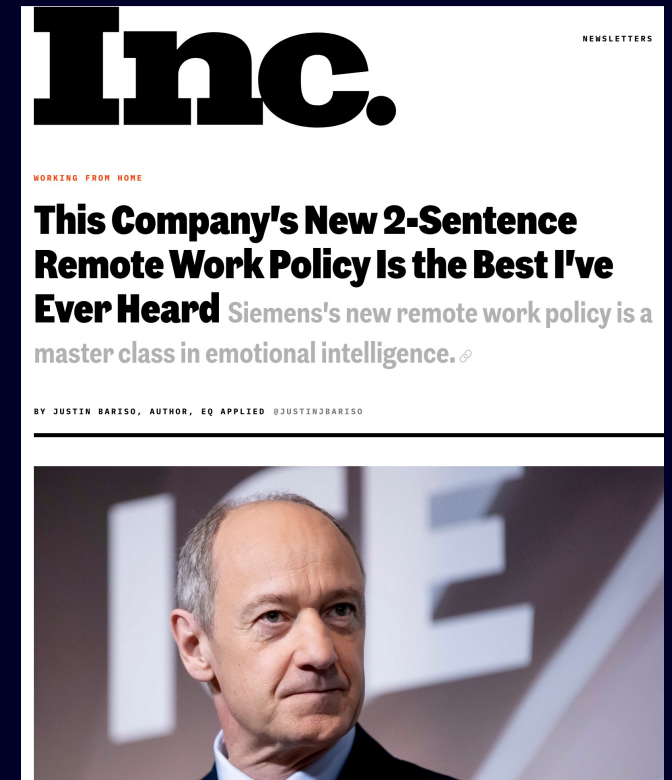# Open Source @ Siemens 2022

Welcome to the 9th event, great to have you here!

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1st time as hybrid conference + full public

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hybrid mode
= new normal

Inc.

NEWSLETTERS

WORKING FROM HOME

This Company's New 2-Sentence Remote Work Policy Is the Best I've Ever Heard Siemens's new remote work policy is a master class in emotional intelligence.

BY JUSTIN BARISO, AUTHOR, EQ APPLIED @JUSTINJBARISO

- Mobile working two to three days a week as worldwide standard
- Managing Board approves new model for working independently of fixed locations
- Model based on transformation of leadership and corporate culture
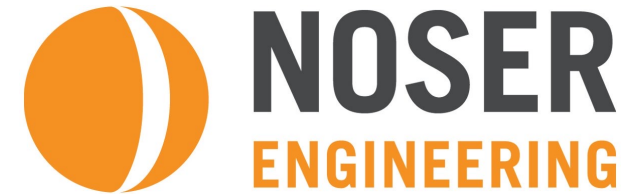- Siemens among first large companies to adjust working models permanently

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open source @ Siemens

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Unrestricted | © Siemens 2022 | Roger Meier | Siemens IT
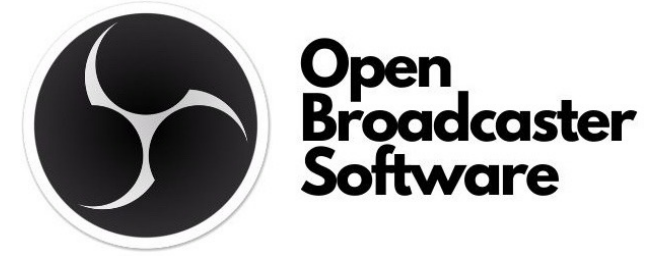
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establish an open source culture @ Siemens

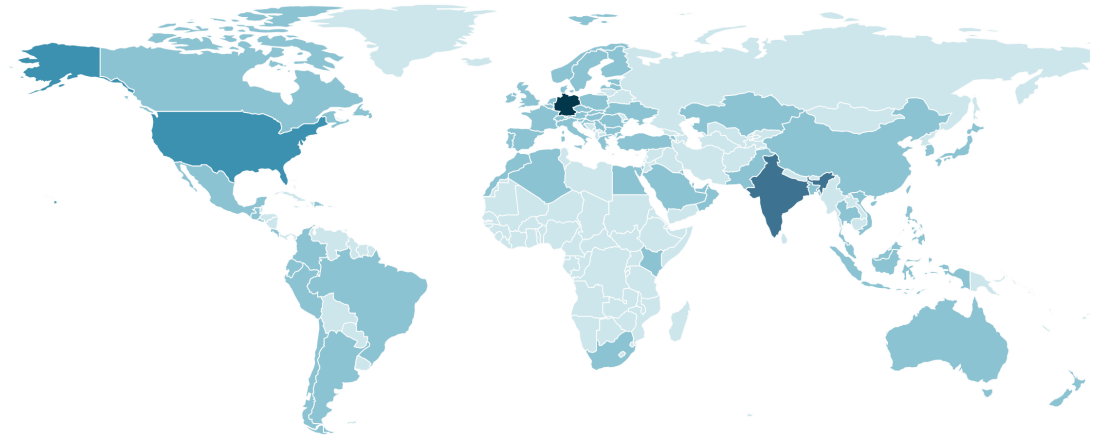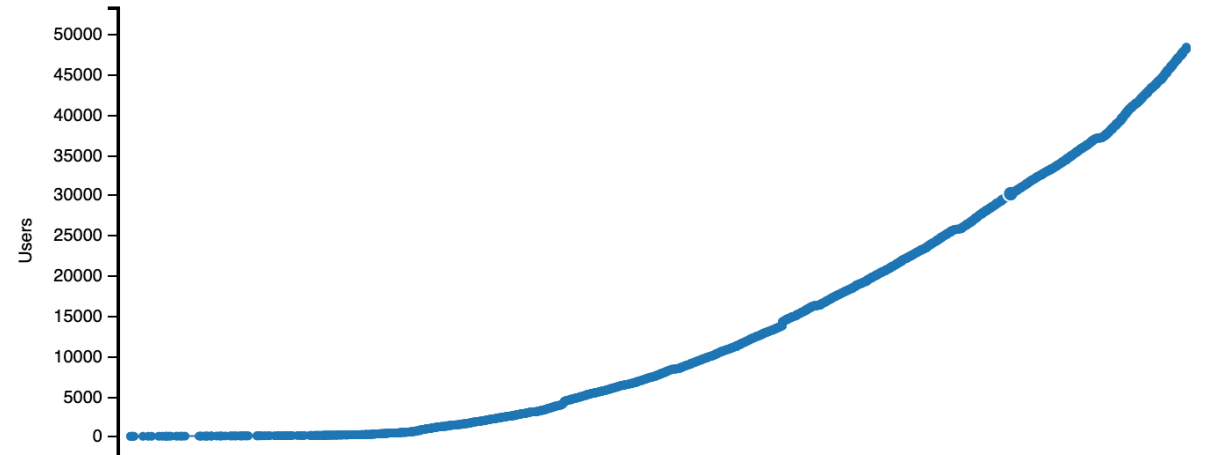**SIEMENS**

we started with

code.siemens.com and walk the talk!

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code.siemens.com - DevOps at scale

Social coding platform to collaborate on code within minutes.

- > **250k** builds/day
- > **47k** users, > **73** countries
- > **16M** API requests/day
- > **3800** hosted websites
- **0 €** license fees ➜ Open Source
- **No classic** help desk ➜ **community**

Thousands of **our** products and solutions are developed and deployed using code.siemens.com.

For developers, from developers

what's the foundation?

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people!

you must build an environment of trust!

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Team Charter of code.siemens.com

- Strong collaborative mindset, **cross silo thinkers**
- **Full Stack Engineers** (Architecture, Development, etc.)
- Experience as **open-source contributor or maintainer**
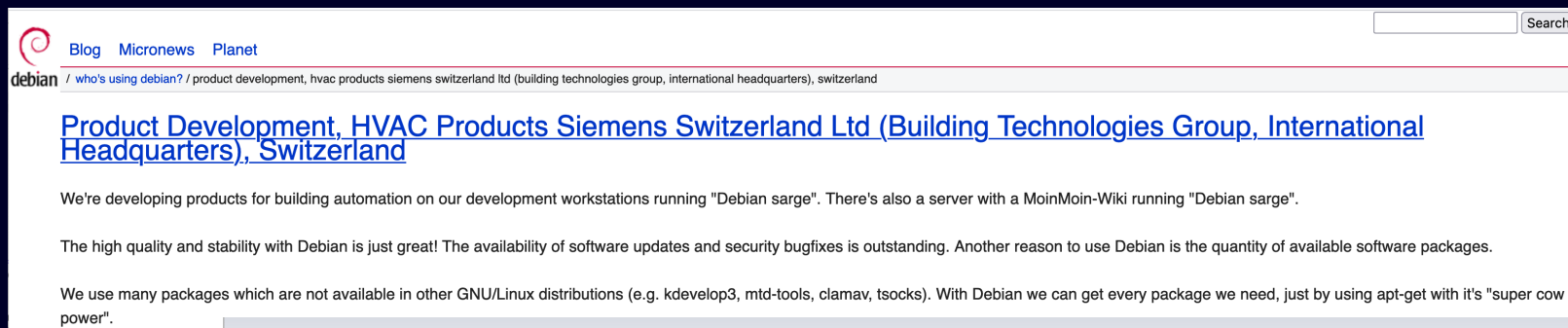- The platform itself is used to build the platform

                    Marion, Diego, Nejc, Peter and Gernot missing on the picture; we made at a mini workshop in Zug

open source

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From opensource.siemens.io to opensource.siemens.com

Last year we just had a very basic event web site, now we have:
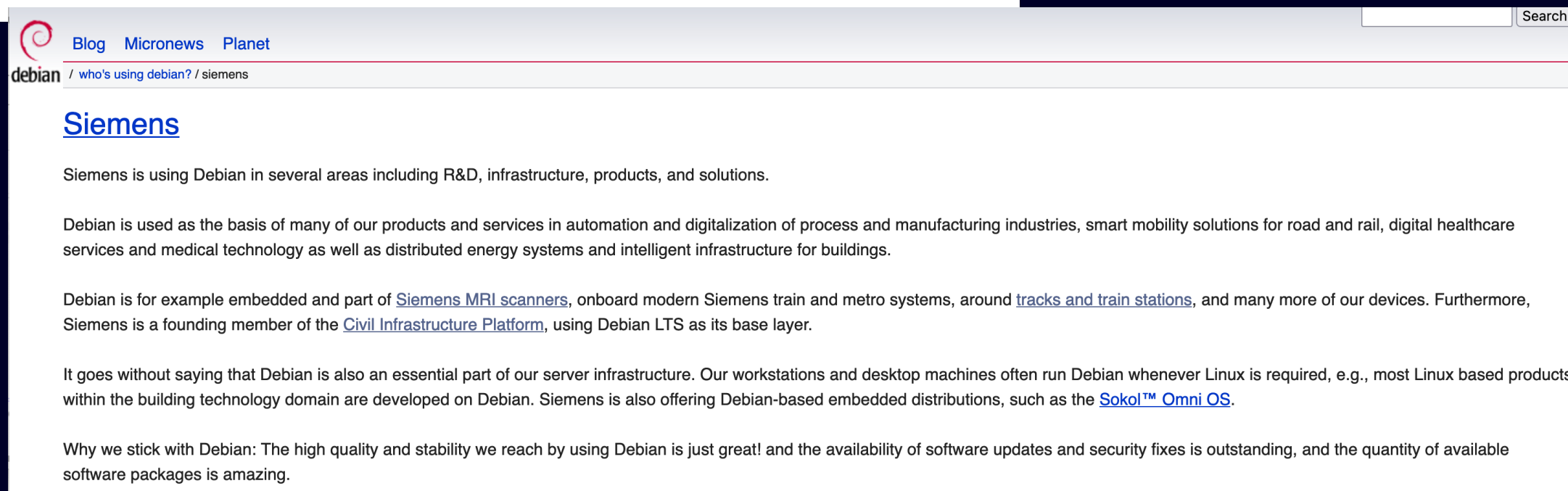
- A site listing projects, memberships, talks and more!

- People across Siemens contributing content.

- Links to other Siemens GitHub groups

We already started the conversation internally about an **Open Source or FOSS Manifesto** similar to what Mercedes-Benz published recently.

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Siemens ♥️ Debian

Blog   Micronews   Planet
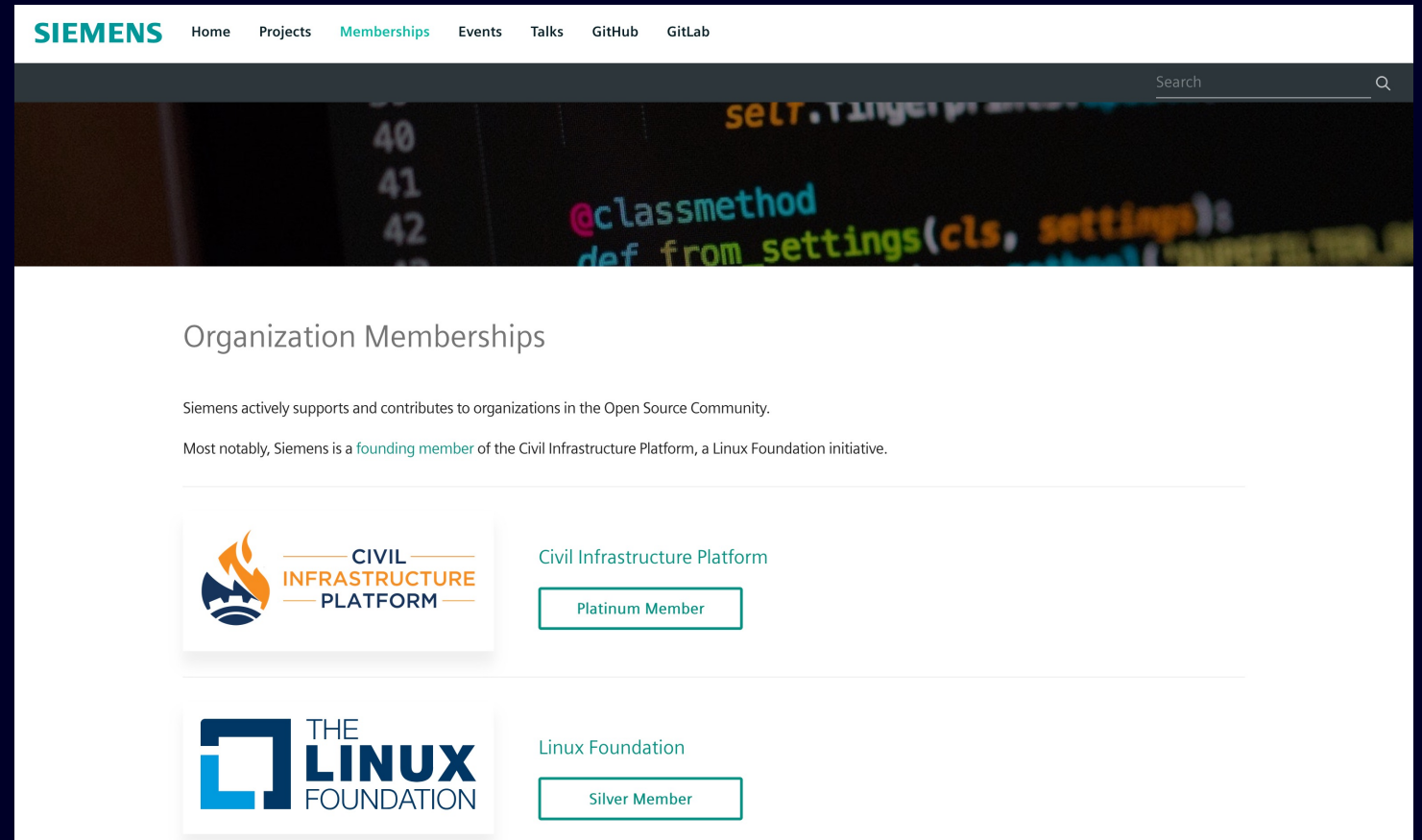
/ who's using debian? / product development, hvac products siemens switzerland ltd (building technologies group, international headquarters), switzerland

Product Development, HVAC Products Siemens Switzerland Ltd (Building Technologies Group, International Headquarters), Switzerland

We're developing products for building automation on our development workstations running "Debian sarge". There's also a server with a MoinMoin-Wiki running "Debian sarge".

The high quality and stability with Debian is just great! The availability of software updates and security bugfixes is outstanding. Another reason to use Debian is the quantity of available software packages.

We use many packages which are not available in other GNU/Linux distributions (e.g. kdevelop3, mtd-tools, clamav, tsocks). With Debian we can get every package we need, just by using apt-get with it's "super cow power".

Blog   Micronews   Planet

/ who's using debian? / siemens

Siemens

Siemens is using Debian in several areas including R&D, infrastructure, products, and solutions.

Debian is used as the basis of many of our products and services in automation and digitalization of process and manufacturing industries, smart mobility solutions for road and rail, digital healthcare services and medical technology as well as distributed energy systems and intelligent infrastructure for buildings.

Debian is for example embedded and part of Siemens MRI scanners, onboard modern Siemens train and metro systems, around tracks and train stations, and many more of our devices. Furthermore, Siemens is a founding member of the Civil Infrastructure Platform, using Debian LTS as its base layer.

It goes without saying that Debian is also an essential part of our server infrastructure. Our workstations and desktop machines often run Debian whenever Linux is required, e.g., most Linux based products within the building technology domain are developed on Debian. Siemens is also offering Debian-based embedded distributions, such as the Sokol™ Omni OS.

Why we stick with Debian: The high quality and stability we reach by using Debian is just great! and the availability of software updates and security fixes is outstanding, and the quantity of available software packages is amazing.

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growing number of upstream contributions all over Siemens!

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e.g., SIMATIC drivers within Linux Kernel

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inner source

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First Inner Source Summit in November 2021
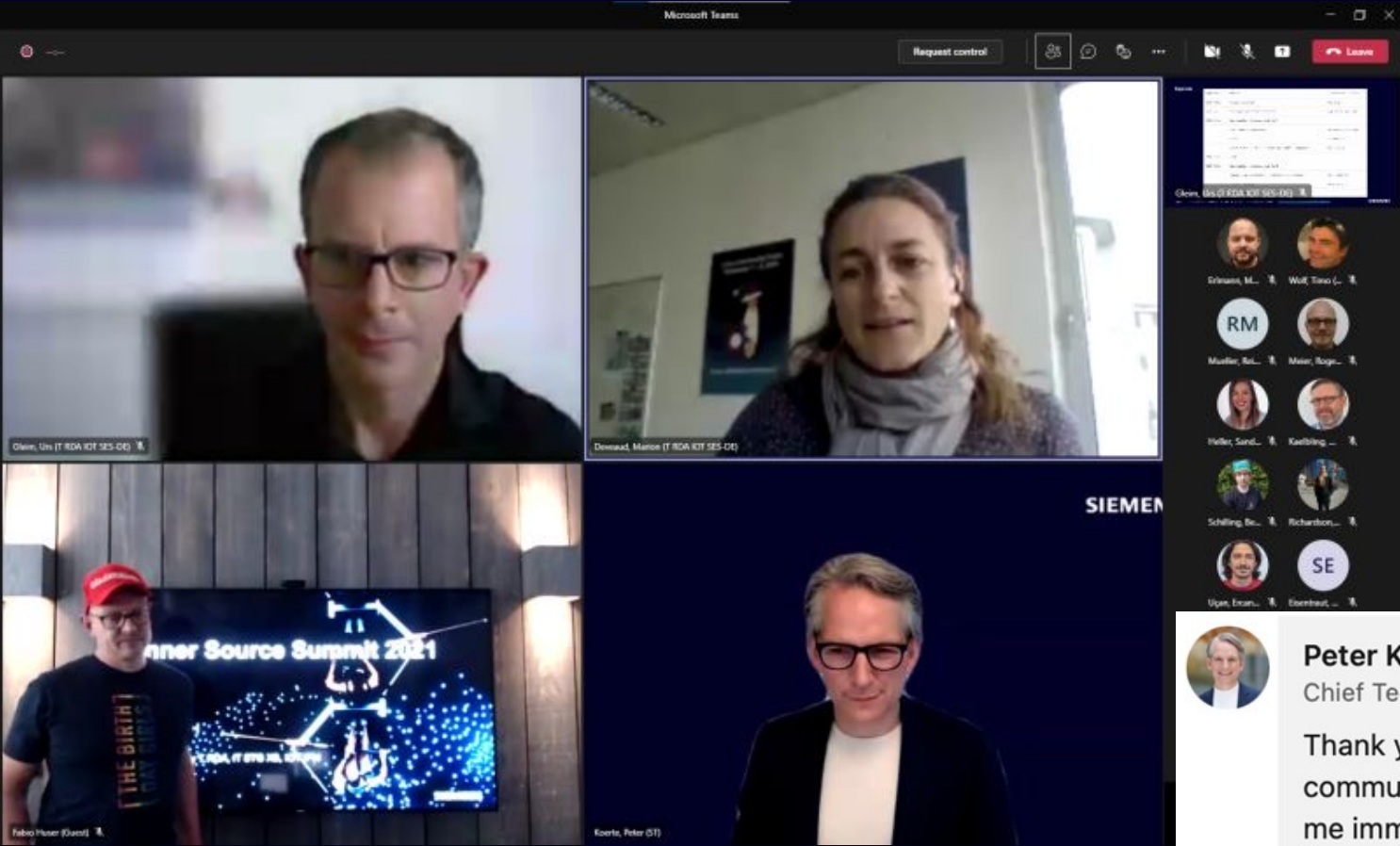
- Raised awareness and urgency of Collaborative Engineering culture

- Promote Inner Source projects

- Work towards digital independence by using Open Source and Inner Source

Peter Koerte • 1st   5mo •••
Chief Technology & Strategy Officer at Siemens

Thank you for having me and a huge applause to the whole community! 👏 Your mindset, your ambition and your drive impress me immensely and I can only encourage everyone to join this awesome network as it opens new opportunities for all of us in terms of innovation.

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inner source

—

master thesis

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initial situation

In 2021, **$605 billion** worldwide were **spent** on **enterprise software**

Until 2014, **collaboration** across departments and divisions within Siemens on **software code was difficult**

In 2015 foundation of the s**ocial coding platform** code.siemens.com

This approach of open and collaborative software development within a corporation is called inner source software development

So far, there is **no central department** which drives the topic centrally within the company

To further develop and expand an open and collaborative way of software development within Siemens, it is necessary **to understand the Inner Source software approach of Siemens**

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master thesis

What is needed to further develop and expand an open and collaborative way of software development within Siemens?

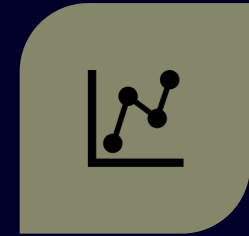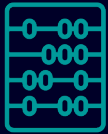| 1. EVALUATION OF THE AVAILABLE LITERATURE | 2. COMPARISON OF THEORY AND PRACTICE | 3. FORMULATION OF OPEN QUESTIONS | 4. EXECUTION OF A SURVEY WITHIN SIEMENS | 5. IDENTIFICATION OF RECOMMENDATIONS AND CONCEPT PROPOSAL |

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master thesis

Results

State of Inner Source Adaption

- Attitude differs
- Mostly German users
- Management support

Motivational Aspects for Inner Source

- Benefits Siemens overall
- Innovation & knowledge sharing
- Working across organizational boundaries

Success Factors & Impediments

- Management buy-in
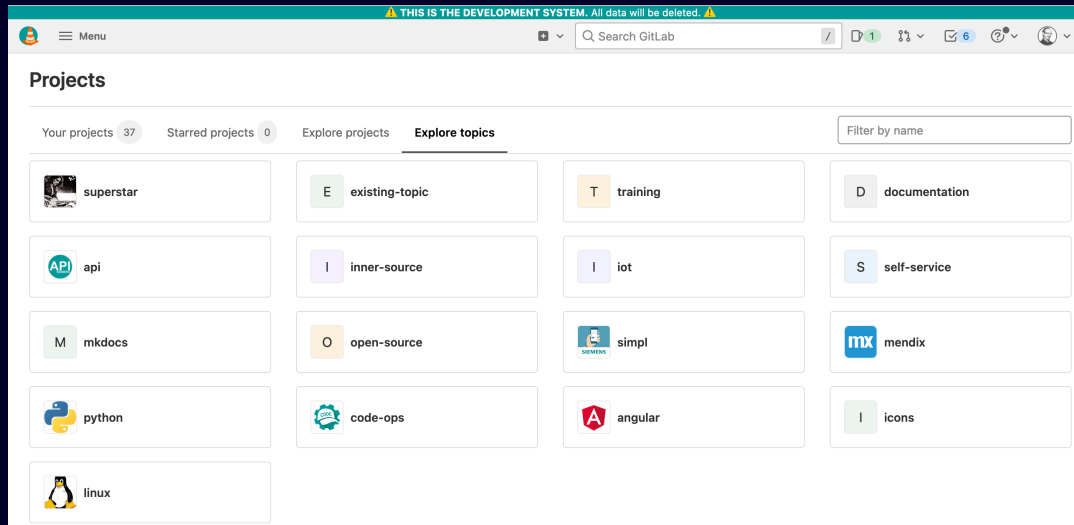- Mindset change
- Resources & budget

Recommendations

- Top-down strategy
- Marketplace
- Framework for collaboration
- Increasing visibility

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Implement recommendations from Sandra's thesis and more

Topic Portal's (contributed to GitLab) will be Available on code.siemens.com next Month!

Inner Source rankings ("Bundesliga Tabelle"):

- **Lists all registered reuses**
- **Sortable to get the top re-used inner source components**

Next Topic:
- **Autodetect re-use based on BOM scanning on code.siemens.com**

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help us to improve
and provide feedback!

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thank you!

enjoy the conference and have fun!

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