**Appendix 1: Customers description of task**

The assignment concerns further development of a Sparx EA MDG technology to support a conceptual and logical (data) modelling with an underlying metamodel in RDF.

RDF is applied to extend the semantics of UML. The current profile, The Plus Profile, applies elements from RDF Schema and OWL (RDFS Plus) as well as a number of necessary RDF elements primarily for the description of the business context. The Plus Profile is a lighter take on enabling ontology (vocabulary) modelling than Ontology Definition Metamodel (ODM), which is currently supported in the form of an MDG in Sparx EA.

The extension of UML is applied as stereotypes and tag definitions, and in Sparx EA, this metamodel is implemented by way of an MDG technology using Logical UML Class Diagrams in EA as a base. (This MDG currently includes a profile definition, diagram definition, toolbox definitions, report templates, various scripts etc.)

This assignment will focus on the possibility of adding the following features the Plus MDG for Sparx EA (version 13), we are able to list the following examples of features that The Danish Digitisation would like to have implemented:

* Functionality that allow addition of multiple tags with duplicate tag names within and MDG-technology model. Aside from filling in the predefined tags, it should be possible to add a new tag-value pair (corresponding with the tags defined by the UML-profile), which then subsequently should appear listed the grouping containing the other tags specified by the MDG-technology.
* A customized dialogue box for the display and input of tagged values within the relevant MDG-technology
* A toolbox association which is ‘born with’ a target association end with the appropriate stereotype
* A consistent way of outputting tagged values in reports
* 'Plus Profile' UML to RDF/XML transformation
* Functionality to import and convert RDF/OWL vocabularies to UML package in a way that is in accordance with the 'Plus Profile'.
* Represent the elements from the imported RDF/OWL vocabularies as ‘standalone’ items in a toolbar.
* Represent object properties as ‘standalone’ associations in related toolbar
* Represent datatype properties as ‘standalone’ attributes in related toolbar

The assignment includes two phases:

**PHASE 1 - CLARIFICATION & ANALYSIS**The clarification and analysis phase shall be conducted as a joint effort between the Danish Digitisation Agency and the supplier, and the purpose of this phase is to clarify the above features, and the implementation costs as well as a detailed time-schedule.
This phase consists of a full day's workshop (9-16) on-site in Copenhagen discussing the above features. This workshop should be carried out on the 24th of August. No later than one week after the workshop, the supplier must provide a specification and proposal for the implementation of the features discussed on the workshop. Each feature should be individually priced enabling the Danish Digitisation Agency to select which featured should be implemented in the following phase.
The specification and proposal will be evaluated and based upon the results, the Danish Digitisation Agency will either choose to end the collaboration or proceed with phase two:

**PHASE 2 - IMPLEMENTATION & DOCUMENTATION**In this phase the agreed features will be implemented and documented. The supplier will be provided with the relevant Sparx EA files, and any new features must be incorporated into the existing technology. Features implemented by the supplier must be documented in a separate file.