

Final Project Website and Advertising Materials

MORPHEMIC

Modelling and Orchestrating heterogeneous Resources and Polymorphic applications for Holistic Execution and adaptation of Models In the Cloud

H2020-ICT-2018-2020 Leadership in Enabling and Industrial Technologies: Information and Communication Technologies

Grant Agreement Number 871643

Duration
1 January 2020 –
30 June 2023

www.morphemic.cloud

Deliverable reference

D8.5

Date

30 June 2023

Responsible partner

7bulls.com Sp. z o.o.

Editor(s)

Elżbieta Kalbarczyk

Reviewers

Alessandra Bagnato (Softeam) Aleksandra Skwara (UiO)

Distribution

Public

Availability

www.morphemic.cloud

Author(s)

Elżbieta Kalbarczyk, Józefina Krasnodębska

Executive summary

This document contains a comprehensive report on the project web presence strategy as a part of the promotion and dissemination planned and executed during the MORPHEMIC project. The deliverable describes in detail the channels, tools, and activities that were carried out to let the consortium reach the target audience for the project outcome – the MORPHEMIC platform.

We have first built the plan for reaching out and then we have consistently pursued our goals to introduce and advertise the MORPHEMIC to many potential consumers by using various channels such as the project's website, LinkedIn, Twitter, and Facebook. This deliverable clearly describes objectives and actions taken to accomplish all assumed steps.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871643



Table of Contents

1.	Intro	duction	5
	1.1	Structure of the document	5
	1.2	Related deliverables	5
2.	Targ	get audience	6
3.	Expe	ected outcomes	7
1	MOI	RPHEMIC final website	8
2	Fina	l status of the communication and dissemination channels	11
	5.1	LinkedIn	11
	5.1.1	LinkedIn activity	12
	5.1.2	2 LinkedIn statistics	16
	5.1.3	B LinkedIn campaigns	19
	5.1.4	LinkedIn partners activities	23
	5.2	Twitter	26
	5.2.1	Twitter statistics	27
	5.2.2	2 Twitter partners activities	28
	5.3	Facebook	29
	5.3.1	Facebook statistics	31
	5.4	YouTube	31
	5.4.1	YouTube statistics	33
6	Adv	ertising materials	34
7	Sust	ainability of the MORPHEMIC website and social media channels	36
8	Futu	re work - after the project lifespan	36
9	Sum	mary	37
10	Re	eferences	38



Index of figures

Figure 1 The view of the MORPHEMIC website	8
Figure 2 Evolution of MORPHEMIC page.	8
Figure 3 The view of the MORPHEMIC website in the final phase of the project	9
Figure 4 Top bar navigation on the MORPHEMIC website	
Figure 5 Acquisition of MORPHEMIC website users	10
Figure 6 Most viewed MORPHEMIC subpages	10
Figure 7 Website sessions by country	10
Figure 8 MORPHEMIC showcase page on LinkedIn	12
Figure 9 MORPHEMIC architecture: LinkedIn post about Utility Function Creator	13
Figure 10 MORPHEMIC events presentations: April summary	13
Figure 11 MORPHEMIC post about 2 innovative pillars	14
Figure 12 Presentation of MORPHEMIC-related scientific paper	14
Figure 13 LinkedIn page of the 1st MORPHEMIC webinar	15
Figure 14 LinkedIn page of the 2 nd MORPHEMIC webinar	15
Figure 15 LinkedIn page of the 3 rd MORPHEMIC webinar	
Figure 16 Paid LinkedIn content – test campaign run in June/July 2021	20
Figure 17 Publication about the MORPHEMIC-related scientifc paper	24
Figure 18 Post about MORPHEMIC session at OW2con'23	24
Figure 19 MELODIC and MORPHEMIC project mentioned in the post	25
Figure 20 ICON, MORPHEMIC team member, at Hannover Messe	25
Figure 21 Shared MORPHEMIC promotional video	
Figure 22 Shared post about DeCPS 2023 workshop, at which MORPHEMIC-related paper will be presented	24
Figure 23 Post about MORPHEMIC experts' presence at EBDVF 2022	
Figure 24 MORPHEMIC Twitter page	
Figure 25 Tweet about MORPHEMIC hackathon in Warsaw	
Figure 26 Tweet about MORPHEMIC position at M6 competition	
Figure 27 Tweet about published MORPHEMIC-related scientific paper	
Figure 28 Tweet about MORPHEMIC use case evolution	
Figure 29 Tweet promoting MORPHEMIC presence at OSXP 2022	
Figure 30 Tweet about MORPHEMIC presentation at OSXP 2022	
Figure 31 ICCS Tweet about MORPHEMIC presentation	
Figure 32 Tweet about MORPHEMIC-related scientific paper	
Figure 33 7bulls Tweet about OW2con'20	
Figure 34 MORPHEMIC Facebook page	
Figure 35 Post promoting MORPEMIC session at Hannover Messe trade fair	
Figure 36 Post about MORPHEMIC support of advanced hardware accelerators	
Figure 37 Post presenting about the risk of depending on single Cloud provider	
Figure 38 Post about MORPHEMIC summer activities	
Figure 39 MORPHEMIC YouTube channel	
Figure 40 A compilation of screenshots from the MORPHEMIC promotional video	
Figure 41 MORPHEMIC project's roll-up	
Figure 42 MORPHEMIC leaflet	
Figure 43 MORPHEMIC poster	
Figure 44 . Cloud computing mugs	36



Index of tables

Table 1 The target audience of the MORPHEMIC Website	6
Table 2 Website statistics from Google Analytics	
Table 3 MORPHEMIC LinkedIn page statistics	
Table 4 MORPHEMIC LinkedIn Followers Location	
Table 5 MORPHEMIC LinkedIn Followers Job Function	17
Table 6 MORPHEMIC LinkedIn Followers Seniority	18
Table 7 MORPHEMIC LinkedIn Followers Industry	18
Table 8 Paid ads published on LinkedIn by MORPHEMIC	21
Table 9 MORPHEMIC Twitter account statistics	27
Table 10 MORPHEMIC Facebook account statistics	31
Table 11 MORPHEMIC YouTube channel statistic	33
Table 12 MORPHEMIC videos viewers' location	33
Table 13 Source of MORPHEMIC video views	33



1. Introduction

This deliverable reports on all information and activities related to the complete the MORPHEMIC project's web presence. It includes the reporting of the creation and maintenance of the MORPHEMIC website¹, the LinkedIn showcase page², the Twitter account³, and the Facebook page⁴, as well as all related activities based on them.

The approach described in this document to create a complete web presence strategy incorporates all guidance issued by the European Commission (EC) related to the presence of Horizon 2020 projects on the web, mobile, and in social media. Furthermore, the visual identification package is described, as it is a core element of the presentation layer within the communication channels used.

The document also presents and describes the target audience for the mentioned channels as well as their interest and motivation for the MORPHEMIC project presentation. It describes how the design and presentation of the MORPHEMIC in the portal were mapped to the target audience and their interest. The next part of the document presents the final statistics for each type of the communication channel. The statistics cover the full lifespan of the project. Finally, the deliverable reports the complete version of the sustainability plan for a web presence of MORPHEMIC outside the project.

1.1 Structure of the document

The document is divided into the following chapters:

- **Introduction** the chapter explicates the base methodology for the web presence approach.
- **Target audience** the chapter presents the target audience of the MORPHEMIC channels and their interest and motivation for the MORPHEMIC project presentation.
- **Expected outcomes** the chapter presents three main outcomes that were achieved by the web presence-related activities.
- MORPHEMIC final website the chapter describes the website architecture, visuals, and how the page was used during the project.
- Final status of the communication and dissemination channels the chapter reports the actions carried out to reach the target audience in social media and impacts of these activities.
- Advertising materials the chapter presents the physical materials used to the project promotion.
- Sustainability Plan the chapter reports the sustainability plan for a web presence of the MORPHEMIC outside the project.
- **Future work after the project lifespan** the chapter expresses the willingness and readiness to maintain the MORPHEMIC web channels after the project end.
- **Summary** this chapter provides a summary of the deliverable.

1.2 Related deliverables

There are three other deliverables directly related to this document:

- **D8.4** "Initial Project Website and Advertising Materials" [M4] the document introduces the MORPHEMIC visual identity as a part of the communication and dissemination plan. The deliverable reports on information and activities related to the MORPHEMIC project's initial web presence and various channels, such as website, mobile, LinkedIn, Twitter, and Facebook.
- D7.1 "Initial Dissemination and Communication Report and Plan" [M18] describes and defines the measures, strategies and indicators that were to be used for informing and increasing the impact of MORPHEMIC. An important aspect of the plan was to ensure the stakeholders and participants alike get the most out of their engagement in the project. Furthermore, this deliverable provides a roadmap for the dissemination and communication activities carried out by all partners throughout and beyond the project.

¹ MORPHEMIC Website

² MORPHEMIC LinkedIn page

³ MORPHEMIC Twitter account

⁴ MORPHEMIC Facebook account



• D7.2 "Final Dissemination and Communication Report and Plan" [M42] - presents the full updated version of deliverable D7.1, including all activities implemented by the consortium partners within the project, e.g., web presence, social channels, various media, scientific publications, scientific and commercial conferences, workshops, trade fairs, as well as on-line activities, like webinars.

2. Target audience

Although the MORPHEMIC website (<u>morphemic.cloud</u>) has been available for all Internet users during the project lifespan and still will be after the project ends, we need to be aware that:

- The information about the project is addressed to the target audience as specified in deliverable D7.2 "Final Dissemination and Communication Report and Plan".
- The target audience mostly determines the way of presenting and structuring the information.

Table 1. below presents the target audience groups, their focus, and the influence they have on creating the website also after the project ends. This table was also presented in deliverable D8.4 "Initial Project Website and Advertising Materials". The key channels which helped to reach the different audience groups are pointed out too. While the table below only presents the communication channels covered in this deliverable, an extended mapping of target audience groups to communication and dissemination channels is presented in deliverable D7.2 "Final Dissemination and Communication Report and Plan".

Table 1 The target audience of the MORPHEMIC Website

Id	Audience	Audience's focus	Dedicated content	Key channels to reach the audience
1	Members of Cloud and big-data research communities	 Staying up to date with the newest trends and solutions Deep understanding of Cloud technologies Using available solutions for their projects Promoting their research and work 	 Knowledge materials Tutorials Articles, whitepapers and scientific papers Deliverables 	WebsiteTwitterLinkedInFacebook
2	Opinion leaders and influencers (experts, industry analysts, bloggers, journalists)	 Staying up to date with the newest trends and solutions Interesting stories they can tell Proven use cases Self-promotion 	 Knowledge materials Tutorials Publications, papers Announcements Deliverables Materials for media (e.g., project description) 	TwitterLinkedInWeb forumsFacebook
3	Cloud educators	 Step-by-step educational materials Interesting stories they can tell Practical approach: how I can use this Self-promotion 	 Knowledge materials Tutorials Publications, papers Deliverables 	TwitterLinkedInFacebook
4	Computing-focused academic units - administrative side	 Sharing resources both non-profit and for-profit Operational benefits and improvements 	 Knowledge materials Tutorials Publications, scientific papers Deliverables 	• Website



Id	Audience	Audience's focus	Dedicated content	Key channels to reach the audience
5	Computing-focused academic units - tech side	Ease of use of MORPHEMICTeam workload	 Knowledge materials Tutorials Publications, scientific papers Deliverables 	• Website
6	SMEs and other data-intensive application providers – the business side	Time-to-marketCost-related issuesBusiness benefitsStability	KnowledgeTutorialsPublications, papersDeliverables	WebsiteTwitterLinkedInFacebook
7	Large companies - business side	Cost related issuesBusiness benefitsStability	KnowledgeTutorialsPublications, papersDeliverables	WebsiteLinkedInTwitter
8	Large companies – tech side	Team workloadAutomationSupportQuality	KnowledgeTutorialsPublications, papersDeliverables	WebsiteLinkedInTwitter
9	Cloud providers – the business side	 Promoting their offer Fighting for market share Making their services easy to use and access 	KnowledgeTutorialsPublications, papersDeliverables	WebsiteLinkedInTwitter
10	Cloud providers – tech side	Ease of use of MORPHEMICTeam workloadStability issues	KnowledgeTutorialsPublications, papersDeliverables	WebsiteLinkedInTwitter
11	Other H2020 project participants and leaders	 Promoting their projects Seeking partners to reach and publicity 	KnowledgeAnnouncementsDeliverables	WebsiteTwitterLinkedInFacebook

3. Expected outcomes

There are three main outcomes that we achieved by the implementation of the web presence strategy outlined in MORPHEMIC deliverable D8.4 *Initial Project Website and Advertising Materials*:

- We reached as many new potential customers and business partners as possible and maintained their loyalty by continuously presenting updated content.
- 2 We explained what MORPHEMIC is in a consistent and intelligible way to a very wide audience.
- We kept the highest position in organic search in different search engines by the proper use of the SEO strategy.

We achieved our goals, by:

- 1 Broadcasting news about upcoming and ongoing business and scientific events, meetings, presentations, etc.
- 2 Publishing knowledge materials, useful links, and other education articles like videos and tutorials.
- 3 Sharing posts and announcements from the portal directly to social media channels (Facebook, Twitter, LinkedIn, YouTube); sending invitations to targeted users using social media.
- 4 Sharing the website address on other sites.
- 5 Sharing dedicated MORPHEMIC business cards with a link to the MORPHEMIC portal.

6 Communicating that MORPHEMIC is based on the results of the MELODIC project completed in January 2020 – MORPHEMIC is an extension of the MELODIC solution. MORPHEMIC enriches the main project outcome, the MELODIC platform with new components like the MORPHEMIC pre-processor. This information is inserted on the project website, provided through current and future social media messages as well as included in the communication materials and conveyed through other activities within the project lifetime.

1 MORPHEMIC final website

The main page is a key page of the website. It should attract attention and provide general information on the project. The upper part and the main elements of the main page are shown in Figures 1, 2 and 3 below, which present the evolution of the homepage in time.

In the next paragraphs, the intro, layout, and top bar are described, as the main elements of the MORPHEMIC website. The homepage visuals evolution is presented, and the categories of page content are specified.

Intro – an important element of the website. The visitors must see as much information about the project as possible when entering our website. The site should explain, in a simple way, what MORPHEMIC is, how it works, and what kind of benefits the platform provides for the customers or partners. Intro is the key element that not only attracts the visitors to the website but also has a decisive impact in keeping them interested in other content.

An intro evolution has been presented in Figures 1, 2 and 3. At the beginning of the project, the intro consisted of one sentence, which briefly and in an uncomplicated manner presented the main aim of the project – creating a unique way of adapting and optimizing Cloud computing applications by introducing the two novel concepts of polymorphic architecture and proactive adaptation. Shortly after, the initial version of the website has been changed. The previous graphic has been replaced with the new one, reflecting the Cloud nature of the project and the short text has been expanded, describing the two main pillars of MORPHEMIC. In the final version of the website, at the top a call-to-action button was added, allowing to send a quick demo request, providing an easy way to learn about the capabilities of MORPHEMIC empowered by MELODIC solution. We resigned from the previously used picture in favour of a map: an infographic presenting our European consortium, accompanied by a short text. In this current form, the website is most appealing visually and presents a fair amount of information about the project concept. Moreover, it enables an easy and quick contact with the team, which is important for the project exploitation.



Figure 2 Evolution of MORPHEMIC page. View from the end of 2020



Figure 3 The view of the MORPHEMIC website in the final phase of the project

Layout – the website's colour scheme focuses on white and light grey shades: this correlates very well with the logo of MORPHEMIC. The palette of colours is not garish or flashy so that it does not discourage the visitors we intend to reach. The colour is introduced in the headers, which are light blue, and in the graphics, which contain colours corresponding with the project logotype. At the bottom of the website, there is a toolbar with all MORPHEMIC social media accounts: LinkedIn, Twitter, Facebook and YouTube to redirect users between the different pages.

Top bar – the visitors may easily navigate the website using the top bar menu, shown in Figure 4. The text buttons redirect to certain subpages, which contain the main information about:

- News in the project [ABOUT / NEWS]
- The project itself [ABOUT / THE PROJECT]
- An introduction to Work Packages [ABOUT / WORK PACKAGES]
- The project Consortium [ABOUT / THE CONSORTIUM]
- MORPHEMIC team [ABOUT / TEAM MEMBES]
- The descriptions of the project's 3 use cases with video materials [USE CASES]
- Projects from the cluster [CLUSTERING]
- Public deliverables [KNOWLEDGE / DELIVERABLES]
- Scientific publications [KNOWLEDGE / PUBLICATIONS]
- MORPHEMIC related articles written by the team members [KNOWLEDGE / ARTICLES]
- Staying in touch with the project [CONTACT]

The HOME button redirects back to the main page from subpages.



Figure 4 Top bar navigation on the MORPHEMIC website

All news about the project and the announcements of the events attended by the consortium members are easily accessible on the main page.

In over 3 years of the project duration, the MORPHEMIC website has been regularly updated, and enriched by new content: news, announcements, 24 public deliverables, 17 publications links, 5 articles, 6 use cases' videos and other materials based on the project and its results. The website has been evolving with time and the project progress, significantly increasing the stock of information available for the audience.

What is important, the MORPHEMIC consortium plans to maintain the project's website, as well as social media channels, for at least 4 years after the project end, informing about the project results and all activities supporting it.

Table 2 Website statistics from Google Analytics

Website statistics From the launch of the website to 27.06.2023		
Users	Sessions	Average time of the single session
5 654	8 322	01:20

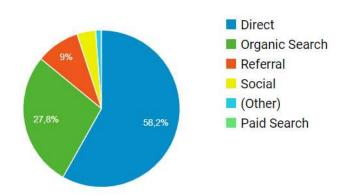


Figure 5 Acquisition of MORPHEMIC website users

Page	Views	
I	7 287	
/team-members/	1 396	
/the-project/	665	
/the-consortium/	663	
/deliverables/	562	
/contact/	364	
/virtualized-base-station/	311	
/computational-fluid-dynamics-simulation/	277	
/multi-cloud-managemlatform-comparison/	246	
/e-brainscience/	242	

Figure 6 Most viewed MORPHEMIC subpages



Figure 7 Website sessions by country

10%

15%

20%

The statistics above indicate the number of unique MORPHEMIC website users, number of sessions (user interactions with the website in a defined time frame), and their average duration. Based on the data aggregated by Google Analytics, we managed to attract 5 654 of site users with a total number of sessions reaching 8 322, while the number of views reached 14 904.

58,2% of the visits is an effect of unknown traffic source what indicates that these users bypassed search engines and users typed/pasted URL into their browsers or used social media links that do not include tracking parameters. Over ¼ of the MORPHEMIC webpage users is an effect of traffic from search engines, while 9% users were redirected from the other pages.

The home page, which contains the crucial information about the project, was the most visited one and it was viewed over 7 000 times. Taking into consideration the number of sessions, our website is the most popular in Poland (1 658 visits), USA (1 317), and France (876), but within the project scope it was viewed by people from 135 countries. The most users of the website were located in the US (1 214).

2 Final status of the communication and dissemination channels

MORPHEMIC presence on social media has been constant, from the initial phase of the project. Although posts were published with variable frequency, according to the status of the venture and consortium activities at the current time, we avoided long periods without posts, to keep the audience updated and to constantly remind them about our project and the possibilities it offers. The posts had various topics, although they were all related to MORPHEMIC. We used all the communication channels to share with our audience messages about:

- Architecture of the solution,
- MORPHEMIC and MELODIC features and benefits.
- Scientific papers related to the project and presentation slides,
- Activities focused on MORPHEMIC promotion:
 - o Business and scientific conferences,
 - Business and scientific workshops,
 - o (Co)organized webinars,
 - Other events where the project and its results were presented.
- Internal meetings relevant for the progress of the project,
- Success stories of early adopters,
- Interesting articles about Cloud computing,
- Occasional holiday wishes, making communication more personal,
- Information about cooperation with other projects,
- Shared activities of other H2020 projects and initiatives,
- Humorous graphics related to Cloud computing, and more.

The diversity of the content was supposed to keep the audience interested and enrich the MORPHEMIC social media pages. To maintain the consistency of the content style, it was created/redacted by one person responsible for the social media channels (any changes were a result of personal changes in the responsible partner's organization).

The mandatory elements of the MORPHEMIC posts and Tweets were visuals, in colours consistent with the project logotype and or/presented event, or videos. The aim of this procedure was to increase the visibility of published texts and make them more attractive to the viewers. Additionally, most of the posts contained a link to the project or the event website, to provide as much information as possible to the respective channels' followers.

In the further sections of this deliverable, more information about the activities carried out on used social media channels are provided, along with the statistics for each of them.

5.1 LinkedIn

LinkedIn, due to its professional nature, is the preferred MORPHEMIC social media channel. In this section, the MORPHEMIC presence on this social media platform is described, and all activities conducted on LinkedIn are reported.

5.1.1 LinkedIn activity

The MORPHEMIC presence on LinkedIn² was and will be still carried out through a showcase page dedicated to the project - as it was mentioned before, the consortium plan to maintain the LinkedIn activity also after the project end. This showcase page contains essential information about the project, a link to the MORPHEMIC website, and the posts related to the project and consortium activities. The examples such posts are presented below.

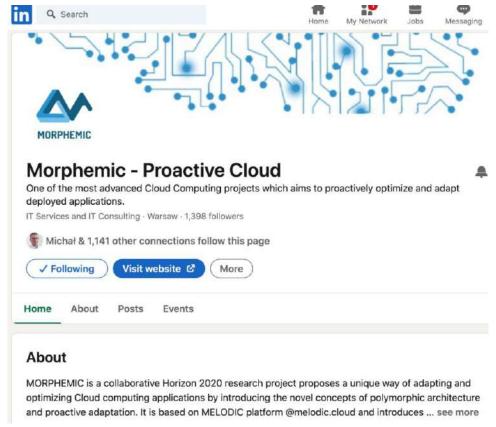


Figure 8 MORPHEMIC showcase page on LinkedIn

The MORPHEMIC LinkedIn activity started at the initial phase of the project as it was planned. Next to the website, it was the most important communication channel, considering the possibility to reach the professionals potentially interested in our project and its outcomes. As mentioned above, we published various materials focused on MORPHEMIC over three and a half years of the project duration. In our activity, we tried to not only present our solution to the target audience, but also to engage them in the life of the project, by using direct expressions and questions, as well as sharing the opportunities for participation in plenty of events, where the MORPHEMIC project was presented.

The screenshots below are examples of content published on the MORPHEMIC – Proactive Cloud page. They are a proof of the great care we took in preparing the materials to be published, both in the textual and visual aspects. The content is written in a proper, understandable way, providing the most relevant information in a concise manner, i.e. maintaining the optimal length. While creating the posts we use hashtags to make it easier to get to our content; tags to increase the MORPHEMIC's reach; and links to provide more information for all interested platform users. From time to time also icons are used to highlight the content.

Whenever possible, the posts were published on the best possible days (Tuesday-Thursday) and hours (8-12), to increase the chance to attract the attention of the target audience.

...



Do you know, what makes the MORPHEMIC platform one of the best tools for #multicloud optimization? (2)

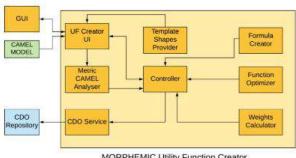
One of the factors is the well-thought-out architecture $\ensuremath{\mathcal{R}}$ and its elements. We already presented you one of them: the #CAMELDesigner tool. Today let's focus on another essential element of MORPHEMIC components - Utility Function Creator.

#UtilityFunctionCreator is a module responsible for creating an optimization function in the MORPHEMIC configuration process. Before developing the UFC, all of #MORPHEMIC users had to create a utility function formula by themselves, in order to optimize their apps. Happily, the UFC simplified the sequence and now you can create the formula in two ways:

- using a set of templates,

The Utility Function Creator application makes it easier to use the platform and reap the benefits of its most important function.

Have you already used the MORPHEMIC platform and its Utility Function Creator? 6 If not, make sure to try our platform! https://lnkd.in/exDjNGMr



MORPHEMIC Utility Function Creator internal architecture



CCQ You and 8 others

1 repost

Reactions

















Figure 9 MORPHEMIC architecture: LinkedIn post about Utility Function Creator



Do you remember about our April activities? Here's a brief reminder of impending events with our experts:

1) Warszawskie Dni Informatyki (Warsaw IT Days), #WDI April 1-2, 2022, live

Alicja Reniewicz & Maciej Riedl - "Autonomous #MultiCloud Serverless Deployment and #OptimizedManagement" - live

https://lnkd.in/deSnGhJ

2) Multi-Clouds and Mobile Edge Computing (#M2EC #workshop) 2022 April 15, 2022, 14:30-16:00 CEST, virtual

Katarzyna Materka, Marta Różańska and Geir Horn - "An architecture for autonomous proactive and polymorphic optimization of #Cloud applications"

https://lnkd.in/dXDvD5 H

3) Cloud Computing Project and Initiatives (#CCPI #workshop) 2022 April 15, 2022,
10:30-12:00 CEST, virtual

Geir Hom - "Digital Twins for Autonomic Cloud Application Management"

https://lnkd.in/ej7jgQFd

You can still register to join #WarszawskieDniInformatyki and see our experts live on stage. For other events, keep your fingers crossed for our speakers! 🖔

#CloudComputing



Figure 10 MORPHEMIC events presentations: April summary





If your need an easy way to adapt and optimize your #cloudcomputing application, #MORPHEMIC is what you are looking for! Our #H2020 project is an extension to MELODIC platform, the simplest and easiest way to use Cross-Cloud. With MORPHEMIC we introduce 2 innovative pillars to already existing solution:

POLYMORPHIC ARCHITECTURE - When a component can run in different technical forms, in a container, as a big data job, or as serveriess components.

PROACTIVE ADAPTATION - to forecast future resource needs and possible deployment configurations -adaptation can be done effectively and seamlessly for the users of the application.

Optimize your #cloudapplication with us! Visit our website and request a free #demo - https://lnkd.in/dfQpcNu



Figure 11 MORPHEMIC post about 2 innovative pillars

Reactions



We encourage you to read _Marginal Metric Utility for Autonomic Cloud Application Management* – a scientific #paper written by University of Oslo (UiO) scientists and MORPHEMIC team members: Marta Różańska and Geir Horn.

Morphemic - Proactive Cloud

1,394 followers 4mo • 🚱

The paper presented at 14th IEEE/ACM International Conference on Utility and Cloud Computing #UCC'21 proposes a methodology for defining the utility function from the monitoring measurements taken to assess the state and context of the running application. If #cloudcomputing is your area of interest, it's a MUST READ.

#H2020 #applicationmanagement #science #cloudapplications

Marca RozantskaGeir Horn.

Marginal Metric Utility for Autonomic
Cloud Application Management

diacmorg • 1 min read

CO You and 6 others.



Figure 12 Presentation of MORPHEMIC-related scientific paper

We also used the LinkedIn profile to promote 3 of our self-organized webinars, conducted during the time of the COVID-19 pandemic. We created individual pages for all these webinars to reach a wide audience and increase the number of participants. These dedicated webinar pages are presented below.

• Break Out of Matrix and enter into the MultiCloud World⁵, 05.05.2021.

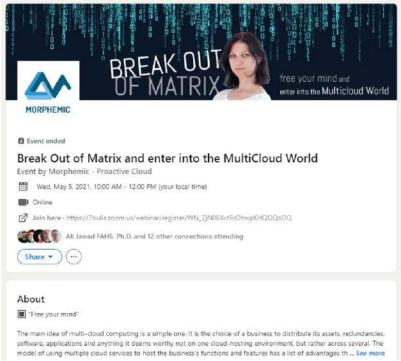


Figure 13 LinkedIn page of the 1st MORPHEMIC webinar

Matrix Reloaded – Multi Cloud is coming back!⁶, 22.06.2021.

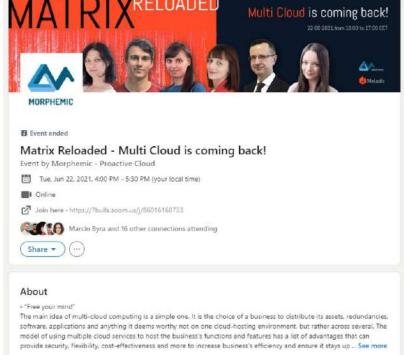


Figure 14 LinkedIn page of the 2nd MORPHEMIC webinar

⁵ MORPHEMIC's webinar LinkedIn page: Break Out of Matrix and enter into the MultiCloud World

⁶ MORPHEMIC's webinar LinkedIn page: Matrix Reloaded - Multi Cloud is coming back!

• Multi Cloud in the financial sector - save costs and process data faster⁷, 20.01.2022.

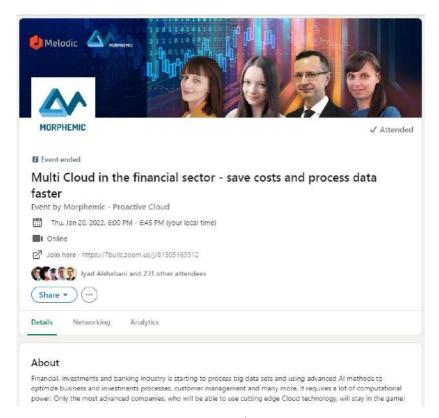


Figure 15 LinkedIn page of the 3rd MORPHEMIC webinar

Each page contained essential information about the webinar, including the date and time of the event, its description, and the Zoom link needed to access the event. All LinkedIn users interested in the participation could express their willingness by signing up to the list. Thanks to the dedicated LinkedIn pages and the effort invested in the promotion, the number of participants that signed up for our webinars reached 232 (1st), 911 (2nd) and 232 (3rd) respectively. Thanks to the registration of the potential participants, we gained access to their email addresses and could additionally reach them with messages about our project vision and the event itself.

Besides the regular posting activity and creating event pages, we also run paid ad campaigns on LinkedIn, as a part of our dissemination and communication plan. These campaigns are described in Section 5.1.2 of the document.

5.1.2 LinkedIn statistics

As mentioned before, LinkedIn, next to the project's website, is the most important communication tool for the MORPHEMIC Project. It allows us to communicate with people representing the business and science domains from all around the world, reaching the target audience in a more precise way. We managed to gain 1417 followers on this social media platform. They are located mostly in Europe, but also in North America and Asia. We published over 300 various posts to communicate with our audience and share information about our project, its key results and benefits.

Due to the nature of LinkedIn, we are unable to provide accurate statistics from the launch of the page to this day; the platform provides statistics only from a year back. However, we were able to estimate the long-term statistics based on the monthly data we have been collecting in the project lifetime. Table 3. presents the approximate statistics of LinkedIn users actions, including reactions, comments, reposts, and the page views.

⁷ MORPHEMIC's webinar LinkedIn Page: Multi Cloud in the financial sector - save costs and process data faster



Table 3 MORPHEMIC LinkedIn page statistics

LinkedIn	
Statistics period: 17.02.2020 – 27.06.2023	
Followers	1417
News	320
Actions	8684

The Tables from 4. to 7. provides information about our followers – their location, job position, seniority, and company industry.

Table 4 MORPHEMIC LinkedIn Followers Location

Followers Location	
Poland	387
USA	220
India	157
South Korea	62
Ukraine	55
Philippines	24
United Kingdom	19
France	17
Greece	17
Italy	16
Singapore	14
Germany	13
Thailand	13
Switzerland	10

The MORPHEMIC followers have been divided into 100 groups based on their location. We generalised the data to get an overlook of geographical cross-section of our followers' place of living. The table above shows groups of 10+ followers located in the same country. According to the data, the biggest group of MORPHEMIC followers is located in Poland – 387. Another group of followers comes from USA – 220. MORPHEMIC has also a lot of followers located in India – 157, South Korea – 62 and Ukraine – 55. What is worth to mention, but was not included in the table, is that according to the analysed data, the total number of MORPHEMIC followers living in Europe is 561.

Table 5 MORPHEMIC LinkedIn Followers Job Function

Followers Job Function	
Engineering	323
Information Technology	187
Business Development	172
Human Resources	70
Perations	69
Program and Project Management	59
Sales	56



Followers Job Function	
Research	46
Consulting	38
Marketing	31
Education	28
Product Management	23
Finance	22
Entrepreneurship	15
Arts and Design	14
Customer Success and Support	14
Accounting	13
Community and Social Services	12
Administrative	10
Legal	10
Media and Communication	10

Table 5 presents the most popular work domains of the MORPHEMIC LinkedIn followers. The data indicates that the project's channel is followed mostly by people representing the domains of Engineering – 323, IT – 187, Business Development – 172, Human Resources – 70, Operations – 69, Program and Project Management – 59, Sales – 56, and others. The table does not include the groups represented by less than 10 people.

Table 6 MORPHEMIC LinkedIn Followers Seniority

Followers Seniority	
Senior	560
Entry	367
Director	97
Manager	91
CXO	83
VP	46
Owner	39
Partner	18
Training	9
Unpaid	3

MORPHEMIC company page is followed mostly by senior-level professionals -560, and entry-level workers -367. The other groups consist of directors -97, managers -91, CXOs -83, VPs -46, and business owners -39.

Table 7 MORPHEMIC LinkedIn Followers Industry

Followers Industry		
IT Services and IT Consulting	410	
Software Development	193	
Business Consulting and Services	46	



Followers Industry		
Financial Services	44	
Telecommunications Carriers	35	
Telecommunications	35	
Staffing and Recruiting	32	
Banking	31	
Higher Education	27	
Computer and Network Security	26	
Technology, Information and Internet	23	
Capital Markets	23	
Advertising Services	22	
Investment Management	22	
Accounting	20	
Research Services	19	
Internet Marketplace Platforms	16	
IT System Custom Software Development	15	
Education Administration Programs	12	
Semiconductor Manufacturing	11	

In Table 7 we can see the number of followers representing different industry groups. IT Services and IT Consulting – 410, and Software Development – 193 are the two biggest groups represented by the MORPHEMIC followers.

Taking into the consideration the LinkedIn statistics of the MORPHEMIC showcase page, we can conclude that, thanks to the consortium efforts and constant activity on the platform, we managed to gain a huge number of followers and spread the information about the project and its results to various types of audience. Our publicity cross-section clearly shows that our followers represent different countries, occupations, and industries, and each of them may benefit from the results of our project.

5.1.3 LinkedIn campaigns

As mentioned above, besides the regular LinkedIn activity, we also made an effort to advertise our project and increase its reach using paid campaigns offered by the business platform. In order to gain attention of more potential users of MORPHEMIC, we prepared dedicated textual and graphical content, and allocated some of the budget for the Communication Plan on this activity. In June 2021 we published the first test paid ads, which were displayed on LinkedIn for a limited time in 2nd and 3rd quarter of 2021. In the ads, the benefits for MORPHEMIC users have been described and after the click users were directed to the MORPEMIC website.



Zobacz tłumaczenie

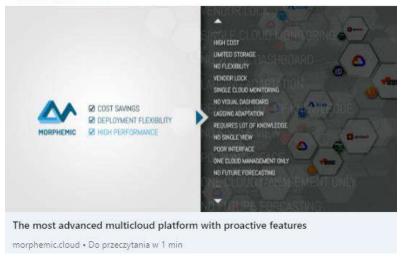


Figure 16 Paid LinkedIn content – test campaign run in June/July 2021

With the results of the initial campaigns available, the consortium decided to invest more funds allocated for communication purposes and create additional ads to promote MORPHEMIC and its core module – the MELODIC⁸ platform. In order to do that, we prepared 5 more dedicated graphics and texts to publish on the platform. Moreover, one additional advertisement of organized webinar was published, too. All of the LinkedIn ads, excluding first two, are described in the table below, along with the chosen target audience of the portal and the results of the paid publication.

⁸ MELODIC website



Table 8 Paid ads published on LinkedIn by MORPHEMIC

MORPHEMIC advertisements Id Ad **Description Statistics** Morphemic - Proactive Cloud 1,395 followers Advertisement focused on platform's benefits, Days of display: 12 especially the reduction of Cloud computing costs. overpaying for the services of the single cloud provider? You can change Impressions: 56 963 that! Save up to 60% of that costs simply by using MELODIC: multi-cloud optimization platform and automatic deployment solution. **Special button** redirected to dedicated landing Clicks: **195** page⁹ or opened demo request form on LinkedIn. With MELODIC solution, and it's ongoing MORPHEMIC extension, application performance and usability are maximized by the deployment in the best Demo requests: 3 environment, application uptime is improved due to predictive analysis of the **Target:** Wide audience of the platform users who application's future state. meet the following criteria: Find out by yourself, how much you will save with MELODIC. Free demo, no obligations. Try it now. Employed in a company with a headcount of Senior and middle management employees (managers, CXOs, partners, etc.); Job function: Business 1 Development/Entrepreneurship/IT, Program, Product or Project Management. Stop overpaying for the services of the single cloud provider, Save up to 60% simply by using MELODIC. Reserve your free demo now Morphemic - Proactive Cloud Simple advertisement focused on the possibility of Days of display: 17 cost reduction thanks to the platform. Impressions: 78 473 Say NO to the high bills from your cloud provider. Save your money 🚾 and Special button opened the demo request form on Clicks: 334 LinkedIn. Demo requests: 6 Target: Managers employed in companies with a headcount of 51+, with a job function: 2 IT/Operations/Program, Project or Product Management. and increase your range Get MORE, pay LESS. The 5 steps to save you money ... with MELODIC CO Pawel Skrzypek and 45 others

⁹ MORPHEMIC DEMO Landing Page





Simple message advertising the webinar organized by 7bulls and UiO, entitled: "Multi Cloud in the financial sector – save costs and process data faster".

Special button redirected to webinar's LinkedIn page.

Target. Managers employed in companies with a headcount of 51+, from the Banking/Financial/Investment industries.

Days of display: 11
Impressions: 29 398

Website visits: 74

The total amount of money spent on LinkedIn campaigns was \in 4 286. As a result, we received 16 demo requests, each of them was answered. The total number of impressions generated by the ads reached over 320 000. Considering the overall effects and the costs of the campaigns, we find the ads results satisfying, especially that standard activities on LinkedIn rarely allow to achieve such good results, without a powerful brand or name. Thanks to our effort put into advertising, we managed to reach more potential users of the MORPHEMIC solution and demonstrate the usage of the platform to interested Internauts.

5.1.4 LinkedIn partners activities

The MORPHEMIC consortium is active on social media. Organisations participating in the project and individual team members publish and share information about the project on LinkedIn. The record of these activities has been presented in MORPHEMIC Deliverable D7.2 *Final Dissemination and Communication Report and Plan.* A few of the many posts about the MORPHEMIC project are visible below, documenting the engagement of the MORPHEMIC team in the project promotion. The highest number of posts supports the promotion of business and scientific events, at which the project was presented.



Our paper « Polymorphic Cloud Application Design Assisted by Open Source Software Classification » was accepted for being presented in CECCC 2023 and will be published in the IEEE conference proceeding. This work introduces the #MORPHEMIC approach for enriching a #cloud component configuration by code mining for enabling polymorphism. Morphemic - Proactive Cloud, University of Piraeus.

Co You and 61 others

1 report

Figure 17 Publication about the MORPHEMIC-related scientifc paper

We've been all over lately, 🕱 Tomorrow at 17:20 Konrad Wawruch will speak with Geir Horn from the Universitetet i Oslo at the #OW2con!

If you are interested in the topic of #meta-cloud, you will also be able to talk to the specialists working on the project in person at the Morphemic stand.

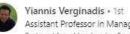
§ The main theme of OW2con will be discussing #open-source software in modern enterprise IT systems.

14-15 June Paris-Châtillon

Registration link: https://lnkd.in/eEKBn9hP



Figure 18 Post about MORPHEMIC session at OW2con'23



Assistant Professor in Management Information Systems - Dep... Reshared from Morphemic - Proactive Cloud • 3w • 🔇

MORPHEMIC: our advanced #multicloud optimization platform! Check out the video...



MORPHEMIC. Shaping clouds for you and your business

Co Sebastian Geller and 10 others

Figure 21 Shared MORPHEMIC promotional video



This week I will represent the #MORPHEMIC project at #DeCPS 2023 - Challenges and New Approaches for Dependable and Cyber-Physical System Engineering workshop, organised in conjunction with AEIC 2023.

Morphemic - Proactive Cloud
1,397 followers
23h • ⑤

This week Amina Moussaoui, #MORPHEMIC team member, will represent our project at DeCPS 2023 - Challenges and New Approaches for Dependable and Cyber-Physical System Engineering workshop, organised in conjunction with AEIC 2023.

During the #event, a paper written by Amina and Alessandra Bagnato will be presented: "The MORPHEMIC Project on the Data Intensive E-Brain Science Case Study". In the article, our #H2020 project is described along with its way of adapting and optimising #cloudcomputing applications through one of the project case studies, the #ebrainscience case study, proposed by CHUV | Lausanne university hospital.

The paper's presentation will be conducted on Triday, 16th of June 2023, during the 1st session this day: Adaptive Systems (39:00 - 10:30.

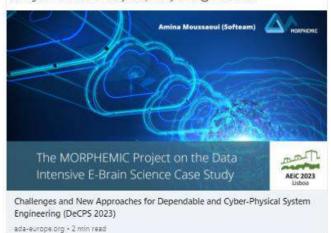


Figure 22 Shared post about DeCPS 2023 workshop, at which MORPHEMIC-related paper will be presented



Before the term "meta-cloud" was created, some people were already doing it. 📦

Al Investments is a good example. Our algorithms need much computing power to train predictive models and optimize investment strategies.

The challenge here is the fluctuating demand for computing power. There are times when it is very high, but there are also times when we use very little power. And we don't want to pay for resources we don't use!

For this reason, All uses a hybrid cloud architecture in a meta-cloud model. From the application's point of view, it is not essential where the computing resources are located but that they are as optimal as possible in terms of performance and price. These could be physical servers or servers at the cloud provider of choice.

As the years go by and the number of data increases, we will need more and more cloud resources, so it is essential to work on their optimal use. We are still developing and testing new solutions in the MELODIC and Morphemic - Proactive Cloud projects, and I'm glad they are finding their way into commercial projects so quickly.

#metacloud #cloudcomputing #hybridcloud



04

Figure 19 MELODIC and MORPHEMIC project mentioned in the post

	ICON Technology & Process Consulting	+ Follow · · ·
*******	1.754 followers	

Sebastian Geller, Product Leader at ICON Technology & Process Consulting and Morphemic - Proactive Cloud team member with Dirk Pieper of CAE-Forum after Sebastian's presentation at the HANNOVER MESSE about the latest version of iconPlatform, ICON's online simulation platform which provides cost effective solutions to large and small teams, faster and more efficiently than ever before. Many thanks to Dirk and the Hannover Messe team for organizing a very successful Exhibition and Engineering Forum for yet another year!

#cloud #cfd #simulation #iconcfd #iconPlatform #digitalengineering



Figure 20 ICON, MORPHEMIC team member, at Hannover Messe



Looking forward to EBDVF, the flagship event of BDVA - Big Data Value Association and 3 days on innovative research in AI and data spaces!

Join us on Wednesday 23/11 at 10.00 and participate in the session "Nextgeneration platforms for Europe's Cloud continuum". Alessandra Bagnato and Geir Horn will present the results of our Morphemic - Proactive Cloud research project,

You will be able to check out our research of Information Management Unit (IMU) within ICCS - NTUA.

#research #ai #bigdata #cloud #cloudcomputing #artificialintelligence



Figure 23 Post about MORPHEMIC experts' presence at EBDVF 2022

The captured posts are only a few of many examples of the MORPHEMIC team members' dedication to the dissemination and communication activities and support of the project on LinkedIn.

5.2 Twitter

Twitter is a popular communication platform used by most of the projects developed under the Horizon 2020 programme. It is also a tool used by the project since the creation of MORPHEMIC Twitter account³ in February 2020 in order to increase the reach and get to potential customers, who do not use the LinkedIn platform or prefer a different, more straight form of communication.



Figure 24 MORPHEMIC Twitter page

Twitter allows its users to create short messages, up to 280 characters, spaces included. This short type of message requires sharing only essential information with the audience. As with other channels, we provided our followers with various Tweets about the project's concept, its benefits, use cases, partners' promotional activities, scientific papers, and other project-related topics. However, these publications were shorter in comparison to those published on LinkedIn or Facebook – the messages on Twitter were more condensed than posts, but also enriched by links, graphics, or videos. Below we present a few examples of MORPHEMIC Tweets.



Figure 25 Tweet about MORPHEMIC hackathon in Warsaw



Figure 27 Tweet about published MORPHEMIC-related scientific paper

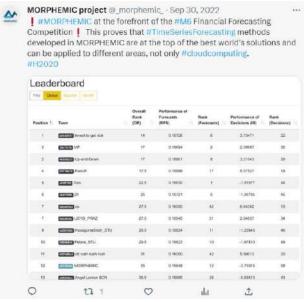


Figure 26 Tweet about MORPHEMIC position at M6 competition

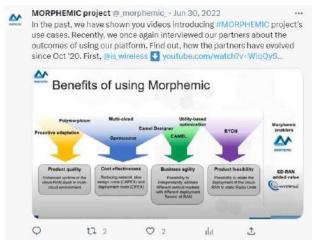


Figure 28 Tweet about MORPHEMIC use case evolution

5.2.1 Twitter statistics

During the project's lifetime, we published 261 MORPHEMIC-related Tweets and managed to gain 123 Twitter followers. As it is shown in Table 9, Twitter users made almost 11 000 actions connected with the MORPHEMIC profile, including retweets, likes, comments, profile visits and mentions. What needs to be highlighted, Twitter does not provide detailed statistics spanning over longer periods, and we cannot provide accurate data aggregated by the platform covering the whole MORPHEMIC project duration. The presented data is based on internally gathered monthly project statistics. The data related to the followers' location or job titles are not shared by Twitter.

Table 9 MORPHEMIC Twitter account statistics

Statistics period: 17.02.2020 – 27.06.2023		
Twitter		
Followers 123		
News 261		
Actions 10996		

5.2.2 Twitter partners activities

The MORPHEMIC partners supported the project's communication and dissemination by reacting to and sharing messages published on the MORPHEMIC Twitter account. Due to the significantly smaller presence of MORPHEMIC representatives on Twitter, the support actions were not as often as on LinkedIn, but still contributed to the project visibility on the platform, increasing the chances to attract the potential users of the developed solution. Below we presented the screenshots presenting a proof of the consortium members' project-related activities on Twitter.



IMU @ NTUA @imu ntua · Nov 25, 2020 Happening now: @Y_Vergi presenting research on #proactive and #polymorphic adaptation of #multicloud deployments. Work of @imu_ntua @lccsNtua within the #H2020 @ morphemic_project #cloudcomputing #AI Session in #HCLOUDsummit of the @HCLOUD Project Multi-Cloud Application Deployment

Figure 29 Tweet promoting MORPHEMIC presence at OSXP 2022

Figure 31 ICCS Tweet about MORPHEMIC presentation

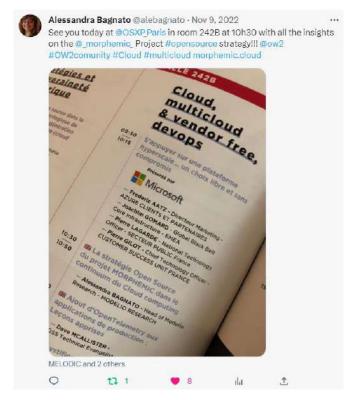


Figure 30 Tweet about MORPHEMIC presentation at OSXP 2022





Figure 33 7bulls Tweet about OW2con'20

5.3 Facebook

Facebook is one of the four social media platforms used by the MORPHEMIC consortium to increase the project reach. The MORPHEMIC Facebook page⁴ was created in at the initial phase of the project and maintained through its whole duration.

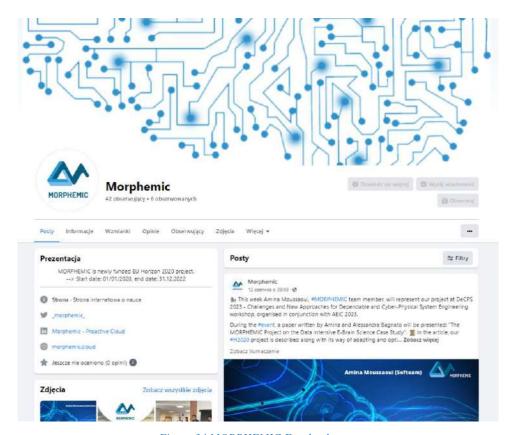


Figure 34 MORPHEMIC Facebook page

Similarly to other communication channels, it is a place where all news and relevant information about the project are published: posts presenting the MORPHEMIC solution and its MELODIC core, events, at which the solution was introduced to the audience, relevant consortium activities, scientific papers, videos, memes, and many more. In the figures below we present the examples of content published on the MORPHEMIC Facebook page.



Next week, Sebastian Geller, Product Leader at ICON Technology & Process Consulting and #MORPHEMIC team member, will have a talk on the booth of the CAE-Forum at the HANNOVER MESSE, one of the world's largest trade fairs dedicated to industry development.

Sebastian's talk entitled "iconPlatform - Engineering Simulation with Optimal Cloud Resources" will highlight #ICON's digital engineering cloud platform - iconPlatform - and its use case within our #IH2020 #MORPHEMIC project. The presented approach will demonstrate the use of optimal cloud resources for simulation on demand requests.

〒20.04.2023 ⊕ 15:20 - 15:40 CEST ▶ Hannover, Germany

More information about the event and talk: https://inkd.in/dbK9M4F7

#iconcfd #cfd #digitalengineering #cloudcomputing



Figure 35 Post promoting MORPEMIC session at Hannover Messe trade fair



#Cloud outages are nothing new, unfortunately. They happen from time to time, making life difficult for internet users. As Werner Yogels, VP & CTO at Amazon.com, said: "Everything fails, all the time". But when the biggest player on the market has trouble, it just cannot go unnoticed and without consequences, because after failure goes a loss of #money. The last week's Amazon Web Services historical #outage 40 and HashiCorp's IPO make entrepreneurs think over a risky dependence on single cloud provider.

https://lnkd.in/duBWTNeU

#MultiCloud #future #AmazonWebServices #AWS #AWSoutage #riskydependence



Figure 37 Post presenting about the risk of depending on single Cloud provider





Figure 36 Post about MORPHEMIC support of advanced hardware accelerators



Yesterday the last summer month of this year ended. It makes today a perfect time to mention our summer activities regarding project dissemination ()

Although the vacation period is always much less busy in terms of events, we still managed to present #MORPHEMIC and its main module Melodic Cloud at the two important conferences: DevOps Conference Berlin and Open Source in Finance Forum London.

At both of the events, MORPHEMIC experts had the pleasure to show the process of implementing Multi-Cloud native strategies using our advanced, #opensource framework

Also, during #DevOpsCon conference, 7bulls.com specialist conducted a workshop on introducing to its participants the #MultiCloud application modeling, configuration, deployment, and adaptation, including the survey of the existing Cloud Management Platforms (CMP), modeling methods, and languages.

We were very happy to hear positive feedback from the audience - participants especially appreciated the utility of the MORPHEMIC platform #toolkit, which components can be used both as a set and separately

Have you seen one of our presentations? If not, make sure to join an event with our experts among speakers in the near future. Stay tuned!

#H2020 #Horizon2020 #cloudcomputing #conference #endofsummer



Figure 38 Post about MORPHEMIC summer activities

5.3.1 Facebook statistics

In spite of being the biggest social media platform, Facebook has not delivered the satisfactory results in the case of the MORPHEMIC project. As indicated in Table 10, within the project scope we managed to publish 209 news items but gained only 44 followers and inspired 1936 actions (shares, likes, comments, profile visits) related to the project's account, which is much less than in the cases of LinkedIn and Twitter. The reason for these unsatisfactory results lies in the profile of the medium. According to the article describing the user base of Facebook¹⁰, the main reasons for using Facebook is to message friends and family (70,6% of users), and to share photos or videos (63,6%). Only 54,6% users of the platform use it to follow or research brands and products. Even though it may seem like a fairly large proportion, taking into consideration our target audience constrained to cloud-computing academics, business managers and owners, developers, etc., the probability of reaching these people on non-business platform is much smaller. Another point is that many professionals use private Facebook channels solely for personal purposes. Also, the activity of MORPHEMIC team members on Facebook was mostly limited to likes, not to sharing messages, like it has been done on LinkedIn and Twitter. However, despite the less favourable statistics compared to other social media channels used by MORPHEMIC, we are more than sure that thanks to the Facebook presence we managed to reach new group of people potentially interested in the project. Our presence on the most popular social media platform has let us spread the information about the project, the Cloud computing domain, and the benefits of mutli-cloud approach, which may help in the project exploitation in the future. This confidence makes all of activities carried out on the Facebook worth of our time and effort.

 Statistics period: 17.02.2020 – 27.06.2023

 Facebook

 Followers
 44

 News
 209

 Actions
 1 936

Table 10 MORPHEMIC Facebook account statistics

5.4 YouTube

The MORPHEMIC YouTube channel¹¹ was created strictly to share the materials created by the project consortium. The account was created in May 2020, and from that time we managed to upload 19 videos, which were used as promotional materials and one of the ways of communicating the project and its results to the target audience.

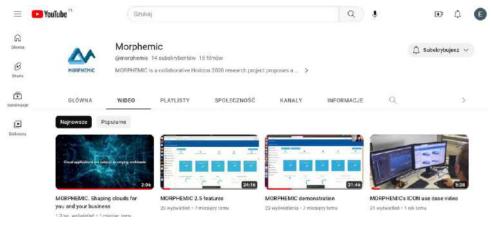


Figure 39 MORPHEMIC YouTube channel

¹⁰ Oberlo.com, Why do people use Facebook?

¹¹ MORPHEMIC YouTube Channel



We shared the following videos on the MORPHEMIC YouTube channel:

- 1 professional video¹², promoting the project and its benefits for the users,
- 1 video presenting the project in general¹³, the motivation of the consortium partners and the challenges they have to face, project strengths and benefits,
- 1 video presenting the MORPHEMIC 2.5 features¹⁴,
- 1 video demonstration¹⁵, presenting the process of downloading, installing, and using the MELODIC solution with MORPHEMIC extension,
- 1 video presenting the MORPHEMIC CAMEL Designer tool¹⁶,
- 7 use cases videos¹⁷ used to communicate and disseminate the project outcomes: 3 videos presenting the use cases and 3 other materials focusing on the project's influence on the use cases,
- 1 professional video presentation of iconPlatform¹⁸, with the MORPHEMIC project's affiliation,
- 3 recordings of webinars¹⁹ organised by the consortium members,
- **3 recordings of the sessions** carried out during the events.

One of the most important materials is the final professional MORPHEMIC marketing video, entitled: "MORPHEMIC. Shaping clouds for you and your business", which presents the final results of the project – MORPHEMIC features and benefits offered to the users. The video was published in May 2023 and was already displayed over 1 300 times.

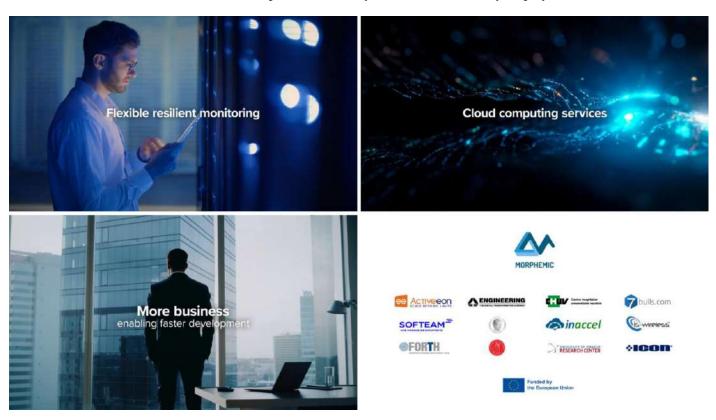


Figure 40 A compilation of screenshots from the MORPHEMIC promotional video

¹² Project's promotional video: MORPHEMIC. Shaping clouds for you and your business.

¹³ MORPHEMIC Project Presentation

¹⁴ MORPHEMIC 2.5 features 15 MORPHEMIC demonstration

¹⁶ MORPHEMIC: CAMEL Designer

¹⁷ MORPHEMIC use cases [playlist]

¹⁸ MORPHEMIC use case - iconPlatform

¹⁹ MORPHEMIC webinars [playlist]

Additionally, we plan to upload another **7-8 short video tutorials** about "Modelling a CAMEL Application with CAMEL Designer Tool". They are to be uploaded in June 2023.

These MORPHEMIC-related videos were and will be used as promotional videos on social media, during meetings, presentations, and various events which may be conducted in the future. We will take advantage of these visual materials to maintain interest in our project and further spread the information about our achievements to new groups of people.

5.4.1 YouTube statistics

In over 3 years of MORPHEMIC YouTube activity, we uploaded 19 videos related to the project, which were briefly described in the section above. The total duration of these video materials is 6 hours, 27 minutes and 13 seconds. The YouTube users have taken 2 444 actions connected to the videos, including likes, comments, and the number of views (2410).

Statistics period: 17.02.2020 – 27.06.2023

YouTube

Subscribers 14

Videos 19

Actions 2 444

Total videos duration time 6:27:13

Average watching time 1:09

Total watching time 46:35:56

Table 11 MORPHEMIC YouTube channel statistic

Table 11 Presents the statistics showing that our videos were watched in total for over 46,5 hours, with an average duration of 1 minute and 9 seconds per single view.

Viewers location (biggest groups)			
Country	Number of views	Average watching duration	
India	386	0:00:38	
Pakistan	146	0:00:28	
Bangladesh	94	0:00:26	
Columbia	57	0:00:40	
Poland	57	0:02:00	
Egypt	45	0:00:26	
Italy	14	0:03:48	

Table 12 MORPHEMIC videos viewers' location

Table 12 shows the most represented groups of videos audience based on their location. Asian countries, including India, Pakistan and Bangladesh, are at the top of the list, followed by Columbia, Poland, Egypt, and Italy. Other countries were not enlisted in the statistics.

Table 13 Source of MORPHEMIC video views

Source of visits			
Country	Number of views	Total watching time (in hours)	Average watching duration
Proposed videos	1073	9,6178	0:00:32
External	489	16,4561	0:02:01

Source of visits			
Ads in YT	321	5,5989	0:01:02
Direct or unknown	164	5,9070	0:02:09
Channel's pages	161	3,7652	0:01:24
YT Search Engine	97	2,3242	0:01:26
YT other functions	52	2,3490	0:02:42
Search functions	36	0,4225	0:00:42
Playlists	17	0,1581	0:00:33

In Table 13 we present the way in which the audience reached the MORPHEMIC video. Although almost half of the views are an effect of YT video recommendations, the most effective way was sharing the videos via external media (such as the project website, LinkedIn, etc.) – the total watching time is visibly the highest in this case.

6 Advertising materials

To make the communication and dissemination activities more effective, we created the advertising materials, to increase the impact of MORPHEMIC team events participation and make MORPHEMIC brand more memorable.

• Roll up – a simple standing advertisement of MORPHEMIC, consistent with all project's visuals, with the usage of shades of blue and white colours. Standing format, 85x200 cm.



Figure 41 MORPHEMIC project's roll-up

• Leaflet – two-sided, horizontal flyer describing the MORPHEMIC solution: its objectives, advantages, and benefits for users. Leaflet size: B5.



Figure 42 MORPHEMIC leaflet

• Poster – a project poster corresponding with the MORPHEMIC roll-up. On the graphic the most essential project information is visible: logo and project acronym, two novel features of the developed solution, and the address of the project website, where all information about the venture are provided. Poster size: A3.

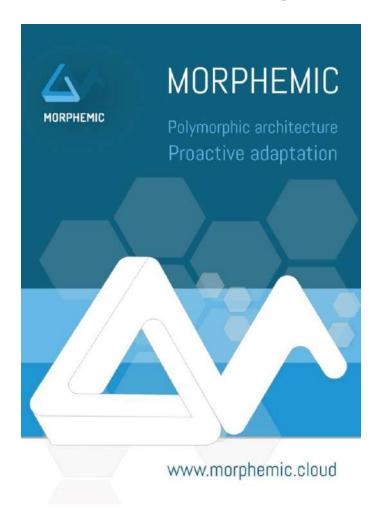


Figure 43 MORPHEMIC poster

Cloud-computing mugs designed by the MORPHEMIC team members. The mugs do not relate to the project directly, but to the Cloud technologies that are connected with MORPHEMIC – Kubernetes and Open Stack. The 3rd mug is a Multi-Cloud Guide, presenting important information about the Cloud providers. The mugs were handed to the attendants of the MORPHEMIC session at Warsaw IT Days 2022.



Figure 44 Cloud computing mugs

7 Sustainability of the MORPHEMIC website and social media channels

We have built an open-source community for the maintenance and extension of the MORPHEMIC platform. It will be based on the collaborative work of the partners coordinated by 7bulls.com that will be a maintainer of the MORPHEMIC platform and a leader of an open-source community around it. 7bulls will also be responsible for maintaining the project communication channels such as the MORPHEMIC website, and the LinkedIn, Twitter, Facebook, and YouTube accounts. We will endeavour, to the best of our ability, to continue posting the relevant information about the MORPHEMIC solution via mentioned media and further promote the project, enriching the shared messages with new information.

What is important, from the very beginning, our project has been collaborating with OW2 - an independent, global, open-source software community. Based on this collaboration, the source code of MORPHEMIC is available on the OW2 GitLab²⁰.

The impact of our project on the EU Cloud industry largely depends on our capability to grow a vivid open-source community around MORPHEMIC. We strongly believe that open-source software projects promote innovation faster than proprietary solutions, as they are easier and cheaper to adopt, reduce market entry barriers, and promote interoperability. Especially in Europe, where the ICT industry is predominantly driven by SMEs, the investment in open source pays back. This approach to exploitation will make it possible for SMEs and large companies to enjoy the benefits of multi-cloud deployments at affordable cost, massively, realizing high economies of scale at the ICT industry level.

8 Future work - after the project lifespan

The MORPHEMIC portal as well as all social media channels and activities will be running after the project ends. 7bulls, due to its capabilities, will invest effort to maintain the website, and the LinkedIn, Twitter, Facebook, and YouTube channels, by publishing relevant news about the project and activities focused on its further promotion. All consortium members will be obligated to inform 7bulls about all activities and achievements related to MORPHEMIC. The created news and messages will be still tailored to the project target audience. Images and photos will be carefully prepared and chosen in line with the communication messages elaborated to attract readers and new followers.

Moreover, the extensions subpage will contain all related projects and activities related to the further development of the MORPHEMIC project and platform. Also, the information about the extensions will be reported in related social media channels.

²⁰ MORPHEMIC pre-processor on OW2 GitLab

9 Summary

This document reports the consortium efforts and final outcomes of the MORPHEMIC portal and project's activity on social media, including LinkedIn, Twitter, Facebook, and YouTube. During the project, we managed to achieve our goals related to social media presence. We:

- Reached many new potential customers, representing different industries and companies from all around the
 world, and maintained their loyalty by continuous presence in social media and creating interesting and relevant
 content.
- Explained to the target audience in an intelligible way what MORPHEMIC is and what benefits it offers to the users.
- We kept the high position in organic search in different search engines by proper use of the SEO strategy.

In our activities, we presented high-quality materials composed of the textual content and attached visuals. Our publications were focused not only on reporting of the project progress, but also shared the information about the MORPHEMIC architecture, used technology and innovative features of the solution. Besides that, via website and social media channels, we promoted cooperation of business and science, informed about the dissemination and communication activities of the consortium, promoted the Horizon 2020 programme and the European Union, and shared the information related to Cloud computing, multi-cloud and optimization of resources.

All partners worked hard during the whole project duration to strengthen the MORPHEMIC identification through the website and social media. The high number of followers and views of most MORPHEMIC channels show that the communication and dissemination strategy built and maintained within the project scope was adequate to the defined goals. Also, the 16 demo requests received as an effect of paid MORPHEMIC campaigns on LinkedIn suggest that the actions we took within our communication and dissemination strategy were well-planned and yielded the expected results.

The fundamental components of our web presence strategy were to choose the target audience, define the expectations, types of messages to issue, and the right channels to deliver them. After the project end it is crucial to keep the attention of the target audience by active participation on the MORPHEMIC channels and constant communication with the audience regarding the MORPHEMIC platform and its development, the weight of which the consortium is aware of.



10 References

- [1] MORPHEMIC website, http://morphemic.cloud
- [2] MORPHEMIC LinkedIn page, https://www.linkedin.com/showcase/morphemic-project/
- [3] MORPHEMIC Twitter account, https://twitter.com/_morphemic_/
- [4] MORPHEMIC Facebook account, https://www.facebook.com/MorphemicProject/
- [5] MORPHEMIC's webinar LinkedIn page: Break Out of Matrix and enter into the MultiCloud World, https://www.linkedin.com/events/6790938234554785792/
- [6] MORPHEMIC's webinar LinkedIn page: Matrix Reloaded Multi Cloud is coming back!, https://www.linkedin.com/events/6802949769489723394/about/
- [7] MORPHEMIC's webinar LinkedIn Page: Multi Cloud in the financial sector save costs and process data faster, https://www.linkedin.com/events/multicloudinthefinancialsector-6865946532143800320/about/
- [8] MELODIC website, https://melodic.cloud/
- [9] MORPHEMIC DEMO Landing Page, https://www.morphemic.cloud/cloud-computing-costs/?li_fat_id=41080468-cea3-4c01-86a0-aaf15e74e8d7
- [10] Oberlo.com, Why do people use Facebook?, https://www.oberlo.com/statistics/why-do-people-use-facebook [access: 14.06.2023].
- [11] MORPHEMIC YouTube channel, https://www.youtube.com/@morphemic
- [12] Project's promotional video: "MORPHEMIC. Shaping clouds for you and your business", https://www.youtube.com/watch?v=QOjrejKbrdE&ab_channel=Morphemic
- [13] MORPHEMIC Project Presentation,

https://www.youtube.com/watch?v=KOC9I__4OT0&ab_channel=Morphemic

- [14] MORPHEMIC 2.5 features, https://www.youtube.com/watch?v=F6zbod1pgzY&t=50s&ab channel=Morphemic
- [15] MORPHEMIC demonstration, https://youtu.be/zIgzL1wxqcs
- [16] MORPHEMIC: CAMEL Designer, https://youtu.be/Fg66feU8tPQ
- [17] MORPHEMIC use cases [playlists], https://www.youtube.com/watch?v=MYzDKkw-lbg&list=PL-0180PLRuYDnACviub0JjrUSsz3rcyHw&ab_channel=Morphemic
- [18] MORPHEMIC use case iconPlatform,

https://www.youtube.com/watch?v=w59VyC0d4Bo&ab_channel=Morphemic

- [19] MORPHEMIC webinars [[playlists], https://www.youtube.com/watch?v=2zifZwssc3I&list=PL-Ol8oPLRuYBNOunV0neWELMJmHbSuMzr&ab channel=Morphemic
- [20] MORPHEMIC preprocessor on OW2 GitLab, https://gitlab.ow2.org/melodic/morphemic-preprocessor