Red Hat Summit Connect

The Invisible Engine of our Digital Society

Reimagining Open Source Together!

DIRK DERIDDER
CTO Smals

dirk.deridder@smals.be

dirkderidder.wordpress.com

www.linkedin.com/in/dderidde/

Smals
ICT for society

Smals
ICT for society

- Belgian **In-house** ICT Service Provider/Integrator
- For and by the **Public Sector**
- **Nonprofit** organization (VZW/ASBL)
- **2,166** collaborators
- Operates as a **shared service center** for **319** government organizations
  - Infrastructure management
  - Software development
  - Data management
  - Security services
  - Recruitment services …
- Main role: **enabler** for government ICT
- Established in **1939**

https://www.smals.be/nl/wie-we-zijn/activiteitenverslagen/activiteitenverslag-2024

Decades of Trust -
Driving Open Collaboration and Synergies: Community!


Pre-COVID…
Driving Open Collaboration and Synergies:
Community!


Post-COVID...
The community is gone?
a.k.a. how the Open Source Community
has been working for ages ☺
Smals
ICT for society

Some Principal values & drivers of Smals

- **Sustainable** ICT solutions and services
- **Community** empowerment
- **Collaborative** innovation
- Overarching “enterprise” architecture **vision** for public sector ICT
- **Quality** driven with a particular focus on **business continuity** and **security**
- Data **ethics** and data protection as a fundamental cornerstone in our approach
- Digital inclusion and **citizen-centricity** as the default
- **Cost-Conscious** and **lean** mindset to maximize **value** for our community …

→ **Synergetic**: giving rise to a whole that is greater than the simple sum of its parts
→ **Enabler**: ensuring indirect positive benefits for society
→ **Invisible:** leaving the spotlight to our members

Why does Smals Love Open Source?

- **Alignment with our Vision, Culture, and Mindset**
  - Principal values & drivers resonate with how we look at the ICT world
- **Quality-driven Community**
  - Fostering a quality-driven mindset to ensure operational stability and robustness
- **Open standards**
  - Adoption of open standards to facilitate longevity and to mitigate vendor lock-in
- **Business Continuity Assurance by Embracing 'Free(dom)' technology**
  - Utilizing free technology & the freedom to operate
  - Counter 'Machiavellian Licensing Plots' and balance the power of proprietary vendors
- **Creative Nexus**
  - It is where innovation magic happens

All of this combined with the fact that you get stickers: free lunch!

Supporting cross-institution ICT Initiatives

- **G-Cloud Programme (2015-…)**
  - For and by public institutions
  - Focus on infrastructure services & platforms, shared procurement, …

gcloud.belgium.be

- **Software ReUse Programme (2019-…)**
  - For and by public institutions
  - Focus on components, authentic data sources, API's, …

ict-reuse.be

- **Full Stack Approach (2021-…)**
  - Enterprise Architecture across public institutions
  - Focus on architectural principles, processes, building blocks, …

ba4gov.be

- **Public Cloud Computing & AI (2023- … Accelerated)**
  - Emphasis on secure by design, business continuity, cloud portability, digital sovereignty
  - Strong governance & smart choices

gcloud.belgium.be

HET RESULTAAT VAN EEN **GEZAMENLIJKE AANPAK**

Het **G-Cloud**programma is het resultaat van een gezamenlijk initiatief door meerdere publieke instellingen: federale overheidsdiensten, instellingen van de sociale zekerheid en de zorgsector... De praktische realisatie wordt aangestuurd vanuit de « **Cloud Governance Board** ».

Een gemeenschappelijke roadmap wijst de weg naar de ontwikkeling van deze 'community Cloud' van de overheid. Terwijl de eerste generatie van **G-Cloud**-diensten al operationeel is sinds maart 2015, zijn er nog talrijke nieuwe evoluties op komst.

De **G-Cloud** is een hybride cloud, waarbij enerzijds gebruik wordt gemaakt van diensten aangeboden door private firma's in publieke cloud-omgevingen, en anderzijds van diensten gehost in datacenters van de overheid. Het beheer van de **G-Cloud** gebeurt door de overheid. Voor de uitbouw en de operationele werking wordt in ruime mate beroep gedaan op de privé-sector.

G-CLOUD, DE COMMUNITY CLOUD VAN DE OVERHEID

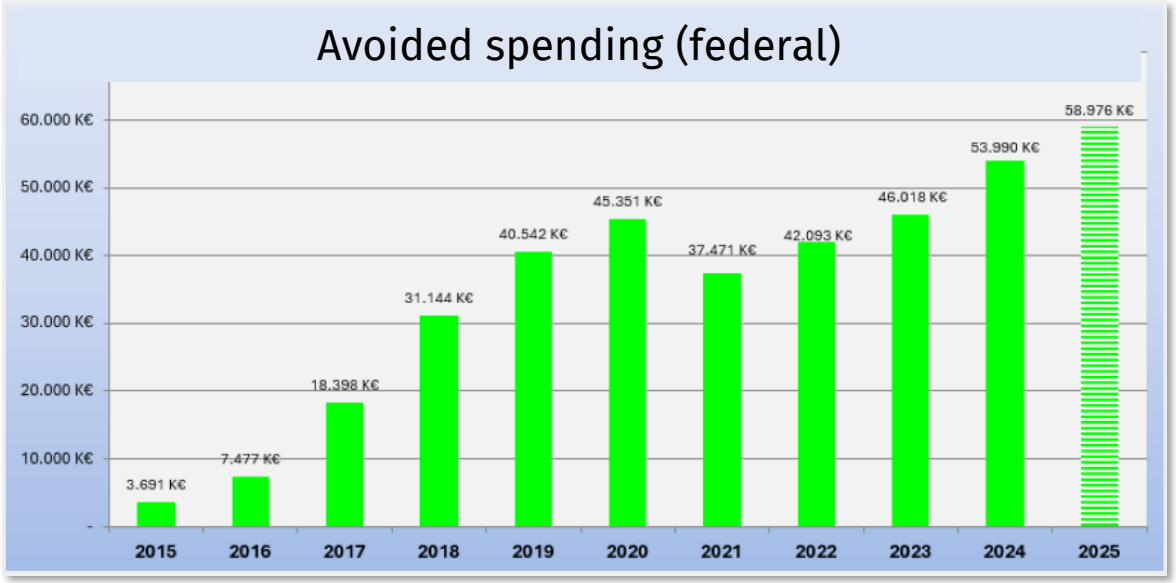
gcloud.belgium.be

G-Cloud – Sharing ICT infrastructure

- **Programme of synergy-driven initiatives**
  - Services, Projects, Procurement, Knowledge Sharing
  - Active cross-institution ICT Community
- **Hybrid community cloud model**
  - Private Community Cloud running from government-operated datacenters
- **Public cloud?**
  - Already the case for special purpose needs
  - Moving forward as a community for general purpose needs
  - Joint taskforce defining vision, strategy, policies, guidelines, architecture, …

Running on top of…

Red Hat



An ambitious endeavor to reimagine community practices in our public sector context, with similar challenges!

ict-reuse.be

Het softwareplatform voor slimme ontwikkelaars

Steeds meer Belgische overheidsdiensten hergebruiken softwarecomponenten. Doe mee aan het ReUse initiatief en lever jouw bijdrage!

Verken de Software ReUse Catalogus

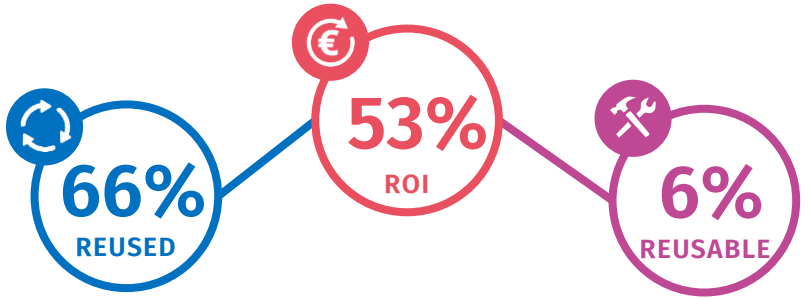
Zoek op trefwoord(en) in de catalogus

Externe communicatie	Kerndiensten van de instellingen	Ondersteunende diensten	Generieke IT-bouwblokken
Kanalen	**Loopbaan van een werknemer**	**Personeelsbeheer**	**As a Service**
e-Box - Elektronische mailbox	dmfa	eAcademy	AAAS - Archiving-as-a-Service
registeredMail	WorkerIdentifier	organizationalChart nsso	Aanvraagbeheer via formulieren

Reuse of software & business components

ict-reuse.be

- **Orginated within Belgian public social security & Smals**
  - Open to other federal public services
- **Synergy around (technical) business components**
  - Avoid multiple development of redundant components
  - Save costs & effort
- **Catalogue of reusable components**
- **Active micro-community**
- **Openness**
  - Regardless of whether development takes place by the institution's own ICT department, Smals, subcontractors



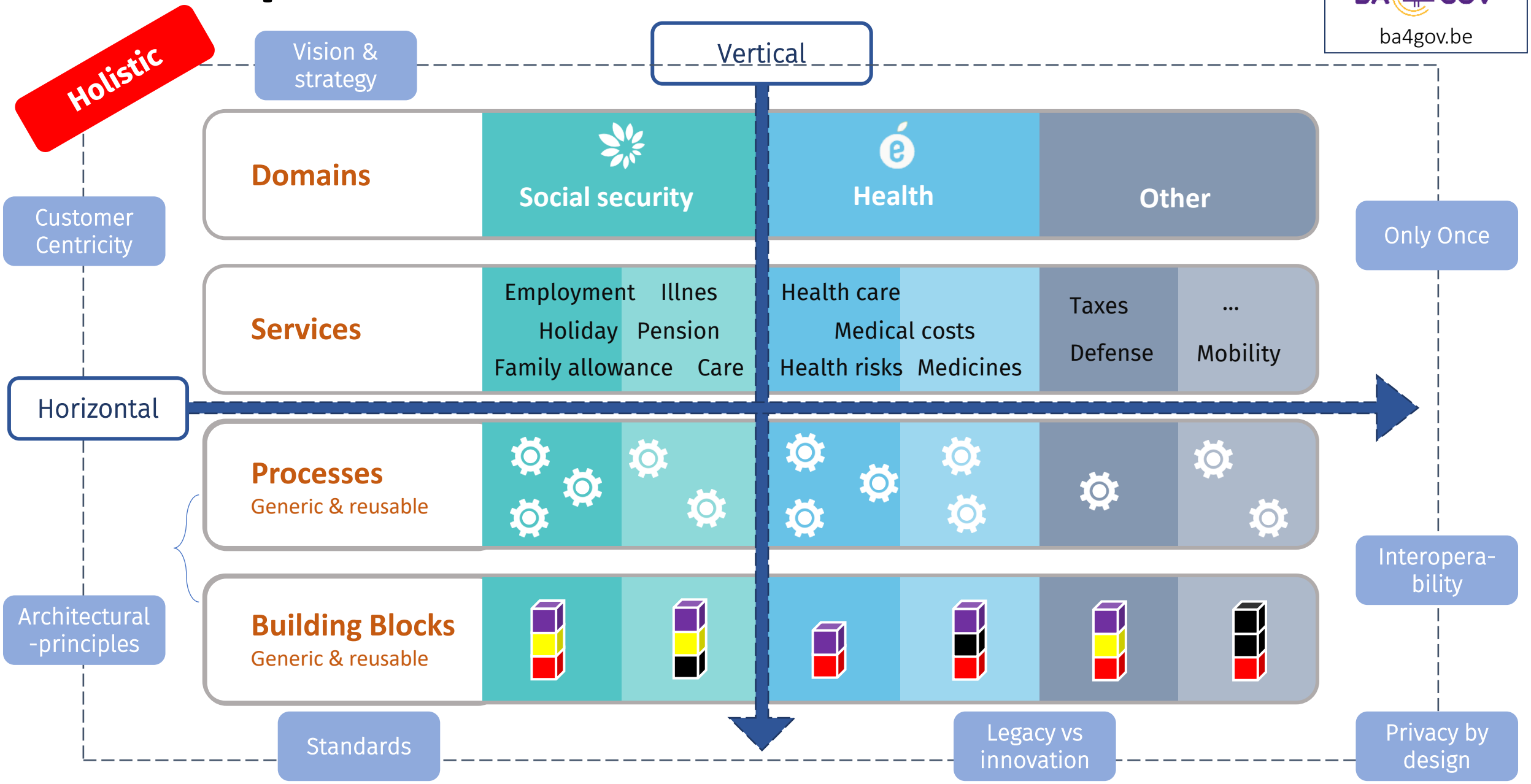
Business specific custom code: **28%**

Raming ROI 2023: € 44.000.000

An ambitious endeavor to reimagine open source practices in our public sector context, with similar challenges!

Enterprise Architecture Framework

BA 4 GOV
ba4gov.be



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Open source is an inspiration for our own

MICRO COMMUNITY

Communities: Worth the Effort, but Unforgivingly Hard

- **Community creation is hard**
  - Finding champions and critical mass
- **Community standardization is hard**
  - Aligning across silos and priorities
- **Community maintenance is hard**
  - Sustaining energy and engagement over time
- **Community advocacy is hard**
  - Making the case, again and again
- **Community sponsorship is hard**
  - Securing time, budget, true leadership support for the long haul
- **And the context works against it…**
  - Roadmaps and organization structures don’t like community work

Best approach?
Iterate relentlessly, fueled by stubbornness and determination

Communities only create the will, it’s the actual codework mountain that converts this into resilient, usable software

Ok, so then Smals is a top contributor?

- **Our core business is not “technology product development”**
  - We (ab)use technology to (retro)fit the needs of our context
  - Like most organisations we are mainly on the consumer side
  - Abstractions that are (re)usable for the rest of the world pop up occasionally but are not the norm
- **Practical open source contribution in general is not for everyone**
  - Less than 1% of the population is capable to directly contribute in a meaningful way
  - Coding competency, paying with your time, figuring your way around the code base and culture, …
- **We organise our own micro-communities**
  - e.g. Reuse Catalogue, G-Cloud, AI Center of Excellence, Overarching Enterprise Architecture …
- **We pay others to contribute for us ☺**
  - e.g. RedHat, Postgres EDB, …

Let’s get back to this in a couple of minutes to see whether this is enough

Open Source Put to Good Use at Smals

- We host critical public services (social security, healthcare, …)
- So we rely heavily on enterprise versions/support

Red Hat

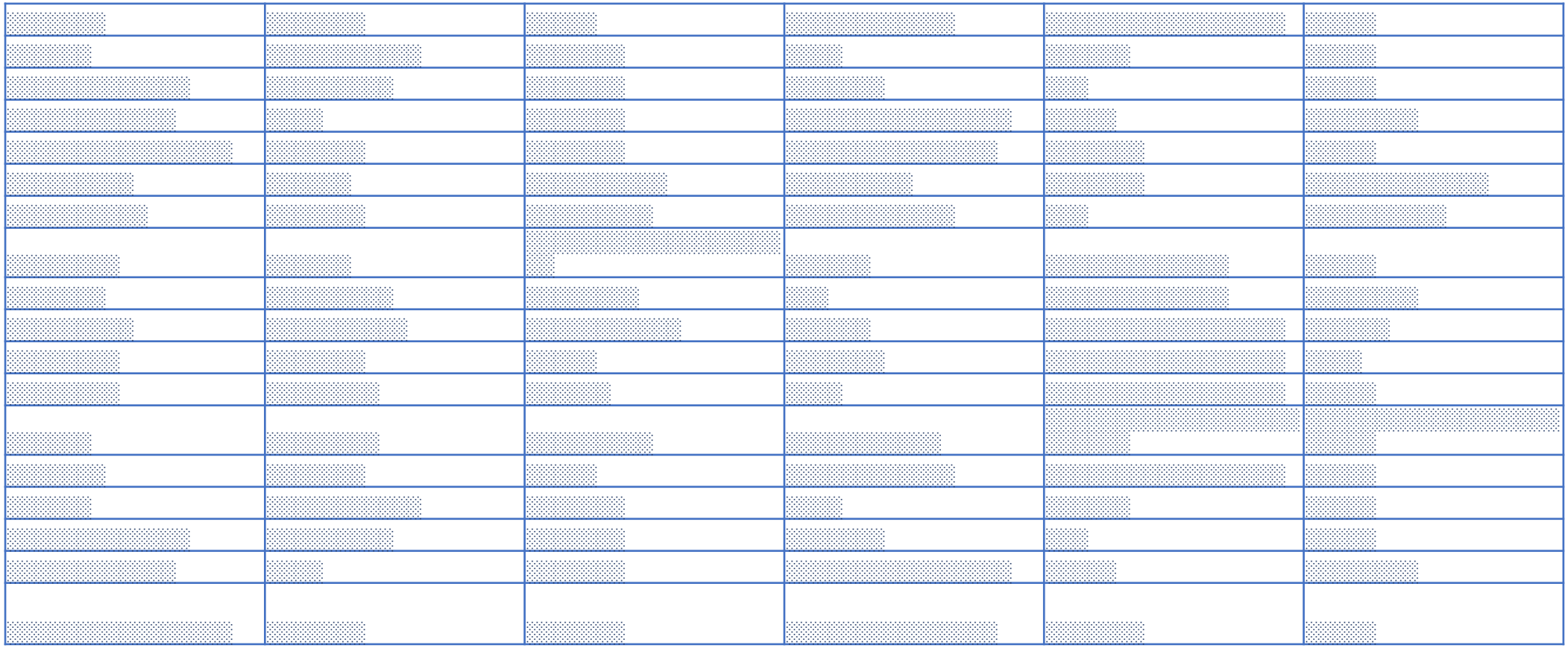
Linux, Openshift, JBoss, AMQ,..

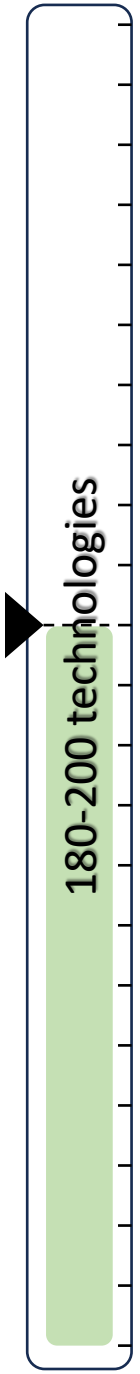
EDB™
POWER TO POSTGRES

5-10 technologies


That's all Folks!
OPEN SOURCE
at Smals

Open Source Put to Good Use at Smals

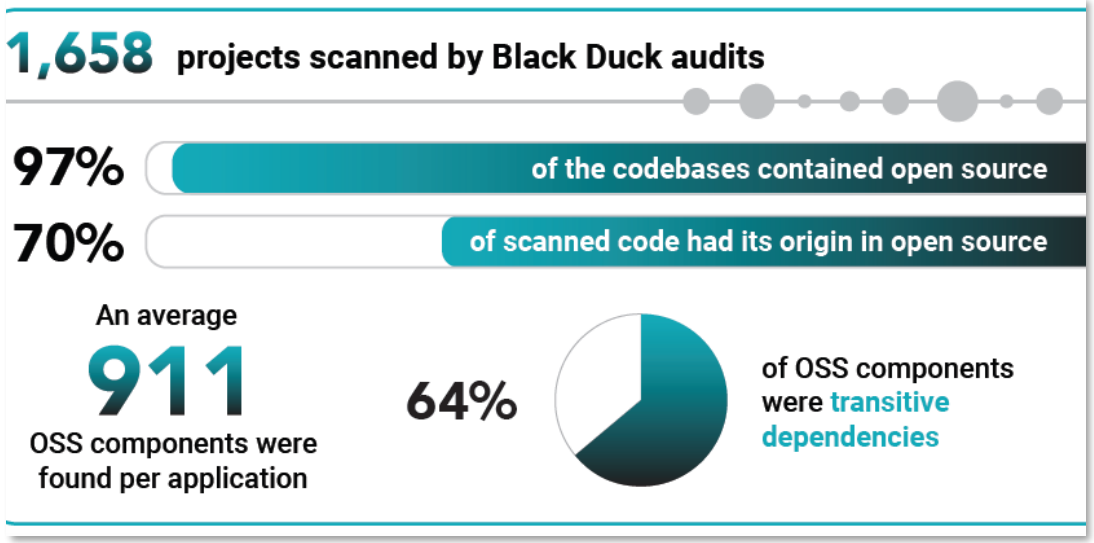




- Apparently, we don’t always require enterprise versions/support…
- Still counting and “discovering” every day…

OSS in the World: Mostly Hidden in Plain Sight

- BLACKDUCK Open Source Security and Risk Analysis report finding (2025)
  - 97% of codebases contain open source
  - Open source components and libraries
    are the backbone of nearly every application across all industries



Proprietary vendors would not exist without open source!

Even if you only believe half of it… this is still an impressive number !

Almost all codebases

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Open source is more often than not

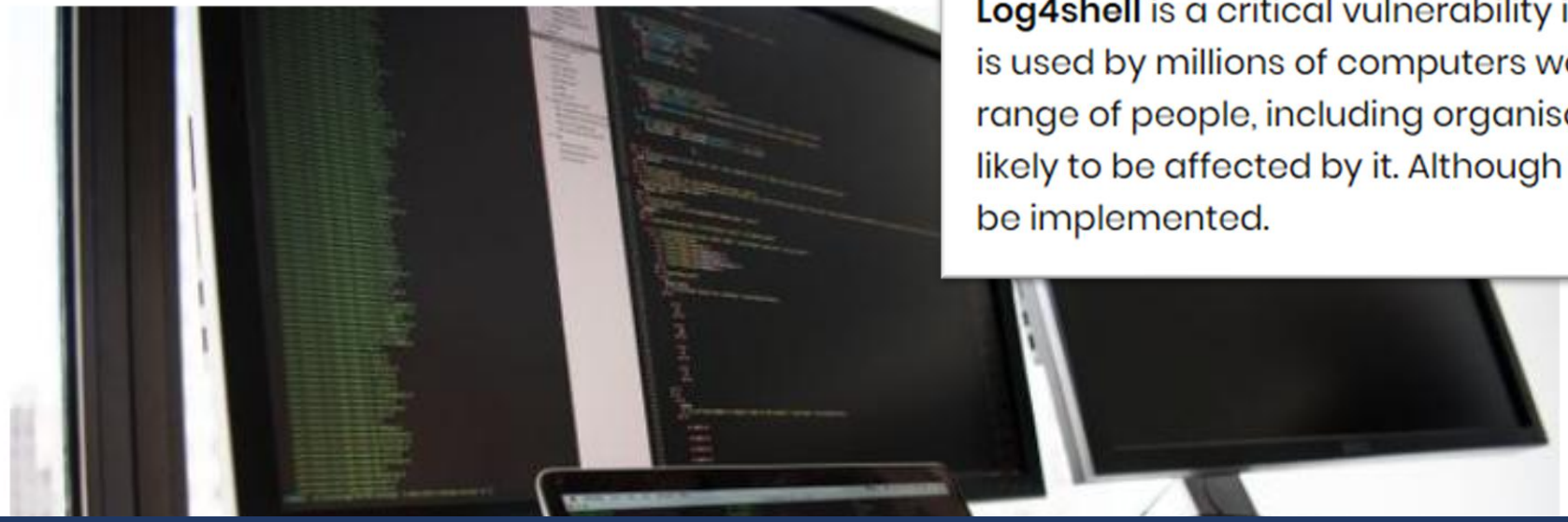
INVISIBLE

National Cyber Security Centre

ABOUT NCSC | CISP | REPORT AN INCIDENT | CONTACT US

Log4j vulnerability – what everyone needs to know

Information about the critical vulnerability in the logging tool, who it could affect and what steps you can take to reduce your risk.



Log4shell is a critical vulnerability in the widely-used logging tool **Log4j**, which is used by millions of computers worldwide running online services. A wide range of people, including organisations, governments and individuals are likely to be affected by it. Although fixes have been issued, they will still need to be implemented.

PUBLISHED

14 December 2021

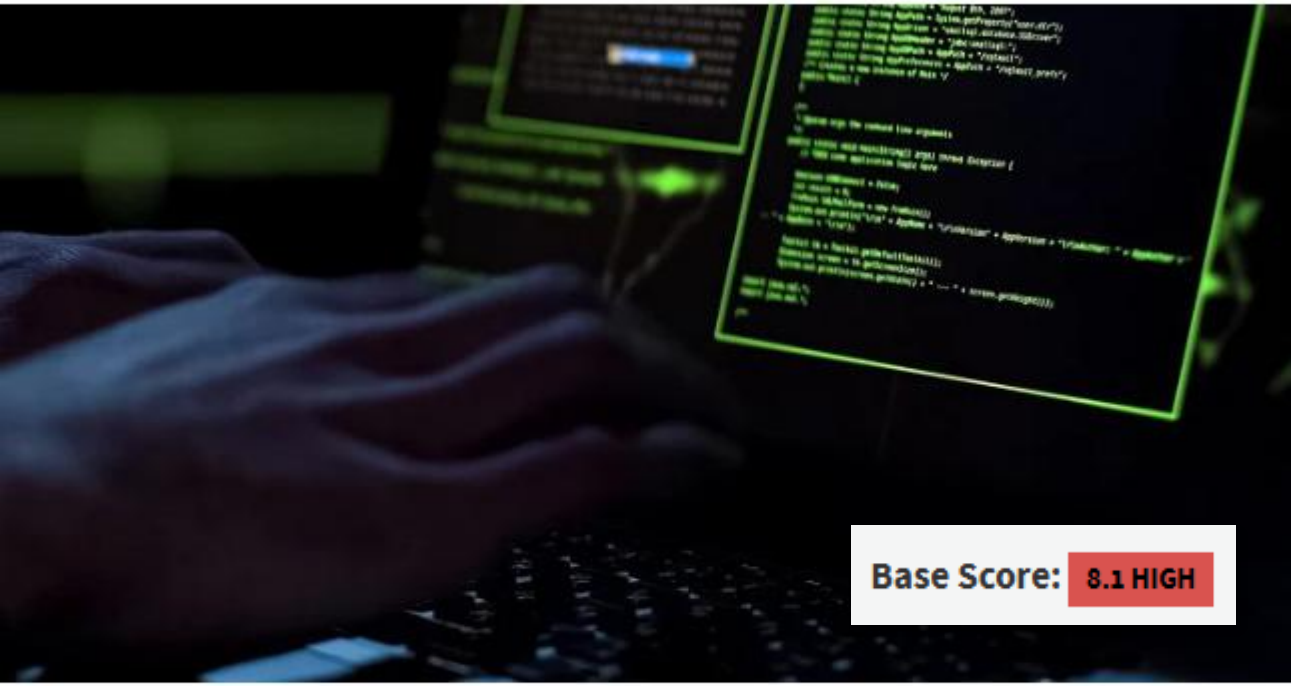
When an invisible open source project sneezes, the entire world visibly catches a cold

Don't Get Pwned, Get Informed

The Hacker News

Meta Warns of FreeType Vulnerability (CVE-2025-27363) With Active Exploitation Risk

Mar 13, 2025 Ravie Lakshmanan



Meta has warned that a security vulnerability impacting the FreeType open-source font rendering library may have been exploited in the wild.

The vulnerability has been assigned the CVE identifier CVE-2025-27363, and carries a CVSS score of 8.1, indicating high severity. Described as an out-of-bounds write flaw, it could be exploited to achieve remote code execution when parsing certain font files.

techradar.pro THE BUSINESS TECHNOLOGY EXPERTS US Edition

News Reviews Features Expert Insights Website builders

Security flaws in key Nvidia enterprise tool could have let hackers run malware on Windows and Linux systems

News By Sead Fadilpašić published August 5, 2025

Three bugs can be chained together to devastating effects

- Security researchers found three flaws in Nvidia Triton Inference Server
- When used together, they can grant remote code execution capabilities
- A patch has been released, so users should update immediately

Nvidia Triton Inference Server carried three vulnerabilities which, when combined, could lead to remote code execution (RCE) and other risks, security experts from Wiz have warned

Triton is a free open source tool working on both Windows and Linux which helps companies run AI models efficiently on servers, whether in the cloud, on-site, or at the edge.

It supports many popular AI frameworks and speeds up tasks by handling multiple models at once and grouping similar requests together.

The Vulnerability that Opened our Eyes

- **It is highly unlikely that your system doesn't contain Open Source**
- **Your code contains more than you know**
  - Their code also contains more than they know
  - Since they are suppliers, they should know !
- **BLACKDUCK Open Source Security and Risk Analysis report finding (2025)**
  - **86%** of codebases contained at least 1 open source vulnerability
  - **91%** of codebases were found to contain outdated OSS components
  - **90%** of codebases were found to contain components 10 versions or more behind
- **It is highly certain that your code contains (un)discovered vulnerabilities**
  - Regardless of whether the whole is open source or not…

86%
of risk-assessed codebases contained vulnerable open source

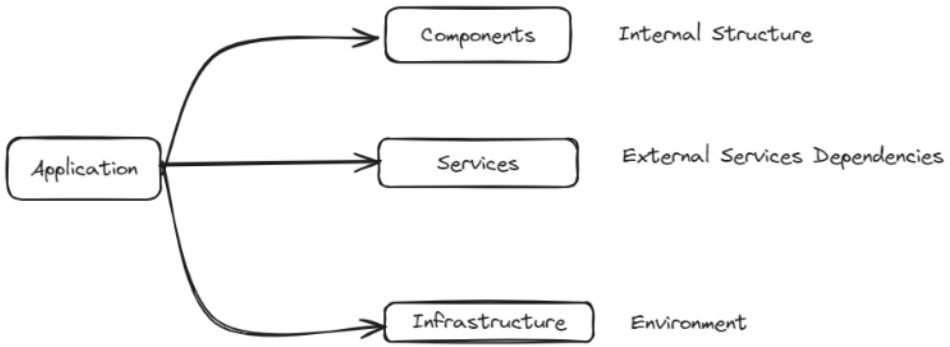
81%
of risk-assessed codebases contained high- or critical-risk vulnerabilities

Visibility is thus a top priority in your organization

Almost all codebases

No More Blind Spots: xBOM to the Rescue?

- **Bill of Materials for**
  - Software (SBOM), SaaS (SaaSBOM), Hardware (HBOM), Machine Learning (ML-BOM), …
  - Include all direct and transitive components
  - Include the dependency relations between them
- **OWASP CycloneDX Software Bill of Materials (SBOM) Standard**
  - Open source Component Analysis platform
  - Identifies risks in the software supply chain
- **Primary use cases**
  - Vulnerability identification, license compliance, outdated component analysis
- **Main drivers @ Smals?**
  - Cybersecurity, ISO/IEC27001, NIS2
  - Lifecycle management
  - Log4J reality check



From invisible dependencies to full-stack transparency

xBOM to the rescue?

- **Component Identification**: Lists all components, including libraries, modules, etc.
- **Version Information**: Specifies versions or commit hashes of each component.
- **Metadata**: Provides details like description, author, and release date for each component.
- **Licensing Information**: Indicates the licenses under which components are distributed.
- **Dependencies**: Documents both direct and transitive dependencies.
- **Vulnerability Information**: Includes known vulnerabilities with severity ratings and remediation guidance.
- **Provenance Information**: Identifies the source from which each component was obtained.
- **Checksums or Hashes**: Offers cryptographic hashes for verifying component integrity and authenticity

Can we treat the OS community as “yet another supplier”?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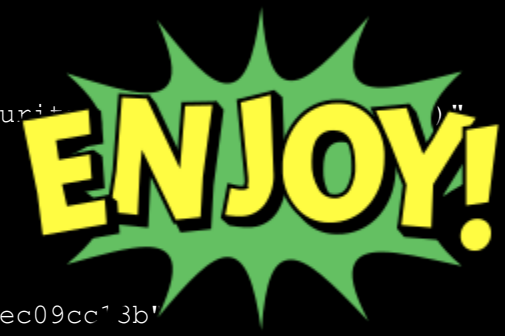

Blind Spots Remain…

- **Position in Technology Landscape?**
  - Understanding its role and relevance within our technology ecosystem, what value does it bring
- **Criticality and Reliability?**
  - Assessing the potential impact if it malfunctions or if it requires replacement
- **Characteristics and Attributes?**
  - Evaluating various aspects such as its complexity, size, maturity, and other –ities
- **Contributors and Community?**
  - Determining the number of active contributors and their demographics
- **Availability of Support?**
  - Confirming the availability of support channels, either commercial or in-house
- **Release Cadence and Update Frequency?**
  - Analyzing the frequency of releases and updates is a quality indication, yet some components are simply “done”
- **Track Record?**
  - Reviewing the history of bugs, vulnerabilities, fixes, and overall performance/score in the community
- **Visibility and Recognition?**
  - Identifying if it's recognized or on the radar of major industry players …

Quality, security, and sustainability demand
investment, activism and commitment !

Today’s software development/use practices require a security-by-design approach that goes beyond the old normal

Red Hat Summit Connect

Open source is no FREE LUNCH

ars TECHNICA

ATTACK OF THE CLONES —

GitHub besieged by millions of malicious repositories in ongoing attack

GitHub keeps removing malware-laced repositories, but thousands remain.

DAN GOODIN - 2/28/2024, 11:12 PM

THE LINUX FOUNDATION | Europe JOIN

The Rising Threat of Software Supply Chain Attacks: Managing Dependencies of Open Source projects

PAOLO MAINARDI | 15 AUGUST 2023

McKinsey Digital

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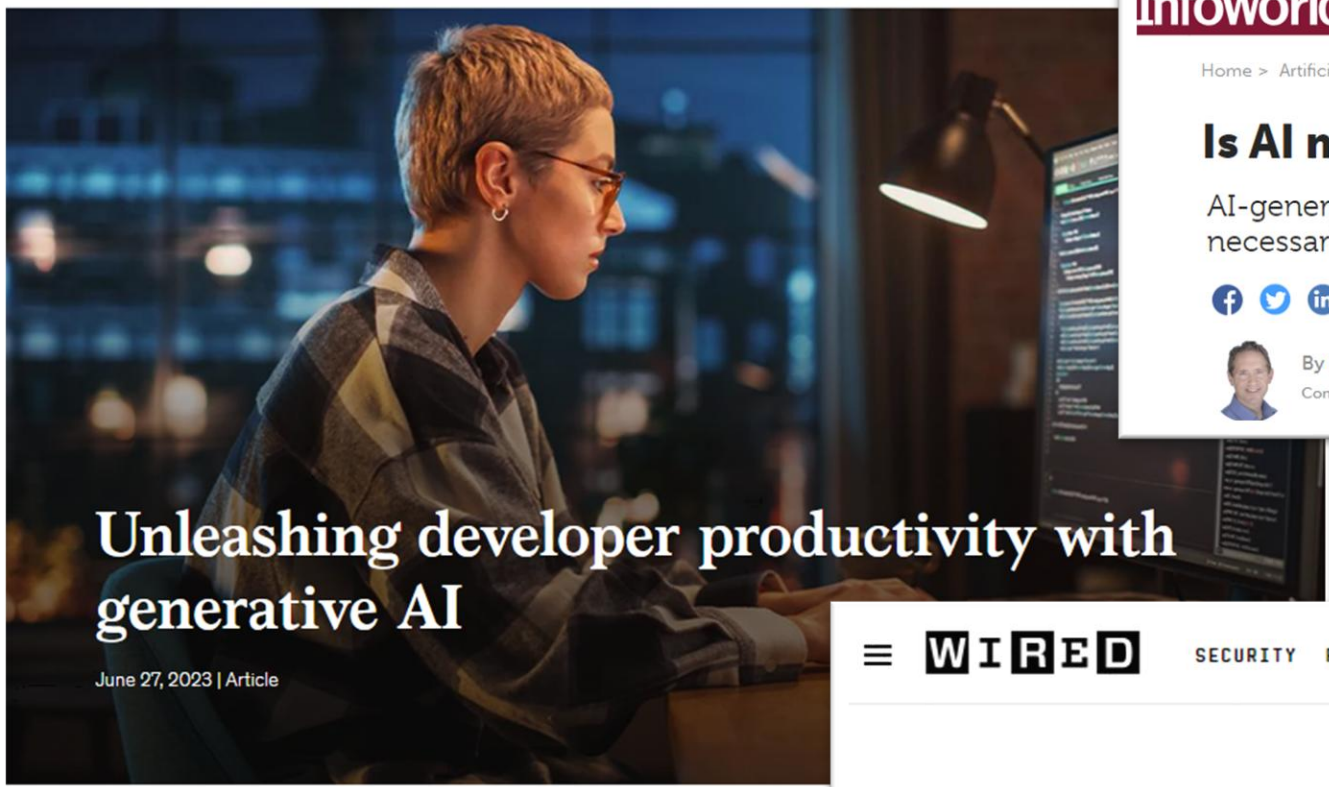


Unleashing developer productivity with generative AI

June 27, 2023 | Article

Share Print Download Save

A McKinsey study shows that software
complete coding tasks up to twice as fa
AI. Four actions can maximize productiv
risks.

InfoWorld UNITED STATES APP DEV CLOUD GEN AI

Home > Artificial Intelligence > Generative AI

Is AI making our code stupid?

AI-generated code has transformed software development forever. That's not necessarily good. A solid review process can shrink bloat and attack surfaces.

By Matt Asay

Contributor, InfoWorld | FEB 12, 2024 2:00 AM PST

WIRED SECURITY POLITICS GEAR BACKCHANNEL BUSINESS MORE SIGN IN SUBSCRIBE

WILL KNIGHT BUSINESS JUN 29, 2023 12:00 PM

The Huge Power and Potential Danger of AI-Generated Code

Programming can be faster when algorithms help out, but there is evidence AI coding assistants also make bugs more common.

AI: Saviour or the Last Drop?

OPPORTUNITIES

Accelerating security
- Scans vulnerabilities & generates SBOMs

Supporting maintainers
- Automates pull request review, dependency hygiene, …

Detecting patterns at scale
- Spotting anomalies humans might miss

Reducing toil
- Frees human effort for strategic work

THREATS

Automation ≠ Safety
- Insecure AI-generated code is real

Volume > Review
- More commits, harder human oversight

Adversaries are learning too
- AI-powered attacks are a fact

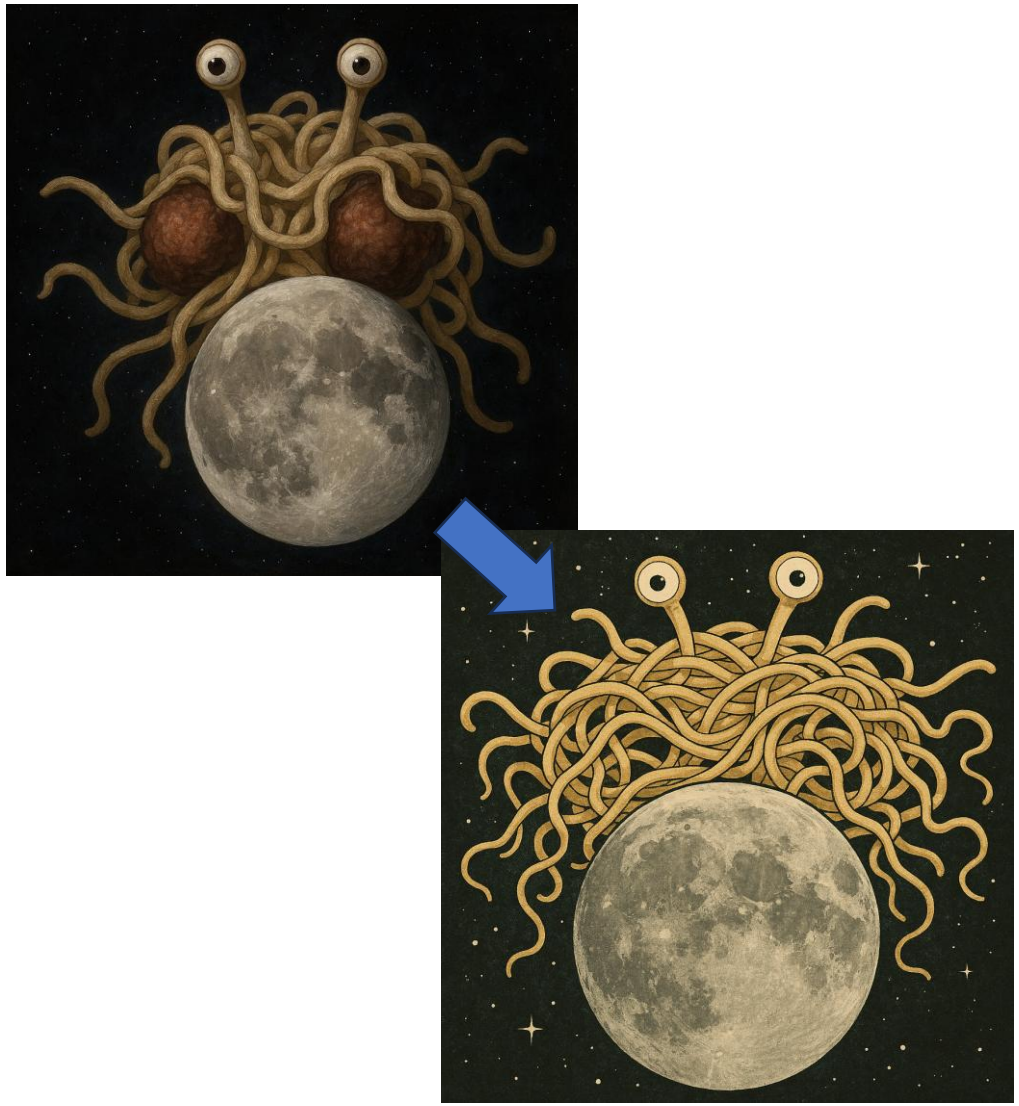
Community trust at stake
- AI can't replace stewardship

Identity, Trust & Quality Checks → Critical

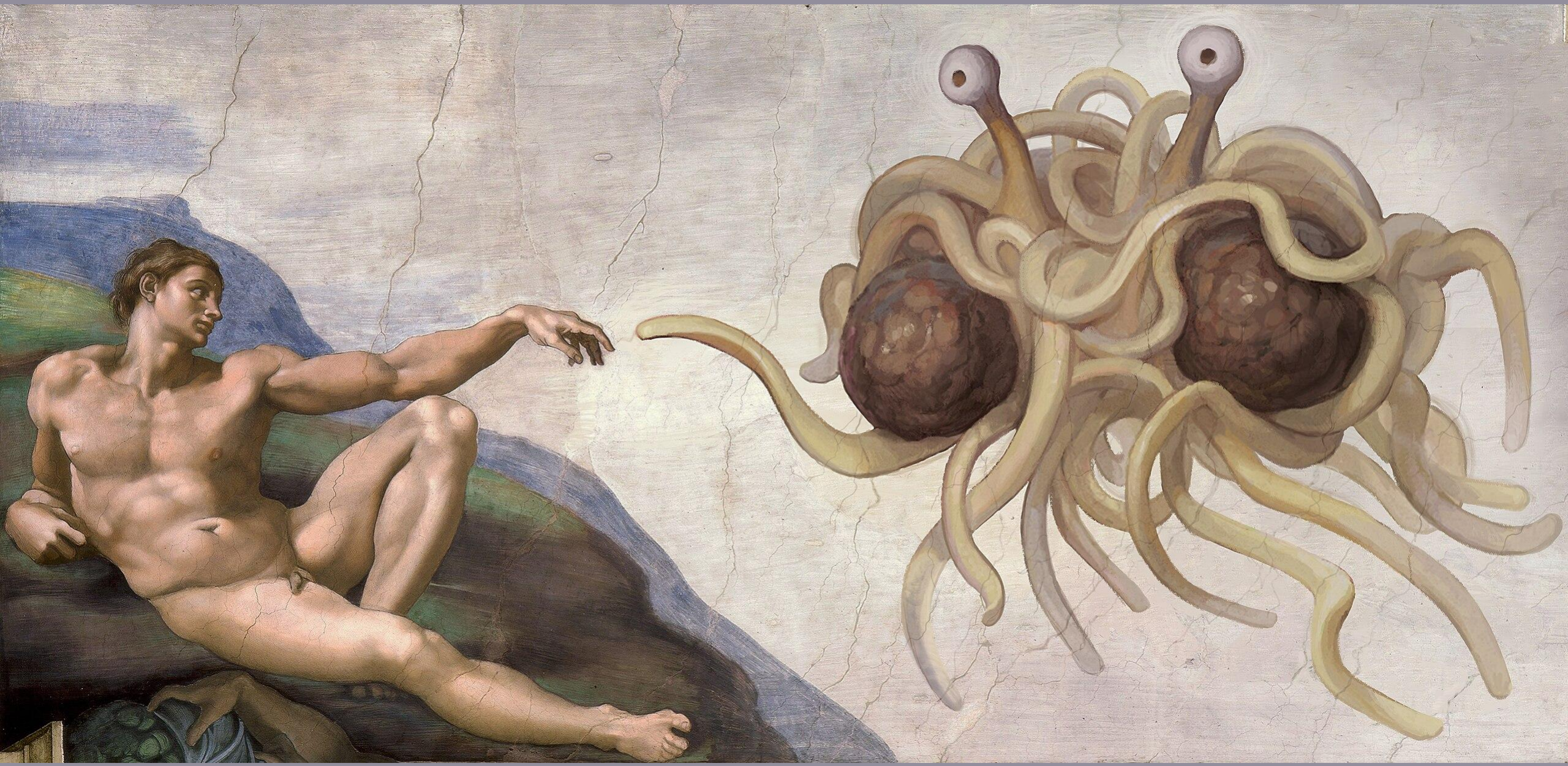
AI can accelerate resilience or fragility. The choice is ours… or isn't it?

Ensure Open Source AI: Models, Platforms, …

- **Fast-track Innovation & Ecosystem**
  - Global collaboration
  - Rapid iteration, more ideas, robust tools
- **Accessibility & Market Fairness**
  - Lowers entry barriers for startups, academia, governments
  - Supports regional innovation (e.g., Latam-GPT)
- **Standards, Interoperability & Reproducibility**
  - Encourages shared protocols and scientific rigor; vital for regulated sectors
- **Trust, Ethics & Auditing**
  - Public auditability builds confidence; ethical tools evolve in open forums
- **Sovereignty & Strategic Autonomy**
  - Control over AI, aligned with local values and global balance
- **Supports Open Source Community Values**
  - Reinforces collaborative norms, reinvestment, talent development



Why Open Source? Maybe because I am “biased”…



https://www.androidarts.com/fsm/index.htm

Freedom or Not? The OSS Paradox

in the proprietary/commercial/hybrid community

- **Opportunistic Open Source**
  - Profit-driven use of the “open source” label
- **Profit Over Principles**
  - Business gains prioritized over community values
- **Hollow Commitments**
  - Lip service to Open Source ideals without meaningful contribution
- **Deceptive Marketing**
  - Promoting openness while pushing proprietary models
- **Community Betrayal**
  - Exploiting goodwill without giving back
- **Standards Undermined**
  - Interoperability takes a back seat
- **Tech Oligarchy**
  - Large vendors steering projects, consciously limiting diversity and innovation

RANT MODE: ON

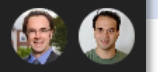
As a community we should condemn these practices, but also come up with ideas for sustainable business models

Harvard Business School

Open Source Software: The $9 Trillion Resource Companies Take for Granted

Many companies build their businesses on open source software, code that would cost firms $8.8 trillion to create from scratch if it weren't freely available. Research by **Frank Nagle** and colleagues puts a value on an economic necessity that will require investment to meet demand.

Featuring Frank Nagle and Manuel Hoffmann. By Rachel Layne on March 22, 2024.



ofe OpenForum Europe

OpenForum Europe and Fraunhofer ISI conducted a study on the impact of Open Source Software and Hardware on technological independence, competitiveness and innovation in Europe for the European Commission. The project aimed to provide solid evidence for shaping European Open Source policies for the years to come is now over, thank you to all contributors who supported our research.

The European Commission published our study on the impact of open source software (OSS) and open source hardware (OSH) on the European economy, conducted by Fraunhofer ISI and OpenForum Europe on 6 September 2021. Full report is available here. The study estimates that open source software contributes between €65 to €95 billion to the European Union's GDP and promises significant growth opportunities for the region's digital economy. To achieve that, the EU should actively engage in a transition towards more openness in its political and investment culture.

Sachiko Muto, the CEO of OpenForum Europe: "Open source offers a greenfield advantage for policymakers and Europe has the chance to lead."

Ford Foundation

What We Do ▾ Where We Work ▾ Our Lea

Roads and Bridges: The Unseen Labor Behind Our Digital Infrastructure

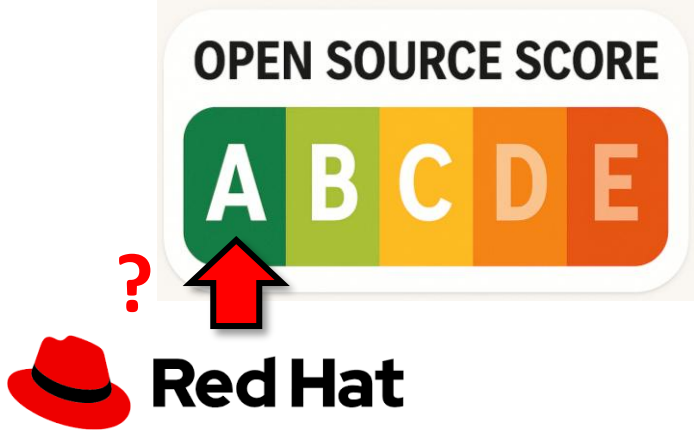
14 JULY 2016

RESEARCH REPORTS

As Eghbal outlines, digital infrastructure should be treated as a necessary public good. Free public source code makes it exponentially cheaper and easier for companies to build software, and makes technology more accessible across the globe. However, there is a common misconception that the labor for open source projects is well-funded. In reality, it is largely created and maintained by volunteers who do it to build their reputations, out of a sense of obligation, or simply as a labor of love. The decentralized, non-hierarchical nature of the public coding community makes it difficult to secure pay for coders, yet the work that emerges from it is the foundation for a digital capitalist economy. Increasingly, developers are using shared code without contributing to its maintenance, leaving this infrastructure strained and vulnerable to security breaches.

Trillions Extracted, Eurocents Contributed?

- **Is it time for an Open Source Contribution Balance Sheet?**
  - We measure CO_2 emissions. We disclose them. If you pollute too much, you pay
- **Imagine this in every annual report & EU procurement bid**
  - **People:** Maintainers funded & employee time upstream
  - **Money:** Grants, enterprise OSS payments, memberships
  - **Infrastructure:** Cloud credits, CI pipelines, tooling
  - **Metric:** (1)+(2)+(3) as % of revenue or market cap
- **Set a baseline. Make it transparent. Reward leaders.**
  - Without accountability, we risk OSS-washing while communities erode
- **Would your organization dare to publish its OSS balance sheet?**
  - To be benchmarked with others?
- **Which metric would you add?**



And what about a metric for OSS consumption?

Red Hat Summit Connect

Yesterday's practices aren't sufficient for today's and tomorrow's

Challenges

Digital Sovereignty Defined?

sovereignty noun

sov·er·eign·ty ˈsä-v(ə-)rən-tē -vərn-tē, *also* ˈsə-

variants *or less commonly* **sovranty**

plural **sovereignties** *also* **sovranties**

Synonyms of *sovereignty* ›

1 **a** : supreme power especially over a body politic
b : freedom from external control : **AUTONOMY**
c : controlling influence

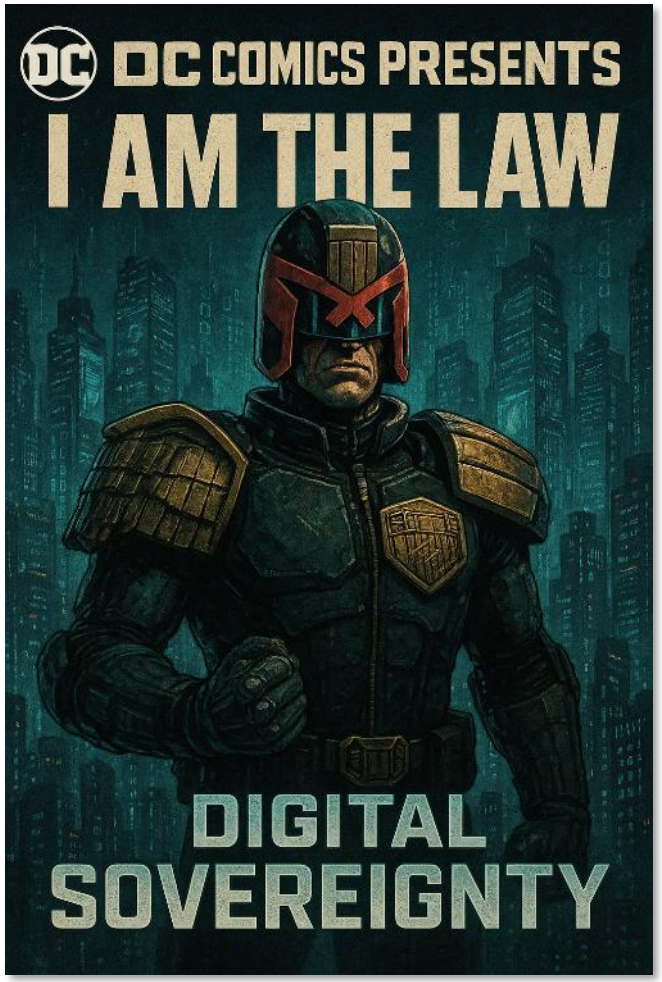
2 : one that is sovereign
especially : an autonomous state

Data Sovereignty

Operational Sovereignty

Technical Sovereignty

...



- **Supreme and Independent Power**
  - No higher authority can override decisions
  - Full control over laws, policies, or operation
- **Self-Determination and Autonomy**
  - The ability to act independently without external interference
  - Freedom to set rules and operate without dependence on outsiders.
- **Legitimate Authority**
  - Backed by legal, historical, or democratic legitimacy
  - Recognized by others as having rightful control.
- **Crisis Decision-Making Power**
  - The ability to act beyond normal rules in emergency situations
- **Enforcement and Control**
  - The power to enforce rules and impose consequences
  - Without enforcement, sovereignty is symbolic rather than real.
- **Recognition (for states and organizations)**
  - Others acknowledge and respect sovereignty

Ok, but in practice… what does this mean?

Currently,
over 80% of Europe's digital infrastructure and technologies are imported, creating systemic vulnerabilities and hampering the region's capacity for innovation and selfreliance

https://www.euro-stack.info/

Data and artificial intelligence

Software

Cloud

Internet of things & devices

Networks

Chips

Raw materials, energy, and water

Island Mode Test!

- **Your personal “brute force” test to verify how sovereign you are in practice**
- **Imagine you cut everything that is outside your sovereign control:**
  - No external connectivity
  - No external repository access
  - No external API access
  - No external DNS service
  - No external documentation
  - No external subscription activation check
  - No external vendor support
  - No external operators
  - No external updates or patches
  - …

What does this mean for Open Source?

- **Ask yourself:**
  - **Legal:** Can you compel your vendors?
  - **Hardware:** Can you repair/replace without imports?
  - **Software:** Can you operate & patch without the vendor?
  - **Skills:** Do you have the expertise in-house?
  - **Standards:** Can you interoperate on your own terms?
- **Sovereignty gap = dependencies you cannot control**
- **Goal: Ensure resilience & autonomy**
  → not isolation, but choice.

No matter how big your island… you still have a problem

Vendor Lock-in: Hidden Risks in Our Digital Engine

- **Vendor lock-in is multi-dimensional**
  - Business, technical, operational, sills, ecosystem, …
- **End-user experience often hides lock-in**
  - Seamless services mask dependencies, learning curve is not to be ignored
- **Questionable Open Source practices can create lock-in**
  - Proprietary extensions (often subtle), limited support, limited upstream
- **Digital sovereignty at stake**
  - Overreliance on a single vendor undermines control

What does this mean for Open Source?

Who rules your IT? With OSS, the answer is: **you do**

Open Source as a Lever for Digital Sovereignty?

- Linux Foundation Report finding (2025)
- **Widespread impact**
  - Open Source is embedded across domains (64% IT infra, 55% cloud/containers, 54% web/app dev, 41% AI/ML)
- **Clear benefits**
  - 90% see sustained/growing value
  - 75% report higher quality
  - 69% greater competitiveness
  - 63% higher productivity with reduced lock-in and costs
  - 58% expect most innovation gains from Open Source
- **Sovereignty opportunity**
  - 38% prioritise Open Source for AI/ML
  - 52% want stronger government adoption to strengthen Europe's Open Source ecosystem

- **Gaps to close**
  - Only 34% have an Open Source strategy
  - 22% have an Open Source Programme Office
  - 28% employ full-time Open Source contributors
  - C-level awareness lags (62% vs 86% among practitioners)

Cailean Osborne and Adrienn Lawson, "Open Source as Europe's Strategic Advantage: Trends, Barriers, and Priorities for the European Open Source Community amid Regulatory and Geopolitical Shifts", foreword by Cédric Gégout, The Linux Foundation, August 2025.

https://www.linuxfoundation.org/research/world-of-open-source-eu-2025

The data confirms it: OSS isn't a hobby, it's a strategic pillar

Open Source as a Digital Sovereignty Driver

- **Strategic Open Source as a countermeasure**
  - Micro-Communities, reusable components, enterprise open source
- **Visibility is key**
  - Knowing all components, dependencies, and upstream ecosystems
- **Control & Transparency**
  - Full access to “code”. Audit, adapt, govern independently
- **Operational Autonomy**
  - Run it on your own terms without foreign dependency
- **Legal & Contractual Leverage**
  - OSS avoids one-sided contracts and supports EU procurement sovereignty
- **Data Protection by Design**
  - Aligns with GDPR & local compliance. Data stays under EU control
- **Ecosystem Resilience**
  - Builds local skills, reduces geopolitical risk, fosters European innovation

Who rules your cloud? With OSS, the answer can be: **you do**

04/2025: EU launches Open Source Solutions Catalogue

https://interoperable-europe.ec.europa.eu/

European Commission

interoperable europe

Policy Solutions Support

EU Open Source Solutions Catalogue

Solutions created by and for European Public Services

Welcome Search About

About

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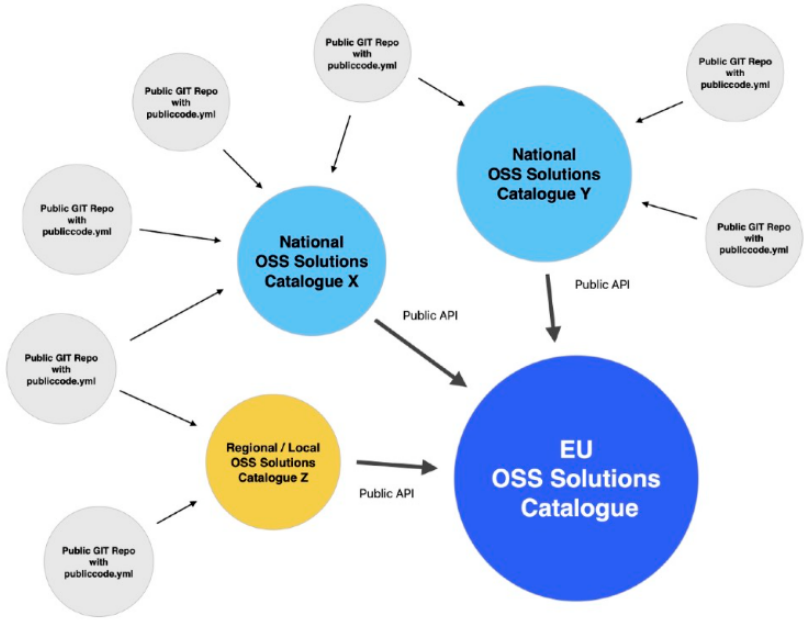
The EU Open Source Software Solutions Catalogue (EU OSS Catalogue) has been created by the FOSSEPS Preparatory initiative, Free and Open Source Software for European Public Services, which aims to promote cooperation at European Union level by giving visibility and facilitating the sharing and reuse of Open Source Solutions developed "by and for" public sector bodies in the European Union Member States.

This catalogue is based on a federated architecture of public APIs that generates a **central pool of OSS Solutions collected by OSS Solutions Catalogues from EU Member States, at both National and Local level**.

EU OSS Solutions Catalogue Federation Requirements

The Federation and integration of a National/Local Catalogue into the EU OSS Catalogue are made possible by the following architectural conditions and technical constraints:

1. **Each National / Local OSS Catalogue should be a collection of OSS Solutions** developed "by and for" public sector bodies and stored in public GIT repositories;
2. **Each OSS public GIT repository should implement the publiccode.yml metadata standard:** this ensures that each OSS Solution has its specific qualification in the context of Public Services (more info on this below);
3. **Each National / Local OSS Catalogue should provide a publicly accessible API that can provide the list of its OSS public GIT URLs**: this condition allows the EU OSS Catalogue to federate (fetch and continuous synchronise) from original sources catalogs;



Interoperability and open standards are key !

02/2025: UN launches Open Source ¨Principles

https://unite.un.org/

ict-reuse.be

United Nations | Office of Information and Communications Technology

Home ICT Security Emerging Technologies Ethical Technology Field Technology About OICT

The UN Open Source Principles

1. Open by default: Making Open Source the standard approach for projects.
2. Contribute back: Encouraging active participation in the Open Source ecosystem.
3. Secure by design: Making security a priority in all software projects.
4. Foster inclusive participation and community building: Enabling and facilitating diverse and inclusive contributions.
5. Design for reusability: Designing projects to be interoperable across various platforms and ecosystems.
6. Provide documentation: Providing thorough documentation for end-users, integrators and developers.
7. RISE (recognize, incentivize, support and empower): Empowering individuals and communities to actively participate.
8. Sustain and scale: Supporting the development of solutions that meet the evolving needs of the UN system and beyond.

We invite other organizations to join in support of the UN Open Source Principles and in contributing to a future of open, inclusive digital solutions worldwide.

To Endorse the UN Open Source Principles, Submit Your Organization's Information Here.

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Open source is the way forward for digital

SOVEREIGNTY

and long term autonomy

Key takeaways…

- **Open Source quietly powers our digital society**
  - Until it becomes visible for the wrong reasons
- **Visibility and trust are non-negotiable**
  - SBOMs, identity, and community health matter
- **The Open Source future needs more than consumption**
  - Invest, contribute, and nurture (micro-)communities with (macro-)impact
- **AI and automation can strengthen or shatter**
  - How we govern it decides which
- **Digital sovereignty means control, interoperability, and freedom**
  - Not accidental lock-in, have a plan
- **Communities are hard but worth it**
  - Collaboration beats isolation every time

- **Join & Build Communities:** Every type of contribution matters
- **Protect Trust:** Safeguard confidence in Open Source and public sector systems
- **Sustainable XaaS:** Promote open services and open cloud for a resilient public sector
- **Embed Methodically:** Establish structural approaches to integrate OSS into our digital landscape

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Open source is a

STRATEGIC ASSET

Treat it accordingly!

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Reimagining Open Source Together !

Think beyond code

www.smals.be
gcloud.belgium.be
ict-reuse.be
www.ba4gov.be

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Thank you !

Looking forward
to hear your point of view and insights !

DIRK DERIDDER
CTO Smals

dirk.deridder@smals.be

dirkderidder.wordpress.com

www.linkedin.com/in/dderidde/

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