



A WARM WELCOME



By Gloria Fluxà
Marketing Director



Agenda



The Modern World & Immersion Cooling



Daniel Pope | Founder & CEO

[Live Demo] The SmartPodX & SmartPodXL



Pol Valls | Founder & COO

[Live Demo] The Best Kept Secret: Smart Coolant



Peter Cooper | PhD, Chemical Eng.

[Live Demo] A datacenter in-a-box: The MicroPod



Adrian Whelan | VP of Partners & Business Dev.

Datacenters that Make sense (scale & automation)



Scott Noteboom | CTO

Q&A

All team



THE MODERN WORLD & IMMERSION COOLING





Technology Challenges

- → More density
- → Less Latency

Al & Machine learning

Blockchain & Crypto

IoT, Edge, 5G, Cloud









2020

500 BILLION **kW Hours of electricity** expended.

Consumption & Emissions

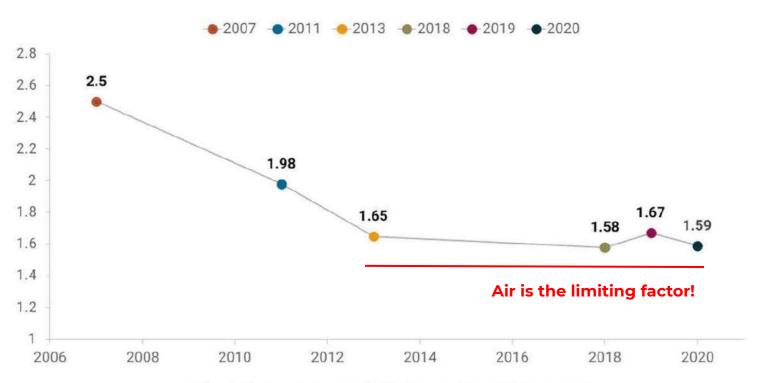
2020

354 MILLION METRIC TONS
Of Carbon Dioxide, CO2.





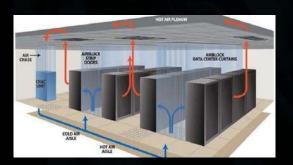
Environmental Impact





Why Immersion Cooling?

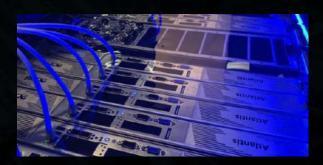
Air Cooling



Liquid Cooling



Immersion Cooling



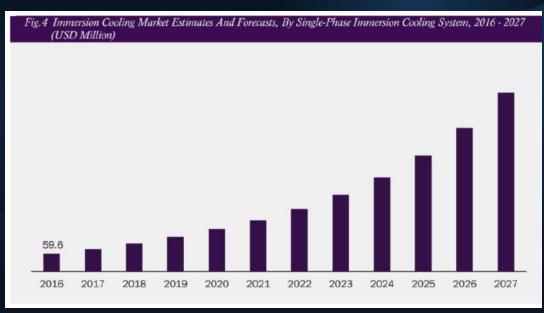


Why Immersion Cooling?

 The Global immersion cooling market is expected to witness growth at a CAGR of 22.8% from 2020 to 2027

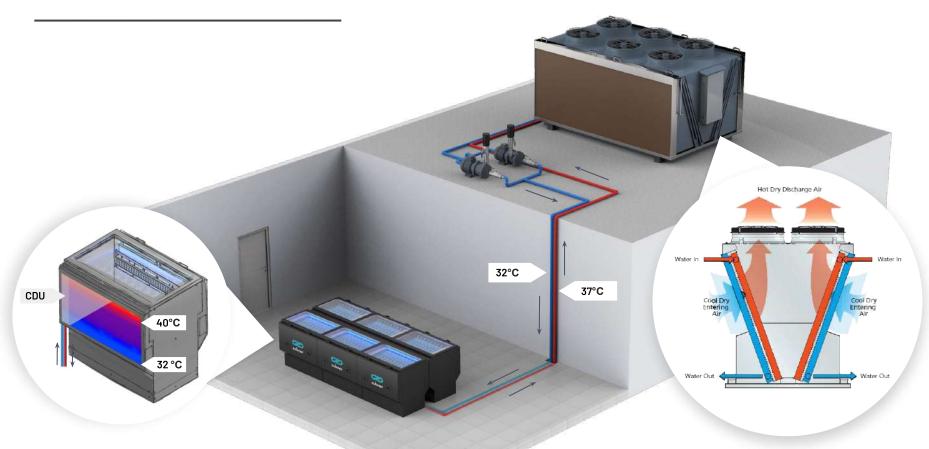
- DC construction
 is anticipated to grow
 at 21% / year in the
 next 3 years
- **29 billion** devices will be connected to the global network by 2022

More than half of those being IoT and Edge devices





How does it work?





When is the Smart Choice?



reduce energy consumption



increase computing density per sqm



reduce building costs



reduce latency & increase deployment speed



SIMPLIFYING SUSTAINABILITY SmartPodX & SmartPodXL







How would you define the Most Efficient & Sustainable Datacenter?





COST efficient



Sensible USE of RESOURCES



SUSTAINABLE behaviour



BEST performance



A PUE <1.03 and reduce energy consumption



Increase computing density per sqm



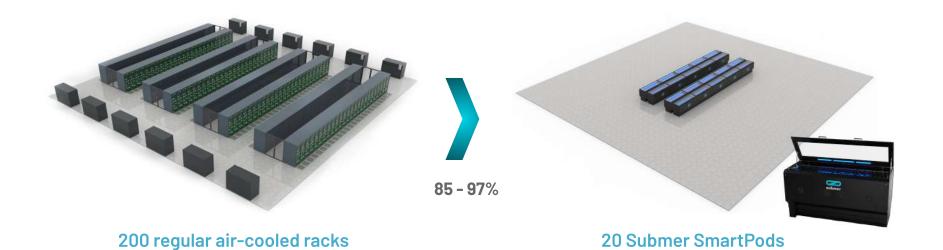
COST efficient



Unrivalled TCO



Space < 30 sqm



Space > 1,000 sqm



SENSIBLE use of Resources



With a SUSTAINABLE behaviour

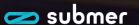




BEST KEPT SECRET SMART COOLANT



By Peter Cooper PhD, Chemical Engineer



What is Submer's Smart Coolant?

Hydrocarbon Synthetic fluid Developed In-house Dielectric & tailor-made for electronics



What is Submer's Smart Coolant?

15 YEAR LIFESPAN

- Non-Corrosive
- Non-Oxidative
- No fluid loss

PROTECTS IT HARDWARE

- Barrier against dust & moisture
- Thermal uniformity
- Sealed environment

ENVIRONMENTALLY & PEOPLE FRIENDLY

- Non-toxic
- Biodegradable
- Non-Flammable





THE MICROPOD A DATACENTER IN-A-BOX



By Adrian Whelan

VP of Partnerships, Partner Sales & Business Development



Technology Challenges

- → More density
- → Less Latency

Edge Computing Cloud and IoT 5G and Connected car











Micropod **Immersion Tank** Secondary **Protection Lid Primary Sealed Lid** Integrated Chiller Cable Pass-throughs or Patch-panels Convertible Wheels/feet



Micropod



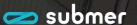
- Up to 7 kW of heat dissipation
- Integrated secondary cooling
- Ready for outdoor operations



DATACENTERS THAT MAKE SENSE



By Scott Noteboom



What is a "Datacenter that makes sense" exactly?

To enable next generation cooling and automation for data & energy-intense environments by highly-efficient & sustainable technologies.

Solving today's challenges and powering the use cases of the future.



What is a "Datacenter that makes sense" exactly?

Smart DC

Sustainable

Efficient

Future-proof

Positive Impact

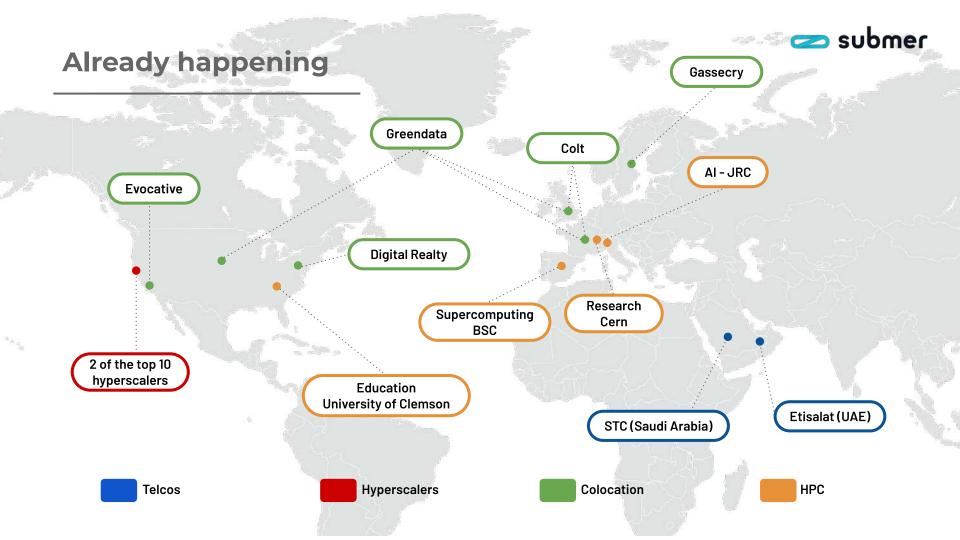
Slash TCO

Site Agnostic

Immersion Cooling

Robotics

Energy Storage





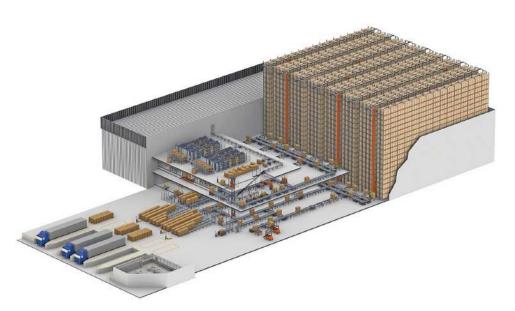
Robotics: Scale & Automation







Robotics: Scale & Automation



+30%

Of DC that fail to successfully adopt Al & Automation will no longer be operationally or economically by 2020.



Robotics: Scale & Automation

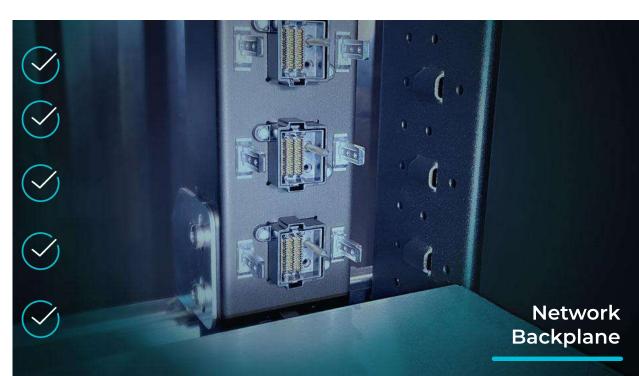
Improved Sustainability & Efficiency

Remove the need for cables

Facilitate autonomous serviceability of networking & server nodes

Take intra-rack communication to the next level

Enable a new generation of TOR switch density gains





Ask your questions to the Team!



DANIEL POPECEO



POL VALLS



ADRIAN WHELANVP of Partners



PETER COOPER PhD, Chemical Eng.



SCOTT NOTEBOOM CTO



THE SUBMER EXPERIENCE 2021

JANUARY 21ST





