



Cloud Orchestration at the Level of Application

Project Acronym: **COLA**

Project Number: **731574**

Programme: **Information and Communication Technologies
Advanced Computing and Cloud Computing**

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D2.2 First periodic dissemination report

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WPL: Steffen Budweg

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Status and Change History

Status:	Name:	Date:	Signature:
Editor:	Steffen Budweg, CloudSME UG	19/12/2017	Electronically
Reviewed:	Peter Gray, Cloudsigma AG	20/12/2017	Electronically
Submitted:	Tamas Kiss, UoW	21/12/2017	Electronically

Table 1: Deliverable Status

Version	Date	Pages	Author	Modification
1.1	14/11/2017	All	CloudSME	Draft First Periodic Dissemination Report
1.1a	30/11/2017	Training	SZTAKI/UoW	Reporting on Training
1.2-1.5	01/12/2017	Events	COLA Partners	Integration of Dissemination Events from cloudSME, UoW, SICS, UBRUN, SZTAKI
1.6	07/12/2017	Training	CloudSME	Edits on Training chapters
1.7	12/12/2017	All	CloudSME	Inputs from WP2 Reporting
1.8-1.9	14/12/2017	Press / Web	CloudSME	Press Releases, Media & Website
2.0	15/12/2017	KPI	CloudSME	Planned and reached KPIs
2.1	18/12/2017	Dissemination	CloudSME	Updates to Events, Publications, etc.
2.2	18/12/2017	Diss.Material	CloudSME	Flyer, Poster, Roll-Up Banner
2.3	18/12/2017	All Pages	CloudSME	Updates and Text Editing
2.4	19/12/2017	Social Media	CloudSME	Updates and Figures
2.5	19/12/2017	All Pages	CloudSME	Updates and Figures
2.6	19/12/2017	Conclusions	CloudSME	Conclusions and Outlook
Final	21/12/2017	Review Edits	CloudSME/CS	Final edits from Internal Review

Table 2: Deliverable Change History

Glossary

CloudSME	cloudSME UG – Project Partner and Dissemination Lead
COLA	Cloud Orchestration at the Level of Application – The project's acronym and short reference
DA	Data Avenue
I4MS	ICT for Manufacturing SMEs project
ISV	Independent Software Vendor
KPI	Key-Performance Indicator(s)
MiCADO	Microservices-based Cloud Application-level Dynamic Orchestrator – The project's technical platform
SME	Small and medium-sized enterprise(s)
SZTAKI	MTA SZTAKI – Project Partner and Training Lead
TOSCA	Topology and Orchestration Specification for Cloud Applications
UoW	University of Westminster – Project Coordinator

Table 3: Glossary

1 Overview

This deliverable reports on the dissemination activities and training courses planned and carried out during the first 12 months of the project (M1-M12).

As mentioned in the Dissemination Plan, the project has already set-up internal communication tools during the first months such as mailing lists and a project repository. Brand management has defined a logo and created the design for the project communication channels such as the project website. The [project website](http://www.project-cola.eu) has been set up and is available with general information about the project (<http://www.project-cola.eu>), press releases, news and events. In addition, the project became active in several social media channels including [Twitter](#), [Facebook](#) and [LinkedIn](#).

Within the Dissemination Plan, it was planned that COLA members would be attending a number of events, conferences, symposiums and meetings with the objective to further propel the dissemination of the project, which lead to a busy event schedule (see also Table 6: Project COLA dissemination events in the Annex).

Dissemination materials such as printed brochures / flyers were designed, printed and distributed. In addition, roll-up banners and posters were designed and produced to be used at exhibitions and trade fairs.

To support the ongoing engagement and interest of stakeholders, the project started to prepare and conduct several demos and webinars (see training chapter). Online materials such as user-guides and tutorials were written and published on the project's public website (<http://www.project-cola.eu>), newsletter, and social media channels (incl. [Twitter](#) and [Facebook](#)).

Selected results were further disseminated and provided for social distribution and recommendation on media platforms such as [YouTube](#) and [SlideShare](#).

The project has also engaged with a number of multiplier organisations and support actions (such as [I4MS](#), [CloudWatch2](#)) as well as other projects (such as [DECIDE](#) or [CloudiFacturing](#)) and European Commission events (such as EC Stakeholder Forum on Digitising Europe, the EC Cloud Concentration Meeting at NetFutures, or [EC ICT Proposers' Day](#)).

SMEs and public sector stakeholders were also engaged through a number of events and visits to Digital Innovation Hubs, Enterprise Europe Network events, as well as regional innovation and SME networks (e.g. [DigiHub:Ruhr](#), [IIDE Innovation](#)).

Finally, Project COLA's consortium members have already achieved a number of scientific publications and project results have been successfully presented in and at international conferences and journals (see Annex).

In the following chapters, you will find a detailed overview on the project's dissemination and training activities, results and documentation during the first 12 months.

Our dissemination strategy includes the use of combined key-performance indicators (KPI), which provide an executive overview to both the foreseen activities (see Table 4: Dissemination KPI) as well as the already achieved results (see Table 5: Project COLA dissemination KPI in the Annex).

1.1 Objectives of the overall work package

The main objectives of the work package (WP2) including this deliverable are the following:

- To create a business-oriented image of the project and raise awareness of the project's achievements within business, industry and academia, especially within SMEs and public sector organisations.
- To disseminate and promote the project's achievements among SMEs and public sector organisations, and the general public.
- To organise training events for application developers to get them familiar with the MiCADO framework to develop cloud-aware applications.
- To collect community feedback from SMEs and public sector organisations about the quality and applicability of the MiCADO framework and the COLA project results.
- To contribute to the standardisation of cloud orchestration at application level.

Tasks related to this deliverable

Tasks T2.1 Brand management and dissemination plan (M01-M03), Task T2.2 General dissemination activities (M01-M30) as well as Task T2.3 Organising training events (M04-M30) are directly related to this current deliverable.

1.2 Task Brand management and dissemination plan

Task Leader: CloudSME. Participants: All partners – Duration: M01-M03.

This task has implemented objective 2.1. To shape the business-oriented image of the project, a brand identity was created. A logo and a project website have been designed and set up, as well as document templates (letterhead, presentation, business cards) with the project's brand. This task has also set-up the most important communication channels such as social media profiles and an electronic newsletter. This task has created the dissemination plan and outlined a dissemination strategy for all major communication channels: web, the newsletter, internal communication tools, and social media. The D2.1 Dissemination Plan and Public Project Website Deliverable provides detailed documentation and was delivered in M3 as scheduled.

1.3 Task General dissemination activities

Task Leader: CloudSME. Participants: All partners - Duration: M01-M30.

This task is implementing objective 2.2. Press releases have been issued at the beginning and will continue to the end of the project to inform the public about the project and the results obtained. Collaboration with magazines and multipliers is pushed to achieve high-quality publications in print and online magazines. During the project, major dissemination events will take place to showcase the results of the project and demonstrate how SMEs and public sector organisations can significantly improve the efficiency of their cloud applications using the project's results.

1.4 Task Organising training events

Task Leader: SZTAKI Participants: CloudSME, UoW, SICS, CB, ST, CS Duration: M04-M30.

This task is implementing objective 2.3 organising training events targeting cloud application developers both inside and outside the project. User guides and manuals have been developed and will be customized for targeted users considering their specific requirements. The task is led by SZTAKI with long term expertise in organising and facilitating training courses, with other academic and platform provider partners also contributing. CloudSME is responsible for the dissemination activities and logistics of the events.

2 Dissemination strategy

2.1 Introduction

The aim of the dissemination activities within the COLA project is to address identify all potential stakeholders and promote the results of the project. These stakeholders can be either users of the MiCADO toolkit in the form of application developers, or users of the actual product developed in the use-cases by using MiCADO (e.g. evacuation planners, visitors of local authority gateways, digital agency customers). Other stakeholders include researchers of cloud technologies, potential investors interested in investing into a technology or solution developed by COLA, policy makers influencing the public sector, standardization bodies that are developing related standards in cloud computing, and citizens and the wider society. As a consequence, the dissemination plan should be adequately widespread in order to reach all these diverse communities.

Although all these communities will be targeted by the project, the major focus will be application developers of independent software vendors (ISVs), and end-users of the targeted use-cases. Wherever possible, the targeted communities will be reached via multiplier organizations in order to increase the efficiency of dissemination.

2.2 Dissemination Timeline

The general timeline for dissemination and communication is divided into 3 segments:

- M1-M3: Setup of branding, webpage, social channels and newsletter, creation of dissemination plan.
- M4-M15: Communication activities and PR work towards multipliers, target groups and magazines to raise first awareness.
- M15-M30: Communication activities and PR work towards multipliers, target groups and magazines with success stories and best practise examples.

The major tasks within dissemination include the following:

- creation of a dissemination plan,
- brand management (design of a corporate identity, logo and templates),
- general dissemination activities including the publishing of press material and the provision of information to the target groups through all available channels,
- organization of training and dissemination events,
- collection of community feedback, and
- contribution to standardization.

The detailed actions within the above listed activities will be fully aligned to the specific goals of the COLA project and its use-cases.

2.3 Dissemination channels and media

To successfully address the dissemination goals and to reach all stakeholders, COLA is using the following dissemination channels and media:

- **Website.** The primary tool for presenting information about our project is the main website which will continuously be updated throughout the project life-span regarding project results, use-cases, and events: <http://www.project-cola.eu>
- **Social media.** Blogging and tweeting in social networks are important means for reaching the different audiences of the project and a sustainable way to stay in touch with people and projects interested in our work and results.
- **Internal communication channels.** COLA has set-up internal and external communication channels, including internal mailing lists and repositories.
- **Project Newsletter and contributions to multiplier channels.** COLA has set-up a newsletter and is also contributing to newsletters of umbrella organizations and business associations in order to inform its target groups about the progress of the project. As some project partners have their own newsletters, COLA will also utilize these for publishing project-related news.
- **Press releases.** Several press releases will be launched to disseminate the project results and find new collaborations with SMEs and other related projects
- **Journals and magazines.** Popular journals and magazines especially in the domain of the use-case demonstrators will be targeted.
- **Public dissemination material.** Brochures, leaflets, posters, white papers, etc.
- **Demos and visual media.** Live and/or pre-recorded demonstrations will be created to show the use and applicability of COLA outcomes, especially to showcase the COLA trials and demonstrators.
- **Conference presentations.** Presentations in specific conferences targeting end-users of the MiCADO toolkit and the use-case scenarios.
- **Scientific publications.** Scientific publications in high profile journals and conferences to disseminate the results of the project towards the scientific community, especially towards cloud researchers and developers.

2.4 Dissemination Events

Our dissemination event activities can be structured in the following categories:

- **Targeted dissemination events.** This will include the organisation of a COLA launch event, as well as the organisation of at least two major dissemination events at larger milestones of the project.
- **Webinars / Training events.** Webinars will be organized targeting End-Users/Software Developers with an interest in the project's technologies and platforms. These training events will be organized for targeting cloud application developers both inside the project and externally. One training event will take place at the beginning of the project (with internal focus), and the second training event will primarily target external companies who will be attracted by the dissemination activities of the use-cases.
- **Public Events.** The project is constantly monitoring events relevant to the project (see also event table in the annex and on the website) and has already attended half a dozen public events to publicize the project.

Besides these events directly related to the project, the dissemination activities will also include presence on several high profile events, such as RSA conferences, OASIS Workshops and Conferences, IEEE Cloud Computing conferences, and simulation workshops and conferences.

Another important dissemination channel is the collaboration with multiplier organisations that give us the opportunity to reach a great number of potential customers. In order to reach a large number of SMEs and public bodies all over Europe, the COLA project is using different multiplier structures. Using these channels provides a more efficient way of targeting SMEs and public sector organisations than traditional single channels. Targeted multipliers include regional, national and European innovation agencies (incl. e.g. I4MS), professional organisations (incl. e.g. EGI), regional and international innovation clusters and research organisations as well as related research projects (incl. e.g. DECIDE) and open source communities, the national, European and regional chambers of commerce and industry, the national and regional economic development agencies, relevant industry chambers and societies in Europe, etc.

2.5 Dissemination KPIs

The project has carefully created the following key-performance indicators (KPIs) to plan, implement, monitor and validate its dissemination activities.

Communication activities are intensified during the progression of the project, with more results becoming available gradually.

Metrics			
Objective	Communication channels	Actions & Milestones	KPIs
Create a business-oriented image of the project and raise awareness of the benefits of the COLA project within the targeted communities and the general public.	Corporate Identity	Logo design with templates and usage instructions.	Logo, website and social media profiles created.
	Web page	Purchase of domains and web design.	
	Social media	LinkedIn and Twitter presence.	
	Public dissemination materials	To create: <ul style="list-style-type: none"> • brochures, • posters, • white papers, • footage /videos, etc., • scientific publications. 	At least <ul style="list-style-type: none"> • 2 Brochures. • 4 posters or roll-ups. • 1 white paper. • 2 project videos. • 11 scientific publications.
	Press material	Creation of first templates for press releases, writing press releases & articles.	Press releases: 10. Articles in magazines: up to 5.
	Events	Dissemination events: <ul style="list-style-type: none"> • Institutional (EU headquarters...). • Society in general (local political institutions, entrepreneurs...). • Technical (ICT). 	Self-organised: at least 2 large dissemination events, launch event. Attended: up to 12 relevant events (conferences / workshops).
To disseminate and promote	Online Marketing	Search engine optimization of the website, continuously displaying the success of the project and community	Continuous work, at least 1 social media posts a week

D2.2 First periodic dissemination report

the project's activities among SME's and the general public.		building, use of web analytics.	
	Newsletter(s)	Regular publishing of an own newsletter and contributions to external newsletters.	Newsletters: once a month
	Press campaigns	PR with media (print, radio, press, TV).	At least 10 press releases.
	Presentations	Specific conferences to be attended.	At least twice a year.
Train potential end-users.	Training events and training material	User guides and manuals.	To be published on the website, continuously updated.
		Demos / Tutorials: live and/or pre-recorded demonstrations.	Frequently: whenever possible / necessary to have them.
		Organisation of webinars to provide a flexible and quick information tool and increasing attention by having a freemium offer.	Up to 6 webinars.
		Measure the use of the platform with web analytics tools.	At least once a week.
Collecting user feedback for knowledge exploitation.	Use digital tools	Measure the reputation of the project using relevant tools, such as Klout.	At least once a quarter.
		Carrying out dedicated surveys with an online survey tool.	Run two surveys during the project.

Table 4: Dissemination KPI

The above table combines objectives, channels, actions and KPIs to plan, monitor and validate our overall dissemination strategy over the whole project life-time (and even beyond). In the annex, you will find a results table presenting the KPIs already reached within the reporting period until M12.

3 Dissemination activities and results

To successfully address the dissemination goals and to reach all stakeholders, COLA is using the following dissemination channels and media:

3.1 Website

An important tool for presenting our project is the main website which has been used and regularly updated since the start of the project (<https://project-cola.eu>).

The structure of the webpage was designed to offer all relevant information for the stakeholders interested in the projects activities. Although the content will be constantly updated and the structure will evolve, the following list shows the main pages of the website:

- Home page, including:
 - Social media links.
 - Project Overview & Objectives.
 - Project News.
 - Project Events.
 - Project Consortium.
 - Contact information.
 - Legal information.
- About:
 - Project Overview.
 - Press Releases.
 - Project Image Library.
- Events:
 - Upcoming Events.
 - Past events.
- Media:
 - Press Releases.
 - Project Image Library.
- MiCADO
 - MiCADO User-Guides
 - MiCADO Tutorials
- Archive
 - Legacy User-Guides
- Consortium:
 - Project Partners.
- Data Privacy Policy:
 - Legal.
- Contact:
 - Contacts and responsibilities.
 - Contact Form.

The website design, content and strategy, as well as the approach to monitoring outreach are covered in detail in D2.1 Project Website.

3.2 Social media.

Blogging and tweeting in social networks are important means for reaching the different audiences of the project and a sustainable way to stay in touch with people and projects interested in our work and results.

Twitter & Facebook Profiles



Figure 1: Twitter Profile

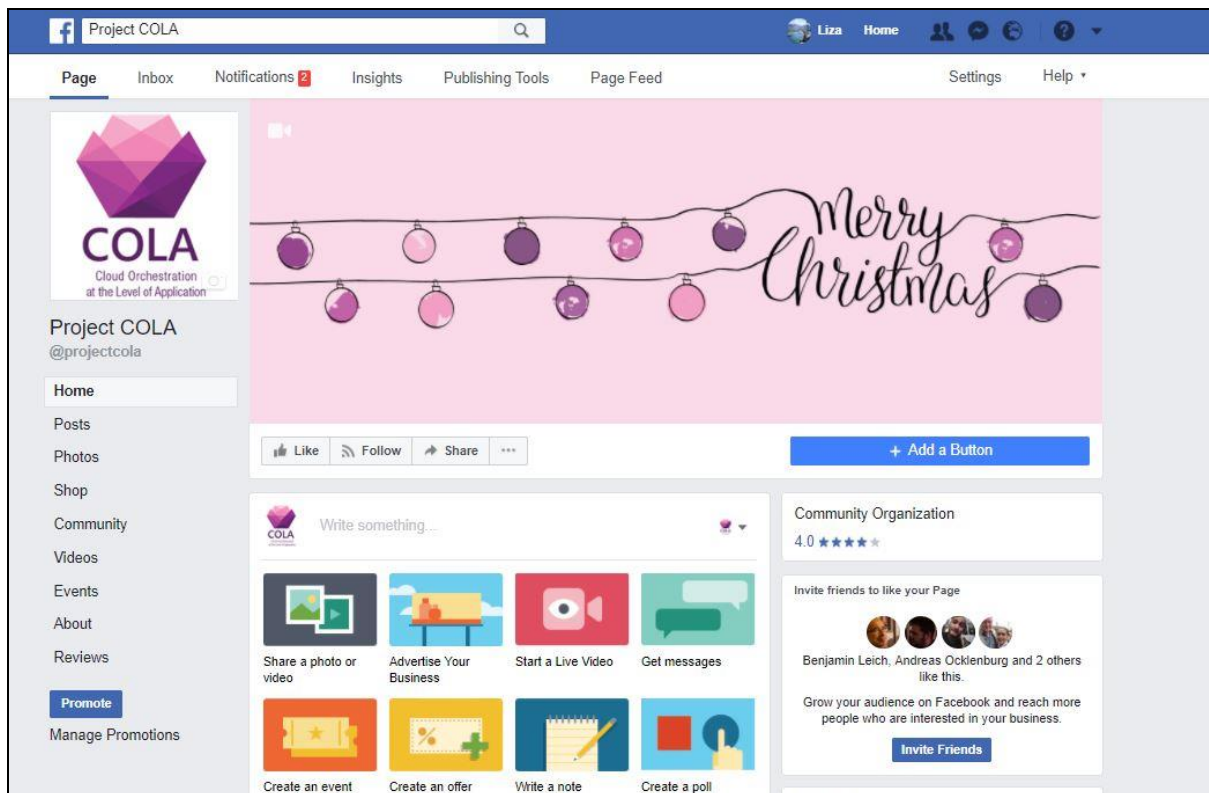


Figure 2: Facebook Profile

YouTube Channel and Playlists

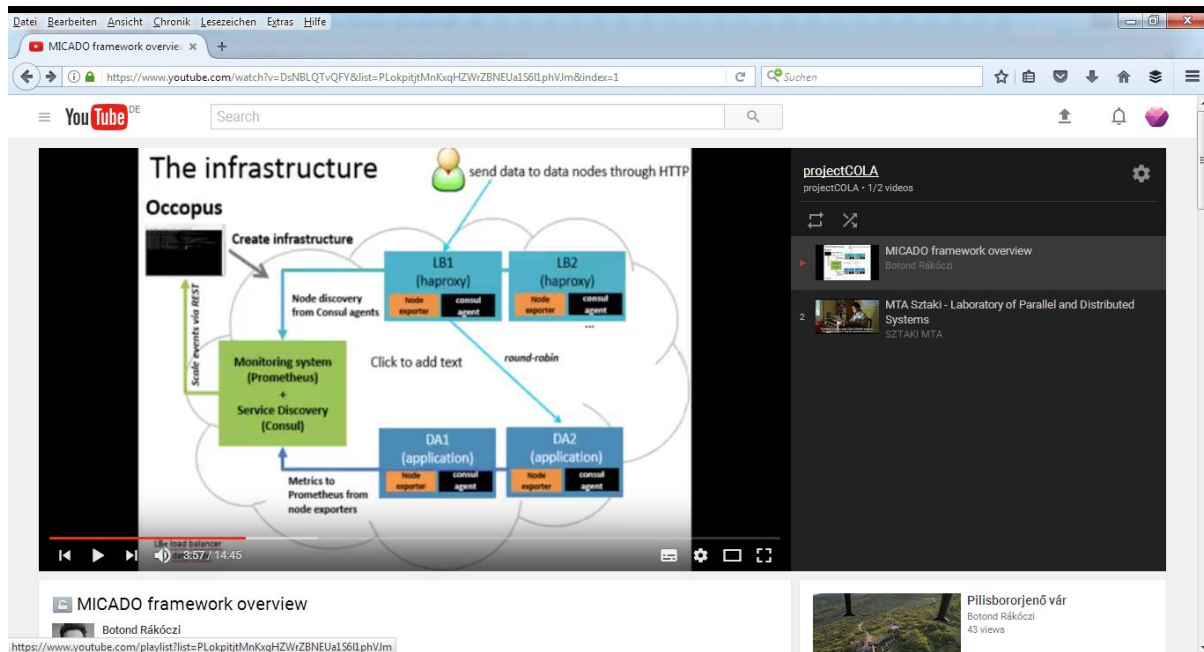


Figure 3: YouTube Channel

LinkedIn Group

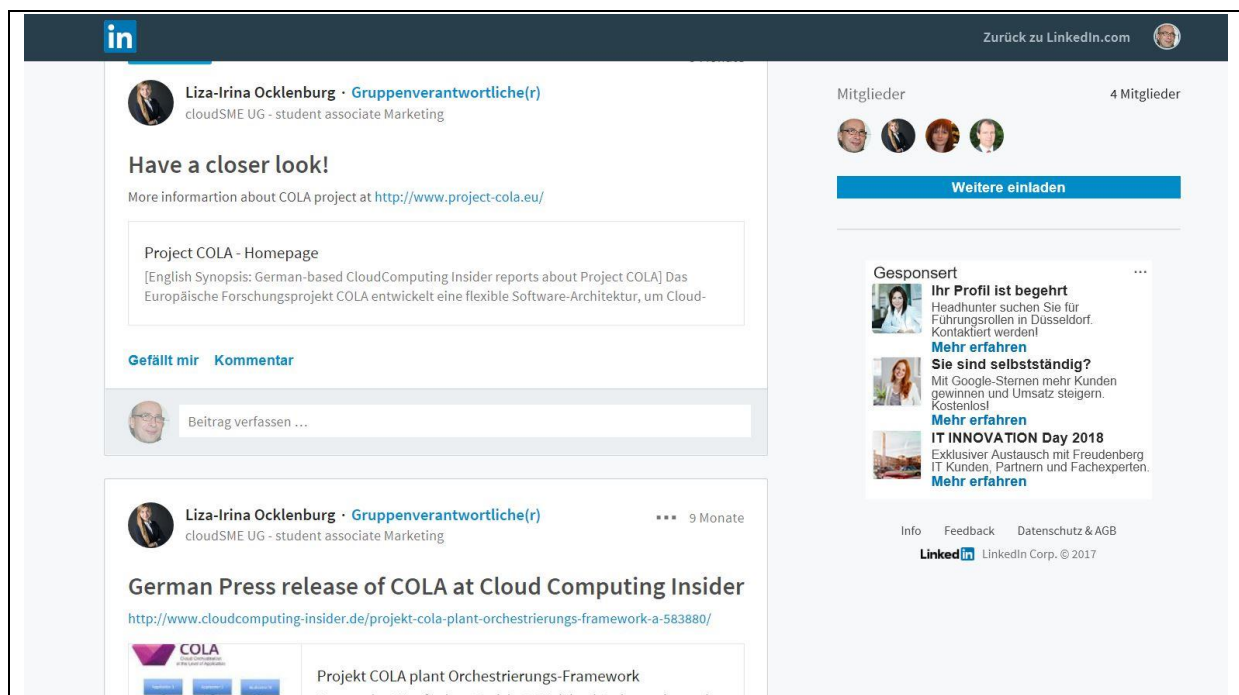


Figure 4: LinkedIn Group

SlideShare Documents & Presentations

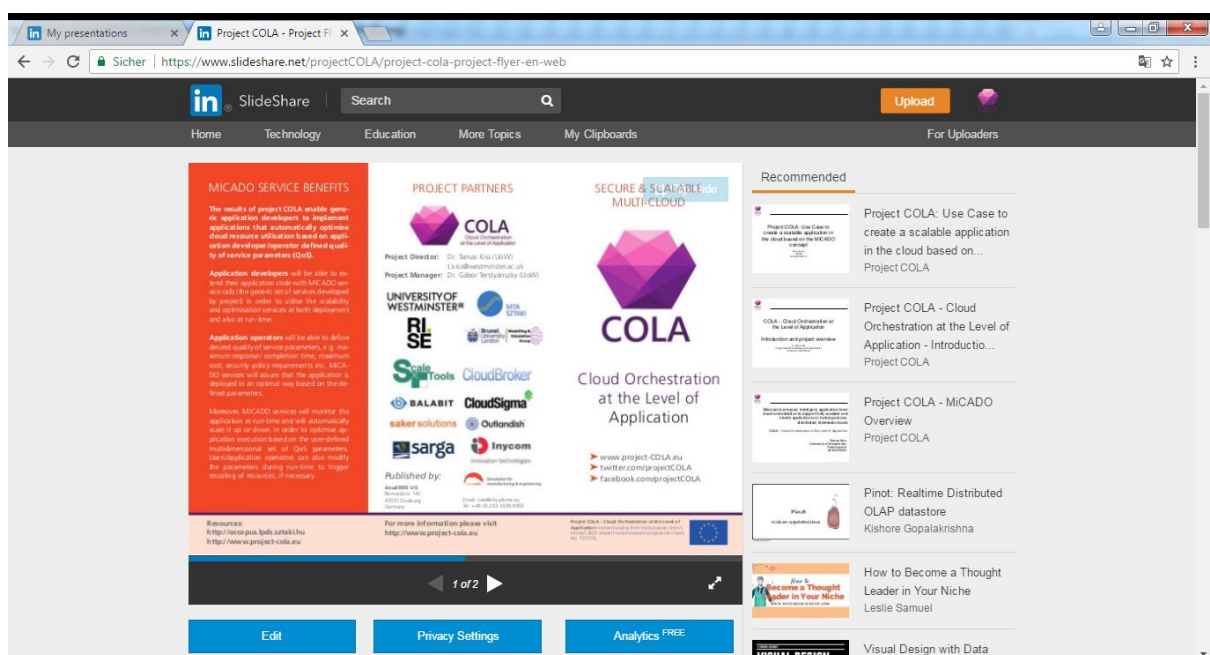
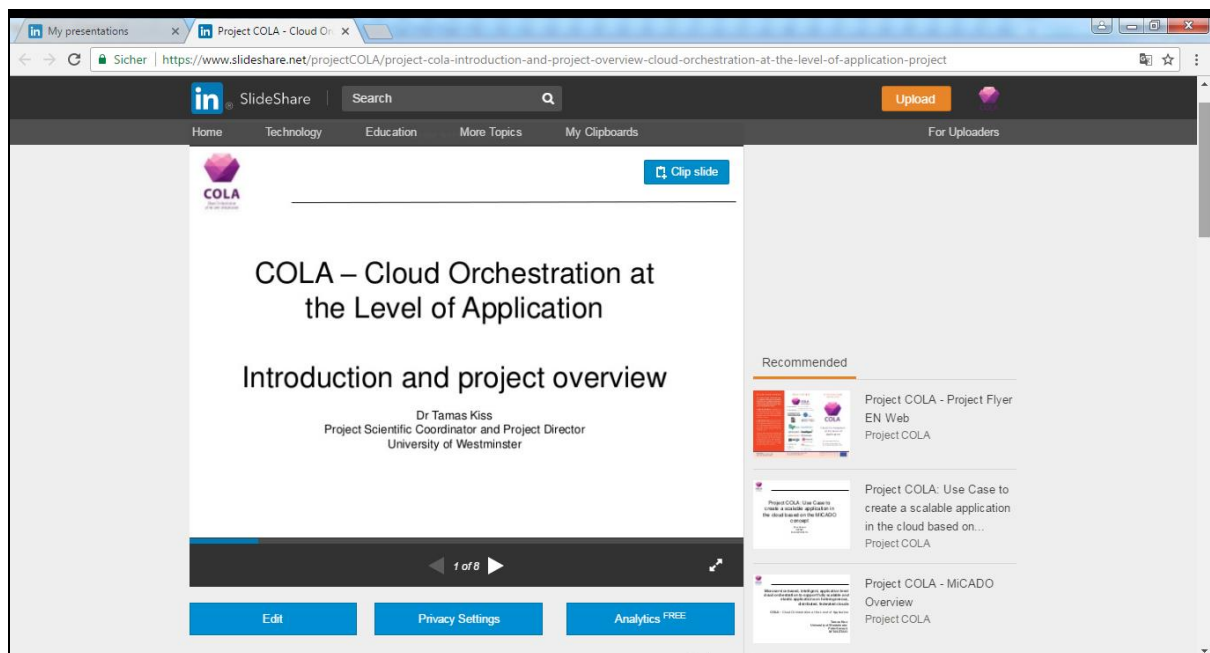


Figure 5: SlideShare Documents & Presentations

3.3 Newsletter and internal communication channels

COLA has set-up a newsletter and is also contributing to newsletters of umbrella organizations and business associations in order to inform its target groups about the progress of the project. As some project partners have their own newsletters, COLA also utilizes these for publishing project-related news.



Figure 6: Project Newsletter May 2017



Figure 7: Project Newsletter Dec 2017

COLA has set-up internal and external communication channels.

A document repository has been set-up at the University of Westminster by the management team, where all relevant project information is stored and archived. A Data Management Plan (DMP) has been created, with contributions from the dissemination team and all partners. To support the internal project communications, mailing lists as well as a Yammer network have been initialised.

In addition, the project is hosting bi-weekly tele-conferences on Cisco's WebEx platform for both the use-case task force as well as the technical task force partner teams. The project has also used WebEx for conducting demos and webinars as outlined in the chapter about training.

3.4 Press releases & partner communications

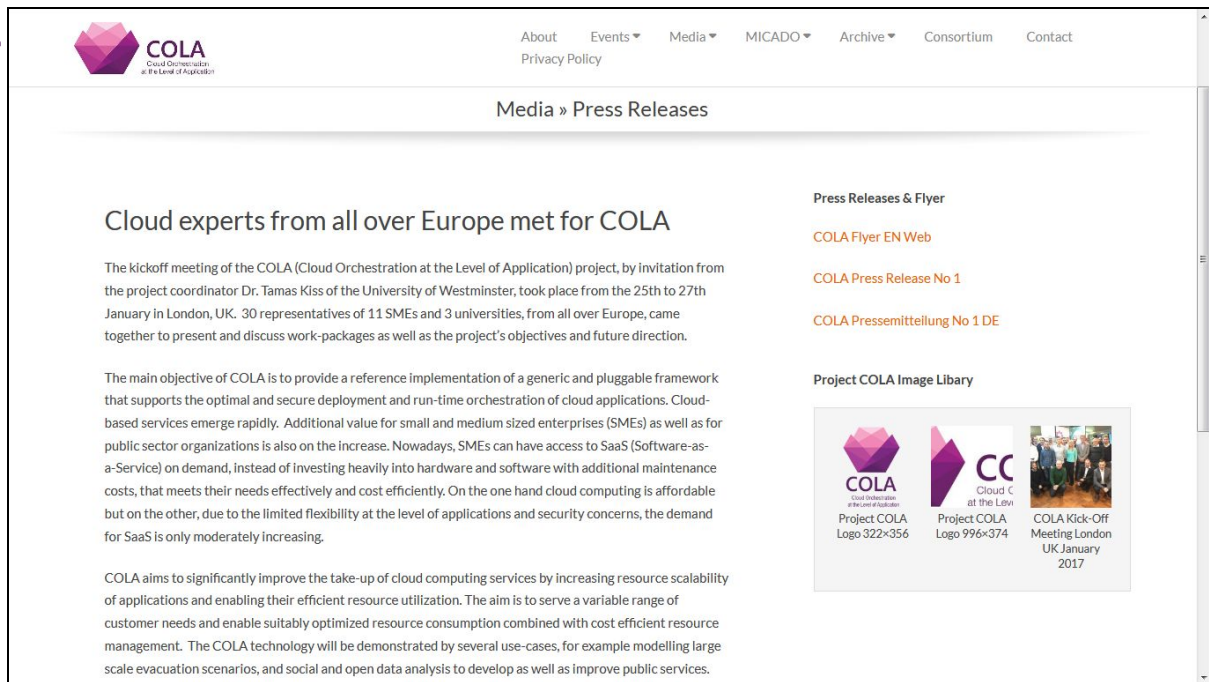
COLA has published several press releases within the first 12 months, targeting both National and European audiences and stakeholders.

The first press release was issued by the coordinator at University of Westminster:



Source: <https://www.westminster.ac.uk/news-and-events/news/2017/westminster-led-research-project-awarded-major-european-grant-to-boost-european-enterprises-competitiveness-globally>

Shortly after, cloudSME and the project have released press releases on both national as well as European level covering the successful kick-off of the project and its mission:



The screenshot shows the 'Media » Press Releases' page of the COLA project website. The main headline is 'Cloud experts from all over Europe met for COLA'. The text describes the kickoff meeting of the COLA project, held from January 25th to 27th in London, UK, with 30 representatives from 11 SMEs and 3 universities. It outlines the project's objectives and future direction. A sidebar on the right lists 'Press Releases & Flyer' with links to 'COLA Flyer EN Web', 'COLA Press Release No 1', and 'COLA Pressemitteilung No 1 DE'. Below this is the 'Project COLA Image Library' featuring three images: the COLA logo, the Project COLA logo, and a photo of the COLA Kick-Off Meeting in London, UK, in January 2017.

Source: http://www.project-cola.eu/wp-content/uploads/2017/02/01_COLA_press-release_final.pdf

In addition, COLA partners INYCOM and SARGA (together with the regional government of Aragon) released press-releases in Spanish:



The screenshot shows the Inycom website, which is a Spanish-language portal for innovation technologies. The main navigation bar includes links to 'Inicio', 'UN TIC', 'Sectores', 'Soluciones y servicios', 'Eventos', 'Actualidad', 'Empleo', 'Referencias', 'Casos de Éxito', 'Certificaciones', and 'BLOG'. The 'Actualidad' (News) section is highlighted, showing a news item dated 03/02/2017 titled 'Inycom participa en un nuevo proyecto europeo para la mejora de la computación en la nube'. The article text describes the COLA project as a European h2020 project involving 14 partners across Europe, aimed at facilitating access to cloud computing for SMEs and public bodies. A group photo of the project partners is included. The right sidebar contains contact information for Vanessa Carabante, including an email address and a phone number. A left sidebar lists various categories like 'INICIO', 'UN TIC', 'SECTORES', 'SOLUCIONES Y SERVICIOS', 'EVENTOS', 'ACTUALIDAD', 'EMPLEO', 'REFERENCIAS', 'CASOS DE ÉXITO', 'CERTIFICACIONES', and 'BLOG'.

Source: <http://www.inycom.es/actualidad-informatica/842-inycom-participa-en-un-nuevo-proyecto-europeo-para-la-mejora-de-la-computacion-en-la-nube>

Project partners are also using their own organisation's communication channels (incl. websites, blogs, social media) to promote project outcomes throughout the duration of the project. This is especially important for commercial partners as the project results can be exposed to existing and even potential customers, greatly increasing the opportunity for commercial exploitation past the end of the project. For example, CloudSigma has included an article introducing the project on both the official CloudSigma Blog (www.cloudsigma.com/blog), and on their marketing website within the Community page under Research and Innovation Projects (www.cloudsigma.com/community).

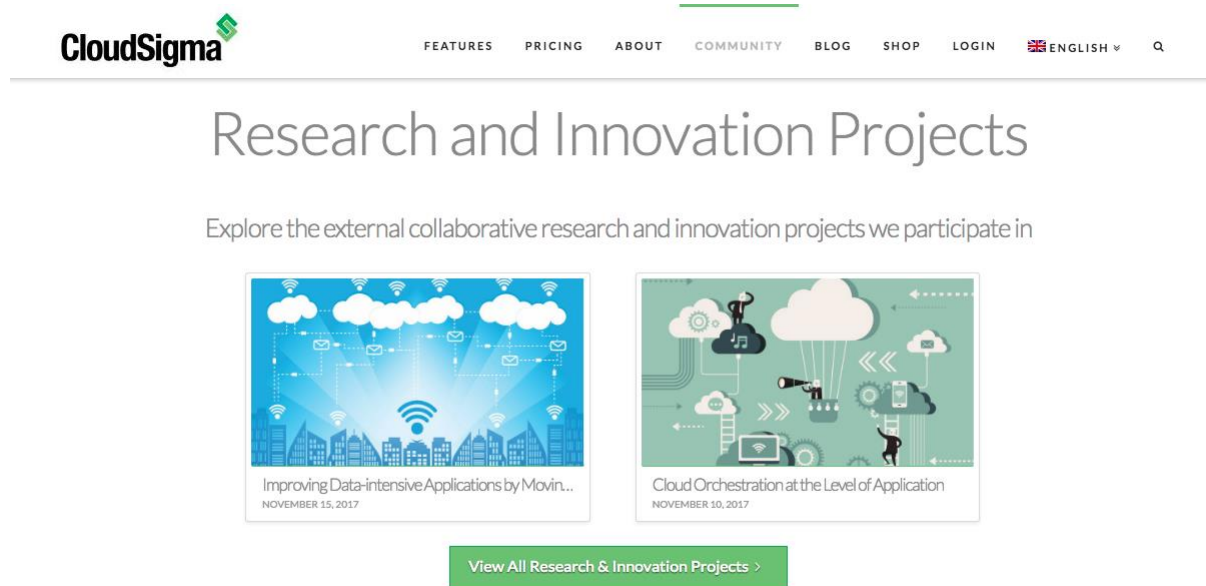
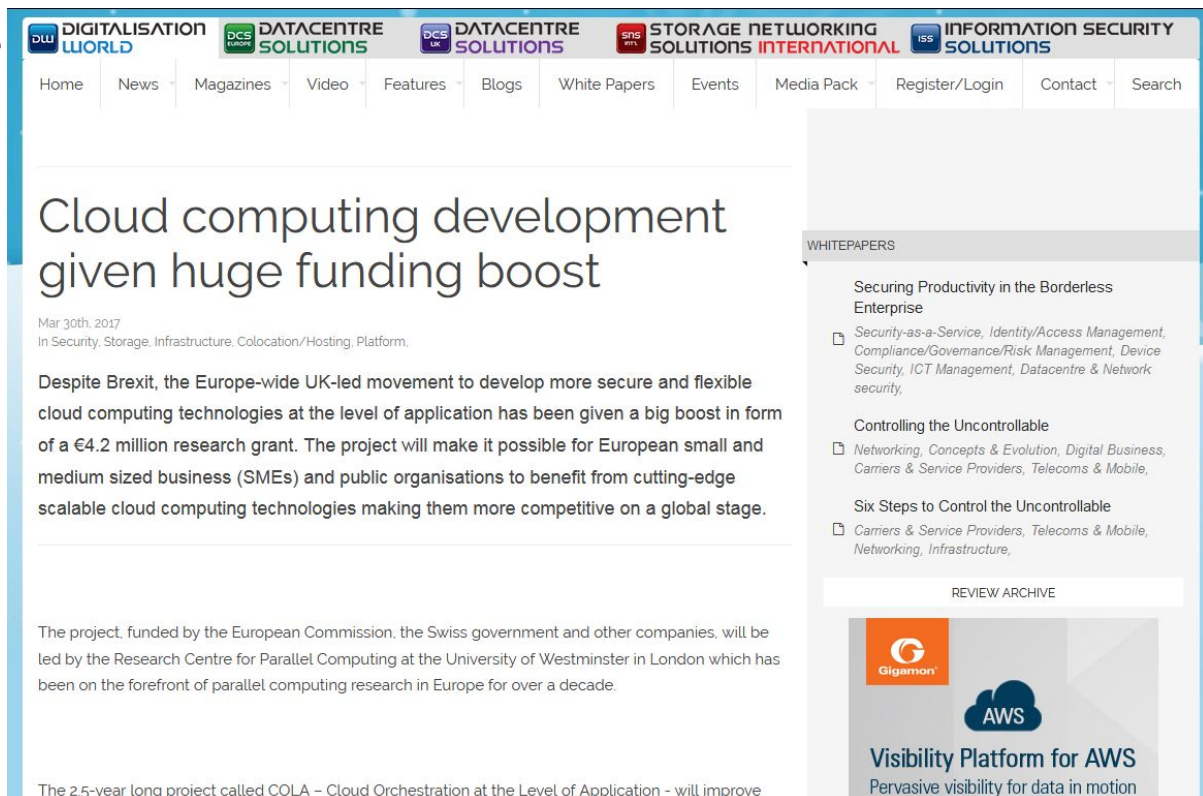


Figure 8: CloudSigma marketing website featuring the COLA project

The article includes a section entitled “So what does it mean for our customers”, which outlines the relevant potential impact CloudSigma customers can expect using the MiCADO framework. Further blogs are planned to coincide with significant project milestones.

3.5 Media Coverage

COLA has received media coverage in newspapers and (online) magazines in Germany, Spain and the UK – also with European visibility.



Digitalisation World | **Datacentre Solutions** | **Storage Networking Solutions** | **Information Security Solutions**

Home | News | Magazines | Video | Features | Blogs | White Papers | Events | Media Pack | Register/Login | Contact | Search

Cloud computing development given huge funding boost

Mar 30th, 2017
In Security, Storage, Infrastructure, Colocation/Hosting, Platform.

Despite Brexit, the Europe-wide UK-led movement to develop more secure and flexible cloud computing technologies at the level of application has been given a big boost in form of a €4.2 million research grant. The project will make it possible for European small and medium sized business (SMEs) and public organisations to benefit from cutting-edge scalable cloud computing technologies making them more competitive on a global stage.

The project, funded by the European Commission, the Swiss government and other companies, will be led by the Research Centre for Parallel Computing at the University of Westminster in London which has been on the forefront of parallel computing research in Europe for over a decade.

The 2.5-year long project called COLA – Cloud Orchestration at the Level of Application - will improve

WHITEPAPERS

- Securing Productivity in the Borderless Enterprise
 - Security-as-a-Service, Identity/Access Management, Compliance/Governance/Risk Management, Device Security, ICT Management, Datacentre & Network security.
- Controlling the Uncontrollable
 - Networking, Concepts & Evolution, Digital Business, Carriers & Service Providers, Telecoms & Mobile.
- Six Steps to Control the Uncontrollable
 - Carriers & Service Providers, Telecoms & Mobile, Networking, Infrastructure.

REVIEW ARCHIVE

Gigamon **AWS**

Visibility Platform for AWS
Pervasive visibility for data in motion

Source: <https://digitalisationworld.com/article/51059/6>

Projekt COLA plant Orchestrierungs-Framework

28.02.17 | Autor / Redakteur: Dirk Srocke / Florian Karlstetter



Das von der EU geförderte Projekt COLA (Cloud Orchestration at the Level of Application) soll eine Software-Architektur entwickeln, mit der sich Services skalierbar und sicher über Multi-Cloud-Plattformen nutzen lassen.

30 Vertreter europäischer KMU und Universitäten haben sich Ende Januar in London getroffen, um über Ziele und strategische Entwicklung des jetzt gestarteten Projekts COLA zu diskutieren. COLA steht für „Cloud Orchestration at the Level of Application“ und ein Konsortium aus 14 Partnern, darunter auch das EU-Projekt CloudSME.

Source: <https://www.cloudcomputing-insider.de/index.cfm?pid=9209&pk=583880&printtype=article>

jueves, 26 de enero de 2017

✓ (42) Me gusta

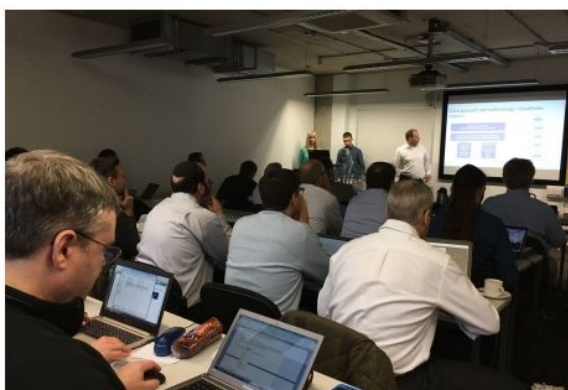
Compartir

Imprimir

Aragón participa en un proyecto europeo sobre mejoras en computación en la nube

Catorce socios, entre ellos el ejecutivo y la empresa Inycom, participan en el proyecto enmarcado en el programa Horizonte 2020

Aragón está representada en el proyecto europeo "Cloud Orchestration at the Level of Application" que cuenta con la colaboración de catorce socios de toda Europa. Liderado por la Universidad de Westminster cuenta también con la colaboración de países como Suecia, Suiza o España. El Gobierno de Aragón participa a través de la colaboración entre la Sociedad Aragonesa de Gestión Agroambiental (SARGA) y la Dirección General de Administración Electrónica y Sociedad de la Información.



El proyecto se enmarca en el Programa Horizonte 2020 de la Unión Europea y está financiado con los fondos para el fomento de acciones de innovación. La participación aragonesa favorece el acceso a recursos económicos para mejorar el tejido tecnológico de Aragón. Junto al ejecutivo, la empresa aragonesa Inycom también forma parte del proyecto con el que pretende mejorar su conocimiento en tecnologías clave para los próximos años.

Tags:

[administración electrónica](#), [Aragón](#), [Cloud Orchestration at the Level of Application](#), [computación en la nube](#), [innovación](#), [investigación](#), [Open Data](#), [SARGA](#), [sociedad de la información](#)

www.aragonhoy.net/index.php/mod.noticias/mem.detalle/reلمenu.91/id.193045

3.6 Project COLA dissemination material

Project COLA has produced a range of printed materials that have been used to present the project at events, trade fairs, conferences and other occasions.

Among the dissemination materials produced are brochures and flyers, posters, as well as roll-up banners.

The first version of the COLA flyer featured the main project partners, intended target groups as well as service benefits for stakeholders.



MICADO SERVICE BENEFITS

The results of project COLA enable generic application developers to implement applications that automatically optimise cloud resource utilisation based on application developer/operator defined quality of service parameters (QoS).

Application developers will be able to extend their application code with MiCADO service calls (the generic set of services developed by project) in order to utilise the scalability and optimisation services at both deployment and also at run-time.

Application operators will be able to define desired quality of service parameters, e.g. maximum response/ completion time, maximum cost, security policy requirements etc. MiCADO services will assure that the application is deployed in an optimal way based on the defined parameters.

Moreover, MiCADO services will monitor the application at run-time and will automatically scale it up or down in order to optimise application execution based on the user-defined multidimensional set of QoS parameters. Users/application operators can also modify the parameters during run-time to trigger rescaling of resources, if necessary.

PROJECT PARTNERS

 **COLA**
Cloud Orchestration
at the Level of Application

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RI SE  **Brunel University London**  **Modelling & Simulation Group**

ScaleTools **CloudBroker**

BALABIT **CloudSigma**

saker solutions **Outlandish**

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SECURE & SCALABLE MULTI-CLOUD

 **COLA**

Cloud Orchestration
at the Level of
Application

➤ www.project-cola.eu
➤ twitter.com/projectCOLA
➤ facebook.com/projectCOLA

Resources:
<http://occopus.lpd.sztaki.hu>
<http://www.project-cola.eu>

For more information please visit
<http://www.project-cola.eu>

Project COLA – Cloud Orchestration at the Level of Application receives funding from the European Union's Horizon 2020 research and innovation programme (Grant No. 731574).



Figure 9: Project COLA Flyer V1

A roll-up banner was produced and used at trade fairs and events where the project could be presented (see also Table 6: Project COLA dissemination events).

COLA has also participated in several joint dissemination events, e.g. the NetFutures Conference, Cloud Projects Concentration Meeting as well as the CloudWatch2 Summit, where the project also had a poster presentation.



Figure 10: Project COLA Poster

During the evolution of the project, the initial dissemination material was updated when more results became available, e.g. with the release of MiCADO V3.

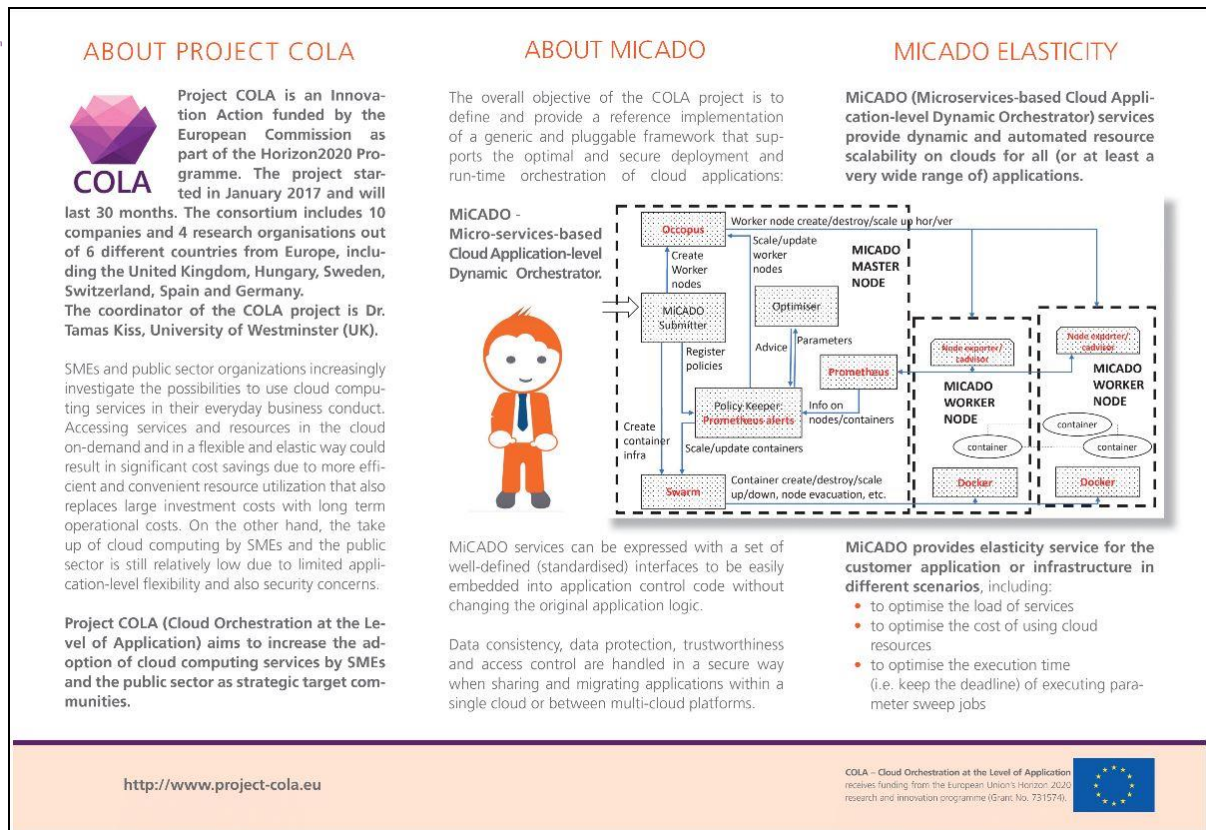


Figure 11: Project COLA Flyer V2 Update

3.7 Demos and visual media.

Live and recorded demonstrations were created to show the use and applicability of COLA outcomes, especially to showcase MiCADO trials and demonstrators.

The webinar / use-case presentation was uploaded to the project COLA webpage under Media/Presentations menu, and to slideshare.

It is available at: <https://www.slideshare.net/projectCOLA/project-cola-use-case-to-create-a-scalable-application-in-the-cloud-based-on-the-micado-concept>.

A full video recording is available on the COLA project website at <https://project-cola.eu/media/videos/>

More details regarding demos and webinars can be found in the following chapter.

4 Training

4.1 User guides and manuals

During the first period of the COLA project, SZTAKI and UoW made and published user guides for each MiCADO version on the official COLA website (<https://project-cola.eu>). Older user guides are available under the Archive menu, and the latest version's user guides are available under the MiCADO menu. With this solution, all of the user guides are available for the end-users, although we highlight the recommended, latest version for usage. In addition, there is an overview about the tutorials, which details the difference between the versions, and helps the user to choose between them (<https://project-cola.eu/micado-tutorials>)

There are two tutorials for MiCADO V1 version: V1/A (<https://project-cola.eu/micado-tutorials/micado-v1a/>) and V1/B (<https://project-cola.eu/micado-tutorials/micado-v1b/>). MiCADO V1/B works with a separate load balancing layer with Docker Swarm cluster. Figure 12 shows the MiCADO V1 architecture, which was explained in detail in the COLA D6.1.

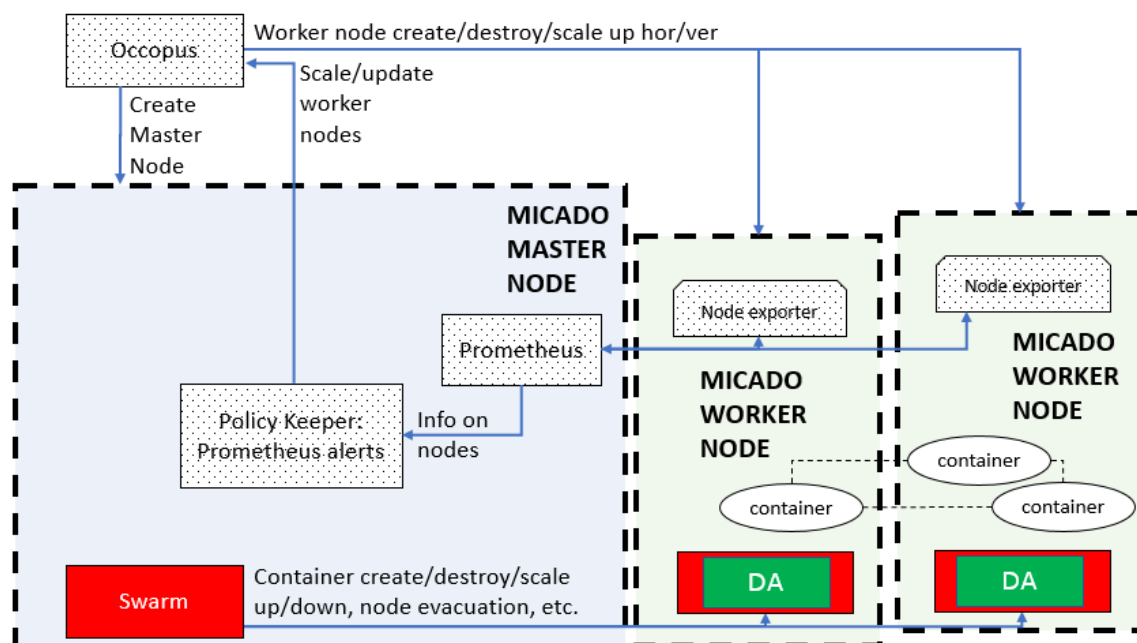


Figure 12: MiCADO V1 architecture

Figure 13 shows the improvements in the MiCADO V2 architecture, which was also explained in detail in the COLA D6.1 report. The tutorial for MiCADO V2 is available at the following link: <https://project-cola.eu/micado-tutorials/micado-v2>.

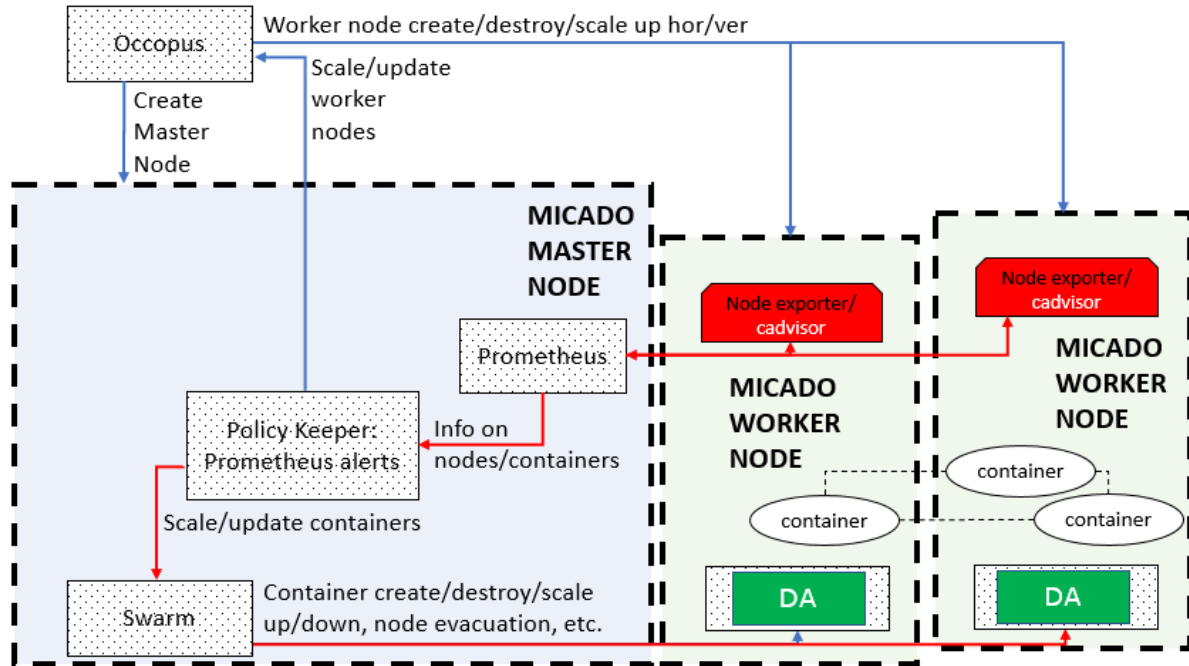


Figure 13: MiCADO V2 architecture

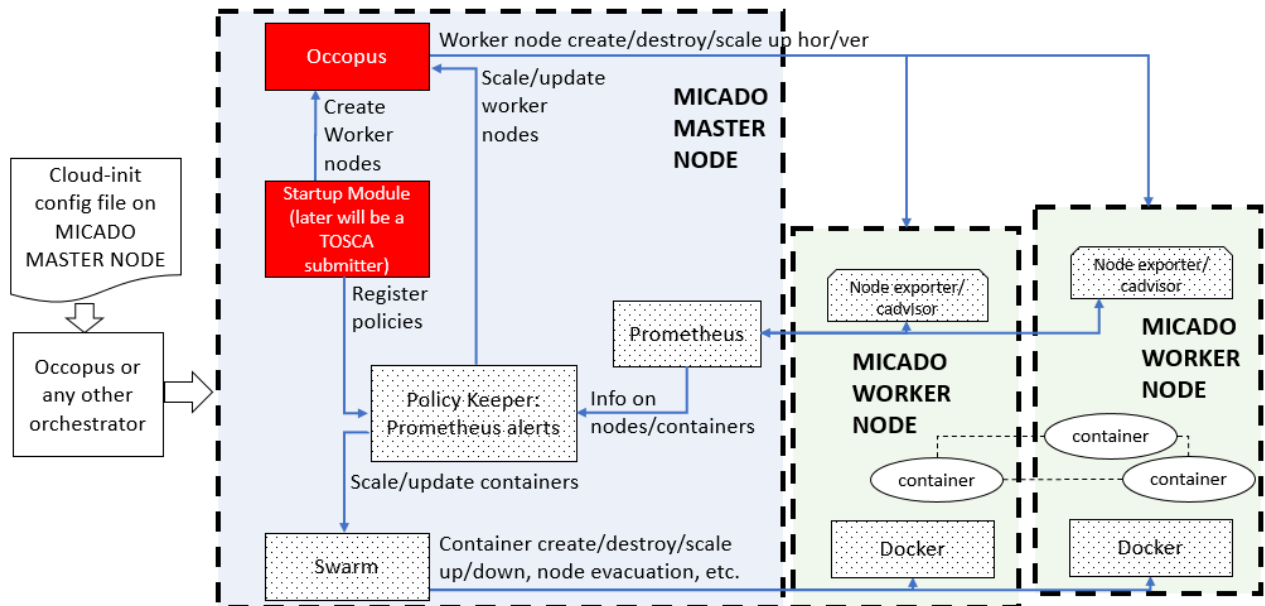


Figure 14: MiCADO V3 architecture

Figure 14 shows the latest version of the MiCADO V3 architecture, which was explained in detail in the COLA D6.2 report. The third version of MiCADO has two user guides on the webpage. The MiCADO V3 user guide is available at <https://project-cola.eu/user-guide/>, and the MiCADO V3 advanced user guide is at <https://project-cola.eu/advanced-user-guide/>. The difference between the two user guides is that the advanced user guide is more detailed and there is more technical information in it for advanced users.

4.2 Demos / Tutorials: live and/or pre-recorded demonstrations

During the COLA project meeting held in Krakow between 26.08.17 and 28.08.17, three demonstrations were shown to illustrate the high level concept of MiCADO from topology creation to actual execution. The scope of each demo is recapitulated in Figure 15 and detailed below. The demos were recorded and made available for training and further demonstration purposes.

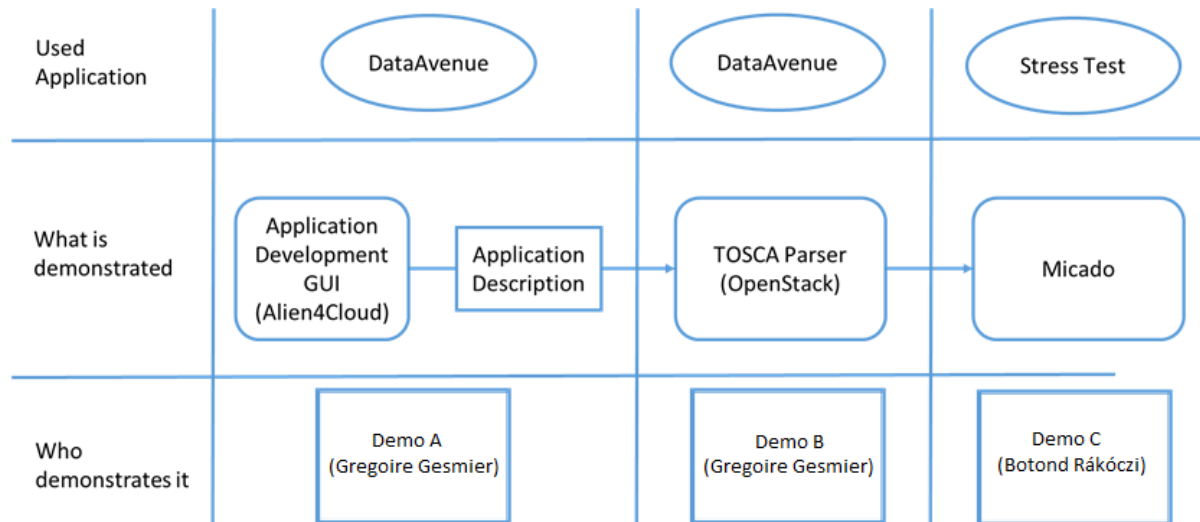


Figure 15: Demos at Krakow project meeting

Demo A consisted of a live demonstration showcasing how Alien4Cloud¹ could be utilised in MiCADO for the creation of TOSCA-based topologies and related policies. These topologies are used to describe applications in MiCADO and their management lifecycle. Figure 16 shows Demo A, how to write an application description with the command line and the GUI. Figure 17 shows the Data Avenue topology on the Alien4Cloud GUI.

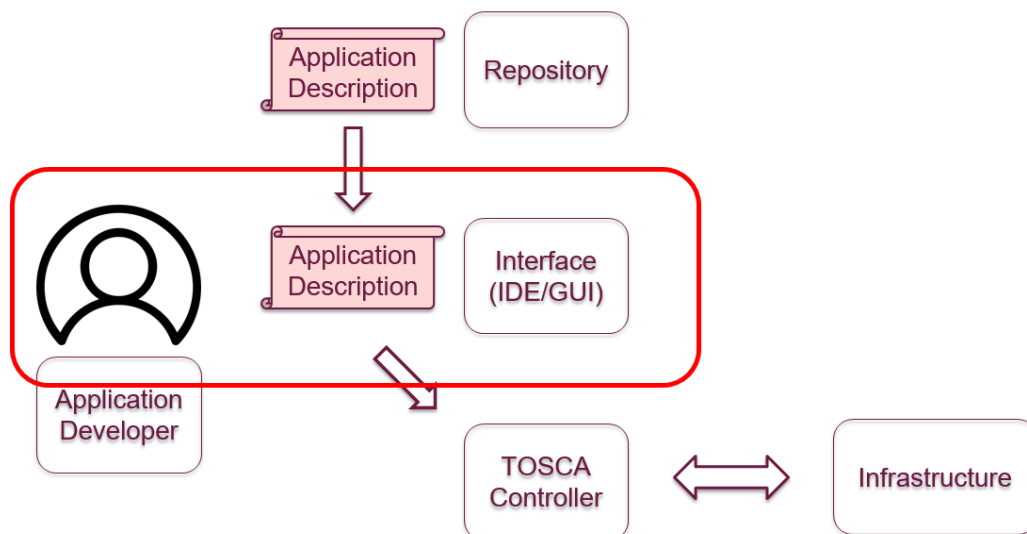


Figure 16: Demo A

¹ <https://alien4cloud.github.io/>

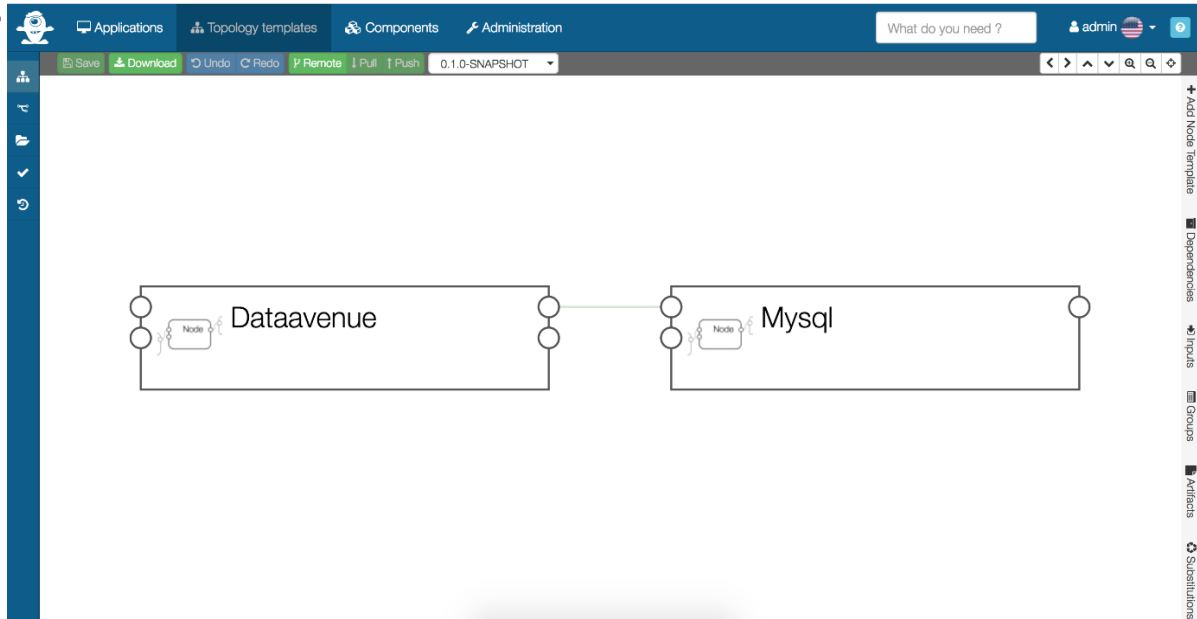


Figure 17: Alien4Cloud GUI

Demo B consisted of a live demonstration of the use of the OpenStack parser for parsing the TOSCA-based topologies and related policies. The parsing will be a fundamental step to allow COLA to read the TOSCA-based topologies and act upon them. Figure 18 shows Demo B, how the TOSCA Controller parses the application description and (will) instruct the Infrastructure.

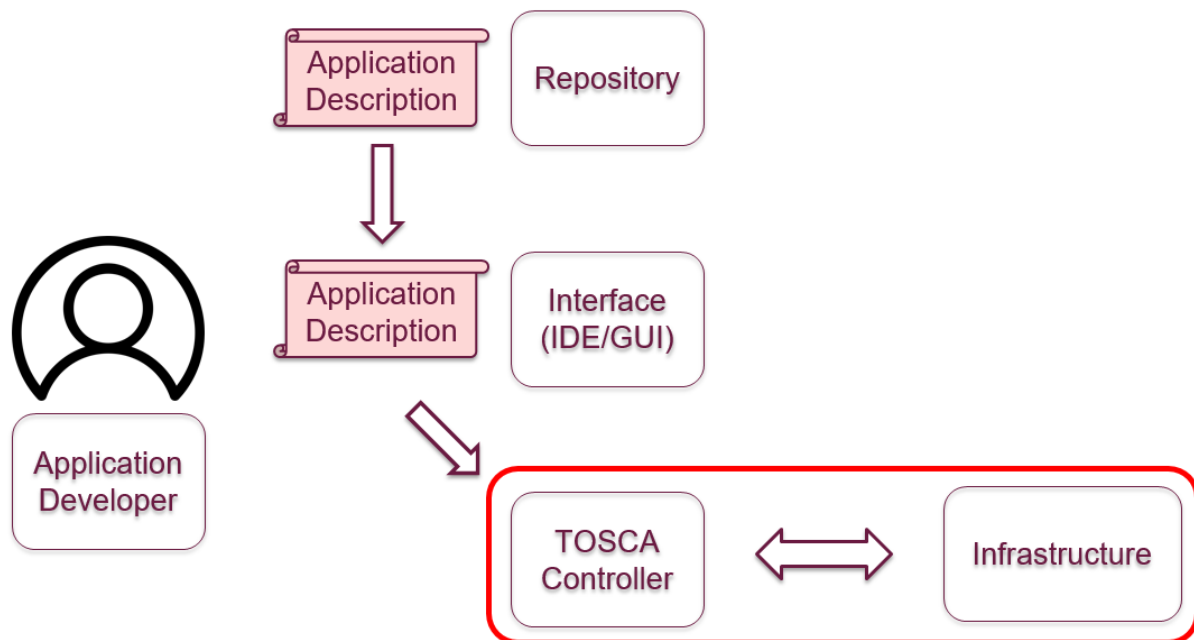


Figure 18: Demo B

A video of Demo A and Demo B is available at (link to google file)
<https://drive.google.com/file/d/0B6CGH9Z-GeVKTGxEV2J6OEpZRVE/view>

Demo C, illustrated on the figure below, consisted of a live demonstration that showed how MICADO controls the execution of applications based on policies and how it will use the TOSCA-based Application Descriptions.

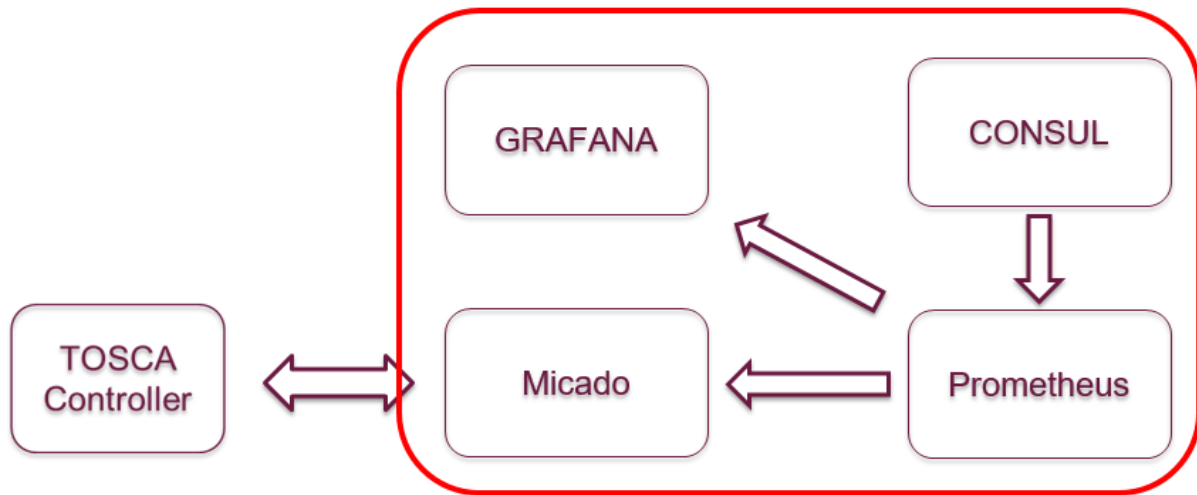


Figure 19: Demo C

A video about the MiCADO framework overview is available on the following link: <https://project-cola.eu/media/videos>

4.3 Webinar for MiCADO

During the first year of the project, two on-line training events were organised in the form of webinars targeting application developers on project partners.

The first security webinar for MiCADO was on 24th March 2017, and it was held by Csaba Krasznay from Balabit. On this product demo, Balabit presented its Shell Control Box product which aims to control and monitor remote access to the cloud orchestrator framework. The demo was focused on how the SSH related capabilities of the MiCADO framework is heavily using this remote access method for administrative access. The demo itself was one hour long and was available for all project members.

The second webinar was held on 12th April 2017. The title of this webinar was: SZTAKI Use-Case to create a scalable application in the cloud based on the MICADO concept. Abstract of the webinar: SZTAKI has developed the Data Avenue (DA) application that can transfer large data sets among data storages which have got any of the following access protocols: HTTP, HTTPS, SFTP, GSIFTP, SRM, iRODS and S3. As a result, Data Avenue is a very flexible tool for transferring data among various types of storages. SZTAKI wants to set up a DA service that can serve a large number of users. However, using a simple DA instance in the cloud will be a bottleneck in case of many users. Therefore, SZTAKI was investigating how to create scalable DA services based on the MICADO concept. The talk shows the progress from a specific to a more generic scalable DA service. COLA use-cases can follow similar approach to create scalable applications in the cloud. The webinar also contains a live demonstration of the deployment and usage of the scalable DA service that can run in CloudSigma cloud. The webinar / use-case presentation was uploaded on the MiCADO official webpage under Media/Presentations menu, and to slideshare. It is available at: <https://www.slideshare.net/projectCOLA/project-cola-use-case-to-create-a-scalable-application-in-the-cloud-based-on-the-micado-concept>. A full video recording is available on the COLA project website at <https://project-cola.eu/media/videos/>.

5 Conclusions and Outlook

The first months of the COLA project have been a productive time in regards to the project's dissemination activities and outcomes. The COLA project's website (<http://www.project-cola.eu>) has been published and announced through the project's presence in different social media channels including [Twitter](#), [Facebook](#) and [LinkedIn](#).

The COLA project released multiple press releases (focusing on the European level as well as UK, Spain and Germany) which have already resulted in media coverage such as from [DigitizationWorld](#), [CloudComputing Insider](#), [Aragon Ahoy](#) and others.

As the project had planned to engage a wide variety of stakeholders on different channels and a number of events, dissemination material such as printed brochures / flyers were designed, printed and distributed. For the project's first trade fair participation, the [Hannover trade fair 2017](#) (with a visit from Commissioner Günther Oettinger), roll-up banners and posters were designed and produced to be used at conferences, exhibitions and trade fairs.



Figure 20: Commissioner Oettinger at Hannover 2017 booth

As planned, COLA members have been attending a number of events, conferences, symposiums and meetings with the objective to further propel the dissemination of the project (see also Table 6: Project COLA dissemination events in the Annex).

The project has already delivered on a number of promised results and KPIs within the first 12 months and is well-prepared for the remaining 18 months (see Table 5: Project COLA dissemination KPI until M12 in the Annex).

Finally, COLA members have published a number of scientific publications and project results have been successfully presented in and at international conferences and journals (see Scientific Publications in the Annex).

6 Annex

6.1 Project COLA dissemination results KPI

Communication Channel / Media	Actions & Milestones	KPI over 30months Project Lifetime	Status (M12)
Corporate Identity	Logo design with templates and usage instructions.	Logo,	DONE
Web page	Purchase of domains and web design.	Website and	DONE
Social media	Facebook and Twitter presence.	Social media profiles created.	DONE
Web Analytics	Measure the use of the platform with web analytics tools.	At least once a week.	DONE / In progress
Social Media Analytics	Measure the reputation of the project using relevant tools, such as Klout.	At least once a quarter.	DONE / In progress
Press material	Creation of first templates for press releases, writing press releases & articles.	Press releases: 10. Press Articles: up to 5.	1x Global PR. 1x UK PR. 2x Germany PR. 2x Spain PR. 1x Magazine.
Press campaigns	PR with media (print, radio, press, TV)		
Public dissemination materials	To create: <ul style="list-style-type: none"> brochures posters footage /videos, etc. 	At least <ul style="list-style-type: none"> 2 Brochures. 4 posters or roll-ups. 1white paper. 2 project videos. 	Already <ul style="list-style-type: none"> 2x Brochures / Flyers 1x Roll-Up 1x Poster 2x Videos
Events	Dissemination events: <ul style="list-style-type: none"> Institutional (EU headquarters...). Society in general (local political institutions, entrepreneurs...). Technical (ICT). 	Self-organised: <ul style="list-style-type: none"> at least 2 large dissemination events, launch event. Attended: <ul style="list-style-type: none"> up to 12 relevant events (conferences / workshops) 	1x Organised Launch Event. 2x Project Meetings Attended EC ICT Days, Concertation Meetings, DIH Hubs CSA CloudWatch2 Summit, I4MS Initiative Scientific Conferences Regional entrepreneurs and networks (see annex).

D2.2 First periodic dissemination report

Training events and training material	User guides and manuals	To be published on the website, continuously updated	DONE Tutorials for MiCADO V1, V2, V3 published
Training events and training material	Demos / Tutorials: live and/or pre-recorded demonstrations	Frequently: whenever possible / necessary to have them	DONE, and cont'd (see training)
Training events and training material	Organisation of webinars to provide a flexible and quick information tool and increasing attention by having freemium offer	Up to 6 webinars	DONE and cont'd (see training)
Online Marketing	Search engine optimization of the website, continuously displaying the success of the project and community building, use of web analytics.	Continuous work, at least 1 social media post a week.	DONE. DONE. In Progress.
Newsletter(s)	Regular publishing of an own newsletter and contributions to external newsletters.	Newsletters	In Progress, 3 own + several external
Presentations	Specific conferences to be attended.	At least twice a year.	DONE and cont'd, see annex.
Scientific Publications	Journal and conference papers.	11 Scientific publications until M30	Already 9 until M12, see annex.

Table 5: Project COLA dissemination KPI until M12

6.2 COLA related dissemination and training events

Date	Place (city, country)	Name of the event	Audience / Dissemination Level	Web site / Additional Information	Partner(s) involved
25.-27.01.2017	London, UK	COLA Kick-Off Meeting	All project stakeholders	http://www.project-cola.eu/	All partners
27.01.2017	Stockholm, Sweden	OpenStack meetup	Researchers (students, PhD), practitioners	https://www.meetup.com/OpenStack-User-Group-Sweden	SICS Event Organiser
31.01.2017	Aachen, Germany	IraSME Partnering Event	Germany	http://www.ira-sme.net/events/partnering-event-aachen-2017/	CloudSME presented
31.01.-01.02.2017	Essen, Germany	EC Stakeholder Forum on Digitising Europe	Europe	https://ec.europa.eu/futurium/en/content/save-date-first-digitising-european-industry-stakeholder-forum	CloudSME attended:
21.-22.02.2017	Berlin, Germany	DECIDE Project Meeting	Europe	https://www.decide-h2020.eu Exploring opportunities for cooperation between projects	CloudBroker & CloudSME attended
02-03.03.2017	Düsseldorf, Germany	Successful R&I in Europe 2017	Europe	http://www.horizon2020.zenit.de/networking2017/successful-ri-in-europe-2017/programme/	CloudSME presented
16.-17.03.2017	Berlin, Germany	Digitising Manufacturing in the G20	Germany	http://www.bmwi.de/Redaktion/DE/Veranstaltungen/2017/20170316-digitising-manufacturing-in-the-g20.html	CloudSME attended
20-24.03.2017	Hannover, DE	Cebit 2017	Global	www.cebit.de	CloudSME attended
24.03.2017	Webinar	COLA Security Webinar	Online	See training chapter	Balabit, SZTAKI; CloudSME
07.03.2017	Stockholm, Sweden	OpenStack meetup	Researchers (students, PhD), practitioners	https://www.meetup.com/OpenStack-User-Group-Sweden	SICS Event Organiser
12.04.2017	Webinar	COLA MiCADO Webinar	Online	See training chapter	SZTAKI, UoW, CloudSME

D2.2 First periodic dissemination report

27.04.2017	Duisburg, Germany	TecTower Meeting	Local	www.tectrum.de	CloudSME presentation
24.-28.4.17	Hannover, Germany	Hannover Trade Fair	International	http://www.hannovermesse.de	CloudSME booth & presentation
04.05.2017	Duisburg, Germany	COLA Presentation for MPIE	Regional	www.project-cola.eu	CloudSME presentation
30.-31.05.2017	Pecs, Hungary	Conference PARENG 2017	Scientific community	The Fifth International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering https://pareng.hu/2017	SZTAKI presentation
16.06.2017	Online, Europe	CloudWatch MTRL Assessment	Europe	http://cloudwatchhub.eu	UoW, CloudSME assessment
19-21.06.2017	Poznan, Poland	International Workshop for Science Gateways, IWSG 2017	Presenting two COLA research papers to PhD students, researchers & end users	http://iwsg2017.psnc.pl	UoW presentation and panel membership
27.06.2017	Düsseldorf, Germany	Open Innovation Event	Regional	http://innovation.clearly-open.de/veranstaltungen-final	CloudSME has participated
28.06.2017	Brussels, Belgium	NetFutures 2017 (CloudWatch workshop/concentration meeting)	Stakeholders of European cloud computing projects	https://www.netfuturesconference.eu/	UoW, panel membership CloudSME attendance
29.06.2017	Brussels, Belgium	Net Futures 2017 Conference	European	http://netfuturesconference.eu/	CloudSME participation
06.07.2017	Duisburg, Germany	IT Networker NRW Meeting	Regional	http://www.networker.nrw	CloudSME attended
06.07.2017	Cologne, Germany	Industry 4.0 Reality Check	Germany	http://www.reality-check40.de	CloudSME exhibitor

D2.2 First periodic dissemination report

14.07-2017	Gelsenkirchen, Germany	Start-Up Ruhr Demo Night	Regional	http://start-up-ruhr.de	CloudSME demo night
18.07.2017	Düsseldorf, Germany	Innovation Düsseldorf, Design Thinking Workshop	Regional	https://www.eventbrite.de/e/aufbruch-duesseldorf-design-thinking-workshop-des-hochschulnetzwerkes-duesseldorf-tickets-35507065589	CloudSME
03.08.2017	Essen, Germany	Lean Start-Up Workshop	Regional	https://www.meetup.com/de-DE/LSCNRW/members/207457490/	CloudSME
10.08.2017	Budapest, Hungary	Sino-HU Workshop on Big Data Meets Mobile Cloud	Scientific community / SZTAKI and HUST scientists	https://www.sztaki.hu/innovacio/esemenyek/sino-hu-workshop-big-data-meets-mobile-cloud	SZTAKI, presentation
17.08.2017	Essen, Germany	Digital Innovation Hub Ruhr	Germany	http://hub.ruhr/	CloudSME presentation
19-20.09.2017	Amsterdam The Netherlands	CloudWatch2 Summit 2017	European Cloud developers/researchers and Cloud providers	http://www.cloudwatchhub.eu/summit/agenda	UoW presenting the MiCADO platform
22.09.2017	Madrid, Spain	I4MS Digital Innovation Hubs Conference 2017	Potential SME end-users of the MiCADO solution in the manufacturing/engineering sector in Europe	http://madrid.i4ms.eu/	UoW attending; INYCOM attending, cloudSME presenting
26.-28.09.2017	Krakow, Poland	Project Meeting	European	http://www.project-cola.eu	All Partners
10.10.2017	Budapest, Hungary	Industrial Digitalization Professional INDIGO day	Hungarian Industrial Partners	https://indigonap.hu	SZTAKI presentation
13.10.2017	Darmstadt, Germany	Meeting with partners from CloudFlow project	Project Level	http://www.eu-cloudflow.eu/	CloudSME cooperation
25.10.2017	Cologne, Germany	Cloud Transformation Days	National	https://aws.amazon.com/events/transformation-day-cologne/	CloudSME attendance

D2.2 First periodic dissemination report

28.- 29.10. 2017	Frankfurt, Germany	CloudExpo Europe	European	https://www.cloudexpo-europe.de/	CloudSME attendance
08.11. 2017	Budapest, Hungary	Training Event	European	http://lpds.sztaki.hu/	SZTAKI, UoW, cloudSME co-organiser
09.- 10.11. 2017	Budapest, Hungary	EC ICT Proposers Day 2017	European	https://ec.europa.eu/digital-single-market/en/events/ict-proposers-day-2017	CloudSME, UoW, SZTAKI attendance
21.11. 2017	Wuhan, China	Key Technologies of Cloud Integration Platform for Mobile Environment	Scientific community, scientists and students	Huazhong University of Science and Technology http://english.hust.edu.cn/	SZTAKI presentation
30.11. 2017	Bonn, Germany	Science & Research Management Conference	Regional	https://netzwerk-wissenschaftsmanagement.de	CloudSME attending
29.11. 2017 – 01.12. 2017	Brussels, Belgium	Digital Infrastructure for Research Conference 2017	Developers, providers and researchers from Europe	https://www.digitalinfrastructure.eu/	UoW presenting the MiCADO platform
05.12. 2017	Dortmund, Germany	Enterprise Europe Network (EEN) Event	Companies, SMEs and Researchers	http://horizon2020.zenit.de/ikt2017/erfolgreich-forschen-in-europa/agenda/	CloudSME presenting results and experiences

Table 6: Project COLA dissemination events until M12

6.3 Scientific Publications

D. Temelkovski, T. Kiss, G. Terstyanszky (2017) Extending Desktop Applications with Cloud Computing. IWSG 2017, 9th International Workshop on Science Gateways. 19-21 June, 2017

G. Pierantoni, T. Kiss, G. Terstyanszky (2017) Towards Cloud Application Description Templates Supporting Quality of Service. IWSG 2017, 9th International Workshop on Science Gateways. 19-21 June, 2017

T. Kiss, P. Kacsuk, J. Kovacs, B. Rakoczi, A. Hajnal, A. Farkas, G. Gesmier, G. Terstyanszky (2017) MiCADO –Microservice-based Cloud Application-level Dynamic Orchestrator. Future Generation Computer Systems. <https://doi.org/10.1016/j.future.2017.09.050>

N. Paladi (2017) Trust But Verify: Trust Establishment Mechanisms in Infrastructure Clouds. Phd Thesis. Lund University. September 5, 2017

N. Paladi, C. Gehrmann (2017) Bootstrapping trust in software defined networks. EAI Transactions on Security and Safety. <http://eudl.eu/doi/10.4108/eai.7-12-2017.153397>

J. Kovacs, P. Kacsuk, Z. Farkas (In Press) Orchestrating Federated Clouds by Occopus. In: P. Iványi, B.H.V. Topping, G. Várady, (Editors), "Proceedings of the Fifth International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering", Civil-Comp Press, Stirlingshire, UK.

P. Kacsuk, J. Kovacs, Z. Farkas (2017) Flowbster Workflow System for Clouds. In: P. Iványi, B.H.V. Topping and G. Várady, (Editors), "Advances in Parallel, Distributed, Grid and Cloud Computing for Engineering", Saxe-Coburg Publications, Stirlingshire, UK.

R. Lovas, E. Nagy, J. Kovacs (2017) Cloud Agnostic Orchestration for Big Data Research Platforms. In: P. Iványi, B.H.V. Topping, G. Várady, (Editors), "Proceedings of the Fifth International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering", Civil-Comp Press, Stirlingshire, UK.

J. Kovacs, P. Kacsuk (2017) Occopus: a Multi-Cloud Orchestrator to Deploy and Manage complex scientific infrastructures. Special issue on "Cloud Computing Orchestration" in Journal of Grid Computing. <https://doi.org/10.1007/s10723-017-9421-3>