CROFT Guideline for Enhancing Online Collaboration between SME Cluster Members

(V3.2 Final: 1 July 2013)
Foreword

Collaboration requires individuals working together in a coordinated fashion, towards a common goal. Collaborative software helps facilitate action-oriented teams working together over geographic distances by providing tools that aid communication, collaboration, flows of Intellectual capital and the process of decision making and problem solving.¹

With an aim to take best advantage of collaborative software, we have developed a platform independent methodology to assist groups or ‘clusters’ of organisations achieve their common goals more efficiently and effectively. This is the CADIC Relational Online Framework and toolset: CROFT. This methodology has been developed based on time spent observing and working with self-motivated SME clusters across Europe.

Being platform-independent, CROFT may, in theory, be implemented on a variety of collaborative software platforms. However, on the basis of our research on CROFT implementation in the CADIC pilot clusters and elsewhere², we recommend, as the vehicle for implementation, the online collaborative software ProjectPier³.

CROFT implementations in ProjectPier are offered (free of charge to CADIC Consortium members) as an online service, developed and maintained by CADIC RTD partner LSE. These ProjectPier implementations of CROFT are mounted on the CADIC server at the London Multimedia Lab (www.lml.lse.ac.uk). CROFT Project Implementation manuals are currently available, both for CADIC Cluster Facilitation teams, and for Cluster SME members as a whole.

This guideline is written for administrators of the CROFT methodology, particularly in CADIC-supported SME clusters. Typically you will be member of a Cluster Facilitation Team it is designed to be followed in conjunction with the broader CADIC framework providing offline services for holistic cluster management⁴ described at www.cadic-guideline.org

Now, you might be tempted to jump to the CROFT ProjectPier implementation Manual for CADIC Cluster Facilitation Team and get to grips with the specifics of implementing and using CROFT. However, we highly recommend you to dedicate some time to go first through this Guideline. This will give you an overview of what CROFT is all about and, more importantly, a general idea of what you might expect from its implementation.

¹ http://en.wikipedia.org/wiki/Collaborative_software
³ http://www.projectpier.org/about-projectpier
⁴ See CADIC EU FP7 Project Deliverable D16 (2013): “Final CADIC Offline Support Services”.
1. Introduction

Taking best advantage of virtual, or online, collaboration tools is fundamental to successful and productive clustering for most organisations. It is particularly vital to the survival of many small and medium enterprises (SMEs) in the current economic climate. However, virtual collaboration is rarely, if ever, successfully conducted without a reason or face-to-face interaction between cluster members.

Over the last 20 years, the way clusters are perceived has changed significantly.

- A ‘Cluster’ in 1998: “Geographic concentrations of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated institutions in particular fields that compete and/or cooperate.”
- A ‘Cluster’ in 2008: “Network arrangements that, though embedded in, transcend geographical location, focus on global markets, operate as ad hoc and/or long term business networks, are ICT enabled, and are based on dynamic aggregations of capabilities of different SMEs.”

The old definition often led to top-down, or government, initiatives focused on geographically local groups, for example, areas controlled by different regional government agencies. However, this disregarded clusters that cut across geographical locations, and a new broader definition, specifically incorporating ICT, has become more widely accepted in recent years. This is the definition of ‘cluster’ used in this document and throughout the broader CADIC Framework.

CROFT: CADIC Relational Online Framework and Toolset was developed after close observation and input from bottom-up, self-motivating/self-managing clusters across Europe, it provides support, informed by the CADIC Framework in conjunction with CADIC Offline Services.

CROFT is not designed to work in “virtual isolation”. Its use should complement other cluster development and management tools and services, especially those tools and services addressed in the CADIC Framework. And there needs to be a reason to implement it, in a particular cluster context, in the first place. This could be a common business goal for all the initial cluster members, for example:

- A joint venture to engage in;
- A cluster event to organise; or
- A collaborative funding bid to manage.

This provides a strong motivation for cluster participants to joint the CROFT “Company” for that cluster, and to make effective use of CROFT in promoting, facilitating and managing intellectual capital flows in the service of that goal.

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7 See www.cadic-guideline.org and CADIC EU Project Deliverables: D2 (CADIC Framework), D15 (CADIC Web platform and Online Services) and D16 (CADIC Offline Support Services)
2. The role of the CROFT Administrators: The Cluster Facilitation Team

This guideline is specifically addressed to the administrators of CROFT implementations at SME cluster level: typically Cluster Facilitation Team members engaged in the roles of CADIC Country Coach, Cluster Facilitator, and Cluster Manager. It is also addressed at the individual SME levels to the Cluster Relationship Managers from the SMEs in the Cluster.

The Cluster Facilitation team members act jointly as administrators (according to a procedure agreed between themselves) and are collectively accountable for the CROFT. They monitor the membership within the safe virtual collaboration space created through the implementation of CROFT in their own cluster context. Collectively, this membership constitutes the “Company” for this CROFT implementation. The Cluster Facilitation Team have the responsibility to control the admission of new members to the Company, and manage the transition of new members to “Voyager” (full) member status, with privileges to participate in particular projects established in the virtual collaboration space and in reality. They also ensure the timely availability of the necessary resources for cluster development activities and facilitating Intellectual Capital flows, available to all member of the company.

Voyager member of the Company, as well as the cluster facilitation team can be involved in creating and/or managing specific projects within CROFT. The Cluster Facilitation Team can give any Voyager member of the “company” the permission “able to manage own projects”. In this guideline, we refer to such members of the Company as “initiator” members.

At the SME level, the Cluster Relation Manager has the responsibility to spread awareness about the existence and purpose of CROFT and projects/activities being managed in part by CROFT, and to nominate to the cluster facilitation team the participants from his/her SME who should be members of the CROFT company for the cluster. For example, regularly updated emails/newsletters, posts on the web and periodic meetings within the SME could be of help. This will contribute broad support to the initiative as well as effect IC flows between and within the cluster members.
3. CROFT Support Strategy

CROFT supports other collaborative activities of a cluster and shouldn’t be viewed as a standalone system. It is designed to be a method of creating and managing an online “safe space” where cluster members are happy to communicate and work together for collaborative advantage: in other words, overcoming competition anxiety. The rules and access rights of this virtual “safe space” provide an infrastructure for knowledge (IC) flow that is dictated by the needs and interests of the cluster members themselves and not controlled by an external governing body such as a trade organisation or government agency.

Every cluster of SMEs has their own needs, interests and ways of working, so CROFT is necessarily flexible and non-prescriptive. How you establish the rules for membership of your own CROFT “safe virtual collaborative workspace”, and the activities and project within it, and how you use the concepts and tools in CROFT should be decided in consultation with your cluster members, so you’ll need to involve them from the start in deciding the details of your CROFT implementation. And remember, this methodology works best when the cluster is driven by the needs of all members. It is the Cluster Facilitation Team’s job to remain as non-partisan as possible and help CROFT benefit the entire cluster.

Figure 1: CROFT can be used for a number of purposes.

- In CADIC SME Clusters, Offline-services lead: Even in this virtual age, most clustering should be centred on face-to-face interaction between people and organisations with online tools having a supporting role, as described in the CADIC Guideline (www.cadic-guideline.org). You are human and designed to relate best when you can see a person “in the flesh”, look them in the eye and shake their hand. Trust is easiest to build between two people in the same room. Don’t let technology fool you otherwise.
The Emphasis is on enhancing and facilitating knowledge (IC) flows: Based in the “flow” model of soft knowledge\(^8\) and Intellectual Capital (IC), CROFT provides methods and cluster management tools to help you promote effective and efficient IC-Flows between the SMEs collaborating in a CADIC Cluster. These include methods to shape collaboration events, and group decision and communication support in Flexible Learning Environments\(^9\)

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4. The Value-Added of implementing CROFT

There are direct and indirect benefits to implementing a CROFT methodology in your chosen online collaborative software. The CADIC consortium can offer to host your implementation of CROFT in ProjectPier running on the server at CADIC RTD partner LSE (London Multimedia Lab). Your effective use of CROFT methodology, virtual collaborative space, resources and supporting tools will then help the cluster to:

• Focus on face-to-face interactions, which are the essential for growth of trust, shared cluster goals and identity, and sustainability in the long term.10
• Ensure that elements of power are widely distributed among the partners. This is essential: intellectual capital will then flow more freely among cluster members, allowing significant collaborative learning to take place11 as new knowledge is created through the continual social interactions and shared practice12 among SMEs in the cluster.
• Emphasise non-economic incentives, creativity and learning, for enrichment of the business context and improved access to IC flows (e.g., valuing learning about intangibles, contributing to knowledge about IC. Creating and sharing knowledge-conveying artefacts, like case studies; to accomplish collaborative projects; to create wealth for their territory and be recognised as innovators, etc.).
• Operate a clearly defined and transparent selection process for new members (defined by cluster-specific rules of governance and interaction) that facilitates the creation of a desirable network, valuing cluster membership and attracting new members. This also assures current cluster members that new adherents have appropriate qualities regarding competition, thus supporting the construction of the trust that is essential for cluster sustainability.13
• Explore intellectual capital resources and flows, and how they can be beneficial to the SMEs in the cluster. This has been found to promote the use of cooperative language within participating SMEs and in networking with competitors, clients, suppliers etc. (exploration of relational capital), resulting in real improvements in trust, motivation, communication and results14.
• Design, run and provide virtual collaborative support for events in Flexible Learning Environments (FLEs), including bonding, team-building and networking events, IC master classes, collaborative workshops and “spark sessions”. Through these events participants, working cooperatively, find creative syntheses, emergent contexts or new pathways enhancing IC, that they can share.15
• Enable new collaborative ways of organizing16, making sense of otherwise intangible knowledge, and enriching context, enabling the participants to find their way toward new outcomes.17 Through this process, group norms and values and a sense of shared identity, founded on cluster membership are established. It will also radically increase the frequency, scope and depth of interactions between cluster members, which is fundamental for building long-term trust and cluster sustainability18.

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15 ALEs (also known as Flexible Learning Environments and Collaborative Solutions Environments) integrate spaces, processes and event designs that facilitate innovation, creativity and communication, in inter-organizational contexts. They are configurable in a very flexible way to meet immediate group needs, task demands and local social and cultural conditions.
5. The steps to an effective CROFT Implementation

Being platform-independent, CROFT virtual collaborative workspaces may, in theory, be implemented on a variety of collaborative software platforms. However, based on our research on CROFT implementation in the CADIC pilot clusters and elsewhere\(^{19}\), we recommend, in section 5.2, the online collaborative software “ProjectPier”\(^{20}\) as the vehicle for implementation. CROFT implementations in ProjectPier are offered (free of charge to CADIC Consortium members) as an online service, developed and maintained by CADIC RTD partner LSE. These ProjectPier implementations of CROFT are mounted on the CADIC server at the London Multimedia Lab (www.lml.lse.ac.uk). CROFT Project Implementation manuals are currently available, both for CADIC Cluster Facilitation teams, and for Cluster SME members as a whole.

In you decide to implement, for your SME Cluster, a CROFT safe virtual collaborative workspace yourself, using a collaborative software platform other than ProjectPier, then you must make sure that your chosen platform meets the requirements specified in Section 5.2 of CADIC EU FP6 Project Deliverable D15 “Final CADIC Web Platform and online services”.

In the case that you decide that the CROFT virtual collaborative workspace for your SME cluster will be implemented in Projectpier, running on the CADIC server at LSE, the major activities that the Cluster Facilitation team will need to carry out, as the administrators of this workspace, in effecting the initial set-up of their specific Projectpier implementation for the cluster are as follows:

- Define & describe the “Company” profile
- Review and if necessary add further content to the supplied “Cluster Facilitation Team Resources” project and the “SME CADIC Resources” project
- Customize the supplied “Welcome” and “Going further” project templates; complete the structure of the “Welcome” project
- Create a “General Resources” project and populate its with the requisite content for this implementation.
- Set up the initial membership of the Company (members of the cluster who are validated to access the ProjectPier implementation) and set members’ permissions appropriately.

Details of the precise procedures involved are given in the CROFT Projectpier Implementation Manual for CADIC Cluster Facilitation teams.

\(^{19}\) See CADIC EU FP7 Project Deliverable D15 (2013): “Final CADIC Web Platform and Online Services”.
\(^{20}\) http://www.projectpier.org/about-projectpier
ANNEX – What is CADIC?

**CADIC: Cross-organisational Assessment and Development of Intellectual Capital** (www.CADIC-Europe.org) is a project originally funded within the European Union’s Seventh Framework Programme (Capacities). CADIC addresses the aim of the European Charter for Small Enterprises to foster the involvement of small and medium enterprises (SMEs) in the inter-firm cooperation at local, national, European and International levels. It aims to help a large number of SMEs set up and strengthen their own clusters and engage in existing and suitable clusters on a much easier and more cost-effective basis. To reach this goal, a major focus of CADIC has not only been to understand how effective clusters are formed, but also to develop suitable methodologies and technical platforms to assist them in Intellectual Capital (IC) management. Unlike other cluster management structures installed to contribute to regional innovation and/or economic development from the top-down driven by government policy, see for example the RICARDA Methodology, the development of methodologies and technical platforms in CADIC, including CROFT, have been driven from the bottom-up by the real world needs of pilot clusters. For more information about CADIC see www.CADIC-guideline.org; about CADIC

In CADIC, the focus is on managing both processes of cooperation and competition that occurs within SME clusters to promote effective networking, an important factor for high performance and cluster sustainability. The tension between these two processes leads to the “co-operation dilemma”, where the need to exchange and cooperate with potential competitors is being restricted by the fear of the loss of knowledge and therefore the loss of competitive advantage.

CADIC clusters and their use of CROFT are founded in connections based on flows of Intellectual Capital through a flow-management creation process designed to reduce co-operation anxiety among the SMEs and avoids putting direct competitors in the same cluster activity. This provides real and/or virtual proximity and promotes strong and trustful relationships, which reduces co-operation anxiety and fear of loss of Intellectual Property significantly.

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APPENDIX A1 to Deliverable D15: Final CADIC Web Platform and Online Services
CADIC Cluster support framework and tools

The CADIC Framework is based on the “flow” model of soft knowledge and Intellectual Capital (IC) and provides methods and tools to support IC-based collaboration between SMEs, including training and support for key “Cluster Facilitation Team” roles at cluster level ‘County Coach (CC)’, “Cluster Facilitator” (CF) and “Cluster manager CM)” at cluster level and for the role of “Cluster Relation Manager” (CRM) at SME level. CADIC Framework Support Services comprise methods and cluster management tools to support the effective and efficient offline IC-Flow between the SMEs collaborating in a CADIC Cluster. They include methods to shape collaboration events, and group decision and communication support in Flexible Learning Environments. In use within the CADIC Framework, they ensure that the right people are targeted and harnessed to make value added contributions to the success of both their company and the cluster as a whole. In addition, the CADIC “collaboration topic questionnaire”, “cluster benefits grid”, “SME Cluster Communication Plan” ‘Vision Workshop” and “Evaluation and Monitoring Workshop” have been developed to facilitate face-to-face cluster development. Intellectual Capital review tools for SME networking (including “Cluster IC benchmarking questionnaire” and “company IC Check – IC Starters kit”) enable SMEs to compare their own intangibles resource base with other organizations in order to find suitable partners to collaborate and manage value-adding IC flows in a between the SMEs involved. More detail are available at www.CADIC-guideline.org: CADIC Toolbox).

CROFT is integrated in CADIC as CADIC’s online support methodology and toolset. It is designed to provide a system flexible enough to align with the context and personal preference of users across a broad spectrum of clusters.

CROFT, the Cluster Management Framework and the Cluster Management Cycle:

How they fit together

As described in the CADIC Guideline (www.CADIC-guideline.org), the Cluster Management Framework (CMF) sets the bundle of activities and the necessary resources that are organically deployed by the cluster and the respective SME members with the objective to initiate, grow and manage the cluster.
Within the CMF, CROFT provides safe virtual collaborative workspaces and comprehensive online services and tools in support of the offline activities aimed at developing the cluster. Hence, CROFT can be used throughout the cluster’s life cycle and to address the cluster’s evolving demands.

Because CADIC has a bottom-up approach, online management of cluster activities by the cluster itself, throughout its life-cycle, is key. It helps to keep the cluster actively collaborating in this digital age. Moreover, doing so at the right moment, when online collaboration is necessary and appreciated, is particularly important. Efficient online communication and file management between cluster members will improve collaboration and increase trust between members. It supports offline/face-to-face collaboration, providing a virtual base for project management and knowledge sharing.

Typically, the decision to implement CROFT will come out the needs of the cluster, for example, when a specific task needs to be tackled, and can be consistently included as part of its action plan or activities.