

INNOSEE PROJECT
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European Commission - Lifelong Learning Programme



RESEARCH DRIVEN CLUSTERS

Developing Cluster Management Competencies

Curriculum and Learning Model

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DEVELOPING CLUSTER MANAGEMENT COMPETENCIES

The solution for stimulating and supporting the development of Cluster Management competencies that has been defined by the InnoSee project partnership as prioritized competence development for RDC has adopted a unique combined strategy for perspective change, learning service provision, competence development as well as for enabling of sustainability improvements for cluster initiatives.

In the implementation of a 'curriculum' with such strategy orientation it is intended to make active usage of both already available resources, existing competence (frameworks/) definition as well as support the process with the potentially expanded facilitation roles for sector professionals, learning service providers, different stakeholder categories other RDC / cluster management related professionals, and we intend to do this with the ambition to utilise them as a collaborative engagement of these resources persons, facilitators, coaches and mediators as early as in the learning service design, learning service preparations, in the implementation support to the participants in the developed learning services as well as in the subsequent follow-up, evaluations and post-pilot upgrading of this InnoSee implemented RDC Cluster Management development initiative.

A MULTI-DIMENSIONAL DEVELOPMENT APPROACH

The approach adopted by the InnoSee project has been proposed to have the following characteristics;

- Based on a strategy for a multi-faceted RDC management development
- Implemented as a modular learning service with change-oriented learning outcomes ambitions.
- Facilitated with inclusion of both capability and contextual considerations
- Operating context and existing management capabilities are accommodated for in all modules.
- Implemented as participative learning with up-to-date pedagogic principles
- Flexible curriculum enabling multi-modality implementation of the programme/course/modules.
- Optionally delivered as face-to-face, online or as blended learning service
- A modular learning programme is designed to be delivered in multi-formats, with individually different prime focus and with partial or extensive usage of a flexible learning service curriculum.
- Closely interconnected with RDC trends, recommendations and standards
- Anchored in national and European contexts through competence frameworks and via stakeholders.

INITIATIVE TITLE: CLUSTER MANAGEMENT PROGRAMME

The full title of this combined RDC Management 'change promotion' and 'learning service' solution is:

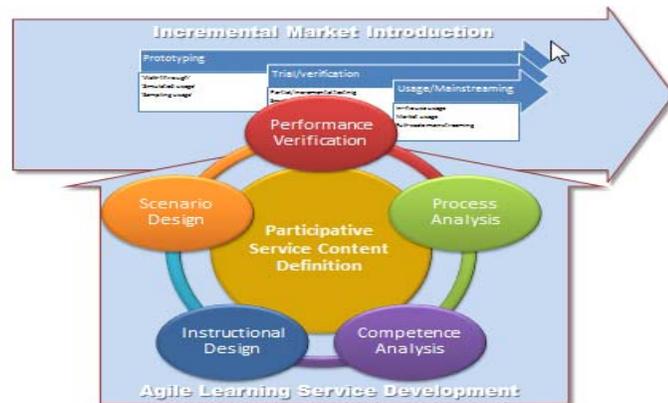
“Provide opportunities for development of state-of-the-art management competencies for new and practicing Research-Driven Cluster (RDC) managers across Europe focusing specifically of prioritised issues and expressed needs.”

The adopted implementation approach will be defined through a three-part documentation/guides, namely (1) a definition of the content and structure of the learning service structure for developing of RDC Cluster Management competencies, also called the 'curriculum' for the InnoSee initiative, (2) a specification of the core parameters of the modularized components of the learning services to be developed, also called the 'training model' or

‘competence development model’, and finally (3) a definition of the ‘learning support/ service platform characteristics’ or eServices that will mediate the competence development activities. This document constitutes the first two of those three document parts that in an integrated manner will guide the proposed InnoSee competence-development/service design, production and implementation.

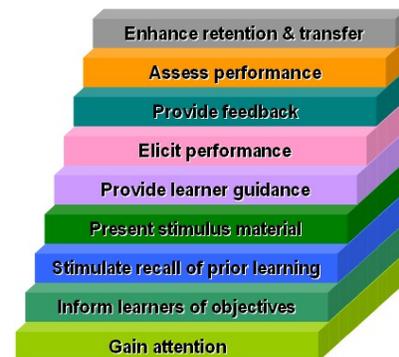
The first part of this document, also given the title ‘Curriculum and Learning Model’ will primarily highlight the proposed content and structure of the adopted modular and selective learning session approach through an elaborated ‘curriculum description’ explanation presented next, followed by an outline of each of the learning service modules and the learning sessions and assignment that those modules constitute.

The ambition of the InnoSee project is to on one hand implement the learning services with and incremental market introduction approach, progressing from early piloting of prototypes to wide-scale mainstreaming, and on the other hand develop the learning services with an Agile learning service approach. The development approach anchors its progressive stages in a solid needs analysis and

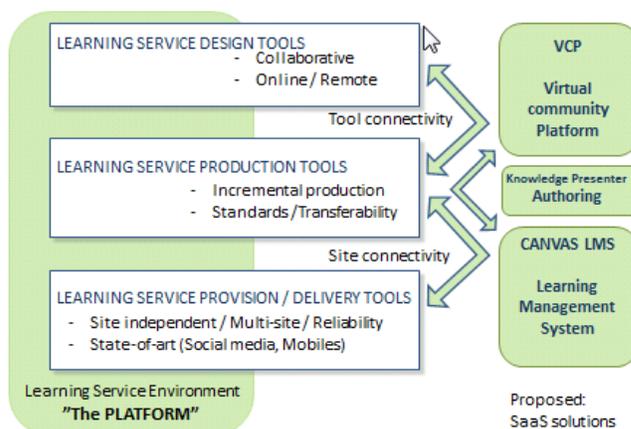


competence/performance verification, followed by a process analysis identifying key performance improvement area (KPAs), on which the definitions of the expected learning outcomes (in EQF-compatible format) is formulated and act as a basis for the competence analysis, instructional design and construction of the learning scenarios that will generate the expected performance improvements. The outcomes of those efforts are among other documented in this curriculum document.

The conversion of the content specifications into state-of-art learning services in the area of cluster management includes also the conversion of the content specifications on programme, module and learning session levels into instructional events that will assure the generation of expected competence/performance improvements. A cornerstone for this conversion process in the nine Gagne Instructional events that must be accommodated for on both a macro (programme) level as well as on a meso and micro (module and session) levels. These nine instructional event, starting in the bottom of the illustration with ‘gaining attention’ to the last and top level on the ‘stair of vents’ with enhancing retention and transfer’ to actual performances.



The third core component of the InnoSee curriculum implementation is the provision and usage of the mechanisms and service environment for design, construction, delivery and support for the curriculum-based learning services. This includes providing learning service design tools, learning service production tools, and learning service provision/delivery tools, which will be further elaborated upon in the third part of this InnoSee Learning



Proposed:
SaaS solutions

Service Curriculum and Training Model specification.

Cluster Management Competency Development

– The overall strategy

The InnoSee competence development project emanated from an expressed need for upgrading the capabilities of developing, managing as well as securing the progress and sustainability of new and already initiated/operational RDCs. How to potentially introduce and even improve the implementation of cluster management approaches which generates such desirable impact on new and already operational RDCs has been seen as possible through a modular training programme that is making extensive usage of a combination of experiences and insights gained among other from market and trend assessments, contextually-anchored research and needs analysis carried out in partner countries across Europe, as well as from extraction of subject-matter specialisms available within the InnoSee partner organisations and their already established networks and practical engagement in a wide range of RDC and innovation oriented clusters. These experiences and the previously gained insights from reviews of previously implemented cluster-related research initiatives compiled among the project partners during the initial stages of the InnoSee project were also acting as key contributive ‘embryos’ to the InnoSee curriculum design process, and forms the conceptual and knowledge base on which the InnoSee competency development proposal / curriculum was initially conceived, proposed, verified through stakeholder consultations and developed.

In the InnoSee research and needs analysis efforts there were, in addition to the RDC cluster management dimension, which constitute the ‘competency core’ of the proposed programme, also highlighted the needs/preferences for addressing both what could be said to constitute ‘the European and a contextual dimension’, with an emphasis on the European trends and experiences as well as the contextual/cultural idiosyncrasies that characterise the operational realities of respective partner countries.

It has therefore also been recognized within the InnoSee project that, in each local/national context within the European-wide market being addressed by the InnoSee learning service ambition, there will also be a demand for its own unique mix of needs, demands, readiness for new trends and designs, and there may also be unique competence requirements for the locally/nationally anchored ambitions to improve the state of its cluster management. As such each of those will also require a unique and possibly even a ‘tailor-made solution’ both in terms of the ambition set for a given context as well as demands for adjustments of the learning services to the target groups/actor maturity levels in terms of assumed entry level management competencies and prior RMC experiences, besides a potentiality of preferences for personalised RDC-competencies to be strived by different potential learning service participants for the InnoSee training/ competency development efforts that will be designed and implemented in line with the ‘curriculum and learning model’ presented here.

With its multi-issue orientation of the proposed InnoSee learning service modules, and its expectation to be combined with and accommodate the earlier mentioned contextual flexibility demands, it has already at this stage been envisaged that the full scope of the cluster manager needs across Europe will probably require a very flexible implementation of a very comprehensive and sophisticated programme. The InnoSee project partners are convinced that such programme could be constructed based on the proposed ‘curriculum and learning model’ presented here, and be designed with the proposed design and pedagogic base structures, as illustrated with the diagram presented below. However, the full and comprehensive scope of such management programme is certainly outside the committed scope and resource capability of the present InnoSee project, and for this reason will only a prioritised set of eight RDC issues be directly addressed by the pilot implementation of the overall RDC management needs.

A prioritised segmentation of the wider programme, covering the most articulated components of

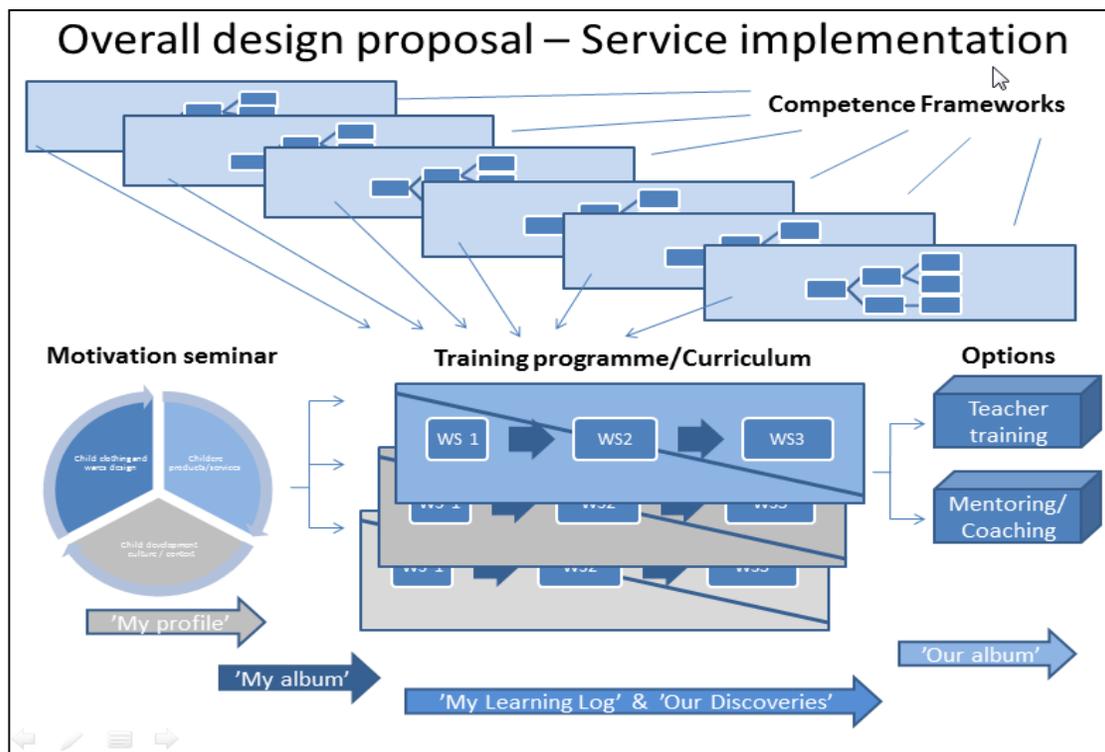
the eight prioritised focusing areas in form of nine modules (the first module being an introductory module on the other eight key issues/modules), would be a more realistic as an initial stage curriculum / learning service design initiative, still preferably being implemented in a dual-mode where the ‘programme/course’ addresses both the key issues/components as a set of modules derived from the completed needs analysis and provided as an integrated and partially overlapping modular implementation structure addressing of the respective ‘managerial’ and context/cultural dimensions, as also illustrated in the middle diagram on the following page.

The curriculum description that follows in the introductory part of this document will both portray the proposed pedagogic base structure, as well as describe in more detail one of the modular programme that will be addressed here, and which is the project’s direct response to the needs being prioritised among the sector professionals/specialist that have been consulted during the InnoSee needs analysis.

The needs for generating contextual relevance for the professionals/groups put a focus on the structure and flexibility of competence development initiative being presented here, and expected to be developed by the InnoSee project as a state-of-art and overall training solution/service, could probably also require an implementation of a InnoSee-specific training-of-trainers programme, in which the trainers expected to be involved in respective training modules are provided with improved competencies on initiating, promoting, coordinating and supporting the RDC managers during their ‘learning journeys’.

Associated with proposal is also the notion of implementing an initial ‘recruitment/motivation seminar’ within which the programme options, and the rationale for those, are explained to potential participants. Such events should also give the potential participants an initial ‘appreciation and readiness generation’ as well as being the event in which they have the opportunity to choose their personal participation profiles.

In order to generate an optimal inter-participant understanding for their respective professional background and operating context (the latter especially if participants within the same implementation group comes from different contexts and/or have different professional backgrounds), there will also be introduced some unique ‘story-telling’ features for the participants to firstly be used between the motivation seminar and the program start (in order to introduce themselves), and secondly to be used during the programme period to document the learning and collaborative processes that takes place during their participation in the programme. Usage of equivalent ‘story-telling’ features will also be promoted for the post-project involvement in subsequent joint cluster management initiatives.



The proposed implementation process is illustrated below.

Cluster Management Competencies – The Curriculum

INTRODUCTION

This document has the ambition to describe the intended structure, content and administrative arrangements for a training programme that is responding to the specific needs of professionals engaged in cluster management, and will address both professional issues with RDC management as well as the cultural/contextual idiosyncrasies and trends that related to RDC and cluster management. As such the addressed issues have their unique characteristics, circumstances, actor considerations, contextual concern, and the unique RDC complexities, combined with sector and contextual specifics, market magnitude and technological trends places complex demands for both contextual and socio-cultural flexibilities in the programme and unique pedagogical challenges on the overall programme. It is expected that any training programme that has the genuine ambition to prepare professionals/learners for such demanding realities also need to be both flexible and be capable of accommodating for a wide range of individual application-orientations that are seen by the participant and other stakeholders as highly relevant, as well as by cluster issues and RDC specialists engaged or consulted by the InnoSee project. For this purpose has the programme introduced here been developed with four ambitions in mind; a modality or programme flexibility ambition, an accommodative or orientation flexibility ambition, a module delivery flexibility ambition, and with a verification flexibility ambition.

The Programme Flexibility Ambition

This curriculum has been developed in such manner that it will be possible to implement the training programme defined by it in different manners, depending among other on the learning service provision ambitions of, and capabilities within, a given individual training service provider. There are four alternative implementation modalities identified for the training programme being defined with this curriculum; a comprehensive training programme, an intensive training course, a self-learning programme, as well as an optional addition of a post-programme teacher training course.

The comprehensive training option is assumed to be implemented as a blended learning programme where the learning activities include both classroom-oriented f-2-f (face-to-face) sessions, which are predominantly instructor-driven, and with its ‘between sessions’ instructional activities taking place ‘remote’ in connection with the student-driven self-studies and assignment work. The instructional inputs are here provided in a combination of pre-programmes instructions and tutor-oriented support to individual learners. The between-session learning activities are implemented as online learning activities or, if Internet connections are not available to the participants, as print-based instructions and mail/phone-interactions with their mentors/tutors.

The intensive training option is assumed to be implemented as a set of classroom-type of sessions only, based on the same or equivalent modules as being used during the f-2-f sessions in the comprehensive training option, possibly also being combined with ‘external’ modules covering also other competence areas than what is addressed within this training programme.

The self-managed learning option is assumed to be implemented as an e-learning activity, administered via a LMS or as a virtual community service. The self-managed option can include either only the earlier mentioned f-2-f session modules, provided in e.g. an eLearning oriented modality, or as pre-recorded presentations equivalent to those that is taking place in the f-2-f

sessions of the previously mentioned implementation options. The interactive parts can either be implemented through pre-programmed dialogue generations, or alternatively, with the e-learning programme being implemented in a collaborative peer-learning or study circle modality, where blogs, online discussion forums, online meeting services, chats, etc. are replacements for the tutorial interactions with the participants using the online learning modality.

The teacher-training option is assumed to be implemented for teachers/trainers/tutors who intend to be implementing the curricula defined for this training for competence development in the area of cluster management. Such trainers should preferably also have gone through the training programme in the comprehensive option, or at least completed the programme as an intensive course. The absolute minimum is that they have had an in-detail review of the content of each module instruction, presentation material, and the reference documents used within this programme, and that they have confidence with its content, implementation methodology as well as all the tools and instructional materials to be used for an implementation of this programme for the modalities in which they subsequently will implement the training programme. The teacher-training sessions can be implemented either as an add-on session directly after the course implementation (e.g. after the last f-2-f session of the comprehensive programme), or as a separate short-course. Such teacher-training course would predominantly include explanations of the rationale for and the methodologies used in connection with each programme component, combined with a 'walk-through' of each programme block, as well as give practice on the usage of the presentations and the interaction tools that are to be part of a programme implementation. The usage of and references to this curriculum would also be a key ingredient of such teacher training course.

A training service provider may choose to implement one or more modality options for this training programme. For each such implementation should however managerial-level decisions be taken on the other ambition dimensions elaborated in this curriculum document.

The Accommodative Ambition

Considering the wide range of application areas the competencies catered for in this training programme, the wide range of unique contexts in which these competencies are potentially being applied by the participants, as well as the competency range and experiential richness which the participants presumably already possess when entering into this programme, and what the programme also have to have catered for, including the capability to cater for in terms of the experiential and knowledge heterogeneity among its participants, it can easily be concluded that the programme have to be very accommodative in its structure. There are therefore four orientation ambitions catered for within the curriculum developed for this programme;

Integration of two competency clusters into one programme design

The curriculum for the training programme is designed in such way that it integrates the 'Cluster Management' block of competencies with the block of competencies relating to 'Contextual and RDC-specific issues and considerations'. Through such integration the 'cultural/contextual aspects of Cluster Management development dimension will give the programme a more context-related orientation than what is normally the case in most cluster management training programmes / courses. The programme will also through the integrated European dimension and professional development aspects of management competencies also better accommodate for the professional uniqueness of managing RDC initiatives. The practical implementation of this programme should therefore be possible to implement both with a predominant orientation to initiatives that are addressing participants which have their prime interests towards state-of-art of cluster management initiatives, as well as with potential participants having a predominant preference for a practical applications and orientation of the competency development outcomes that they gain from this programme towards their RDC contexts. Both orientations that are addressed by this programme (Cultural/contextual issues relating to cluster management, and specific RDC-related issues and its practicalities) have been catered for by enabling learning

service providers and programme participants to essentially use of the same or a compatible/consistent curriculum/training programme design. How this is proposed to be practically catered for will be demonstrated through the 'curriculum and learning model' for this training programme described in the second part of this document.

Adaptability towards related but different application contexts

As already implied in the above description of the proposed curriculum, the ambition is to cater for two types of application contexts; Cluster Management and addressing RDC-specific issues. In its added ambition to be a 'European' training programme it has also the ambition to be adaptable to an implementation context in which demands for inter-contextual and 'collaborative considerations' in joint cluster initiatives across regional and national borders are also expected to be explored with an among the programme participants.

The mechanisms for generating integration between the two types of competence development, technical proficiencies and cultural/contextual sensitivity, are however possibly less 'different' in today's world than what may initially be envisaged. With the potentiality of a dual-mode programme as proposed here it will also be possible to adapt the programme design to a predominance towards either of those two, or even to implement it for application contexts that have a flavour of both these types, and possibly even with more intensified inter-contextual and inter-cultural aspects, within it. For this purpose will the proposed programme also have the capability to address cluster initiatives that involve inter-contextual and inter-cultural issues, and thus combining the cluster management dimension and the RDC-specific issues with the sectorial/contextual issues, that may prevail for specific participants in their envisaged practical/predominant applications. How this can be done will be illustrated with the forthcoming presentation of the training programme design.

Enabling a high level of personalisation in the programme

The curriculum of this training programme has been comprehensively anchored to established competence frameworks related to cluster management competencies, and in consideration of the particular issues related to the area of European contexts, cultural and inter-cultural considerations and accommodation of trend, state-of-art characteristics and prevailing recommendations and regulations. The competence frameworks to be used as the conceptual platforms for subsequent module development are essentially profession-oriented, and generally structured in line with recommendations consistent to EQF. The frameworks used for subsequent module development are also selected with an ambition to be interoperable and consistent with national competence standards. Such ambitions is also seen as facilitating a comprehensive anchoring of the competencies to both national and European qualification frameworks as well as to facilitate easy verification and validation of competencies generated from this programme, and comparison of the programme with other programmes.

It is also adopted for the ambition to be used as a basis for measurements of both participant entry levels as well as achievement levels. The relevance, validity and the urgency of attention to the competencies included in the selected framework structures which this programme has been based on have also been verified by a number of national and international studies and reports, and their relevance to the market needs for the addressed competencies have also been extensively verified. However, the individual actors assumed to participate in this programme have needs that differs both in terms of the competence components within which competency development actions are most needed, the competency levels that those have and would like to achieve, the differences of their perceived 'long-term needs' and here-and-now' needs, as well as the modalities which the competence development initiatives are preferred to be utilized in. This places great demands on the capability to personalize a training programme directed towards this unique and very important 'sector'. To accommodate the acknowledged personalisation

demands, besides those catered for through the flexibility of implementation approaches and delivery modalities for this training programme and its modules, this training programme curriculum definition has also been designed with the following personalisation-enabling features included;

The competence outcome definitions within the included modules are produced in a granular structure enable those to be attended to, analysed and assessed with different resolution levels, from a general block structure to more in-detail definition of each of its contained/subordinate competence elements.

Alternative ambition levels are defined (Basic, Practical and Advanced/Professional) for each module/ competence block within the training programme, facilitating both personalised entries and exits, as well as to enable clustering of participants attending to different parts of the programme.

Multi-modality of the delivery of the instructional parts of the programme has been accommodated for through the availability of the instructional materials in different delivery formats, such as f-2-f and online 'live' presentations or pre-recorded presentations.

Accommodation of different implementation approaches

Even if it would be found that the competence development needs of a group of professionals would be essentially the same it is very likely that their personal and/or professional circumstances would inhibit them to participate in a course the same programme implementation format. In addition their 'here and now' needs may also differ, and this require different implementation approaches. For that reason this training programme's curriculum has also been designed to accommodate for different implementation approaches. As examples of such could be mentioned the four presumably most frequently required approaches; the comprehensive programme implementation approach, the partial programme approach, the intensive course approach, and the individual module implementation approach.

The *comprehensive implementation approach* is implemented as a blended learning programme with a set of face-to-face sessions each intersected with online/offline self-managed learning activities, catering for the bulk of the content, the knowledge acquisition elements, as well as the practical application of the newly acquired know-how in realistic settings which have the intention to generate the skill and competencies that are set as the competence development ambition within this training programme. The f-2-f sessions in this approach are having both the role to trigger and facilitate the implementation of a set of mentored 'between session' learning activities.

The *partial implementation approach* is based on very similar implementation model as the previous approach, but with the difference that the content of the f-2-f sessions (and the whole programme) is only addressing some of the competence areas that a full f-2-f session includes, or that those are being addressed with only a restricted ambition level in its focus. An alternative 'partialness' is that only one of the programme aspects is catered for within a programme implementation adopting this approach.

The *intensive course approach* is making use of the presentation-oriented modules within the earlier mentioned f-2-f sessions, and not including the practical self-managed assignment that are in the earlier approaches and carried out as 'between session' learning activities. As a compromise those skill/competence-generating assignments could alternatively be open for an optional post-course usage by the course participants as a voluntary extra set of sessions carried out after the completion of the course. If such voluntary extensions of the course is to be provided it is also assumed that these 'between sessions' are made available online to the participants.

The individual module approach is simply a fragmented implementation of the individual modules within the earlier mentioned f-2-f sessions, with or without the associated skills-generating assignment that are being part of the ‘between sessions’ learning activities of the programme design for the comprehensive approach. These modules can in turn be implemented with a different delivery modality, as will be elaborated upon in later parts of this curriculum introduction.

It should also be mentioned, that in light of the previous programme ambitions, the curriculum is also designed in such way that one implementation instance can potentially also accommodate for one or more of the earlier mentioned personalization ambitions, and this by allowing some participants to attend the training programme in a different approach than the bulk of participants, e.g. with a partial participation due to their focus on the programme having a more selective ambition levels (e.g. only learn the basics), with attention only to specific competence levels (e.g. already skilled in some competence areas), or for acquiring a sub-set of qualification generation levels (e.g. only wants to learn the basics or ‘theory part’ of the programme content).

A learning service provider have to determine early, preferably through some form of market analysis, which of the implementation approaches are best suited for the market that they address, and to compare this with the internal capabilities of the learning service institution. If any shortcoming in instructional capabilities exist, there is still the option to send selected instructional staff for the type of teacher training programme mentioned above, rather than implement the programme in a format that is comfortable to the training institution rather than to its clients.

The flexible module delivery ambition

The curriculum for the training programme has also been given a multi-strata modular structure, with its overall programme may firstly be divided in upto five segments; the start-up seminar, assignment work, the intermediate seminar, field work, and the final seminar, and each of these segments/modules have been given three ambition levels (Basic, Practical, and Professional). The final seminar could potentially also be optionally followed up with either a teacher-training session, and/or a post-programme mentoring/coaching period.

The start-up seminar is intended to be implemented as a set of f-2-f sessions, implemented as on or off-line classroom-type of lessons. The duration for the implementation of a full-scope start-up seminar is estimated to be one day per modules (if implemented on participants’ mother tongue). The initial part of the day would focus on the introduction of the programme/module and the involved actors, as well as introducing the assessment activities (if not catered for prior to the start of the first seminar).

The second part of the day would address the first part of the competence blocks (Cluster Management). The last part of the day would be addressing the contextual issues and introduce the assignments that are to be performed by the participants during the subsequent ‘between sessions’ period.

The ‘between sessions’ periods are essentially being implemented by the participants as a self-managed self-study, possibly with access to online/remote tutor support. The assignments are documented and made available in an online repository (LMS or virtual community), from which also all tools and reference documentation also can be downloaded. The participant time required for this assignment period would typically be requiring 1-2 work-days, and be typically distributed over a period of up to 3-4 weeks.

All of the above f-2-f sessions are structured into module sessions, and each module session is related to a specific programme module, as well as to a specific set of competence outcomes expected to be addressed within the overall training programme. These competence outcomes have also a set of defined success criteria, which in turn are also connected to the subsequent assignments to be performed during the ‘between sessions’ periods. These criteria are also being

addressed within the programme's assessment and evaluation activities. Each of the presentation-oriented sessions (the majority of the sessions) are to be supported with PowerPoint-based instructional support materials, which in turn also are made available in different delivery modalities.

The multi-modality options for module delivery

As all seminar components are 'modularised' and each presentation session has its own PowerPoint-based set of presentation slides, these PPT-files is also converted into both participant hand-outs, which they can make their own notes and reflections on, as well as being used for producing an alternative set of module presentation modalities; from the conventional PC/projector-based PPT-supported live lecture to 'live' or pre-recorded presentations online.

PC/Projector-based classroom presentation is the simplest form of a module presentation. The PPT-files, pre-prepared for each presentation session includes instructor's notes, hints for how to carry out the presentation, what to highlight and what to draw participant's attention to. Separate printouts are made for instructors (with one slide and notes per page) and for participants (with multi-slides per page, and area for making notes, and to be distributed before the presentations).

Online 'live' presentation to participants are made from a remotely located tutor, or to remotely located participants, all being hooked up to a common Internet-based presentation environment, such as the services available e.g. through Skype group conferences or the VCP-based Display engine application.

Pre-recorded presentation to be available online or to be used in a downloaded format as a video-type of presentation, where slides have been reinforced with audio-recorded presentation from a tutor. The downloaded variant can be used in a classroom environment while the online variant can be viewed by the participants from whatever location as remote learning sessions.

Online discussion forum session, where the individual slides in a presentation (possibly with its pre-recorded audio) are inserted as a starting point for an online group discussion (or study circle) and where the participant contributions are being provided as comments and replies to comments in a typical discussion forum format, or alternatively in a 'blog' or 'story-book'/e-portfolio format.

The online service environment established for supporting the implementing this curricula will have all the presentation files converted for all the modules that are included in this curriculum available in all of the above delivery formats, and those can be accessed and used by the instructional staff that are to be engaged in an implementation of this curricula in any of the above introduced modalities.

The documentation of learning actions online

All non-presentation materials intended to be used for the implementation of the training programme defined within this curriculum are also available in different formats; as print-pages that can be copied and used as-is, as well as electronic documents (in Word and/or PDF format) that can be edited, extracted and/or reformatted as found desirable for a particular programme implementation. These files are also made available for downloading from the online environment established for the support to local implementation of this curriculum/training programme. These files are also being converted to online web pages that can selectively be given access to also for the participants of a given instance of a programme implementation. Separate arrangements have also been made for more extensive access to the online training programme support environment for the participants in earlier mentioned teacher training courses.

The above module flexibility arrangements will also enable usage of various training programme implementation modalities, from the conventional 'chalk-and-talk' seminars, being interwoven with self-managed 'between session' assignments, to more advanced options of online supported learning, such as individualised self-studies to collaborative study-circle oriented implementation of the programme, or even having some of its parts provided as e-learning / virtual community

based learning to be reinforced with either a LMS-based administration of the training programme, or through the administrative support provided through a virtual community environment, such as the project-introduced VCP environment.

The Competence Verification ambition

This training programme is, as have been mentioned earlier, ‘anchored’ towards an already established competence framework structure, and all training programme components are directly related to specific elements within that competence framework. This will enable both participants and providers of learning opportunities based on this programme’s curriculum to objectively assess both the entry and exit competencies which the programme participation will generate for its participants. It will also enable a validation of both competencies already acquired through prior learning, it will facilitate validation of post-training competency levels, and it will enable ‘anchoring’ those to national frameworks, to sector frameworks as well as to European qualification frameworks. The programme-related elements of the competence framework is used both for specification of the pre-requisites for and expected outcomes from each programme component (modules, sessions, assignments, etc.). It is also utilised in connection with a set of audits/assessments, of which the following three assessment tools are playing a particularly important role in this training programme, namely; the ambition level assessment, the entry level assessment, and the achievement level assessment.

The ambition level assessment has the purpose to determine the personalised learning preferences, needs and content orientation characteristics, the readiness to engage in learning, and the aspiration in terms of competence coverage and the levels of competencies to be strived at. This assessment is extensively based on the competence framework which the programme is anchored to, as well as on the modality options and implementation approaches that can be catered for through this programme, and the learning styles/ preferences that can be accommodated for within a given instance of implementation of this curriculum.

The entry level assessment has the ambition to determine how the programme participation could be best arranged for an individual participant, as well as how the programme components could be adapted to better accommodate the characteristics of a defined set of potential participants. Through the outcomes from this type of assessment it should be possible to determine what parts of the programme have already been catered for through prior learning or through prior practical experiences, where the optimal starting point (at basic, practical or advances level) within the respective content blocks of programme would be, and how the learning activities could be best approached. The entry level assessment outcomes has also the ambition to generate an optimal matching on the programme entry for the participants and thereby secure that pre-requisites or presumed entry skills for each training programme component are ensured.

The achievement level has the qualification assessment been given the combined ambition to verify that the intended learning/competence developments have actually occurred, and to form a basis for verifying/certifying to programme participants (and present/future employers/managers) which competencies, qualifications and capabilities the participants have achieved as a result of the participation in this training programme.

The assessment-generated competence verifications are also to be closely inter-connected to the elements of the competence framework that this training programme has been anchored towards, and with the achieved competence levels has been directly inter-connected to reference levels used in the European Qualification Framework.

A learning service provider implementing an instance of this training programme’s curriculum using any of the formats, modalities and approaches available for it, has also the option to include some or all of the assessments mentioned above. It is also possible for third parties to make usage of these assessment tools even external to the implementation of this training programme, for programme evaluation purposes, or for comparison of competence development

capabilities of this programme with similar programmes on the market. The assessment tools can potentially also be used for programme-independent validation of cluster management competencies in other contexts than for InnoSee competence development purposes, such as in connection with recruitment, performance assessments and organisational restructuring.

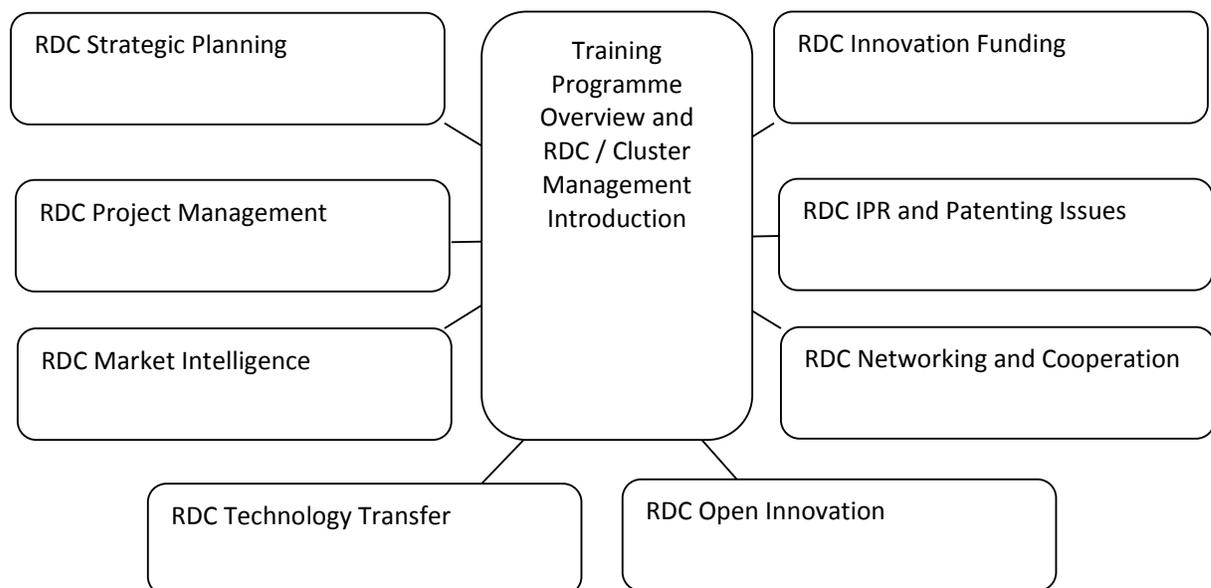
GENERAL PROGRAMME STRUCTURE

The full implementation of this programme consist of nine major blocks or modules, implemented as a blended learning with a combination of supported learning sessions intersected by online self-managed learning sessions as illustrated below,

Supported learning #x /sessions	'Between Session/Period A	Supported learning #y /session	'Between Session/Period A	Supported learning #z /session
1 work-day, modular f-2-f or online sessions	5-15 days Self-study + assignments	1 work-day, modular f-2-f or online sessions	5-15 days Self-study + assignments	1 work-day, modular f-2-f or online sessions
Focus: Cluster management issues	Focus: RDC/Contextual ly specific issues	Focus: Cluster management issues	Focus: RDC/Contextual ly specific issues	Focus: Cluster management issues
Live, online or CBT delivered	Self-managed, Offline/online	Live, online or CBT delivered	Self-managed, Offline/online	Live, online or CBT delivered

MODULAR STRUCTURE OF THE OVERALL PROGRAMME

The training programme consists of nine module blocks, each further defined in terms of key issues/competence areas that are addressed within respective module. There is one introductory module that addresses generic and basic competencies that are prerequisites for the other eight issue-centric modules. The issue-centric modules are possible o be studied in any order, but may include a number of 'sessional addressing different competency levels. Sessions with competencies already acquired by a participant may be skipped by that participant, and participation in a given module may be terminated before reaching to the higher level sessions – if the ambition and/or job requirements got a participant is lower than the more advanced module sessions covers.



META-LEVEL PROFESSIONAL COMPETENCIES ALSO ADDRESSED WITHIN THE PROGRAMME

The training programme can also address a set of generic and specific competencies, especially through the assignment parts of the modules / training programme. The generic competencies are clustered in accordance with the previously mentioned ambition levels. In addition there is also defined a set of meta-competencies per training module. The competency specifications based on ambition levels have been defined in four levels; an expected entry level for the training programme (0-level) and competence levels 1 to 3 for the three ambition levels. The four competence clusters, relating extensively to the coordination capabilities of a professional engaged in the kind of cluster management which this training programme addresses, and the performance criteria defined for those, are;

1. [Level 0](#) Plans tasks, within limits set to ensure that intended outcomes are achieved and completed
2. [Level 1](#) Delivers own work to time and standard and takes responsibility for the work of others
3. [Level 2](#) Takes responsibility for work groups or for a RDC/cluster development initiative. Plans ahead and builds flexibility into plans to cope with unexpected events.
4. [Level 3](#) Takes responsibility for the achievements of a team, a working group or a cluster initiative and ensures that cluster management assignment given are implemented as expected.

Minimum Entry Level / Level 0. The training programme participant is able to plan tasks, within limits set to ensure that intended outcomes are achieved and completed

- meets deadlines and objectives or alerts managers in good time if they cannot be met
- prioritises own work and adjusts priorities in response to changing circumstances
- builds in own checkpoints to monitor progress against deadlines
- adapts to new ways of working and copes well with uncertainty
- gets to know what management, project team and clients/target groups wants and values
- deals courteously and promptly with client enquiries or ensures that someone else does
- takes responsibility for occurring problems and takes action to resolve them.

Basic - Competence Level 1. Delivers own work to time and standard and takes responsibility for the work of others operating under the cluster/unit being managed.

- delivers results on time and to agreed quality standards
- prioritises own and any staff's work in line with overall organisational/unit priorities
- looks ahead, identifies potential problems and develops steps for dealing with them
- accepts responsibility and accountability for own and staff's work
- breaks down more complex tasks into discrete steps and sets milestones
- maintains a positive and confident approach when dealing with others
- encourages others to look for ways to provide a better service

Practical - Competence Level 2. Takes responsibility for the work of a cluster team or a cluster initiative/project. Plans ahead and builds flexibility into plans to cope with unexpected events.

- overcomes setbacks/obstacles for achieving results and learns from those events
- establishes arrangements to review progress of own and others' work
- understands/uses project management techniques to deliver on time and within budget
- builds good working relationships with clients and adapts work to suit their requirements
- knows the limitations of what can be delivered and manages the expectations of others
- seeks and acts upon feedback from management, clients and potential end-users

- helps people to take responsibility for the quality of their own work

Professional - Competence Level 3. Takes responsibility for the achievements of a cluster team / work-group or a cluster development project and ensures that it is implemented as expected.

- clarifies objectives and identifies where the cluster initiative is to make the greatest impact
- takes a longer term strategic view, linking own plans to overall aims of the cluster initiative
- identifies risks to current plans and makes contingency arrangements
- finds out what is happening "on the ground" to ensure that work is implemented effectively
- sets up systems for monitoring the quality of a cluster initiative and acts upon the findings
- ensure the team appreciates importance of quality and is aware of standards and targets.

CURRICULA IMPLEMENTATION AS A BLENDED LEARNING TRAINING PROGRAMME

The blended learning variant of the curricula implementation for this training programme includes nine modules, each with approximately 5-8 sessions per module (with the duration of about one day per module, and with a programme of approximately 10 days). Between the module implementation days there is a 'between sessions' self-managed activities in form of learner-managed self-study activities and individual or group-implemented assignments. Each of the module-specific 'seminar/workshop' sessions are also designed to accommodate the previously mentioned up to four ambition levels, also reflected in the training programme through its division of each day of those into a set of 'sessions', each representing approximately one lesson, or approx. 50 minutes of instructional/learning activities. A typical schedule for a seminar day; Start 08:30, Lunch 12:30-13:30, 2x20 min breaks, End 17:30

Sessio n 1	Sessio n 2	Brea k	Sessio n 3	Sessio n 4	Lunc h	Sessio n 5	Sessio n 6	Brea k	Sessio n 7	Sessi on 8
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The three ambition levels are accommodated for in this session structure by having the majority of the 'basic level' sessions in the beginning of a seminar day, and the 'advanced level' sessions in the end of the seminar day, making the actual seminar days somewhat shorter, and with a minimum level on intermission sessions in the middle of the day. Only the participants who cover the full scope of the programme, and with a coverage of all basic level sessions and to be participating also in all the advanced level sessions, will attend all the seminar sessions of all the module seminars/workshops, as well as engage in all the self-study and assignment work for the 'between seminars' sessions. The proposed detailed implementation format for each of the modules are specified in the end of this document, and where the modules have been given a 'Module N-n' code within this curriculum, with 'n' indicating the ambition level (0=General intro, 1=Basic, 2=Practical, 3=Advanced and x=self-assessment).

The basic level seminar sessions are mainly providing conceptual understanding of the issues and competence areas addressed in a particular session. Such often extensively lecture-oriented sessions are implemented with a PowerPoint presentation as its base. This type of session can also be potentially replaced with pre-recorded presentation, or a remote presentation, as outlined earlier in this document, and its implementation can both take place in a f-2-f group session, or with remote participation from the learners. The basic level sessions are also including different

forms of participant activities, implemented as exercises or dialogues. Also this type of basic level sessions can potentially also be implemented as online interactions, performed with online mentoring/tutorial support and with participants still being in a f-2-f group, or being attended to remotely through some form of virtual community environment (e.g. like VCP). Basic-level-only participants are generally not expected to carry out the full scope of the ‘between seminars, assignments, and the focus for their part is mainly on the self-study parts of the assignments scheduled for completion during the ‘between seminars’ sessions. The practical level activities are predominantly carried out as self-managed activities, and the majority of the competence development of this level is assumed to take place during the ‘between seminars’ sessions. During the seminar/workshops is this level mainly addressed through ‘assignment preparation’ activities in the seminar/workshop preceding the ‘between seminars’ session, and as assignment reporting or as evaluations of the particular competence aspects addressed with the respective assignments being part of a ‘between seminar’ session. The advanced level sessions during a seminar/workshop are extensively using illustrations, case studies and ‘real life’ projects/initiatives as the base for the ‘higher level’ addressing of the respective module, and includes, at least for the RDC issues and the assignment parts during ‘between seminars’, also extensive usage of computer-based and online tools. These online tools are subsequently also integrated into the ‘between seminars’ assignment that the advanced level participants are expected to perform before attending the next seminar/workshop.

PROGRAMME-WIDE ASSESSMENT ACTIVITIES

Each programme module includes its own and module/issue-specific assessment components, as specified through the pedagogic structure (based on Gagne Instructional Events) defined for each module (see initial explanations in this document). There are also two programme-wide components that relate to assessment; the Pre-programme assessment carried out before or in the beginning of the programme (during the proposed motivation seminar or during one of the initial session of the Programme Start-up event.) and secondly implemented as a Post-programme assessment in the end of the programme. Both assessments will ask questions relating to both the individual participant’s ‘maturity in terms of the competency areas addressed by the training programme, as well as the ‘home-base’ organization’s so called ‘service management maturity’. The individual ‘maturity’ assessment will be done through two measures, and this in order to identify the skills-gap that should be focused on during the implementation of the training programme, namely the present ‘is-level’ and the desired ‘should’ level of all relevant competencies addressed within this training programme. Similar dual measures are also made during the post-programme assessment, among other for certification purposes and for staking out potential post-programme competence development activities. The measurement scale applied is adopted from Boston University Skills Assessment service, and includes:

Unaware	Aware	Functional	Proficient	Expert
Does not recognize this knowledge or skill dimension.	Possesses knowledge of and is familiar with concepts but has not applied them to a real situation.	Applies knowledge or skills to routine situations, occasionally requiring guidance.	Exercises a breadth of knowledge and skills for addressing complex situations without guidance.	Coaches and supports others utilizing breadth of experience or depth of specialized expertise.

The organisational maturity will be measured using scales from the OGC’s Management Maturity Model as illustrated below.

Level 1:	Level 2:	Level 3:	Level 4:	Level 5:
Can the organization formulate projects and run them differently to its on-going organizational activities?	Does the organization ensure that each project is run with its own processes and procedures to a minimum specified standard?	Does the organisation have its own centrally controlled project processes, and can individual projects flex within these processes to suit the particular project contexts?	Does the organisation obtain and retain specific measurements on its project performance and run a quality management organisation?	Does the organisation run continuous process improvement, with pro-active problem solving and technology management support?

Both types of assessments are made available to programme implementers in both paper-based and as online assessment tools available from the learning service provided online learning environment.

DETAILED DESCRIPTIONS OF THE MODULE STRUCTURE FOR THE CURRICULA/PROGRAMME

For each of the nine modules that constitute this curricula and training programme for Cluster Management there is a set of Module and Session definition Sheets that have been designed based InnoSee's partner and project wide research and training needs assessments, combined with expertise consultations on module-by-module basis. These module and session specifications are provided in this curricula specification next.

DESCRIPTION OF THE TRAINING PROGRAMME MODULES

MODULE 1

Module title:	Title of Module	(to be added)
Module ambition/aim:	The purpose of this module is to (to be added)	
Module duration:	8x45 minutes, or a full-day learning, with all sessions implemented (alternatively implemented on part-time basis)	
Objectives/outcomes:	After completing this session, and the associated 'between modules' self-studies and assignments, the participants should be able to; <ul style="list-style-type: none">• Describe the major stages of• Outline major steps in• Define the process for ...• Describe the major issues o (examples only)• Create an application• Identify requirements for ...• Define the major steps when ...	
Module sessions:		Level: (suggestion only)
	1. Title of session	Basic
	2. Title of session	Practical
	3. Title of session	Professional
	4.	Advanced
	5.
	6.
	7.
	8.
Competency Framework references:	Professional strata → Management →	
	(possibly added later when framework is available)	
Additional notes/Remarks:	(to be added, if needed)	

'In-module' self-study tasks and 'between modules' (case) assignments

Within Module Self-study assignments/tasks:

Basic	•Self-study Assignment A1 •Study the document 'Principles of Project Management' available in the 'virtual library'
Practical	•Self-study Assignment A2 •Study the document 'From and Idea to a Project' available in the 'virtual library'
Advanced	•Self-study assignment A3 •Study the document 'Logical Framework Approach' available in the 'virtual library'

Instructions / Guidance:
(to be added, if needed)

‘Between Module’ Case Assignment A1 –Application of ... :



Instructions / Guidance:
(to be added, if needed)

SESSION M1-1 SESSION

Title: Session Title

Duration: approx 45 minutes

EQF reference level: 5

Level: Practical

Summary description:

This session will provide an overview of the concepts of

Session activities:

This session includes the following learning activities:

- PPT-based presentation of the principles of
 - Definition of
 - Description of
 -
 -
 -
 -
- Introduction of optional self-study and self-learning tutorials on

Reference documentation:

- *Project Primer (example only, hot-linked)*
- Introduction to ...
-
-
-
-

Success criteria for the session:

- Completed above learning activities as specified in its introduction
- Successfully replied to the Module 1 self-assessment questions relating to this session
- Completed the Module evaluation questions relating to this session.

Available instructional materials:

- M1-0 presentation downloadable in PowerPoint format (ver. 2010)
- M1-0 presentation slides available for online viewing (within LMS)
- M1-0 presentation pre-defined for 'live' online presentation
- M1-0 presentation prepared for 'voice-included' online delivery

Notes / Remarks:

Other reference documents, with similar orientation and focus, may be used if the type of project initiatives to be dealt with is somewhat different than those illustrated with those proposed above. Same may apply if there are other documents available in the language that better fit learners' language capability, or are better adjusted to the local implementation context of the course.

Assignment A3 (EXAMPLE)

Title: Setting up a project activity management system

Purpose: Enable project actors to view plans, status and report on progress

Expected time allocation: 4-6 hours

Reference documentation / Materials:

1. Adapt, Self-Evaluation Guide (Basic level)
2. Managing for Results (Practical level)
3. Project Manager's Guide to VPO (Professional level)
4. Examples of projects defined using VPO (Advanced level)

Consultations and interactions during assignment:

- Consult the online resource repositories available to you
- Review instructions and support materials in online forum
- Interact with online specialists/coaches and peers
- Place questions, proposals and queries into online forum
- Respond to/reflect on contributions/queries made by others
- Report on achievements made via online reporting system
- Evaluate experience and give proposals on improvements

BASIC LEVEL ASSIGNMENT ACTIVITIES

Code: A3-1 Title: **Prepare involvement promotion/preparation**

Description of assignment: **Formulate definitions of project in presentable formats**

Recommended activity steps:

- Review Self-assessment Workbook and identify actions to take in order to carry out a self-assessment as a project leader and how to make the project ambition clear and communicable to all involved/concerned by applying workbook actions
- Adopt the self-assessment recommendations to your own project context by preparing your own variant of the aspects that are to be analysed by you or the project team.
- Carry out the actions in the revised self-assessment for your project and communicate the outcomes to concerned actors.

Criteria for successful completion of the assignment:

- All major project aspects mentioned in the self-analysis guide is part of the self-assessment actually carried out.
- The reflections and improvement actions taken as a result of the self-assessment leads to a more efficient, appreciated and well-running project, and with more satisfied project actors.

PRACTICAL LEVEL ASSIGNMENT ACTIVITIES

Code: A3-2 Title: **Production of a project activity management review**

Description of assignment: Assess solidity of project inputs, processes, outcomes

Description of assignment: Formulate definitions of potential project improvements

Recommended activity steps:

- Review Managing for Results guide in order to identify aspects to be reviewed for a project in order to secure its solidity
- Adopt the workbook proposals on review areas to your own project context by preparing your own variant of the review
- Carry out the actions in the revised review for your project
- Produce documented outcomes of the review and share this in a consultative modality with key stakeholders.

Criteria for successful completion of the assignment:

- All major project aspects mentioned in the project review is part of the project review actually carried out.
- Reflections and improvement actions are communicated and taken by the management as a result of the review.

ADVANCED LEVEL ASSIGNMENT ACTIVITIES

Code: A3-3 Title: **Online project activity planning and monitoring**
Description of assignment: Facilitate distributed management of project activities
Recommended activity steps:

- VPO is set up with shared responsibilities, for WPs and activities, for Partner responsibilities and involvements, as well as for budget utilisation and cost reporting.
- Distributed responsibilities are communicated to all concerned, and instructions are provided to them on its operation.

Criteria for successful completion of the assignment:

- VPO has been defined to have a defined set of reporting periods and activity reporting among partner is applying those reporting periods.
- Activity descriptions, including durations, responsibilities and involvement configurations are kept up-to-date.
- Project management, WP managers, as well as partner representatives, are able to review progress against plans, and are making active usage of this facility for their monitoring.
- Activity reporting, as well as the activity monitoring from responsible actors, is regular, complete and accurate.