



THE ROLE OF OPEN INFRASTRUCTURE IN DIGITAL SOVEREIGNTY



HELLO!

My name is Thierry Carrez

I work for the Open Infrastructure Foundation

I am @tcarrez@fosstodon.org in the Fediverse



DIGITAL SOVEREIGNTY

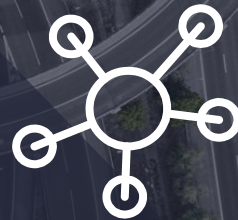
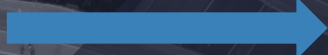
WHY IT MATTERS, AND HOW TO ENABLE IT

SOFTWARE IS EATING THE WORLD

- Disrupt or be disrupted

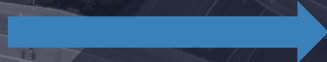


Users



Applications

Users



Physical hardware

Users

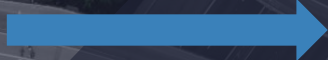


Application
developers
& deployers



Physical hardware

Users



Application
developers
& deployers

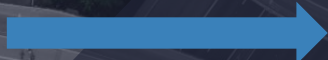


Hardware virtualization



Physical hardware

Users



Application
developers
& deployers



IaaS APIs

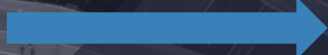


Hardware virtualization



Physical hardware

Users



Cloud-aware
applications



Programmable
infrastructure



SOFTWARE IS EATING THE WORLD

- Disrupt or be disrupted



SOFTWARE IS EATING THE WORLD

- Disrupt or be disrupted
- Programmable infrastructure is necessary to get the desired velocity



SOFTWARE IS EATING THE WORLD

- Disrupt or be disrupted
- Programmable infrastructure is necessary to get the desired velocity
- Maintaining in-house programmable infrastructure is hard



SOFTWARE IS EATING THE WORLD

- Disrupt or be disrupted
- Programmable infrastructure is necessary to get the desired velocity
- Maintaining in-house programmable infrastructure is hard
- Hyperscale clouds are American or Chinese





THE EUROPEAN CHALLENGE



THE EUROPEAN CHALLENGE

- Data is the basic resource of the 21st century



THE EUROPEAN CHALLENGE

- Data is the basic resource of the 21st century
- How to control access to it?



THE EUROPEAN CHALLENGE

- Data is the basic resource of the 21st century
- How to control access to it?
- How to reduce our geopolitical vulnerability?



THE EUROPEAN CHALLENGE

- Data is the basic resource of the 21st century
- How to control access to it?
- How to reduce our geopolitical vulnerability?
- How to enforce progressive privacy laws?



THE EUROPEAN CHALLENGE

- Data is the basic resource of the 21st century
- How to control access to it?
- How to reduce our geopolitical vulnerability?
- How to enforce progressive privacy laws?
- How to tap into a vibrant ecosystem with no giant?

INITIAL RESPONSE

→ Mandating locally-operated systems

INITIAL RESPONSE

- Mandating locally-operated systems
- Describing and cataloguing service properties (Gaia-X)

INITIAL RESPONSE

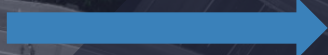
- Mandating locally-operated systems
- Describing and cataloguing service properties (Gaia-X)
- Those were all easily co-opted by hyperscalers

An aerial photograph of a multi-lane highway bridge that curves along a steep, rocky cliffside overlooking the ocean. The bridge is supported by several concrete pillars. The sky is overcast, and the water is a deep blue. A dark car is visible on the bridge in the lower left. A large, semi-transparent dark triangle is overlaid on the left side of the image.

OPEN INFRASTRUCTURE

WHAT IT IS, AND WHY IT CAN HELP

Users



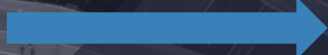
Cloud-aware
applications



Programmable
infrastructure



Users

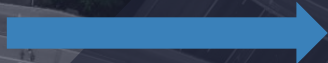


Cloud-aware applications



Programmable infrastructure

Users



Application deployment APIs



IaaS APIs



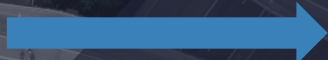
Hardware virtualization



Physical hardware



Users



Application deployment APIs



IaaS APIs



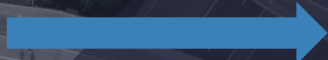
Linux



Physical hardware



Users



Application deployment APIs



OpenStack



Linux



Physical hardware



Users



Kubernetes



OpenStack



Linux



Physical hardware



Users



LOKI



Kubernetes



OpenStack



Linux



Physical hardware



**MAKING
INFRASTRUCTURE
TECHNOLOGY
ACCESSIBLE TO ALL**



**PERMISSIONLESS
INNOVATION**

A scenic landscape featuring a stone path that winds through a lush green field. In the background, there are rolling hills and mountains, some of which are shrouded in mist or low clouds. The sky is overcast. A small wooden bench is visible on the right side of the path. The overall atmosphere is serene and natural.

INDEPENDENCE



TRANSPARENCY



INTEROPERABILITY



cleura 



Business
Services



infomaniak



CloudFerro



The background features a series of parallel, slightly blurred vertical lines that create a sense of depth and motion. A diagonal line splits the image from the top-left to the bottom-right. The area to the left of this line is a dark, muted blue, while the area to the right is a lighter, more vibrant teal. The overall effect is modern and technological.

SOVEREIGN CLOUD STACK

SOVEREIGN CLOUD STACK

→ Standardized LOKI stack

SOVEREIGN CLOUD STACK

- Standardized LOKI stack
- Enabling a federation of interoperable providers

SOVEREIGN CLOUD STACK

- Standardized LOKI stack
- Enabling a federation of interoperable providers
- Sharing operational choices

SOVEREIGN CLOUD STACK

- Standardized LOKI stack
- Enabling a federation of interoperable providers
- Sharing operational choices
- Openly developed open source

SUMMARY

An aerial photograph of a complex multi-level highway interchange. The image shows several overpasses and ramps that create a dense network of roadways. The roads are dark grey with white lane markings. The interchange is surrounded by green trees and some urban infrastructure. A dark blue semi-transparent filter is applied over the entire image, and the word 'SUMMARY' is written in white, bold, sans-serif capital letters in the upper left corner.

SUMMARY



- Digital sovereignty is a major challenge for Europe in the 21st century

SUMMARY

- Digital sovereignty is a major challenge for Europe in the 21st century
- Open Infrastructure is open source infrastructure for applications and data

SUMMARY

- Digital sovereignty is a major challenge for Europe in the 21st century
- Open Infrastructure is open source infrastructure for applications and data
- OpenInfra enables independence, transparency and interoperability

SUMMARY

- Digital sovereignty is a major challenge for Europe in the 21st century
- Open Infrastructure is open source infrastructure for applications and data
- OpenInfra enables independence, transparency and interoperability
- Have a look at OpenInfra-powered providers and Sovereign Cloud Stack

THANKS!

A close-up photograph of a hand held palm-up, filled with a fine, bright pink powder. The background is dark, and a diagonal line runs across the image from the top-left to the bottom-right, separating the dark background from the lighter, pinkish background.

Learn more at:

<https://openinfra.dev>

<https://scs.community>

Questions?

You can reach me at @tcarrez@fosstodon.org in the Fediverse

Or email me at thierry@openinfra.dev

Credits

Presentation template by [SlidesCarnival.com](https://slidescarnival.com) (licensed under CC-BY-4.0)

Photographs by [Unsplash.com](https://unsplash.com) (licensed under Unsplash licence)