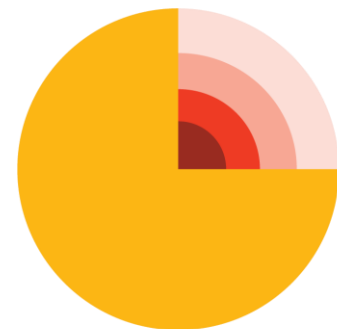


Bull Atos in ChEESE-2P

Erwan Raffin and Okba Hamitou
Bull Atos

KoM, Jan. 19, 2023, Barcelona

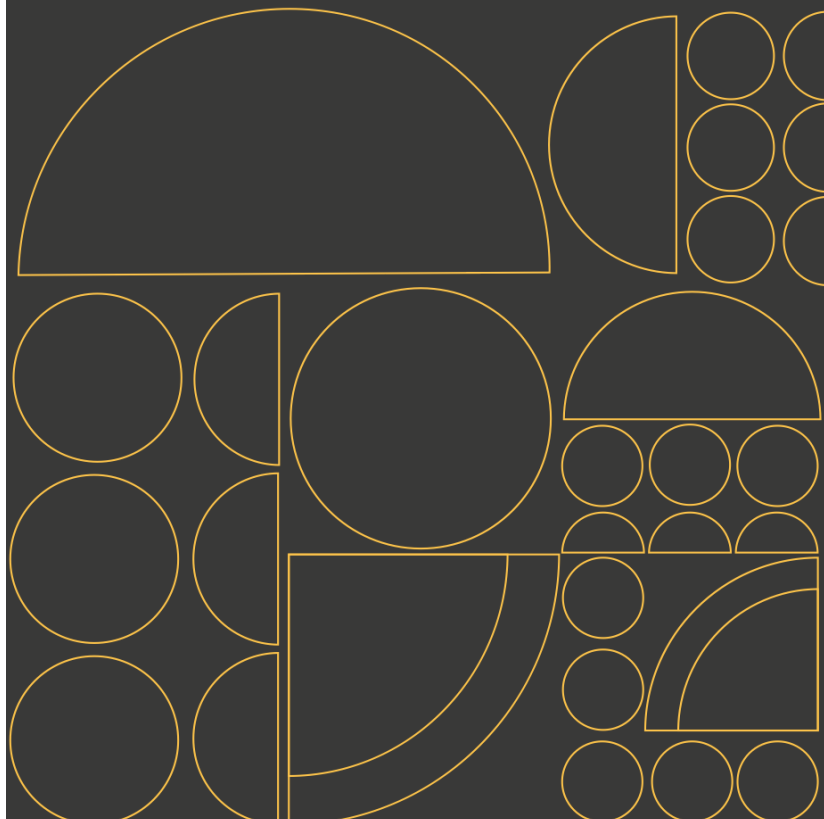


ChEESE



01

Atos in
short



Atos in a nutshell



112,000 business technologists
in 71 countries worldwide



#1 IT services provider in
the **DJSI Europe Index**



€11 bn revenue worldwide



€235 m R&D
per annum



European #1 in cybersecurity,
cloud & HPC



100,026 new
digital certifications



Worldwide IT Partner
of the Olympic and
Paralympic Games



9,61 tCO₂/m€ revenue
industry best-in-class

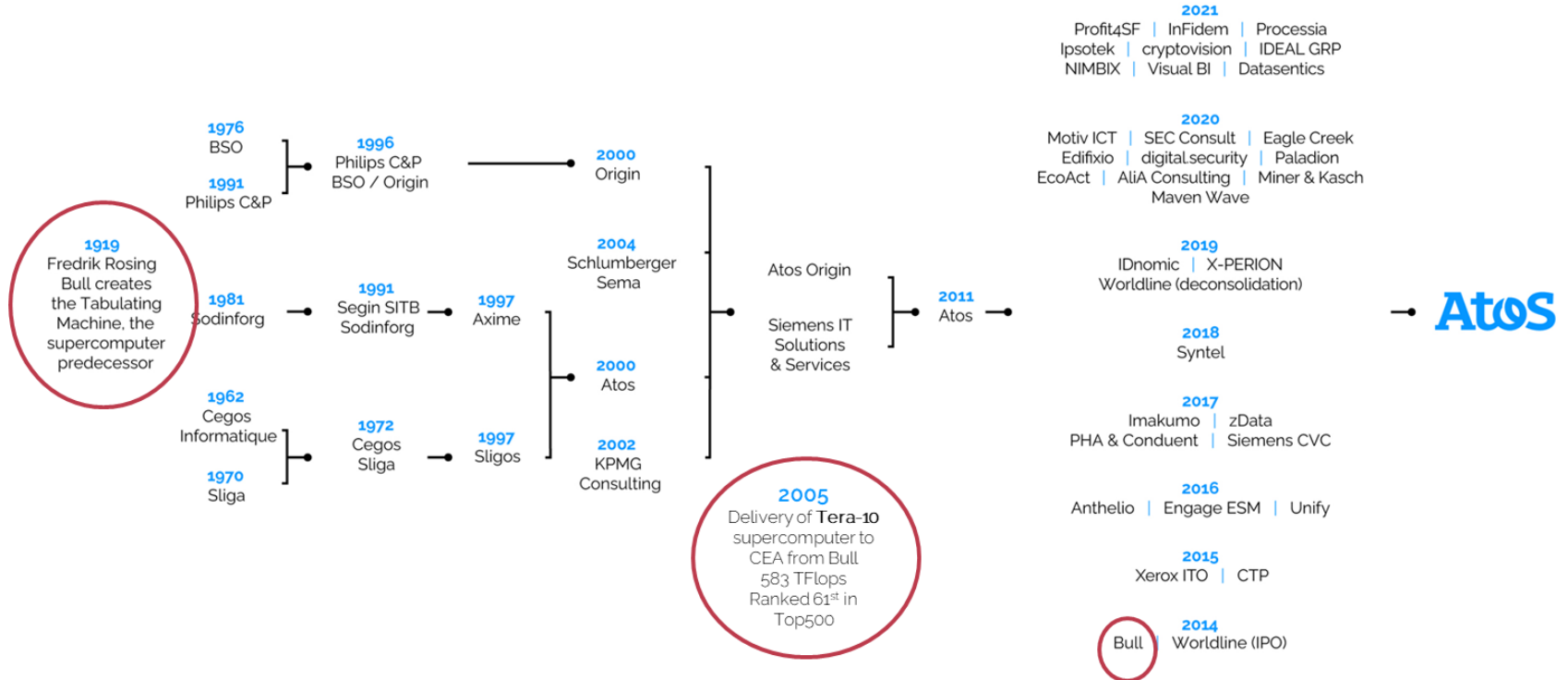


Atos history

Building the basis for the future of IT

Establishing as a leader in Europe

Moving towards global leadership



Atos, Worldwide leader in HPC, AI & Quantum

#1 in Europe, #3 Globally*

Delivering major European Research Centers

#1 in South America & India

Delivering major supercomputers

Increasing our worldwide footprint

In APAC, South America, North America & MEA

Supplying major industrial partners

With complex and optimized solutions



*Hyperion 2022 - Supercomputing market segment

Challenges

Time, Performance, Cost & Energy

Time



- ✓ Time to productivity
- ✓ Time for knowledge
- ✓ Time for performance and optimization

Performance



- ✓ Lack of data scientists for code/algorithm development
- ✓ Industry-contextualized simulation, e. g. weather,
- ✓ Scalability, performance optimization

Cost



- ✓ Demanding expertise and continuous training
- ✓ Un-efficient code and long simulation time
- ✓ Lack of re-usability in developed code
- ✓ Need for keeping up with latest technology development

Energy



- ✓ Worldwide resources shortages – no more waste
- ✓ Hardware heating reach high level of temperature
- ✓ Energy cost increase heavily
- ✓ Application performance is now focusing on efficiency



Our impact

Time, Performance, Cost & Energy

Accelerate



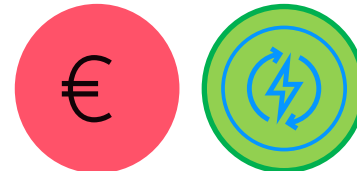
Experienced experts with strong HPC expertise to reduce time-to-simulation

Optimize



Performance optimization, industry-contextualized applications, cluster scalability

Save



Reduced cost & Energy, leveraging existing code and best practice, on top of the latest technologies



Atos' Center for Excellence in Performance Programming (CEPP)

- CEPP experts
 - Around 15 people mainly PhDs in Applied Mathematics and Computer Science based in France + Atos ww resources
- CEPP belongs to Atos HPC AI Quantum Business Support group
 - Around 50 people
- CEPP does have 5 sub-centers of Excellence
 - HPC Services: Trainings, Porting, Profiling, Optimizing, Developing for Partners and Customers
 - Collaborations: Mainly science research funded projects where CEPP does HPC Services & Co-design
 - IT Partners: With Key IT partner in HPC AI & Quantum
 - Customers: Dedicated to work on customer KEY applications and Topics

and a final one who is most of the time on support of the 4 previous

- Atos R&D collaboration: The link between customers and Atos R&D (HW & SW) for co-designs



02

Atos role in the consortium



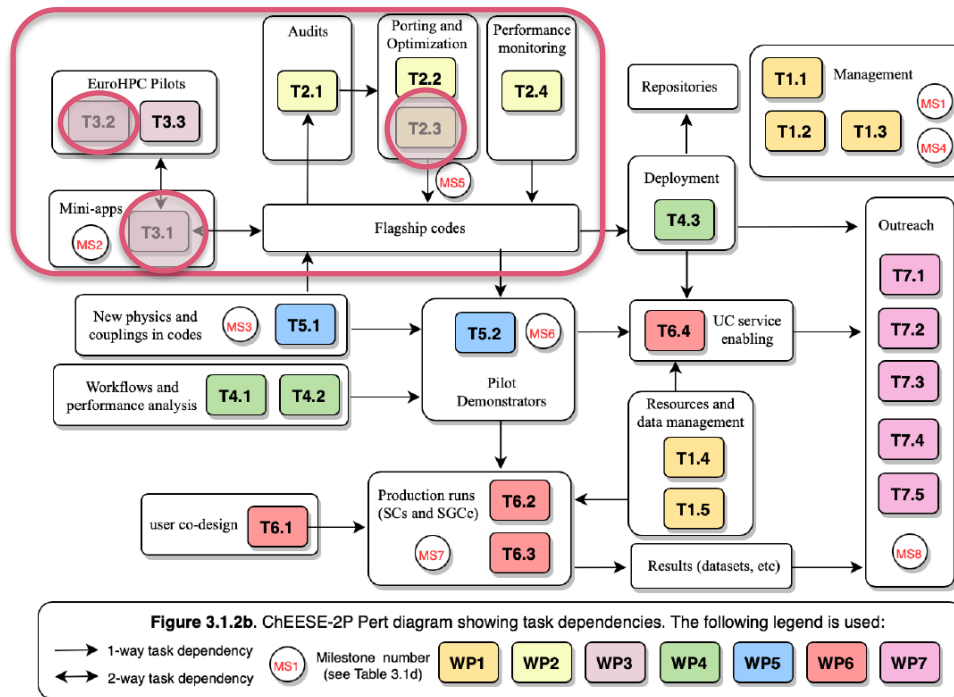
Atos role in ChEESE-2P

- Work Package leader of “Co-design with European HPC vendors and technologies” (WP3)
- Work Package and Task participation
 - > WP1 (of course!)
 - > WP2: Optimization for Exascale (T2.3)
 - > WP3: Preparation of mini-apps (T3.1) and OpenSequana prototypes (T3.2)
 - > WP7 (of course!)
- Leader of D3.2 “SE Community applications on European HPC technologies” - WP3 - Document, report - Public M42
- Links with EUPEX

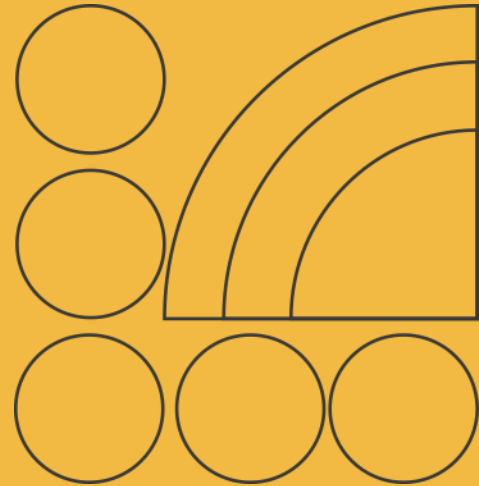


ChEESE

Big picture



Looking forward to
collaborate with all of you



Thank you



@cheese-coe



<http://cheese2.eu>



@cheese-coe



@cheese_coe@techhub.social

