

工业开源

Industrial Open Source

赋能可扩展创新，迈向安全未来

Enabling Scalable Innovation for a Secure Future

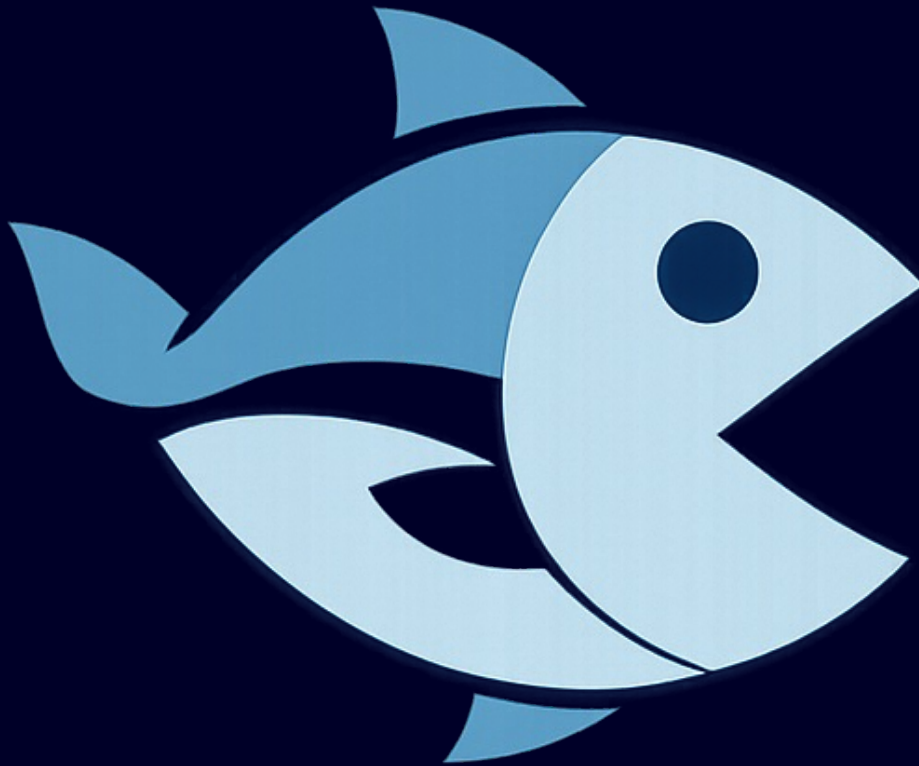
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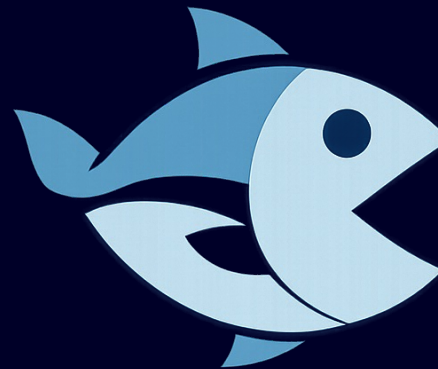
Introduction

Introduction

Software is eating the world... and Open Source is eating Software



Open Source



Software



Introduction

But Open Source is more than just Code

Open
Standards

Open Source
Licenses

Open Source
Semiconductors

Open Source
Intelligence

Open
Data

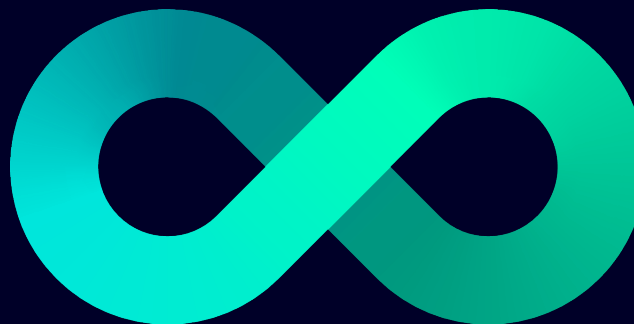
Open Source
Communities

Open Source
Contribution

Open Source
Sponsoring

Open Source
Infrastructure

Open
Hardware



From Inner Source to Open Source

Inner Source @ Siemens

Inner Source is collaborative software development across organizational boundaries within a company.

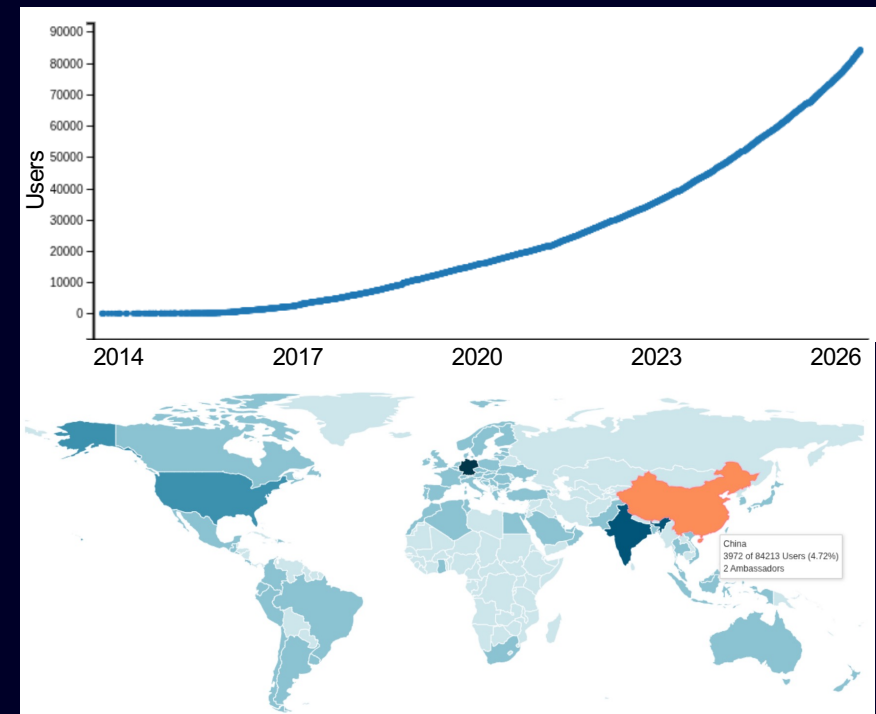
At Siemens we collaborate on code.siemens.com, our internal collaborative software platform.

We are using Open Source to host our Inner Source.

One of the largest Gitlab instances in the world:

- **> 84.000** users
- **> 77** countries
- **30.000.000** API requests / day
- **1.000.000** merge requests / year

Thousands of our products and solutions are developed on this platform.



From Inner Source to Open Source

With **Inner Source**
you have **your company's resources** at your disposition.

With **Open Source**
you have **the world's resources** at your disposition.

Our products consist of
0% - 99%
Open Source

From Open Source to **Industrial Open Source**

Open Source Licenses

BSD

Apache

MIT

**Publication
Process**

GPLv3

SBOM (Software Bill Of Material)



CycloneDX

Siemens Standard BOM

GPLv2



Open Source License
Compliance by Open
Source Software



LGPL

MPL

AGPL

Open Source Contribution

RANK	ORGANIZATION	ACTIVE CONTRIBUTORS ?		TOTAL COMMUNITY ?		
1	Google	6590	+252	13951	+530	>
2	Microsoft	5364	+285	11801	+584	>
3	Red Hat	3908	+168	5771	+187	>
50 ↗1	Siemens	190	+11	549	+44	>

<https://opensourceindex.io/>

Open Source Community

Open Source Communities can consist of:

- Individuals
 - Hobbyists
 - Students
 - Professionals
- Organisations
 - Companies (e.g. competitors)
 - Universities
 - Research Institutes
 - Foundations
 - Government Institutes

Siemens Open Source Events

We regularly organize events for the Open Source community. Our events bring in speakers from a range of fields including cloud-native technologies, embedded software and industrial Open Source. You'll find upcoming and past events in the table below.

You can also browse through [our blog](#) where we post updates from our annual events and more!

Events	Date	Location
Open Source @ Siemens 2026 📅	19th & 20th May 2026	Zug, Switzerland
Open Source @ 西门子 2025	30th & 31st October 2025	Wuxi, China
Open Source @ Siemens 2025	3rd & 4th June 2025	Zug, Switzerland
Open Source @ 西门子 2024	28th & 29th November 2024	Wuxi, China
Open Source @ Siemens 2024	14th & 15th May 2024	Zug, Switzerland
Open Source @ 西门子 2023	29th November 2023	Wuxi, China
Open Source @ Siemens 2023	23rd & 24th May 2023	Zug, Switzerland
Open Source @ Siemens 2022	17th & 18th May 2022	Zug, Switzerland
Open Source @ Siemens 2021	25th & 26th May 2021	Zug, Switzerland

Siemens organizes community events since more than a decade

Many Open Source projects are **driven by enthusiastic individuals** without financial incentives.

From Open Source to Industrial Open Source

Industrial Open Source is **not a characteristic trait** of a specific project.

It is **a mindset and process** of how to engage with Open Source in your organization.

Key elements:

- ensure compliance
- engage with the community
- reduce vulnerability vectors
- adopt an internal Open Source engineering culture
- contribute to relevant projects (patches, sponsorship, maintenance, etc.)

Case Studies

Open Source Software

Open Source
Artificial **Intelligence**

Open Source
Semiconductors

Case Study

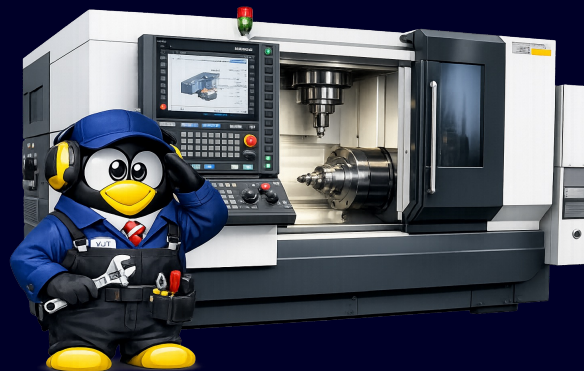
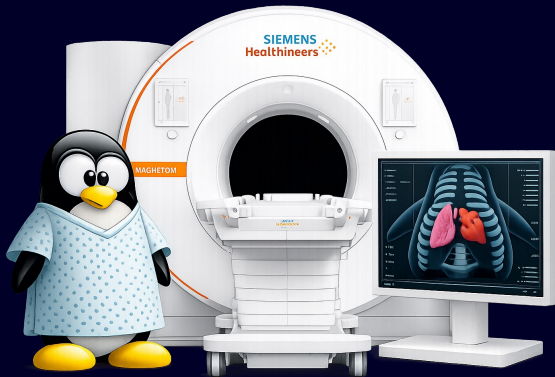
Software

Relevance Open Source Software

Many Siemens products are using the Open Source Operating System Linux.

Yet there is a need for unique selling points:

- application-specific real-time capabilities
- safety certifications
- long-term support (not years but decades)



Engagement Open Source Software



maintainer from SIEMENS



SIEMENS is indirect member



CIVIL
INFRASTRUCTURE
PLATFORM

SIEMENS is founding member



SIEMENS is premier member



SIEMENS is silver member

<https://opensource.siemens.com/memberships/>



SIEMENS

Community Open Source @ 西门子 2023 (November 2023 in Wuxi)

Open Source Real-Time Siemens Conference
<https://opensource.siemens.com/events/2023cn/>

Topics:

- Xenomai Roadmap
- new CPU Architectures
- Application Scenarios



Topics & Participants



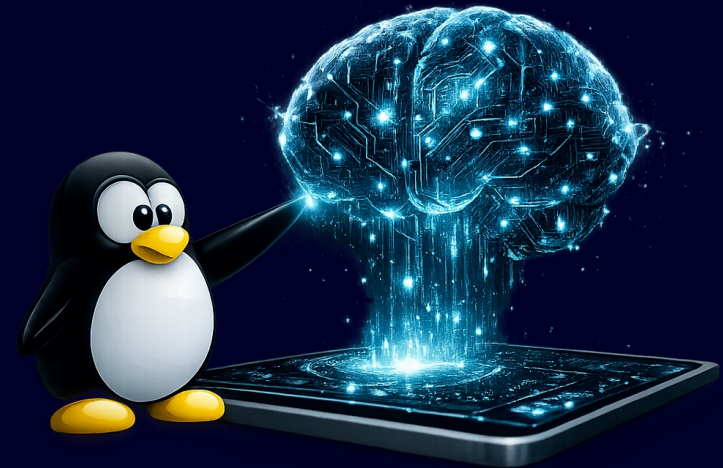
Case Study

Intelligence

Relevance Open Source Artificial Intelligence

Motivation for adopting Open Source Artificial Intelligence:

- Data Privacy
- Vendor Independency
- Compliance
- Cost predictability
- Customization
- Sustainability



<https://blog.siemens.com/2025/10/our-sovereign-ai-journey-building-a-self-contained-sustainable-and-cost-effective-llm-platform/>

Sustainable Artificial Intelligence

Facts & Figures about the climate-neutral Campus Zug

 **25 000 m²**
campus area

 **81 000 m²**
total net floor area*

 **13 000 m²**
production area**

 **39 000 m²**
office space**

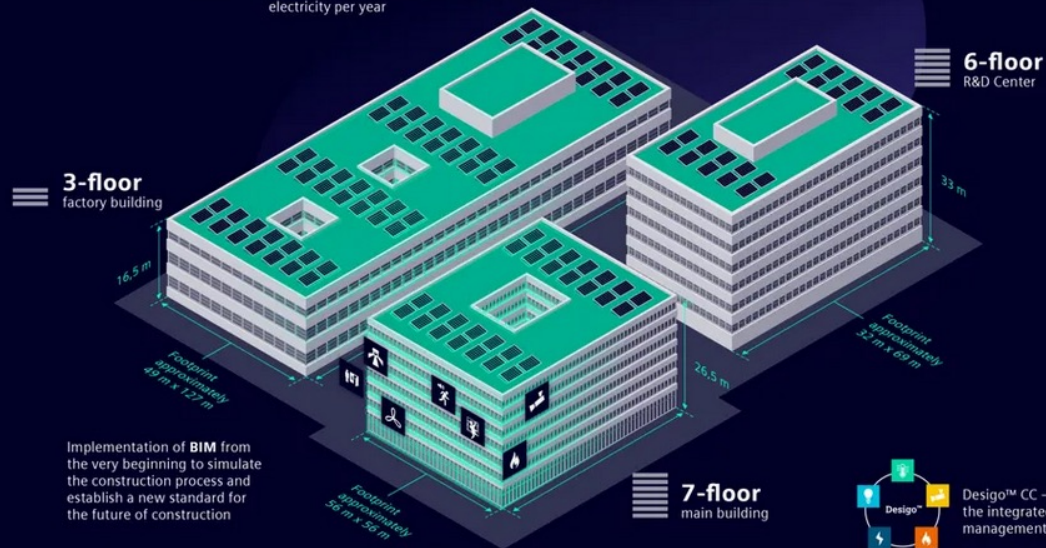
 **1700**
Siemens employees

* incl. parking facility and staff restaurant
** incl. secondary space
*** Assumption for commissioning of all buildings

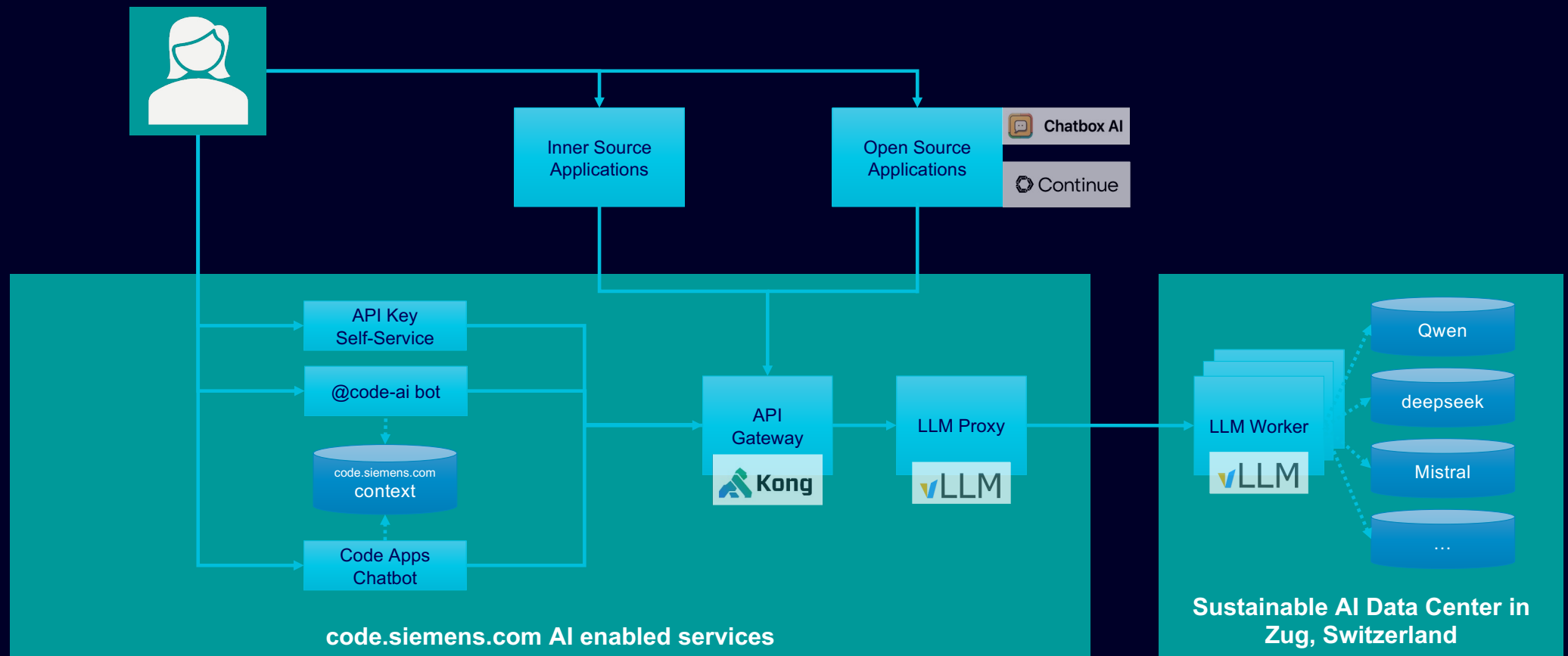
 **3500**
solar modules on an area
of 6,100 m²
1,300 MWh renewable
electricity per year

 **2 100 000 m³**
lake water per year
for heating and cooling***

 **7800 m²**
of vegetated rooftop



Compute Stack and AI Models



Community Open Source @ 西门子 2024 (November 2024 in Wuxi)

Open Source Artificial Intelligence Siemens Conference

<https://opensource.siemens.com/events/2024cn/>

Topics:

- Open Source Models
- Model Deployments
- Application Scenarios



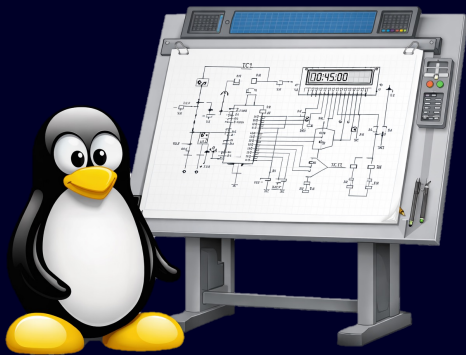
Topics & Participants



Case Study

Semiconductors

Open Source Semiconductors



Electronic Design Automation

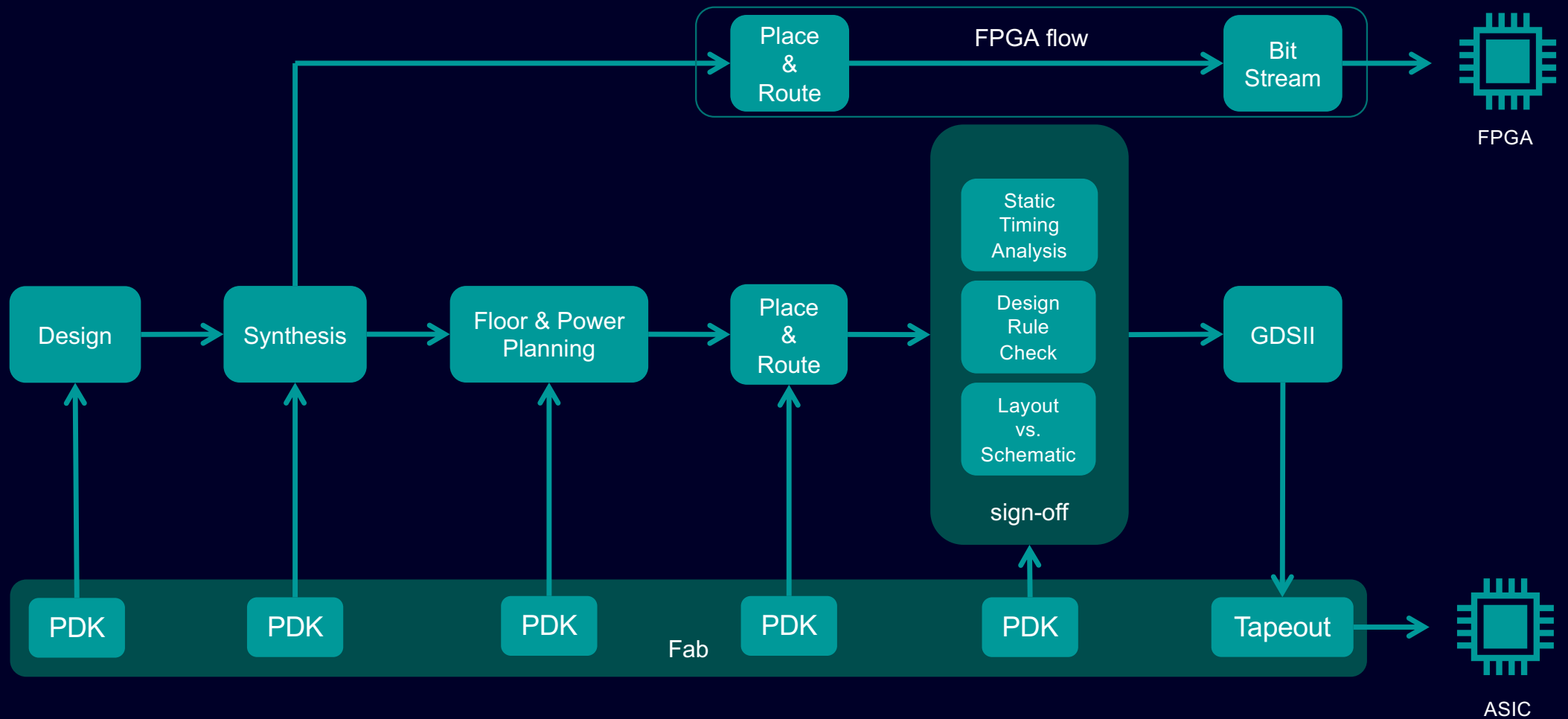


Manufacturing

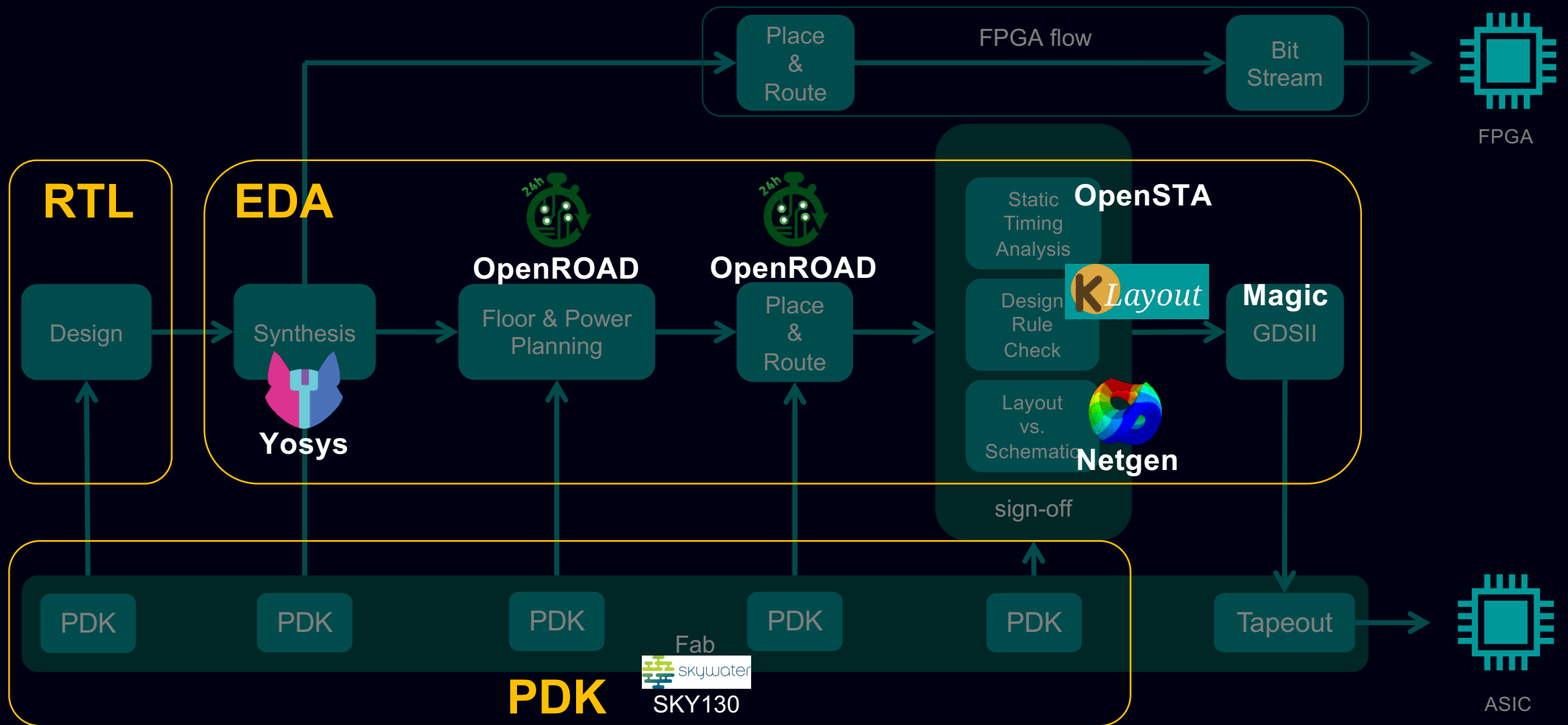


Chip

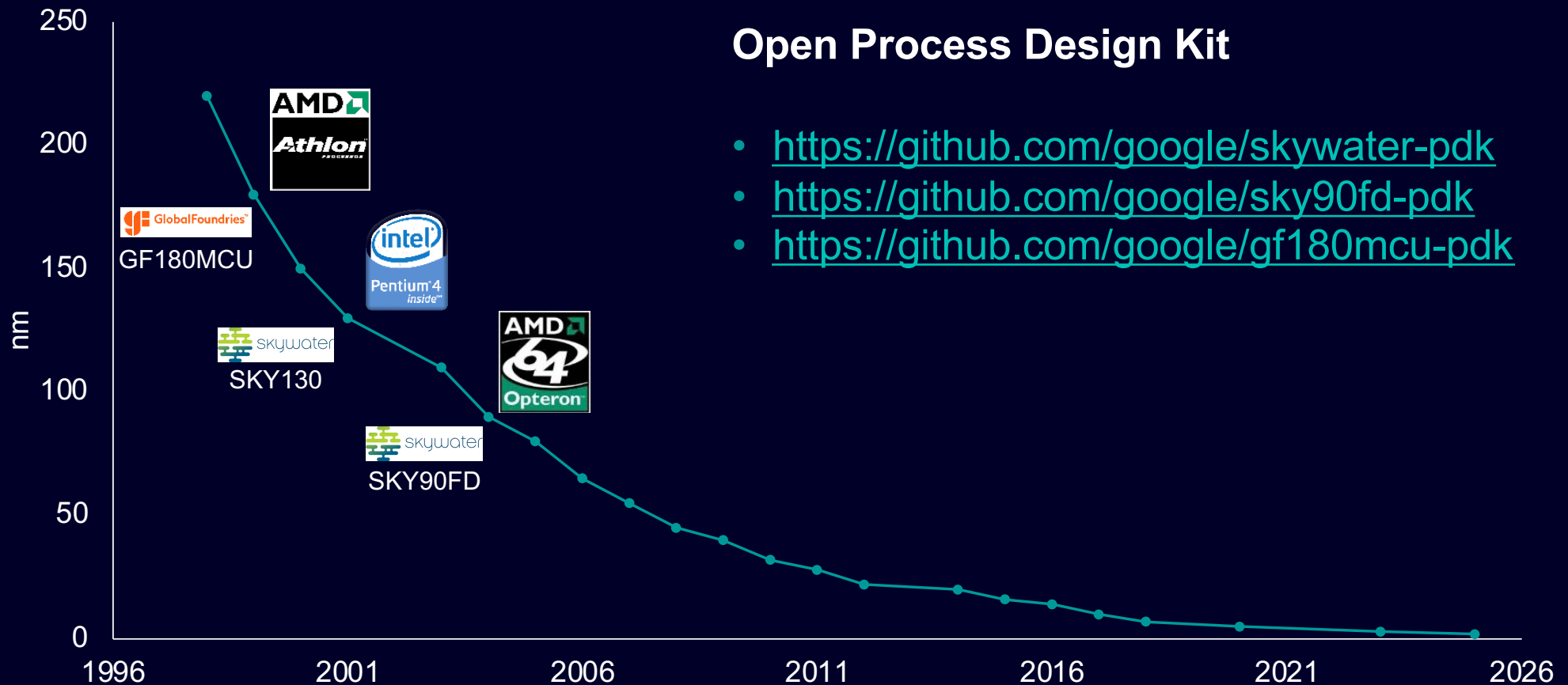
EDA Design Flow



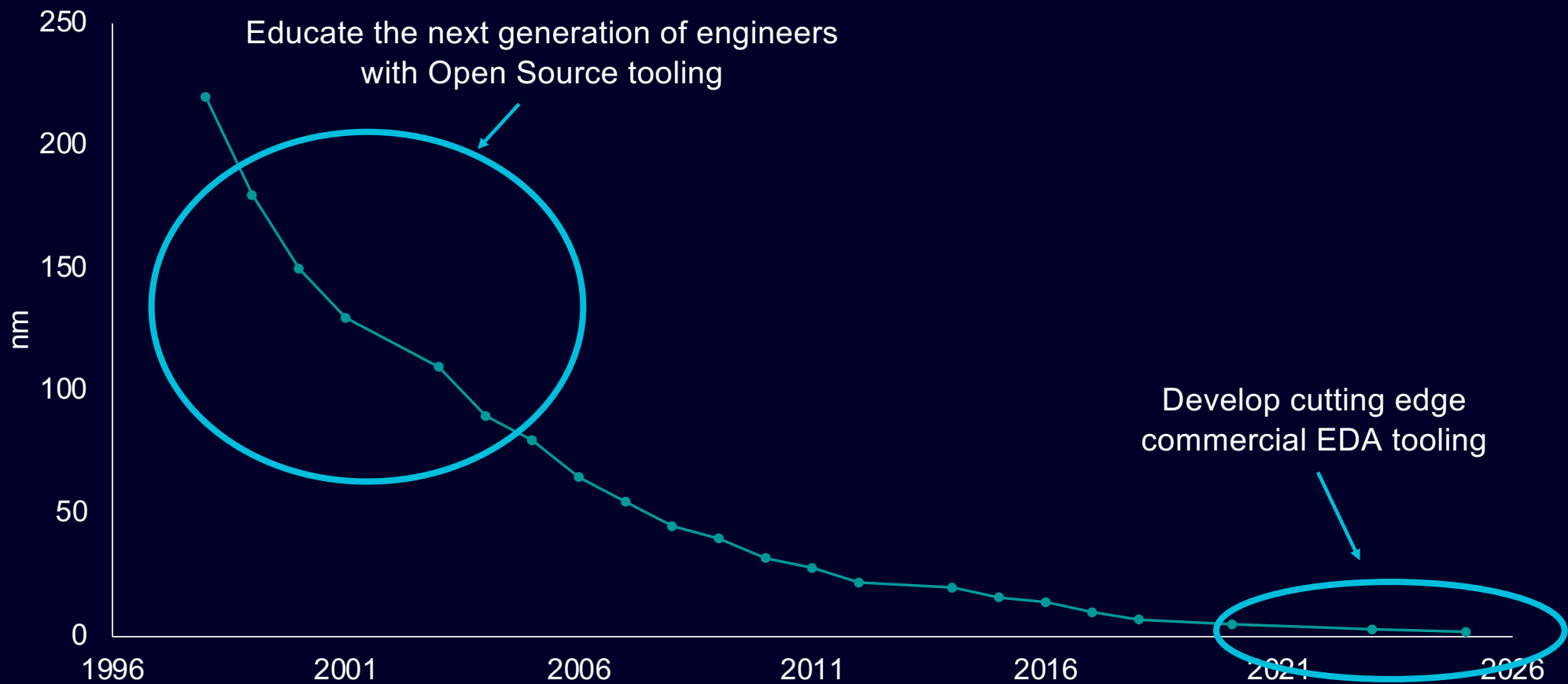
Open Source Design Flow



Legacy nodes are available as Open Source



Relevance Open Source Semiconductors



Community Open Source @ 西门子 2025 (October 2025 in Wuxi)

Open Source Semiconductors Siemens Conference
<https://opensource.siemens.com/events/2025cn/>

Topics:

- AI-enhanced tooling
- Student Tapeouts
- Open CPU designs



Topics & Participants

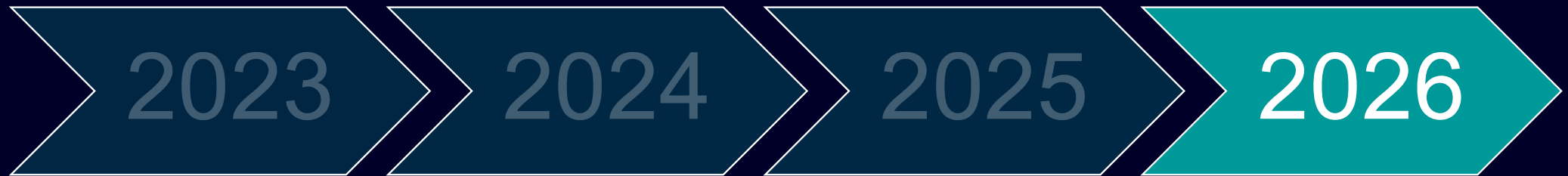


Conclusion

Event Announcement



Event Announcement Open Source @ 西门子 2026



Open Source
Real-Time

Open Source
Artificial Intelligence

Open Source
Semiconductor

Open Source
Robotics



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Conclusion

We **scale** our product portfolio
... with Open Source Software

We **innovate** our business models
... with Open Source Intelligence

We **secure** the next generation of engineers
... with Open Source Semiconductors

Industrial Open Source

Enabling Scalable Innovation for a Secure Future

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