



# Building a scalable but sustainable Edge

From Edge datacentres to community hub

**Ronald van Veen**

**Technical Solutions Architect Datacenters**

15-09-2022



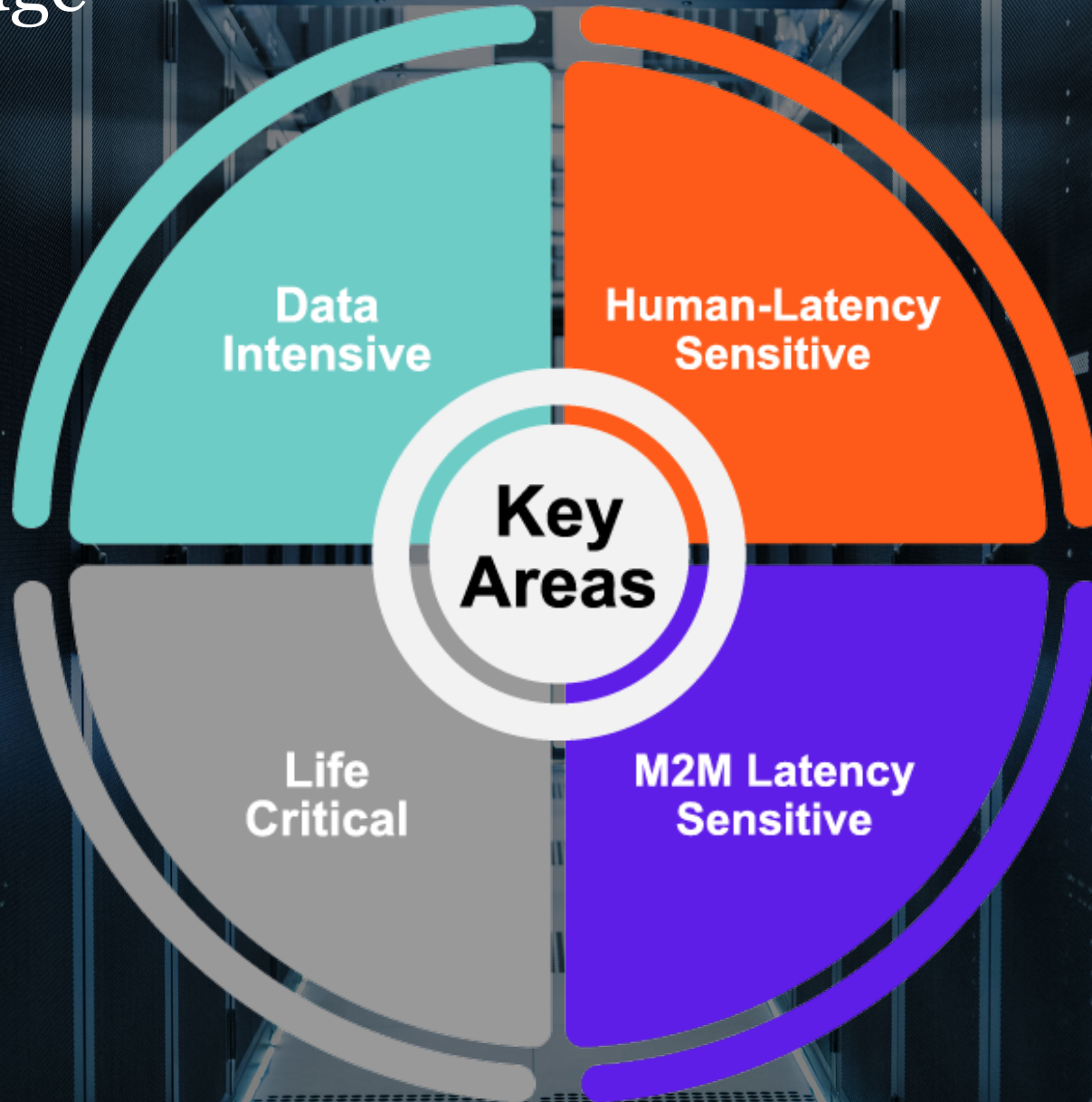


**EDGE**  
COMPUTING

Edge ... The usual story



# Defining the Edge





# Defining the Edge



Video Analytics



Condition-Based Monitoring



Advanced Predictive Maintenance



Remote Patient Monitoring



Management



Supply Chain Management



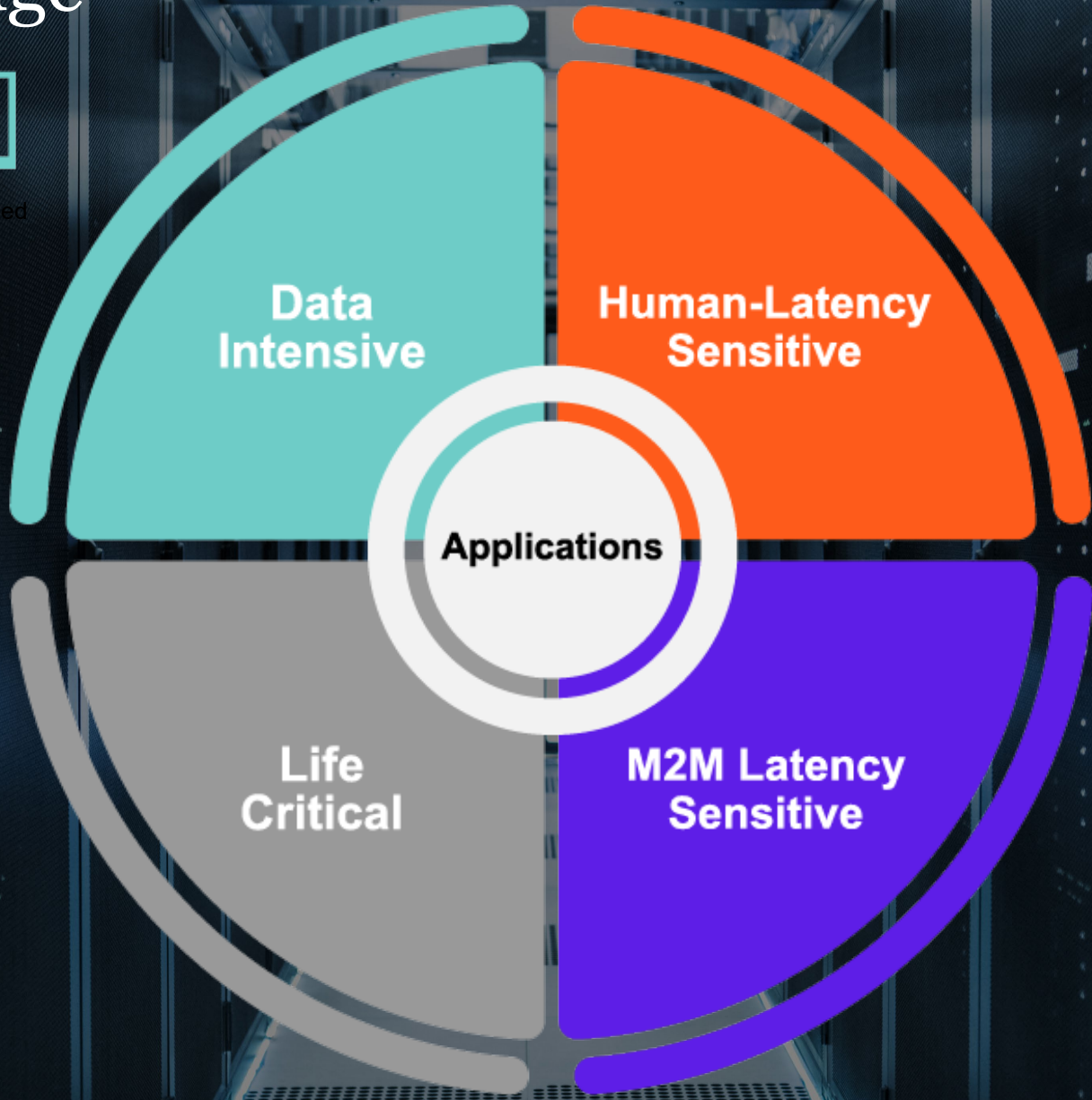
Smart Drone



Autonomous Robots



Autonomous Cars



AR/VR



Video Streaming



Cloud Gaming



Smart Grid



Connected Traffic Infrastructure



# Edge Archetypes



**Device Edge**



**Micro Edge**



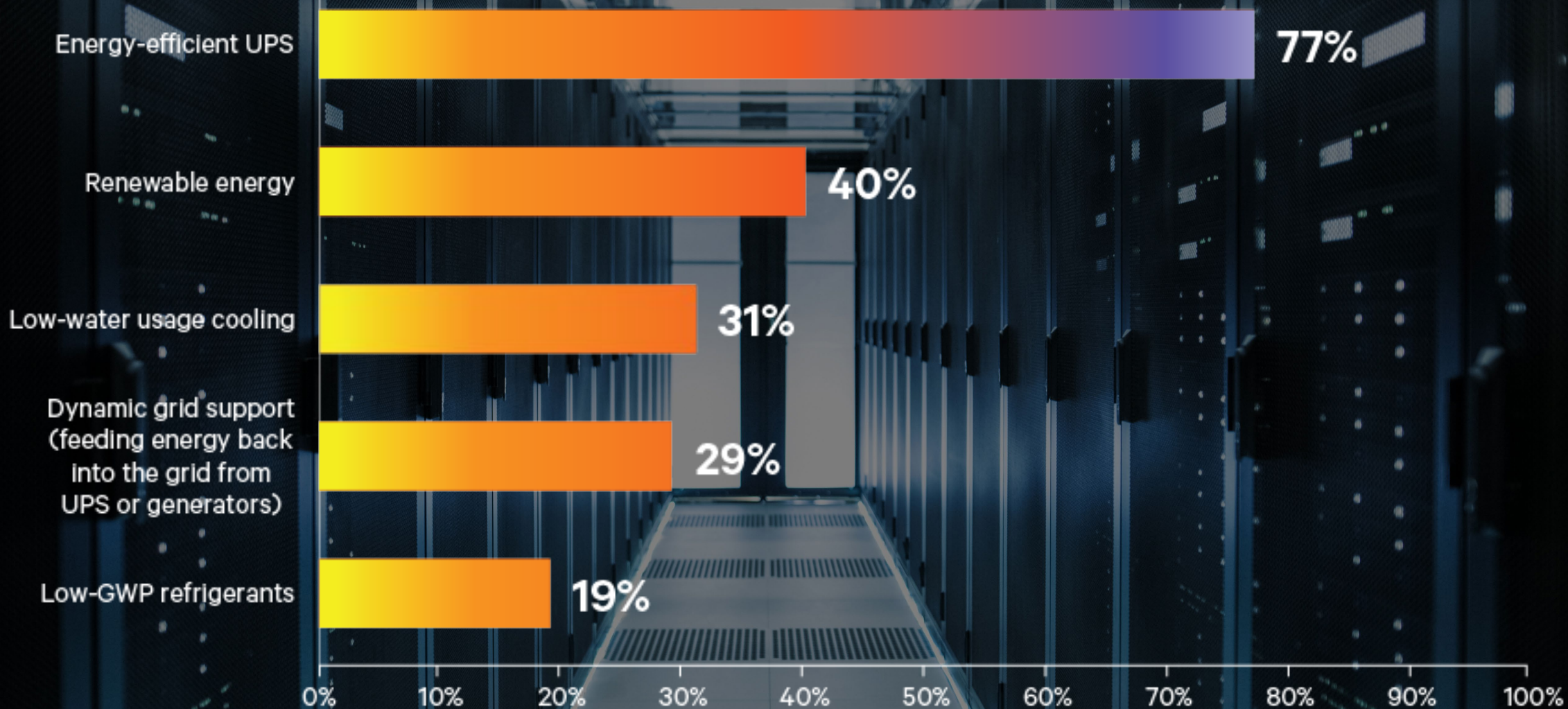
**Distributed Edge**




**Regional Edge**



# Sustainability is driving technology decisions







# Yes ... And?





# What the world is thinking about the datacenter industry

## 90 per cent

- Has no idea we actually exist

## 10 per cent

- Consuming too much energy
- We take up too much land
- We create too much noise
- We use 1900s technology like diesel generators
- We employ too few people for the space we take and the energy we consume



# So as a response to this, what do we do?

'We will be creating 10s or 100s of new large facilities every year AND we are going to create 1000s and 1000s of smaller ones on top of the large ones and link them to the larger ones.'

'The smaller ones will be closer to your home, in your backyard, ruining your view and make a lot of noise'

'We will try to get away from diesel gensets...'







# Let's think outside the box

Dynamic Grid Support

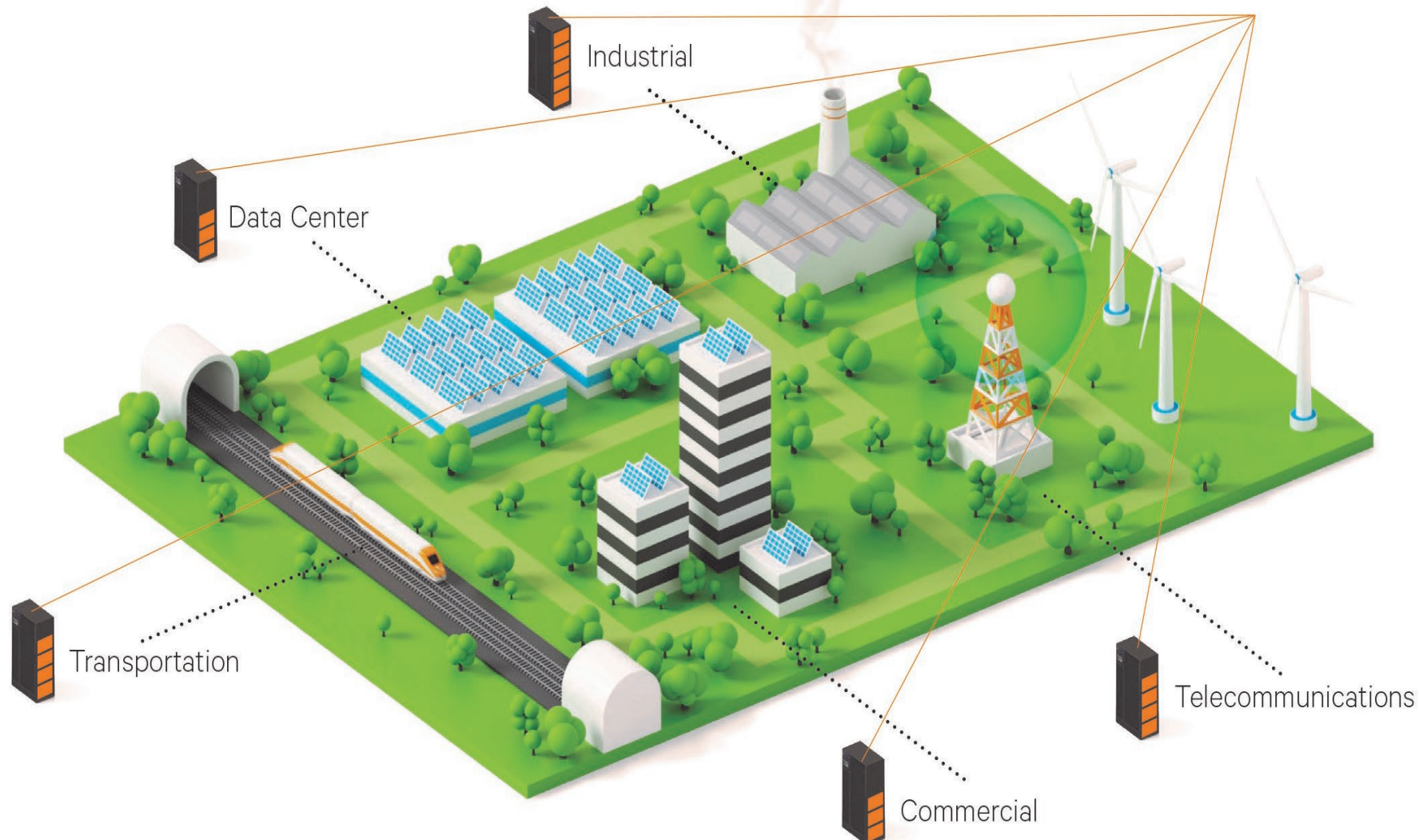
Energy management and storage

Renewable energy

Intelligent heat recovering

Giga-connectivity with low latency

Close to the 'consumer' computing



Smart, intelligent energy-district heating-connectivity hubs



# Edge Datacenters

Provide local computing and data storage capabilities

Provide top of the range fiber connectivity that can host the fiber splitter systems

Heat houses, schools, hospitals and office buildings

Be acoustic friendly using heat recovery



# Edge Datacenters

Lower the entire local upstream power infrastructure by using peak shaving algorithms

Be the energy storage location for local communities to store excess renewable energy

Provide grid stabilising services

Host Electrical Vehicle charging stations



---

**Become part of our new  
eco-system**

---

**Become a known part of the  
day-to-day life of people**

---

**Are no longer boring  
datacenters but a lot more**

---

**Get our industry closer to the  
people**

---

**Let's get some smart people in  
a room and work this together**

Datacenters  
become an integral  
part of our smart  
neighborhood  
setup



***I strongly believe  
Edge datacenters  
are a necessity for  
the industry but  
also a great  
opportunity to  
become part of a  
more sustainable  
environment,  
integrated in daily,  
normal life.***







SUSTAINABLE DIGITAL  
INFRASTRUCTURE ALLIANCE

# Enabling the future of sustainable digital infrastructure



**VERTIV™**

## Member and lead sponsor

**Ronald van Veen**

Contact me: [Ronald.vanVeen@vertiv.com](mailto:Ronald.vanVeen@vertiv.com)

Connect with me on 