

Advanced, Cross-Disciplinary & Integrated **M**edical **I**maging for all **E**uropeans through a Network of **R**egional Clusters and **D**evelopment **S**trategies

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D7.3 Template of common issues to consider for other Regional Research-driven Clusters to-be

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Introduction

The present document is deliverable D7.3 “Template of common issues to consider for other Regional Research-driven Clusters to-be”. This document is a full and comprehensive analysis on any legal, regulatory and operational requirements needed to be conducted for establishing Research-Driven Cluster in Republic of Srpska, Bosnia and Herzegovina and the NordEst Region in Romania. It will serve as a guide for any future initiatives for clustering, whose goal is to concentrate on specific knowledge and skills (institutional and individual) for conducting research, exploitation and development of research results and market commercialization in the sector of Advanced Medical Imaging. The path for completing of this task (including all necessary procedures and activities) will be recorded to serve all future initiatives undertaken in Europe.

This activity is executed in close co-operation with **tasks**:

T 7.1.1 Initial Analysis

T 7.1.2. Regional SWOT on Capacity Building and Value Chain Analysis

With the reference to the tasks and objectives of AMI 4 EUROPE project, and based on the proposed (conducted) analysis, the two new regional research-driven clusters to-be on AMI will (go through) do all necessary steps to really, legally and operationally become a Research-Driven Clusters on AMI before the Project ends. This is one of the key milestones of the project.

Key notes regarding research driven clusters

The “Regions of Knowledge” action in FP7 responds to a need at European level to increase the overall capacity of regional players in enhancing innovation based on science and technology based development in full compliance with the priorities of the EUROPE 2020 strategy.

As the definition taken into account under the Regions of Knowledge Programme



Figure 1: 'triple helix' research-driven clusters approach

Research-driven clusters must be composed of at least three types of legal entities (so called 'triple helix')

Where:

- Legal entities conducting research (universities, research organisations and research for-profit bodies); national entities conducting research can be accepted if their organisational structure is broken down at regional level and if the regional structure involved is located in the same region as the other components of the cluster;

- Business entities or their local groupings;
- Regional/local authorities (local and regional government, regional development agencies).

ESTABLISHING OF CLUSTERS IN REPUBLIC OF SRPSKA, BOSNIA AND HERZEGOVINA AND NORDEST REGION IN ROMANIA

General Guidelines

As for the building-up process, there is some variation depending on the trigger point (regional development plan or sectorial development plan), but subsequent to the plan and the decision process the main steps are:

1. - Constitution: Legal / Administrative aspects:

The composition of a cluster is one of the most important considerations when it comes to its creation. During the establishing phase, when cluster mission, vision, objectives, activities and governance models are defined, one of the most important decisions that has to be made is regarding the Cluster “model”, if it should work as a public, public-private or private entity. Public-private models are providing more flexibility in actual performing of research project and activities in close partnership between public institutions and private sector. On the other hand, cluster models that are implying exclusive presence of entities from the private sector, are more efficient for exploitation and commercialization of research results.

1.1 Initial phase

During the preparatory work on project proposal for AMI 4 EUROPE, “triple helix” consortiums are formed within the two regions in Bosnia and Herzegovina and Romania. These structures will undertake all necessary steps during the implementation of AMI- 4EUROPE project, so that both Clusters should be formally and legally established in their respective Regions/Countries and in full operation with a minimum membership as per the “founding partners” included in this Consortium, presented in the table below.

Republic of Srpska, Bosnia and Herzegovina	The NordEst Region in Romania
Agency for economic development of municipality Prijedor PREDA-PD	North-East Regional Development Agency (North-East RDA)
Europroject centre SRL Banja Luka	RMS –Romsoft SRL
University Banja Luka- Faculty of Medicine	“Gr.T.Popa” University of Medicine and Pharmacy Iasi
The Prijedor General Hospital	St. Spiridon County Clinic Emergency Hospital

All partners have completed initial analysis for their respective regions, with the goal to define a common knowledge base on Medical Imaging state-of-the-art and stakeholders in Republic of Srpska, BIH and the NordEst Region in Romania and to provide an overview of the scientific and non-scientific institutional landscape with respective stakeholders through the following segments:

✓ **Institutional Environment**

- Identification of Non-scientific stakeholders
- Identification of scientific stakeholders

✓ **What does the system look like?**

- Connections of non-scientific and scientific stakeholders?
- Power-interest grid of stakeholders (scientific, non-scientific)
- Priorities for capacity building on AMI

✓ **System of strategies, policies and programmes**

✓ **Programmes**

✓ **Good practices / bad practices**

✓ **Funding of the medical imaging sector**

✓ **Economic/social current and expected impact and evolution**

Results of the analysis are presented in “**Initial Analysis Report on NordEst Region in Romania and the Republic of Srpska in Bosnia and Herzegovina**” document created also in this project.

1.2 Preparation phase

1.2.1 SWOT on Capacity Building and Value Chain Analysis

After completing of the Initial analysis, partners in their respective regions have conducted regional SWOT on Capacity Building and Value Chain Analysis aims at providing the regional context investigated in Republic of Srpska and NordEst Region and qualitative review of MI sector through observation of different programmes, policies, strategies, as well as review of public and private investment and other relevant actions.

The **main goal** of this analysis is:

- ✓ to explain briefly the problem in question, its background and to give brief description related to status of Advanced Medical Imaging-AMI (scientific and non-scientific stakeholders, main policies, sources of funding, overall AMI capacities in region, available scientific and non-scientific projects related to AMI);
- ✓ to give a brief overview of the methodology used, to describe briefly the methodology of data collection and evaluation and to provide main strategic documents used for SWOT analysis;
- ✓ to provide a table with detailed SWOT analysis (Strengths, Weakness, Opportunities , Threats) with possible scenarios;
- ✓ to integrate the findings into the political, social, socio-economic and economical context
- ✓ to give the comparison between main findings of Value Chain Analysis and SWOT, and
- ✓ to give recommendations for the improvement of AMI.

Results of the analysis are presented in the document “Regional SWOT on Capacity Building and Value Chain Analysis Report on NordEst Region in Romania and the Republika Srpska in Bosnia and Herzegovina”.

1.2.2. Mentoring activities

Mentoring within AMI-4EUROPE is to be developed and implemented through a user-driven and problem-solving approach.

- *Best Practices and Lessons Learned Dissemination **from** More-Developed Clusters*

3-day-Inauguration-Workshop in their Regions with the active participation of scientific and managerial representatives of mentoring partner organisation as well as the RDAs involved in the Consortium. The workshops will concentrate on Best Practices and Lessons Learned dissemination activities from these more-developed clusters. They will include roundtables and networking sessions for new and future members of the brand-new clusters to get in contact with these representatives for first-hand learning and knowledge exchange.

- *On-site Learning and Knowledge Exchange in More-Developed Clusters*

These events will be organised in the form of company missions which will have two parts:

- **workshop part** where general knowledge concerning the cluster's good practices and management related aspects will be introduced and
- **a brokerage event part** where the participating companies will be able to select companies to meet with and exchange experiences and knowledge based on well prepared profiles.

The host clusters will invite to the event the similar clusters' members of the country in order to ensure the wider knowledge transfer. Side events, agendas and length of these activities will be arranged and coordinated as per end-users' needs and requirements.

Visits will be organized in such a way that both clusters [NordEst Region in Romania and the Republic of Srpska in Bosnia and Herzegovina] will be attended at the same time and with the same agenda.

Furthermore, the so called shadowing for the management of the beneficiary clusters will be permanently in-place. During these shadowings the management of the beneficiary clusters will be given the opportunity to participate in some of the clusters' group meetings and briefings, as well as meet with people in charge of different functional/scientific areas.

In line with the tasks defined with AMI 4 EUROPE side events, agendas and length of these activities will be arranged and coordinated as per end-users' needs and requirements and through the analysis of the work so far (creation of initial analysis documents and SWOT for both regions) following topics included for mentoring visits:

- ✓ **How to formulate a cluster mission;**
- ✓ **Determine its organizational and legal model;**
 - Determining the nature of cluster being established in the mentoring region (legal and organizational type of the cluster);

Both clusters planned for establishing within AMI4EU Project will be registered in the form of Associations, according to prescribed laws and legal acts:

- *Governmental Decision (26/2000 with future amendments) related to associations and foundations in Romania*
- *Law for associations and foundations of Republic of Srpska,*

- Analysis of mentoring clusters organizational structure:

a) cluster governance and management,

Models for managing of cluster activities, organizational and financial sustainability, organizational structure, relations with regional/national level policy makers, models for resolving of intellectual property rights, relations with other R&D clusters and stakeholder organizations, networking, membership models.

b) relations to scientific-research organizations;

Explain how the established cluster provides assistance and support to science and research institutions (cluster members) in planning of science and research tasks in the scope of AMI, provide information services on open calls for proposals, assistance in preparing of project proposals, registration on international databases related to results achieved by research conducted by cluster members, linkages of research results to industry, providing of technical/administration assistance, relations with hospitals

c) Relations with the private sector (small and medium-sized enterprises, big companies)

Models of SME involvement. Practical application of research results, examples of good practices so far (concrete patents, products, ...)

✓ **Define the method for Cluster funding;**

Models for financing of clusters (regional budgets, membership fees, EU programs for research, development and innovations)

According to the following schedule:

Month	Place	Date (start)	Date (end)	Info
February	Debrecen	29.02.2012.	02.03.2012.	PHARMAPOLIS Hungary
April	Rome	17.04.2012.	20.04.2012.	FILAS,TOR,VERGATA, ACS -Italy
October	Hannover	15.10.2012.	19.10.2012.	BIOMETI-Germany
November	Madrid	21.11.2012.	22.11.2012.	MNWK, SERMAS, ABADIA, ANDAGO-Spain

Table 1. Timetable-Mentoring visits, 2012 year

1.2.3 Strategic Research Agenda (SRA)

Strategic Research Agenda (SRA) will be formally issued and published as the “foundation document” of both Research Driven Clusters.

Strategic Research Agenda (SRA) is to be compiled and developed. The minimum contents of this SRA will be:

- ✓ Contributions to Society
- ✓ Benefits to Region,
- ✓ Industry, Society and AMI Stakeholders
- ✓ Vision and Strategic Objectives
- ✓ The Research Content
- ✓ Strategic Objectives, Research Areas and Value Chain
- ✓ Implementation: Bringing the Vision to Reality
- ✓ From Planning to Action
- ✓ Climate for Innovation
- ✓ Strengthening Education and Training
- ✓ Communicating with Society and Public Bodies
- ✓ Synergies and Opportunities with other Clusters / Initiatives

1.3 Implementation phase

1.3.1 Cluster Organization: structure and system

The central elements of a clusters organisation structure are:

- Legal form

Some possible legal forms for clusters are¹:

- Associations
- Private limited company
- Joint stock company
- Hybrid forms (mix of associations and public or private limited company)
- Foundations

Both clusters planned for establishing within AMI4EU Project will be registered in the form of Associations.

➤ This Statute determines:

- Association name
- Head quarter, operating area and actions and work of the Association
- Main objectives and activities of the Association
- Organizations, rights, obligations and responsibilities of the members,
- Management, representation i presentation, legal status,
- Financing
- Emblem (mark) of the Association
- Procedure for Statute modification and amendment, constitution and passing of other general acts,
- Procuration
- Conditions and procedure for merging, transformation or closing procedure of the Association
- Procedure for disposal with remaining property and other assets in the case of the dismissing of Association
- Closing procedure and other important relevantly questions related to work of the Association

¹ Cluster Management, A Practical Guide, part A: Overview, Gunter Scheer, Lucas von Zalinger, 2007.

- Structure

Cluster management is the actual management of the cluster, **Cluster governance** is about ensuring that the cluster is well managed. Cluster governance represents the interests of cluster stakeholders (e.g., universities and research institutes, large and small companies, government, supporting structures etc.), while cluster managers strive to serve the needs of cluster stakeholders. Cluster management addresses day-to-day cluster activities such as planning, allocation of human and financial resources, monitoring cluster progress etc. Governance, in turn, among others refers to appointing cluster managers and evaluating their performance, setting the vision and strategy of the cluster and approving action plans.²

Table 2 Cluster Governance vs. Cluster Management³

Aspect	Cluster Governance	Cluster Management
Essence	The intended collective actions of cluster stakeholders to advance the cluster and develop a sustainable competitive advantage	The organisation and coordination of the activities of the cluster in accordance with certain strategy, in order to achieve clearly defined objectives
Actors	Triple Helix actors (i.e., representatives of academia, industry, government)	Cluster managers (i.e., professionals appointed by cluster stakeholders)
Responsible entity	Cluster governance boards	Cluster organisation
Key responsibilities	Making sure the cluster is well managed: appointing cluster managers, evaluating their performance, developing vision and strategy, approving cluster plans etc.	Managing and enhancing the overall performance of the cluster: carrying out day-to-day cluster activities such as planning, allocation of human and financial resources, monitoring cluster progress etc.

The following Cluster's hierarchical structure is advised, depending on size, which always refers to the number of members rather than the size of the entities forming it:

² Uncovering excellence in cluster management, PWC, February 2011

³ Uncovering excellence in cluster management, PWC, February 2011

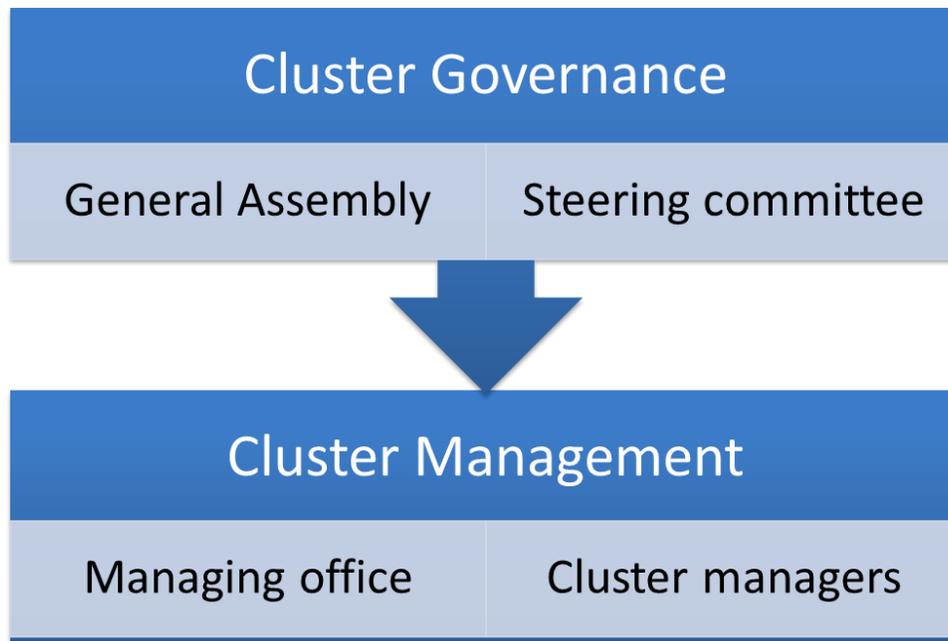


Figure 2 :Structure of cluster

CLUSTER GOVERNANCE

- **General Assembly of Partners**

Association member can be every person and legal entity which is active or connected with Medical Imaging, Nano medicine, Biotechnologies and ICT for Health and the Health-related economy or related activities, if it accepts aims and Statute of the Association, based on recommendation of one cluster member.

Membership is acquired by signing Membership application.

- Association Assembly has authority to:

- Bring plan and work scheme;
- Accept Statute, and also Statute modification and amendment;
- Take into consideration and accept, at least once a year, report about Management board activities;
- Take into consideration and accept financial plan and financial report about Association's activities;
- Appoint and acquit persons authorized for procuration and representation;
- Elect and revoke Steering committee members
- Nominate honored members
- Decide about merging, dissociation, transformation, dismissing and action, and also other statutory changes;

- Decide about assets allocation, in the case of closing procedure;
- Legislate other acts if that is regulated by Statute;
- Decide about other questions that are not under the authority of other Association's controls.

Assembly can make decisions if it is present 1/2 of all members. Assembly decides with majority of votes of present members.

For decision about modification and amendment of the Statute and voluntary closing procedure it is claimed 2/3 majority of present members.

For decision related to merging, dissociation, transformation and other statutory modification it is claimed 2/3 majority of present members.

In the case of emergence members can vote in absence (by fax, e-mail, telegram).

- President of the Assembly appoints and manages Assembly.

President of Assembly is authorized representative of the Association.

President has a vice president.

President and vice president elect and revoke Assembly, with majority of votes of present members.

President and vice president's mandate is four years and they can be elected again for the same position.

Assembly can make decisions if it is present 1/2 of all members. Assembly decides with majority of votes of present members.

For decision about modification and amendment of the Statute and voluntary closing procedure it is claimed 2/3 majority of present members.

For decision related to merging, dissociation, transformation and other statutory modification it is claimed 2/3 majority of present members.

In the case of emergence members can vote in absence (by fax, e-mail, telegram).

- Accountability ⁴:

Accountability refers to an obligation of cluster members to account for their joint activities and to accept the related responsibilities. In practice, cluster-governing bodies have multiple accountability relationships. Those include the relationships with Triple Helix actors, i.e., academia, industry and government from the region and nationally, as well as to the market and society in general. Cluster's

⁴ Uncovering excellence in cluster management, PWC, February 2011

accountability to academia implies cluster's obligation to stimulate the development of new companies and products from university research and thereby boost knowledge commercialisation.

Academic actors participating in cluster activities are likely to benefit from gaining access to industry skills and facilities, from keeping abreast of industry problems, as well as by securing additional funding for research and getting access to the initial markets for their spin-offs.

Cluster's accountability to industry refers to the cluster's obligation to provide access to skilled personnel and offer opportunities to establish collaborative partnerships with both academic and industrial actors. In addition, companies are likely to benefit from gaining access to expensive equipment of universities and other research institutes. Furthermore, big industry is often dependent on small firms concentrated in knowledge intensive clusters. As large firms become even larger (e.g., due to mergers and acquisitions), they usually do not increase their amount of scientific discoveries with the same pace. In fact, existing research shows that large firms typically experience a decreasing number of discoveries. New ideas usually come out of smaller dedicated firms located in clusters. Consequently, clusters provide large companies with a strong knowledge base⁵.

Government has traditionally been considered the most important stakeholder in terms of accountability relationships. Clusters' accountability to government primarily refers to the fair use of budgets that were meant to be spent on cluster activities, as well as the achieved results (determined based on the key performance indicators). The latter typically include employment growth in the region, attracted venture capital, entrepreneurial climate in the region (e.g., nr of new companies, nr of new products) etc.

- **Steering committee**

Steering committee is executive body of the Assembly that is in charge of aims implementation and work of Association, which are settled in this Statute and decisions of the Assembly.

Steering committee has five members that are selected by Assembly.

Steering committee members mandate is four years and they can be elected again for the same position.

Steering committee among his members elects President and vice President.

⁵ Anderson T., Schwaag Serger S., Sorvik J., and Wise Hansson E. (2004) The Cluster Policies Whitebook. International Organisation for Knowledge Economy and Enterprise Development (IKED)

Steering committee president is authorized for procuration and representation of the Association.

Vice president of the Steering committee replaces the President in the case his absence.

➤ Steering committee has authority to:

- Prepare Assembly meetings;
- Conduct politics, conclusions and other decisions brought by Assembly;
- Entrust special conditions to some members;
- Dispose with assets and make financial decisions;
- Decide about starting up procedure for modification and amendment of the Statute and other acts; self initiated or at proposal of at least 1/3 votes of members, and prepare suggestions of modifications and amendments which submits to Assembly for acceptance.
- Decide about employment of the new workers/ Cluster Managers;
- Decide about other questions that are not in explicit authority of Assembly and other controls, in accordance with Statute.

Steering committee validly decides in case of presence of at least 1/2 of members, and decisions makes with majority of votes.

CLUSTER MANAGMENT

- Managing office

The managing office of the cluster can be located within existing cluster members premises, or it can be separated. In AMI 4 EUROPE we will use approaches:

- **Republic of Srpska, Bosnia and Herzegovina**

Managing office shall be located in Business centre, in Prijedor. The Municipality of Prijedor will provide for free one office to be used for these purposes within the Business centre. All project partners working on establishment of cluster have agreed to invest personal funds into equipping of this office. Further financing of the managing office shall be regulated by acts on establishment of cluster.

Cluster's RTD office shall be located within existing premises of Faculty of Medicine in Banja Luka.

- **NordEst Region in Romania**

The managing office will be located within the headquarters of University of Medicine and Pharmacy "Gr. T. Popa" Iasi or North East Regional Development Agency . All cluster partners will contribute to the well-functioning of this office and intend to access structural funds in order to develop the cluster

activities. The RTD office of the cluster will be located within the headquarters of the University of Medicine and Pharmacy “Gr. T. Popa” Iasi.

- Cluster Managers
 - Manage work of the Association
 - Organize normally implementation of the activities