PETRUS-III PROJECT
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PETRUS III - IGD-TP mid-term report

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P	Prototype	
D	Demonstrator	
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Author(s): Bojan Hertl, ARAO

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PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the partners of the PETRUS III project	
CO	Confidential, only for partners of the PETRUS III project	

[PETRUS III]

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EURATOM

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ABSTRACT:

The works done in WP4 had as an objective to be more responsive to the needs of waste management organizations and stakeholders in large, to bring inputs and to get support from the IGD-TP platform, and to ensure more efficient and permanent coordination of the PETRUS initiative in order to facilitate its sustainability. Creating the link between PETRUS III project and IGD-TP's CMET appears as a natural process since many of the consortium participants are already member of the IGD-TP and have expressed their interest in the CMET Working Group membership. Related input has been provided on the expectations of the IGD-TP CMET on Petrus III, the job profiles developed in WP1 following the ECVET principles are the most import inputs. They have been reviewed from the end-user perspective. Extended end user council meeting will be organised in Lisbon. CMET members, PETRUS III members and IAEA representatives are expected.

RESPONSIBLE:

Bojan Hertl, ARAO

INTERNAL REFERENCES:

1. PPT presentation: PETRUS III WP4 Think-tank activities and link with CMET, IGD-TP, IGD-TP CMET WORKING GROUP MEETING NO 2; Madrid, Spain, Universidad Politechnica de Madrid, 20-21 November 2013
2. D4.21: Minutes of PETRUS CMET exchange workshop M6
3. D4.22: Minutes of PETRUS CMET exchange workshop M12
4. D4.23: Minutes of PETRUS CMET exchange workshop M18
5. D4.461: End-user Council meeting No. 1
6. D6.43: PETRUS III project meeting minutes

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Signatures

	Name	Signature	Date
Prepared by	Bojan Hertl		
Revised by			
Approved by:	Behrooz Bazargan-Sabet		24/09/2015

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Identifier	Date	Short description
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Abbreviations

E&T	Education and Training
IGD-TP	Implementing Geological Disposal of Radioactive Waste Technology Platform
TOR	Terms of Reference
WMO	Waste Management Organisation

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1) Background

PETRUS III project is the one of ECVET BASED **EFTS ("EURATOM FISSION TRAINING SCHEMES")** implementing sustainable E&T programme in the field of Radioactive Waste Disposal towards geological disposal E&T goals.

Its objectives are:

- Practical implementation of the PETRUS training programme following ECVET principles. Learning outcomes will be defined in a "Competency-Based Curriculum", using the "Designing a Curriculum" (DACUM) process, established by British Columbia University.
- Elaboration of a multidisciplinary training framework for PhD students. The objectives are 1) to fast-track research activities in geological disposal by proposing customised training programmes, 2) organizing periodic PhD workshops and 3) favouring the emergence of multidisciplinary research.

Trough process approach to the project (**Picture 1**), the End-User Council represents important cross road between End users, program providers and strategic interests (IGD-TP's CMET WG).
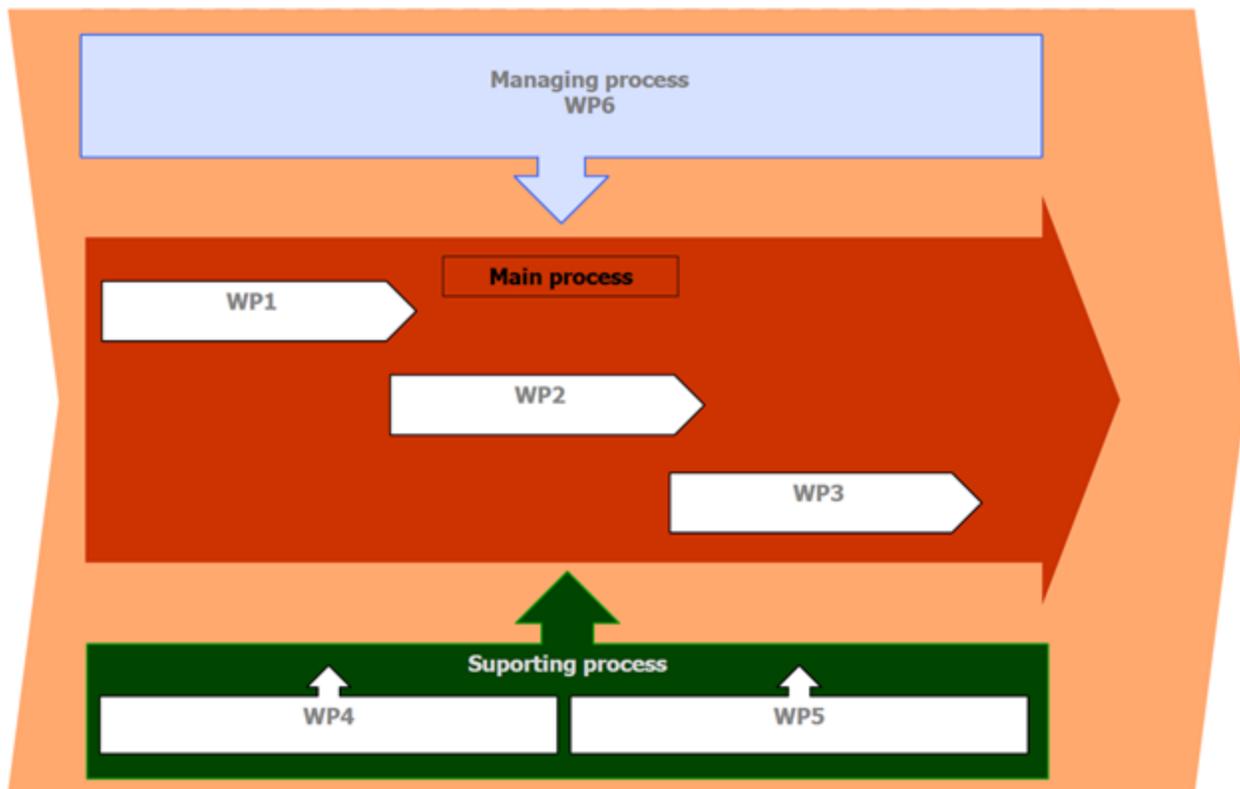
Picture 1: Process approach to PETRUS III project

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2) Petrus End-user council and link with IGD-TP's CMET working group

In the frame of WP4 links between the PETRUS III project and IGD-TP's CMET WG was established to continue the E&T initiatives and their deployment relying on the support of the radioactive waste community (**Picture 2**). This involves setting-up of a strategic policy to match E&T supply with demand and to find a continuing framework for the Professional Development scheme and its coordination.
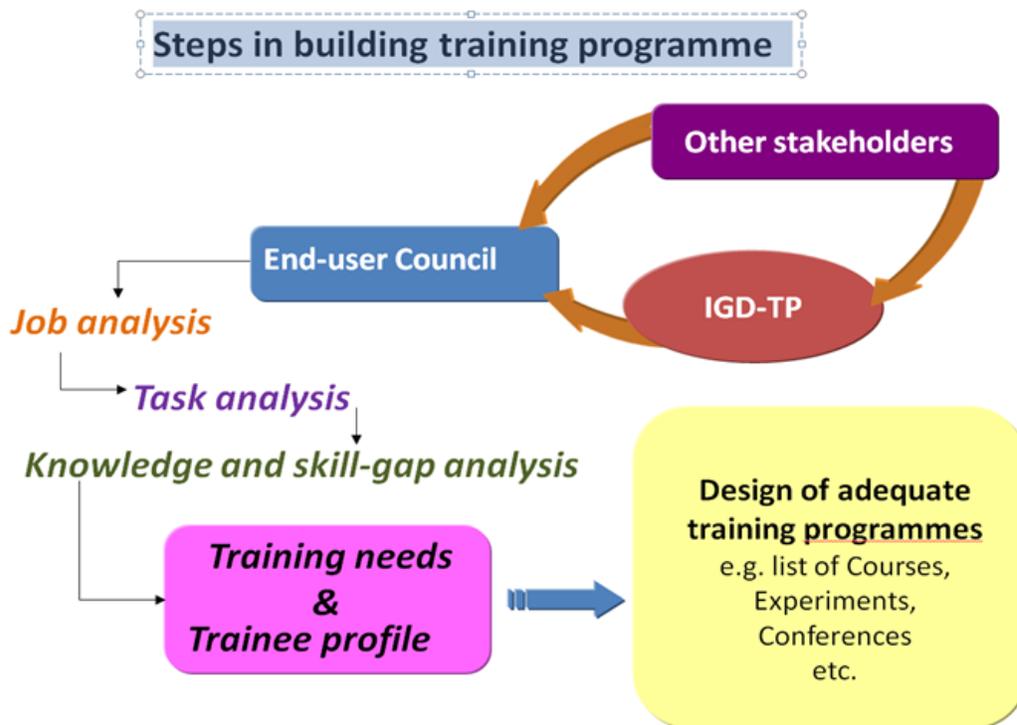
Picture 2: End-user Council relations in the project toward IGD-TP's CMET WG

The role End-User Council is to provide advice, insight, input and vision for the strategic development of the project. Dialogue with the IGD-TP's Competence Maintenance Education and Training (CMET) Working Group with the aim of continuing the development of Professionals' training scheme and its coordination has been concretised in one hand by the interaction with PETRUS End-users Council and by the other hand with the organisation of common meetings.

Some uncertainties between borders of SecIGD2 and PETRUS III project were recognised. Following the discussion on participation of PETRUS III partners in IGD-TP CMET working group, PETRUS III project leader underlined that the arising costs are eligible as far as these participations are reported as a result of the PETRUS III project. WP4 leader emphasized the fact that information flow is crucial and advised communication windows between all PETRUS III WP leaders and PMP as CMET chair rather than full meetings each time members meet for one of the two projects (D6.43).

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3) PETRUS III – CMET IGD-TP activities

First time PETRUS III initiative, main objectives and plan of PETRUS III WP4 Think-tank activities and link with CMET, IGD-TP was presented in IGD-TP CMET working group meeting No. 2 in Madrid (1, 2).

PETRUS III – CMET IGD-TP activities followed two objective:

<u>Objective 1</u>: *The IGD-TP has initiated as part of the deployment of its SRA a working group on Competence Maintenance, Education and Training (CMET). The PETRUS III consortium will complement the work of this CMET group from the E&T provider side. Creating the link between PETRUS III project and IGD-TP's CMET appears as a natural process since many of the consortium participants are already member of the IGD-TP and have expressed their interest in the CMET Working Group membership.*

Posiva as a partner in the SecIGD2 project and as a chair of the CMET working group has with the SecIGD2 resources provided and facilitated the opportunity for the Petrus III partners to link with the IGD-TP's CMET working group. The Petrus III grant resources have not been used by Posiva for this task, but Posiva has received special assistance from PETRUS III members, especially UPM Madrid (CMET no 2), Cardiff University (CMET no 3A) and TU Delft (CMET no 3B) for making the participation of the Petrus III members and their inputs to the CMET meetings possible during the first period. Related input has been provided to the WP4 leader on the expectations of the IGD-TP CMET on Petrus III, the job profiles developed in WP1 following the ECVET principles are the most import inputs. They have been reviewed from the end-user perspective.

<u>Objective 2</u>: *IGD-TP prioritizes the strategic research, development, and demonstration areas in geological disposal in its SRA 2011 where new competence and education and training are jointly needed. The PETRUS III consortium will provide inputs to and take benefit from the activities of IGD-TP's CMET working group under the guidance of the IGD-TP's Executive Group and in interaction with the IGD-TP's Exchange Forum. The continuation and improvement of the Professional development scheme and mutual recognition of the training programmes will be of the common interest of such collaboration. Furthermore, this link has been also recommended by PETRUS end-users council as a key element for the sustainability of the PETRUS initiative.*

Posiva as a part of the SecIGD2 project organized a special session at the IGD-TP's Exchange Forum no 5 at the end of October 2014. For this walkabout session, Posiva chaired the CMET meetings that lead to the formulation of the walkabout questions including the inputs from the Petrus III partners especially at the Cardiff CMET 3A meeting. Further the Petrus III project provided for 8 walkabout station hosts out of the 13 hosts in total at the EF5.

The special introduction to the Petrus III project meeting no 3 in Kalmar, Sweden about the IGD-TP's EF5 walkabout is one of the main direct contributions for the linking of the activities of the Petrus III and the CMET working group. The walkabout outcomes themselves also served directly also the Petrus III objectives, especially the outcomes of the station 2. (The station 2 report by Jussi Leveinen, Aalto and Walter Ambrosini, ENEN).

The contribution of the Petrus III project partners formed a direct link between the Petrus III and the CMET by participating in the CMET activities as part of the Petrus III work. (D4.22).

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First PETRUS III End-users council meeting was organised in Kalmar. The members to EUC were came from WMO representatives and other interested organisations (SKB, IGD-TP). During the meeting the members agreed on the Terms of Reference for EUC work with the aims and objectives, scope of the group, members, working methodology, communication procedures and decision making. At the meeting already approach to the first job description "Performance and safety analysis engineer" was agreed and comments sent to WP1 (D4.461).

To intensified the collaboration with IGD-TP CMET WG Extended End-user Council meeting will be organised by PETRUS III WP4 leader in Lisbon addressing following questions: What kind of profiles are needed addressing the knowledge, skills and competences? How to create, maintain, transfer and manage the knowledge needed? How to assure skills and competences related to required safety culture? CMET members, PETRUS III members and IAEA representatives are expected (D4.23).

4) Conclusion and Recommendations for further work

The IGD-TP has initiated as part of the deployment of its SRA a working group on Competence Maintenance, Education and Training (CMET). Creating the link between PETRUS III project and IGD-TP's CMET appears as a natural process. Crucial information flow through short communication windows between all PETRUS III WP leaders and PMP as CMET chair was accepted rather than full meetings each time members meet for one of the two projects.
End-User Council need to stay important cross road between end users, program providers and IGD-TP's CMET working group (Extended End-User Council meeting).

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