

## Partners



SAP is the world's leading provider of business software(\*), offering applications and services that enable companies of all sizes and in more than 25 industries to become best-run businesses. With more than 102,500 customers in over 120 countries, the company is listed on several exchanges, including the Frankfurt stock exchange and NYSE, under the symbol 'SAP.'

(\* ) SAP defines business software as comprising enterprise resource planning, business intelligence, and related applications.

The global technology and research unit of SAP significantly contributes to SAP's product portfolio and extends its leading position in the market by identifying and shaping emerging IT trends and generating breakthrough technologies through applied research.

In contrast to SAP's product groups and development labs that work on new functions and releases, the researchers explore opportunities that haven't yet been developed into products.

SAP spreads its research and development activities around the globe. Currently, their thriving network comprises of 13 centers worldwide, including their headquarters in Walldorf, and numerous partners from the business and academic worlds. (Additional information is available at <http://www.sap.com/next>.)

[www.sap.com](http://www.sap.com)



**Ontotext** Lab was established in 2000 as a semantic technology division of Sirma Group Corp. - one of the biggest software companies in Bulgaria. In 2008 Ontotext acquired venture capital investment and was separated as a spin-off from Sirma Group Corp. Currently the Ontotext team is comprised of about 55 researchers and software engineers.

Ontotext is focused on research and core technology development for:

- Knowledge Management and Semantic Data Integration
- Scalable RDF databases
- Text-mining and Semantic SearchLinked Data management
- Semantic annotation of Web Services and Business Processes

[www.ontotext.com](http://www.ontotext.com)

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From its beginnings in 1843, **Sheffield Hallam University (SHU)** is one of the UK's most progressive and innovative universities. It is one of the largest universities in the UK with 30,109 students, 4,000 staff and a turnover of £150 million. The University's Communication and Computing Research Centre is one of the leading research centres in the country with close links and direct partnership with several international ICT companies.

## Cubist: Partners

SHU has a long standing relationship with SAP. SHU will work with the other partners with analysing the data sets provided by the use case partners as identified in the CUBIST architecture (WP3 and WP4). By using a technique known as Formal Concept Analysis (FCA), SHU will identify and inter-relate the contexts and concepts underlying the data, providing novel intelligence to the use case partner so that they can make much more informed decisions, based on their own facts hitherto hidden in their data. SHU has expertise in context creation and will help develop the software for creating the contexts from original data and for retrieving contexts in the different formats required by the FCA tools. SHU will provide/develop the tools/software for the FCA-analytics. In particular there is a need for fast concept generation given the scale of data involved, an area that SHU has expertise with.

[www.shu.ac.uk](http://www.shu.ac.uk)

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**CENTRALE RECHERCHE S.A. (CRSA) ? Laboratoire MAS**

## Cubist: Partners

The Ecole Centrale Paris (ECP) was founded in 1829. It was the first major engineering school to train engineers in the early days of industry. Today the primary vocation of ECP is still to train managers for industry, a role which gives it a unique position among the major French engineering schools. In order to promote its research activities which are heavily geared towards industry, ECP created a Private Limited Company in 1986, Centrale Recherche S.A (CRSA), whose major task is to operate as a commercial interface with industry promoting the expertise of the research laboratories of ECP to potential customers interested in contracting out research work. CRSA deals with the financial, administrative and legal issues regarding the research contract activities of the laboratories with over two hundred clients: SMEs, large firms, public and private research centres, national agencies and public departments as well as with the European Commission in Brussels.

On behalf of these laboratories and in the scope of the research contracts that CRSA manages, CRSA buys equipments, pays for travel and subsistence when researchers need to attend meetings or conferences, and also hires scientific human resources.

The Applied Mathematics and Systems (MAS) Laboratory of Ecole Centrale Paris (France) mainly deals with mathematical and computing tools and methods for the analysis, the design and the exploitation of complex systems. It is structured around projects including Scientific Engineering and Visualization, Information Processing and Information Systems.

The MAS laboratory now regroups 100 people (teachers, researchers, PhD students, engineers) and is linked to two teaching units within the Ecole Centrale Paris (the Applied Mathematics Department and the Computer Science and Telecommunications Department), in particular for projects dedicated for initiation to research. The MAS laboratory has also developed partnerships for several Masters with various universities.

With the significant development of digital technologies, modeling and simulation tools and methods find themselves at the centre of major scientific and industrial challenges. The MAS laboratory focuses on the methods, mathematical algorithms, and information systems related to the analysis, conception and development of complex systems, especially through techniques of modeling, simulation and optimization. It seeks to develop original techniques and tools, both in their content and their application.

The Business Intelligence team was recently created as part of an academic chair (SAP BusinessObjects) and aims to research and cover diverse aspects of the BI processes chain. The BI domain, and thus the BI research team in ECP, involves many fields such as high-performance computing, visualization and user experience as well as data processing and management.

[www.ecp.fr](http://www.ecp.fr)

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**Heriot-Watt University** is a technological university that began initially as the Edinburgh School of Arts, which was founded in 1821 and was granted its Royal Charter as a University in 1966. The University has a proven track record of research achievement and of working with industry. Over the past decade, it has been involved in a large number of different EU initiatives. Computer Science has been taught at Heriot-Watt since the 1960s. Between 1992 and 2002, as a part of the Department of Computing and Electrical Engineering, we participated in over 25 European funded projects. Since 2002, as a part of the School of Mathematical and Computer Sciences, we have acquired over 20 further EU funded research grants.

The Biomedical Informatics Systems Engineering Lab (BISEL), lead by Dr. Albert Burger, is part of the Department of Computer Science in the School of Mathematical and Computer Sciences. BISEL focuses on issues that arise from bringing to bear the latest computer science developments in the context of biomedical research. The work concentrates on the next generation of distributed informatics systems and includes research on interoperability of biomedical atlases, multi-agent systems in biomedical informatics, argumentation systems and AI planning for distributed task composition. Work on ontologies, includes cross-species anatomy ontology integration and 2D and 3D visualisation of anatomy ontologies. The group has extensive experience in using semantic web technologies in the context of biomedical atlases. Recent EU funded projects carried out in BISEL include Sealife (A Semantic Grid Browser for the Life Sciences Applied to the Study of Infectious Diseases; 2006 - 2009) and REWERSE (for REasoning on the WEB with Rules and SEmantics, an EU "Network of Excellence" on "Reasoning on the Web"; 2004 - 2008).

[www.hw.ac.uk](http://www.hw.ac.uk)



**Space Applications Services NV (aka SpaceApps)** is an independent company whose aim is to be a leading provider of system and operations engineering as well as software engineering in the field of space and aerospace and to apply these capabilities to industrial applications.

SpaceApps? expertise covers:

- Space system engineering, specification, operations engineering, training and software development from the earliest phases of spacecraft and mission concept definition to on-orbit operations.
- Software Engineering: Design and development of monitoring & control systems, distributed control for fixed and mobile robots in structured & unstructured environments.
- Research & Development: Establishment of methods and processes for collaborative multi modal human-computer interaction; development of knowledge management systems.

SpaceApps? experience includes:

- Control & Data Centers: complete ground segment and control centre solutions development & operation, for satellites & International Space Station (ISS) payloads.
- Earth Observation Systems: semantic access to distributed EO data.
- Knowledge Management: enterprise and scientific knowledge management solutions:
  - ◆ Data federation, fusion and access.
  - ◆ Knowledge capture, visualization and natural language interaction.
  - ◆ Decision support.
- Embedded, Safety Critical & On-Board Software: spacecraft, cockpit and air traffic management solutions.
- Virtual Environments & HMI: wearable computing and computer aided medical diagnostic systems including 3D, Augmented and Virtual Reality applications.
- Robotic Systems: complete systems including exoskeleton and rover control systems as well as robot navigation, task and path planning.

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- Operations and Training: end-to-end planning, preparation, implementation and execution of spacecraft and facility operations and training, including astronaut training.
- Future Projects: space and ground segment system studies to define overall concepts, perform mission analyses, and establish development plans and costs.
- Engineering Services: the nature of international projects often requires seconding staff to customer locations for extended periods of time. We provide high quality engineers and scientists for assignments to worldwide locations.

SpaceApps? research and technology development activities are performed with National and European support. SpaceApps participates in ITEA2 (software intensive systems and services) and EC FP7 Theme 3 ICT (Robotics & Cognitive Systems, Technologies for Digital Content & Languages), Theme 6 (Environment), Theme 9 (Space), Theme 10 (Security).

In addition to developing software for space mission control systems (and other kinds of operations centres), SpaceApps also specifically operates, uses and progressively further enhances these space control systems, SpaceApps provides the staffing of the operator positions in the Belgian User Support and Operations Centre (B.USOC) and its Dutch counterpart, the Erasmus USOC centre, operated 24/24 and 7/7.

[www.spaceapplications.com](http://www.spaceapplications.com)

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**Innovantage**  
ADVANTAGE THROUGH INNOVATION

## Cubist: Partners

**Innovantage** is a leading technology company currently making a big impact in HR and Staffing Sector. Innovantage provides sophisticated access to information that enables the UK staffing sector to find and better understand companies who advertise online.

Our proprietary software, Insight, tracks live job vacancies advertised on the UK's leading job boards as well as employers' own websites. Our intelligence-led approach enables our clients to identify and win new customers. With carefully researched sales calls, they build rapport and can differentiate themselves from their competitors by showing they are familiar with the nature of your potential client's business and truly understand the vacancies they are trying to fill.

Using a powerful OLAP reporting suite, clients can research the market in seconds and talk with authority about their industry; highlighting recruitment trends within it and revealing information about their biggest competitor.

As a use case partner Innovantage brings real-world, commercial application of CUBIST, along with a sizeable dataset going back three years. Innovantage are the UK's only provider of market and competitive intelligence, profiling millions of jobs to provide a deep insight into who is recruiting what and when, how the market is performing and how

[www.innovantage.co.uk](http://www.innovantage.co.uk)