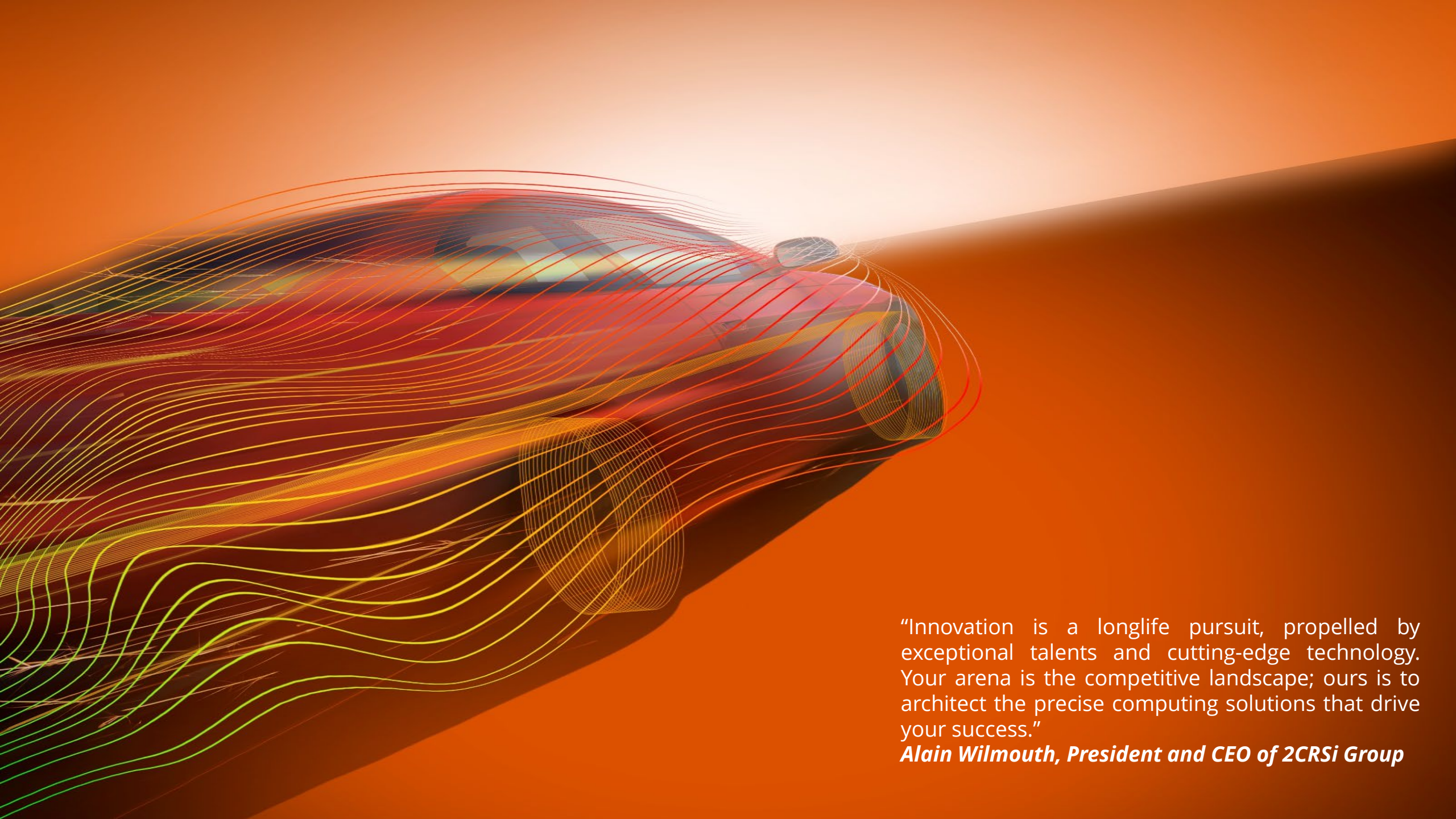


## **INVESTORS PRESENTATION**

Maison de l'Alsace  
39 av. des Champs Elysées  
75008 PARIS



January 31, 2024



“Innovation is a longlife pursuit, propelled by exceptional talents and cutting-edge technology. Your arena is the competitive landscape; ours is to architect the precise computing solutions that drive your success.”

***Alain Wilmouth, President and CEO of 2CRSi Group***

# A GLOBAL GROUP WITH LOCAL TEAMS



**\$200m**  
2022/2023



**+160**  
Employees

**5**  
Facilities

**15**  
Offices

**50**  
Countries

**Factories**

**EUROPE**

Strasbourg, France  
Manchester, UK

**AMERICA**

Fremont, CA  
Rouses Points,  
NY

**APAC**

Chennai  
*(upcoming)*

**Offices**

**EUROPE**

Nanterre-Paris, France  
Strasbourg, France  
Toulouse, France  
Brussels, Belgium

Manchester, UK

**AMERICA**

Rouses Points, NY  
New York, NY  
Chateaugay, NY  
Newark, CA  
Montréal, Canada

**MIDDLE EAST**

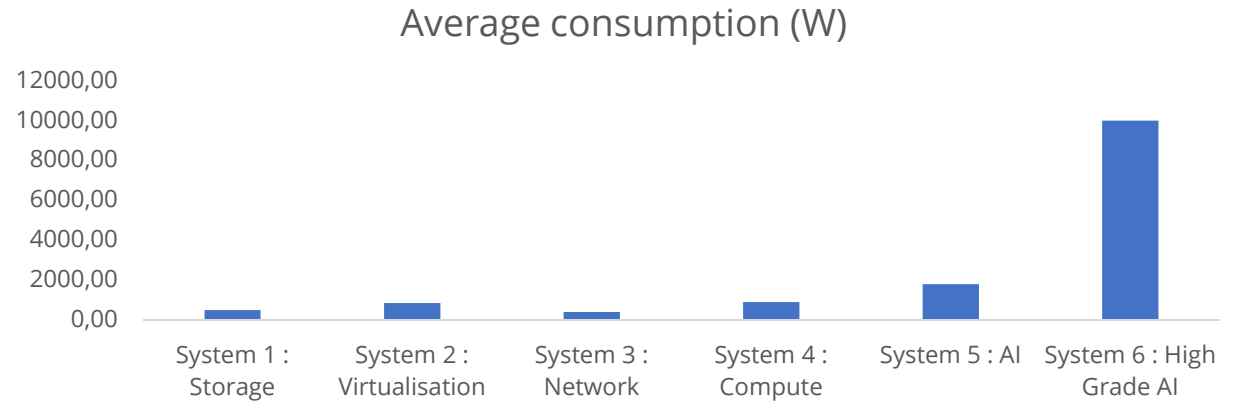
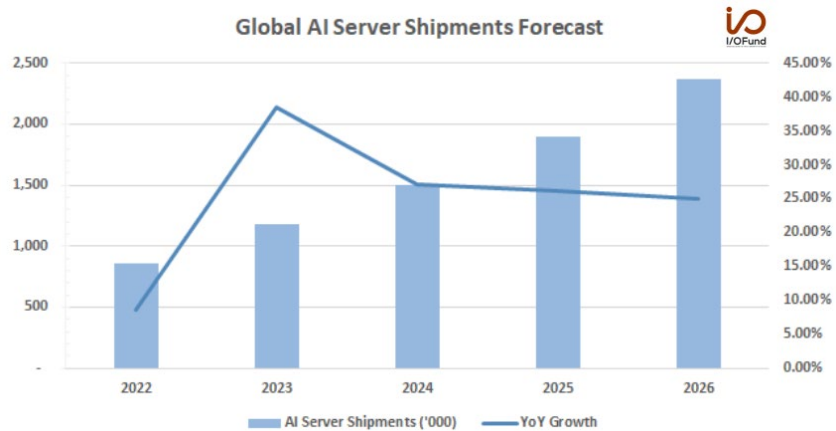
Dubai  
Abu Dhabi  
Ryad (upcoming)

**APAC**

Singapore  
Chennai

# GLOBAL SERVER MARKET TRENDS

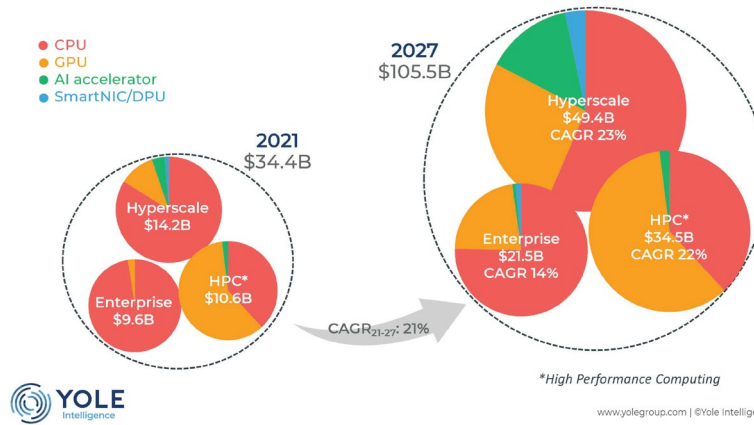
**FACT #1 AI is everywhere, ... and as deployment start, challenges appears**



**FACT #2 Hyperscalers represent more than 50% of all deployed applications in 2023**

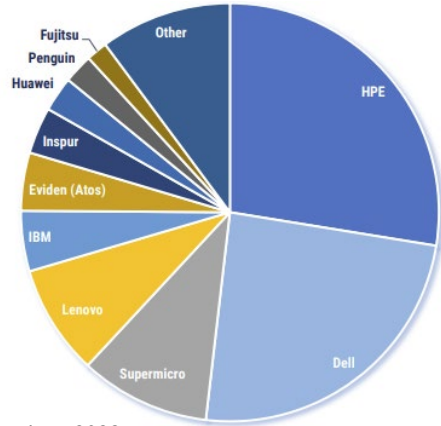
## 2021-2027 SERVER PROCESSOR GENERATED REVENUE FORECAST

Source: Computing and AI for Data Center 2022 report, Yole Intelligence, 2022



# GLOBAL SERVER MARKET TRENDS

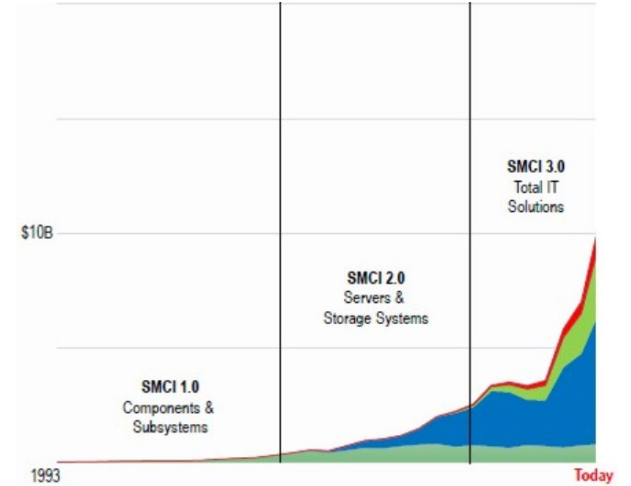
**FACT #3 OEMs (Dell/HPE/SMC/GC) are going more direct** to customer since COVID



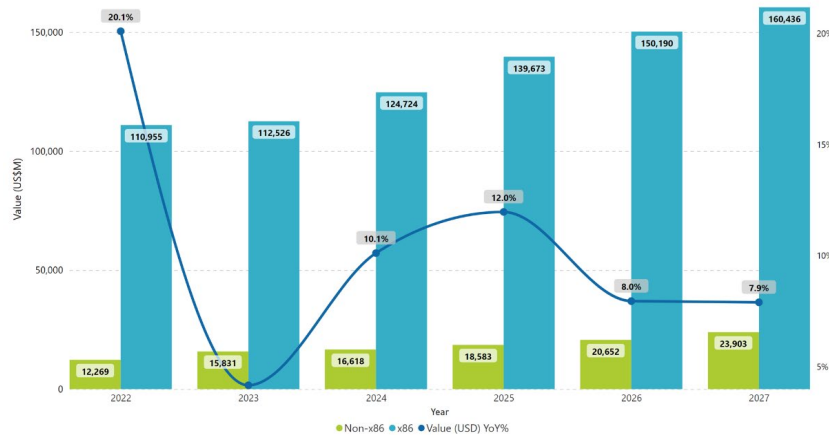
HPC Server market share – HPC Wire – June 2023

- **5S: Software, Service, Switch, Storage, Security & More**
- **Total IT Solutions: Enterprise, OEM Appliance / Cloud**
- **Complete Systems**
- **Subsystems & Components**

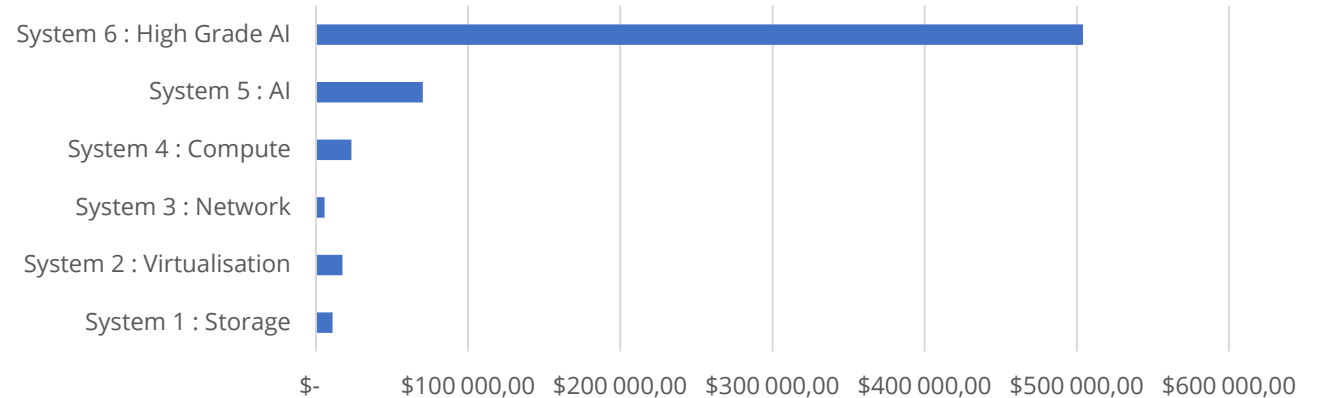
Business representation from 1993 to 2023 at Supermicro – SMC Annual report 2023



**FACT #4 Server volume growth is getting lower while value is skyrocketing**



Worldwide Server Market Forecast 2022 - 2027 Value (US\$M) - IDC Source



Average system price per type of system 6 – 2CRSi Market report H2 2023

# THE CURRENT DATA CENTERS SHOW THEIR LIMITS

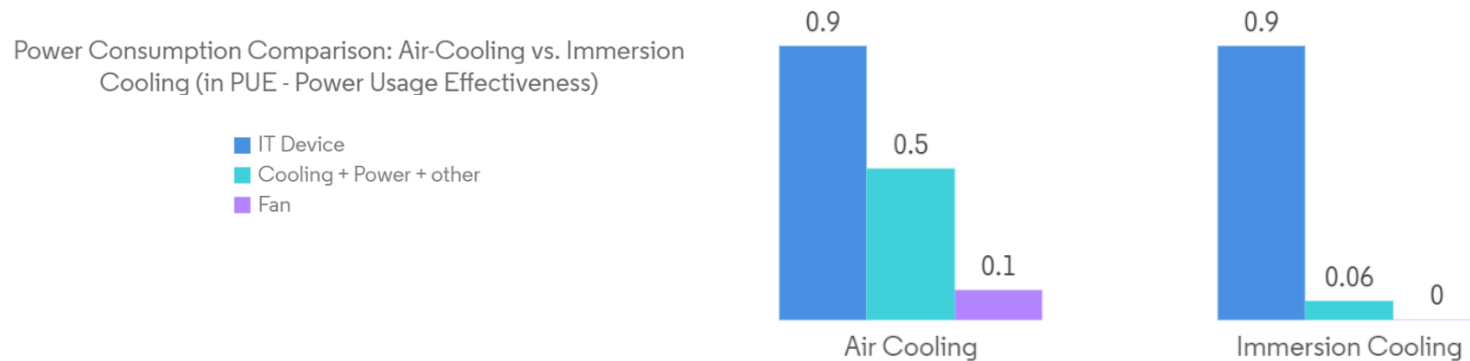
**FACT #5** The current offer cannot match the demand of Data Centers matching AI and other compute needs

The increasingly sophisticated AI services from the hyperscalers mean power requirements in data centers are likely to surge in the coming years (*Jones Lang LaSalle Report, H1 2023 North America Data Center Report*)

While the hyperscalers typically need **10-14kW per rack** in existing data centers, this is likely to rise to **40-60kW for AI-ready racks** equipped with resource-hungry GPUs. This means that overall consumption of data centers across the US is likely to reach **35GW by 2030**, up from 17GW in 2022.

Existing markets are already struggling to meet demand. In Northern Virginia, the largest data center market in the world at 3,400MW, **availability** is running at **just 0.2 percent**.

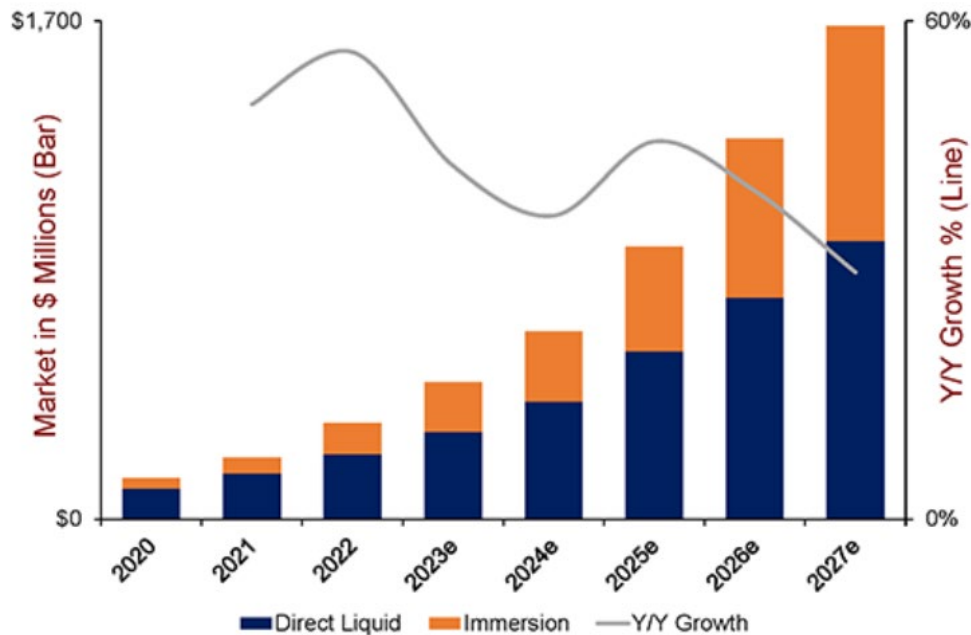
**FACT #6** With increasing power demand, energy efficiency is paramount



# LIQUID COOLING TECHNOLOGIES GETTING MAINSTREAM

**FACT #7 Liquid cooling**, either Immersion or Direct to Chip, **is going mainstream** as they represent the only solution **to deploy AI at Scale**

**Data Center Liquid Cooling Market Overview**



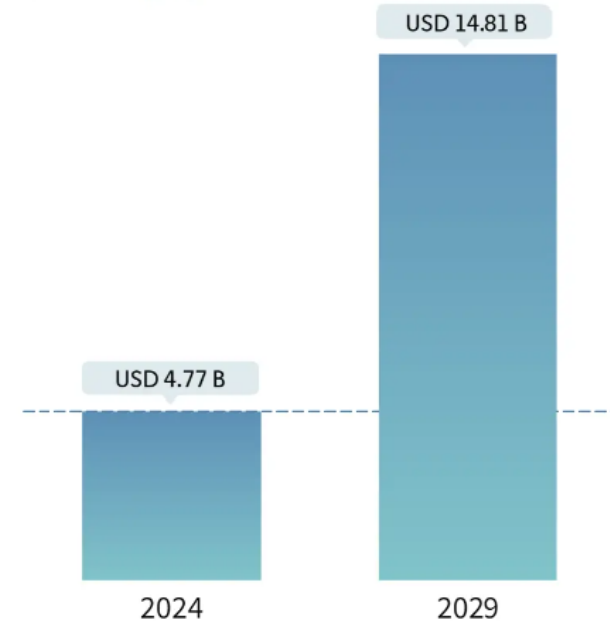
Source: Dell'Oro Group January 2023 5-Year Forecast



**Data Center Liquid Cooling Market**

Market Size in USD Billion

CAGR 25.44%



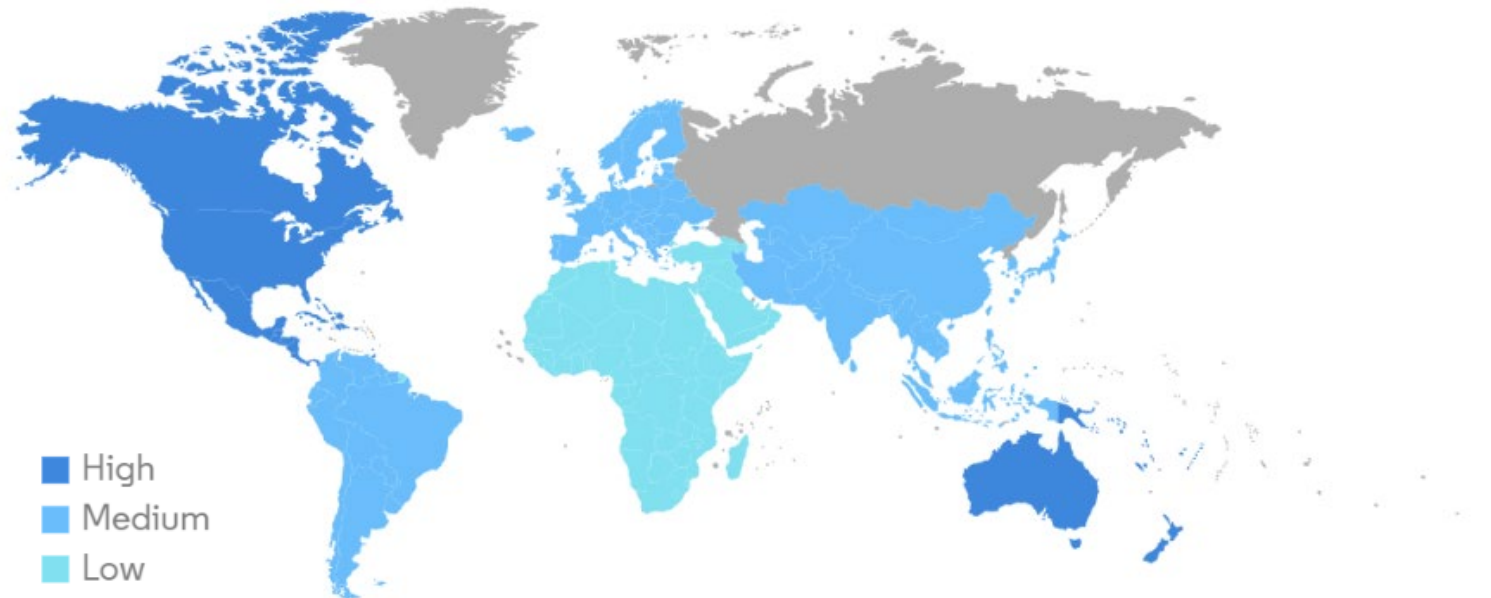
Data Center Liquid Cooling Market Size & Share Analysis - Growth Trends & Forecasts (2024 - 2029) Source: AlfaLaval & SchneiderElectric

# LIQUID COOLING IS EXPANDING AT DIFFERENT PACE

**FACT #8** North America remains at the forefront of computational technology adoption, pioneering the integration of advanced liquid cooling techniques in Direct Liquid Cooling (DLC) and Immersion systems for operational deployment.

Data Center Liquid Cooling Market - Growth Rate by Region (2022-2027)

As the surge in Artificial Intelligence (AI) and High-Performance Computing (HPC) demands escalates, the primary application continues to be concentrated on high-intensity computing clusters and intricate simulations.



*Data Center Liquid Cooling Market Size & Share Analysis - Growth Trends & Forecasts (2024 - 2029)*

*Source: AlfaLaval & SchneiderElectric*

<https://www.mordorintelligence.com/industry-reports/data-center-liquid-cooling-market>



# ONE GROUP, DIFFERENT BRANDS TO ANSWER ANY OF YOUR CHALLENGES



## HPC & AI HARDWARE MANUFACTURER

Design, conception and manufacturing of custom-made solutions for compute and storage systems



## RESEARCH & ENGINEERING LAB

Engineering services for mechanic, electronic, mechatronic, energy management and cooling capabilities



## EDGE & RUGGED COMPUTING MANUFACTURER

Design and manufacturing of Edge and IP certified computing devices



## INTEGRATION & EMS SERVICES

Manufacturing, integration, test, logistic and deployment services for IT Infrastructure and Hardware solutions



# ONE GROUP, DIFFERENT BRANDS TO ANSWER ANY OF YOUR CHALLENGES



## COLOCATION AND HOSTING SERVICES

Collocation and hosting services in data centers adapted to standard air cooling, direct on chip cooling and immersion cooling



## COMPUTE AS A SERVICE

Compute services for highly intensive workloads and GPU systems, available renting in more sustainable data centers

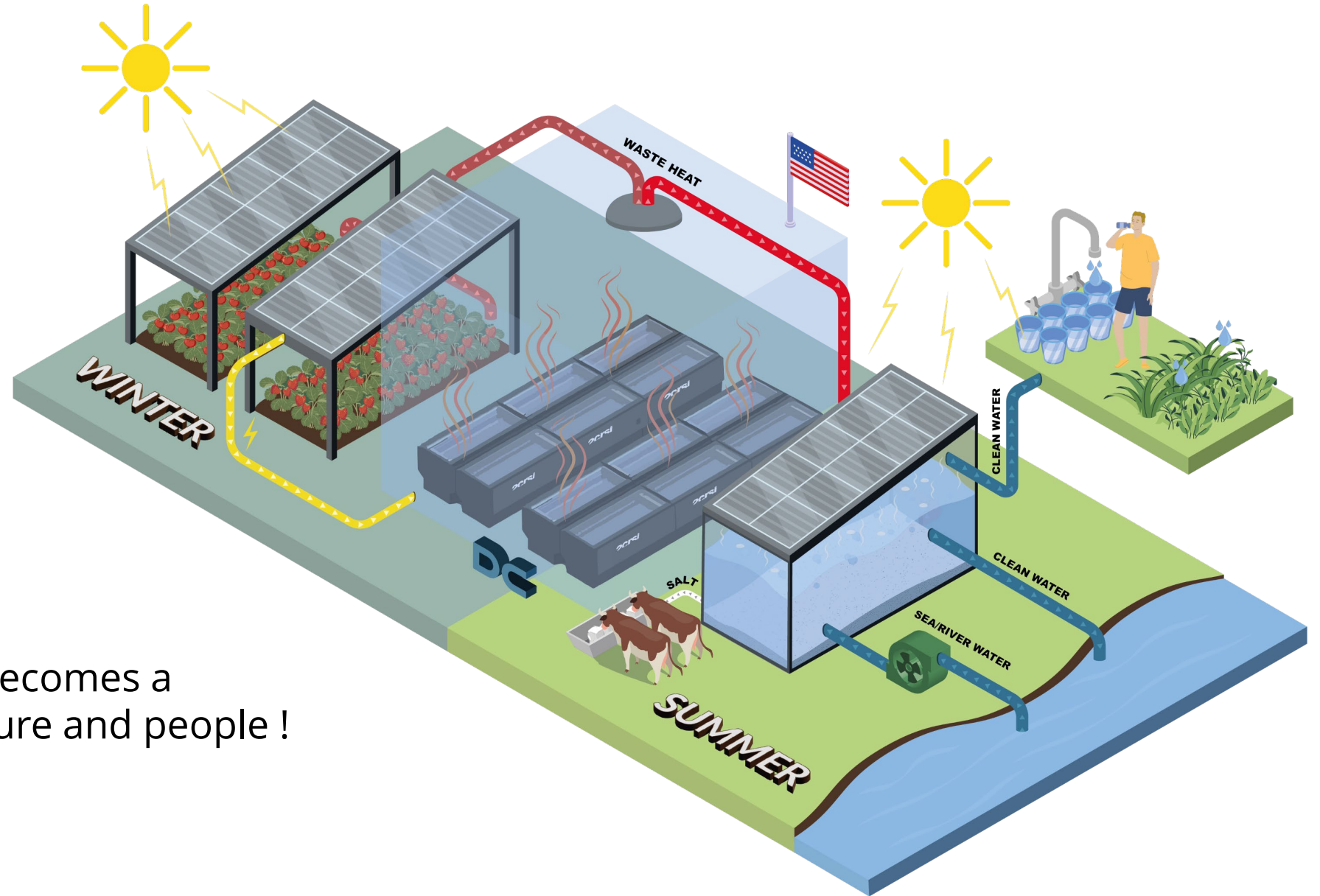


## PRODUCTION, STORAGE AND ENERGY MANAGEMENT SERVICES

Use of wasted heat as a source of energy, revaluation of waste energy and finally storage of energy



# END TO END 100% SUSTAINABLE CLOUD SERVICES



Ecological IT finally becomes a resource for agriculture and people !

# OUR VISION: BUILD CLEAN AND EFFICIENT INFRASTRUCTURE

## OUR ROADMAP

### #PowerEfficiency'24

With certified energy efficient solutions like OCtoPus and Heat re-use capabilities, 2CRSi is today the only player allowing you to reach your lowest infrastructure PUE and ESG objectives.

### #ReUseAtScale'25

From the Edge to Data Center environment, 2CRSi will deliver an entire range of solution to scale your heat re-use application at scale.

### #StorElectricity'27

Produce energy with alternate sources and store it for infrastructure backup leveraging Hydrogen.



# OUR VALUES: NO COMPROMISE BETWEEN PERFORMANCES AND ENERGY EFFICIENCY



## #1 ENGAGEMENT: ENERGY EFFICIENCY AS FIRST MOTIVE

100% of all 2CRSi solutions are custom made designed from the start to provide the best energy efficiency possible. Through a large range of cooling capabilities and optimization, all our products are dedicated to that one goal: Decreasing the energy consumption of our IT.



## #2 ENGAGEMENT: ENSURING QUALITY & PERFORMANCE

2CRSi is dedicated to always push towards new limits and offer the highest performances on its solutions. With a large, dedicated R&D team and intensive testing, we always offer what is best for the market.



## #3 ENGAGEMENT: TECHNICAL EXPERTISE AND INNOVATION

Because no use case is the same, no challenges are the same. Through our expertise and innovations, we will always adapt and tailor the right infrastructure and service to answer any of your computing needs.

# TRUSTED BY GREAT CUSTOMERS

## CLOUD SERVICES PROVIDERS



## AI & HPC SOFTWARE EDITORS



## SCIENCE & EDUCATION



## MANUFACTURING INDUSTRIES




## DEFENCE GOVERNMENT




## MEDIA & ENTERTAINMENT




# 2CRSi SOLUTION RANGE




AI



Data Analytics



HFT




HPC




19"  
Air cooling or DLC


**GPU & FPGA  
SERVERS**




Cloud



HCI



VDI




Virtualization




19"  
Air cooling or DLC


**RACKMOUNT  
SERVERS**



Cloud



HPC




AI




21"  
Air, DLC,  
1-phase, 2-phase  
immersion cooling

**OCP SERVERS**



Cloud




Edge  
Computing




Air or DLC rack

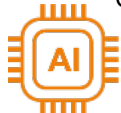
**RACKS**



CCTV



Edge  
Computing




Edge AI




Passive cooling


**EMBEDDED**



3D rendering



Gaming



CAD



Air cooling, DLC &  
passive cooling

**WORKSTATIONS**



 **Adimes**

---



# MANUFACTURING

## STRASBOURG, FRANCE

Server integration per year: **5 000 units** capacity.

Manufacturing/Integration features on site:

- **Certified Confidential Integration & Testing Plant + Staff**
- **Mechanical Prototyping lab and integration plant**
- CE/CB and ROHS/REACH Certification process managed
- APAVE Certification process managed

Testing integration features on site :

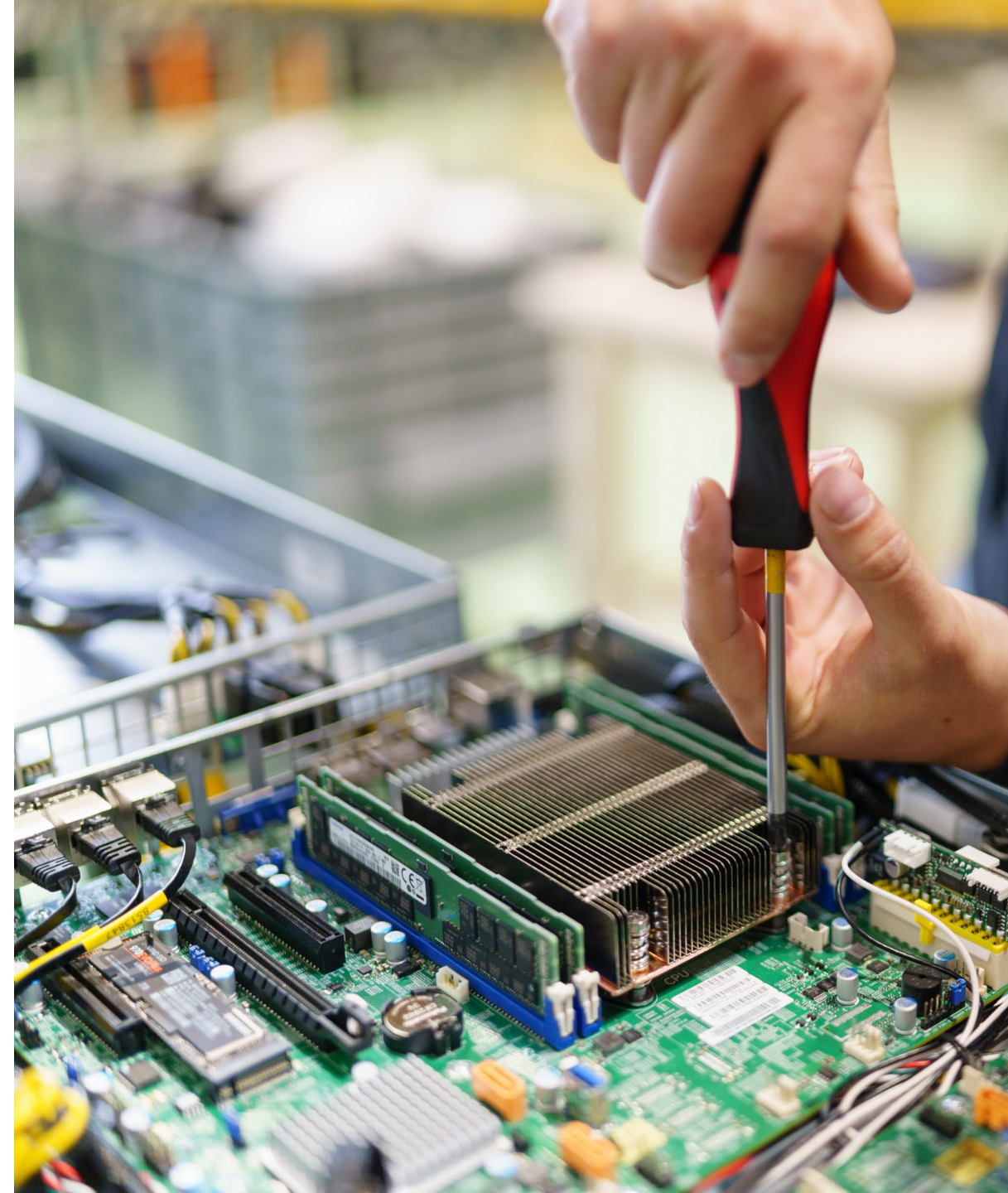
- Air Cooled 19" and **OCP** testing benches: Up to 30kW/rack
- **Direct On Chip** 19" and OCP testing bench (Water, single and dual phase liquid): Up to 30kW
- 19" and OCP **Immersion testing bench** (single and dual phase liquid): Up to 250kW (E3 NV)

## MANCHESTER, ENGLAND

Embedded PC manufacturing per year: **10 000 units** capacity

Manufacturing/Integration features on site:

- CNC manufacturing
- Molding manufacturing
- UL/CB and ROHS/REACH Certification process managed



# MANUFACTURING

## NEWARK, CALIFORNIA

Server integration/year: **2 000 units** capacity

Manufacturing/Integration features on site:

- UL/FCC Certification process managed

Testing integration features on site :

- Air Cooled 19" and **OCP** testing bench
- 19" and OCP **Immersion testing bench** (single and dual phase liquid)

## ROUSES POINT, NEW-YORK

Server integration/year: **2 000 units** capacity

Manufacturing/Integration features on site:

- UL/FCC Certification process managed

Testing integration features on site :

- Air Cooled 19" and **OCP** testing bench
- 19" and OCP **Immersion testing bench** (single and dual phase liquid)

## CHENNAI, INDIA (upcoming)

Server integration/year: **100 000 units** capacity

Manufacturing/Integration features on site:

- CNC manufacturing
- Molding manufacturing
- BIS Certification process managed





# MECHANICAL CAPABILITIES

## #1: MECHANICAL AND THERMAL STUDIES

Mechanical design and thermal study for 19" & 21" & custom server form factor :

- Air cooled
- Direct to Chip, Water, single and dual phase loop cooling
- Immersion cooling, single and dual phase with dedicated tanks (Submer, Asperitas, GRC, Hyperion, Refroid)
- Heat Re-use loops

Mechanical & thermal study and prototyping at the rack level

- Custom racks and accessories including
  - cooling systems adapted to each product
  - Mutualized ventilation system including cold doors
  - Mutualized power delivery systems

## #2 : THERMAL STUDIES

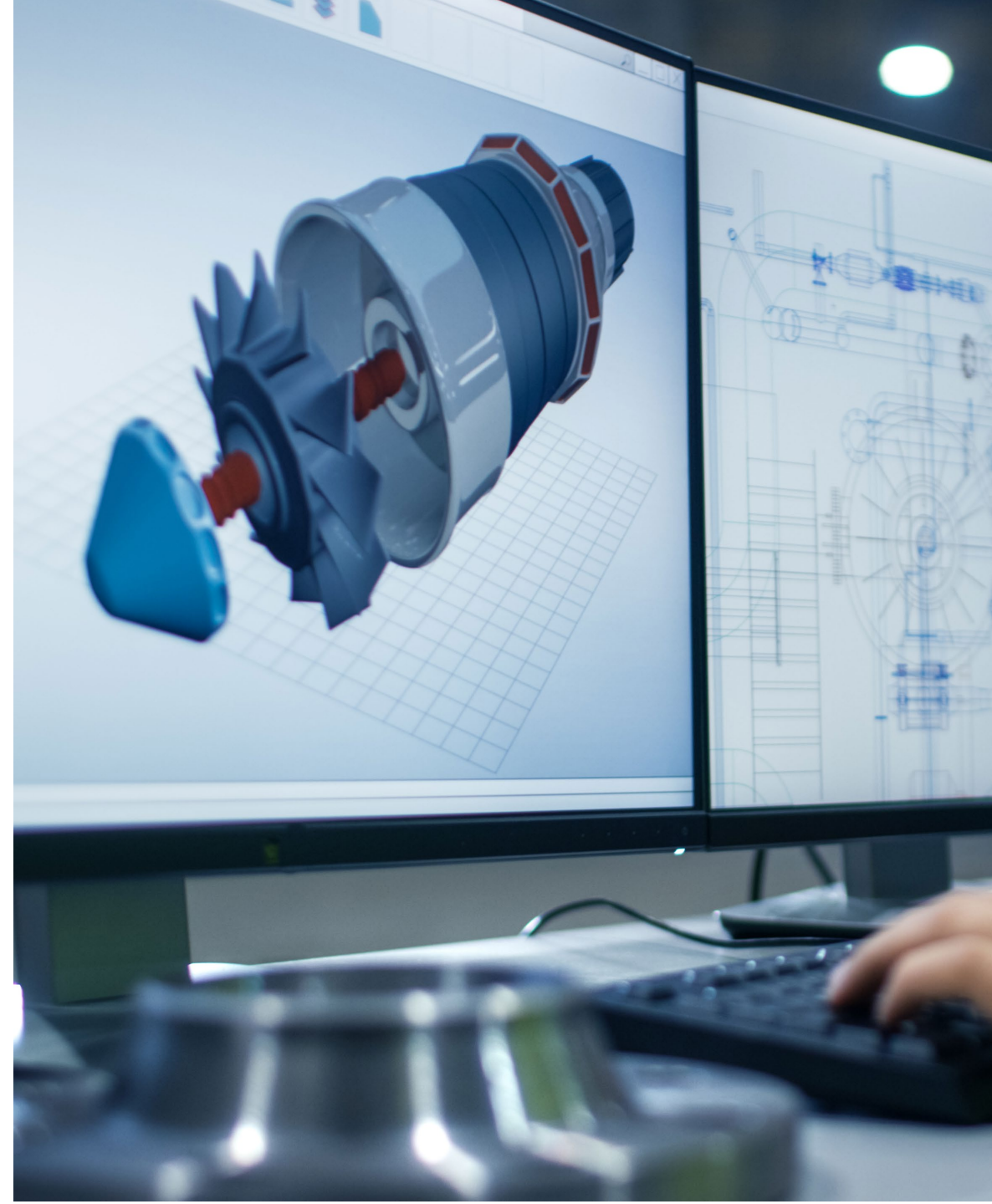
Thermal studies and tests in :

- Air & passive cooling
- Liquid (water loops, single, dual phase coolants)

## #3 : PROTOTYPING

Small series and prototyping :

- 20 projects per year
- From 75 to 200 per year
- Immersion single and dual phase custom coolers



# ELECTRONIC CAPABILITIES

## #1: PCB design and board routing

- design of electronic conversion boards / control and management of voltage and electrical flow
- design of electronic signal transmission boards, PCIe, specific switch, riser, signal buffering
- Embedded software for PCB management

## #2 : SMALL SERIE PRODUCTION

- Power PCB
- Signal PCB

## #3 : LARGE PCB PRODUCTION SERIES

Definition and assistance with 2CRSi dedicated Project Manager and Engineering team from Specifications to prototyping and full production assisted with our EMS

- 500 to 10 000 units/year



## European PILOT project

Pilot using Independent Local & Open Technology)



Digital sovereignty identified by EU as one of 5 priority stakes

PILOT short-term objective:

**design and manufacture sovereign 100%-European pilot systems based on RISC-V accelerators**

with long-term view:

**implement first 100%-European Exascale system**

### Project:

- Consortium of 19 public and private contributors in PILOT
- 2CRSi is hardware manufacturer
- 2CRSi to provide server-based solutions around its OCtoPus platform to be used in immersion tank
- Budget = €30M including €4.2M for 2CRSi, financed as follows 50% by EUROHPC and 20% by BPI France / "i-Démo Europe"

# THE EUROPEAN PILOT'S 19 PROJECT MEMBERS



# 3-YEAR FORECAST FOR 2CRSI CORPORATION



> \$100M

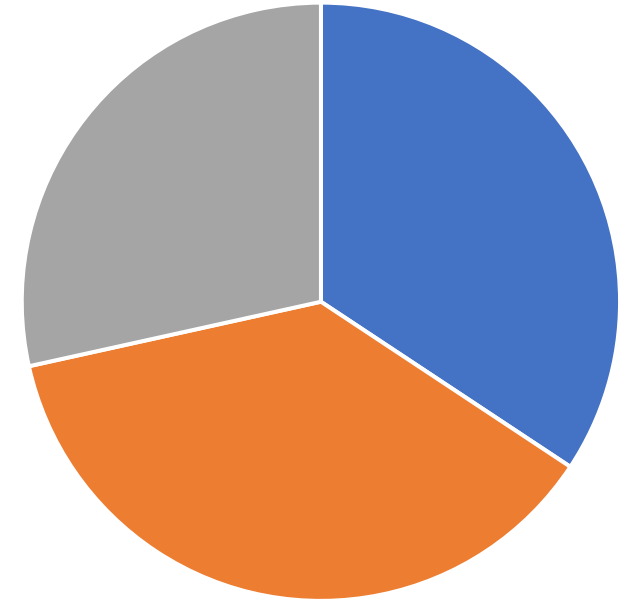
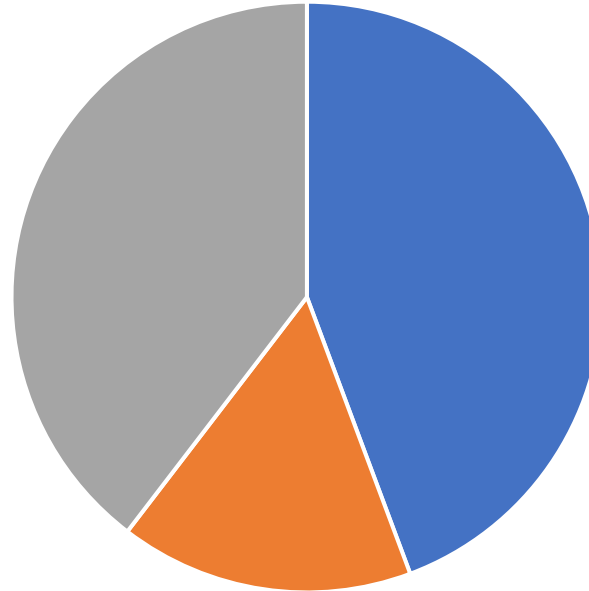
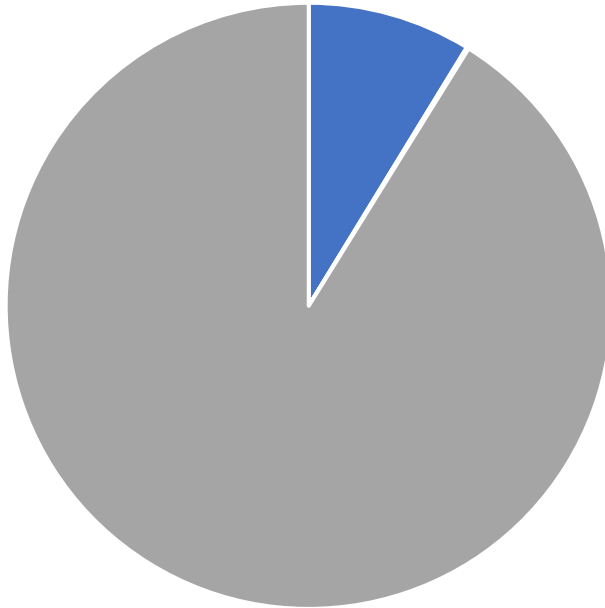
> \$176M

> \$295M

2023/24 :  
revenue growth from IA servers

2024/25 : revenue balanced  
AI and other servers, Services

2025/26 : margin increasing from  
services and other servers



> \$3M EBITDA

■ Other Servers ■ Services ■ IA Servers

> 12% EBITDA





---

**Thank you  
for  
your attention**

---



January 31, 2024

# ANNEXES - SOURCES

[https://www.trendforce.com/landingPage/ai\\_server](https://www.trendforce.com/landingPage/ai_server)

<https://www.networkworld.com/article/957316/data-centers-aren-t-ready-for-ai-schneider-warns.html>

<https://www.datacenterfrontier.com/cooling/article/33004107/report-meta-plans-shift-to-liquid-cooling-in-ai-centric-data-center-redesign>

<https://www.reuters.com/technology/inside-metas-scramble-catch-up-ai-2023-04-25/>

<https://www.datacenterfrontier.com/cooling/article/11436915/meta-plans-shift-to-liquid-cooling-for-its-data-center-infrastructure>

[https://blog.equinix.com/blog/2023/11/29/3-trends-driving-liquid-cooling-for-data-centers/?ls=Public%20Relations&lsd=23q4\\_\\_--\\_/blog/2023/11/29/3-trends-driving-liquid-cooling-for-data-centers/\\_pr-equinix\\_pr-newswire\\_press-release\\_\\_us-en\\_AMER\\_liquid-cooling\\_awareness&utm\\_campaign=us-en\\_\\_press-release\\_liquid-cooling\\_pr-equinix&utm\\_source=&utm\\_medium=press-release&utm\\_content=--\\_](https://blog.equinix.com/blog/2023/11/29/3-trends-driving-liquid-cooling-for-data-centers/?ls=Public%20Relations&lsd=23q4__--_/blog/2023/11/29/3-trends-driving-liquid-cooling-for-data-centers/_pr-equinix_pr-newswire_press-release__us-en_AMER_liquid-cooling_awareness&utm_campaign=us-en__press-release_liquid-cooling_pr-equinix&utm_source=&utm_medium=press-release&utm_content=--_)

<https://www.hpcwire.com/2023/06/01/intersect360-hpc-market-returning-to-stable-growth/>

<https://www.idc.com/promo/servers>

<https://www.us.jll.com/en/trends-and-insights/research/na-data-center-outlook>