



Open Research Webinars  
*Open Collaboration in European Research Projects*

# Building The European Cloud, Edge & IoT Continuum

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Presented by:

RESEARCH @

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&

CW2



## **THE INITIATIVE**

# UNLOCK CEI AND OPEN CONTINUUM



## Horizon Europe Coordination and Support Actions

HORIZON-CL4-2021-DATA-01

# EUCloudEdgeIoT.eu

The European Cloud, Edge & IoT Continuum

### UNLOCK CEI



Start Date: June 2022  
Duration: 30 Months  
Consortium: 5 Beneficiaries  
Coordinator: IDC

### Open Continuum



Start Date: September 2022  
Duration: 24 Months  
Consortium: 5 Beneficiaries  
Coordinator: Martel Innovate

# COMMUNITY FOR TECHNOLOGY AND MARKET



## Technology

### Cloud



Cloud computing is a key technology enabler in increasing Europe's data sovereignty and achieving the sustainability goals of the European Green Deal. The European Cloud-Edge-IoT Continuum initiatives aim at developing new technologies and business models to create a computing continuum from the IoT devices to the cloud, encompassing the edge and HPCs to achieve high-standard requirements and support EU values with regard to data protection, performance, resilience and energy efficiency.

### Edge



Edge and cloud computing are both essential in a computing continuum to ensure data is managed most efficiently closer to the originating source rather than transmitting raw data to data centres for processing. This will lead to energy-efficient and trustworthy infrastructure, solving climate challenges and driving new business opportunities. By 2025, 80% of all data in Europe is expected to be processed in smart devices closer to the user, meeting the future digitisation needs of industry and the public sector.

### IoT



Today, the IoT merges both the physical and virtual worlds, creating innovative solutions and smart environments through domains like AI, 5G, Edge and Cloud computing, blockchain, and micro-to-nano systems. With processing moving closer to the edge, advancing on the IoT can reduce communication and storage costs and energy consumption, and by applying machine learning and AI, the internet infrastructure can safely identify data patterns that bring positive impact and benefit citizens and businesses.

## Market analysis & Insights

The European Cloud, Edge & IoT Continuum is engaging with industry and small businesses from across Europe to understand demand-supply dynamics and define future market scenarios, pathways and demand-pull business opportunities in various industrial sectors



Agriculture



Manufacturing



Healthcare



Energy & Utilities



Mobility & Logistics



# OPEN SOURCE AND OPEN STANDARDS



## Open Source

To regain European competitiveness in Internet infrastructures, a forward-looking approach is needed. The European Cloud-Edge-IoT Continuum believes that an integrated, open ecosystem built around open source is the key enabler for digital autonomy and European prosperity in the Cloud-Edge-IoT domain and, more widely, in the data economy while honouring and upholding European values.

[READ MORE >](#)



## Open standards

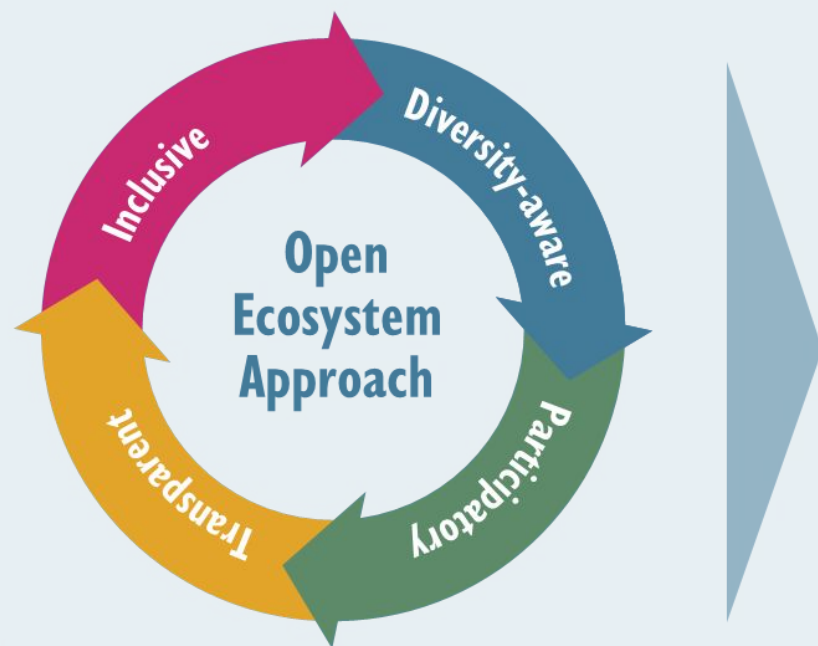
To avoid early-stage dependencies of the edge computing market, Europe needs to develop open standards swiftly. Open standards are a critical challenge for Europe as they enable the development of fast, affordable, and interoperable smart solutions. Improving existing standards and developing open standards is crucial to ensure financial investments to strengthen Cloud-Edge-IoT technologies and uphold European priorities internationally.

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# **THE OPEN ECOSYSTEM**

## Open Ecosystem for European strategic autonomy and interoperability across the computing continuum industry



A strategy for European digital autonomy through Open Source, Standards and Alliances



Actionable recommendations for researchers, industry, and policy makers

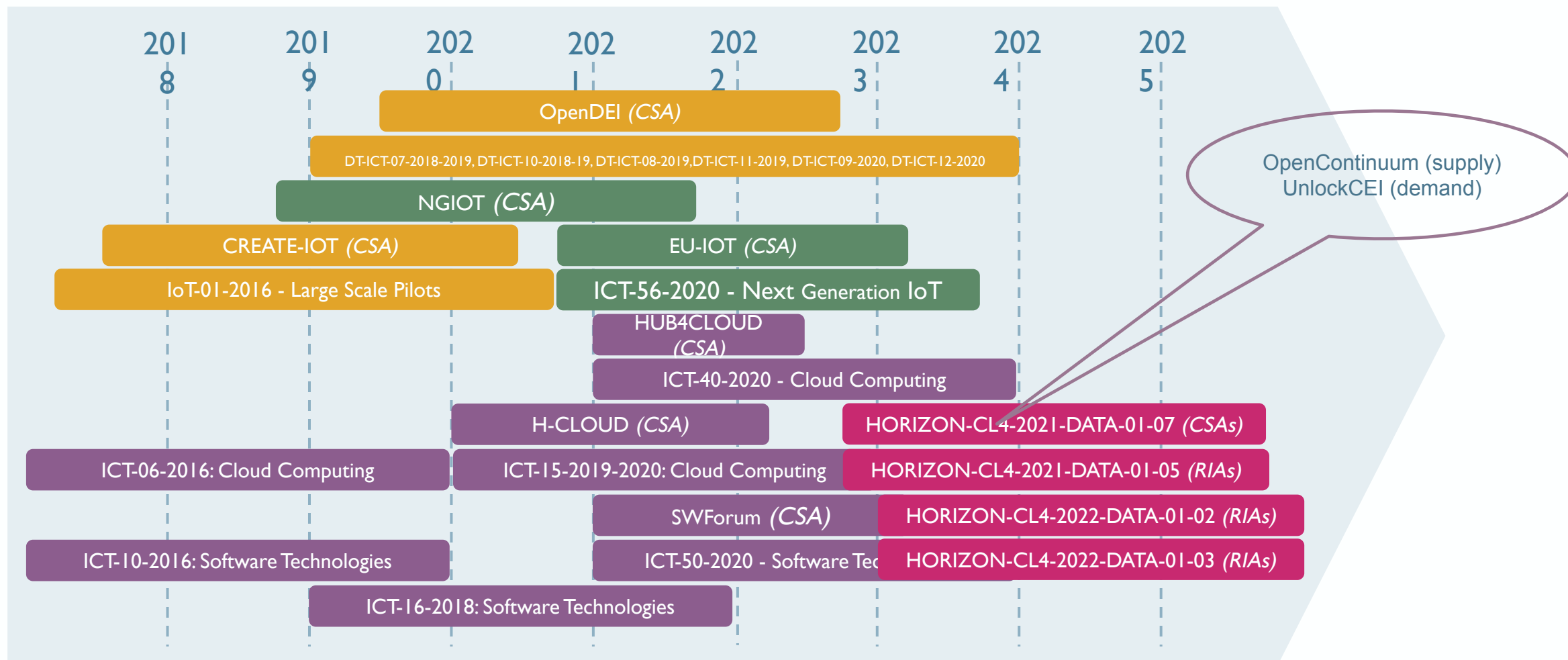


A community of researchers and industries working on delivering the next generation of cloud-edge-iot solutions



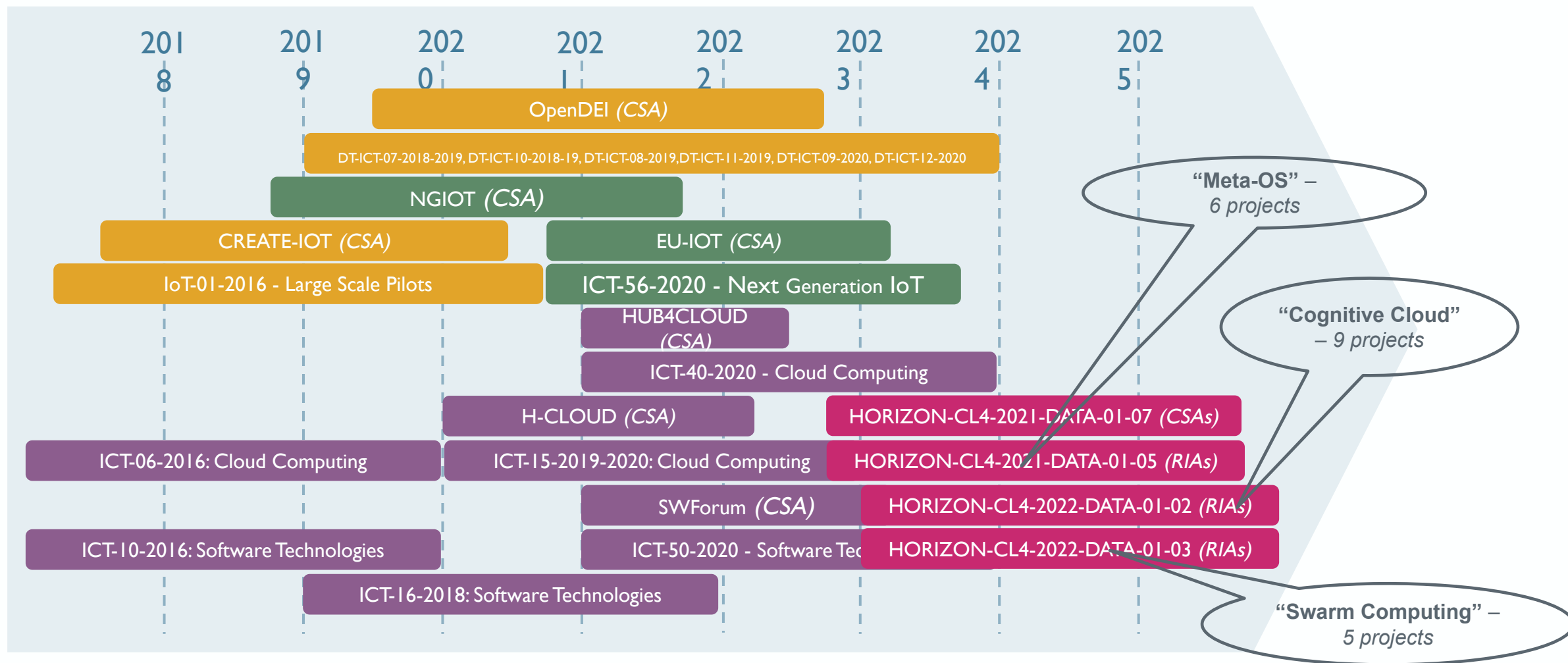
A shared view by research projects on the actions and priorities to establish a European ecosystem for the computing continuum

# RESEARCH CONTEXT: RELEVANT PROJECTS

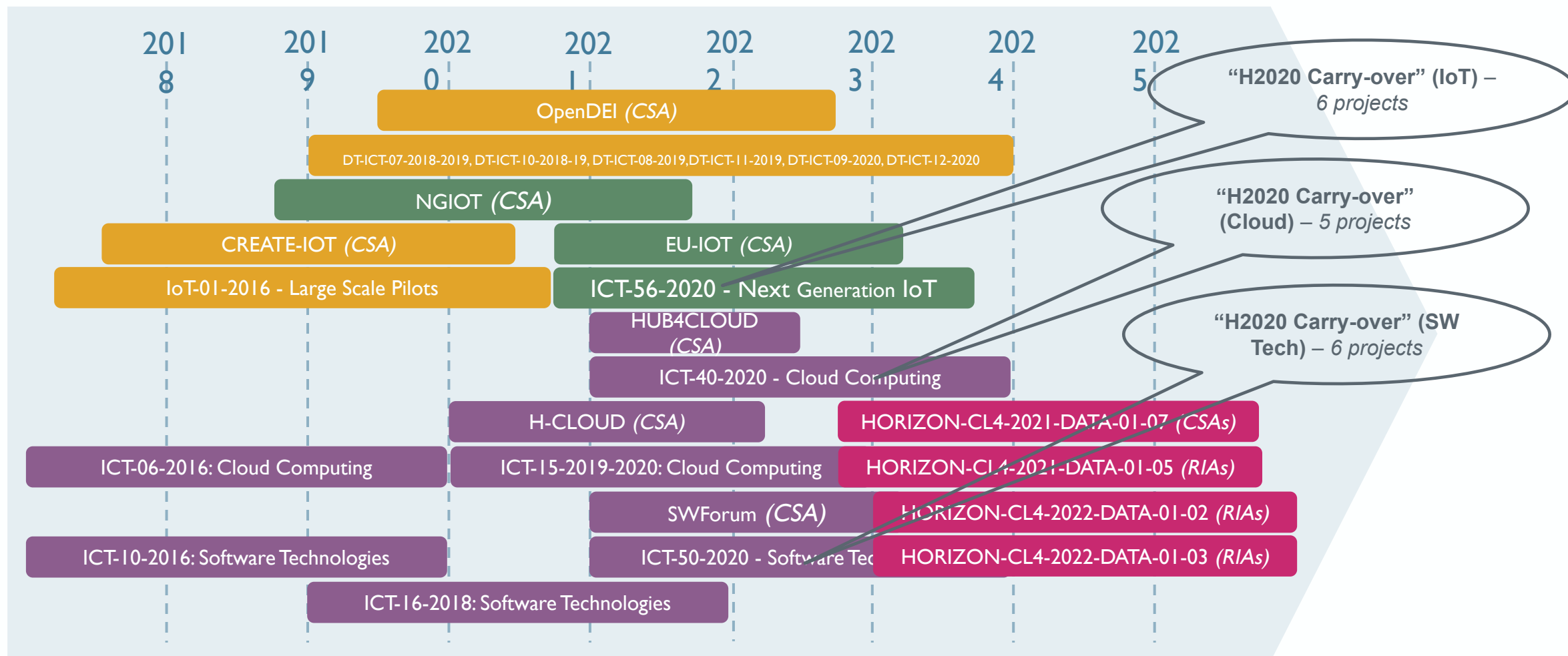




# RESEARCH CONTEXT: RELEVANT PROJECTS



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## **THE TASK FORCES**

# TASK FORCES – OVERVIEW



Strategic Liaisons



Open Source  
Engagement



Architecture



Ecosystem  
Engagement



Market and Sectors



Communications

# OPERATION MECHANISM OF TASK FORCES



- Each Task Force will establish its **own operational approach**, meetings, internal interactions, etc.
- Task Forces must have a **set of defined outputs** – format and content is for members to decide.
- TF members will be **both internal (EUCEI) and external experts**. TF leads will be internal stakeholders of EUCEI.
- Task Forces can use the **monthly meeting with the EC** as the interaction mechanism with the EC. There will be an agenda planning file so that each TF can book its slot in the upcoming meetings.
- The **work done within the two CSAs will feed into the TFs and the work done in the TFs can be fed back to both CSAs** to be integrated within the projects results.
- The outputs of the TFs will be **accessible to the EC, both CSAs and all TF members**. The publication timeline to the **public** will be decided internally by TF members



# TASK FORCES – FOCUS ON SOFTWARE



Strategic Liaisons



Open Source  
Engagement



Architecture



Ecosystem  
Engagement



Market and Sectors



Communications



## Main topics:

- Strategies for engaging open source community
- Successful open source launch
- Technical tools and requirements for open source

## Key objectives:

- Develop a strategy for European digital autonomy in Edge-to-Cloud through Open Source
- Contribute to the definition of a common open architecture for the computing continuum
- Promote the potential of Open Source as an innovation and collaboration driver
- Enlighten industry and research stakeholders on the benefits of a long term Open Source Strategy (OSS)

## Main outputs:

- White paper on OSS for computing continuum
- EUCloudEdgeIoT open source workshops: presentation, demos, hackathon
- Launch a European open source community on computing continuum



## Main topics:

- Taxonomy definitions
- Sharing of components between RIAs
- Peer review and testing

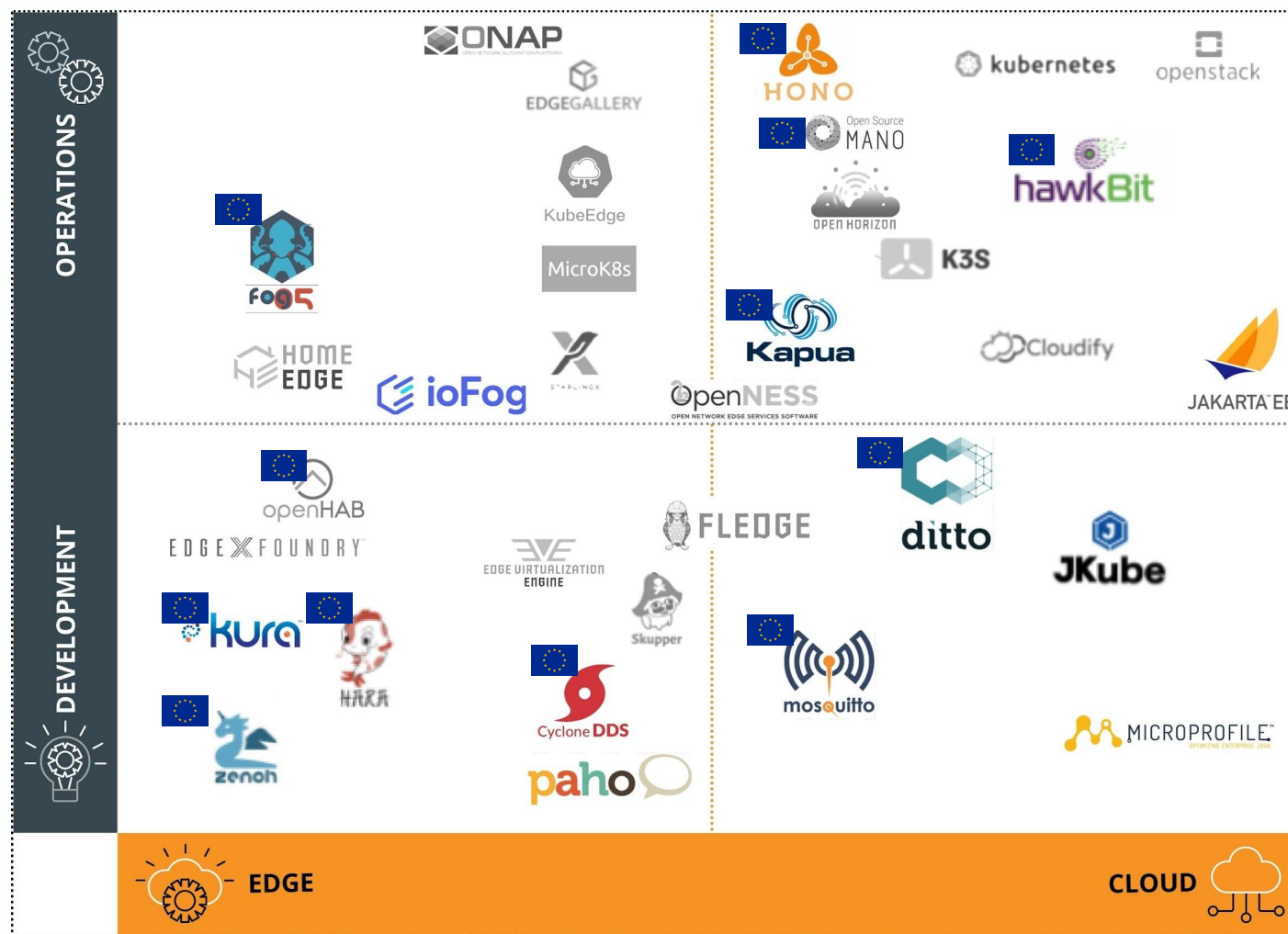
## Key objectives:

- Enable architecture definitions and cooperative settlements between projects
- Identify key resource areas, standards and building blocks towards common architecture approach
- Understand the contribution of each project towards the standardisation of the architecture components
- Harmonise different approaches to a shared architecture within the CEI ecosystem

## Main outputs:

- Agreed methodology for a shared architecture approach
- White paper on CEI architecture

# TF OPEN SOURCE – MAPPING OSS FOR EDGE





EU**CloudEdgeIoT**.eu

## Contact Us

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