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# The ENVRIplus Architecture

Keith Jeffery
Keith G Jeffery Consultants, Faringdon, United Kingdom (keith.jeffery@keithgjefferyconsultants.co.uk)

The major objective of ENVRIplus is to facilitate research in environmental science by encouraging movement towards a consistent and integrated view of data, processing and resources to meet emerging domain-specific and interoperation research needs. The adoption of common and cross-cutting ICT services by RIs (Research Infrastructures) reduces cost (re-use) and increases interoperation (standardisation). A key aspect of ENVRIplus is the reference architecture to be adopted by new RIs and towards which existing RIs should aim to align. Based on the ENVRI Reference Model, the architecture brings together all the aspects of the ICT (Theme 2) activities of ENVRIplus into a coherent framework to achieve those objectives. The architecture must sit within some constraints. ICT best practice is mandatory. Parallel initiatives in other ESFRI RIs and global consortia must be respected. Developments in e-Is (e-Infrastructures) provide opportunities for alternative deployment of applications. An appropriate interfacing mechanism between RIs and e-Is will provide for evolution of both RIs and e-Is while maintaining provision of service. Similarly, developments in VREs (Virtual Research Environments) offer improved opportunities for researchers (and other users) to access multiple RIs while appropriate interfacing will allow evolution of both RIs and VREs to sustain the consistent and integrated facilities built on the resources delivered by collaborating RIs. The degree of alignment with the architecture by RIs will improve their ability to present a research environment that supports research campaigns that need resources and capabilities from multiple RIs. The development of the ENVRIplus architecture is therefore continuous, and this contribution presents the current state of progress at this point in the project. Further work on the RM (Reference Model) will provide specifications based on engineering and technology viewpoints at which time a conventional architectural design document can be produced.