

IX International Conference
Law Via The Internet

Free Access, Quality of Information, Effectiveness of Rights

Florence, 30-31 October 2008

THOMAS GORDON
Fraunhofer FOKUS, Germany

The Legal Knowledge Interchange Format

The Legal Knowledge Interchange Format (LKIF) is an open XML format developed in the European ESTRELLA project for representing legal concepts, rules, and cases. LKIF uses and builds upon World Wide Web standards, including XML, RDF and the Web Ontology Language (OWL), but extends these with formalisms needed for legal reasoning and argumentation, in particular defeasible inference rules, arguments and precedent cases, based on state-of-the-art research in the fields of Artificial Intelligence and Law and Computational Models of Argument. A reference inference engine for LKIF, called Carneades, was developed in ESTRELLA. Using this engine, LKIF was validated in pilot applications about European tax directives for the finance ministries of Italy and Hungary, who are partners in the project. LKIF is intended to be used as an open, nonproprietary interchange format for legal knowledge bases, to allow public authorities to build and share knowledge bases without becoming dependent on proprietary formats. Two commercial vendors of inference engines for legal knowledge systems, Haley and KnowledgeTools are members of the ESTRELLA project and helped to assure that LKIF meets commercial requirements. These vendors have implemented translators to and from LKIF for their proprietary knowledge representation formalisms.