

SUP@VAMDC SUMMARY

Atomic and molecular (A+M) data are critical for a range of applications such as astrophysics, atmospheric physics, fusion, environmental sciences, combustion chemistry, health and clinical science including radiotherapy. They underpin industries ranging from technological plasmas to lighting. The Virtual Atomic and Molecular Data Centre (VAMDC) is a major new European initiative that has built a unified, secure, documented, flexible and interoperable e-science environment-based interface to 24 existing A+M databases.

SUP@VAMDC will coordinate collaborative studies and provide the supporting procedures that will develop a global e-infrastructure for the assembly, curation and access to A+M data. It will adopt and adapt VAMDC protocols to include further A+M databases and networks around the world. It will also design the pathways by which common policies may be developed for an open science version of VAMDC that will extend its availability to new audiences such as schools, students, citizens and industry.

SUP@VAMDC ACTIONS

- Provide operational, legal and technological support for studies aimed at developing a sustainable open scientific data e-infrastructure in Atomic and Molecular Data.
- Provide support and the medium for inclusion of authentication, authorization and accounting as well as licensing and tools within the VAMDC brand.
- Promote and fashion future interoperability (technical, semantic, reference architecture, etc) across the A+M community through promotion, monitoring and adoption of common standards.
- Implement a programme of dissemination to raise the visibility of the VAMDC e-infrastructure to new audiences such as other disciplines, which could use the VAMDC e-infrastructure in their own scientific endeavours as well as students and citizen-scientists.

- Develop a globally connected and interoperable VAMDC e-infrastructures between the EU and the rest of the world, including Brazil, South Africa, Asia, Australia, USA, through hosting workshops and supporting dialogue between synergistic structures.
- Analyze and evaluate possible business models for supporting an open science model (OPEN VAMDC) while assessing which model(s) can provide financial sustainability for VAMDC itself.

SUP@VAMDC OUTPUTS

- A worldwide open science e-infrastructure based on an international consortium of atomic and molecular databases providers linked by international agreements and common policies by which A+M data providers present and curate their data.
- A worldwide e-infrastructure impacting A+M Users: Astrochemistry and Planetary Sciences, Atmospheric Science, Fusion Energy Research, Lighting and Plasmas technologies, Radiation Sciences.
- A worldwide e-infrastructure with a wide public outreach impacting industrial and commercial partners, citizen science and education.
- Develop a roadmap to establish an accessible worldwide Open Science e-infrastructure constructed and operated by an international consortium of A+M database and service providers.

AT A GLANCE

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Support at the Virtual Atomic and Molecular Data Centre

Duration :
December 2012-November 2014

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750 000 Euros

Programme :
FP7 INFRASTRUCTURES-2012-1;
INFRA-2012-3.3

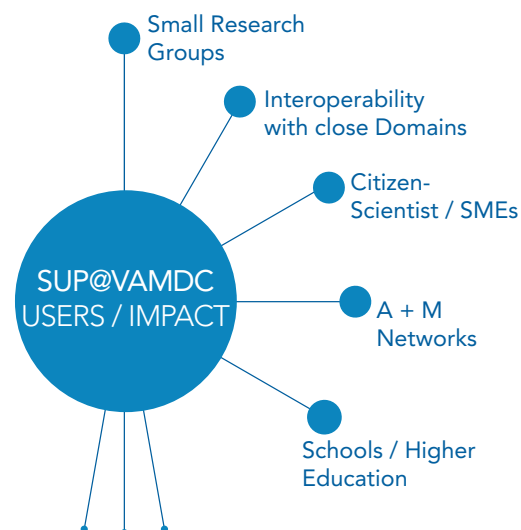
Project identifier :
313284

Partners :

- Observatoire de Paris, France – Coordinator
- The University of Cambridge, UK
- Uppsala Universitet, Sweden
- Open University, UK
- Universitaet zu Koeln, Germany
- University College London, UK
- Korea Atomic Energy Research Institute, South Korea
- University of South Africa, South Africa
- Tata Institute of Fundamental Research, India

EXTERNAL AND ASSOCIATED PARTNERS :

- Yuri Ralchenko, Atomic Spectroscopy Group, NIST, USA
- Laurence S. Rothman, The Harvard-Smithsonian Center for Astrophysics, Cambridge, USA
- Brian Drouin, JPL, California Institute of Technology, USA
- Carlos Gonzales, The Chemical and Biochemical Reference Data Division, NIST, USA
- Milton M. Fujimoto, Departamento de Física, Universidade Federal do Paraná, Brazil
- Stephen Buckman, Atomic and Molecular Physics Laboratory, Australian National University, Australia
- Michael Brunger, The Electron Scattering and Modelling Group, Flinders University, Australia
- Izumi Murakami, National Institute for Fusion Science, Japan
- Bas Braams, Atomic and Molecular Data Unit, IAEA, Austria



WORLD CONNECTED

Coordinator :

M.L. Dubernet, Observatoire de Paris,
marie-lise.dubernet@obspm.fr

Links :

Project SUP@VAMDC website : sup-vamdc.vamdc.eu
VAMDC website : www.vamdc.eu or www.vamdc.org
Access to Databases : <http://portal.vamdc.eu>