Green Software /Measurement (Patricia Lago)

- How Much does Green Software Cost?

- Despite environmental concerns becoming increasingly urgent as a global issue, cost reduction is still the most important economic goal for many companies. Explicitly showing economic gains is one of the most effective ways to motivate companies to incorporate environmental strategies in their business strategies. In this thesis we propose using the e3value technique (originally meant to model enterprises and end-users exchanging things of economic value) to estimate and quantify the business value of green ICT solutions involving software. The resulting e3value models may assist decision makers to make informed decisions before actual investments. Case studies will be carried out as internships in companies active in re-greening their software/IT portfolio.
The role of semantic agreements on business-terminology and -rules in service trading and innovation

Concretely, in this thesis you claim that slow service technology uptake on Internet is largely because service standards focus on the mere operational aspects of services - hence enforcing HOW to carry out a certain business in a prefixed non-adaptive manner – at the cost of the value aspects of services - hence providing an understanding WHAT the business domain is about in a way that could enable a service system to adapt its role in changing value propositions. Next, as a possible solution, you consider the role of Business Semantics to fill this lack of explicit business domain knowledge in terms of terminology and rules about roles, actions and resource. To this end you will define an ontology as the basis to agree and standardize semantic encodings of this knowledge in support of agile and intelligent decision making about the configuration of roles and resources among peers in service value network propositions. As a basis you can reuse concepts from USDL and e3value. In this thesis you will interact with people from SAP Research, Collibra, and the Flemish public administration.

Issue-driven Sourcing Expert niches for Information Governance Tasks

Information governance is about the specification of decision rights and an accountabilities to encourage desirable behavior in the valuation, creation, storage, use, archival and deletion of information. In very large organisation it is usually a problem to find the right experts that are up to take up these roles. It requires to match their competencies to specific tasks within the context of a governance issue. In this thesis you will apply the notion of nichesourcing and business semantics to design such a framework.
Service Networks (P. Lago & D. Tamburri)

• Studying snapshots of development communities

  Software engineering is increasingly carried out by development communities acting on a global scale, across continents and cultures alike. Software engineering practice however still lacks ways to study the people of software to find measures or indicatives for end-product quality. Can we instrument the status of communities to represent a measure of end-product quality?

• Design of Service Networks to support Social Communities

  While IT companies most often work as social communities of developers, their support is still quite informal. In this project we plan to design and simulate how software services can support activities of developers (organized in social communities). The expected result is a set of customizable design models for such software services. Depending on the specific activities and types of social communities, software services can be organized as adaptable networks of services. Industrial case studies will be investigated to build realistic design models and service networks.
Service Oriented Analysis and Design

- **Case studies in Service Oriented Analysis and Design**
  
  The thesis will apply an existing method for service oriented analysis and design, to two case studies (Green Buildings, Schiphol Hand-luggage Management). The objective is to validate the method, according to criteria define in service identification literature.

- **Extending a software modeling tool for service identification**
  
  As a follow-up of the thesis titled "Case studies in Service Oriented Analysis and Design", this project will extend an existing modeling tool to implement the method for service oriented analysis and design. The student will be able to make a motivated selection of the most appropriate tool.
Software Engineering (Hans van Vliet)

- Knowledge management and software engineering (in e.g. GSD, including SNA, tool support for)

- Agile and X
  - where X = architecture, or quality, or GSD, or traditional, or all of those