



5G experimentation environment for 3rd
party media services



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- ✓ **Grant Agreement:** 101016714
- ✓ **Duration:** 36 months
- ✓ **Starting date:** 01/01/2021
- ✓ **Total budget:** 7,494,838.75 Euros
- ✓ **EC funding:** 6,037,942.38 Euros
- ✓ **Total PMs:** 766
- ✓ **Project Coordinator:** Dr. Christos Verikoukis, CTTC
- ✓ **Technical Manager:** Dr. Konstantinos Ramantas, IQUADRAT
- ✓ **URL:** www.5gmediahub.eu
- ✓ **Project Officer:** Mr. Achilleas Kemos

17 consortium partners

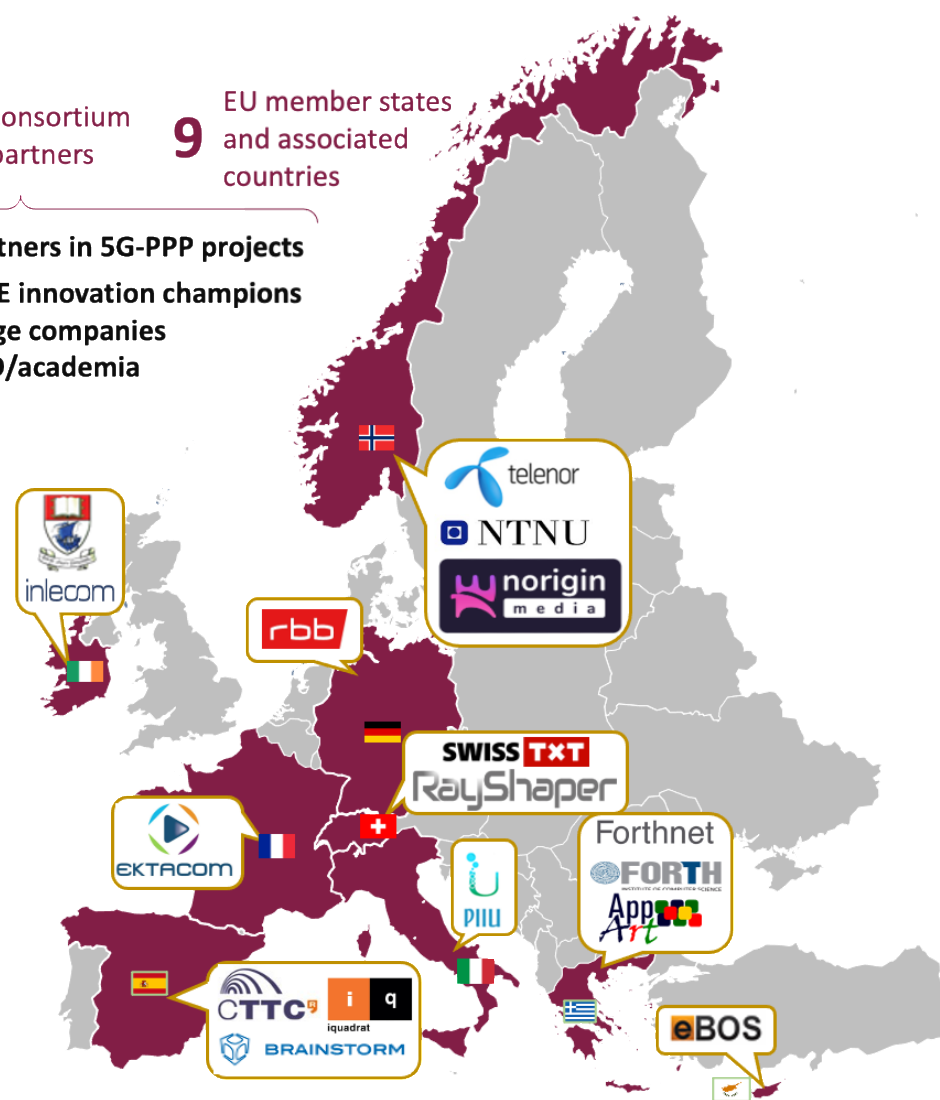
9 EU member states and associated countries

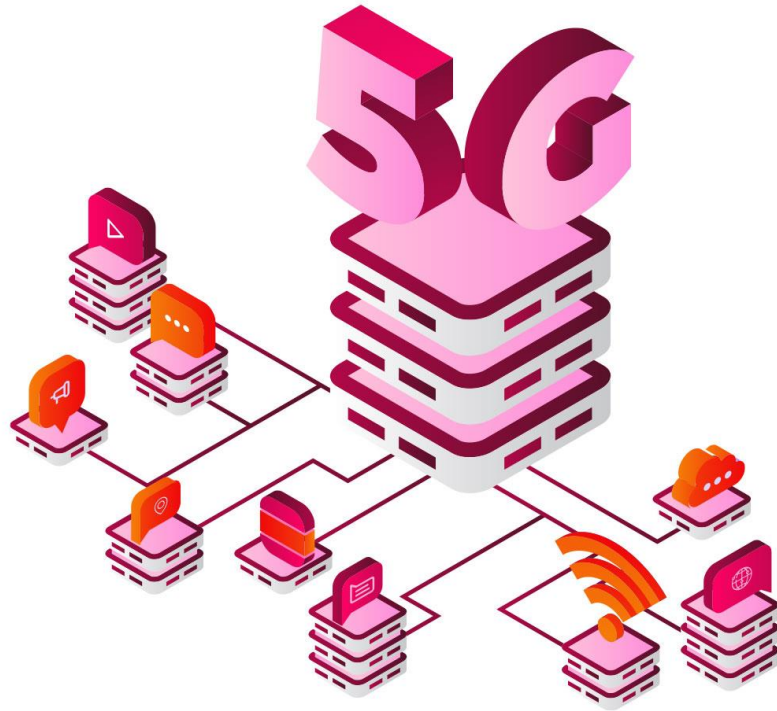
13 partners in 5G-PPP projects

9 SME innovation champions

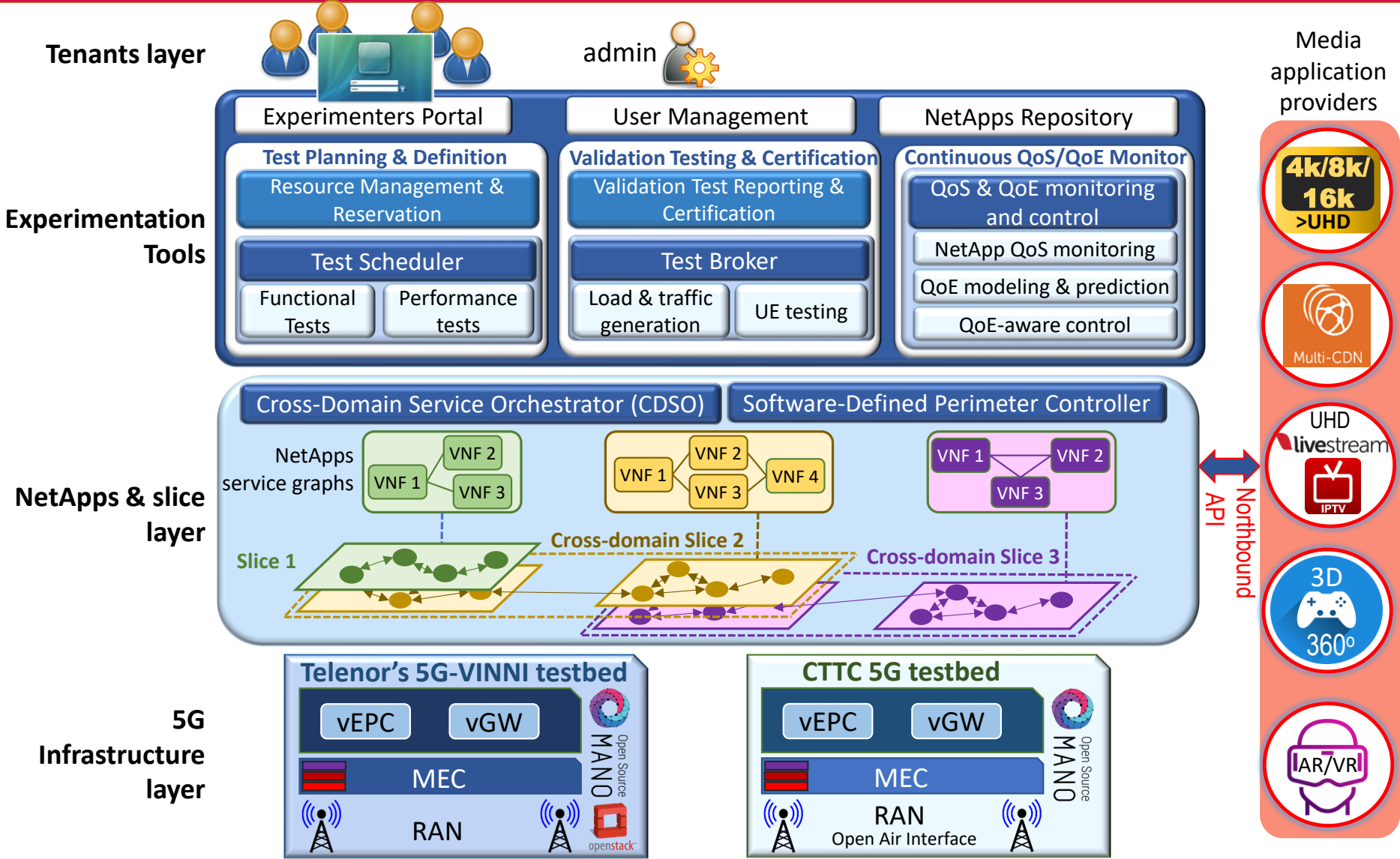
3 Large companies

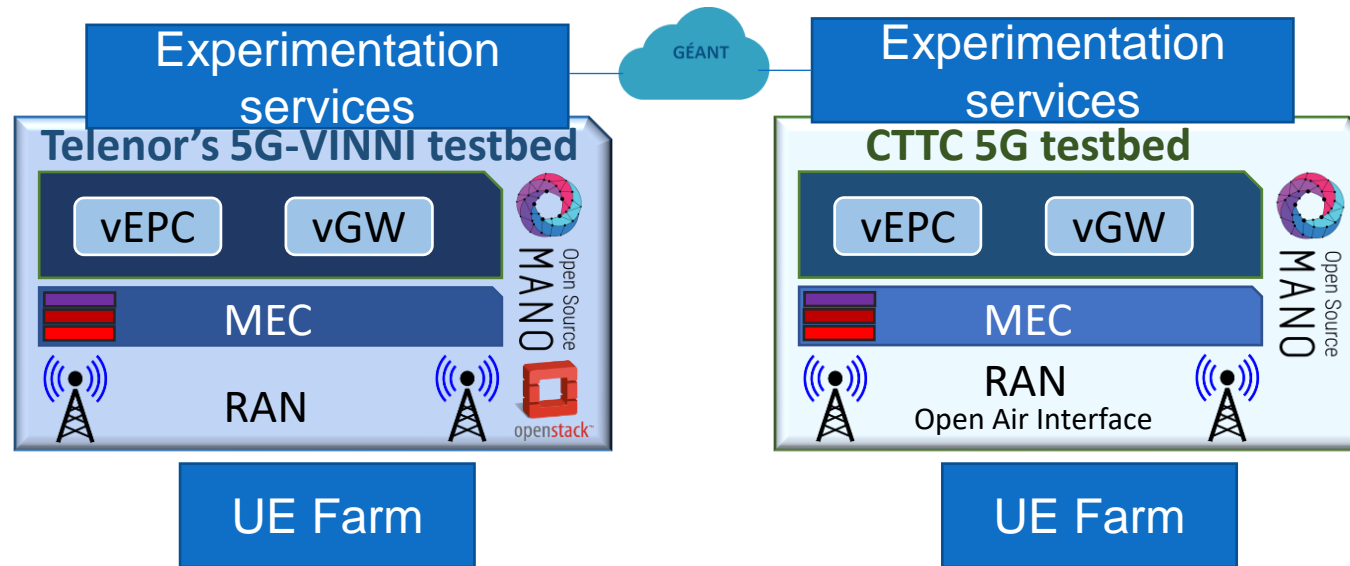
5 RTO/academia





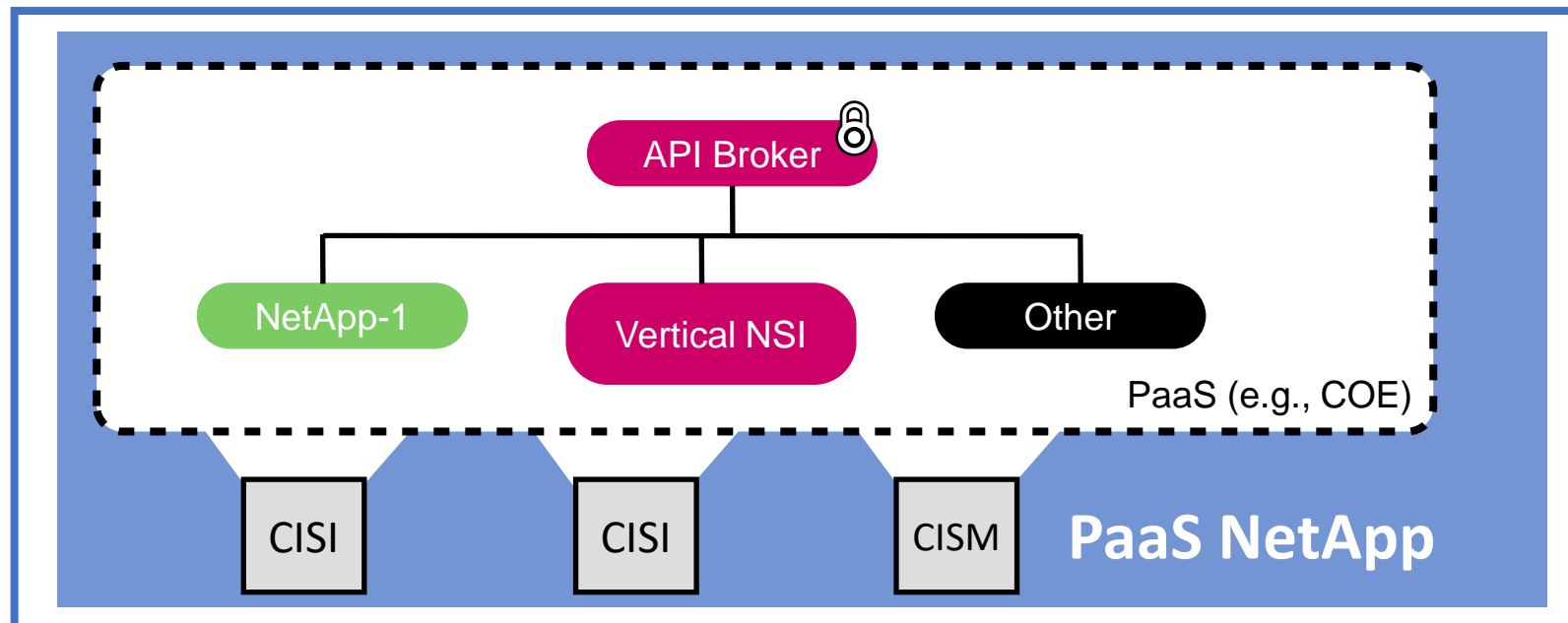
- ✓ Make experimental 5G infrastructures accessible to SMEs in the Media & Entertainment domain
- ✓ Offer a set of NetApps implementing a PaaS layer similar to AWS or Azure cloud
- ✓ Offer DevOps tools to setup and manage experiments via automated testing pipelines.
- ✓ Offer a web-based Portal which simplifies the process of service creation, validation and verification
- ✓ Deliver a comprehensive Security Framework, with *Zero Trust*
- ✓ Perform 2 test cycles, in 3GPP Rel-16 and Rel-17, in two federated testbeds



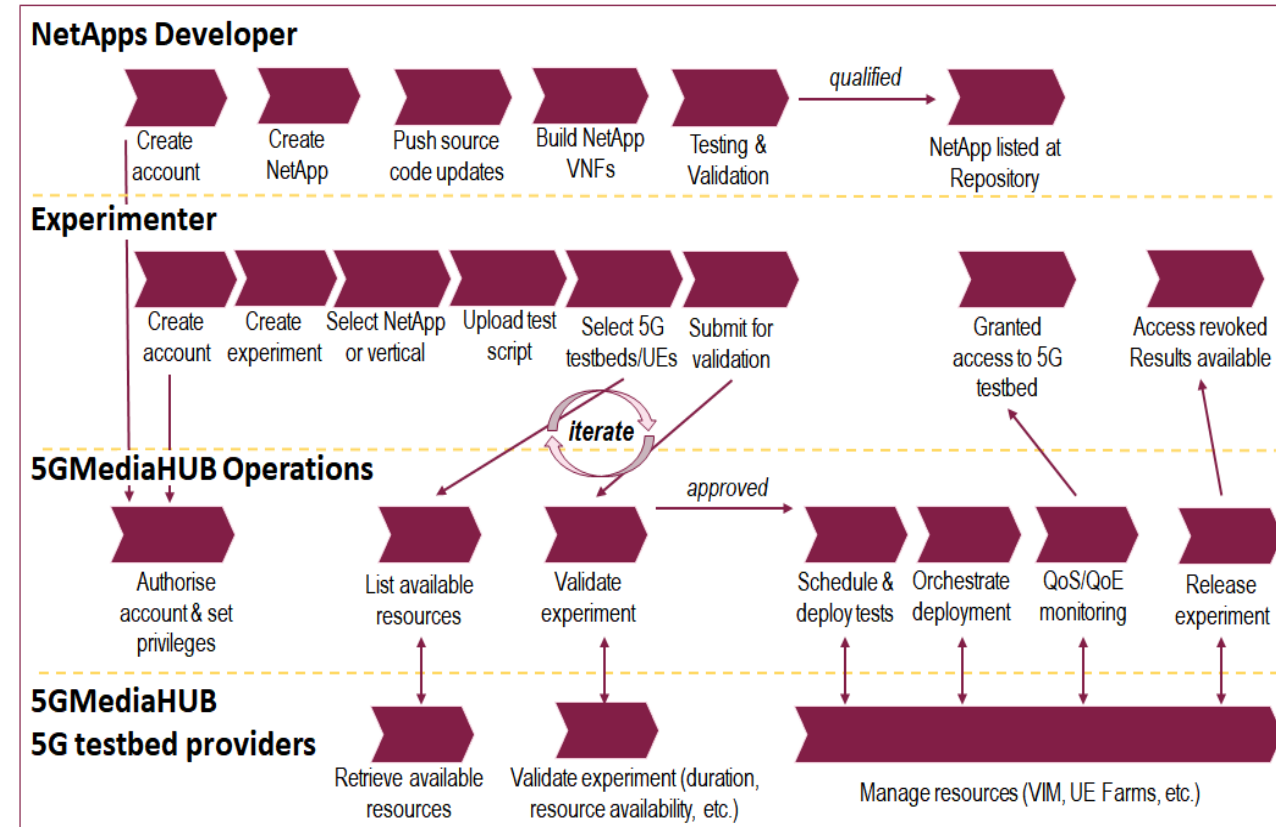


- Two 5G testbeds will be federated and interconnected via the GEANT network
 - ✓ 5GMediaHUB Experimentation services deployed at both testbeds
 - ✓ Federation via a Cross-domain Service Orchestrator
 - ✓ UE farms, allowing test execution and KPI measurements at UE level

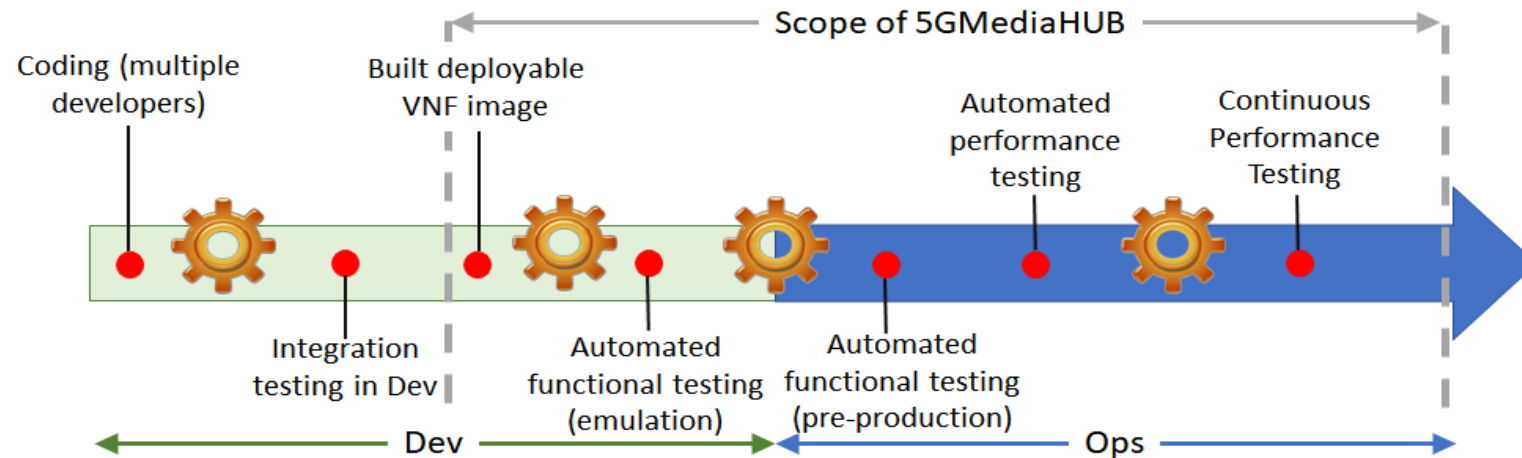
- NetApps: Application enablement services, offering PaaS extensions (e.g., CDN)
 - ✓ Hiding NFVI and 5G complexities, while supporting cloud-native vertical applications
 - ✓ Offering a comprehensive Security Framework with Software-Defined Perimeters (SDP)
 - ✓ Unified Northbound APIs for vertical applications
- NetApps can span across multiple testbed facilities within Network Slice Instances (NSIs)



- DevOps workflows facilitate “Testing as a Service”
 - ✓ Automated functional & performance testing, validation & verification
 - ✓ NetApps repository allows collaborative development and source code management
- Web-based access to the experimentation facility



- DevOps pipelines for automated performance testing
 - ✓ Leverage Jenkins to implement CI/CD Pipelines
 - ✓ Test scripts define test cases and experiments
 - ✓ Validation / Verification reporting



Use Case Scenarios	5G Testbed	Media-based NetApp				Orchestration NetApp	Security NetApp	
		Streaming	MCDN	Stream-Selector	Immersive-Media	PaaS	WAF	IDS
1.1: Immersive 360 VR	CTTC	●			●	●	●	●
1.2: Interactive 8k and VR	TNOR	●			●	●	●	●
2.1: User-Generated Content	TNOR			●		●	●	●
2.2: Live Production	CTTC			●		●	●	●
3.1: multi-CDN selection	CTTC TNOR	●	●			●	●	●
3.2 Smart city co-creation	CTTC TNOR		●			●	●	●



UC1: Immersive AR, VR and XR applications

Immersive 360° VR media experiences

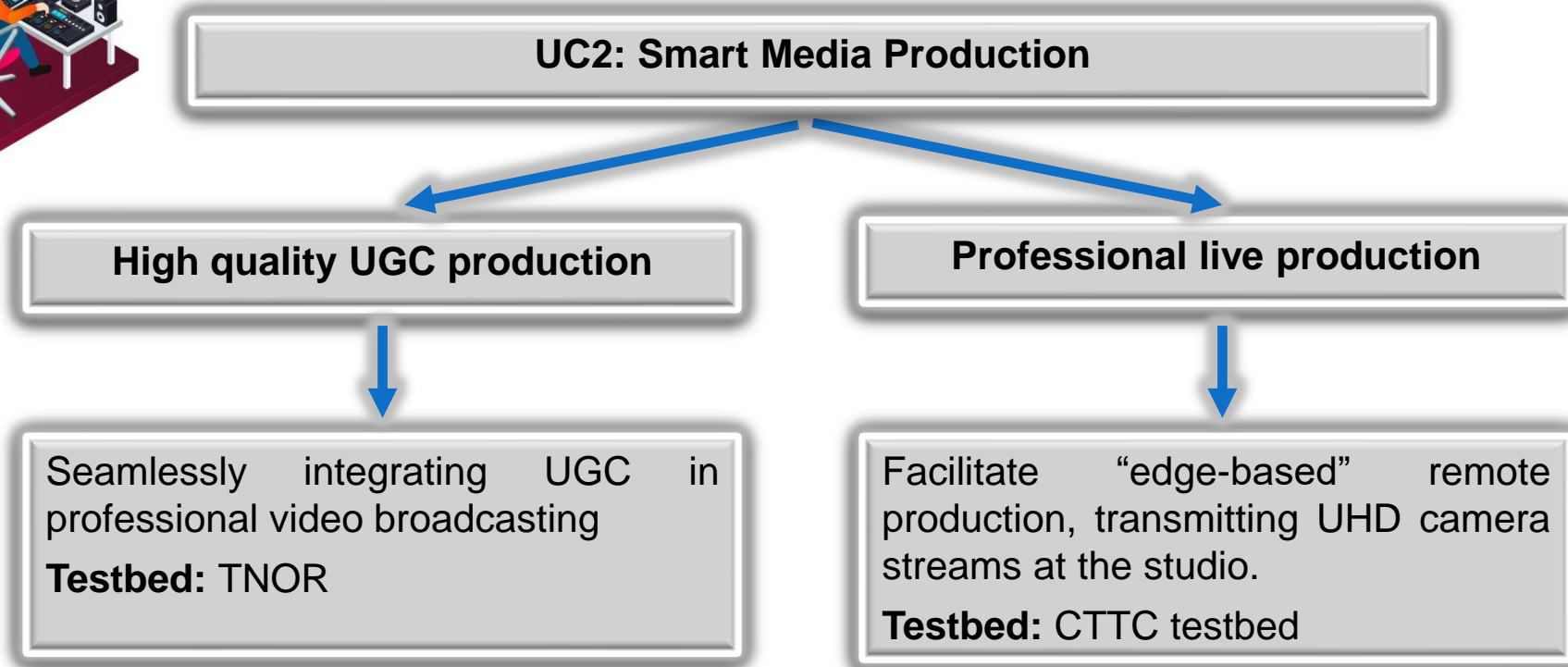
Demonstrate real-time 3D holograms of persons, that can be dynamically inserted in a VR environment

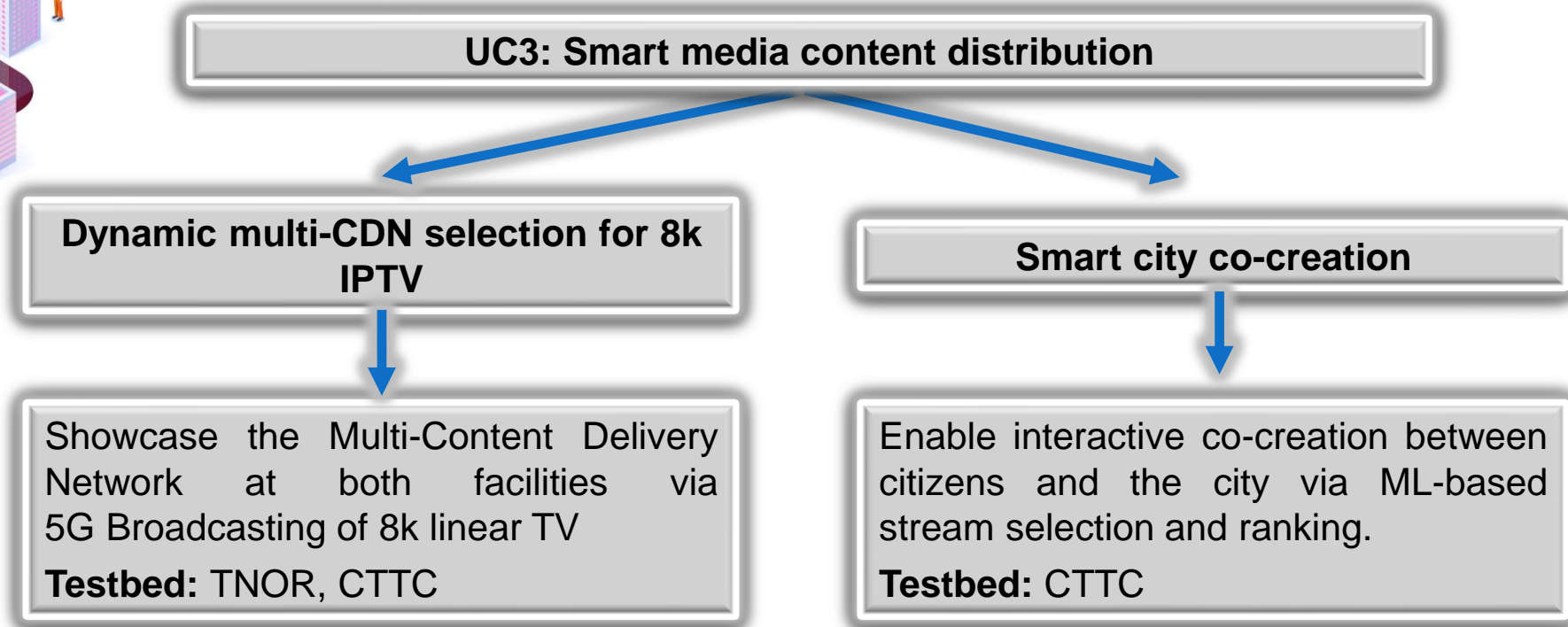
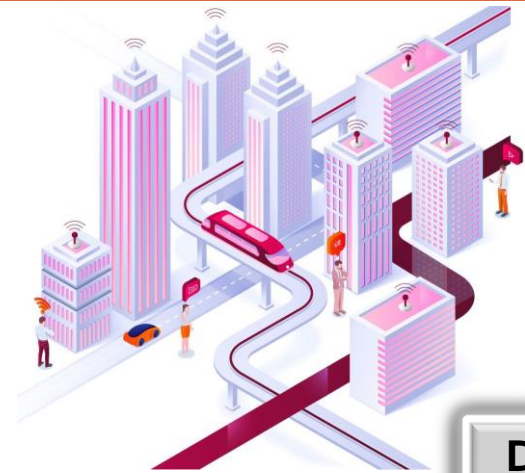
Testbed: CTTC

Interactive consumption of 8k and VR media content

Showcase a new form of transmedia (i.e. multiscreen) storytelling, termed Interactive Digital Narratives

Testbed: TNOR's testbed







Thank you for you attention!



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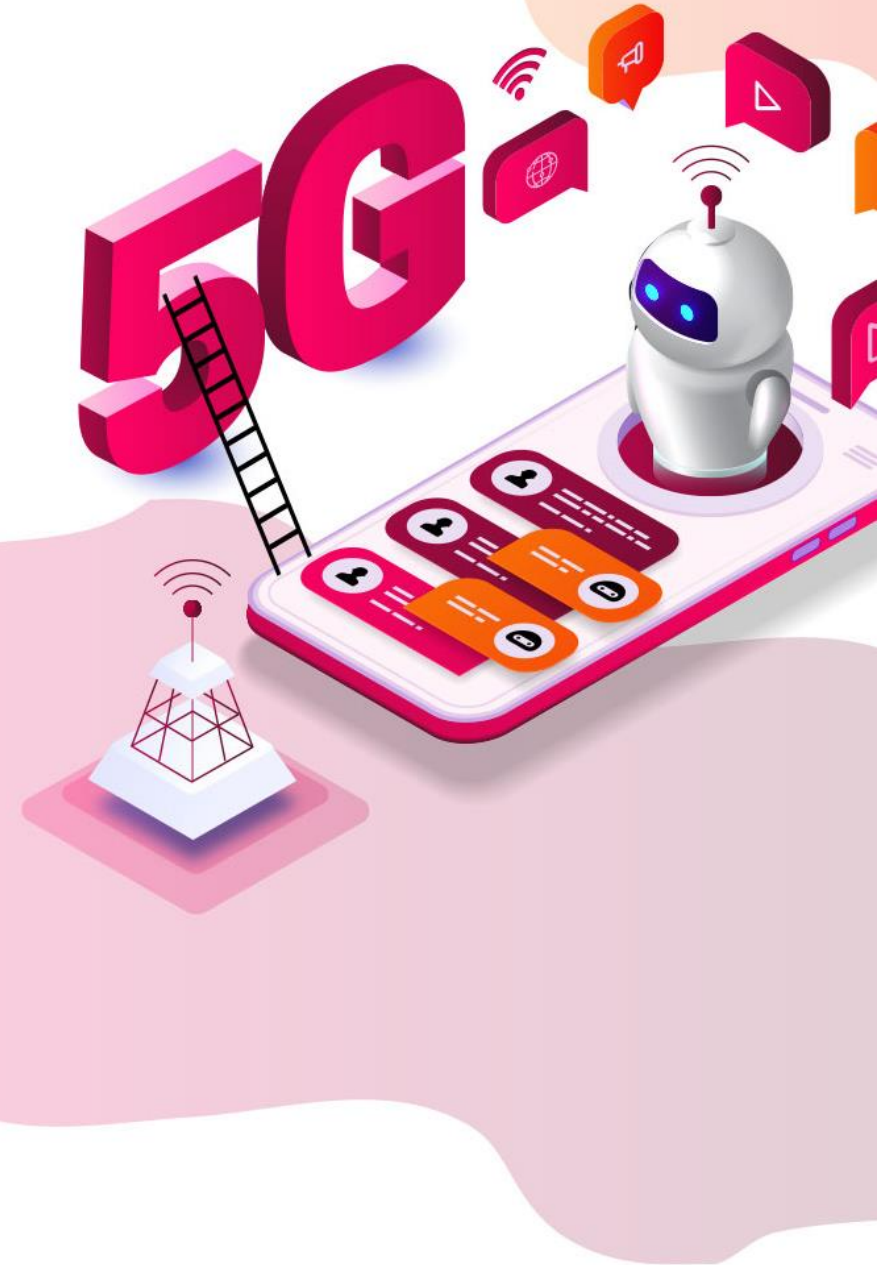
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