NUCLEONICA is a new nuclear science web portal from the European Commission’s Joint Research Centre. The portal provides a customisable, integrated environment and collaboration platform for the nuclear sciences using the latest internet “Web 2.0” dynamic technology. NUCLEONICA is aimed at professionals, academics and students working with radionuclides in fields as diverse as the life sciences (e.g., biology, medicine, agriculture), the earth sciences (geology, meteorology, environmental science) and the more traditional disciplines such as nuclear power, health physics and radiation protection, nuclear and radiochemistry, and astrophysics. It is also used as a knowledge management tool to preserve nuclear knowledge built up over many decades by creating modern web-based versions of so-called legacy computer codes.

NUCLEONICA provides “software as a service” on the web rather than through installed software, adding a greater level of stability and security and avoiding version compatibility and update problems. In addition, all NUCLEONICA’s web applications are browser and operating system independent and can therefore be accessed by most web browsers.

NUCLEONICA offers the following main features:

- **Data Centre**: Online interactive nuclide charts. Reference data and searchable databases for internationally evaluated nuclear data. Library creation software.

- **Application Centre**: Application modules (decay, dosimetry & shielding, fission yields, range & stopping power, reactor irradiation, transport and packaging, etc.) with professional quality graphics. An advanced scripting language is available for user defined calculations and batch processing.

- **Knowledge Centre**: Nuclear news aggregation services based on XML and RSS feeds using JRC web-crawler technology which scans thousands of websites on a regular basis for latest news and information. Mobile device portal for a variety of mobile devices. (Historical) Articles and web-links database. FAQs, Ask an Expert (AaE), and forum services. User preferences and alerts. Wiki-based online user manual.

- **Personalised Desktop**: with detailed user rights configurable via administration menu.

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**presenting author:** Joseph Magill