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Executive summary

Deliverable D9.2 – *SILICOFCM flyers* reports on the work performed in WP9 - Exploitation and Dissemination (Task 9.1 - Website, video, flyers, social networking), which is the creation of the SILICOFCM flyers for public use and dissemination of SILICOFCM project activities through different public social networks (Facebook, Twitter, LinkedIn) and also during the physical meetings (meetings, joint events, conferences, exhibitions, workshops etc.). It also includes the main dissemination objectives, strategies during the project lifecycle, target audiences (healthcare providers, private sector, research community, regulatory bodies, general public) and dissemination channels.

At the first year of the project the main information about project, its objectives, impact, consortium, contact and social networks are included in the SILICOFCM flyer. It is targeted at all types of interested audience, presenting the key data about the project. SILICOFCM flyers are one of the main printed presentation and dissemination materials, which are expected to help towards achieving WP9 objectives by continually publishing and updating the relevant information to the wide range of audience. The first SILICOFCM flyers are distributed at the public events and conferences where consortium partners had the opportunity to present the project and introduce different target groups (medical professionals, engineers, researchers) its structure and innovations it brings. During the project lifecycle the flyers will be updated to reflect recent project achievements and results.

The SILICOFCM social networks, as well as flyers, are prepared to specifically target the people working in the field of science, medicine, pharmacy, industry, as well as and all interested stakeholders. The social networks are public and in addition to the main objectives and information about SILICOFCM project, they provide the up-to-date news on the project results and impact of ongoing activities, as well as different social events where SILICOFCM partners promote project results and progress.

This document presents the overview of the SILICOFCM flyer and social networks, which also can be found at the SILICOFCM website.



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List of Abbreviations

Abbreviation	Explanation	
BioIRC	Bioengineering Research and Development Center	
IIT	Illinois Institute of Technology	
RIA	Research and Innovation action	
STM	Scientific and Technical manager	
UOI	University of Ioannina	
WP	Work Package	



1. Introduction

SILICOFCM aims to develop a computational platform for *in silico* clinical trials of Familial cardiomyopathies (FCMs) that would take into consideration comprehensive list of patient specific features (genetic, biological, pharmacologic, clinical, imaging and patient specific cellular aspects) capable of **optimizing and testing medical treatment strategy** with the purpose of maximizing positive therapeutic outcome, avoiding adverse effects, avoiding drug interactions, preventing sudden cardiac death, shortening time between the drug treatment commencement and the desired result.

SILICOFCM is a multi-modular, innovative in silico clinical trials solution for the design and functional optimization of whole heart performance and monitoring effectiveness of pharmacological treatment, with aim to reduce the animal studies and the human clinical trials. The SILICOFCM platform is based on the integrated multidisciplinary and multiscale methods for analysis of patient-specific data and development of patient-specific models for monitoring and assessment of patient condition from current through the progression of disease.

The dissemination of the SILICOFCM concept is important and essential in order to identify and evaluate the success of the project, reach to the end-users and explore the project's potential for long-term sustainability. The SILICOFCM project aims to promote all necessary information, progress, new achievements, results and events through different communication channels. The dissemination plan will highlight the project outputs, raise awareness of the project activities, its goals, achievements, and useful outputs for the key target audiences, which include cardiologists, researchers, pharmaceutical companies, biomedical engineers, leading modelling and IT experts, notified bodies and regulatory authorities and the general public.

The dissemination and communication activities include maintenance of the project website (https://silicofcm.eu/), different social networks (Facebook, Twitter, LinkedIn) and flyers specifically targeted for people in the field of science, medicine, industry and for all other interested audience. All these dissemination and communication activities are public, with efforts to ensure wide media coverage.

Deliverable D9.2 – *SILICOFCM flyers* is a public document of the SILICOFCM project, created as part of WP9, Task 9.1 *Website, video, flyers, social networking*. The objective of WP9 is to promote the widespread utilization of the project results during and after the project lifetime and increase the impact of the project. Task 9.1 aims at proactively promoting the SILICOFCM project and its final results by providing targeted information to various audiences.



2. Dissemination objectives

The main priority of SILICOFCM project dissemination and communication activities is to ensure reaching the target audiences that may benefit from applying SILICOFCM solutions in their research, product development and treatment approach. Effective activities will facilitate better understanding of SILICOFCM *in silico* trials related to familial cardiomyopathy and their implementation in pharmaceutical industry, medicine and research. Also, well established communication will ensure networking between partners and stakeholders and enhance their capabilities for future collaborations and funding opportunities.

In order to effectively promote and disseminate the SILICOFCM project, the main objectives are:

- To inform audiences about existence of the project, its purpose and impact;
- To improve visibility and presence of consortium partners in the field of familial cardiomyopathy research and treatment, as well as in the industry;
- To develop use-case scenarios and examples of its practical applicability;
- To disseminate up-to-date information of the project activities;
- To communicate outcomes to multiple audiences;
- To attract and convince target audience and end users (cardiologists, researchers, pharmaceutical companies, etc.) to adopt the platform;



3. Dissemination strategy

The SILICOFCM dissemination strategy is in accordance with its objectives. The dissemination strategy is focused on two main phases during the project lifecycle:

- 1. In the first phase (M1-M31), the aim is to raise awareness about the existence of the project, its structure, impact, outcomes and innovations. Also, engagement of key stakeholders will contribute to design of the *use-case scenarios* that will be essential in the second phase.
- 2. In the second phase (M32-M42), focus will be mainly on dissemination of results, demonstration of several *use-case scenarios* and communication of up-to-date developments, with a view to exploit the SILICOFCM platform towards project completion. The established use-case scenarios will provide practical examples to different types of end-users (e.g. cardiologists, researchers, pharmaceutical companies).

The SILICOFCM dissemination strategy will be focused on each target group as different stakeholders interacting with the SILICOFCM project. Dissemination to each target group will be delivered within two main phases. Phase one will focus on raising awareness and visibility of the project, introducing the audiences with the project vision, innovations and impact. Also, during the first phase important engagement of key stakeholders will contribute to the design of the use-case scenarios. The development of these scenarios will be result of interaction between project partners that provide understanding into product design, development and optimisation pathways, as well as engagement of key clinical, pharmaceutical and regulatory stakeholders that provide perspectives issues such as clinical trial design considerations. The developed use-case scenarios will enable development of the SILICOFCM platform in the most efficient way and optimise the platform for use of different end users. Also, they will also serve for assessment of project SILICOFCM progress and review.

Thereafter, phase two will aim at effective dissemination of the SILICOFCM project results and of the of overall project outcomes. The demonstration of SILICOFCM platform capabilities through relevant use-case scenarios will be performed among different end-users, with a view to exploit the SILICOFCM platform. The first overview of the SILICOFCM dissemination phases and dissemination strategy is presented in Figure 1.

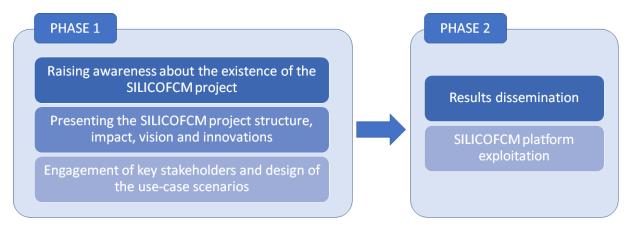


Figure 1. Dissemination strategy.



4. Target audiences and dissemination channels

The main criteria in the SILICOFCM dissemination strategy is distinguishing between various target audiences of the project, which will receive different kinds of inputs and messages via different dissemination channels. The division will make sure that the dissemination is effective and delivered in an understandable and accessible way to every audience based on individual requirements.

The SILICOFCM consortium has identified five target groups, with aim to maximise the impact and level of engagement with each particular group, throughout each phase of the dissemination plan implementation.

Cardiologists (Healthcare providers)

The first identified target group includes cardiologists and hospitals, that represent healthcare providers. In the first phase of dissemination they will be approached via meetings, conferences, workshops, events and introduced with SILICOFCM project and its impact. In the second phase, the insight into SILICOFCM platform solutions such as patients risk stratification system and prediction of disease progression will be presented with aim to encourage healthcare providers to adopt the platform in their practice.

Pharmaceutical companies (Private sector)

The pharmaceutical companies are one of the main targets of SILICOFCM exploitation plan. SILICOFCM ambition is to provide a platform through which the pharmaceutical companies will be able to monitor effectiveness of pharmacological treatment and functional optimization of whole heart performance. In the second phase of dissemination plan, pharmaceutical companies will have better insight into the hierarchical testing of multiple compounds and early elimination of less potent drugs that could reduce cost of drug development, and on the other hand, improve the efficiency of drug development. With that aim, joint events, conferences, and exhibitions will be organized.

As private sector includes more potential end-users such as Biomedical engineers, BioTech companies, Bioinformatics companies etc., the SILICOFCM consortium will also aim to attract them to adopt the SILICOFCM platform.

Researchers (Research community)

The target group of researchers is primarily addressed to academia and scientific researchers. In the first phase of dissemination the aim is to build awareness about the existence of SILICOFCM project through conferences and events. Also, exchanging experience and networking with similar European projects that have complementary objectives and potential impact will be performed during this phase. In the second phase researchers will be informed about SILICOFCM project progress and obtained results, with possibility to access to SILICOFCM virtual population and pool of heart models with purpose of usage in research. The dissemination will be achieved through scientific journal publications, and participation in joint events and conferences with other European Commission projects.



Regulatory bodies

This group consists of regulatory bodies, regulatory experts/providers and clinical trial providers. It will be approached in both phases of the dissemination strategy to raise awareness of the project and insilico approaches undertaken within the SILICOFCM project. This target group will be reached through meetings, joint events, conferences and exhibitions.

General public

This target group consists of patient societies, students and wider citizens. In the first phase of dissemination activities, the they will be informed about the SILICOFCM project presence, its innovations and vision. In the second phase, through disseminated activities will be presented in which way the SILICOFCM results have broader application for society. The general public will be reached via social media and press releases.

The table 1 summarizes the key target groups and associated dissemination channels.

Table 1. Key target groups and associated dissemination channels.

Target Groups		Dissemination channels
Healthcare providers	Cardiologists Hospitals	Meetings Conferences Workshops Events
Private sector	Pharmaceutical companies Biomedical engineers Bioinformatics companies BioTech companies	Joint events Conferences Exhibitions
Research community	Scientific Researchers Academia	Conferences Scientific journal publications Joint events with other EC projects
Regulatory bodies	Regulatory bodies Regulatory experts/providers Clinical trial providers	Meetings Joint events Conferences Exhibitions
General public	Patient societies Students Wider citizens	Social Media Press releases



5. SILICOFCM tri-fold flyer

The first SILICOFCM flyer is created by WP9 leader – BioIRC during the first year of the project. This is a tri-fold flyer which presents one of the main printed presentation and dissemination materials, with aim to increase the project visibility and impact towards targeted audiences (see Section 4).

The flyer consists of the following:

Outer side (Section 5.1)

- Cover page
- SILICOFCM partners
- Key data
- o Follow us
- o Contact us

Inner side (Section 5.2)

- About SILICOFCM
- Objectives of SILICOFCM
- o SILICOFCM's impact

The SILICOFCM flyer is public and can be downloaded at the <u>SILICOFCM website</u> from the Dissemination menu (Figure 2). The structure of SILICOFCM website is in detail explained within the deliverable *D9.1 Project website*.



SILICOFCM FLYER



Figure 2. SILICOFCM flyer – downloadable from the SILICOFCM website.



5.1 SILICOFCM flyer – outer side

Cover page. The cover page contains project title, project logo, EU logo and disclaimer.

SILICOFCM partners. The logo of each SILICOFCM project partner is given.

Key data. This section contains the project start and end dates, funding scheme (RIA - Research and Innovation action) as well as the concise schematic representation of the project structure including the WPs and participating partners.

Follow us. SILICOFCM social networks are listed, with following profiles names:

Facebook: Silicofcm Project

Twitter: oscillater

LinkedIn: SILICOFCM Horizon EU project

Also, the QR codes are given to facilitate the web search to potential followers.

Contact us. This section contains information about the coordinating institution, as well as the contact e-mails. The SILICOFCM website is accented, including also the QR code which takes the visitor to the website.

Complete outer side is presented in Figure 3.

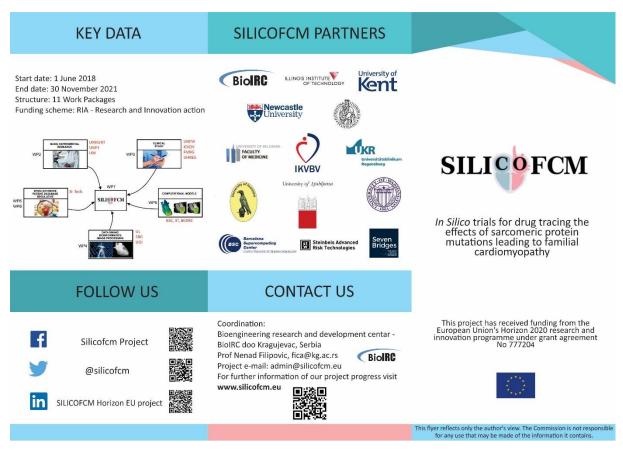


Figure 3. SILICOFCM flyer – outer side.



5.2 SILICOFCM flyer – inner side

About SILICOFCM. The main information about the project are concisely presented, including the main innovations.

Objectives of SILICOFCM. Eight specific objectives of the SILICOFCM project are listed, which provides better insight of audience into the project focus and vision.

SILICOFCM's impact. This section comprehends the list of expected impact and SILICOFCM contribution.

Complete inner side is presented in Figure 4. The text is followed with appropriate figures: on the left side- geometrical representation of whole human heart with marked different cross sections of heart tissue; on the right side: myocardial fiber orientation of female and male heart models.

ABOUT SILICOFCM **OBJECTIVES OF SILICOFCM** SILICOFCM's IMPACT SILICOFCM project aims to develop a The project works on the following major objectives: Reducing the size and the duration of the human computational platform for in silico clinical trials of Familial cardiomyopathies (FCMs) that would take 1 Define processes and set standards for in silico trials into consideration comprehensive list of patient and their integration in the drug development chain. A more effective human clinical trials design. 2 Identify and relate specific gene or genes to protein specific features (genetic, biological, pharmacologic, clinical, imaging and patient structural, kinetics and functional changes for Leading to a significant reduction in animal specific cellular aspects) capable of optimizing and specific drugs interaction. testing testing medical treatment strategy with the 3 Perform experimental determination of material purpose of maximizing positive therapeutic characteristics of heart muscles, from for example Innovative medical products on the market with outcome, avoiding adverse effects, avoiding drug left ventricle wall, along with biomechanical lower development costs and/or shorter timeinteractions, preventing sudden cardiac death, parameters, gene expression, protein kinetics and to-market. shortening time between the drug treatment the whole organ functional images/movies commencement and the desired result. 4 Perform clinical studies for determination of risk factors associated with drugs interaction for DCM, Improving prediction of human risks for new biomedical products. HCM, RCM and ARVC on a clinically relevant number The SILICOFCM is a multi-modular, innovative in silico clinical trial solution for the design and functional optimization of whole heart of patients from 4 clinical partners. Setting standards for in silico trials 5 Develop software tools for collection and analysis of performance and monitoring effectiveness of patient-specific data and development of patientpharmacological treatment, with aim to reduce specific models for monitoring and assessment of Providing libraries of virtual patients for re-use in patient condition from current through the the animal studies and the human clinical trials. pre- and post-competitive testing of biomedical progression of diseas products 6 Provide a library of virtual patients for re-use in pre-and post-competitive testing of drugs using data The SILICOFCM platform is based on the integrated multidisciplinary and multiscale methods for analysis of patient-specific data and development of patient-specific models for monitoring and 7 Deliver a software platform for in silico efficacy and assessment of patient condition from current safety tests and integrate the platform in the drug through the progression of disease development chain to support design and regulatory approval processes. 8 Evaluate the in silico trial platform in representative scenarios to demonstrate the capabilities of this approach and propose measures of validation for in SILICOFCM

Figure 4. SILICOFCM flyer – inner side.



5.3 Dissemination of SILICOFCM flyer

SILICOFCM flyers have already been published and distributed at several conferences and at second plenary project meeting. One of the most interesting conferences was the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI) in May 2019 (Chicago, US) where SILICOFCM partner and Scientific and Technical Manager (STM), prof. Srboljub Mijailovic (Illinois Institute of Technology (IIT), Chicago, US) participated. He gave the lecture "The effects of sarcomeric protein mutations leading to familial cardiomyopathy: integrated modeling of multiscale cardiac system" (Figure 5). The presentation and dissemination of the SILICOFCM project results, related to the MUSICO software upgrade, was held at the workshop "Modelling in bioengineering and bioinformatics", organised by prof. Nenad Filipovic - BioIRC as part of the BHI conference (Figure 6, Figure 7). In the Figure 6, on the left side is prof. Akira Tsuda (Harvard School of Public Health, Boston, Massachusetts, US), who also participated in the workshop.

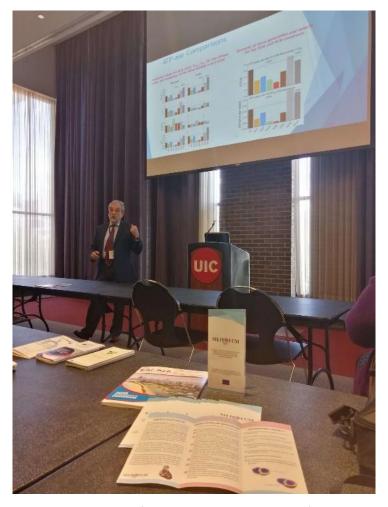


Figure 5. The SILICOFCM partner and Scientific and Technical Manager, prof. Srboljub Mijailovic (IIT) is giving the lecture at the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI).





Figure 6. Prof. Akira Tsuda (Harvard, USA), prof. Srboljub Mijailovic (IIT, USA) and prof. Nenad Filipovic (BioIRC, RS) at the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI).



Figure 7. SILICOFCM flyers at the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI).



Furthermore, at the same conference the poster in the scope of SILICOFCM project: Kojic et al. "Our smeared FE model for electrophysiology coupled with heart muscle mechanics" was presented. During the poster session the team members of BioIRC and UOI had the opportunity to meet and exchange experiences of the past project period (Figure 8).

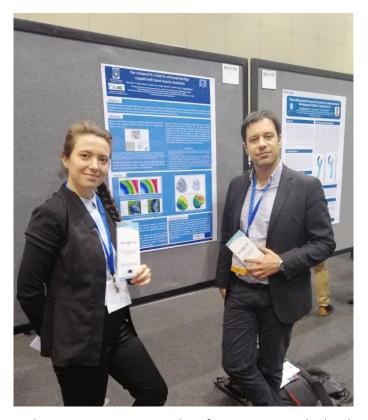


Figure 8. Poster session at the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI) and meeting of BioIRC and UOI team members.

At the 8th International Conference on Computational Bioengineering (ICCB2019), September 4th - 6th 2019 in Belgrade (Serbia), the SILICOFCM partners will have opportunity to present their results related to the SILICOFCM project at the Mini-Symposia "Multiscale in-silico modeling of cardiomyopathy from geno type to pheno type", organized by Prof. Boban Stojanovic (BioIRC).



6. SILICOFCM social networks

The SILICOFCM project has accounts on different social networks such as:

Facebook - Silicofcm Project (Figure 9)



Figure 9. Silicofcm Project at Facebook.

Twitter - @silicofcm (Figure 10)



Figure 10. @silicofcm at Twitter.

in LinkedIn - SILICOFCM Horizon EU project (Figure 11)



Figure 11. SILICOFCM Horizon EU project at LinkedIn.



These accounts are public and maintained by the management team at BioIRC. By following the SILICOFCM project, stakeholders can be informed about the project information, events, project results and progress. Nowadays, this is one of the most effective ways to follow the latest news, thus, during the project lifetime the SILICOFCM project will make efforts to reach and gain the interest of a wide range of audience including medical experts, engineers, pharmacologists, researchers and general public in order to spread the project innovations and activities.

The SILICOFCM social media accounts are also linked to the SILICOFCM website (Figure 12).



Figure 12. SILICOFCM social accounts linked to the SILICOFCM website.



7. SILICOFCM project poster

The SILICOFCM project poster (Figure 13) was created at the beginning of the project and it is in the use at conferences and meetings, presenting the key concept of the project. The poster can be found and downloaded from the <u>SILICOFCM website</u> under the Dissemination menu.



Figure 13. SILICOFCM project poster.

8. SILICOFCM presentation template

The consortium has prepared the template for presentation of all SILICOFCM deliverables and results which must be followed by all partners. This template was distributed to all partners, and it is also available in the private area of the website. The SILICOFCM presentation template is in the use for SILICOFCM meetings, conferences, lectures etc. This template was distributed by BioIRC to all members of the consortium before the kick-off meeting. In Figure 14 are presented the first two slides (cover and WP information) of SILICOFCM presentation template, while other slides contain instructions for tasks, performed activities and future plans.



Figure 14. SILICOFCM presentation template.

9. Deviation from the work plan

There is no deviation from the workplan.



10. Conclusions

The deliverable D9.2 – *SILICOFCM flyers* presents the main dissemination and communication activities during the project's first year. It also includes the main dissemination objectives and general strategies during the project lifecycle, as well as target audiences and dissemination channels to reach them. Thereafter, design of the first SILICOFCM flyer is presented, and social accounts – Facebook, Twitter and LinkedIn are concisely described. This dissemination tools are public and linked to the SILICOFCM website. During the project lifetime, periodically updated and redesigned flyers will be released introducing the SILICOFCM project progress to different target groups, while the SILICOFCM social media accounts will inform the audience about the latest project news.

In addition to presented dissemination strategy, target audiences and dissemination channels, the SILICOFCM coordinator plans to set up a KPI list for each dissemination activity, which will represent the target for each partner institution. We expect even more intensive dissemination activities in the next period, especially related to the potential commercialisation and connection to industry.

SILICOFCM consortium together with the leader of WP9 (BioIRC) will ensure continuous dissemination and communication activities with the aim to bring the SILICOFCM innovations, results, latest achievements and social events to wide public, ensuring the project's high impact and long-term sustainability.



11. References

References are not used in this document.

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