

# AiVader

## Redefine Networks



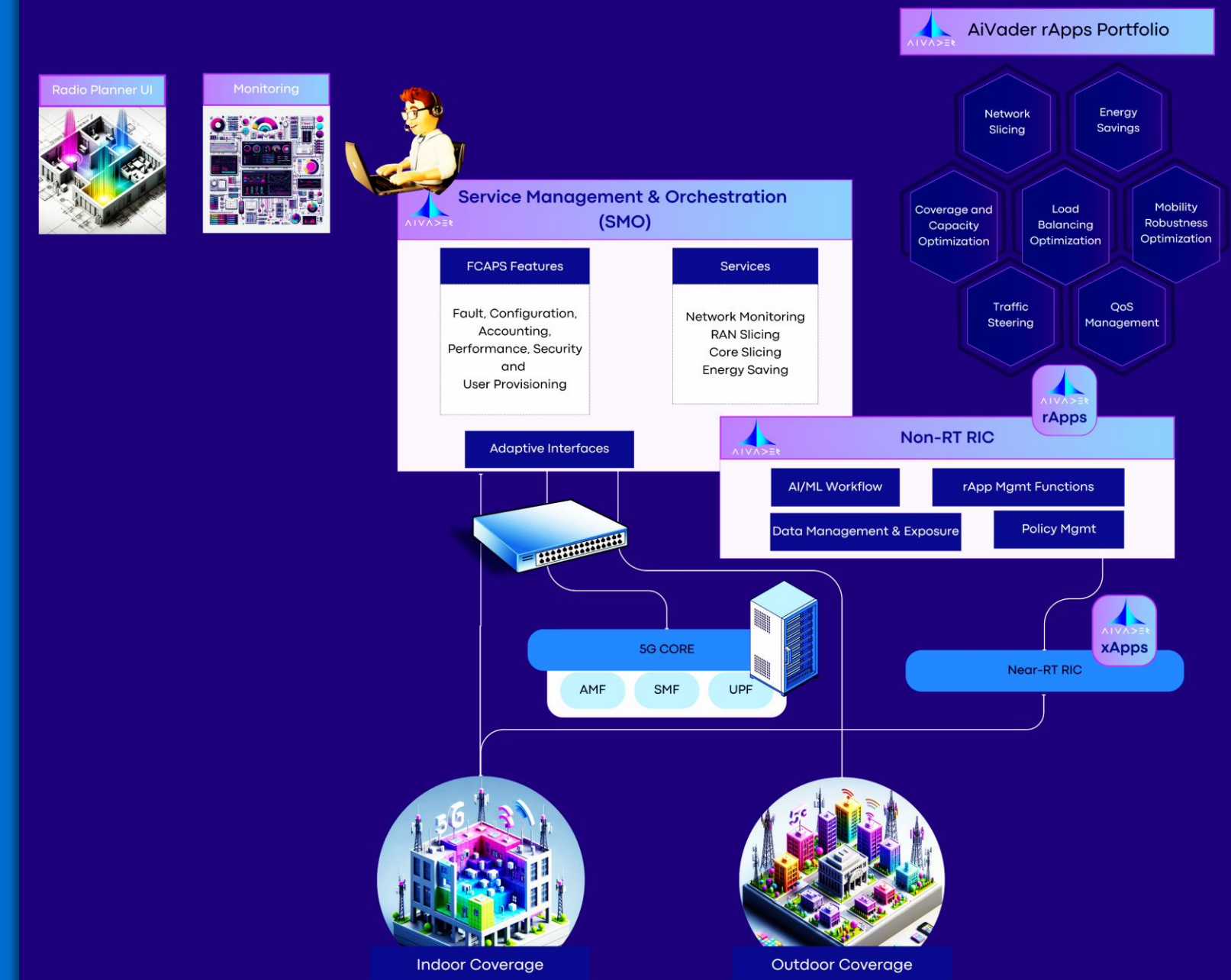
 [www.aivader.com](http://www.aivader.com) 

# About AiVader GmbH

AiVader GmbH, founded in 2021, is a spin-off from TU Ilmenau focused on revolutionizing Private 5G networks. The company provides an innovative network management solutions designed specifically for industrial environments. By offering modular, open, and intelligent solutions, AiVader simplifies the orchestration, management, and optimization of private 5G networks, enabling seamless multi-vendor integration, AI-driven automation, and energy efficiency. With a strong leadership team and strategic partnerships, AiVader is positioning itself as a leader in the growing European Private 5G market.

[www.reallygreatsite.com](http://www.reallygreatsite.com)

## ● ● ● Network Management of Private 5G Networks



# SMO for Pvt 5G

## Service Management & Orchestration

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### CI/CD and DevOps Automation

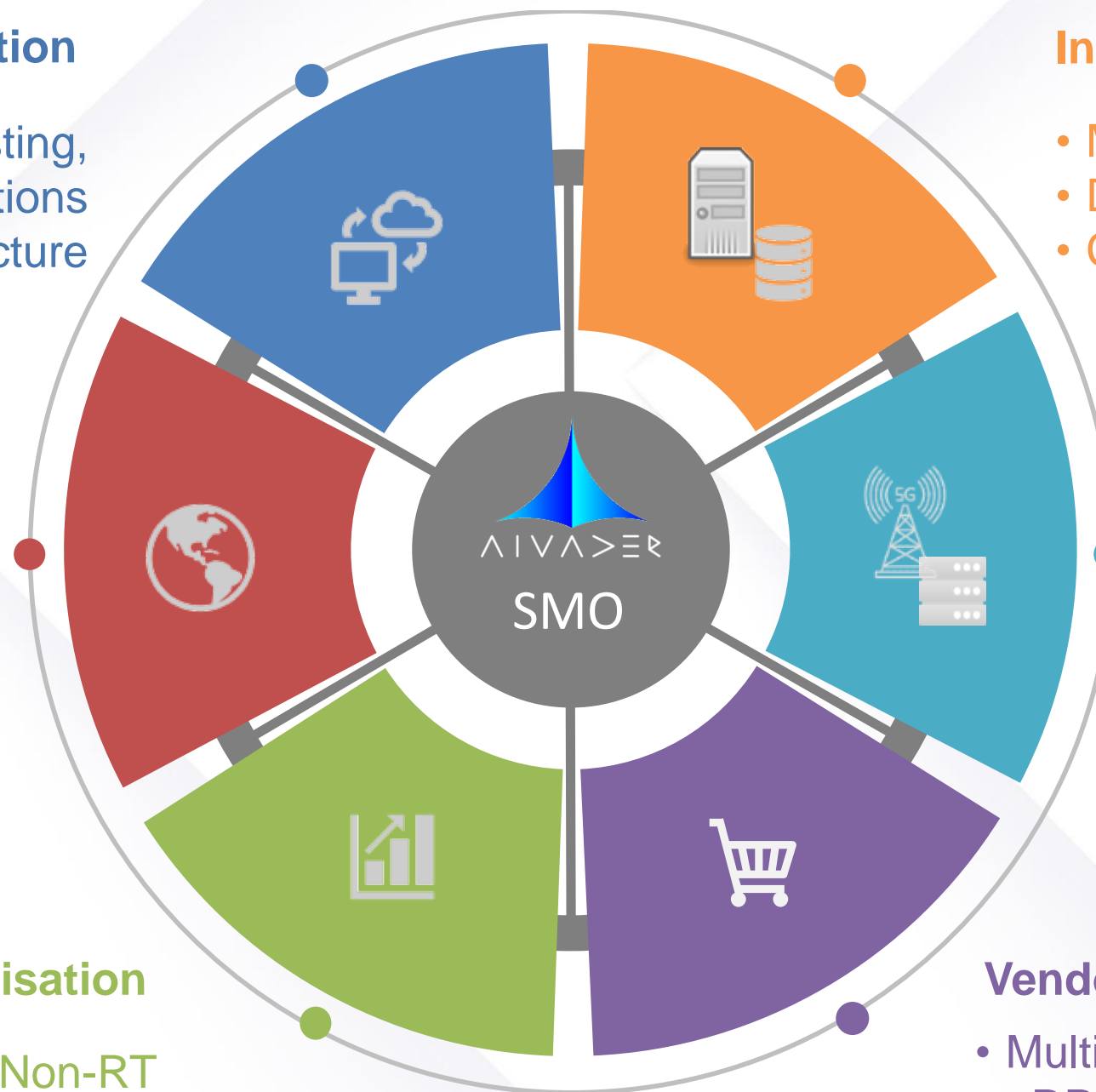
- Enables rapid updates, automated testing, and reliable rollout of network functions
  - Microservice based architecture

### Open Source Integration

- Open5GS, srsRAN, OAI
  - SDRs, USRPs

### Network Optimisation

- OpenRAN based Near and Non-RT RIC deployment
  - Manage xApps/rApps



### Infrastructure Orchestration

- Manage edge and cloud servers
- Deploy and scale RAN/Core VNFs
- Container orchestration (Kubernetes, Docker, etc)

### Core and RAN Management

- Life cycle control
- FCAPS
- OpenRAN, Network Slicing, Handovers, etc

### Vendor Agnostic

- Multi-vendor, Multi-interface (O1, O2, NetConf, Rest, gRPC, etc)



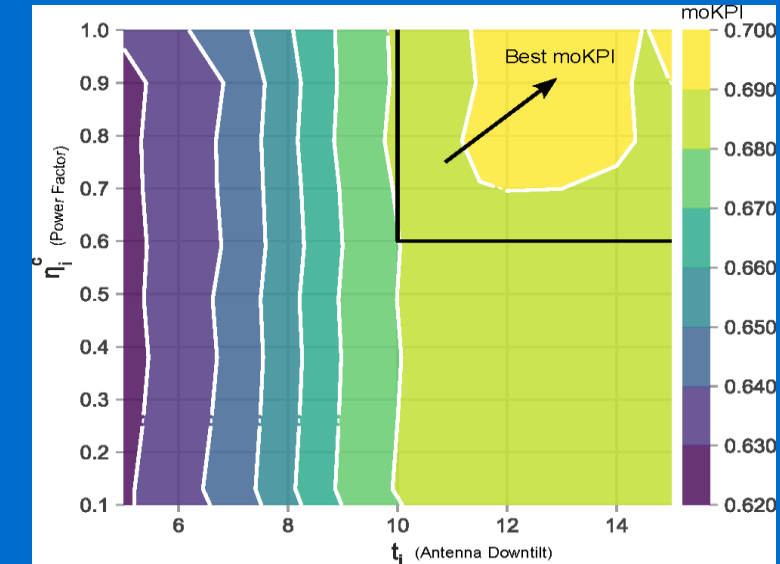


# Network Optimisation

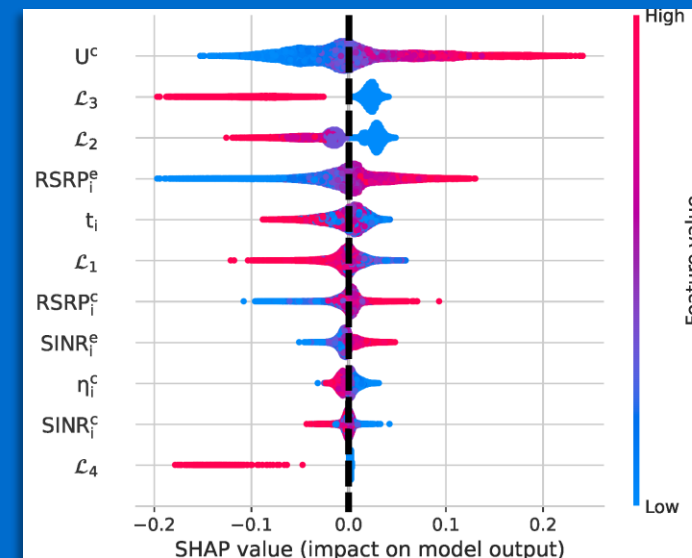
xApps and rApps based on ML and xAI

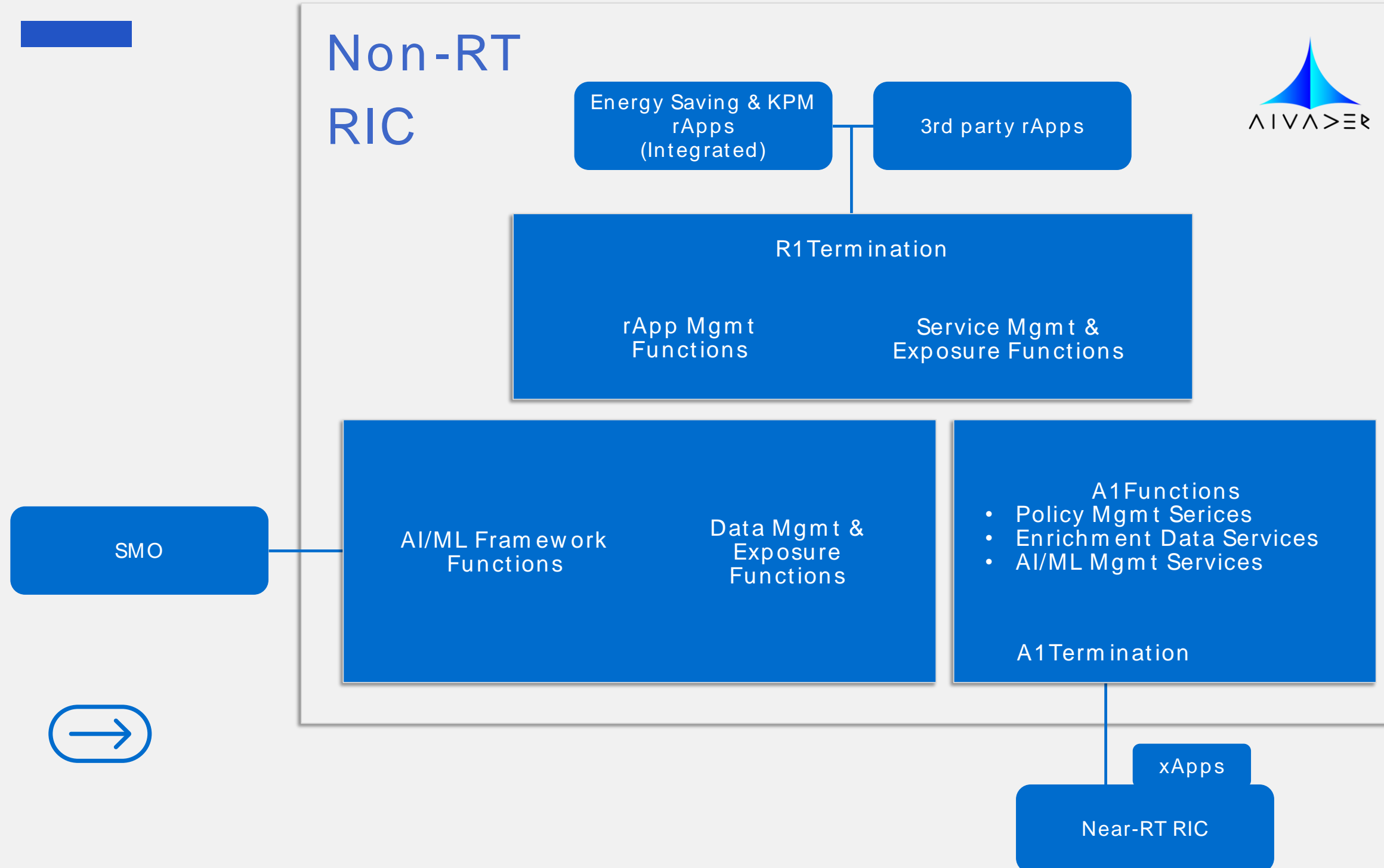
- Coverage and Capacity Optimisation (CCO)
- Energy Saving
- Handover Optimisation
- Load Balancing
- Network Slicing

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KPI Values for High Values of  $U^c$







# Projects and Partners

- **IntelliGn:** Automated network management system of end-to-end private 5G Network
- **5G-KIMA:** AI-based Coverage and Capacity rApp/xApp for OpenRAN-based campus networks
- **5G-ECONet:** Energy saving in campus networks
- **FraudDetect:** AI-based detection of fraud in distributed networks for the energy sector
- **6G Campus Ilmenau:** Flexibly expandable campus network with fast packet processing capabilities



**MICRONOVA**  
Software and Systems

**Fraunhofer**  
IIS

**exceeding solutions**  
innovative engineering company

**CUCULUS**  
SMART ACCESS TECHNOLOGIES

**nodeH**

**th** TECHNISCHE UNIVERSITÄT ILMENAU

**KEYSIGHT**  
TECHNOLOGIES

**vmware**

**THALES**  
Building a future we can all trust

**HMF**  
smart solutions

**5G** BERLIN

(one6G)

**ONF**

**INNOVNT**  
INNOVATIVE NETZTECHNOLOGIEN

Bundesministerium  
für Digitales  
und Verkehr

Bundesministerium  
des Innern  
und für Heimat

Bundesamt  
für Sicherheit in der  
Informationstechnik

Freistaat  
**Thüringen**

Ministerium  
für Wirtschaft, Wissenschaft  
und Digitale Gesellschaft





# Thank You.



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