Commissioner Carlos Moedas

Davos- World Economic Forum Annual Meeting 2018

Davos-Klosters, Switzerland

24 - 26 January 2018

THURSDAY, 25 JANUARY

11:45 – 12:15

BILATERAL MEETING WITH [redacted] HEWLETT PACKARD ENTERPRISE, [redacted]

Congress Centre, meeting room TBC

1. STEERING BRIEF

1.1 Scene setter

You have received an invitation on behalf of [redacted], [redacted] of Hewlett Packard Enterprise, to meet during Davos.

Some possible points for discussion include:

- High Performance Computing- proposed by HPE considering that HPE is a global leader in HPC.

1.2 Line to take

- Highlight the progress of the EU in terms of High Performance Computing

1.3 Objective

- Mention the most recent developments in terms of HPC, notably the European High-Performance Computing Joint Undertaking – EuroHPC- which was announced by the European Commission on 11 January 2018

1.4 Speaking points

- The European High-Performance Computing Joint Undertaking – EuroHPC- was announced on 11 January 2018.The activities of the Joint Undertaking will consist of:
    - Acquisition and operation of two world-class pre-exascale supercomputing machines and at least two mid-range supercomputing machines (capable of around 1016 calculations per second), and providing and managing access to these supercomputers to a wide range of public and private users starting from 2020.
    - Research and innovation programme on HPC: to support the development of European supercomputing technology including the first generation of European low-power microprocessor technology, and the co-design of European exascale machines, and to foster applications, skills development and a wider use of High-Performance Computing.
- The EuroHPC Joint Undertaking will operate in 2019-2026

2. BACKGROUND

2.1 High Performance Computing

- High-performance computing (HPC) is the use of super computers and parallel processing techniques for solving complex computational problems.

- In the digital era, it is a strategic resource for Europe's future.

- Considering the necessity to deal with these large amounts of data:

  i) Industry and SMEs are increasingly relying on the power of supercomputers to work on innovative solutions, reduce cost and decrease time to market for products and services;

  ii) Modern scientific discovery requires very high computing power and capability: for example, to accelerate genome sequencing by two orders of magnitude and enable scientists to crack cancer diseases.

- The realisation of the European High-performance computing (shortly, EuroHPC) strategy will be based on key pillars addressing:

  i) an ambitious High-performance computing (HPC) research and innovation agenda for the development of hardware and software components, systems and applications: developing the next generation of key HPC technologies and systems towards exascale and post exascale;

  ii) infrastructure development and acquisition of world class supercomputing and data infrastructures and their interconnection (procurement in 2020-2021 of two pre-exascale HPC machines, in 2022-2023 of two full exascale HPC machines and by 2026-2028 of two post-exascale machines);

  iii) support to applications and skills development;

  iv) federation of national and European High-performance computing (HPC) resources through an HPC and Big Data service infrastructure facility;

  v) support to High-performance computing (HPC) Centres of Excellence (CoEs) for developing, preparing and optimising HPC codes and applications for future exascale and post-exascale systems in co-design

- The EU investment until the end 2020 is close to EUR 1 billion for world-class European supercomputers while another EUR 4 billion are foreseen under the next MFF. EU level financing will support collaboration in R&D and will ensure cross border access to foremost High-performance computing (HPC) and data infrastructure.

2.2 CV