This document describes the scientific dissemination activities and the promotional activities that have been carried out within the first 12 months of the project CREMA. The current progress regarding dissemination activities as well as planned forthcoming activities are highlighted in this deliverable.
### Document Status

<table>
<thead>
<tr>
<th>Deliverable Lead</th>
<th>Philipp Hoenisch, TUV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Reviewer 1</td>
<td>Aitor Muguzur, IKER</td>
</tr>
<tr>
<td>Internal Reviewer 2</td>
<td>Tim Dellas, ASC</td>
</tr>
<tr>
<td>Type</td>
<td>Deliverable</td>
</tr>
<tr>
<td>Work Package</td>
<td>WP9 Impact</td>
</tr>
<tr>
<td>ID</td>
<td>D9.9: Scientific Dissemination Reports I</td>
</tr>
<tr>
<td>Due Date</td>
<td>30/12/2015</td>
</tr>
<tr>
<td>Delivery Date</td>
<td>30/12/2015</td>
</tr>
<tr>
<td>Status</td>
<td>For Approval</td>
</tr>
</tbody>
</table>

### Note

This deliverable is subject to final acceptance by the European Commission.

### Disclaimer

The views represented in this document only reflect the views of the authors and not the views of the European Union. The European Union is not liable for any use that may be made of the information contained in this document.

Furthermore, the information is provided “as is” and no guarantee or warranty is given that the information is fit for any particular purpose. The user of the information uses it at its sole risk and liability.
Project Partners

Ascora GmbH, Germany

Technische Universität Wien, Austria

German Research Center for Artificial Intelligence, Germany

Ubisense, United Kingdom

Tenneco-Walker (U.K.) Limited, United Kingdom

FAGOR ARRASATE S. Coop., Spain

Goizper, Spain

Information Catalyst, United Kingdom
Executive Summary

This deliverable describes the scientific dissemination activities as well as the promotional activities that has been achieved within the first 12 months of the CREMA project. It highlights the current progress regarding scientific dissemination and communication activities, and gives also an overview of the forthcoming planned activities within the task T9.2 Promotion and Promotional Materials and the task T9.3 Dissemination and Workshops of the CREMA project.

Within the first 12 months the CREMA consortium published together 4 papers in highly competitive journals and conferences or workshops. In addition, CREMA has been presented to a broad mass of researchers and industrial people at 11 different events. Especially during these 11 events, positive feedback and constructive comments have been collected and distributed among the partners. These comments help to improve the overall quality of CREMA’s outcome and ensures that the project is on track with up-to-date research topics.
# Table of Contents

1 Introduction ........................................................................................................... 8  
  1.1 CREMA Project Overview.............................................................................. 8  
  1.2 Deliverable Purpose, Scope and Context...................................................... 8  
  1.3 Document Status and Target Audience...................................................... 9  
  1.4 Abbreviations and Glossary ........................................................................... 9  
  1.5 Document Structure ....................................................................................... 9  

2 Dissemination and Communication Strategy ..................................................... 10  
  2.1 Communications Vision and Objectives....................................................... 10  
  2.2 Target Groups .................................................................................................. 11  
  2.3 Channels of Dissemination and Communication ........................................ 12  

3 Dissemination and Communication Activities ................................................... 13  
  3.1 Exhibition and Promotional Materials ........................................................... 14  
     3.1.1 Project Logo and Corporate Design ...................................................... 14  
     3.1.2 CREMA Roll-up Banner ....................................................................... 15  
     3.1.3 CREMA Poster ...................................................................................... 15  
     3.1.4 CREMA Slide Library .......................................................................... 16  
     3.1.5 CREMA Newsletters ............................................................................ 16  
     3.1.6 CREMA Website ................................................................................... 18  
     3.1.7 CREMA Marketing Video on YouTube ................................................ 19  
     3.1.8 Kick-Start Business Website .................................................................. 20  
     3.1.9 Social Media Channels .............................................................. 21  
        3.1.9.1 LinkedIn ......................................................................................... 21  
        3.1.9.2 Twitter ........................................................................................... 22  
        3.1.9.3 Facebook ....................................................................................... 24  

3.2 Media Relations ................................................................................................... 25  
  3.2.1 CREMA Press Information Package ...................................................... 25  
  3.2.2 Press Releases ........................................................................................... 25  

3.3 Scientific Publications and Presentations ....................................................... 25  

3.4 Dissemination Events ......................................................................................... 26  
  3.4.1 CREMA presentation at ACM SAC 2015, April 2015 ............................ 27  
  3.4.2 CREMA presentation at IEEE Cloud 2015, June/July 2015 ................. 27  
  3.4.3 CREMA presentation at FTW Wien, March 2015 .................................. 27  
  3.4.4 CREMA presentation at event “Austria on its way to the Factories of the  
       Future”, April 2015 ..................................................................................... 27  
  3.4.5 CREMA presentation at Doctoral College Cyber-Physical Production  
       Systems at TU Wien, April 2015 ................................................................ 27  
  3.4.6 CREMA presentation at Doctoral College Cyber-Physical Production  
       Systems at TU Wien, April 2015 ................................................................ 28  
  3.4.7 CREMA presentation at OCG Jahrestagung 15 Wien, June 2015 ........... 28  
  3.4.8 CREMA presentation at Doctoral College Cyber-Physical Production  
       Systems at TU Wien, July 2015 .................................................................. 28  
  3.4.9 CREMA presentation at Business Process Management Conference 2015  
       at the University of Innsbruck and BPM Research Cluster, August 2015 .... 28  
  3.4.10 CREMA presentation at Smart Manufacturing & Industry 4.0 Event,  
       September 2015 ......................................................................................... 28  

3.5 Other Dissemination & Communication Activities of the Partners ............... 29  
  3.5.1 Ascora ........................................................................................................ 29
3.5.2 TANet ........................................................................................................... 29
3.5.3 TUV ................................................................................................................ 29
3.5.4 ICE .................................................................................................................. 29
3.5.5 FAGOR ............................................................................................................ 29

4 Summary ............................................................................................................... 30
List of Figures, Tables and Listings

Figures

Figure 1: Project Logo .......................................................................................................................... 14
Figure 2: First Draft of Pop-up Banner .................................................................................................. 15
Figure 3: Examples of Slides Included in the CREMA Slide Library ...................................................... 16
Figure 4: CREMA Newsletter No. 1 ........................................................................................................ 17
Figure 5: Screenshots from the CREMA Website (http://crema-project.eu) .......................................... 18
Figure 6 First CREMA Marketing Video on YouTube ............................................................................ 20
Figure 7: Kick-Start Business Website (http://cremanufacture.com) ...................................................... 21
Figure 8: LinkedIn Page .......................................................................................................................... 21
Figure 9: Impressions June 30th - Sep 29th 2015 ................................................................................... 22
Figure 10: Impressions Sept 30th - Dec 15th 2015 ................................................................................ 22
Figure 11: Twitter Account ....................................................................................................................... 23
Figure 12: Facebook Account .................................................................................................................. 24

Tables

Table 1: Target Groups of CREMA ........................................................................................................ 11
Table 2: CREMA’s Dissemination Planning ............................................................................................ 13
Table 3: List of Dissemination Activities ................................................................................................ 31
Table 4: List of Scientific (Peer-Reviewed) Publications ....................................................................... 33
1 Introduction

CREMA – Cloud-based Rapid Elastic MaUnufacturing – is a project funded by the Horizon 2020 Programme of the European Commission under Grant Agreement No. 637066.

Within this deliverable, the scientific dissemination activities as well as the promotional activities that have been carried out within the first 12 months of the CREMA project are described. The current progress regarding dissemination and communication activities are highlighted, and also an overview of the forthcoming planned activities within the tasks T9.2 Promotion and Promotional Materials and T9.3 Dissemination and Workshops of the CREMA project are given.

1.1 CREMA Project Overview

CREMA aims at simplifying the establishment, management, adaptation, and monitoring of dynamic, cross-organisational manufacturing processes following Cloud manufacturing principles. CREMA will also provide the means to integrate data from distributed locations as if the complete manufacturing was carried out on the same shop floor, by integrating extra- and inter-plant manufacturing assets and making them “mobile”.

CREMA will be built upon concepts and methods from the fields of Virtual Factories, Service-oriented Computing, Ubiquitous Computing, Cyber-Physical Systems, the Internet of Things and the Internet of Services, and naturally and most importantly Cloud computing. To achieve its goals, the project defines tools and approaches in the following areas:

- Manufacturing Virtualisation & Interoperability
- Cloud Manufacturing Process and Optimisation Framework
- Cloud Manufacturing Collaboration, Knowledge and Stakeholder Interaction Framework

Thus, to achieve its goals, CREMA conducts original research and applies technologies from the fields of full end-to-end integration of Cloud manufacturing, integration of manufacturing assets and corresponding data sources, the design and execution of manufacturing processes, to the end user support via collaboration and interaction tools. For more information, please refer to the project Website1.

1.2 Deliverable Purpose, Scope and Context

The purpose of this deliverable is to report scientific dissemination as well as promotion and communication activities performed in CREMA during the first year. These activities include publications, presentations and other dissemination events.

This dissemination report is updated every year and provides an overview of the current state regarding the dissemination and communication activities as outlined in the DoA.

1 crema-project.eu
1.3 Document Status and Target Audience

This document is listed in the Description of Action (DoA) as “public”, since it provides general information about the goals and scope of CREMA and can therefore be used by external parties in order to get respective insight into the project activities.

While the document is primarily aimed at the project partners, this public deliverable can also be useful for the wider scientific and industrial community. This includes other publicly funded projects, which may be interested in collaboration activities.

1.4 Abbreviations and Glossary

A glossary of common terms and roles related to the realisation of CREMA as well as a list of abbreviations is provided as an online glossary\(^2\) / abbreviations list\(^3\).

1.5 Document Structure

This deliverable is broken down into the following sections:

- Section 1 provides an introduction for this deliverable, including a general overview of the project, and outlines the purpose, scope, context, status, and target audience of this deliverable
- Section 2 describes the dissemination methodology including dissemination and communication approach, target groups and communication / dissemination channels
- Section 3 outlines the updated dissemination planning, and describes the dissemination actions carried out from month 1 to month 12 of the CREMA project
- Section 4 gives a summary of the dissemination and communication efforts described in this deliverable.

\(^2\) [http://crema-project.eu/glossary](http://crema-project.eu/glossary)

\(^3\) [http://crema-project.eu/abbreviations](http://crema-project.eu/abbreviations)
2  Dissemination and Communication Strategy

2.1 Communications Vision and Objectives

The aim of CREMA is to simplify the “establishment, management, adaptation, and monitoring of dynamic, cross-organisational manufacturing processes following Cloud manufacturing principles”.

The communications vision for CREMA is that as many end users (see “Target Users” of CREMA) as possible are informed about CREMA, and are ready and able to use the knowledge delivered by the project. The following table gives an overview of the objectives and (desired) outcomes of the communication and dissemination efforts within CREMA:

<table>
<thead>
<tr>
<th>Communication Objectives</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On a communications level, what are we trying to accomplish?</strong></td>
<td><strong>What will be achieved when the Communications Objective is met?</strong></td>
</tr>
<tr>
<td>Primary Objective(s)</td>
<td></td>
</tr>
<tr>
<td>CREMA opens the door for Industry 4.0 Implementation and the concepts developed to support the integration of Real and Virtual assets</td>
<td>Companies will be able to increase their efficiency, reduce the energy consumed and optimise their processes with the packages developed by the CREMA project.</td>
</tr>
<tr>
<td>CREMA introduces Elastic Manufacturing principles for Large and Small Businesses through robust methodologies</td>
<td>The businesses who adopt CREMA will be able to expand their operations by scaling leased assets up and down if necessary.</td>
</tr>
<tr>
<td>With the acceleration of the service economy, Leasing and releasing manufacturing assets in an on-demand, utility-like fashion will be made available</td>
<td>This approach allows businesses to budget their overheads with a clear and fair framework to support the purchasing of required tools.</td>
</tr>
</tbody>
</table>

Supporting Objective(s)

| Pay-per-use through metered services will be adopted as a way to finance the ongoing activities of CREMA Inc. | CREMA Inc. will be the channel used to commercialise the outputs and services provided by CREMA using standard business models. |
2.2 Target Groups

According to the EC’s guide for “Communicating EU Research & Innovation”\(^4\) CREMA’s dissemination and communication strategy is strongly oriented towards specific target groups, which have been defined according to the following thoughts suggested by the EC’s guidance paper:

- Who has an interest in CREMA’s research?
- Who can contribute to CREMA’s work?
- Who would be interested in learning about the project’s findings?
- Who could or will be affected directly by the outcomes of the research?
- Who are not directly involved, but could have influence elsewhere?

The target groups of CREMA’s communication and dissemination activities can be categorised as “end target groups” and “intermediary target groups”:

- “End target groups” are defined as those whose attitudes and behaviour ultimately determine the success or failure of CREMA’s communication efforts.
- “Intermediary target groups” are defined as those who have the power to influence the attitudes and behaviour of the “end target groups”.

The following table lists these stakeholder groups, who have been identified to be relevant for CREMA’s dissemination and communication activities:

<table>
<thead>
<tr>
<th>Target group</th>
<th>Relevance for CREMA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“End target groups”</strong></td>
<td></td>
</tr>
<tr>
<td>Software Developers</td>
<td>In CREMA independent software vendors will get the chance to develop services on top of the CREMA prototype results and on top of the CREMA use cases.</td>
</tr>
<tr>
<td>Lecturers at academic level</td>
<td>The professors at the universities will be targeted in order to promote the inclusion of CREMA results in the practice programmes for computer science and (business) information systems students.</td>
</tr>
<tr>
<td>Students at academic level</td>
<td>The software engineering students are primarily a target for channelling the results of CREMA into the companies to which they may find their career route.</td>
</tr>
<tr>
<td>Research Units at EU level</td>
<td>CREMA will address R&amp;D Units in different Directorates-General, which could disseminate and promote the usage of CREMA’s results in internal software projects as well as in funded research projects under their supervision.</td>
</tr>
<tr>
<td>Manufacturing companies</td>
<td>Manufacturing companies who want to provide their manufacturing assets to others, e.g., sub-contractors or other manufacturing companies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target group</th>
<th>Relevance for CREMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Consultants</td>
<td>CREMA will introduce a new view on how to realise complex business process on top of manufacturing processes in a better way. This will allow consultants to introduce the results in real-world businesses.</td>
</tr>
<tr>
<td>Project Managers</td>
<td>Liaison with other R&amp;D projects and programmes is relevant for exchange of knowledge and best practices.</td>
</tr>
<tr>
<td>Mainstream and specialised media</td>
<td>Media is an important source of information for the “end target groups”, therefore, also this group has to be approached.</td>
</tr>
<tr>
<td>Web Entrepreneurs</td>
<td>Allow individual or groups of companies to create new business models for reselling CREMA services.</td>
</tr>
</tbody>
</table>

Note: the “Web Entrepreneurs” row is a catch-all label for the engagement of the greater public. CREMA could be implemented in many domains but the message would be adapted to suit the particular audience. This would require a dedicated campaign with significant resource allocation so the main focus will be on B2B selling. Citizen outreach does implicitly take place at the local level through the dissemination activities of the CREMA partners.

2.3 Channels of Dissemination and Communication

In order to ensure that all the target groups described above are informed about CREMA adequately, the consortium will communicate and disseminate information about CREMA and its results through different channels.

The following list gives an overview of the products, services, and tools that will be used within CREMA to facilitate the dissemination CREMA’s results and findings, and to support communication with the target groups:

- Exhibition materials (roll-up banners, poster)
- Promotional materials (slide library, printed project information)
- Newsletters
- Website
- Workshops
- Proactive media relations (press information, article contributions)
- Scientific publications and presentations
- Dissemination events
## 3 Dissemination and Communication Activities

Table 2 gives an overview of the actual state of the dissemination and communication activities planned within CREMA.

**Table 2: CREMA’s Dissemination Planning**

<table>
<thead>
<tr>
<th>Task</th>
<th>Activity Name</th>
<th>Actual State</th>
<th>(planned) Date of initial step(s)</th>
<th>(planned) Date of finalisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2</td>
<td>Project Fact Sheet</td>
<td>completed</td>
<td>January 2015</td>
<td>February 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Brochure</td>
<td>currently in production</td>
<td>March 2015</td>
<td>December 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Roll-up banner</td>
<td>currently in production</td>
<td>July 2015</td>
<td>December 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Poster</td>
<td>currently in production</td>
<td>July 2015</td>
<td>December 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Slide Library</td>
<td>under construction</td>
<td>August 2015</td>
<td>December 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Newsletter I</td>
<td>completed</td>
<td>July 2015</td>
<td>December 2015</td>
</tr>
<tr>
<td>9.2</td>
<td>Newsletter II</td>
<td>not due yet</td>
<td>July 2016</td>
<td>December 2016</td>
</tr>
<tr>
<td>9.2</td>
<td>Newsletter III</td>
<td>not due yet</td>
<td>July 2017</td>
<td>December 2017</td>
</tr>
<tr>
<td>9.2</td>
<td>Website</td>
<td>in operation; updates ongoing</td>
<td>October 2014</td>
<td>November 2014, regularly updated</td>
</tr>
<tr>
<td>9.2</td>
<td>Media relations</td>
<td>ongoing</td>
<td>June 2015</td>
<td>August 2015, regularly updated</td>
</tr>
<tr>
<td>9.2</td>
<td>Dissemination database</td>
<td>initial version completed; updates ongoing</td>
<td>June 2015</td>
<td>August 2015, regularly updated</td>
</tr>
<tr>
<td>9.3</td>
<td>Workshop I</td>
<td>initial preparation steps</td>
<td>September 2015</td>
<td>March 2016</td>
</tr>
<tr>
<td>9.3</td>
<td>Workshop II</td>
<td>not due yet</td>
<td>March 2017</td>
<td>September 2017</td>
</tr>
<tr>
<td>9.3</td>
<td>Scientific publications</td>
<td>on-going</td>
<td>March 2015</td>
<td>on-going until end of project</td>
</tr>
<tr>
<td>9.3</td>
<td>Presentations at events</td>
<td>on-going</td>
<td>March 2015</td>
<td>on-going until end of project</td>
</tr>
</tbody>
</table>

During the first year of the project CREMA several dissemination and communication activities have been carried out:

- Development and production of exhibition and promotional materials
- Creation and distribution of newsletters
- Creation and update of website
- Development of media relations
- Scientific publications and presentations
- Dissemination events
- Other dissemination activities

Detailed information about each of these activities is presented in the following sections.

3.1 Exhibition and Promotional Materials

This section describes exhibition and promotional materials that has been already published or will be published in the phase of the project.

3.1.1 Project Logo and Corporate Design

![Figure 1: Project Logo](image)

A corporate design manual was created for the CREMA project. It serves as a guideline for the visual appearance of the project’s promotion and communication products, and includes:

- The project’s logo (with all relevant information such as colours, logo variations, rules for application, positioning, proportions, etc.)
- Templates for Word and PowerPoint documents (including font types, colours, styles, etc.)
- Examples of dissemination products (roll-up, poster, ...)

The Figure 1 shows the CREMA logo, which will be used for any kinds of project presentations, the website, brochure, poster, etc.
3.1.2 CREMA Roll-up Banner

A CREMA roll-up is currently under development. A first draft is shown in Figure 2. For each partner one will be produced.

![CREMA Roll-up Banner](image)

**Figure 2: First Draft of Pop-up Banner**

3.1.3 CREMA Poster

Two CREMA posters (format: DIN A1) will be created at the beginning of the second project year. One of the two posters sets the focus on the graphical presentation of the CREMA components, while the other poster gives text-based information regarding the CREMA components. Both posters will be designed in a way that they complement each other and may be displayed either each of them stand-alone or both of them side by side. For each project partner a set of posters is produced.
3.1.4 CREMA Slide Library

In order to support the partners in their dissemination activities, a slide library providing basic information about the project is created. The initial version of the CREMA slide library is currently under construction. The slide library will be updated throughout the course of the project.

![Slide Library Example]

Figure 3: Examples of Slides Included in the CREMA Slide Library

3.1.5 CREMA Newsletters

In total three newsletters are planned to be published within the project duration, being the first in project month 12 and then, yearly.

The first newsletter has been sent out in December 2015 in electronic version to the mailing list. This first newsletter briefly introduces CREMA and not only gives some basic information about the scope, the objectives, and the envisaged results of the project, but also puts on the table two interesting topics coming from the Industry and the Academia: CPS and Sensors, and Cloud Computing for Manufacturing. It also provides the view of the two Industrial cases to be trialled within CREMA.

Additionally hard copies will be printed and distributed in different dissemination events such as workshops, conferences, fairs, exhibitions, etc. to which the different CREMA partners will attend.
Welcome

This is the newsletter of CREMA, Spain. In this issue, we present an overview of the CREMA project and discuss the role of the CREMA project in the context of the broader European Union framework for industrial innovation. The newsletter highlights the innovative aspects of the CREMA project and the potential benefits it offers to the industrial sector.

Technology of the Year

Cyber-Physical Systems (CPS) and Sensors for Manufacturing

Due to the proliferation of IoT, the manufacturing industry is undergoing substantial transformation in terms of embedded systems and networking. Hence, the dynamics of physical processes together with computer and networking processes, CPS represent the most significant industrial industry 4.0.

CREMA focuses on Cyber-Physical Systems and sensor-based systems for the manufacturing industry. The paper identifies key challenges such as data integration, interoperability, and security. It also highlights the importance of CPS in enhancing the productivity and efficiency of manufacturing processes. The CREMA project aims to address these challenges and provide a seamless integration of CPS and sensor systems for manufacturing applications.

The findings of the paper suggest that the CREMA project is well-positioned to develop innovative solutions for CPS and sensor systems in the manufacturing industry. The project is expected to contribute significantly to the advancement of industrial innovation and productivity.

The CREMA project is expected to provide a significant contribution to the future of industrial innovation, enabling cooperation between create manufacturing companies and enhancing the overall productivity and efficiency of the manufacturing industry.

The CREMA project is located in Barcelona, Spain, and is coordinated by the University of Cervera. For more information, visit the CREMA website.

The Academic Side

Bridging the Gap between Manufacturing and the Cloud

Today’s smart homes and smart factories are the first step towards a new paradigm, where manufacturing and the cloud are converging. Meanwhile, we are accustomed to automated systems that provide us with services and benefits, but not so much in the cloud. The CREMA project aims to bridge this gap by providing services and benefits in the cloud to manufacturing companies. The project focuses on the integration of CPS and sensor systems for manufacturing applications and the benefits they offer to the industrial sector.

The CREMA project is expected to provide a significant contribution to the future of industrial innovation, enabling cooperation between manufacturing companies and enhancing the overall productivity and efficiency of the manufacturing industry.

The CREMA project is located in Barcelona, Spain, and is coordinated by the University of Cervera. For more information, visit the CREMA website.

Figure 4: CREMA Newsletter No. 1
3.1.6 CREMA Website

The project’s public website (http://crema-project.eu) is in operation since 01.03.2015. The website is updated regularly.

It contains information about the project and the partners, invites the visitor to subscribe for the CREMA newsletters, includes a section for project related news, and a list of links to thematically related web-resources. Furthermore the website will provide the possibility to download the project’s public deliverables and publications, and a contact page for the project’s coordinator.

The following screenshots from http://crema-project.eu give an impression of the CREMA website.

Figure 5: Screenshots from the CREMA Website (http://crema-project.eu)
The website's traffic is monitored with Plesk, a web analytics application provided by Fasthosts\(^5\). The table below gives the actual cumulative numbers of visitors and page views for the first year of the project.

Table 3: [http://crema-project.eu](http://crema-project.eu) - Visitors and Page Views

<table>
<thead>
<tr>
<th>Month</th>
<th>Unique visitors</th>
<th>Number of visits</th>
<th>Pages</th>
<th>Hits</th>
<th>Bandwidth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Feb 2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mar 2015</td>
<td>116</td>
<td>188</td>
<td>2,798</td>
<td>15,872</td>
<td>461.10 MB</td>
</tr>
<tr>
<td>Apr 2015</td>
<td>280</td>
<td>370</td>
<td>1,579</td>
<td>12,668</td>
<td>429.72 MB</td>
</tr>
<tr>
<td>May 2015</td>
<td>263</td>
<td>391</td>
<td>1,175</td>
<td>9,518</td>
<td>395.58 MB</td>
</tr>
<tr>
<td>Jun 2015</td>
<td>325</td>
<td>449</td>
<td>1,704</td>
<td>14,127</td>
<td>636.86 MB</td>
</tr>
<tr>
<td>Jul 2015</td>
<td>467</td>
<td>635</td>
<td>1,889</td>
<td>17,004</td>
<td>923.97 MB</td>
</tr>
<tr>
<td>Aug 2015</td>
<td>396</td>
<td>520</td>
<td>1,284</td>
<td>11,674</td>
<td>760.32 MB</td>
</tr>
<tr>
<td>Sep 2015</td>
<td>217</td>
<td>295</td>
<td>779</td>
<td>6,742</td>
<td>405.21 MB</td>
</tr>
<tr>
<td>Oct 2015</td>
<td>244</td>
<td>355</td>
<td>893</td>
<td>7,866</td>
<td>451.89 MB</td>
</tr>
<tr>
<td>Nov 2015</td>
<td>152</td>
<td>217</td>
<td>635</td>
<td>5,141</td>
<td>329.77 MB</td>
</tr>
<tr>
<td>Dec 2015</td>
<td>78</td>
<td>104</td>
<td>598</td>
<td>2,193</td>
<td>105.35 MB</td>
</tr>
<tr>
<td>Total</td>
<td>2,538</td>
<td>3,524</td>
<td>13,334</td>
<td>102,805</td>
<td>4.78 GB</td>
</tr>
</tbody>
</table>

3.1.7 CREMA Marketing Video on YouTube

ASC created a video that can be found on the website and in the social media channels (Facebook, YouTube, references below). The video is targeted at possible investors into the business that can be built up after the end of the project. The goal was to highlight sellable features of the platform that are easily understood by companies and possible investors in order to maximise the possible impact.

---

\(^5\) [www.fasthosts.com](http://www.fasthosts.com) – Hosting company used by TANet

[http://www.crema-project.eu/pleks-stat/webstat/](http://www.crema-project.eu/pleks-stat/webstat/) is the actual stats page but requires a login for details
The video is available on YouTube⁶ and was already integrated in the project website.

3.1.8 Kick-Start Business Website

In addition to the project website, a Kick-Start Website⁷ which aim at “Creating next generation manufacturing business”.

---

⁶ https://www.youtube.com/watch?v=uH8NcgA60Dk
⁷ http://cremanufacture.com
3.1.9 Social Media Channels

As with all projects, CREMA makes use of all the standard social media channels including LinkedIn, Twitter and Facebook. Partners such as Control 2K have a very wide experience of using social media as a tool to increase page hits for standard websites as well as the normal tool to boost search engine optimisation (SEO). The channels are used as an easy way to spread news and updates.

As the project progresses, the use of social channels will become more important to promote CREMA Inc to a wider audience and the channels can also be used to gauge the public interest in how the business offering is being received in the wider business community. Sights like SME Cluster\(^8\) will start to play a role in disseminating important updates to the business community especially SME’s.

3.1.9.1 LinkedIn

![LinkedIn Page](http://crema-manufacture.com)

Figure 8: LinkedIn Page

It is important to get the widest reach and LinkedIn Groups\(^9\) are the most obvious way to attract publicity and comments from peers. All of the partners in CREMA have LinkedIn accounts so will contribute over the course of the project about any interesting activities that they feel will be worth sharing with the wider business community.

---

\(^8\) [www.smecluster.com](http://www.smecluster.com) – Portal for Automotive, Aerospace and Electronic companies

\(^9\) [https://www.linkedin.com/groups/8448943](https://www.linkedin.com/groups/8448943) CREMA Group
### 3.1.9.2 Twitter

The Twitter Account is managed by partner ASC. A bot was used to gain followers by automatically tweeting news stories for some years, and has now been changed to tweet about CREMA since June 30th. The account has 2289 followers (see Figure 11), measured on the 15th of December. Of course, these are not all highly interested followers, but the overall impact is higher having just some dozens of followers. The URL of the account is: [https://twitter.com/CREMAPROJECT](https://twitter.com/CREMAPROJECT).

This way, with only 35 posts, separated into 22 tweets and 13 retweets, ~7.1k impressions could be generated, as can be seen from Figure 9 and Figure 10.

![Tweet activity](image)

**Figure 9: Impressions June 30th - Sep 29th 2015**

![Tweet activity](image)

**Figure 10: Impressions Sept 30th - Dec 15th 2015**
Figure 11: Twitter Account
3.1.9.3 Facebook

As with LinkedIn, it is important to set up a Facebook account\textsuperscript{10} to get the widest possible coverage for the project. Again, most of the Project partners have Facebook accounts, either personal or business accounts so all the trips and adventures can be captured on social media.

\textsuperscript{10} \url{https://www.facebook.com/CREMA-Project-551086081661627/} Facebook Account
3.2 Media Relations

3.2.1 CREMA Press Information Package

In order to facilitate contact with the media a Press information Package (containing a brief introduction to the project, the project logos in different formats, and some graphical material) was prepared and provided on the project’s website for download.

3.2.2 Press Releases

Currently no press releases by the consortium as a whole have been released as the project is in its early stages. However, single partners have already individually published information about CREMA on their website. This information can be found in Section 3.5.

Future press releases will be reachable directly from the main CREMA web page, the business website and the social media channels (LinkedIn, Twitter and Facebook).

3.3 Scientific Publications and Presentations

The publication of articles in scientific/technical journals and the presentation of CREMA related research findings at scientific conferences help to reach a wide range of scientists. Thus getting a paper published in an international journal or in conference proceedings supports the objective of promoting the project and its results to the international scientific community. In addition, conferences provide also an opportunity to discuss the findings and results with scientists from different research areas.

Within the first 12 months of CREMA 3 scientific articles have been published by the project partners:

<table>
<thead>
<tr>
<th>Cost-Efficient Scheduling of Elastic Processes in Hybrid Clouds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abstract</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>“Wear” Is the Manufacturing Future: The Latest Fashion Hitting the Workplace</th>
</tr>
</thead>
</table>

http://www.crema-project.eu Copyright © CREMA Project Consortium. All Rights Reserved. Grant Agreement No.: 637066
### Abstract
The evolution of technology continues to bring socially accepted gadgets such as the smartwatch and other wearable devices into the world of work. The manufacturing sector along with most other sectors is bracing itself for all the functions that are readily acceptable in our daily lives to become part of the armoury of the shop floor personnel. Some of the simple forms of safety clothing such as gloves and safety glasses are mandatory when working in many manufacturing environments so it's an easy step to add the technology layers to these wearables to create the new Cyber links between people and their machines. In order to deploy these technologies however, we need to understand the barriers that hold back the implementation of these Cyber Physical Systems and the steps necessary for the full implementation Human-Machine linkages from Cloud systems to shop floor environments.

---

### Semantic Web Service Search: A Brief Survey

#### Reference

#### Abstract
Abstract Scalable means for the search of relevant web services are essential for the development of intelligent service-based applications in the future Internet. Key idea of semantic web services is to enable such applications to perform a high-precision search and automated composition of services based on formal ontology-based representations of service semantics. In this paper, we briefly survey the state of the art of semantic web service search.

### On Energy Efficiency of BPM Enactment in the Cloud

#### Reference

#### Abstract
Today, a new infrastructure provisioning approach called Cloud Elasticity is evolving, covering three dimensions of elasticity: resource, cost, and quality. Recently, Cloud Elasticity has been utilized for Business Process Enactment in the Cloud as the involved services face highly volatile demand levels. Through treating the three dimensions equally, so-called Elastic (Business) Processes can be achieved, i.e., by leasing and releasing resources on-demand, and customer's requirements regarding quality and cost can now be met more easily. However, information technology infrastructures are now counted as a problem linked to global warming, and accounting for energy efficiency is an adequate response towards "Green" initiatives. This paper is focused on the fulfillment of the principles of Green Computing and Green Business Process Management on the basis of Cloud Elasticity to support Elastic Processes. We describe an approach for the enactment of energy-efficient Elastic Processes by means of the ViePEP platform.

### 3.4 Dissemination Events

This section lists past dissemination events in which CREMA has been presented. This includes scientific dissemination events (e.g., conferences, workshops) as well as industrial presentations.
3.4.1 CREMA presentation at ACM SAC 2015, April 2015

Selected CREMA research challenges have been presented to about 400 people in the invited keynote (title: *Agents and Semantics for Future Internet Applications*) given by Matthias Klusch from DFKI, Germany, at the 30th ACM Symposium on Applied Computing (ACM SAC), Salamanca, Spain, April 13-17, 2015.

These challenges are concerned with large-scale semantic integration, analysis, search, composition, and negotiation of manufacturing process data and services in the cloud. Display of project logo and project URL.

Link to the event: [http://www.acm.org/conferences/sac/sac2015/](http://www.acm.org/conferences/sac/sac2015/)

3.4.2 CREMA presentation at IEEE Cloud 2015, June/July 2015

A CREMA related presentation (title: *Cost-Efficient Scheduling of Elastic Processes in Hybrid Clouds*) has been given by Christoph Hochreiner (TUV) at the IEEE 6th International Conference on Cloud Computing (Cloud 2015), New York City, New York, USA, 27th June – 2nd July 2015.

The presentation was related to the research topics underlying CREMA’s technical work package WP5, and described how a Business Process Management Systems (BPMS) for CREMA can look like: It is important that such a BPMS is able to automatically scale up and down, so that it can meet the required resource demand in order to serve several hundreds of user requests simultaneously.


3.4.3 CREMA presentation at FTW Wien, March 2015

Stefan Schulte (TUV) gave a presentation about the CREMA project with a special focus on elastic process research within the project at FTW Wien.

3.4.4 CREMA presentation at event “Austria on its way to the Factories of the Future”, April 2015

Stefan Schulte (TUV) presented highlights of TU Wien’s research efforts in the field of Factories of the Future (or Industry 4.0) at an event organized by the FTW Wien. CREMA was named as one of the primary projects in this area at TU Wien during the presentation.

3.4.5 CREMA presentation at Doctoral College Cyber-Physical Production Systems at TU Wien, April 2015

A CREMA related presentation with the title: “Cloud Manufacturing” was held by Stefan Schulte (TUV) at the Doctoral College Cyber-Physical Production Systems, TU Wien. Apart from a general introduction to the topic, the specific research challenges of CREMA were also introduced.
3.4.6 CREMA presentation at Doctoral College Cyber-Physical Production Systems at TU Wien, April 2015

A CREMA related presentation with the title: “Cloud Manufacturing” was held by Olena Skarlat (TUV). The presentation was aimed at describing example scenarios applied within CREMA and in the whole domain of Cloud Manufacturing. Also, research questions were identified.

3.4.7 CREMA presentation at OCG Jahrestagung 15 Wien, June 2015

TUV made a presentation of “Cloud Manufacturing as a New Paradigm for Industry 4.0” and issues regarding the CREMA Project on a workshop “Industrie 4.0” that was held by Olena Skarlat (TUV) to about 100 interested parties at an event organized by the Austrian Computer Society. The information is available on the homepage of the event: http://www.ocg.at/jv15-details#industrie

3.4.8 CREMA presentation at Doctoral College Cyber-Physical Production Systems at TU Wien, July 2015

A CREMA related presentation with the title: “Cloud Manufacturing” was held by Olena Skarlat (TUV). The presentation was aimed at presenting foundations of the Cloud Manufacturing: object and subject of the domain, the problems of manufacturing assets abstraction and virtualisation, and of manufacturing service virtualisation, and state-of-the-art and open questions in the domain of Cloud Manufacturing in general.

3.4.9 CREMA presentation at Business Process Management Conference 2015 at the University of Innsbruck and BPM Research Cluster, August 2015

A CREMA related presentation with the title: “On Energy Efficiency of BPM Enactment in the Cloud” was held by Olena Skarlat (TUV) during the First International Workshop on Process Engineering (IWPE). The audience of the conference was around 400 participants, and IWPE was attended by 50 people. This talk was focused on the fulfillment of the principles of Green Computing and Green Business Process Management on the basis of Cloud Elasticity to support Elastic Processes in the manufacturing domain. An approach for the enactment of energy-efficient Elastic Processes by means of elastic BPMS was described motivated by Cloud Manufacturing scenario. The BPM conference and specifically this workshop brings together researchers and practitioners interested in the engineering aspects of process-oriented information systems.

3.4.10 CREMA presentation at Smart Manufacturing & Industry 4.0 Event, September 2015

A CREMA related presentation (title: CREMA – Cloud-based Rapid Elastic Manufacturing) has been given by Stuart Campbell from Information Catalyst (ICE) at the Smart Manufacturing & Industry 4.0 Event organised by EU ARUM project, Manchester, UK, 7th September. The presentation was related to the research and industrial topics underlying CREMA’s project, and described how Cloud Computing principles can be ported to
Manufacturing environments. It also provided a summary of the key elements from CREMA. Link to the event: http://www.eventbrite.co.uk/e/smart-manufacturing-industry-40-tickets-18088012733

### 3.5 Other Dissemination & Communication Activities of the Partners

#### 3.5.1 Ascora

- Representation of the project participation on the Asora websites under http://ascora.de/forschung (German website) and http://ascora.net/research (international website)
- Creation of the dissemination video and promotion on YouTube at https://www.youtube.com/watch?v=uH8NcqA60Dk
- Short presentation of CREMA at the plenary of OPDIS II, a national RTD project
- Representation of CREMA at the ICT 2015 conference

#### 3.5.2 TANet

- CREMA details can be found from the main www.tanet.eu page. The specific page is http://www.tanet.eu/projects/current-projects/crema/
- On the Control 2K about page, the CREMA details can be found: http://www.control2k.co.uk/about/
- Control 2K is in charge of both websites www.crema-project.eu and www.cremanufacture.com
- Latest information about events and activities can be found on Sematronix cluster page: http://smecluster.com/research

#### 3.5.3 TUV

- CREMA is listed at TUV institute’s homepage http://www.infosys.tuwien.ac.at/projects.html

#### 3.5.4 ICE

- CREMA is listed at ICE’s homepage http://informationcatalyst.com/#researchproject

#### 3.5.5 FAGOR

4 Summary

As can be seen from the information given in the previous chapter, some CREMA partners have already started with dissemination and communication activities in order to spread information about the project to stakeholders in Europe.

Within the first 12 months of the CREMA project 10 presentations of CREMA have been given, 4 scientific publications have been made, and several other communication activities have been done by the project partners. This is really a quite promising start, and for sure dissemination and communication activities will be further intensified in the coming two years, when the first tangible results of the project will become available.

The following two tables give an overview of the dissemination and communication activities that have been carried out within CREMA from the beginning of the project until month 12:

- Table 3 lists all dissemination activities performed by the project partners, and
- Table 4 gives details for all scientific publications related to CREMA.
<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Main leader</th>
<th>Title</th>
<th>Date/Period</th>
<th>Place</th>
<th>Type of audience</th>
<th>Size of audience</th>
<th>Countries addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>CREMA – Cloud-based Rapid Elastic Manufacturing</td>
<td>03/04/2015</td>
<td>Vienna, Austria</td>
<td>Researchers</td>
<td>25</td>
<td>International</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Cloud Manufacturing</td>
<td>13/04/2015</td>
<td>Vienna, Austria</td>
<td>Researchers</td>
<td>20</td>
<td>Austria, Germany, Italy</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Cloud Manufacturing</td>
<td>13/04/2015</td>
<td>Vienna, Austria</td>
<td>Researchers</td>
<td>20</td>
<td>Austria, Germany, Italy</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Wien, Titel: Österreich auf dem Weg zur Fabrik der Zukunft: Beiträge der Technischen Universität Wien</td>
<td>29/04/2015</td>
<td>Vienna, Austria</td>
<td>Industry</td>
<td>100</td>
<td>Austria</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Cloud Manufacturing as a New Paradigm for Industry 4.0</td>
<td>10/06/2015</td>
<td>Vienna, Austria</td>
<td>Researchers</td>
<td>100</td>
<td>Austria, Germany, Italy</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Cloud Manufacturing</td>
<td>06/07/2015</td>
<td>Vienna, Austria</td>
<td>Researchers</td>
<td>20</td>
<td>Austria, Germany, Italy</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>Cost-Efficient Scheduling of Elastic Processes in Hybrid Clouds</td>
<td>27/07/2015 to 02/08/2015</td>
<td>NYC, USA</td>
<td>Researchers</td>
<td>15</td>
<td>China, USA, India, Australia, UK, Italy, Ireland, Germany,</td>
</tr>
<tr>
<td>Presentation</td>
<td>TUV</td>
<td>On Energy Efficiency of BPM Enactment in the Cloud</td>
<td>31/08/2015</td>
<td>Innsbruck, Austria</td>
<td>Researchers and Industry</td>
<td>50</td>
<td>Austria, Germany, Spain, India, Italy</td>
</tr>
<tr>
<td>Presentation</td>
<td>ICE</td>
<td>CREMA – Cloud-based Rapid Elastic Manufacturing</td>
<td>07/09/2015</td>
<td>Manchester, UK</td>
<td>Researchers and Industry</td>
<td>NA*</td>
<td>UK, Ireland</td>
</tr>
<tr>
<td>Presentation</td>
<td>ASC</td>
<td>Options for Cloud Storage in OPDIS 2</td>
<td>02/11/2015</td>
<td>Bonn, Germany</td>
<td>Industry</td>
<td>7</td>
<td>Germany</td>
</tr>
<tr>
<td>Discussions and</td>
<td>ASC</td>
<td>Innovate, Connect, Transform</td>
<td>20/10/2015</td>
<td>Bonn, Germany</td>
<td>RTD organizations,</td>
<td>100</td>
<td>Europe</td>
</tr>
</tbody>
</table>
Promotion

*) value not known.
Table 4: List of Scientific (Peer-Reviewed) Publications

<table>
<thead>
<tr>
<th>Title</th>
<th>Main author</th>
<th>Title of the periodical or the series</th>
<th>Number, date or frequency</th>
<th>Publisher</th>
<th>Place of publication</th>
<th>Year of publication</th>
<th>Relevant pages</th>
<th>Permanent identifiers(^{11}) (if available)</th>
<th>Is/Will open access(^{12}) (be) provided to this publication?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semantic Web Service Search: A Brief Survey</td>
<td>M. Klusch</td>
<td>Journal of Artificial Intelligence</td>
<td></td>
<td>Springer</td>
<td></td>
<td>2015</td>
<td></td>
<td>No (editor copyright)</td>
<td></td>
</tr>
<tr>
<td>On Energy Efficiency of</td>
<td>O. Skarlat</td>
<td>Proceedings of the 1st</td>
<td></td>
<td>Springer</td>
<td></td>
<td>2016</td>
<td>12</td>
<td>No (editor copyright)</td>
<td></td>
</tr>
</tbody>
</table>

\(^{11}\) a permanent identifier should be a persistent link to the published version full text (if open access) or abstract (if article is pay per view) or to the final manuscript accepted for publication (link to article repository)

\(^{12}\) Open Access is defined as free of charge access for anyone via Internet.
<table>
<thead>
<tr>
<th>Title</th>
<th>Main author</th>
<th>Title of the periodical or the series</th>
<th>Number, date or frequency</th>
<th>Publisher</th>
<th>Place of publication</th>
<th>Year of publication</th>
<th>Relevant pages</th>
<th>Permanent identifiers¹¹ (if available)</th>
<th>Is/Will open access¹² (be) provided to this publication?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPM Enactment in the Cloud</td>
<td>International Workshop on Process Engineering (IWPE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹¹ Permanent identifiers can include DOIs, ISBNs, etc.

¹² Is/Will open access refers to whether the publication is freely accessible to the public.