#### University of Applied Sciences and Arts Medical Informatics / Prof. Dr. Peter Haas

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# 1 Background

#### Mail from Markus Kalliola 08/01/2016 (extract):

"European Commission has been analysing different terminology servers during the last six months for a project called eHealth DSI. It is a project funded by CEF (Connecting Europa Facility). The operational management board for eHealth DSI decided today to continue working with Termserver-CTS2. The final decision of which solution will be used is not yet done, but we will start a task force which analyses in more detail the feasibility of Termserver-CTS2.

...

The plan would be to first do a GAP analysis of what is necessary from eHealth DSI and what Termserver-CTS2 is lacking. This will follow with development, bug fixing and testing of the server. Later we will try to load the master value catalogue into the server and translate terms and map them into country specific terminologies. Final step would be to synchronize the terminology server with OpenNCP local terminology database. The deadline for all activities is by the end of May. We should be able to make a decision on June whether or not to use this server for real production for cross-border healthcare.

Especially in the case where a decisions is made to use the server we need to have a long term strategy for maintenance including hosting of source code, managing of releases etc. This can be discussed also in the task force."

# 2 Necessary Adjustments/Additional Functionalities

For international use of TS and the project EXPAND some software adjustments or additional functionalities are necessary. Fundamental work packages and activities are (not complete yet!):

## 2.1 WP1: Multilingual user interface

#### WP1: Multilingual user interface

TS has two software moduls: *TS-Browser* and *TS Administration (TS-Admin)*. For both modules user interface has to be multilingual, so the user interface field label should be in same language as used in browser or user should be able to choose the language before login into TS-Browser or TS-Admin. For webservices all designators should remain in English language.

1.1	Create new domain table for supported languages- (implemented in calendar week 5 – finalized)
1.2	For TS-Browser. Additional facility to select language on user interface.
	(implemented in calendar week 5 –finalized)
1.3	For TS-Admin change field identifiers in program-code to resource names
	(implemented in calendar week 5 –finalized).

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 1.4 For TS-Admin: Translate resource file content to English language (implementation scheduled for calendar week 6 – still outstanding)
 1.5 For TS-Admin: Additional facility to select language with user interface - depends on activity 1.4 (implementation scheduled for calendar week 7 – still outstanding)

## 2.2 WP2: Multilingualism of content

<b>WP2</b> :	Multilir	ngualism of content		
All co	Il content (code systems, value sets etc. and system parameters) should be stored and viewable			
in diffe	in different languages. For translations a translation-user-interface is required.			
2.1		lidation of database-structure for n languages on concept level (and others i.e. Metada-		
	2.1.1	Validation and implementation concept (design)		
		(scheduled for calendar week 7 – still outstanding)		
	2.1.2	Implementation of additional database structures		
		(scheduled for calendar week 8 – still outstanding)		
2.2	Transl	ation-user-interface for content in TS		
	2.2.1	Requirements Analyses and Design		
		(scheduled for calendar week 7 – still outstanding)		
	2.2.2	Implementation and testing		
		(scheduled starting calendar week 9 – still outstanding)		
2.3	Langu	uage selection for content in user interface.		
		<u>Remark</u> : Independent of selected UI-language user should be able to choose a different language for content display. (scheduled after completion of 2.2.2)		
2.4	Adjust	djustment of web-services		
	2.4.1 Search			
	2.4.2	Authoring		
	2.4.3	Concept Association		
	2.4.4	Administration		
	2.4.5	Authorization		

## 2.3 WP3: Authorization Mechanism

#### WP3: Authorization Mechanism

For administrative users the authorization mechanism have to be more sophisticated on the basis of RBAC. In Detail, for every user/role it should be parametrizable, for which terminologies grants for update, insert and delete are allowed and which user is responsible for a dedicated (master-) termi-

# nology and for a specific language translation.3.1Requirements Analysis and Design (database, GUI, web services)3.2Implementation of user master data3.3Implementation and testing of authorization mechanism3.4Extensions for web services

## 2.4 WP4: Distributed Terminology Server Infrastructure

WP4:	WP4: Distributed Terminology Server Infrastructure		
For th	For the "global TS" (eCRTS) holds the MVCs it should be possible to have local TS, that synchronize		
termir	terminologies automatically from global TS and additionally is able to synchronize also local terminol-		
ogies	ogies with other local TS. For dedicated local terminologies one local TS is master.		
4.1	4.1 Design of approach and web service-code-extensions		
4.2	Implementation of extended synchronization-service		

## 2.5 WP5: Development- and Test/Evaluation-TS-Instances

<b>WP5</b> :	WP5: Development- and Test/Evaluation-TS-Instances			
For controlled software-deployment two instances of TS are necessary: One instance for develop- ment and internal tests, one instance for evaluation and testing by project team members.				
5.1	Installation of Development-Instance			
5.2	Installation of Test/Evaluation-Instance			
5.3	Editing or Import of existing MVCs (i.e. via EXCEL- or CLAML-Import) for evaluation and test- ing			

## 2.6 WP6: Translating MVCs

## WP6: Translating MVCs

Translating imported MVCs in different languages using translation-user-interface (see 2.2) for evaluation and testing.
6.1 ...

## 2.7 WP7: Education

7.1 User Documentation in WIKI

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7.2 eLearning-Clips

## 2.8 WP8: Code Governance

<b>WP8</b> :	WP8: Code Governance		
See m	ail from	n Natasha Carl 2016/01/22	