgrounds
      - plymouth-theme-eu-os
      - freeipa-client

- type: files
  files:
    - source: system
      destination: / # copy files in 'system' to file tree

- type: script
  scripts: [] # list with filenames from folder files/scripts
  snippets:
    - "for h in /home/*; touch /home/$f/.default; done"

- type: systemd
  system:
    enabled:
      - corporate-vpn.service

- type: signing
```



The **easiest** way to build your
own desktop Linux images.

blue-build.org

Full Example: EU OS Base Demo

EU OS: Who and When?

- EU OS community is made up of
 - the project Gitlab <https://gitlab.com/eu-os/>
 - the Matrix chat space with ~ 170 participants <https://matrix.to/#/#eu-os-space:kde.org>
 - the Fediverse account [@eu_os](#) with ~ 2,3k followers
- EU OS **partnerships** with organisations offering pro bono help or a platform
 - French Government [Hackdays in June 2025](#) 
 - ATIX/orcharhino <https://orcharhino.com/en/> 
 - B1 Systems <https://www.b1-systems.de/en/> 
 - GONICUS <https://www.gonicus.de/> 
 - international information campaign <https://endof10.org/>
 - pending formalisation: a German public sector agency 
- EU OS would like to have more partners from all over Europe! 



- awareness raising campaign in full swing (social media, personal networks)
 - EU organisations: EDPS, EC DIGIT/CNECT/HR, EC JRC, Parliament, Court, ...
 - International organisations: ICC, ICJ (the Hague), ICRC, UN
 - EU member states: DINUM , Zendis , Schleswig-Holstein , OSPO 
- **on-going feasibility study with pilot comprising ≈ 150 seats** running EU OS (scheduled from summer to end of 2025, so results expected in next months)

EU OS: What is in for DG DIGIT.C2?

EU OS



Some Public Body

- Possible User Base in EUIBAs: 80k staff (MS license savings: $\approx 80\text{M€}$. yearly)
- Possible User Base in EU Public Sector: 200 mio. $\times 18\% \approx 36$ mio. staff: 36B€
- Brussels Effect: use EU convening power to help consolidation after Windows; China's public sector has only one Linux: Kylin Linux
- Hands-On EU value across the EU:
ERASMUS, Roaming, EU OS! 🇪🇺 🙌
- Investments in such Digital Public Infrastructure (DPI) or Digital Public Goods benefits not only the private sector in the EU, but also in developing and emerging markets.
see: digitalpublicgoods.net, govstack.global



- Consider distributions for corporate use (with a lot of testing before release)
- **Debian** is a community non-profit  managed by volunteers since
- **Ubuntu** is owned by Canonical Ltd.  (revenue 300m\$, 1k staff)
- **OpenSUSE/SLES** is owned by Société Anonyme  (revenue 700m\$, 2.5k staff)
- **RedHat** is owned by IBM 
(revenue 4.5B\$, 20k staff (source) of which 13k  and 4.5k )
- RedHat competes against **AlmaLinux** Foundation 
(AWS, Azure, Meta, CERN, some Japanese companies )
- RedHat competes against **RockyLinux** Foundation 
(AWS, Google, vmware, RISC-V)

- RedHat/Fedora is factor 10 bigger and employs most staff in the EU.
- Many people overestimate the market share of Ubuntu in the Linux market.
- Source: [my Mastodon poll](#)
- Some explanations from reactions:
 - openSUSE is the choice of SAP, SAP is big (annual rev. ≈40B\$)
 - Ubuntu has less paying users



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Today I learnt [#suse](#) [#opensuse](#) is about twice as big as [#ubuntu](#) in terms of annual revenue and staff members.

suse: est. 700m\$ with 2.5k staff
ubuntu: est. 300m\$ with 1k staff

Who would have thought that?

Is it the server business? Has Ubuntu so much more non-paying "customers"?

82% I thought Ubuntu is larger



11% I thought SUSE is larger



7% I knew the facts before



[Refresh](#) · 87 people · 6 days left

Axiom: growth or recurrent investment is more important than the starting point

- So to have a good product, one needs many users that
 - stimulate private investments
 - justify public investments
- Remember: paying rent for proprietary software is no investment
- MS Windows was never cool, but it has a huge user base and ecosystem

My conclusion for the Commission would be:

- The Commission jumps on the Linux with most (corporate) users now.
- The Commission seeks to find users of their Linux across the EU and beyond.
- Best is: do both! Which Linux has the largest potential?

- [redacted]
- [redacted]
- Debian/Ubuntu would still involve a lot of software from Fedora/Redhat: e.g. Keycloak, FreeIPA, systemd, Ansible, OpenShift/OKD, Pipewire, Foreman
- [redacted] CERN  uses Fedora/AlmaLinux.
- [redacted]
- With bootc and standard tooling like FreeIPA, Foreman, the distribution can be switched later (e.g. to NixOS, openSUSE, Debian – see [bootc issue #865](#))

1. Ask **SG.E.3** Technological Sovereignty & Innovation to coordinate for a shared business case amongst
 - a) DG **CNECT.H.1 & H.2** Cybersecurity Technology & Policy on supply chain security
 - b) DG **CNECT.E.2** Cloud & Software on synergies with cloud & member state EDIC '[Digital Commons](#)'
 - c) DG **DIGIT.C.2** Digital Workplace Foundations for their use of EU OS for developers and resilience.
 - d) DG **HR.DS.4** Information Security for their use of EU OS to processes classified information.
 - e) DG **DIGIT.B.2** OSPO for organising a public sector conf on EU OS, a hackathon, and a bug bounty.
2. Launch DIGIT Pilot with additional test devices following manual at <https://eu-os.eu/poc/>
3. Memorandum of Understanding with EDIC ([redacted]) on both openDesk and EU OS.
4. Memorandum of Understanding with CERN (everyone loves CERN: [ICRC](#), [Zendis](#))
5. Present partnership at ICDT to all EUIBAs ([redacted])
6. Secure Extra Funding: [EP Preparatory Actions](#), NATO 2% resilience target
7. For more resilience, compile code in EU/CERN cloud: [AlmaLinux Build System](#).
8. Let CNECT and the EDIC take over after the pilot.



Thank you. Questions?

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Backup

Based on ...

- open software and open standards: transparency, control, zero-margin costs
- wide-spread container technology (docker): in-house expertise often available
- wide-spread deployment technologies (Gitlab): infrastructure often available
- wide-spread enterprise linux (Fedora, possibly others): existing ecosystem
- hierarchy of shared containers:
 - synergies on many levels (EU, country, region, sector, ...) for building, testing, compliance
 - subsidiarity and flexibility
- Automation tools: scalability for large fleets with many seats (goal: thousands)

