Sustainability and natural environment protection blueprint

Project Technical Lead:

Project Committers detail:

Committer	Committer Company	Committer Contact Info	Committer Bio	Committer Picture	Self Nominate for PTL (Y/N)
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Presentation

Green Cyclops-Bl...unct-vDraft.pptx

GreenCyclops-Booth-v1.0.mp4

GreenCyclops-P... Deck-v1.0.mp4

Use Case Details

Attributes	Description	Informational
Type	Use Case based on Akraino definitions and works related (IoT and AI Edge, using 5G technology for communications)	
Blueprint Family - Proposed Name	AI Edge, 5G MEC System, Smart Cities	
Use Case	Create a platform with capability for natural environment surveillance and Agricultural production protection, using different edge covered areas and using autonomous equipment for a quick deployment, in combination with Cloud platform backend resources	
Blueprint proposed Name	Sustainability and natural environment protection blueprint	
Initial POD Cost (capex)	Unicycle POD (k8s version) // Satellite (only docker version) // Cruiser or Tricycle for 5G access support	
Scale & Type	X86 or ARM edge server	
Applications	AI Edge based services, using or not federated learning capabilities	

Power Restrictions	N/A	
Infrastructure orchestration	Docker and K8s(opt.) - Container Orchestration OS - Ubuntu 20.x or above OP – Optare MEC App/Service orchestration	
SDN	-	
Workload Type	Containers	
Additional Details	HiveMQ MQTT Broker Kafka Message Bus NoSQL Persistence – Elasticsearch v7.x or above SQL Persistence – PostgreSQL v12 or above Docker + k8s (k8s or lightweight - k3s/microk8s) Helm chart for platform infrastructure installation Kubernetes, Docker, Intel OpenVino, Yolov5 models, Elastic, PostgreSQL, Keycloak, Kong HQ, Python, Spring-Boot, Angular	