



OCP SUMMIT

March 20-21
2018
San Jose, CA

OPEN. FOR BUSINESS.



Micro Modular Data Centers

Roberto Söderhäll/CBDO/Swedish Modules

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Swedish Modules

- Over 40 Years in the business of prefabricated Modules
- Over 30 Years in international affairs
- Over 20 Years experience from the Data Center Industry
- 30 minutes on stage with you today

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Our contribution to the OCP Society

Access to our IP regarding,

- 40 years of Modular construction
- 20 years of Data Center design
- Value network

Deliverables

- Drawings
- Technical specs

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New challenges



The Challenge



**Together We
Create a Robust
Infrastructure
For the Digital Society
With
Environmental
sustainability**

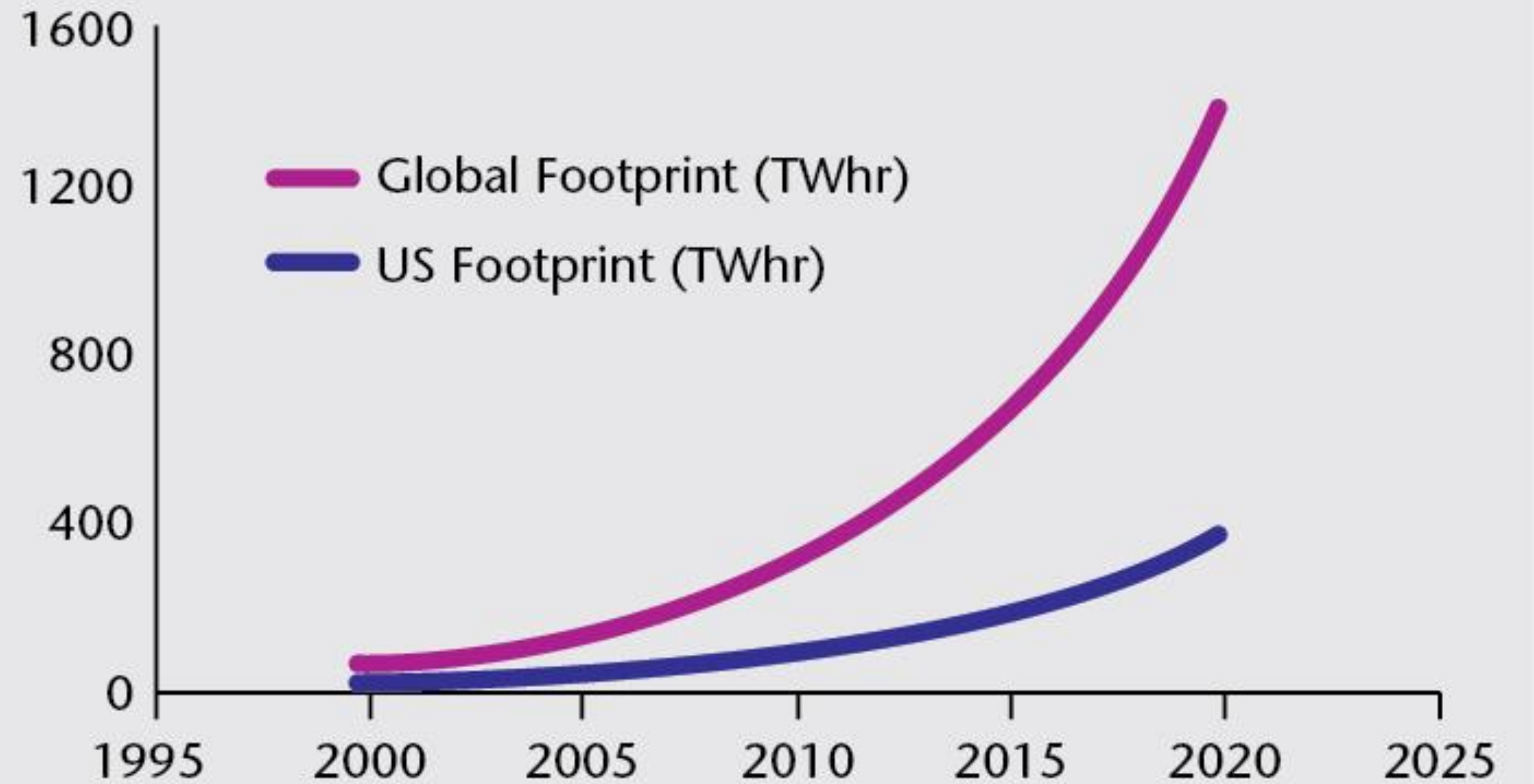
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Because..



Projection of Datacenter Electricity Use



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In the Data Center Industry *www* stands for,

What?
When?
Where?



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What?

Micro Modular Data Centers

It's the core for the new digital infrastructure

- Compute power close to the users
- Scalable
- Sustainable (in production and operations)

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Micro Modular Data Centers



Standard Module

- 13 350 (L)

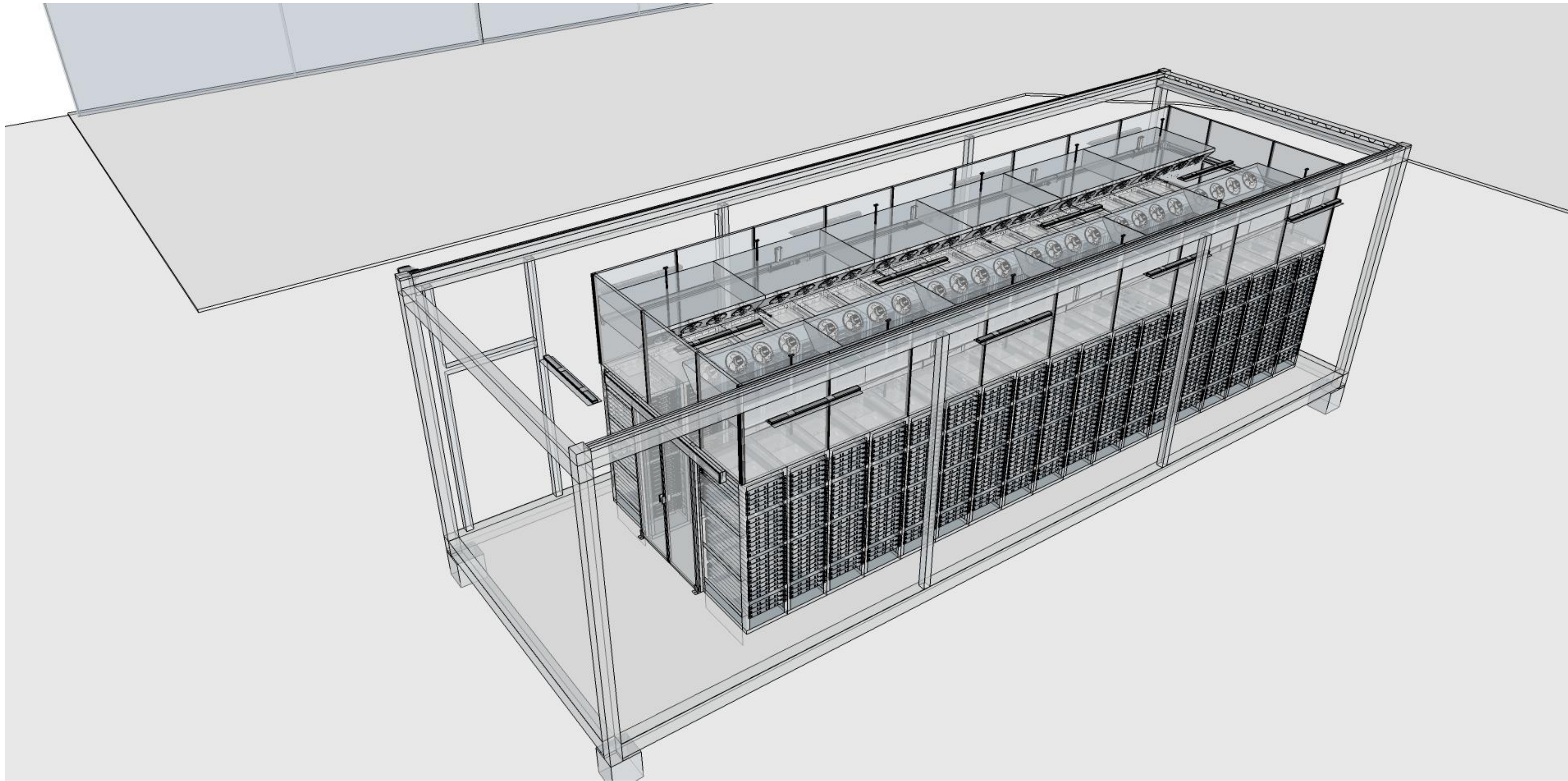
- 4 450 (W)

- 4 100 (H)

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OCP Optimized MDC [DRAFT]



- 36 OR_V2 Racks
- 10kW/rack

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360kW (N+1)



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When?

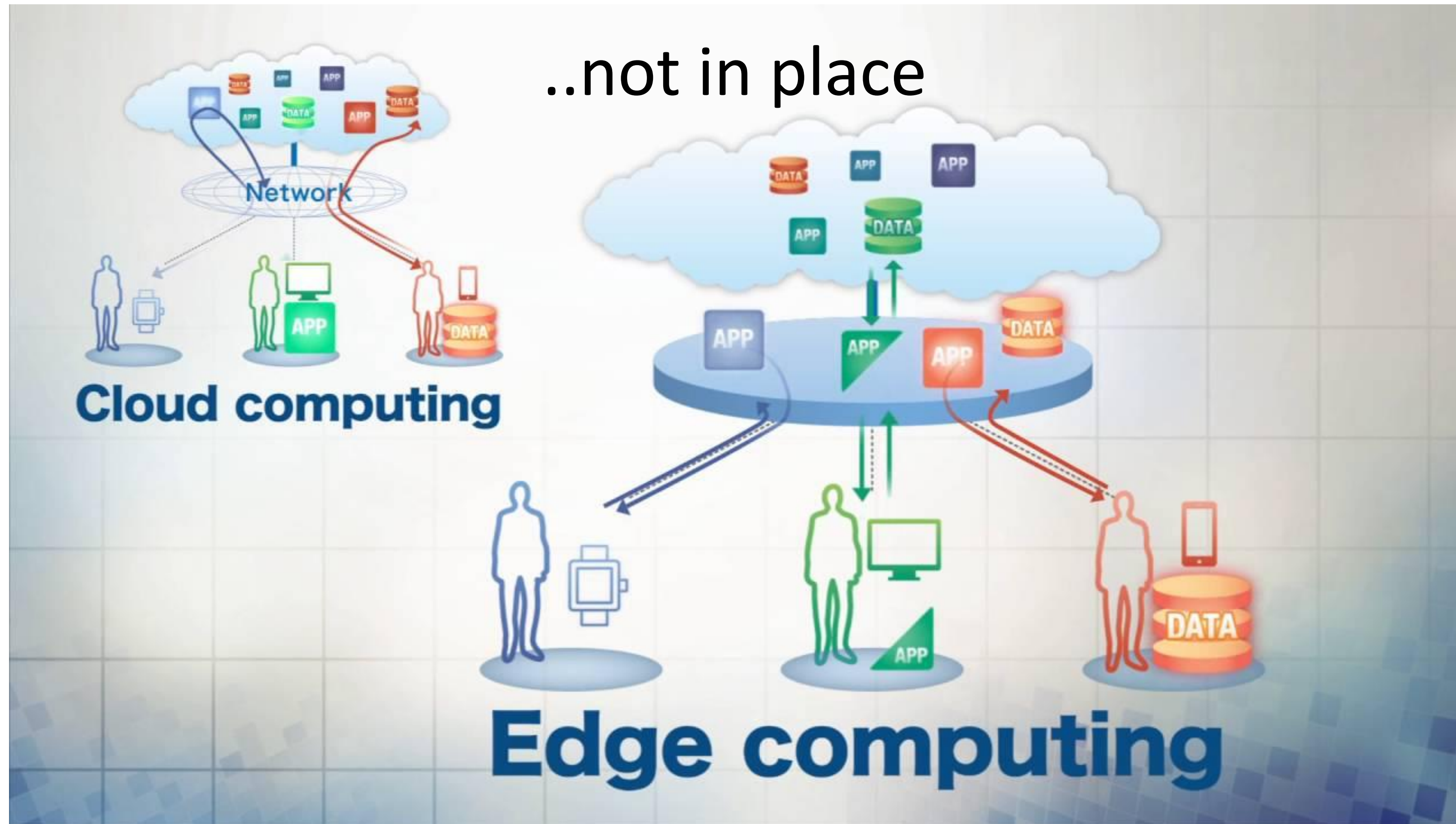
The time is now!

- 5G, *Launch this year*
- Self driving vehicles, *Already in our streets*
- Next generation of smart factories, *Industry 4.0*
- Telematics for fast trains, *Roll out in SE this year*
- Gaming and Video, *4K => 8K already in test mode*

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And the infrastructure is...



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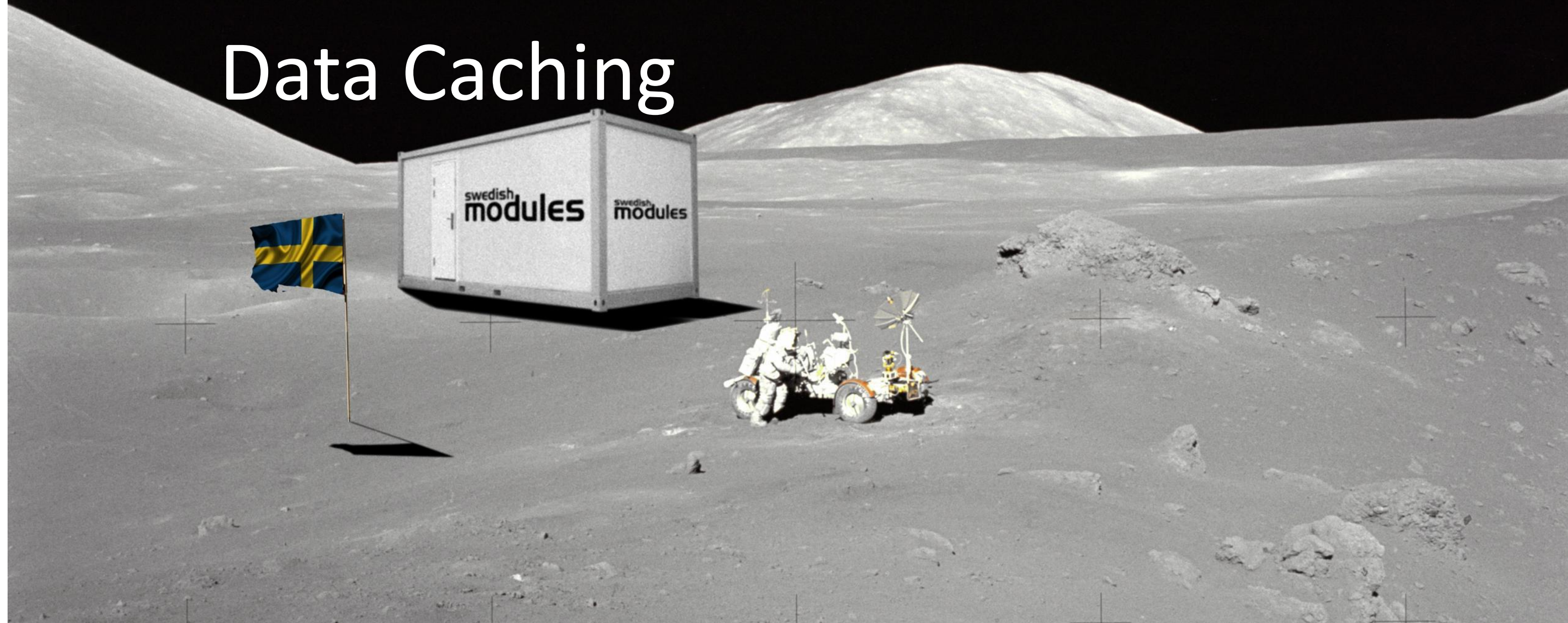
Where?

Close enough to the user

Low latency

Processing power

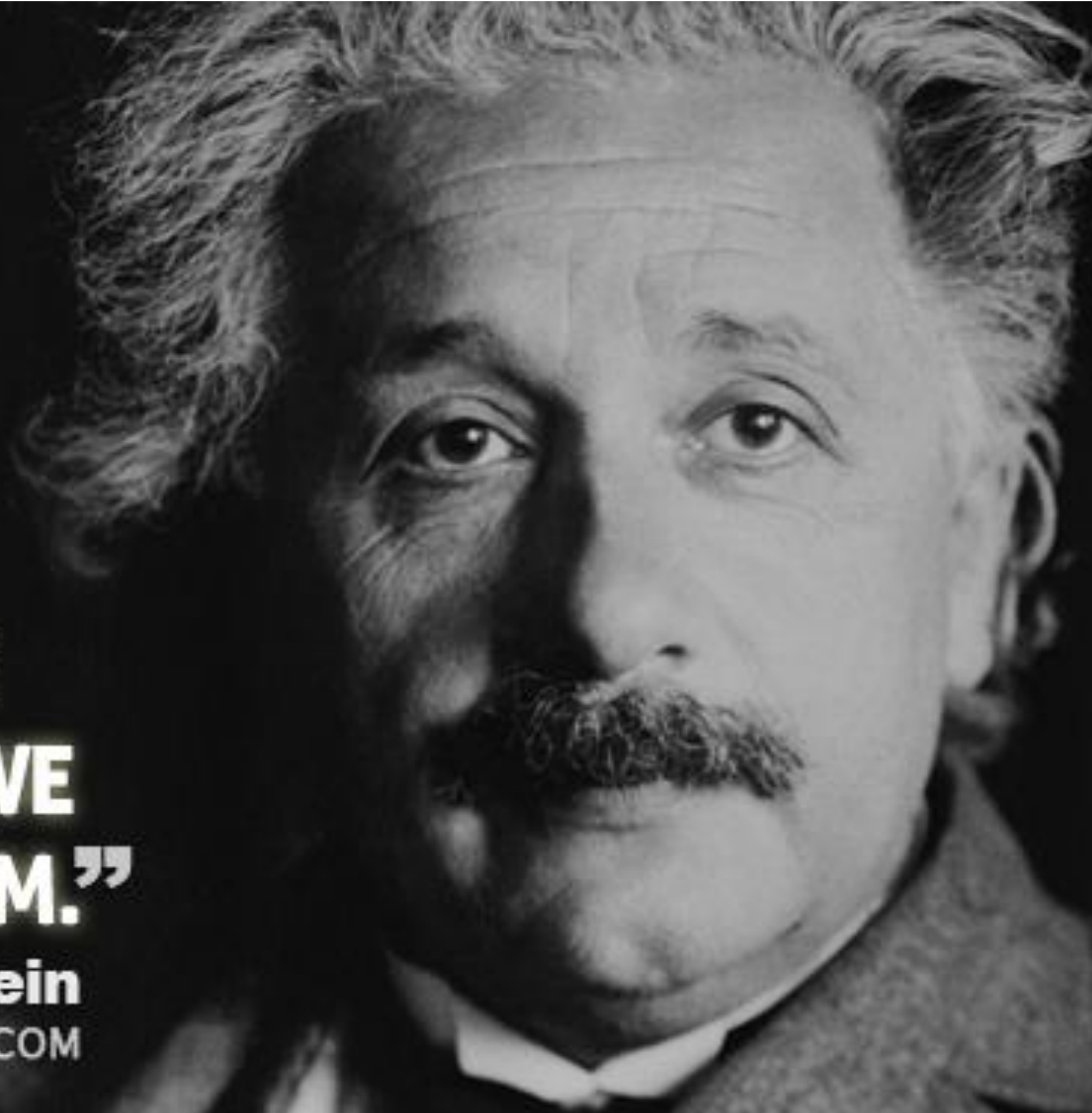
Data Caching



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So what about the new
Challenge..

A black and white portrait of Albert Einstein, showing his characteristic wild hair and mustache. He is looking slightly to the right of the camera with a thoughtful expression.

**“WE CANNOT
SOLVE OUR
PROBLEMS
WITH THE
SAME
THINKING WE
USED WHEN WE
CREATED THEM.”**

Albert Einstein
ADDICTED2SUCCESS.COM

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We created this problems by thinking...

The Data Center will only concern a few...

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But the truth is

- The Data Center will concern the whole society
- Everything is going to be connected to a Data Center!
- The access to IT-power will be as important as the access to electrical power!

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The IT revolution



Was faster than our common sense

Was focused on possibilities more than consequences

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The problem

- Data centers consumes already more energy than the aviation industry
- Data centers have over 2% off the total Co2 emission
- Data center industry is not in pace with the digitalisation of the society

Data center with Edge Computing is needed to make the digitalisation to a reality

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We have a lot of undeveloped Data Center facilities unable to meet the need of the growing IT-services market



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By understanding the expectations, we can succeed

no 1

Look at the Data Center as an asset for the basic infrastructure that will support the digital society

no 2

The Data Center should be Easy to deliver and install where it is needed
- At the Edge



no 3

Cost efficiency (*no more sub optimization of costs!*)
Energy efficiency (*no more waste of energy!*)



no 4

We should take care of the environmental sustainability within the Data Center industry

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Bury the myths

Myth

Protecting your product is the only way to Win this race!

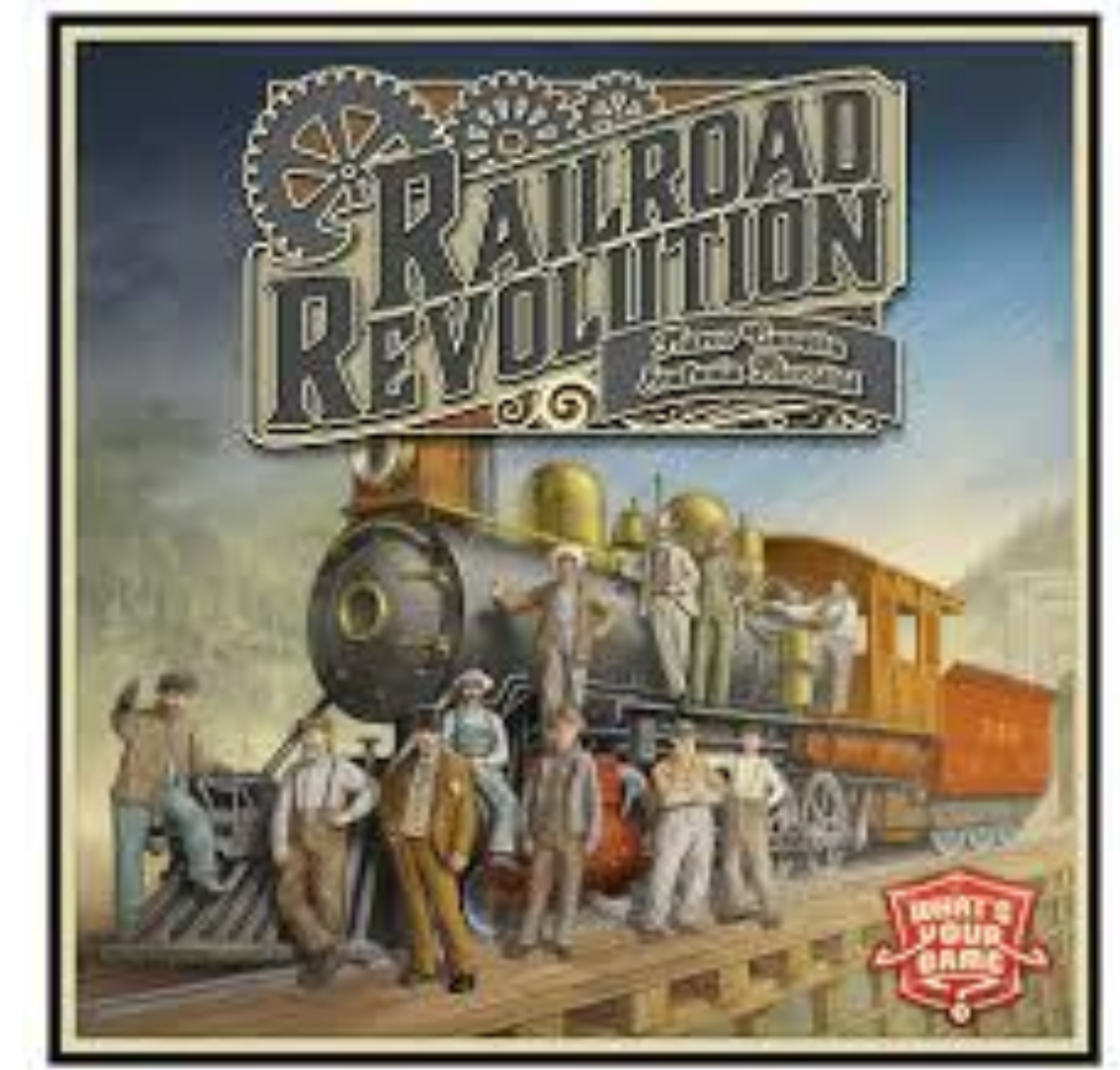
The truth

We need to share our values to survive in this fast growing industry, We cant climb this mountain alone!

Caring and sharing Communities are leading this race! (Open Source, Open Compute)

With a market growth of + 30%/year there is a need for collaboration to succeed

Lets work together to build the infrastructure for the future digital society!



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It started as a Race!



And need to be a Joint venture!

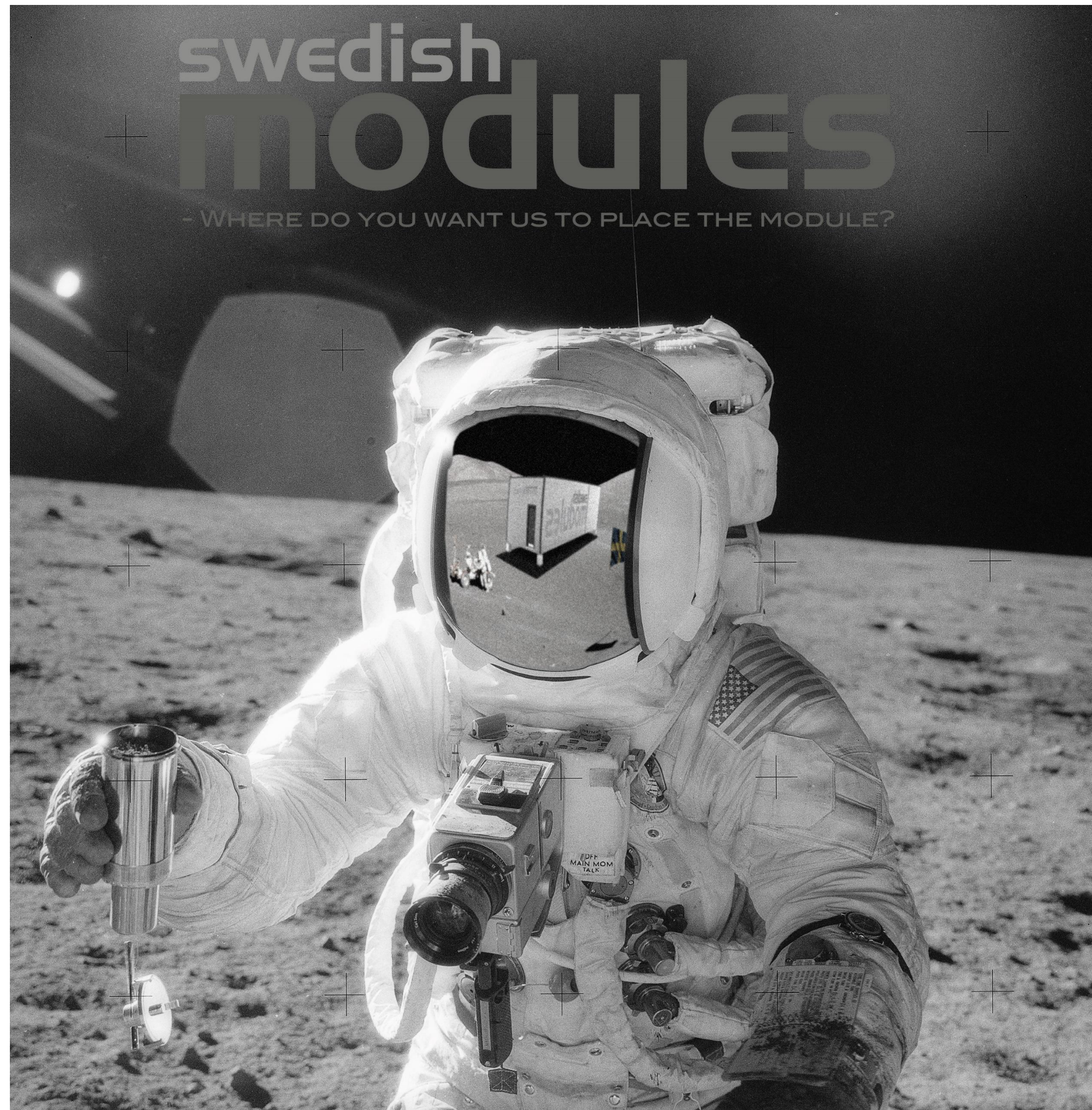


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The future is built
on,

- Cooperation
- Partnering
- Generosity
- Curiosity



The future is ours
if we are,

- Humble
- Generous
- Curious

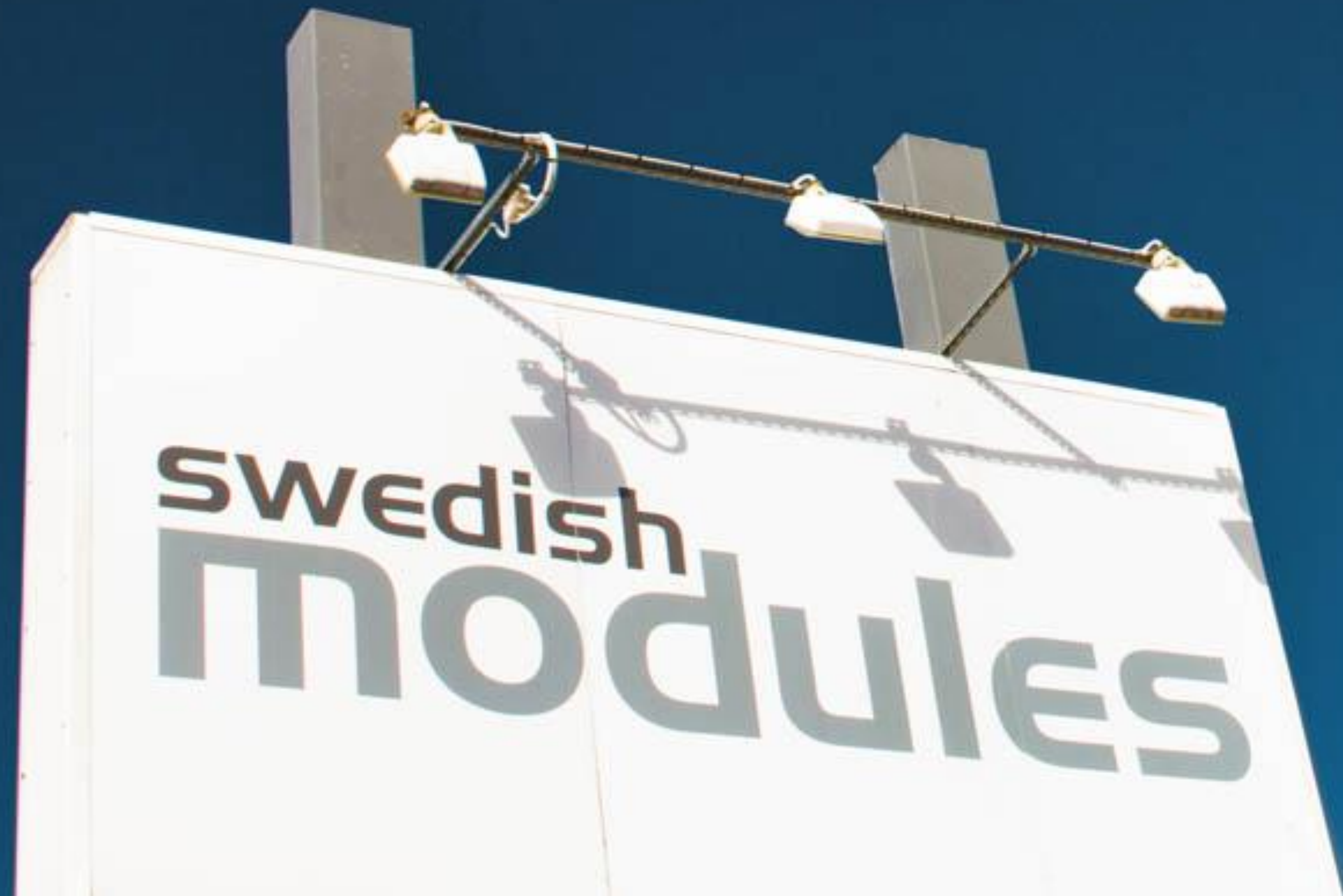
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Everything is going to
be connected to a
Data center so let's
enjoy the ride!

Thank you for listening!

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