

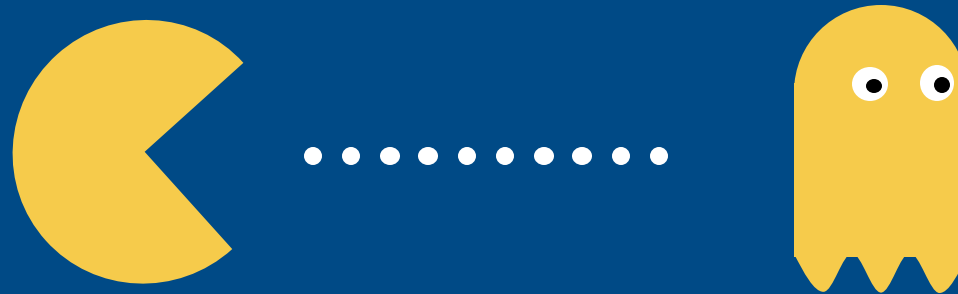
Fostering an Open Source Culture

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VP/GM, Open Ecosystem

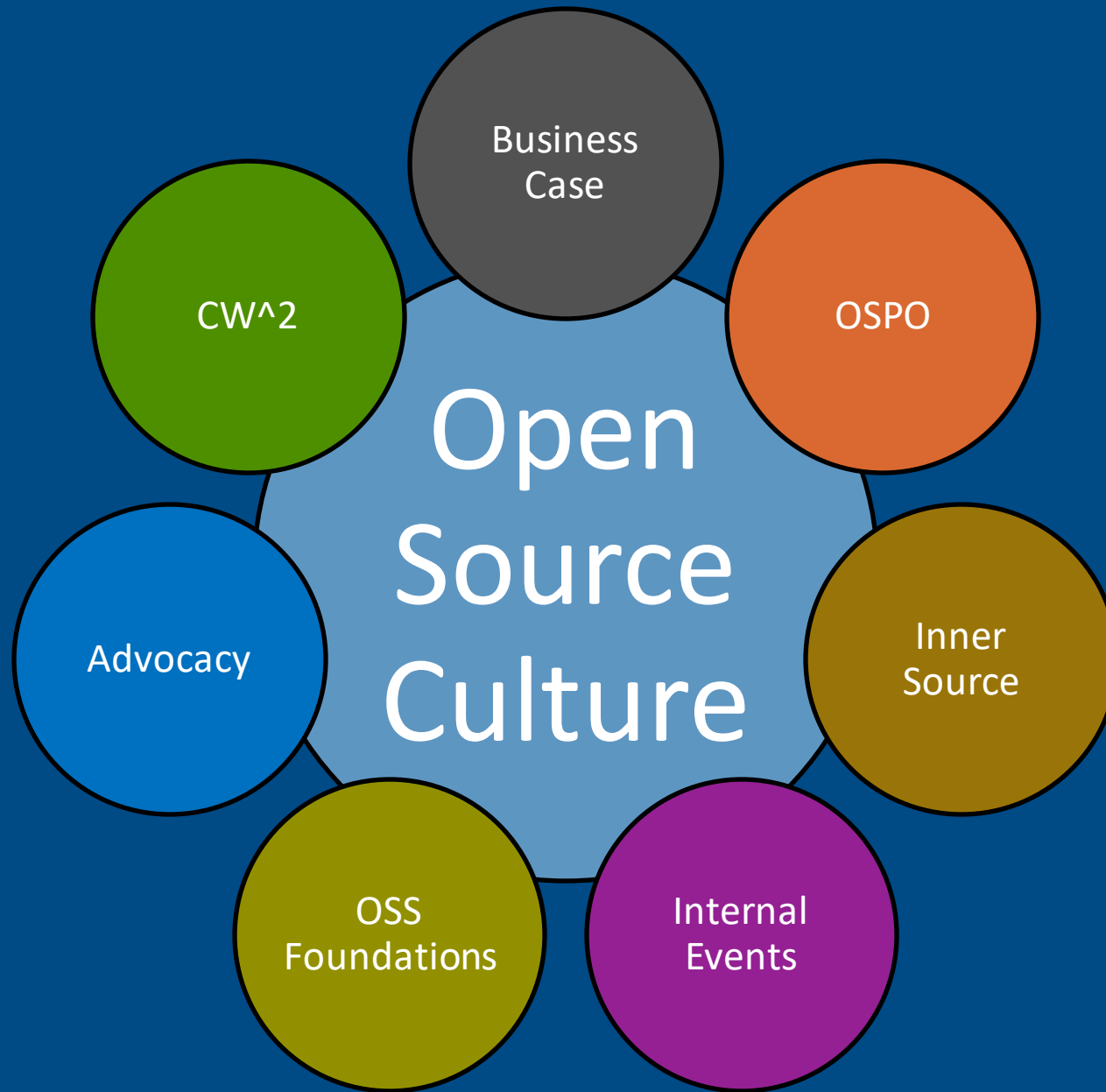


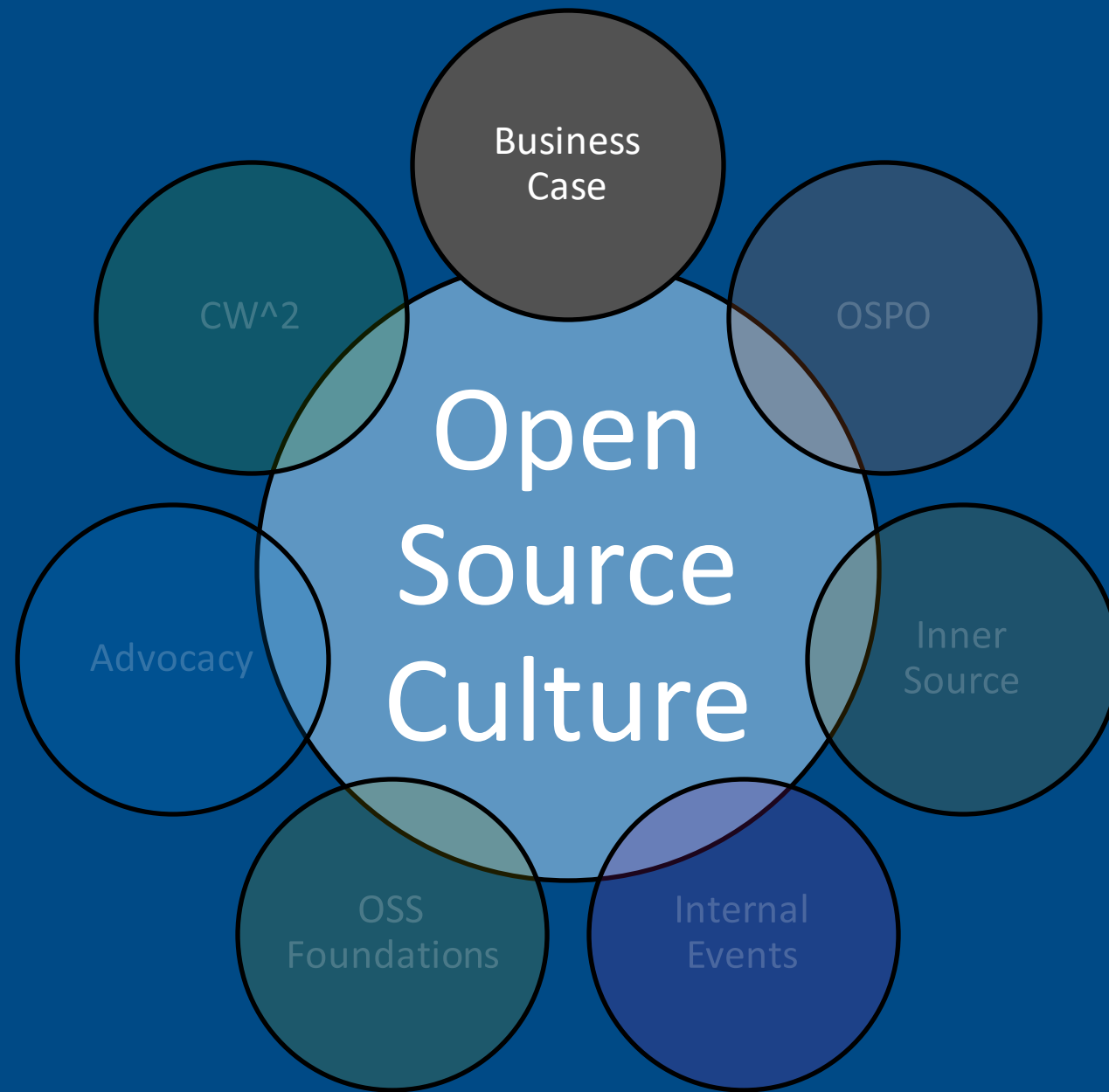
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Is open source your strategy or culture?



Open source in an enterprise needs to be tied to the core business, otherwise it is not sustainable.





Business case

- Red Hat
- Couchbase
- Amazon
- Fruit company
- Intel

Couchbase

- Open core allows **wider developer outreach as opposed to closed-source RBDMS**
- Sustainable business model by offering **HA/DR, RBAC, etc. in enterprise version**
- Developers can add functionality on a pluggable framework
- **Intellectual knowledge (IK)** vs Intellectual Property (IP)

developer.couchbase.com/open-source-projects

Amazon

- **Customer obsession**: Make open source pragmatic for an OSS project
- **Innovation**: Enable seamless integration with AWS in OSS
- Healthy communities: Code, foundations, events, etc.
- **Reduce maintenance overhead**: No internal forks
- Better quality and security: given enough eyeballs, all bugs are shallow

opensource.amazon.com

Fruit company

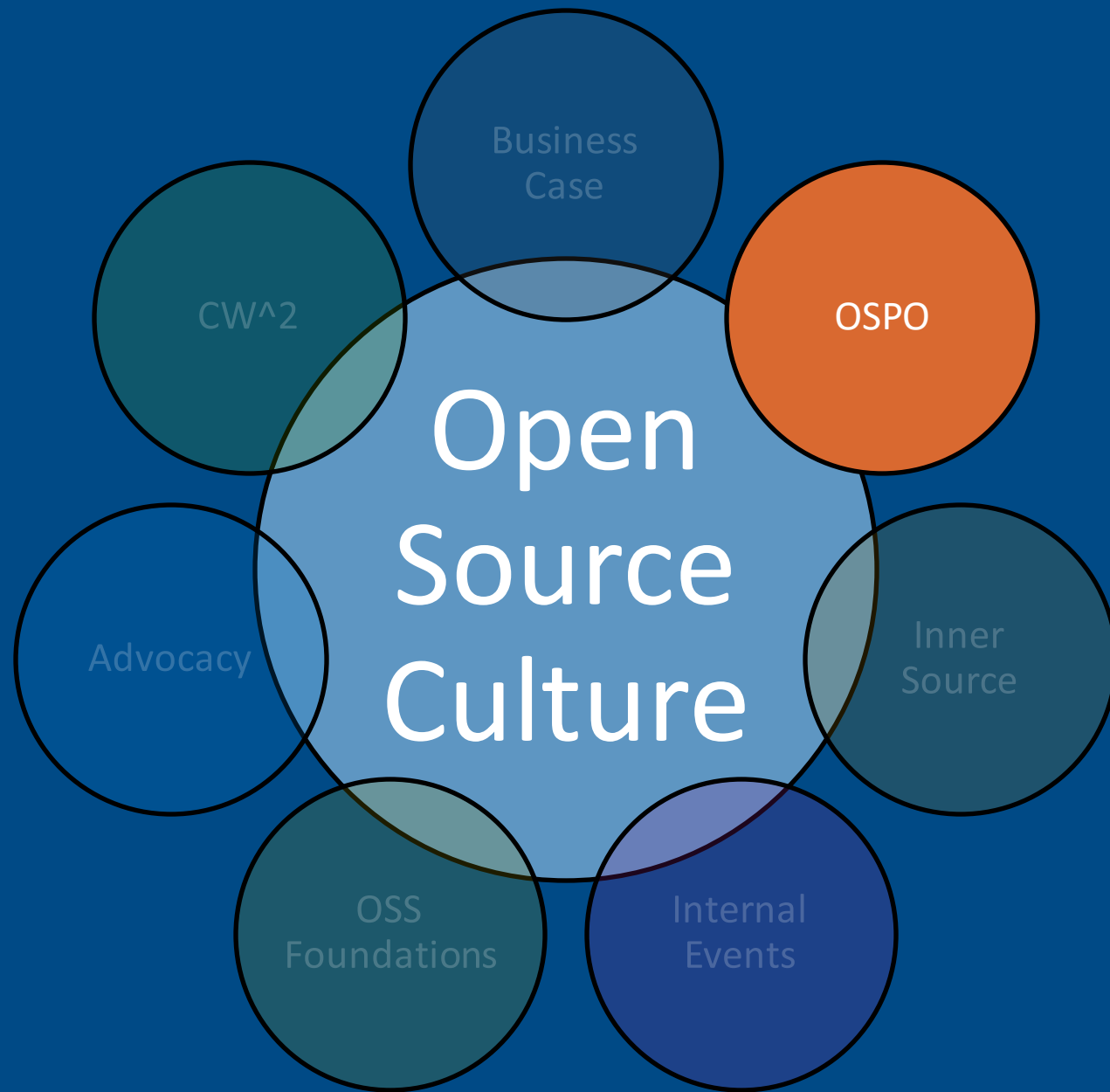
- **Focus:** Undifferentiated heavy lifting using the best software
- **Choice:** Application/infrastructure portability
- **Influence:** Steer the communities we rely upon
- **Enable:** Address the growing needs of engineering
- **Lead:** Attain and retain best talent in the industry

opensource.<fruitcompany>.com

Intel

- Customer-obsession: Distribute platform value through OSS
- Product portfolio is built on the promise of extensible, ubiquitous choice
- Provides an innovation platform, opening new markets, and driving technology forward
- 20+ years of community work in OSS - "chop wood, carry water"

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Open Source Program Office (OSPO)

- Foster an open source culture in an organization
- Define and implement open source consume and produce policies
- Open source license compliance reviews and oversight
- Guide the organization to work with upstream communities
- Streamline process and provide tools to eliminate friction for OSS

WHAT IS AN OSPO?

OSPO is designed to be **the center of competency for an organization's open source operations and structure.**



OSPOS IN THE ORGANIZATION

OSPOs may exist **unofficially; virtually; within research and development (R&D), engineering, or other corporate departments; or in executive-level offices of the Chief Technology Officer (CTO) or Chief Legal Officer.**



OSPO BENEFITS: PROCESSES

OSPOs oversee the establishment or adaptation of internal policies to **better manage open source software (OSS) compliance in fast-moving, dynamic environments.**



WHY FORM AN OSPO?

Organizations across industries establish OSPOs to **drive OSS leadership and gain a critical foothold in a robust, external R&D ecosystem.**



OSPO STAFF

OSPOs can be run by any distinguished individuals with **strong sets of skills, such as software architects, technical evangelists, compliance engineers, and legal counsel.**



OSPO BENEFITS: TOOLS

OSPOs help to implement unique and flexible sets of tools that support OSS development models **while meeting corporate Information Technology guidelines.**



CHARACTERISTICS OF OSPO MATURITY

Mature OSPOs **oversee OSS consumption, governance, strategy, contribution, processes, and tooling.**



OSPO RESPONSIBILITIES

The OSPO assumes different responsibilities that change over time, including **developing and executing the open source (OS) strategy, setting priorities, tracking performance, and leading community engagement.**



OSPO BENEFITS: CONTINUITY

As organizational needs or strategies evolve, **OSPOs enable continuity in executive support, funding, software development practices, and OSS project prioritization.**



OSPO MATURITY MODEL

OSPO maturity evolves in the following stages: **ad-hoc adoption -> legal motivations -> community-driven -> engagement-driven -> leadership-driven.**



OSPO BENEFITS: CULTURE

OSPOs help to bridge the cultural gap between **traditional software development practices and the requirements of open source development.**



OSPO BENEFITS: EDUCATION

OSPOs improve **technical, mentorship, and compliance-related education and training programming for team members across all levels of the organization.**



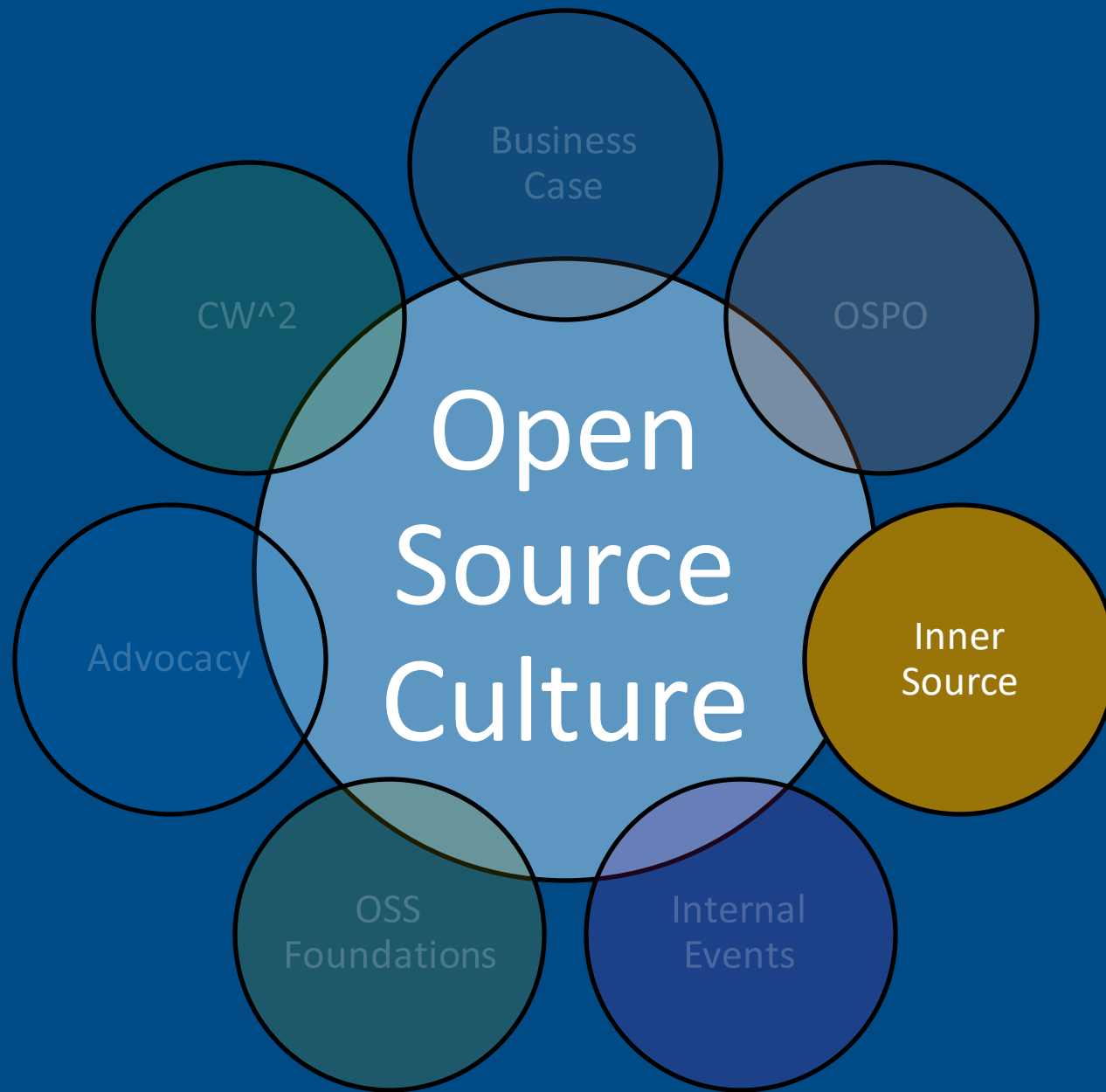
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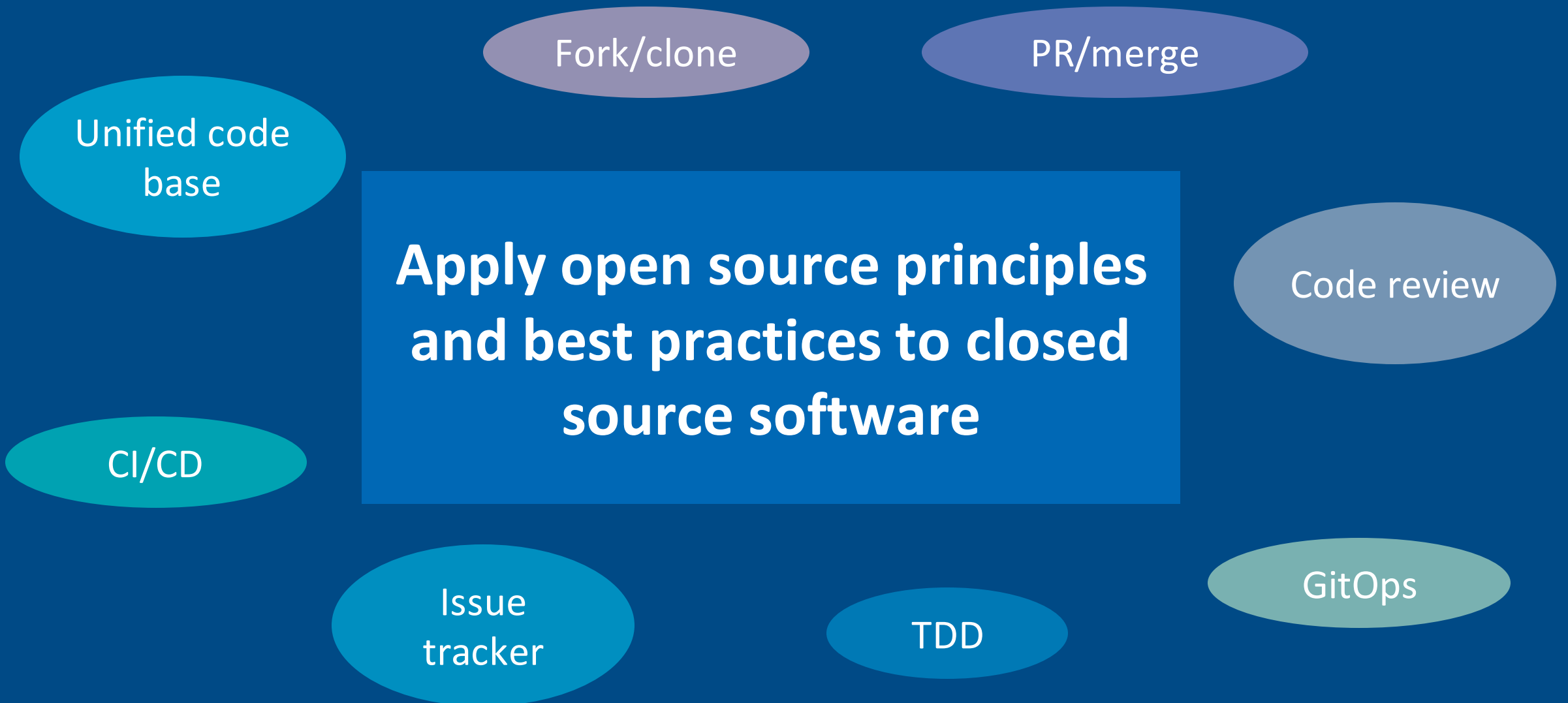
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OSPO at Intel

- Part of horizontal Software/OCTO group
- Center of expertise for open source operations and best practices
 - Provide training and resources to understand benefits of OSS
 - Evangelize community expectations and norms
 - Educate business leaders on strategic value of open source
- Influence and innovate on adjacent processes (e.g., security policies) that enable developers to fully participate in open ecosystem



What is InnerSource?



Why Adopt an InnerSource Strategy?

Discovery

By maximizing visibility of software across the company, we can discover solutions that meet our needs rather than re-inventing in siloed departments

Collaboration

Using open-source methodologies and GitHub features, individuals from far-flung teams can provide code improvements (by PR) for any project in the company.

Improved Quality

Projects that survive and thrive in the open are ones that not only solve problems, but do so with high quality, best testing and security practices, and excellent documentation

Foundation

InnerSource establishes a cultural and infrastructural foundation for “how we do code at *Intel*” enabling us to build new corporate-wide capabilities (like CI and DevOps)

Intel's Developer Platform Journey

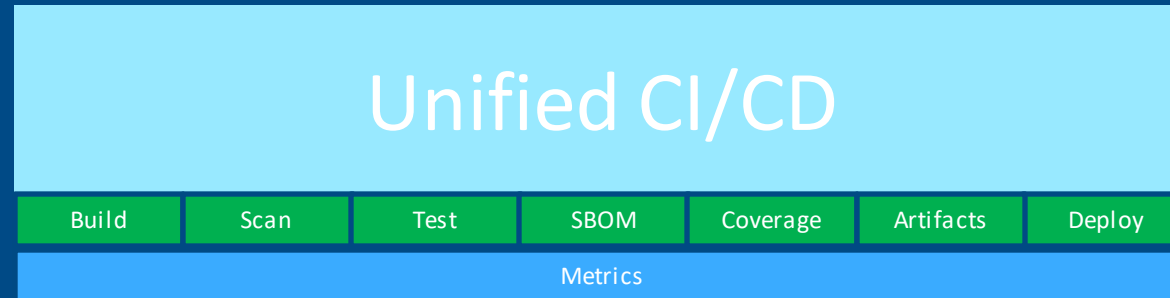


The Beginnings of the IDP

Through unified software and hardware solution around CI/CD, we envision the beginnings of an Internal Development Platform across Intel

FUTURE

Developer Velocity in future
Moving to a unification of CI principles, CI/CD processes and pipeline components through innersource collaborations



PRESENT

Possibilities Expanded present
With a single Source Control System, we could better manage governance, security and collaboration while improving repository health and reuse



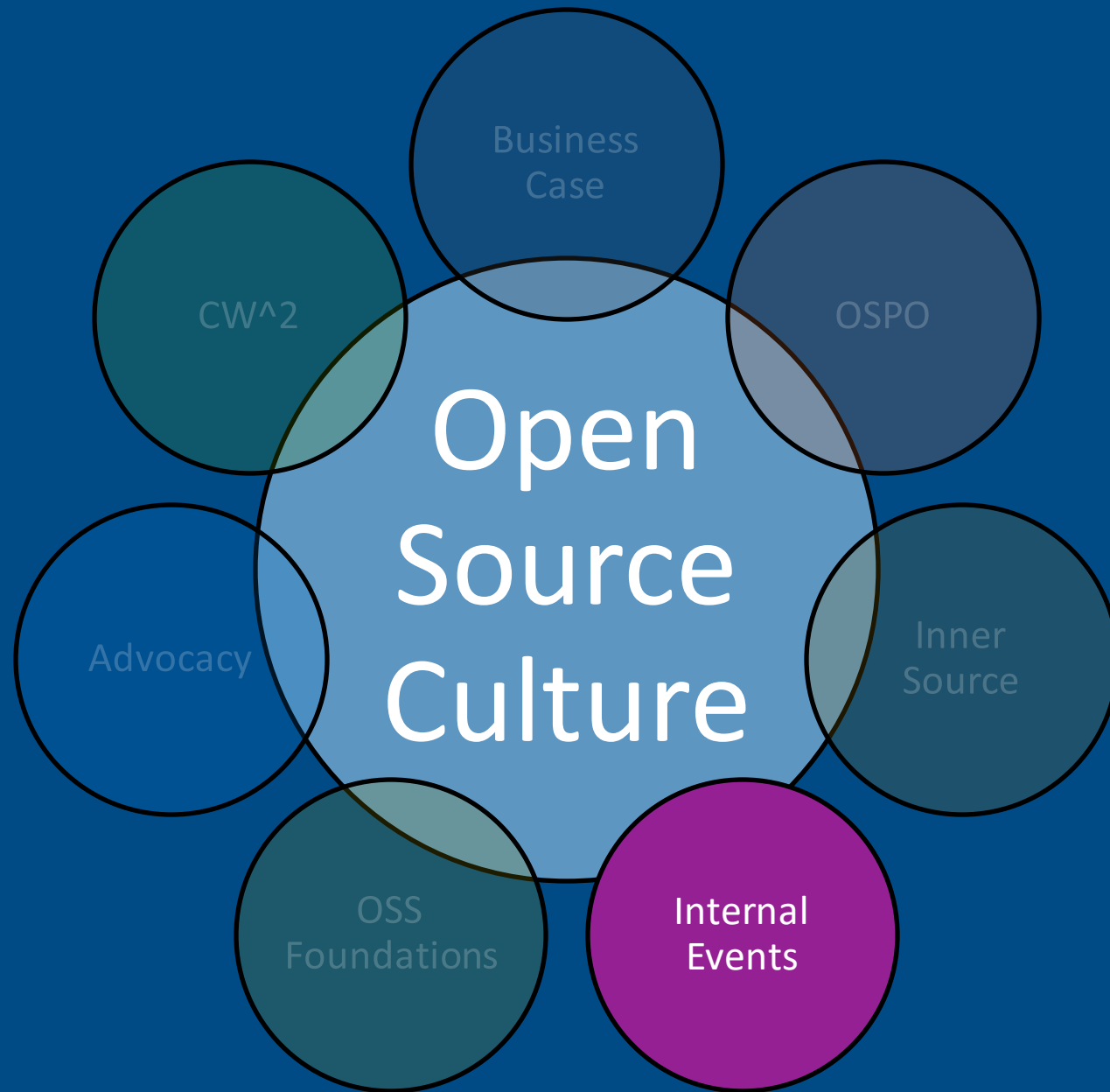
PAST

Migrated tens of thousands of repos from dozens of different SCM to a single source control architecture



Benefits of InnerSource at Intel

- Make it easy to find and reuse code across teams
 - Consolidate repositories into a single source control system across all of Intel
 - Remove org silos, provide global read access to all software engineers across all repos
- Establish governance and consistent naming conventions across the company
- Improve corporate-wide security posture
- Develop synergies and improve repository and project health



External OSS Events

WHY?

- Visible presence
- Hallway track
- Participate in community/project leadership
- Showcase partners and customers
- Expand industry connections
- Leadership around DEI
- Recruiting

WHAT?

- Speakers
- Booths
- Demos
- Sponsorships
- Ancillary events

Benefits of Internal Events

- Improve discovery of efforts within the company
- Enable collaboration of similar engineering efforts
- Foster interpersonal relationship
- Internal promotion of your engineering talent/hiring
- Help curate external speakers

Internal Event Examples

- Kubernetes Summit
- Inner Source Summit
- Open Ecosystem Summit

2023 OPEN ECOSYSTEM SUMMIT

28 February (Americas)
1 March (EMEA)
2 March (Asia)

Register Now



open.intel

Celebrating Intel's Open Ecosystem and worldwide open development work.

intel.

Internal

3

Days



Global

Executive Keynote & Panel



Technical Talks

AI &
Machine
Learning

Security

Cloud
Native

Top of
Stack

IoT/Edge

RISC-V

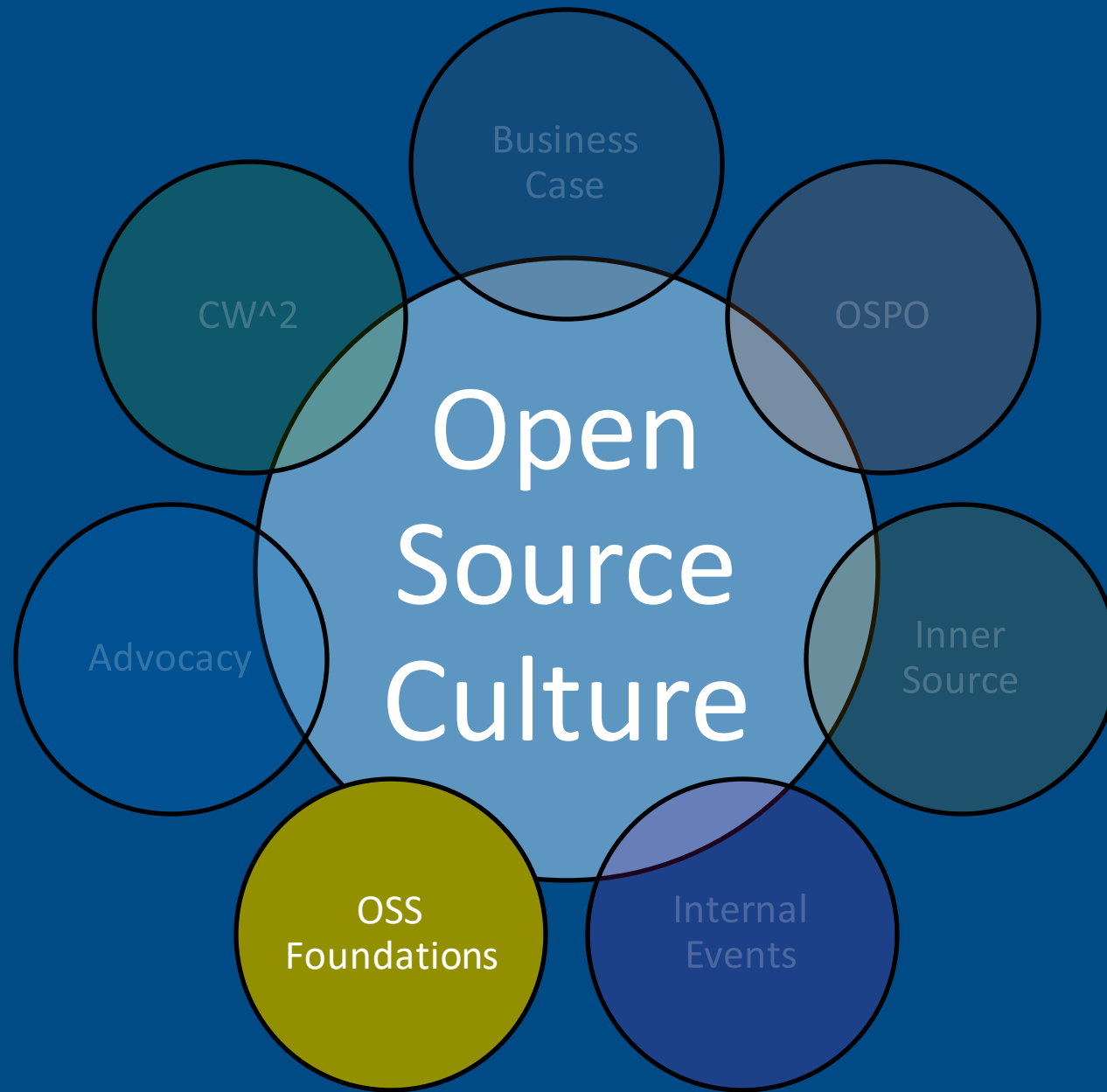
OS, FW, &
Tools

Sustainability

Open Source
Web
Technologies

Internal Hackathons

- Increase contributors to your project
- Community-powered innovation
- Get creative solutions to your problems
- Employees get to learn a new skill/language
- Leverage specialized skill sets in the company
- Pick a day, identify repos, create a hashtag, build a dashboard



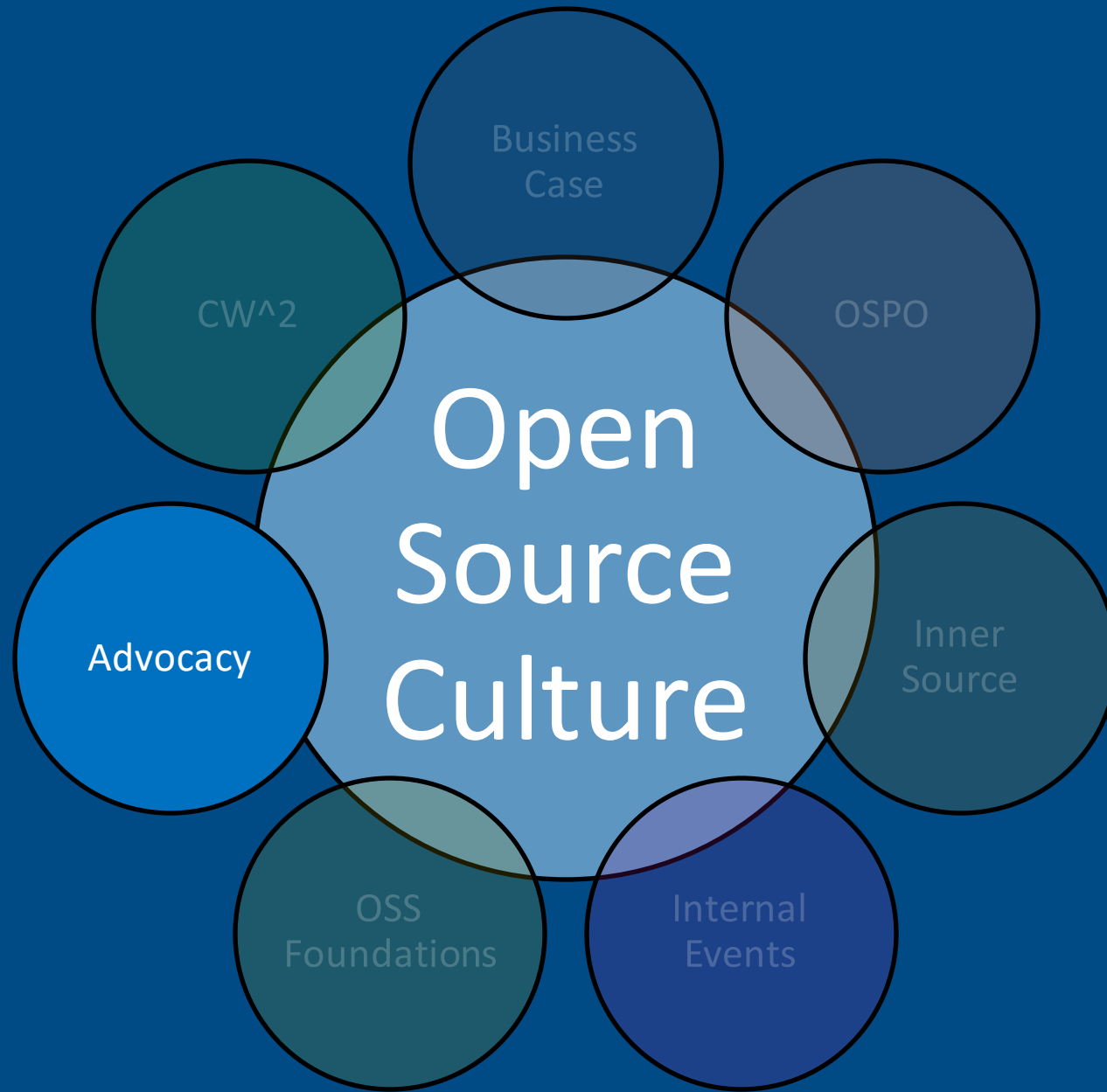
Open Source Foundations

- Advance open ecosystems
- Be part of defining and maintaining technologies and standards
- Participate in shaping future of technology
- Engage and collaborate with industry peers
- Contribute critical projects to a vendor-agnostic body
- Leadership positions bring more credibility to your organization
- Amplify your brand and people across the industry

OSS Foundations and Standards at Intel

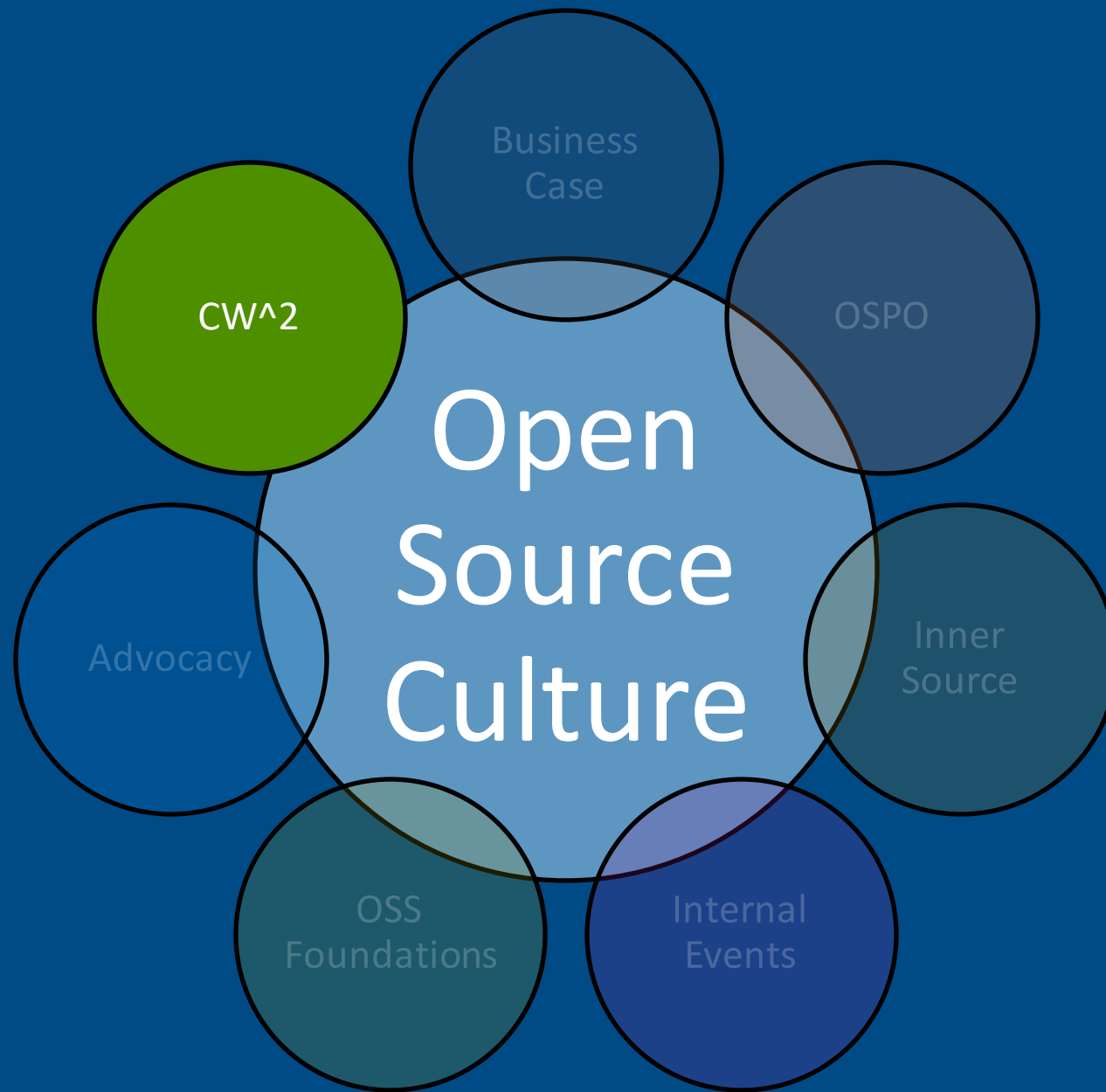


700+ foundations and standard bodies



Open Source Advocates/Champions

- Internal evangelists in different Business Units (BU)
- Help ensure BU needs are met by the policies
- Raise awareness and educate OSS policies within the BU
- Policies roll out and provide diverse feedback
- Prepare better business case from BU -> OSPO



Before enlightenment,
chop wood, carry water.
After enlightenment,
chop wood, carry water.

-Zen proverb

CW^2 Work

- Non-glorified work
- Help behind the scene
- Countless hours
- For example:
 - Code reviews and debugging
 - SIG lead
 - Hosting and building community meetups
 - Onboard new members
 - Reviewing conference talks

Intel contributes to foundations & standard bodies

Select examples* of foundations & standard bodies, and Intel leadership positions:



Cathy Zhang

Technical Oversight Committee, Cloud Native Computing Foundation (CNCF)



Dan Middleton

Technical Advisory Council Chair, Confidential Computing Consortium



Dan Williams

Technical Advisory Board Chair, Linux Foundation



Christopher "CRob" Robinson

Technical Advisory Committee Open Source Security Foundation (OpenSSF)



Bruce Richardson

Technical Board, Data Plane Development Kit



Ron Perez

Governing Board Vice-Chair, Confidential Computing Consortium



Melissa Evers

Board of Directors, and Research Advisory Board



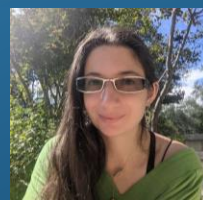
Al Elizondo

Technical Advisory Council, LF Edge



Alexander "Sasha" Kanevskiy

CNCF Technical Advisory Group Runtime Tech Lead



Marlow Weston

CNCF Technical Advisory Group Environmental Sustainability Co-Chair



Asim Hussain

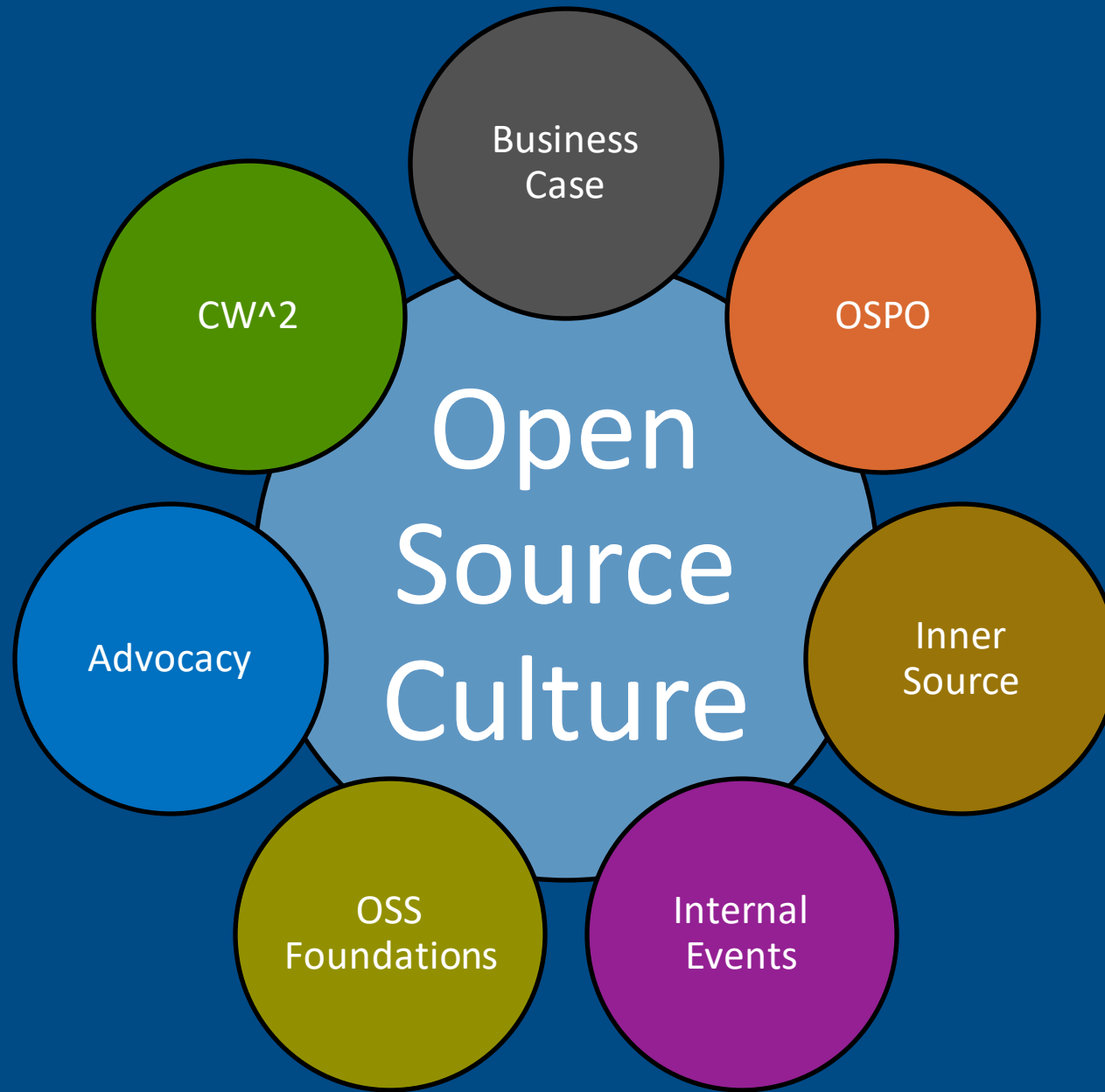
Chairperson & Executive Director, Green Software Foundation



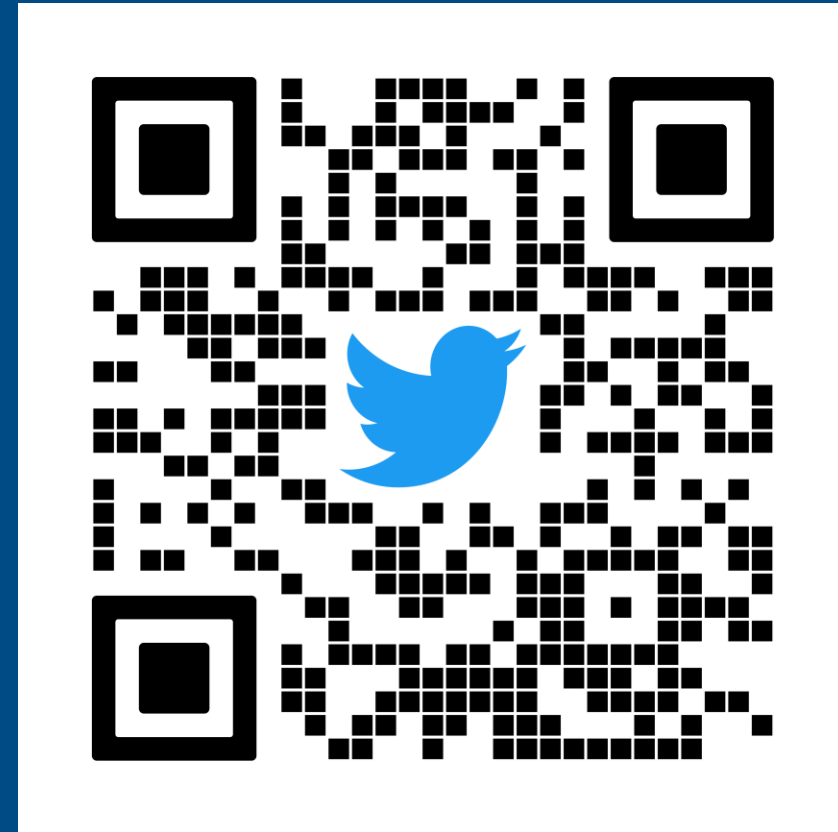
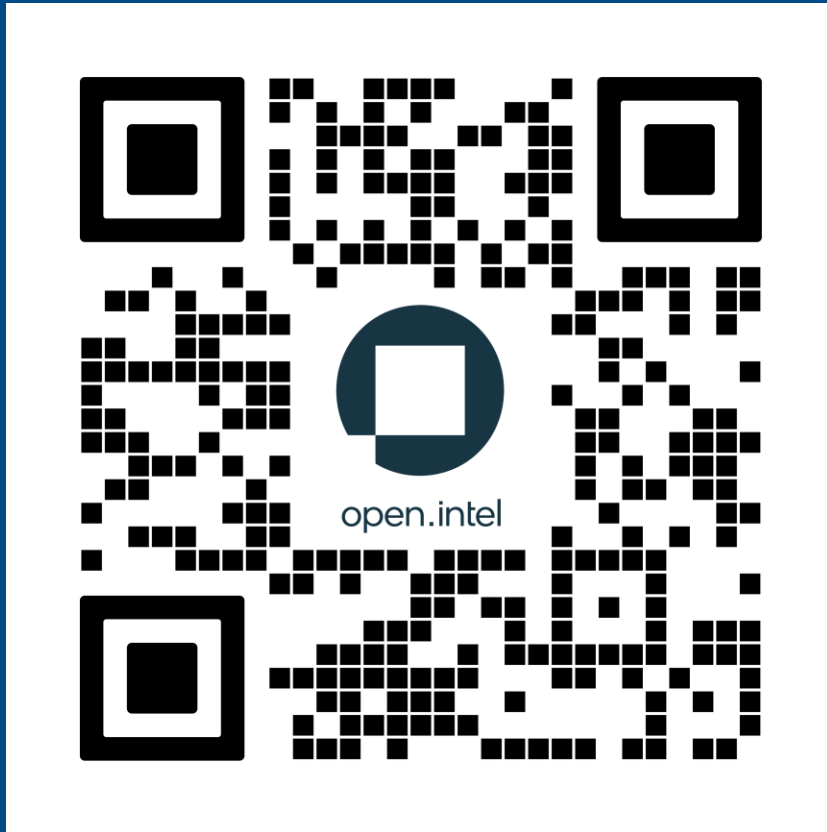
Arun Gupta

CNCF Governing Board Chair, OpenSSF Governing Board Member

*This is not a complete list



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