



# IPCEI ASPIRED PROJEKTS







# 1. INFORMĀCIJA PAR IPCEI PROGRAMMU





# DAŽĀDAS IPCEI PROGRAMMAS



**IPCEI** – Important Project of Common European Interest

**IPCEI CIS** – IPCEI Next Generation Cloud Infrastructure and Services

[https://competition-policy.ec.europa.eu/state-aid/ipcei/approved-ipceis\\_en](https://competition-policy.ec.europa.eu/state-aid/ipcei/approved-ipceis_en)

## Approved Integrated Important Projects of Common European Interest (IPCEI)

	First IPCEI on Micro-electronics (2018)	First IPCEI on Batteries (2019)	Second IPCEI on Batteries – EuBatIn (2021)	First hydrogen IPCEI – Hy2Tech (2022)	Second hydrogen IPCEI – Hy2Use (2022)	Second IPCEI on Micro-electronics and Communication Technologies (2023)	IPCEI on Next Generation Cloud Infrastructure and Services (2023)	Third hydrogen IPCEI – Hy2Infra (2024)	Total
Participating companies	29	17	42	35	29	56	19	32	259 226*
Participating projects	43	22	46	41	35	68	19	33	307
State aid approved (EUR billion)	1,9	3,2	2,9	5,4	5,2	8,1	1,2	6,9	34,8
Expected private investments (EUR billion)	6,5	5	9	8,8	7	13,7	1,4	5,4	56,8
Participating Member States									22 Member States, UK and Norway participated in at least one IPCEI

\*Excluding the companies that participated in more than one IPCEI



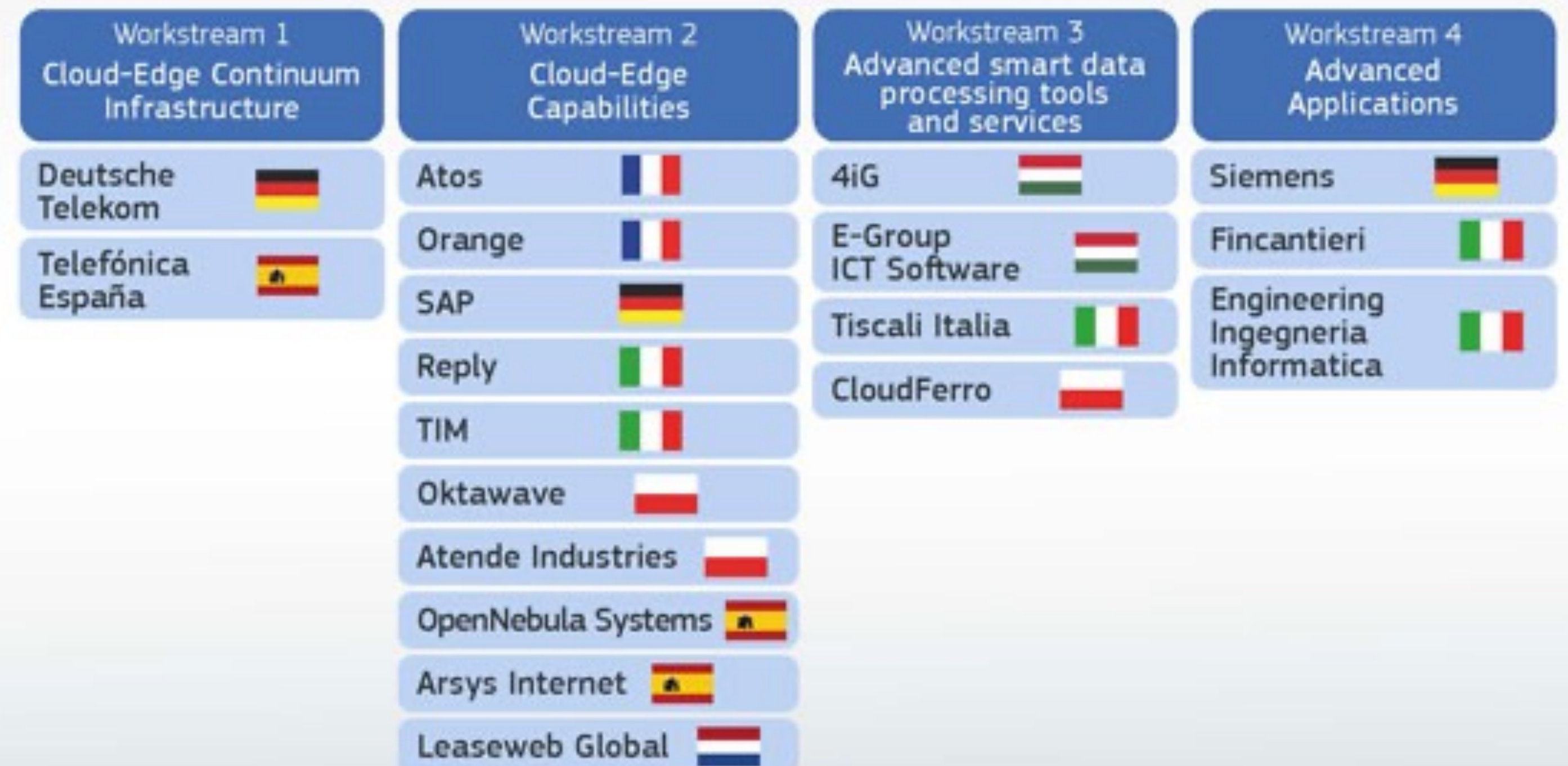
# IPCEI CIS PROGRAMMA UN TIEŠĪ PARTNERI



To support research, development and first industrial deployment of advanced **cloud and edge computing technologies**

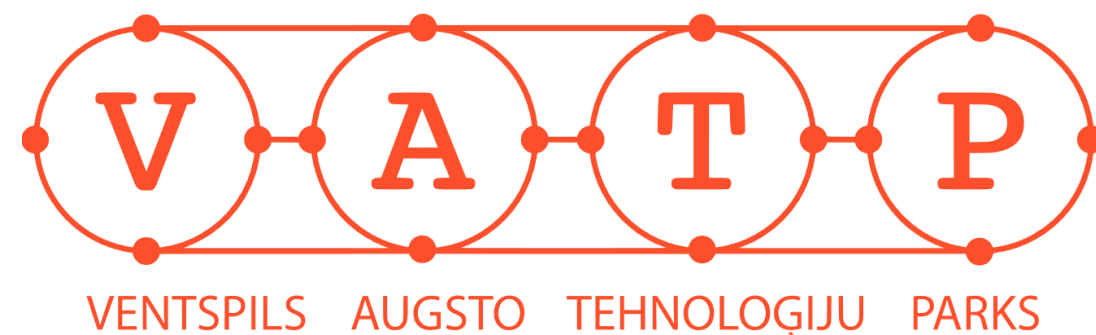
The participating companies will develop an open-source software that will allow for **real-time and low-latency (i.e., a few milliseconds) services** by distributed **computing resources close to the user**, thereby reducing the need to transmit large volumes of data to centralised cloud servers.

Commission approves up to €1.2 billion support by 7 Member States for an IPCEI on **Next Generation Cloud Infrastructure and Services (IPCEI CIS)**





# IPCEI CIS PROGRAMMAS NETIEŠIE PARTNERI NO LV UN CITĀM ES VALSTĪM



## Indirect Partners

- ADVA Optical Networking
- Aecorsis
- Airbus Operations
- Amadeus
- Amiral Technologies
- Amsterdam Internet Exchange
- Armadillo
- Aspired
- Bass
- BetterBe
- BIT
- Capital Energy Service
- CGI France
- CNRS IRISA
- CNRS LAAS
- CNRS UGA ERODS
- CNRS UT 3 IRIT SEPIA
- DataVaccinator
- DATI Group
- DB Netz
- DE-CIX Management
- Deerns Nederland
- Diehl Aerospace
- e-BO Enterprises
- elevait
- ENEA
- Engie Laborelec
- Ericsson
- Eurofiber Nederland
- Excellium Services
- Fachhochschule Dortmund
- Fondazione Bruno Kessler
- Gdańsk University of Tech
- Gigas Hosting
- H1 Systems
- Hashnet
- i3d.net
- Igea
- Indra Soluciones Tecnológicas de la Información
- Infobip
- Info Support
- Infrachain
- INRIA LILLE - Nord Europe
- INRIA Nancy- GRAND EST
- Institut Imagine
- Internet Institute
- Ionos
- Iskra
- itrust consulting
- Kontron
- Lacroix Electronics Cesson
- Lacroix Sofrel
- Limebird
- Lindner
- Luxembourg House of Cybersecurity
- Mondragon Corporación
- Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek (TNO)
- N+P Informationssysteme
- Ningaloo
- No Blue Screen System
- Operator Chmury Krajowej
- Phoenix Systems
- Pro-bit
- Provenrun
- Proximus
- Recog. AI
- Result
- RHEA Group
- Rheinmetall Technology Center
- Robert Bosch
- RYAX Technologies
- Secunet Security Networks
- Stichting Nationale Beheersorganisatie Internet Providers
- SYSGO
- Telemach
- ThreeFold Tech
- Tilde
- United Biometrics
- Universite Bretagne Sud
- Universite Caen Basse Normandie
- Universite de Lille
- Universite de Versailles Saind-Quentin-en-Yvelines
- Universiteit Twente
- Universiteit van Amsterdam
- University of Latvia (IMCS)
- Ventspils High Ventspils Technology Park
- WestfalenWIND IT
- Zejn



# NOSACĪJUMI IPCEI CIS PARTNERIEM NO LATVIJAS (1)

**Links uz IPCEI Latvijas konkursu:** <https://www.cfla.gov.lv/lv/5-1-1-2-i-k-4>

**Links uz MK noteikumiem:** <https://likumi.lv/ta/id/350042>

**Projekta iesniegšanas termiņš CFLA:** 02.04.2024. – 30.04.2025.

**Projekta izmaksas iespējams attiecināt līdz:** 2027. gada 31. decembrim.

**Vērtēšanas termiņš:** mēneša laikā pēc iesnieguma saņemšanas

**Līgumslēgšanas process:** 30 darbdienu laikā pēc lēmuma pieņemšanas par projekta iesnieguma apstiprināšanu.

**Pieejamais Atveseļošanas fonda finansējums:** 31 000 000 *euro* Latvijas projektiem

## **Atbalstāmās darbības**

1. Rūpnieciskie pētījumi
2. Eksperimentālās izstrādes.
3. Tehniski ekonomiskās priekšizpētes (max 300 000 *euro* gadā vienam atbalsta saņēmējam).



# NOSACĪJUMI IPCEI CIS PARTNERIEM NO LATVIJAS (2)

## **Attiecināmās izmaksas**

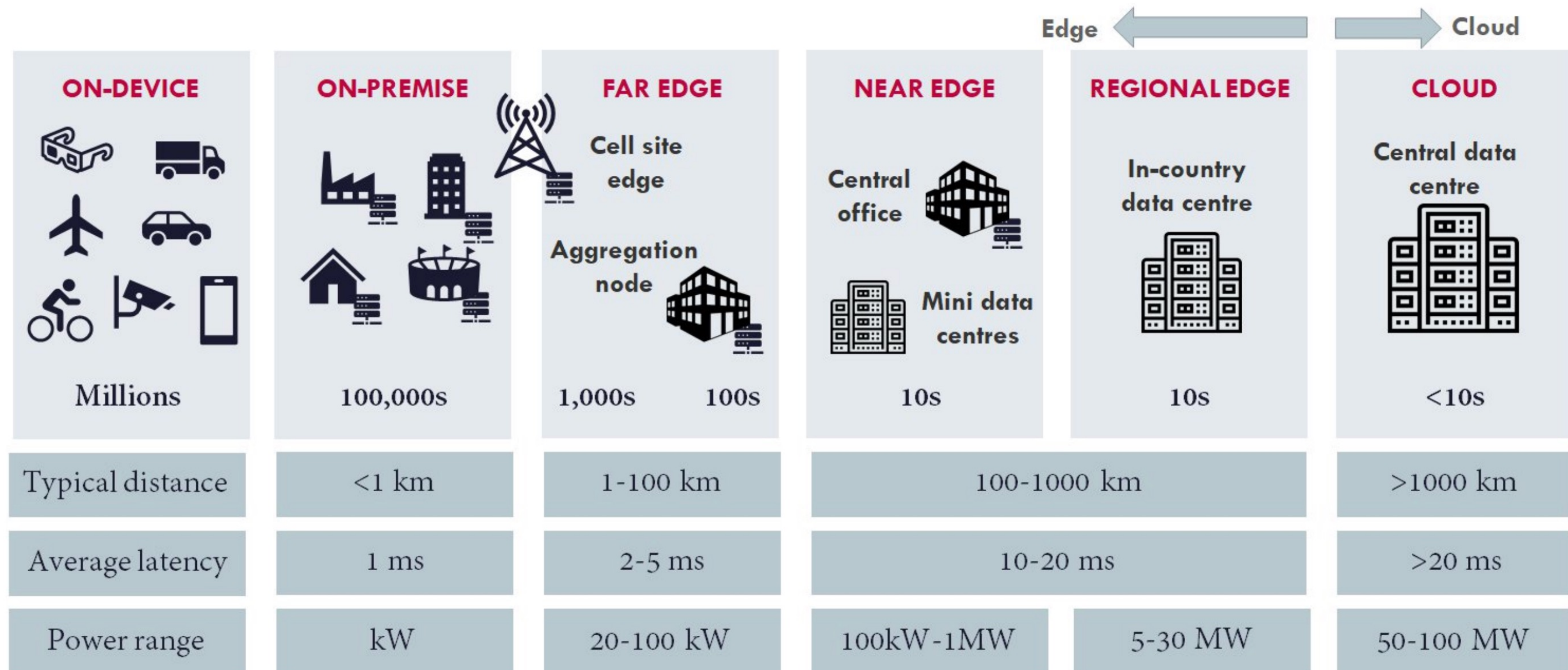
1. darba samaksa
2. saistītās valsts sociālās apdrošināšanas obligātās iemaksas
3. komandējuma (darba brauciena) izmaksas
4. komunālo pakalpojumu un sakaru pakalpojumu izmaksas pētniecības vai tehniski ekonomiskās priekšizpētes darbībām
5. telpu nomas maksa
6. instrumentu, iekārtu un to aprīkojuma nomas maksa pētniecības vai tehniski ekonomiskās priekšizpētes darbībām
7. materiālu un mazvērtīgā inventāra iegādes izmaksas pētniecības vai tehniski ekonomiskās priekšizpētes darbībām
8. izmaksas par līgumpētījumiem un patentiem
9. īpašumā esošo instrumentu, iekārtu amortizācijas izmaksas
10. apdrošināšanas izmaksas (veselības, dzīvības, transportlīdzekļu, īpašuma, iekārtu, civiltiesiskās atbildības) uz projekta īstenošanas laiku
11. ārējo pakalpojumu izmaksas – juridiskie, grāmatvedības, testēšanas un izstrādes, projektu vadības, lietvedības un tulkošanas pakalpojumi pētniecības vai tehniski ekonomiskās priekšizpētes darbībām
12. komunikācijas izmaksas, kas saistītas ar publicitātes pasākumiem
13. datu iegādes izmaksas



# ATBALSTA INTENSITĀTE IPCEI PROJEKTIEM NO LATVIJAS

<b>Darbība</b>	<b>Sīkajiem un mazajiem komersantiem (&lt;50 darbinieki)</b>	<b>Vidējiem komersantiem (50 līdz &lt;250 darbinieki)</b>	<b>Lielajiem komersantiem (250+ darbinieki)</b>	<b>Nosacījums (papildu atbalsta intensitāti nevar apvienot)</b>
Rūpnieciskie pētījumi	70% +10% +10%	60% +15% +20%	50% +15% +25%	-Standarta likme -Ja ir sadarbība un vismaz 1 projekta partneris nav lielais - Ja ir LIAA atbalsta vēstule un sadarbība vismaz 3 ES valstīs
Eksperimentālās izstrādes	45% +15% +25%	35% +15% +25%	25% +15% +25%	-Standarta likme -Ja ir sadarbība un vismaz 1 projekta partneris nav lielais - Ja ir LIAA atbalsta vēstule un sadarbība vismaz 2 ES valstīs (MVK) vai 3 valstīs (lielajiem komersantiem)
Tehniski ekonomiskās priekšizpētes	70%	60%	50%	-Standarta likme

# MĀKOŅA UN MĀKOŅMALAS KATEGORIJAS





# MĀKONMALAS DATOŠANAS EKOSISTĒMA

## From edge sensors to the centralized cloud

The edge computing ecosystem is comprised of four primary areas

### Centralized Cloud

Centralized data centers are farthest from the network edge. However, they offer a much greater density of compute, storage, and networking resources.

### Edge Infrastructure

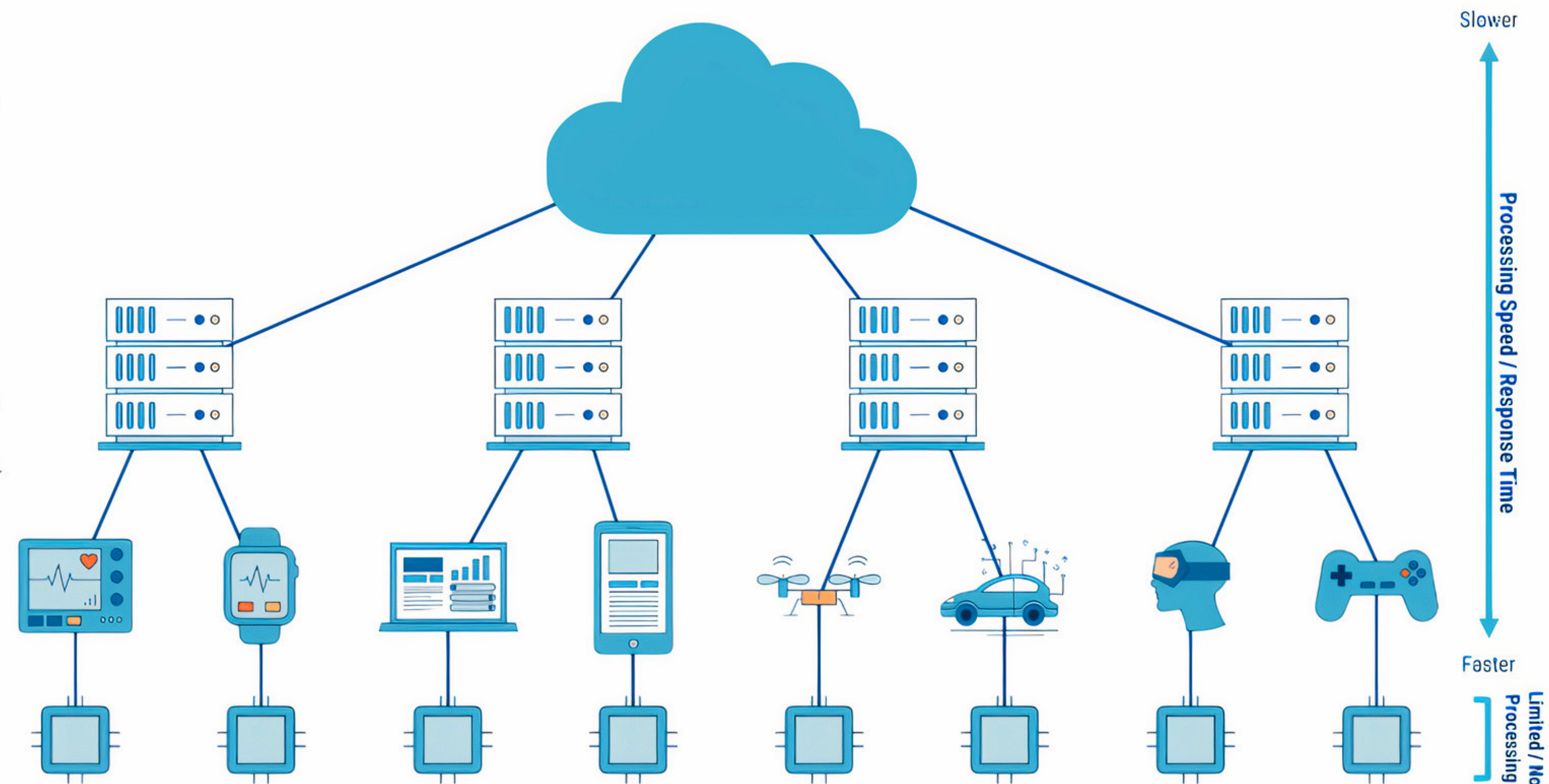
Small, distributed data centers that provide a resource-dense midpoint between edge devices and the centralized cloud. Low roundtrip latencies of 5 – 10ms.

### Edge Devices

Real-time data processing within devices based on application needs. Processing limitations present.

### Edge Sensors & Chips

Data collection & origination.







# **2. DAŽI NO APSTIPRINĀTAJIEM IPCEI CIS PROJEKTIEM**



# TIEŠAIS PARTNERIS (VĀCIJA)



# SIEMENS

<https://www.siemens.com/>

## Siemens IPCEI CIS project

**Siemens** focuses on **industrial edge connectivity solution** that covers industrial-grade requirements and extends the IPCEI-CIS cloud edge continuum to industrial domains and premises.

The project contributes to the WS objectives regarding the integration of complex use cases, the transferability of sector-specific solutions, as well as the agile exchange of requirements with other workstreams and their validation.

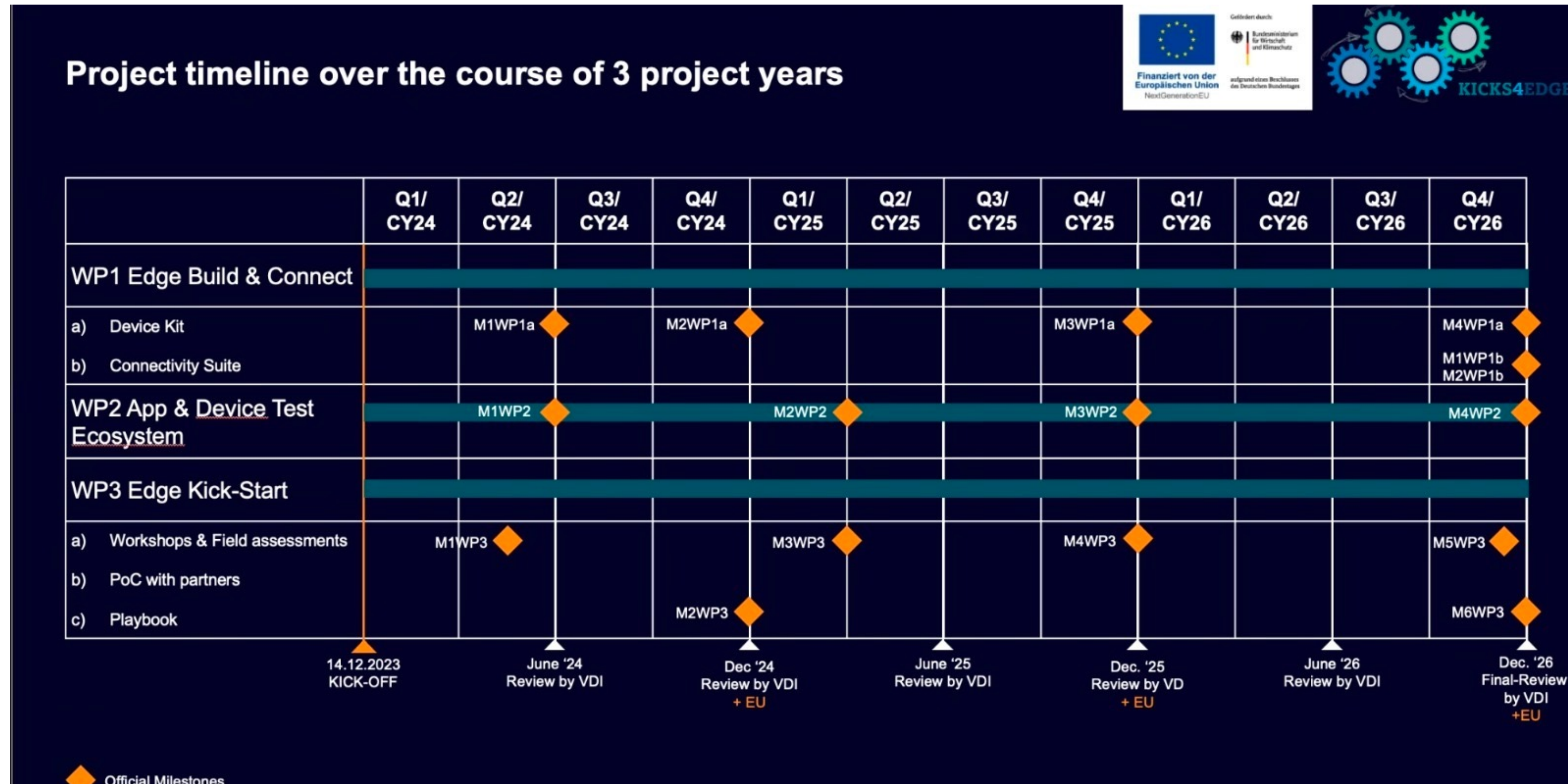
<b>Main innovations</b>	Closing the gap between the cloud edge IT domain and the industrial OT domain regarding <b>integration and operation of complex industrial applications</b> . This includes technology enhancements for cloud-edge IT to cover the diverse industrial-grade requirements (e.g., hard real-time, uninterrupted stability, certifiable safety, guaranteed longevity) as well as innovative mechanisms and <b>software tools for seamless integration of IT and OT</b> to reduce the adoption barriers for the IT-non-experts from the OT domain.
<b>FID activities</b>	<b>Siemens</b> performs a structured and scientifically backed exploration of industrial application scenarios. Selected use cases are implemented with varying degrees of complexity. From these activities, validated industrial requirements are deduced and integrated into a single, common industrial edge connectivity solution. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities with regard to the number of the edge connectivity solution, the number of services, and (at least) linear growth.

# TIEŠAIS PARTNERIS (VĀCIJA)

# SIEMENS



<https://www.siemens.com/>





# TIEŠAIS PARTNERIS (FRANCIJA)



<https://www.orange.com>



<b>Orange IPCEI CIS project</b>	
The project focuses on the particular requirements <b>of interoperable telco/edge workloads</b> , e.g., life-cycle management of thousands of nodes, and their open-source integration into the cloud edge continuum.	
<b>Main innovations</b>	<b>Open-source components for the interoperable telco/edge stack</b> used for the cloud edge continuum, with a focus on a high level of <b>security, energy efficiency</b> , and an advanced monitoring system.
<b>FID activities</b>	Validation and proofing of components in a production environment (5G B2B / industry 4.0) to host telecom network functions or advanced industrial applications. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities with regard to guaranteed service level agreements, <b>energy consumption</b> , life-cycle management, and operational savings of 15%.

# TELCO EDGE PIELIETOJUMU KATEGORIJAS

## Telco Edge Cloud Service Application Categories

### Categories



#### Network

- 4G, 5G, 6G
- Developer consumption experience



#### Real Time Data

- Pipeline automation
- CV, ML, AI
- Services along the flow



#### Immersive

- Pervasive
- Multi-Model, Multi-Device
- Personalization
- Interactive
- Local content
- AR/MR
- Metaverse



#### Autonomous Control

- M2M
- Devices that move or execute independent actions

<https://www.gsma.com/solutions-and-impact/technologies/networks/wp-content/uploads/2022/03/GSMA-TEC-Value-Whitepaper-v13.pdf>



# TIEŠAIS PARTNERIS (ITĀLIJA)



<https://www.gruppotim.it/>

## TIM SpA

The project focuses on the development of a telco-specific open-source cloud stack and its integration into the cloud edge continuum. A particular focus is on aspects of **quantum-safe cryptographic components**.

<b>Main innovations</b>	Development of transparent multi-cloud cryptographic key management to increase user data privacy as well as development of decision intelligence solutions to support cloud operators in security-related decisions.
<b>FID activities</b>	Validation and proofing of components with a particular focus on federation and management of cryptographic aspects. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities with regard to scalability (number of deployed nodes), interoperability (number of connected platforms / cloud providers), and availability of services (number of services deployed).

# TIEŠAIS PARTNERIS (SPĀNIJA)



# arsys

<https://www.arsys.net/>

## Arsys Internet S.L.U.

The project focuses on aspects of developing business logic, secure access data, and control models that allow users a more transparent and reliable interaction with their services in the distributed cloud edge continuum.

<b>Main innovations</b>	<b>Ecosystem</b> for managing cloud computing services by users no matter where or by whom these services are deployed or hosted.
<b>FID activities</b>	Validation and proofing of components with a particular focus on business agreements and module specifications at a technical level. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities.



# TIEŠAIS PARTNERIS (ITĀLIJA)



<https://www.eng.it>

## Engineering Ingegneria Informatica Spa

The project explores how the digital twin paradigm can be utilized within the multi provider cloud edge continuum. To this end, a general **digital twin platform** with extended capabilities (e.g., incorporating machine learning) will be developed and integrated into the IPCEI-CIS cloud edge continuum. To ensure its wide applicability the digital twin platform will be utilized in a wide variety of application scenarios. Moreover, the project contributes solutions for the cybersecurity of domain specific platforms and digital twins, as well as solutions for managing the interconnection of heterogeneous digital systems and federated data.

The project contributes to the WS objectives regarding the integration of complex use cases, regarding methods for the operation of complex applications, the transferability of sector-specific solutions, as well as the agile exchange of requirements with other workstreams and their validation.

<b>Main innovations</b>	Leveraging sector-agnostic, reusable, processing components and standard-based interoperability mechanisms to exploit heterogeneous computing resources across the cloud-edge continuum, that otherwise would not be able to express their potential value. In particular, the expected work proposes to deliver a general digital twin platform that can serve diverse use cases across industrial domains.
<b>FID activities</b>	FID activities will demonstrate, validate and fine tune complex cloud edge applications utilizing a common digital twin platform in multiple, industrially relevant use cases <b>including energy management</b> , distributed manufacturing, citizen engagement, and healthcare solutions. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities with regard to business readiness in terms of QoS, operational quality, quality in use according to ISO 25010, as well as use-case specific KPIs.

# TIEŠAIS PARTNERIS (ITĀLIJA)



<https://www.fincantieri.com/en/>

## Fincantieri

Fincantieri developed software and **networking solutions to improve with the use of artificial intelligence the reliability of the connectivity in a smart shipyard** and integrate digital twins to enable the intelligent exploitation of processing services for optimization of operations in smart and autonomous ships. In addition, Fincantieri contributes a solution for the task of digital lifecycle management.

The project contributes to the WS objectives regarding the integration of complex use cases, regarding methods for the operation of complex applications, as well as the transferability of sector-specific solutions.

Main innovations	Fincantieri focuses on contributing novel solutions based on <b>artificial intelligence to support the operation of complex cloud edge applications</b> . Their AI solutions will deal with connectivity problems (e.g., high latency or limited connectivity) to guarantee proper access to the Edge-Cloud Continuum resources and functionalities in a challenging and continuously evolving operational environment. In addition, their solutions will address the problem of dealing with a large number of legacy IT/OT systems while serving increasingly autonomous systems in highly diverse operational environments.
------------------	--

FID activities	Fincantieri will have FIDs in two application scenarios. One scenario involves <b>the use of drones and autonomous systems</b> for surveillance and inspection in a smart shipyard. The other scenario is concerned with <b>energy optimization</b> and fleet management for smart ships. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities with regard to the maturity and number of processing services as well as the overall cybersecurity of the system.
----------------	---



# TIEŠAIS PARTNERIS (SPĀNIJA)



<https://opennebula.io/>

## OpenNebula Systems

The project focuses on aspects of novel **open-source management solutions** for disaggregated resources, federated cloud controllers, and a hierarchical scheduling model with regard to, inter alia, **energy efficiency and security**.

**Main innovations** The main innovation is portability and interoperability at the infrastructure level for the execution and mobility of **virtual machines across the cloud edge continuum**.

**FID activities** Validation and proofing of components with a particular focus on scalability and interoperability. The KPI indicating transit to commercial stage consists in the successful demonstration of the components' capabilities.





# NETIEŠAIS PARTNERIS (POLIJA)



# Phoenix Systems

<https://phoenix-rtos.com/>



**Phoenix-RTOS** is an open-source, microkernel-based, realtime operating system for Edge-IoT devices





# PAREDZĒTĀ SADARBĪBA IPCEI CIS IETVAROS STARP NETIEŠAJIEM UN TIEŠAJIEM PARTNERIEM (IZVILKUMS 1)

## Collaborations between Indirect Partners and Direct Participants

Indirect Partner	Direct Participants	Subject of collaboration
Phoenix Systems sp. z o. o (PL)	Telekom (DE)	DTAG and Phoenix Systems will cooperate on integrating and conducting pilot tests of the <b>unmanned aerial vehicle (UAV) autopilot</b> (Phoenix-RTOS based) with DTAG Autonomous Logistics solution for steering autonomous mobile devices.
Phoenix Systems sp. z o. o (PL)	Siemens (DE)	Develop and conduct a technical pilot to ensure the interoperability of the <b>Phoenix smart sensor box with the Siemens on-premises edge</b> to demonstrate end-to-end interoperability in the Cloud-Edge continuum.
Phoenix Systems sp. z o. o (PL)	Engineering Ingegneria Informatica (IT)	WS3: ENG will provide knowledge and results on <b>distributed data management</b> topics, including data fusion, while Phoenix will provide capabilities related to <b>containers and middleware</b> . WS4: the collaboration will cover application aspects with specific focus on the manufacturing domain.
Phoenix Systems sp. z o. o (PL)	OpenNebula Systems (ES)	1. Requirement collection, evaluation and prototyping for the deployment at scale and automated management of highly <b>distributed networks of next-generation smart energy meters</b> . 2. Delivery of a PoC using a cloud-edge meta-orchestrator platform and Edge-IoT, Phoenix-RTOS controlled smart energy meters.
Phoenix Systems sp. z o. o (PL)	Reply SPA (IT)	Phoenix RTOS will be implemented as a significant component to enable the execution of ML/AI on the edge/cloud continuum. REPLY will therefore develop a Phoenix-RTOS compatible edge application to enable <b>AI/ML applications for autonomous robots</b> .

# PAREDZĒTĀ SADARBĪBA IPCEI CIS IETVAROS STARP NETIEŠAJIEM UN TIEŠAJIEM PARTNERIEM (IZVILKUMS 2)

Collaborations between Indirect Partners and Direct Participants

Indirect Partner	Direct Participants	Subject of collaboration
MONDRAGON Corporation (ES)	Siemens (DE)	Joint work with Siemens to develop Industry 4.0 solutions through a continuum edge-cloud infrastructure and to de facto <b>standardize digital twins with AI.</b>
MONDRAGON Corporation (ES)	Fincantieri (IT)	Knowledge sharing for the <b>standardization of Digital Twin models</b> with artificial intelligence taking into account existing standards and experiences. Potential applications: <b>predictive maintenance, optimization of operations, fault detection</b> , etc.
MONDRAGON Corporation (ES)	Engineering Ingegneria Informatica (IT)	The collaboration between ENG and MONDRAGON will be focused on sharing practices and components to develop <b>Digital Twins in distributed environments</b> , with specific reference to the industrial domain.
SIA "Dati Group" (LV)	Engineering Ingegneria Informatica SpA (IT)	With the aim to achieve the <b>realization of Digital Twins</b> , the two companies will share resources and results of respective developments. ENG will focus on the aspects of data fusion based on AI, DATI Group will provide knowledge on transactions between entities and data anonymization techniques.
Tilde (LV)	Engineering Ingegneria Informatica SpA (IT)	ENG will contribute with results concerning <b>data processing for clinical decision support systems</b> , while Tilde will provide advancements concerning the <b>management of multilingual data.</b>



# PAREDZĒTĀ SADARBĪBA IPCEI CIS IETVAROS STARP NETIEŠAJIEM UN TIEŠAJIEM PARTNERIEM (IZVILKUMS 3)

Collaborations between Indirect Partners and Direct Participants

Indirect Partner	Direct Participants	Subject of collaboration
Rheinmetall (DE)	Telekom (DE)	Envisioned fields of collaboration include <b>teleoperated driving and therefore on-premises edge computing</b> , fleet management for autonomous vehicles, dynamic route planning based on innovative network functions and localization, utilization of network APIs for quality on demand, <b>augmented reality for teleoperation</b> and cyber-security.
Result (SI)	Atos (FR)	<b>Deploy eEARLY platform</b> (part of WS3) for storing and processing data from <b>biometric sensors on E2CC</b> .
ISKRA, d.o.o. (SI)	Engineering Ingegneria Informatica SpA (IT)	In the framework of WS2, the two companies will implement technology to effectively <b>manage resources and sensors</b> across the area. ISKRA experience in developing new smart and digital distributed system will enable trustworthy yet dynamic resource management in the data gathering. ENG will contribute to the integration of technology in creating “liquid” yet trustworthy computing environments.



# 3. INFORMĀCIJA PAR IPCEI ASPIRED PROJEKTU



# PROJEKTA NOSAUKUMS UN MĒRĶIS

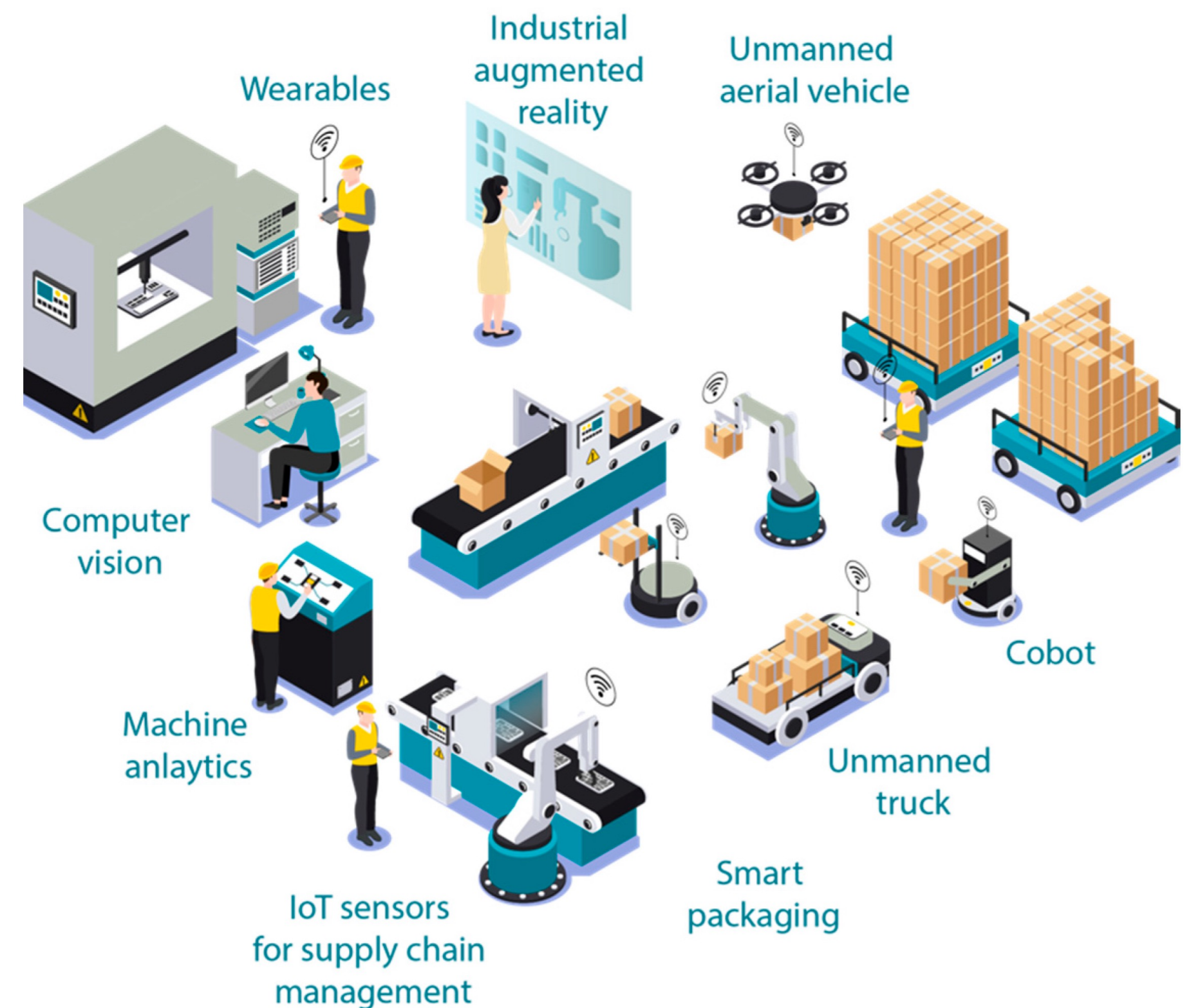
**Projekta nosaukums:** Next Gen Microfactories

**Projekta mērķis:** Veikt mākoņmalas risinājumu pētniecību un eksperimentālo izstrādi, kas paredzēti pielietošanai viedās un augsti automatizētās mikrorāžotnēs

**Projekta fokuss:**

- decentralizētā mākoņražošana
- viedas mikrorāžotnes
- ražošanas tehnoloģijas: UV druka, 3D printēšana, formēšana, CNC lāzergriešana, CNC frēzēšana, robotu sistēmas
- loģistikas tehnoloģijas: mobilie autonomie roboti

## Concept of a smart factory



<https://www.mdpi.com/1424-8220/20/23/6783>



# MIKROŽOTŅU KONCEPTS

## Components of a Microfactory:

- Robotics
- Automation
- Artificial intelligence
- The Industrial Internet of Things (IIoT)



**AFIVAL**

<https://www.autodesk.com/design-make/articles/microfactory>



<https://www.bevnet.com/news/2023/relocalize-tests-hyper-local-copacking-model-with-premium-packaged-ice/>



# ASPIRED PROJEKTA SĀKOTNĒJAIS 2021.G. SATURS (TIKS PRECIZĒTS)



**Projekta nosaukums:** Next Gen Microfactories

**Aspired SIA** - organizēs pētniecības un attīstības aktivitātes projektā, sistēmas izveidi, kā arī vadīs viedo mikrorražotņu moduli.

**Latvijas Universitātes Matemātikas un Informātikas Institūts** - pētniecības institūts, kas projektā būs atbildīgs par viedo noliktavu moduli.

**Ventspils Augsto Tehnoloģiju Parks Nodibinājums** - projektā vadīs decentralizētās ražošanas platformas moduļa pētniecību un izstrādi.

**Dati Group SIA:** projektā būs atbildīgs par nākamās paaudzes mākoņa un mākoņmalas infrastruktūras risinājuma ieviešanu.

**TechGym SIA:** iesaistīsies viedo mikrorražotņu moduļa pētniecībā un attīstībā.

**Autentica SIA:** projektā vadīs automatizācijas risinājuma pētniecību, izstrādi un ieviešanu pilotlīnijām.

**Etago Network SIA (uzņēmumam ir maksātnespējas process):** projektā izstrādās elektroenerģijas patēriņa digitālā dvīņa risinājumu viedajām mikrorražotnēm.

# ASPIRED PROJEKTA SĀKOTNĒJAIS 2021.G. BUDŽETS (TIKS PRECIZĒTS)



Partneris	2022	2023	2024	2025	2026	KOPĀ attiecināmās izmaksas pa partneriem, EUR
Aspired	264 000	624 000	414 000	264 000	264 000	1 830 000
LU MII	250 000	250 000	250 000	250 000	250 000	1 250 000
VATP	300 000	365 000	200 000	180 000	180 000	1 225 000
Dati Group	106 667	106 667	106 667	50 000	53 000	423 000
TechGym	311 000	546 000	276 000	276 000	276 000	1 685 000
Autentica	200 000	75 000	75 000	75 000	75 000	500 000
Etago	50 000	100 000	150 000	0	0	300 000
<b>Kopā attiecināmās izmaksas pa gadiem, EUR</b>	<b>1 481 667</b>	<b>2 066 667</b>	<b>1 471 667</b>	<b>1 095 000</b>	<b>1 098 000</b>	<b>7 213 000</b>
<b>Paredzamais granta finansējums, EUR</b>	<b>1 037 167</b>	<b>1 446 667</b>	<b>1 030 167</b>	<b>766 500</b>	<b>768 600</b>	<b>5 049 100</b>
<b>Paredzamais partneru līdzfinansēju ms, EUR</b>	<b>311 150</b>	<b>434 000</b>	<b>309 050</b>	<b>229 950</b>	<b>230 580</b>	<b>1 514 730</b>



# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (1)



<https://www.datigroup.com/>

- Edge cloud infrastruktūras sistēmas izveide
- Risinājumi uz atvērtā koda openstack.org bāzes





# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (2)



<https://www.vatp.lv/>  
<https://www.makertech.com/>

- Elektrības patēriņa pārvaldība rūpniecībā
- Decentralizētās mākoņražošanas platforma
- Sadarbība ar RTU





# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (3)



SIA "Techgym"

<https://www.techgym.eu/>

## TECHGYM

- Dizaina rīki rūpniecībā



- Robotizētas sistēmas UV drukai
- Robotizētas sistēmas rotoformēšanai





# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (4)



# asya

<https://www.asya.ai/>

<https://showcase.asya.ai/>

SIA "Asya"

- MI risinājumi dizainam

 upprint studio + [repper.app](https://repper.app) + MI

- MI risinājumi rūpniecībai
- Mobilo industriālo robotu Edge platforma kopā ar robotu ražotājiem





# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (5)



<https://www.testdevlab.com/>

SIA "TestDevLab"

- Edge risinājumu un aplikāciju testēšana
- Sadarbība ar Siemens un Orange IPCEI CIS projektiem



zoom



WorldRemit

# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (6)



Latvijas Universitātes  
Matemātikas un informātikas institūts

<https://lumii.lv/>

- Kvantu kriptēšana
- Kvantu komunikācijas
- Viedās noliktavas





# APSPRIEŽAMĀ SADARBĪBA AR LATVIJAS PARTNERIEM (7)



**N-LAB**  
RESEARCH & DEVELOPMENT CENTRE

<https://www.nlab.lv/>

- Autonomie mobilie roboti ražošanai un loģistikai







**Paldies par uzmanību!**

