

# Welcome Notes

Akraino Technical Meetings - Fall 2021

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 LF EDGE

 THE **LINUX** FOUNDATION



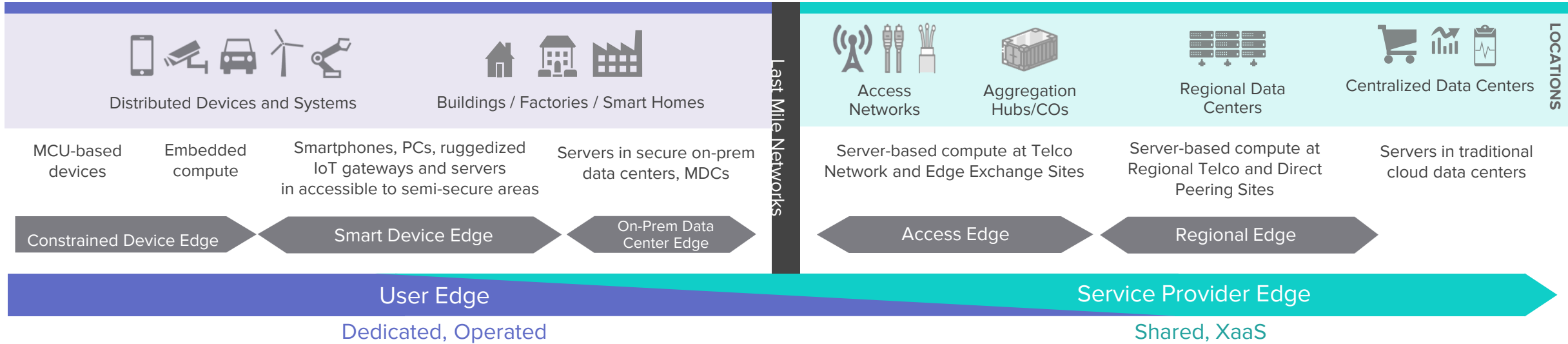
# LF Edge Projects



**Stage 1: At Large Projects**  
Baetyl, Open Horizon, Secure Device

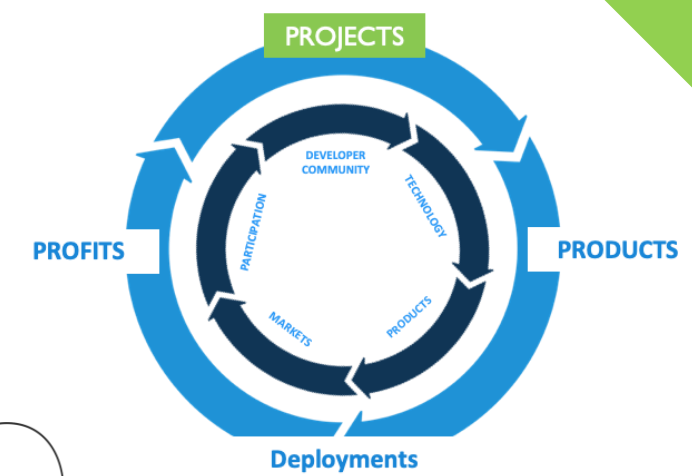
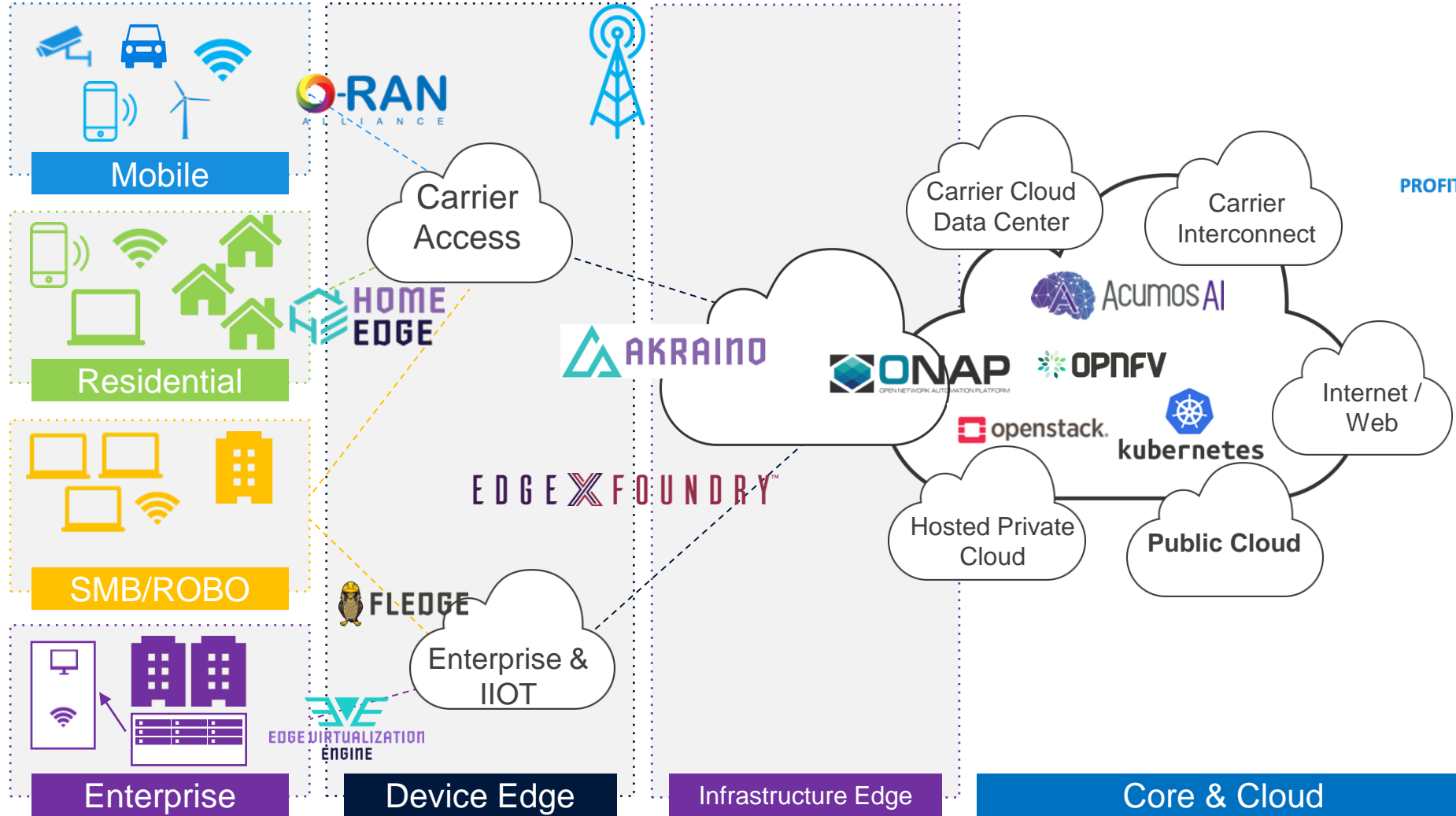
**Stage 2: Growth Projects**  
EVE, Fledge, Home Edge, State of the Edge

**Stage 3: Impact Projects**  
Akraio, EdgeX Foundry



# LF Edge - the end to end context

## Deployment ready Open Source - use cases



X-Project Collaboration

# LF Edge Summary

*Vision: Our software & projects enable rapid productization of Edge platforms by leveraging end user input to drive and supply the necessary building blocks (and/or frameworks, reference solutions) to facilitate integration and interoperability for Edge Computing across Telecom Service Providers, Cloud Providers, IOT & Enterprises*

## Projects

### IMPACT - STAGE 3



### GROWTH - STAGE 2



### AT LARGE - STAGE 1



## Premier Members



# LF Edge Accelerating Community Collaboration



**25+%**

New Member  
Y/Y increase



**80%**

New Projects increase  
SOTE, Open Horizon, SDO...



**25+**

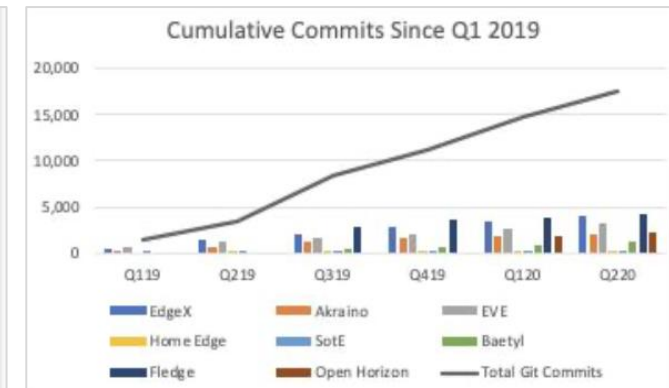
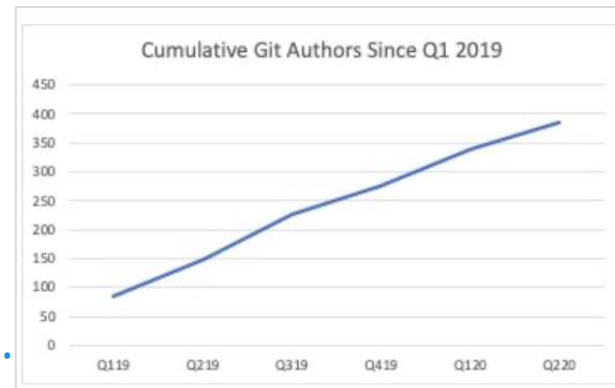
Global Deployments &  
Commercial Products



**6M+ /30+**

EdgeX Downloads and  
Akraino Blueprints in  
development

**160% Growth in Developers Y/Y, 4X Commits Y/Y**



**15800 global mentions since launch**

Participation from Service Providers (Telco, Cloud, Cable), IOT, Enterprise ecosystem with a goal of Unifying Edge Frameworks & Life cycle management

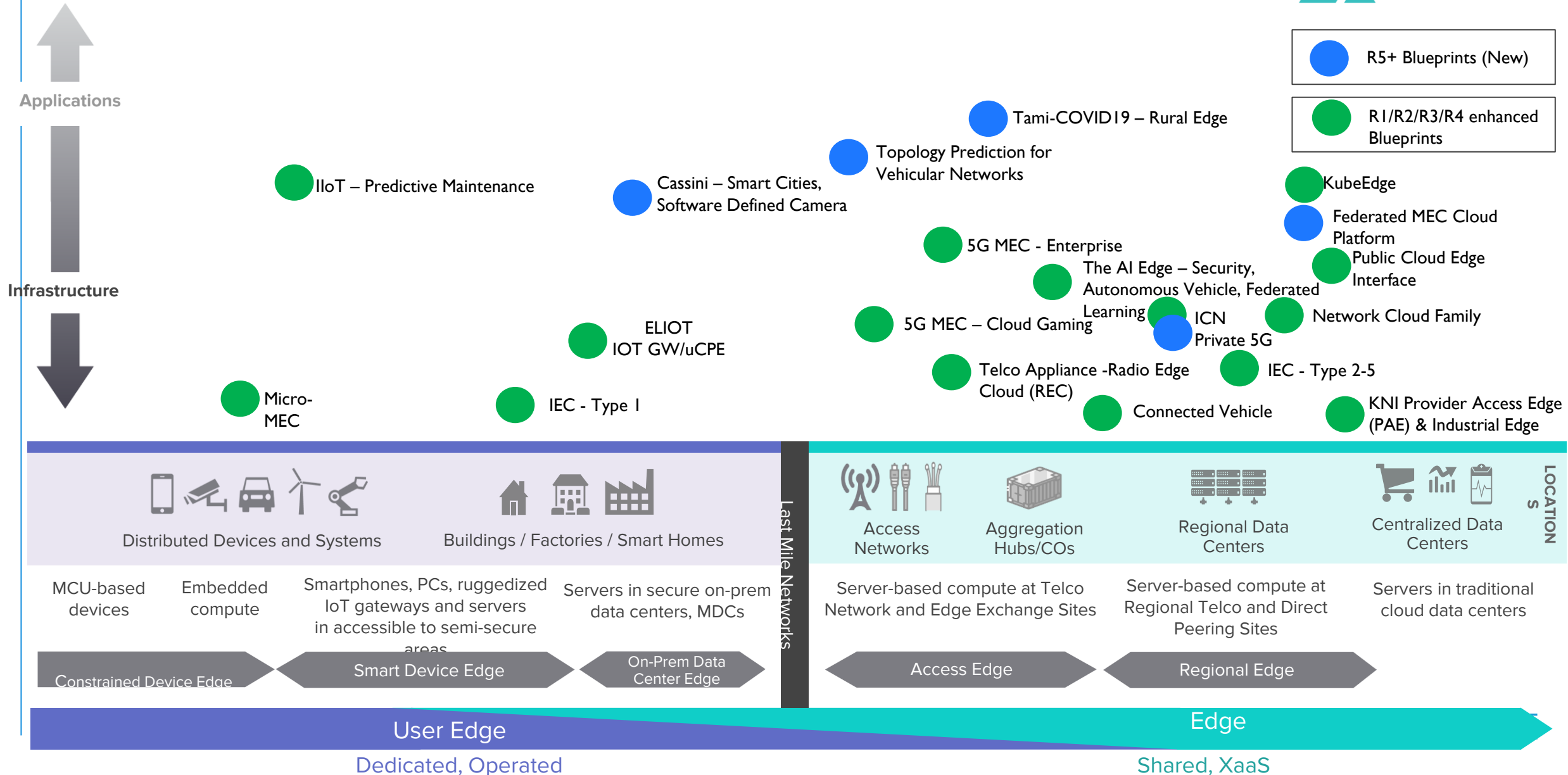
# Akraino Release 5: Now available

## **Akraino Release 5 Enables Smart Cities, Cloud Native Automotive and Multi-tenant, and More**

- *3 New Akraino R5 Blueprints (total of 30+)*
- *Akraino is cloud native with K8s- enabled blueprints across 4 different edge segments (Industrial IOT, ML, Telco, and Public Cloud)*
- *New and updated blueprints also target Smart Cities, ML, Connected Car, Telco Edge, Enterprise, AI, and more*

[LF Edge](#), an umbrella organization within the [Linux Foundation](#) that creates an open, interoperable framework for edge computing independent of hardware, silicon, cloud, or operating system, today announced the availability of [Akraino](#) Release 5 (“Akraino R5”). Akraino’s fifth release enables additional blueprints that support various deployments of Kubernetes across the edge, from Industrial IoT, to Public Cloud, Telco, Smart Cities, and Machine Learning (ML).

# Akraino R5+ Blueprints



# Akraino: Delivering a Fully Functional Edge Solutions

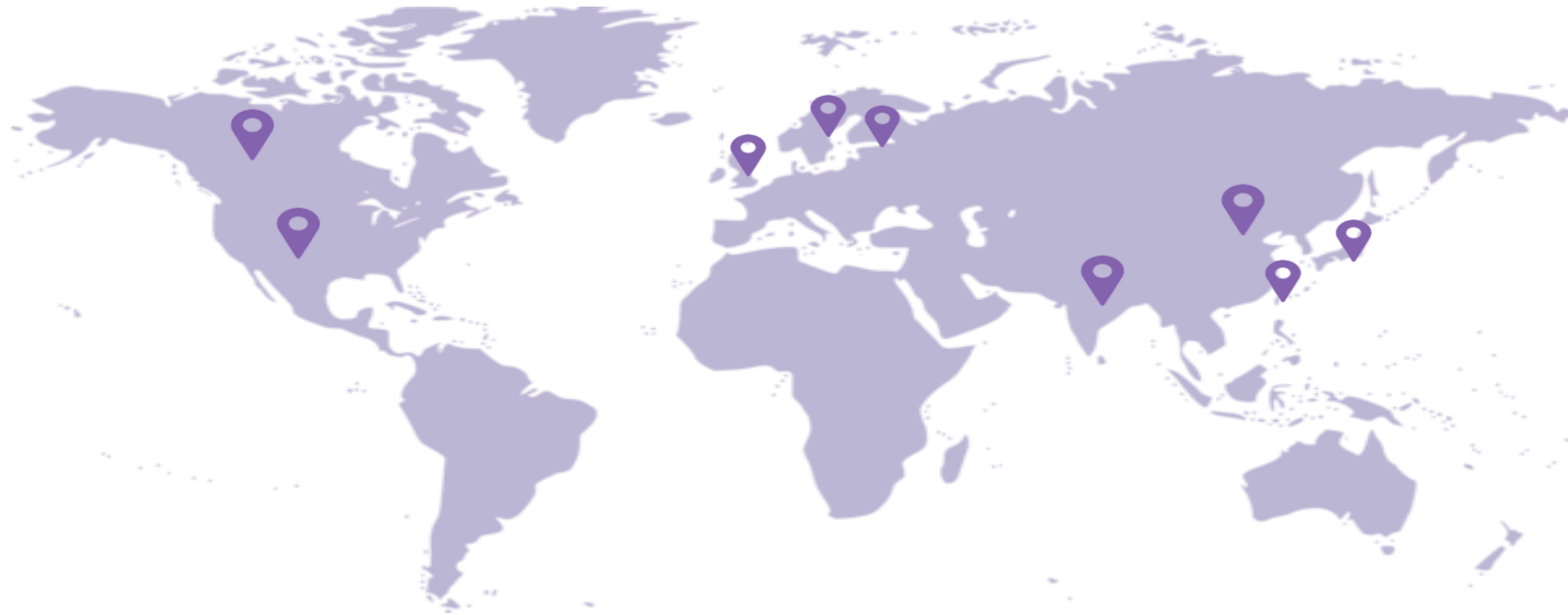
Unifying multiple industry sectors of edge across disciplines, including IoT, Enterprise, Telecom, and Cloud

- Ever since its launch in 2018, Akraino continues to **gain community support** for innovative creation of deployable Edge solutions with work going in more than **30+ Blueprints**.
- Akraino blueprints are now globally adopted in **commercial solutions** to address several edge use cases.
- Akraino hosts sophisticated community and multiple **user labs** to speed the edge innovation.
- Akraino delivered fully functional **new** Blueprints for deployment in R5 to address edge use cases such as Smart Cities, Cloud Native Multi-Tenant, Topology Prediction for Vehicular Network at the edge.
- Created framework for defining and **standardizing APIs** across stacks, via upstream/downstream collaboration and published a API map.
- Akraino enhanced **tools for automated Blueprint Validations**, security tools for Blueprint Hardening and Edge API's in collaboration with LF Edge projects
- Akraino community has participated in several **industry outreach** events that featured participation to foster collaboration and engagement on edge projects across the entire ecosystem.



# Robust Community Contribution

Deployable and fully functional edge stack for use cases across IIoT, Telco 5G Core & vRAN, uCPE, Provider Access Edge, SDWAN, Edge Media Processing, and Carrier Edge Media Processing

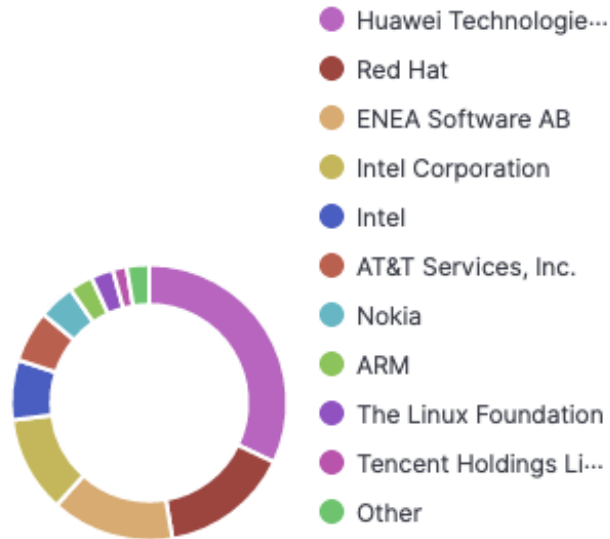


- ✓ 45+ companies are engaged across the globe
- ✓ 85% of LF Edge Premier Members are active in Akraino

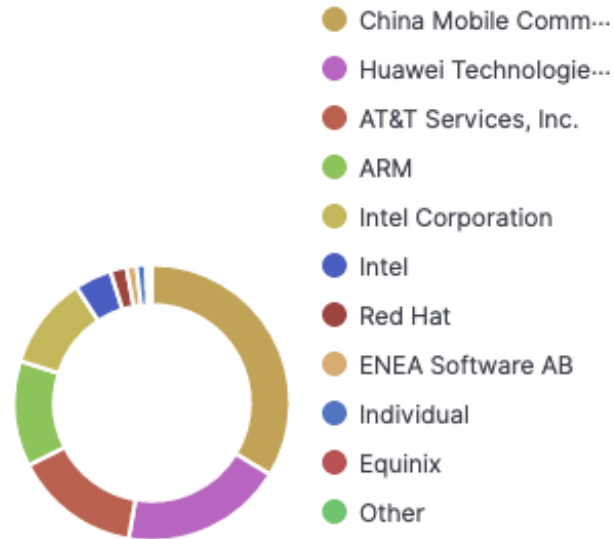
# Robust Cross-Industry Contribution- 2020 (full year)

Deployable and fully functional edge stack for use cases across IIoT, Telco 5G Core & vRAN, uCPE, SDWAN, Connected Vehicle, AR/VR, Edge Media Processing, and Carrier Edge Media Processing

Commits Percentage By Organization



Lines Changed Percentage By Organization



**242 Unique Contributors From 70 Organizations**

## Top 10 Orgs

- Intel Corporation
- AT&T Services, Inc.
- The Linux Foundation
- Nokia
- China Mobile
- Red Hat
- Tencent
- Arm
- ENEA Software AB
- Huawei
- ERICSSON

# Robust Cross-Industry Contribution- 2020.8 -2021.8

Deployable and fully functional edge stack for use cases across Public Cloud Edge Interface, IIoT, Telco 5G Core & vRAN, uCPE, SDWAN, Connected Vehicle, AR/VR, and Carrier Edge Media Processing

## Summary

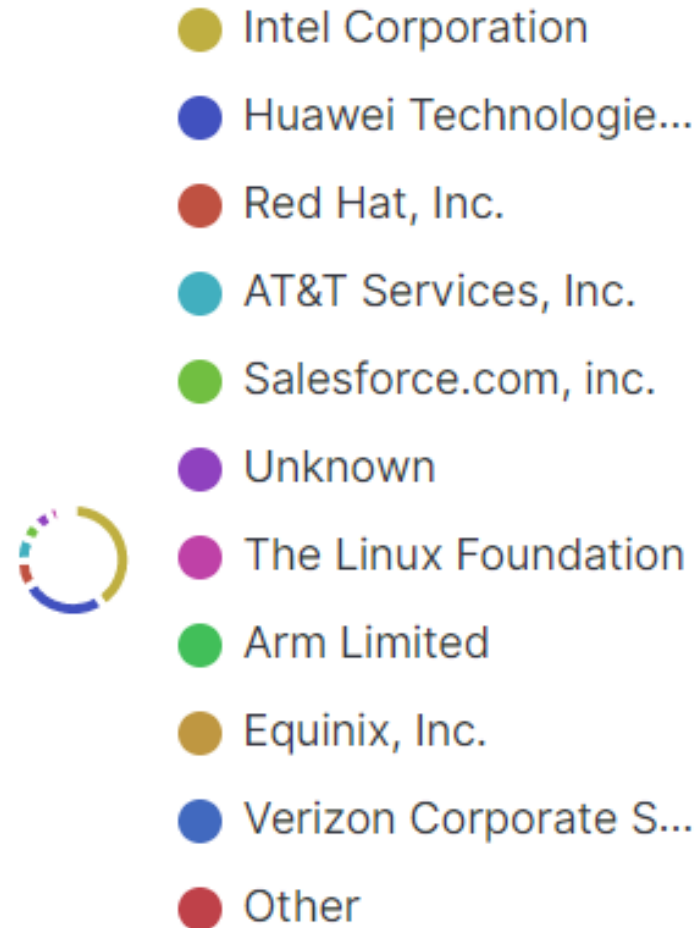
**439**  
Commits

**38**  
Submitters

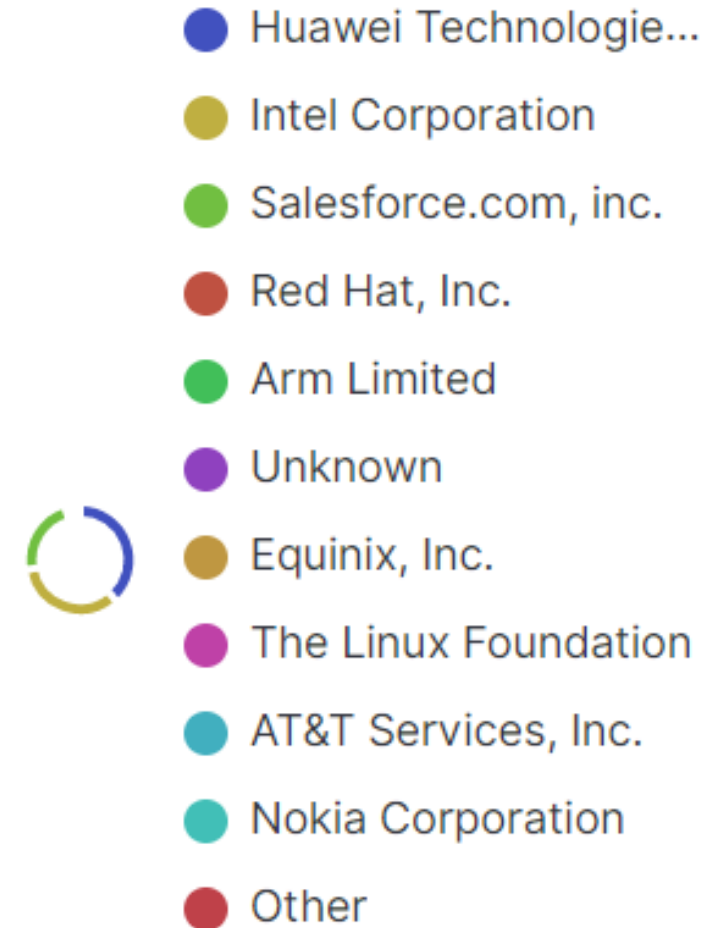
**23**  
Repositories

**76**  
Document  
Commits

## Commits Percentage By ... ⓘ

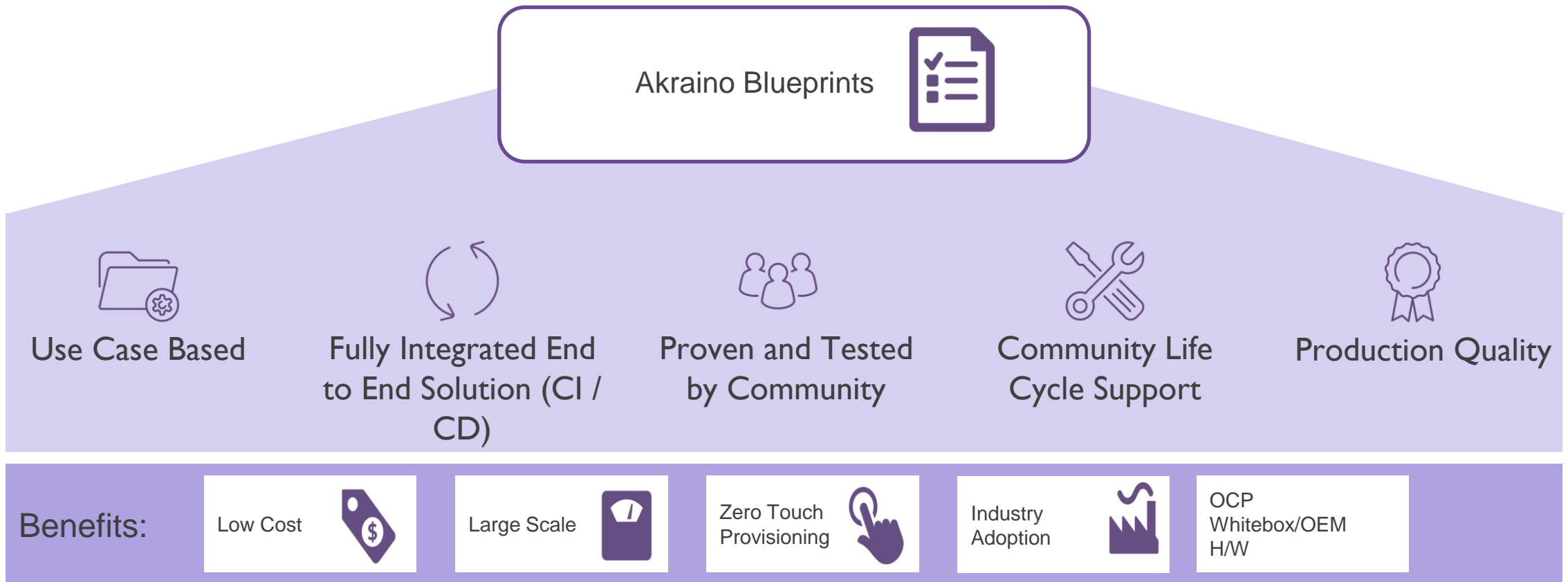


## Lines Changed Percenta... ⓘ



# What is an Akraino Blueprint?

Community Integrated, tested, deployable, end to end Edge Stack



Since launch in 2018, Akraino continues to gain community support for collaboration and validation with 30+ blueprints

# What's Next in Akraino - 2H 2021



- › New blueprints and enhancements to existing blueprints
  - › Rural Edge for Tami-COVID19
  - › IoT Area
    - › Project Cassini - IoT and Infrastructure Edge
      - › Software Defined Camera (SDC)
    - › Align Public Cloud Edge Interface with SDOs e.g. MEF LSO
      - › Federated MEC Cloud Platform
- › Continue API standardization and mapping
- › Define Platform Security Architecture and apply to blueprints
- › Enhance functionality and automation of edge workloads (e.g., Cloud Native)
- › Improvement of Release Process, CI/CD, Security Certification
- › Further collaborations with cross-LF Edge projects, downstream and upstream communities.