



OPENCHAIN

## Free and Open Source Software: Challenges for the Automotive Supply Chain

Open source is now pervasive in multiple aspects of the automotive supply chain.

The challenge is how a process heavy industrial sector addresses something that appears quite chaotic.

The chaotic perception is due to the core concept behind open source: multiple actors contributing code without contracts or agreements beyond a simple copyright license.

However, open source is less chaotic than it might first appear. In the 30 years since Linux was launched, multiple sectors have invested billions in a targeted manner.

The **code** in open source is contributed in an open and flexible manner. The **process management** is structured and reliable in major projects.

Key example: the Linux Kernel.

Key example: CNCF.



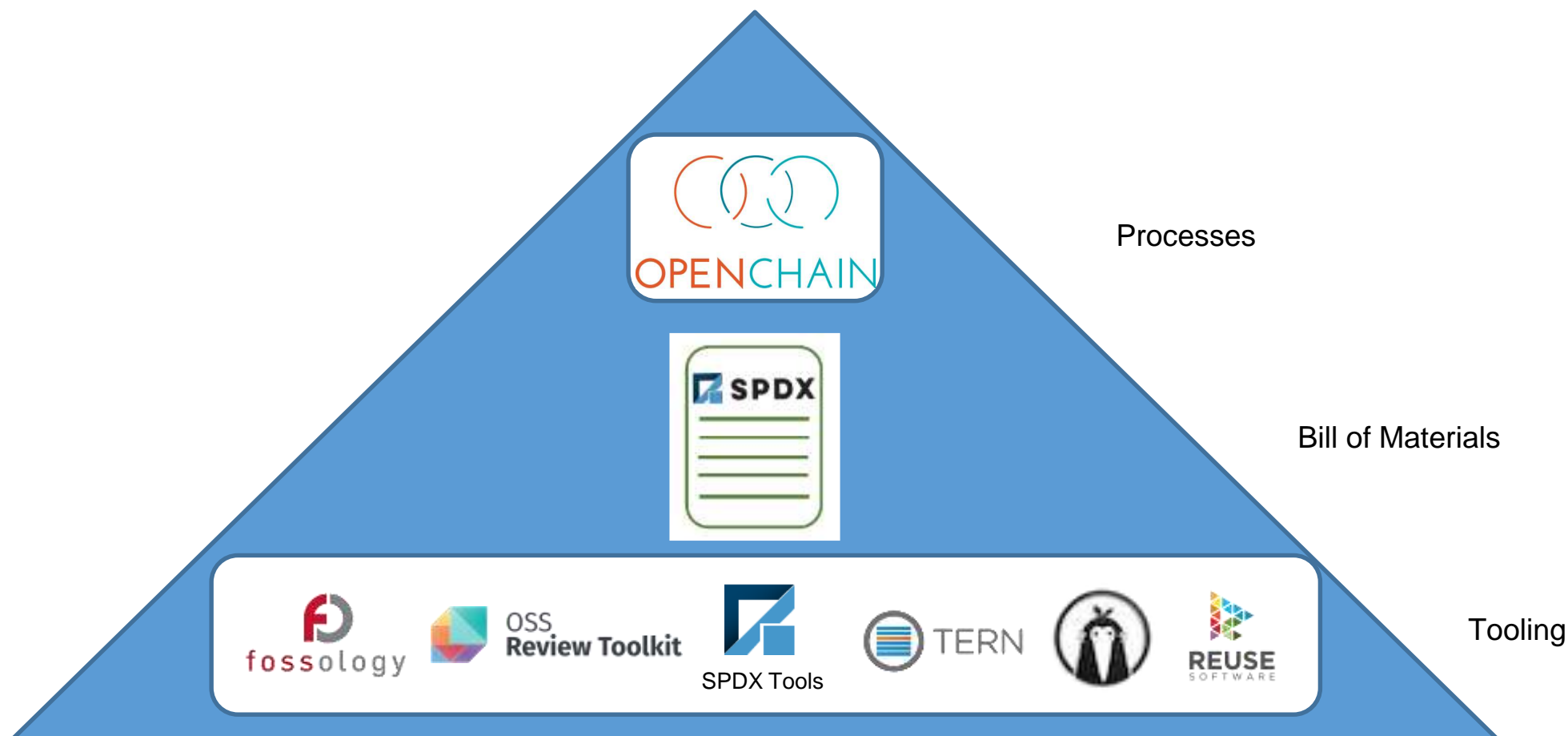
Key example: Android.

The area of open source that presented the most challenges in the past was probably license compliance.

Embedded and consumer device companies frequently faced compliance issues due to a lack of education and complex supply chains.

It has taken a while, but systematic solutions have emerged to triage compliance:  
define it, explain it, execute it.

# Open Compliance Program Solutions



OpenChain is the process management approach to frame all the other activities.

# OpenChain Platinum Member Companies



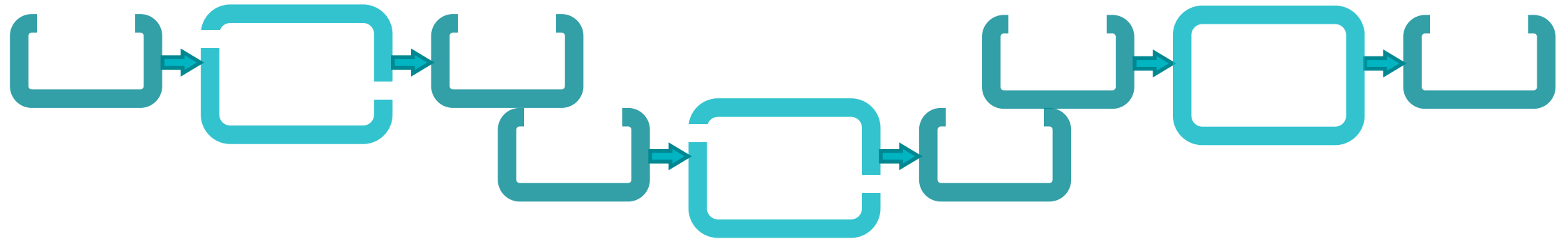
The OpenChain Project defines the key requirements of a quality open source compliance program.



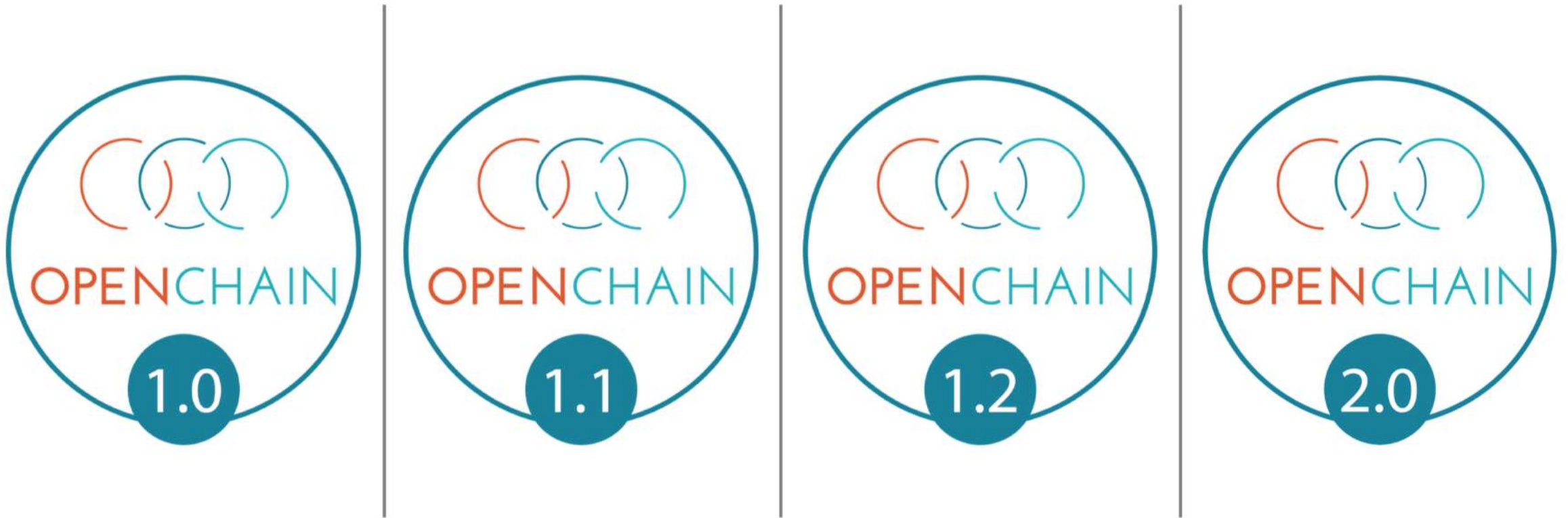
# OpenChain Defines Inflection Points



# Result: Predictable B2B Compliance Activity



# A Simple Logo, A Significant Meaning



**Quality Open Source Compliance Defined**

# Example Conformant Organizations



# Work Groups + Lists + GitHub

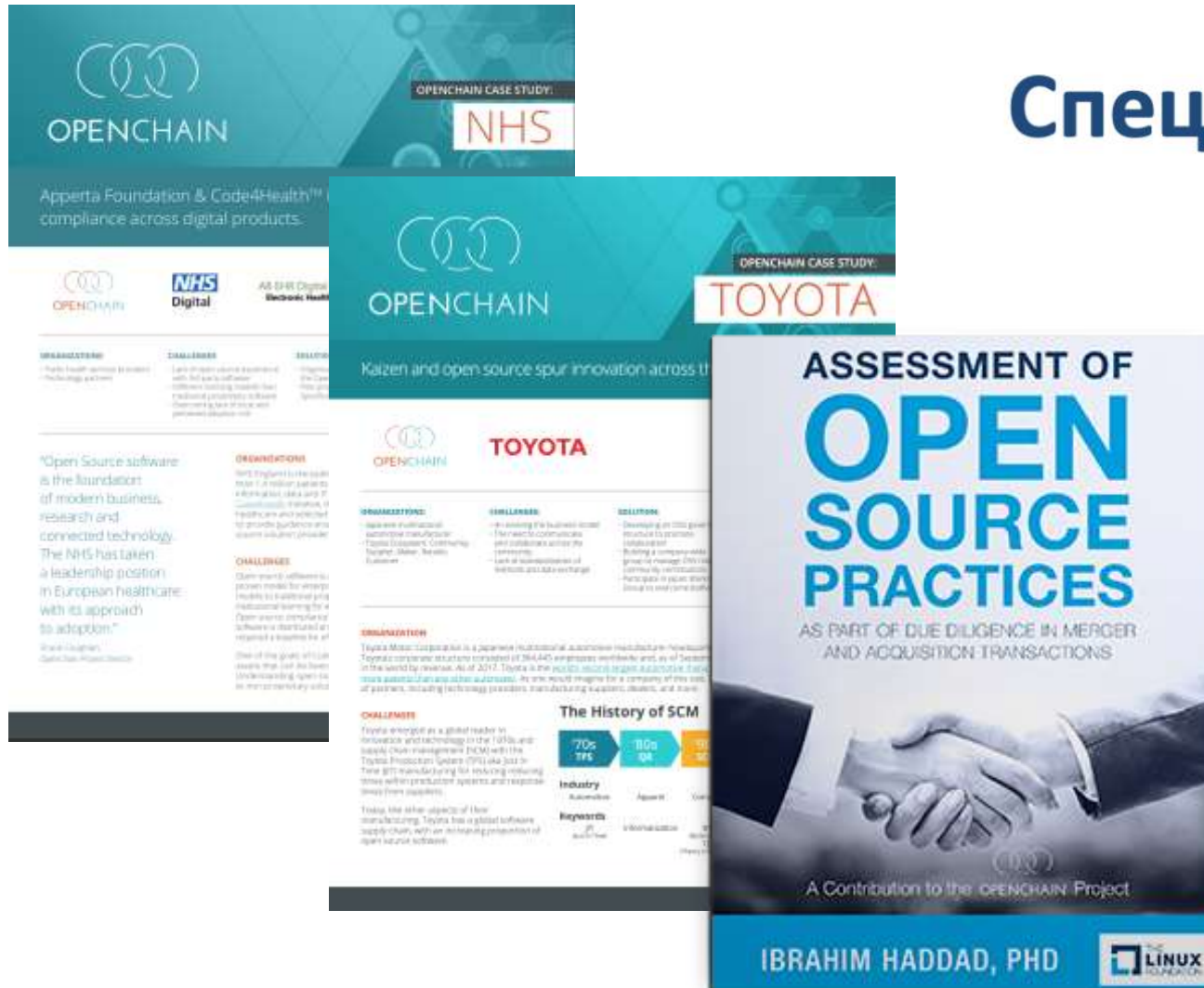
- Main List (3,700+ participants)
- GitHub (105+ participants)
- Automotive (115+ participants)
- Reference Tooling (160+ participants)
- China (105+ participants)
- Japan (190+ participants)
- Korea (40+ participants)
- Taiwan (40+ participants)
- India (40+ participants)
- Germany (30+ participants)

# Our Online Self-Certification Questionnaire

› G1: Know Your Open Source Responsibilities	0 answered out of 12
› G2: Assign Responsibility for Achieving Compliance	0 answered out of 8
› G3: Review and Approve Open Source Content	0 answered out of 8
› G4: Deliver Open Source Compliance Artifacts	0 answered out of 3
<input type="radio"/> Yes <input type="radio"/> No	Do you have a documented procedure that describes a process that ensures the Compliance Artifacts are distributed with Supplied Software as required by the Identified Licenses?
<input type="radio"/> Yes <input type="radio"/> No	Do you archive copies of the Compliance Artifacts of the Supplied Software?
<input type="radio"/> Yes <input type="radio"/> No	Are the copies of the Compliance Artifacts archived for at least as long as the Supplied Software is offered or as required by the Identified Licenses (whichever is longer)?
› G5: Understanding Open Source Community Engagements	0 answered out of 3
› G6: Adherence to the Specification Requirements	0 answered out of 2



# Comprehensive Reference Material



## Спецификация OpenChain

## OPENCHAIN 规范

## ओपनचेन विनिर्देश

## OPENCHAIN CURRICULUM

### Reference Open Source Training Slides for OpenChain 2.0

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These slides follow US law. Different legal jurisdictions may have different legal requirements. This should be taken into account when using these slides as part of a compliance training program.

These slides do not contain legal advice

## Learn How OpenChain Helps Others

OPENCHAIN CASE STUDY

### How OpenChain Supports Kaizen in Toyota



TOYOTA

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OPENCHAIN CASE STUDY

### How OpenChain Supports the British NHS



NHS  
Digital

AS THE Digital Health  
Executive Health Service

Source Code Central

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OPENCHAIN CASE STUDY

### How OpenChain Supports Interneuron



Interneuron

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OPENCHAIN CASE STUDY

### OpenChain 3rd Party Certification with PwC



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OPENCHAIN CASE STUDY

### OpenChain 3rd Party Certification with TUV SUD



[Read Now](#)



Our Official Open Source Reference Training Slides  
Open Source from A to Z across 146 Slides

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Our Official Guide for Suppliers  
Complete Context in 12 Pages

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&lt;&gt; Code

🔔 Issues 1

🔀 Pull requests 0

🎬 Actions

📁 Projects 0

📖 Wiki

🛡 Security 0

📊 Insights

⚙ Settings

This repository contains the reference material related to the OpenChain Project

[Edit](#)[Manage topics](#)

🔗 12 commits

🌿 1 branch

📦 0 packages


📦 0 releases

👤 3 contributors

📄 CC0-1.0

Branch: master ▾

[New pull request](#)[Create new file](#)[Upload files](#)[Find file](#)[Clone or download ▾](#)

 theopenchainproject	Create OpenChain-and-Procurement-Departments-Beta1.docx	Latest commit a9a71af 19 days ago
📁 <a href="#">Case-Studies</a>	Tidied up Community Case Studies	2 months ago
📁 <a href="#">Checklists/Community</a>	Added Metrics-To-Evaluate-Source-Code-Scanning-Tools-1.0	2 months ago
📁 <a href="#">FAQs/Community/jp</a>	Added all the reference materials for the project	2 months ago
📁 <a href="#">Flowcharts/Community</a>	Added all the reference materials for the project	2 months ago
📁 <a href="#">Guides</a>	Create OpenChain-and-Procurement-Departments-Beta1.docx	19 days ago
📁 <a href="#">Kanban-Workflows/Community/en</a>	Added all the reference materials for the project	2 months ago
📁 <a href="#">Policy-Templates</a>	Added all the reference materials for the project	2 months ago
📁 <a href="#">Supplier-Leaflet/Official</a>	renamed files with extremely long names to shorter ones	2 months ago
📁 <a href="#">Training-Slides</a>	Updated image quality	20 days ago
📁 <a href="#">Worksheets/Official/Starter-Works...</a>	Tidied up worksheets	2 months ago

# Partner Program



# Partner Program

## Law Firms



# Partner Program

## Service Providers

{metæffekt}

Alekto *Metis*  
...we enable digital innovation.

 bitsea.

 EACG  
Enterprise Architecture  
Consulting Group

**LYRA**  
Infosystems

**NTT DATA**  
Trusted Global Innovator

 Open  
Source  
Sense

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 ORCRO

 OSS ENGINEERING  
CONSULTANTS

  
**pwc**

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ACADEMY

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"Feeding Your Source Code Your"

 Source Code Control  
Open Source Risk Management Specialists

**SYNOPSYS**<sup>®</sup>

 Togán Labs

**wipro**  


# Partner Program

## Vendors

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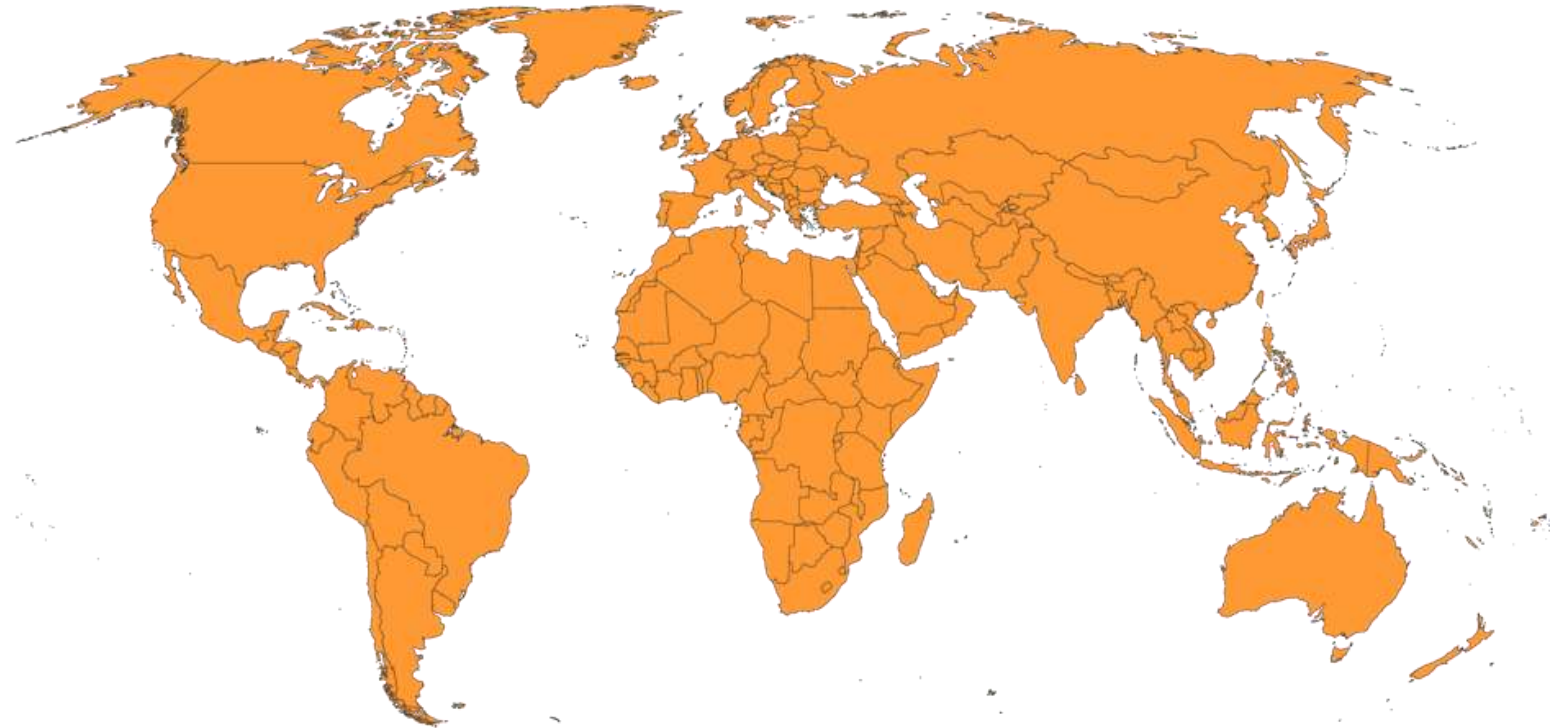
## Third-Party Certifiers

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# Global Third-Party Certification



# OpenChain in ISO/IEC JTC1

- The OpenChain submission is via the ISO/IEC JTC1 PAS transposition process to result in an International Standard. The process usually takes seven to eleven months.
- Our ISO/IEC JTC1 submission is in the ISO database. The DIS ballot (DIS 5230) launched on 2020-06-30 and concludes on 2020-09-22. Before this there was an 8 week period for National Standards Bodies to translate the submission. Depending on DIS ballot result and comments received, a further FDIS stage may be skipped. Otherwise, an 8 week FDIS ballot stage is required
- The International Standard will be published within 6 weeks or less.
- The ISO submission is available at:  
<https://wiki.linuxfoundation.org/media/openchain/openchainspec-2.1.draft.pdf>

# OpenChain in ISO – Formal Standardization

The OpenChain Project has submitted our specification to ISO via Publicly Available Specification (PAS) in Joint Technical Committee 1 (JTC-1). The ISO submission is available at:

- <https://wiki.linuxfoundation.org/media/openchain/openchainspec-2.1.draft.pdf>

Working in partnership with in partnership with Joint Development Foundation we expect to become a formal standard in Q3 2020.



# Freedom of Choice for Customers and Suppliers

**The OpenChain standard can be met by:**

Self-Certification

Independent Compliance Assessment

Third Party Certification

# Self-Certification

Self-Certification is at the heart of the OpenChain industry standard. Companies can access a series of yes/no questions to determine if they have implemented the key requirements of a quality open source compliance program. These questions can be found here:

<https://certification.openchainproject.org>

# Independent Compliance Assessment

Independent Compliance Assessment works in the same way as the Independent Assessments in other standards. An independent party such as a law firm, consultancy or accounting firm reviews the product of an OpenChain Self-Assessment and offers guidance on whether they perceive it as complete.

# Third-Party Certification

Third-Party Certification is a process whereby a certification authority guides a company through an OpenChain Conformance Process. The certification authority then issues a formal certification document. This activity maps precisely to the forms of third-party certification observed around automotive, infrastructure and similar fields.

The OpenChain industry standard has been carefully designed by user companies to **identify the inflection points** where a process, policy or training should be implemented in an open source compliance program. Our experience shows that **self-certification is an effective method of reducing risk and increasing efficiency**. That said, the choice of self-certification, independent compliance assessment or third-party certification depends on each business sector and customer base. **We seek to provide freedom of choice.**

OpenChain is run by user companies for user companies. These companies are collaborating to create clear, shared and effective approaches to managing open source code.

# Be Part of This

Join our community:

<https://www.openchainproject.org/get-started>

Self-Certify or Health Check an organization:

<https://certification.openchainproject.org>



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[www.openchainproject.org](http://www.openchainproject.org)