



Acronym: vINCI
Name: Clinically-validated INtegrated Support for Assistive Care and Lifestyle Improvement: the Human Link
Call: AAL 2017 “AAL Packages / Integrated Solutions”
Contract no: AAL2017-63-vINCI
Start date: 01 June 2018
Duration: 36 months

D5.2 Updated Dissemination Plan

Nature¹: P
Dissemination level²: PU
Due date: M18 (31 December 2019)
Partners involved (leader in bold): **ICI**, MPU, UNRF, NIT, CMD, AUT, SAL, NIGG, CTR

Project Co-Funded by:



Project Partners:



UNIVERSITÀ
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PAŃSTWOWY INSTYTUT BADAWCZY



¹L = legal agreement, O = other, P = plan, PR = prototype, R = report, U = user scenario

²PU = Public, PP = Restricted to other programme participants (including the Commission Services), RE = Restricted to a group specified by the consortium (including the Commission Services), CO = Confidential, only for members of the consortium (including the Commission Services)

Partner list:

No.	Partner name	Short name	Org. type	Country
1	National Institute for Research and Development in Informatics	ICI	R&D	Romania
2	Marche Polytechnic University	MPU	R&D	Italy
3	University of Nicosia Research Foundation	UNRF	R&D	Cyprus
4	National Institute of Telecommunications	NIT	R&D	Poland
5	Connected Medical Devices	CMD	SME	Romania
6	Automa Srl	AUT	SME	Italy
7	Optima Molliter (f. Salvatelli) Srl	SAL	SME	Italy
8	National Institute of Gerontology and Geriatrics "Ana Aslan"	NIGG	R&D	Romania
9	Comtrade Digital Services	CTR	Large enterprise	Slovenia

Revision history:

Rev	Date	Partner	Description	Name
1	08.06.2019	MPU	Created the template, added sections and content on behalf Italian partners	Susanna Spinsante
2	08.06.2019	ICI	Added content for ICI Bucharest dissemination	Lidia Bajenaru, Mihaela Tomescu
3	09.06.2019	UNRF	Added content for UNRF dissemination	Constandinos Mavromoustakis
4	23.07.2019	MPU	Added content for new dissemination outcomes	Susanna Spinsante
5	15.11.2019	MPU	Editing of D5.2 deliverable	Susanna Spinsante
6	17.12.2019	NIT	New items added	Piotr Krawiec, Waldemar Latoszek
7	17.12.2019	MPU	Final editing and check	Susanna Spinsante

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Contents

1	Introduction	2
1.1	Scope of this document	2
1.2	Rules for dissemination and reach out	2
2	General principles	4
2.1	General strategy	4
2.2	Dissemination targets	4
2.3	Dissemination channels	4
2.4	Dissemination success indicators	6
3	Dissemination Plan	7
3.1	Main Steps and Times	7
3.2	Dissemination Opportunities	7
3.2.1	Conferences and Workshops	7
3.2.2	Events with Stakeholders	8
4	Dissemination Outcomes	9
4.1	Dissemination Towards Scientific Communities	9
4.1.1	Workshops and Special Sessions	9
4.1.2	Articles in journals	11
4.1.3	Papers in conference proceedings	11
4.1.4	Poster presentations	13
4.2	Dissemination in AAL-related events and to general audience	13
4.3	Industry-related dissemination	16
4.4	Preparation for integration with external services	16
	List of figures	17

Chapter 1

Introduction

1.1 Scope of this document

The objective of this deliverable is to present an overall communication and dissemination strategy designed in the vINCI project with special attention to the activities to be performed during the first period (18 months) of the project. It aims to provide a clear understanding of the target groups that should be addressed as well as identifies the tools that will be used to achieve the dissemination goals in the project. As this deliverable was envisaged as a plan, the document also includes a schedule of the most important actions planned for the first period that will serve as a guideline. The activity plan will be updated regularly, and it will be followed by the release of an updated dissemination plan at M18.

This document will target three major issues:

- First, general concepts and requirements are described, which are expected to be met by the project dissemination activities. At this level, target groups, available channels and general strategy to develop the dissemination process will be defined, finally underlining the necessity to assign responsibilities to project partners and to measure the dissemination success.
- Second, the instruments needed to implement the above defined strategy will be described.
- Third, the vINCI dissemination process itself is described.

This document, as well as the dissemination material prepared for the project, is in the DropBox folder shared among the project's consortium. Partners involved in this task are detailed in the first page of this deliverable.

1.2 Rules for dissemination and reach out

The rules for dissemination and reach out are set in the **AAL Guide for Coordinators**, in the National Grant Agreements, and in the Consortium Agreement. As a reminder, every communication, public presentation or document aimed at the dissemination of the project (except scientific papers) shall include at least the logo of vINCI project and the logo of the AAL JP. Examples of the acknowledgment sentence are:

"The project vINCI no. AAL-2017-63-vINCI has received funding from AAL JP, co-funded by the European Commission and National Funding Authorities of country xx, ... (as appropriate)"

"The project vINCI no. AAL-2017-63-vINCI is funded under AAL JP".

Every publication or public presentation carried out by partners has to be first shown to the consortium for comments and for their information (more details in the Consortium Agreement). Dissemination activities shall be compatible with intellectual property rights, confidentiality, and the legitimate interests of the owner of the results. All partners taking part in the project are involved in the dissemination activity. According to a shared program, every partner will have to:

- Contribute to the project promotion and to the dissemination of its results;
- Help identify potentially new interested stakeholders;
- Contribute to the project website;

- Promote the organisation of focused events by publicizing them on the project website;
- Provide the logo of their own organization, and add a link to project website in their organization website;
- Make reference to all relevant funding bodies in every dissemination artefacts;
- Forward to the WP5 leader the dissemination material used in order to revise the dissemination plan and for the publication on the website if applicable;
- Report to the project coordinator and to other partners all dissemination activities performed;
- Contribute to social networks;
- Participate in relevant events where the project can be introduced and displayed.

Timetable of the dissemination and reach out materials requested by AAL JP:

- Within the first 2 months after the project start, a fact sheet on the project to be presented on the AAL web site (using the template delivered by the AAL CMU). This fact sheet should include:
 - Name and address of all partners
 - Type of partner (end user, business, SME, Technology)
 - Abstract of the project
 - Amount of the Community financial contribution and the rate of funding costs (amount of the financial contribution in relation to the total budget) per partner organization.
- Within the first 2 months after project start, two slides (Power Point format, in English) presenting the project (including the partner's overview and the project objectives).
- A press release of the project kick-off, in English and in the national languages of the participants of the consortium, to be broadly disseminated in the local/national press, and sent to the AAL CMU.
- No later than 4 months after the project start date, the project web-site as a basic tool to disseminate project results. The web-site should contain as a minimum: the Project description, Partners, Contact details, acknowledgment to the NFA and EC, public deliverables, link to the AAL JP web site, logos of AAL JP and European Community. It should be lively and updated. It is encouraged to include videos of demonstrations and updates could be provided in RSS feed.

In addition:

- The project should be represented during the annual AAL Forum – the AAL JP annual dissemination event. A specific budget in dissemination should be planned for this participation.
- Any communication or publication, including information given to press, publicity material, official notices, reports, publications, shall acknowledge that the project is/was carried out under the AAL Joint Programme with funding by the European Union and involved National Funding Authorities, and shall display, in an appropriate way, the European logo (available at www.aal-europe.eu).
- Any of the above mentioned shall be communicated to the CMU for them to have this published on the AAL website (if needed).

Chapter 2

General principles

2.1 General strategy

The main dissemination goal for an AAL JP project is to raise awareness of the project, from the concept to the final results and to share knowledge among stakeholders and the public sector. Hence, a properly carried out dissemination increases exploitation possibilities, opening opportunities. Dissemination can support our user-centric project approach as it provides a means to introduce project concepts and partial results to the targeted audiences and obtain feedback for guiding the work within the project (e.g. foreseen future technologies and use cases), fine-tuning its results.

Dissemination activities enable forming a network of contacts, interest groups, which not only can serve as a source of continuous constructive feedback but can also prepare the ground for exploitation. To achieve these results, dissemination must be widely integrated with the exploitation strategy. Both must be considered as a continuous process deeply integrate in the project activities instead of performing them as an add-on to the project work. It is necessary and strongly encouraged to have a "marketing eye" on project workflow and results from the beginning of the project. At each stage, one should pay special attention to further exploitability of the deliverables as well and undertake the design accordingly.

Dissemination has to be considered as an incremental activity: as the project advances, more material becomes available, enriching the content of the messages that are broadcasted. This means that dissemination material has to be regularly updated and that providing a continuous flow of information about the project has to be maintained in all dedicated channels.

2.2 Dissemination targets

A fundamental issue for delivering a suitable dissemination plan is the identification of potential target groups, each of them being approached with a different yet specific communication message. The expected target audiences of the project are likely to be comprised within the following categories:

- End-users (potential users of the solutions developed in the vINCI project and end-user representatives)
- Enterprise and policy makers (entities directly or potentially involved, as actors or funders, in the exploitation of the results)
- Scientific community (researchers and academics who will support the project and benefit from it, from a scientific point of view).

Probably the above-mentioned categories overlap but this can represent an acceptable classification of the stakeholders interested/involved in the project. The focus will be on making all stakeholders aware of the potential applications of the solutions developed by vINCI to support older and frail people, and to increase user acceptance by addressing the associated social and ethical issues. Within these general categories we can identify the target groups described in Table 2.1.

2.3 Dissemination channels

In order to effectively reach each segment of the target audience and to maximize the visibility of the project, a broad spectrum of dissemination channels will be used:

Table 2.1: Target groups, categories and objectives of the dissemination

Target group	Category	Objective of the dissemination
Older adults aged 65+	Primary end users	Understanding, evaluation, and validation of technology acceptance patterns. Integrating different stakeholder perspectives and user diversity as key determinants.
Relatives and informal carers Professional caregivers Caregivers associations	Secondary end users	
Stakeholders (medical doctors, physiotherapists) Social services	Tertiary end users	
European Commission Regulatory agencies Manufacturers Service providers	Enterprises and policymakers	To raise awareness about implications of technologies for older adults
AAL community Researchers Civil society organizations	Scientific community	To encourage academic organisations and researchers to conduct further research in regard to the issues raised by the project, especially in relation to their own research practices. To encourage discussion and feedback on the findings of the project. To bridge the gap between the worlds of academia, governments, industry and civil societies to create and promote cross-fertilisation of insights from different domains. To collaborate with them on how to measure the efficacy of developed solutions.

- The web and the online communication channels will play a central role in the project dissemination plan.
- Notwithstanding the increased influence of electronic communication media, face to face communication remain a unique and indispensable communication tool. Using their own local, national, and international professional network, each partner will propose a list of events in which to participate to promote the project or to present accepted papers in relevant conferences. In addition, partners will coordinate themselves to organise different events (such as workshops or special sessions) in international conferences or other relevant events inviting researchers and professionals working on technological developments related to the ones pursued in the project.
- Traditional media (newspapers, Radio, TV) are still an important communication channel especially for some target groups. To involve the press and, therefore, a wider public, and to increase the project visibility in the events related to the project press releases should be prepared with information on the project developments, announcement of events organised by the project partners, and information of interest for the public.
- In addition to generic press, articles for both specialised press and scientific journals must be elaborated and published throughout the project development. In terms of scientific results, articles should be written and published in proceedings of relevant conferences and scientific journals.

To maximize the dissemination impact, each project partner will be in charge of identifying a pool of dissemination opportunities and contacts associated with their respective institution to be used for spreading the results of the vINCI activities.

2.4 Dissemination success indicators

In order to assess the effectiveness of the dissemination activities in comparison with the planned objectives along the project lifetime, a set of dissemination success indicators are defined and reported in Table 2.2. If expectations are met, according to these indicators, then the dissemination activities will be regarded as successful. Other factors for measuring dissemination success can be easily defined. However, these general measures aim to represent a good reference point.

Table 2.2: Dissemination success indicators

Indicator	Target value
No. of scientific publications in peer-reviewed journals	≥ 5
No. of presentations done	≥ 5
No. of leaflets distributed	≥ 100
No. of visitors to project's website	≥ 1000

Chapter 3

Dissemination Plan

3.1 Main Steps and Times

The following section outlines the main processes of dissemination: the steps to build up the dissemination process, establishing a flow of information, the timing of dissemination activities and the appropriate sharing of tasks within the project consortium. Each project member must play a role in dissemination according to their skills and capacity. The high-level coordination is undertaken by the leader of the Dissemination Work Package supported by the partner coordinating the project itself. Timely and effective dissemination of results is an essential part of a research project. This ensures that the gained knowledge or exploitable foreground can benefit the whole society, and that any duplication of research and development activities is avoided. Two of the success keys of dissemination are regularity and being up-to-date. Regular in the sense of the necessity to maintain the interest towards project achievements, and up-to-date in the sense of providing fresh content as well as being aware of new opportunities where project dissemination can take place. The time variable can play a threefold role in organizing activities:

- Continuous activities (e.g. update of project website);
- Regular activities (e.g. writing posts on the website or social account);
- Occasional activities (e.g. attendance at conferences).

In Table 3.1 the main programmed dissemination activities are reported, with indication of time and responsible partner.

Table 3.1: Planned dissemination activities

Activity	Kind	When	Who
Website update	Continuous	At last once in a month	All, coordinated by ICI
Twitter update	Regular	At least once in a week	All, coordinated by MPU
Scientific publication	Occasional	According to conferences journals deadlines	ALL
Dissemination at Industry-oriented or general events	Occasional	When opportunities arise	vINCI industrial partners ALL

For occasional activities, potentially interesting dissemination opportunities covering relevant scientific events, journals and marketing possibilities are identified while the project execution advances (see Annex 2). This is a living part of the document that will be updated with contribution from all partners.

3.2 Dissemination Opportunities

3.2.1 Conferences and Workshops

Demonstrations in conferences (through dedicated calls for demonstration or workshops) and business-oriented exhibitions/fairs (with a dedicated vINCI booth) will take place when suitable occasions arise and are deemed valuable by the consortium. In addition to the demonstrations, interactive participatory workshops will also be proposed or organized (at pilot sites, at AAL European and national Fora - like ForITAAL in Italy), to present the vINCI outcomes to stakeholders and demonstrate the real-life possibilities of using the platform.

Granting open access to the scientific publications stemming from the project's activities (in international peer-reviewed journals) in order to increase outreach will be key to the project's dissemination approach. Additionally, participants have also a large experience on editing books and special issues in high-impact journals. Therefore, one or more special issues on the topic of the project will be organised and published during the project.

Some scientific dissemination activities have been already performed at the time this deliverable is drafted, and they are summarized in Annex 2.

3.2.2 Events with Stakeholders

Informal caregivers and clinicians would need to be educated about the use of vINCI. Informal caregivers will learn how the system can unobtrusively monitor and support the older adults in their daily life, how relevant the collected data are, and how to use them for detection and prevention. Stakeholders will be periodically informed and provided with questionnaires, so they can provide relevant feedback and help improve the vINCI experience.

Industrial, service/software providers, safety/security industries and customers, manufacturers, vendors and operators in the rapidly growing field of IoT and AAL technologies, i.e. one of the project's target groups, will be effectively reached through the joint forces of the Consortium's industrial participants, and the involved end-users.

A significant number of end-users will be recruited for this project, in four pilots. Their informal carers, relatives and general social circle will also form a target group, as they will benefit from the vINCI solution. Community centers for the elderly, nurses' or other carers' associations, and other organizations with potential end-users will be an important target for vINCI, as they are expected to provide some of the prime beneficiaries of the system.

Additionally, the project consortium is well represented in international collaborative networks, what will not only serve to disseminate the outcomes of the project among a large number of European researchers and companies but to allow interactions and future collaborations:

- the EiP-AHA;
- the SHELD-ON COST Action CA16226, through the participation of vINCI's members in the Action activities. The Action, that is focused on creating smart habitats for the elderly, could provide useful insights about the applicability of the vINCI technology within living environments of the elderly, as well as it can benefit from the outcomes of the vINCI project, specifically WG2 on ICT developments, and WG4 on solutions for ageing well at home, in the community, and at work.

Chapter 4

Dissemination Outcomes

4.1 Dissemination Towards Scientific Communities

4.1.1 Workshops and Special Sessions

MEDEA International Workshop

The vINCI consortium was represented at IEEE CSCS22 - 22nd International Conference on Control Systems and Computer Science, organized by the Faculty of Automatic Control and Computers (A&C) of University Politehnica of Bucharest and Romanian Society of Control Engineering and Technical Informatics (SRAIT) at Bucharest, Romania, 28 - 30 May 2019, with the organization of the *International Workshop on Monitoring and EviDence-based protocols, applications and platforms for active living and Aging - MEDEA* (<http://medea.ici.ro>). The main organizers of the Workshop were: Lidia Băjenaru – National Institute for Research and Development in Informatics (ICI Bucharest), Romania, and Ciprian Dobre – National Institute for Research and Development in Informatics (ICI Bucharest), Romania.

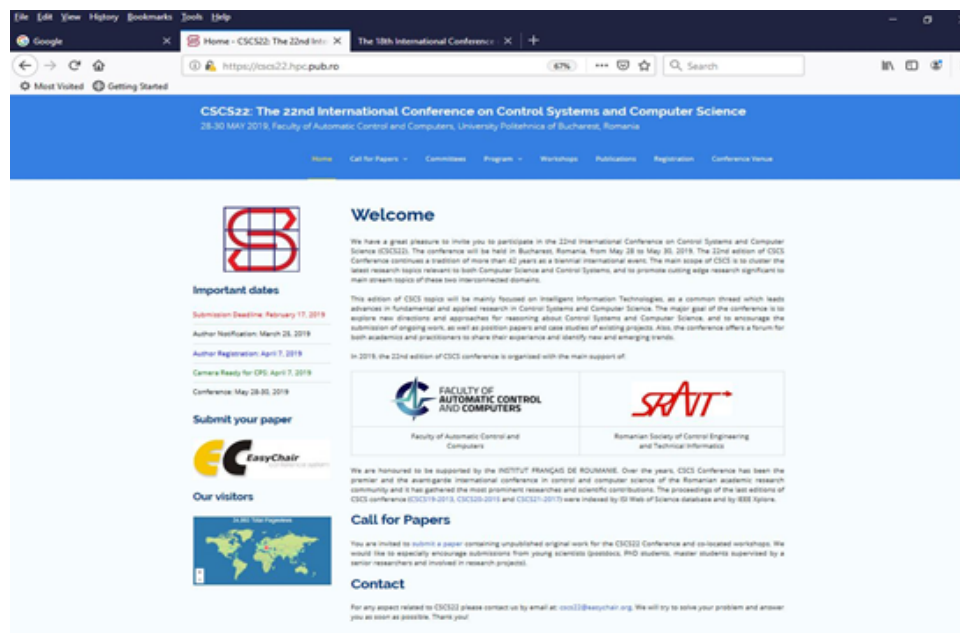


Figure 4.1: IEEE CSCS22 - 22nd International Conference on Control Systems and Computer Science

The following papers were presented at the conference, as oral scientific communications:

- Dobre, C., Băjenaru, L., Marinescu, I. A., Tomescu, M. (2019). *Improving the quality of life for older people: from smart sensors to distributed platforms*. IEEE CSCS22 - the 22nd International Conference on Control Systems and Computer Science, 28-30 May, Bucharest, Romania, published in the Proceedings of the Conference, pp. 636-642, IEEE Catalog Number: CFP1972U-USB, ISBN-13: 978-1-7281-2331-8, ISSN: 2379-0482, DOI 10.1109/CSCS.2019.00115.
- Dobre, C., Rădulescu, C. Z., Băjenaru, L. (2019). *Parameters weighting in elderly monitoring based on multi-criteria methods*. IEEE CSCS22 - the 22nd International Conference on Control

Systems and Computer Science, 28-30 May, Bucharest, Romania, published in the Proceedings of the Conference, pp. 131-135, IEEE Catalog Number: CFP1972U-USB, ISBN-13: 978-1-7281-2331-8, ISSN: 2379-0482, DOI 10.1109/CSCS.2019.00030.

- Ianculescu, M., Balog, A., Cristescu, I., Iordache, D.-D., Băjenaru, L. (2019). *Latent profile analysis in health research: a case study*. IEEE CSCS22 - the 22nd International Conference on Control Systems and Computer Science, 28-30 May, Bucharest, Romania, published in the Proceedings of the Conference, pp. 649-654, IEEE Catalog Number: CFP1972U-USB, ISBN-13: 978-1-7281-2331-8, ISSN: 2379-0482, DOI DOI 10.1109/CSCS.2019.00117.
- Ianculescu, M., Alexandru, A., Nicolau, N.-D., Neagu, G., Bica, O. (2019). *IoHT and Edge Computing, warrants of optimal responsiveness of monitoring applications for seniors. A case study*. IEEE CSCS22 - the 22nd International Conference on Control Systems and Computer Science, 28-30 May, Bucharest, Romania, published in the Proceedings of the Conference, pp. 655-661, IEEE Catalog Number: CFP1972U-USB, ISBN-13: 978-1-7281-2331-8, ISSN: 2379-0482, DOI 10.1109/CSCS.2019.00118.

IE 2019 International Conference

The vINCI consortium was represented at the 18th International Conference on Informatics in Economy (IE 2019), organized by the Department of Economic Informatics and Cybernetics, Faculty of Cybernetics, Statistics and Economic Informatics from the Bucharest University of Economic Studies with the Romanian Association for Informatics in Economy Training Promotion – INFOREC, and the Romanian Chapter of the Association for Information Systems at Bucharest, Romania, on 30 May 2019.

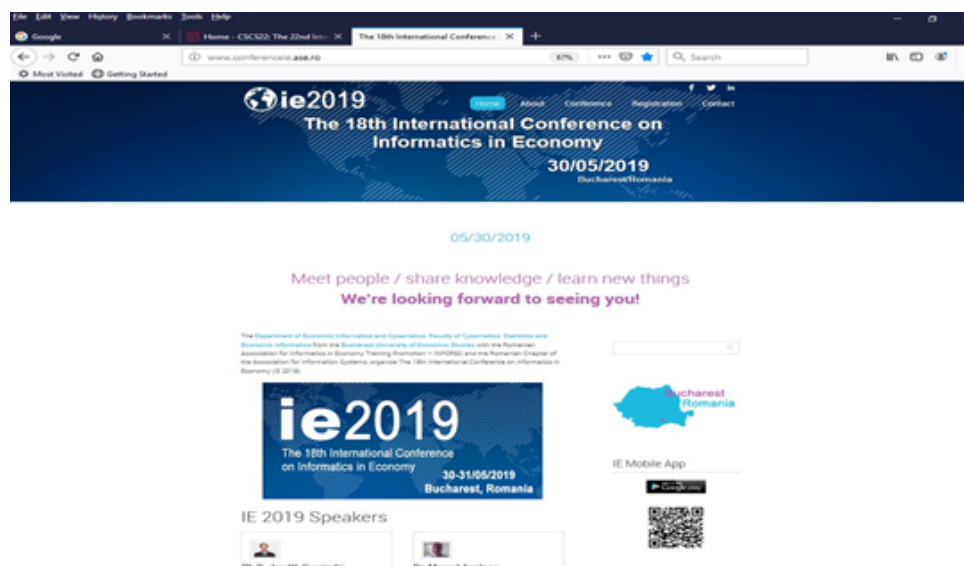


Figure 4.2: The 18th International Conference on Informatics in Economy (IE 2019)

The following paper was presented at the conference, as oral scientific communication:

- Rădulescu, C. Z., Rădulescu, D. M., Tomescu, M. (2019). *An optimization model for sensor procurement in elderly monitoring*. The 18th International Conference on Informatics in Economy (IE 2019), 30 May 2019, published in the Proceedings of the Conference.

Special session at IEEE CAMAD 2019

The vINCI consortium organized a Special Session *SS1 – Ambient Assisted Living and Environments* at the IEEE International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), held on 11-13 September 2019 in Limassol, Cyprus (see <https://camad2019.ieee-camad.org/special-sessions-and-workshops/>).

4.1.2 Articles in journals

- Ciobanu, R.-I., Tabusca, V. C., Dobre, C., Băjenaru, L., Mavromoustakis, C. X., and Mastorakis, G., *Avoiding Data Corruption in Drop Computing Mobile Networks*, IEEE Access, 2019, impact factor: 3.557 (2017), doi: 10.1109/ACCESS.2019.2903018, WOS:000463183100001.
- Constandinos X. Mavromoustakis, Jordi Mongay Batalla and George Mastorakis, Evangelos Markakis and Evangelos Pallis, *Socially-oriented Edge Computing for Energy-Awareness in IoT Architectures*, IEEE Communications Magazine, Volume: 56, Issue: 7, July 2018.
- Alexandru Balog, Lidia Băjenaru, Irina Cristescu, *Aspecte metodologice privind dezvoltarea și validarea scalelor de măsurare în domeniul sănătății (Methodological aspects for the development and validation of measurement scales in health)*, Romanian Journal of Information Technology and Automatic Control- Revista Română de Informatică și Automatică, Vol. 29, nr. 2, pp. 9-18, 2019, ISSN: 1220-1758, DOI: 10.33436/v29i2y201907, WOS:000473688600007.
- Constandinos X. Mavromoustakis, George Mastorakis, and Jordi Mongay Batalla, *A Mobile Edge Computing Model enabling efficient Computation offload-aware Energy Conservation* accepted for publication in IEEE Access, August 2019 [Impact Factor 4.098 at the time this work was accepted].
- Tamara Alshayeh, Constandinos X. Mavromoustakis, Jordi Mongay Batalla and George Mastorakis, *A Hybridized Measurement Methodology for Different Wavelet Transformations Targeting Medical Images in Internet of Things (IoT) Infrastructures*, accepted for publication/appears in Measurement, Elsevier, Volume 148, 106813. <https://doi.org/10.1016/j.measurement.2019.07.041> December 2019 [Impact Factor 3.791 at the time this work was accepted].

4.1.3 Papers in conference proceedings

- T. K. Al-Shayea, C. X. Mavromoustakis, G. Mastorakis, J. M. Batalla, E. K. Markakis and E. Pallis, *On the Efficiency Evaluation of a Novel Scheme Based on Daubechies Wavelet for Watermarking in 5G*, 2018 IEEE 23rd International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), Barcelona, 2018, pp. 1-6. doi: 10.1109/CAMAD.2018.8514968.
- Drăghici, R., Herghelegiu, A. M., Prada, G. I., Rusu, A., Băjenaru, L., Dobre, C., Ianculescu, M., Marinescu, I. A., Tomescu, M. (2019). *How can we increase the quality of life in the elderly with neurocognitive disorders using vINCI technology*. Abstract in the Proceedings of the Alzheimer National Conference 2019, 21-23 February 2019, Willbrook Platinum Center, Bucharest.
- Spinsante, S., Poli, A., Pirani, S., Gioacchini, L. (2019). *LoRa Evaluation in Mobility Conditions for a Connected Smart Shoe Measuring Physical Activity*, 2019 IEEE International Symposium on Measurements and Networking (M&N), Catania (Italy), 8-10 July, 2019.
- S. Spinsante, A. Strazza, C. Dobre, L. Băjenaru, C. X. Mavromoustakis, J. M. Batalla, P. Krawiec, G. Georgescu, G. Molan, H. Gonzalez-Velez, A. M. Herghelegiu, G. I. Prada, R. Drăghici

Conferința Națională Alzheimer 2019
20-25 februarie
Hotelul Intercontinental Bucharest

CONFERINȚA NAȚIONALĂ ALZHEIMER 2019
Willbrook Platinum Business & Convention Center, București, România
SATELLITE SYMPOSIUM

AAL PROGRAMME
VIN

Clinically-validated INtegrated Support for Assistive Care and Lifestyle Improvement: the Human Link (vINCI)

Drăghici Rozeta¹, Prada Gabriel Ioan¹, Rusu Alexandra¹, Herghelegiu Anna Marie¹, Băjenaru Lidia², Dobre Ciprian², Ianculescu Marilena², Tomescu Mihaela², Marinescu Ion Alexandru², Nanuți Alexandru Dragoș³, Georgescu George Eduard³

¹Institutul Național de Gerontologie și Geriatrie "Ana Aslan" București (NIGG)
²Institutul Național de Cercetare – Dezvoltare în Informatică București (ICI)
³Connected Medical Devices SRL (CMD)

www.vinci.ici.ro
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ACTIVE AND ASSISTED LIVING PROGRAMME

Figure 4.3: vINCI presentation at Romania Alzheimer National Conference 2019.

(2019). *Integrated Consumer Technologies for Older Adults' Quality of Life Improvement: the vINCI Project*, 10th Italian Forum on Ambient Assisted Living, 19-21 June, 2019, Ancona (Italy).

- Tamara Alshayeh, Constandinos X. Mavromoustakis, Jordi Mongay Batalla, George Mastorakis, Mithun Mukherjee and Periklis Chatzimisios, *Efficiency-Aware Watermarking Using Different Wavelet Families for the Internet of Things*, IEEE International Conference on Communications (ICC) 2019 in track Communication QoS, Reliability and Modeling Symposium - Communication QoS, Reliability and Modeling, 20-24 May 2019, Shanghai, China (acceptance ratio less than 23%).
- Mithun Mukherjee, Suman Kumar, Mohammad Shojafar, Qi Zhang and Constandinos X. Mavromoustakis, *Joint Task Offloading and Resource Allocation for Delay-sensitive Fog Networks*, IEEE International Conference on Communications (ICC) 2019 in track Communication QoS, Reliability and Modeling Symposium - Communication QoS, Reliability and Modeling, 20-24 May 2019, Shanghai, China (acceptance ratio less than 23%).
- R. Drăghici, A. Rusu, G.I. Prada, A.M. Herghelegiu, L. Băjenaru, C. Dobre, C.X. Mavromoustakis, S. Spinsante, J.M. Batalla, H. Gonzalez-Velez, "Acceptability of digital Quality of Life Questionnaire corroborated with data from tracking devices", IEEE CAMAD 2019 (International Workshop on Computer Aided Modeling and Design of Communication Links and Networks), SS1 - Ambient Assisted Living and Environments: 11-13 September 2019, Limassol, Cyprus.
- L. Hirtan, P. Krawiec, C. Dobre and J. M. Batalla, *Blockchain-Based Approach for e-Health Data Access Management with Privacy Protection*, 2019 IEEE 24th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), Limassol, Cyprus, 2019, pp. 1-7. doi: 10.1109/CAMAD.2019.8858469.
- Rădulescu, C. Z., Alexandru, A., Băjenaru, L. (2019). *Health parameters correlation in an IoT monitoring, evaluation and analysis framework for elderly*. Proceedings of the 23rd IEEE International Conference on System Theory, Control and Computing (ICSTCC 2019), Sinaia, Romania, 9-11 October 2019, pp. 531-536, ISBN: 978-1-7281-0698-4, organized by Faculty of Automation and Computers from Politehnica University of Timișoara, Faculty of Automation, Computers and

Electronics from University of Craiova, Faculty of Automatic Control, Computers, Electrical and Electronics Engineering from "Dunărea de Jos" University of Galați, Faculty of Automatic Control and Computer Engineering from "Gheorghe Asachi" Technical University of Iași and Institute of Electrical and Electronics Engineers Control Systems Society – IEEE. The paper was delivered as oral presentation by Phd. Math. Constanța Zoie Rădulescu.

- Băjenaru, L., Dobre, C., Ciobanu, R.-I., Balog, A. (2019). *Patient Profile Using Ontologies in an Older Adults Monitoring IoT-Based Platform*. Proceedings of the 7th IEEE International Conference on e-Health and Bioengineering - EHB 2019, Iași, Romania, 21-23 November 2019. Oral presentation delivered by Phd. Eng. Lidia Băjenaru.
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- Constandinos X. Mavromoustakis, George Mastorakis, Jordi Mongay Batalla, Joel J. P. C. Rodrigues and John N. Sahalos, *Edge Computing for Offload-Aware Energy Conservation using M2M Recommendation Mechanisms*, appears in proceedings of the 2019 IEEE Global Communications Conference: Communication QoS, Reliability and Modeling - Communication QoS, Reliability and Modeling, GlobeCom 2019, Dec 9, 2019 - Dec 13, 2019, Waikoloa Village, Puako, Hawaii, United States.
- Grace Khayat, Constandinos X. Mavromoustakis, Jordi Mongay Batalla, George Mastorakis, Hoda Maalouf and Mithun Mukherjee, *Tuning the Uplink Success Probability in Damaged Critical Infrastructures*, in proceedings of the 24th IEEE International Conference on Computer Aided Modeling and Design of Communication Links and Networks (IEEE CAMAD 2019), 11-13 September 2019, Limassol, Cyprus.

4.1.4 Poster presentations

- Herghelegiu, A. M., Prada, G. I., Drăghici, R., Dobre, C., Alexa, A., Băjenaru, L. (2019). Poster: *Clinically-validated INtegrated Support for Assistive Care and Lifestyle Improvement: the Human Link - vINCI - Preliminary Report on Clinical Architecture*. International Association of Gerontology and Geriatrics European Region Congress 2019 - IAGGER 2019, 23–25 May 2019, Gothenburg, Sweden.
- S. Spinsante, A. Strazza, C. Dobre, L. Băjenaru, C. X. Mavromoustakis, J. M. Batalla, P. Krawiec, G. Georgescu, G. Molan, H. Gonzalez-Velez, A. M. Herghelegiu, G. I. Prada, R. Drăghici (2019). *Integrated Consumer Technologies for Older Adults' Quality of Life Improvement: the vINCI Project*, 23rd IEEE ISCT International Symposium on Consumer Technologies, Track: ForITAAL 2019, 19-21 June, 2019, Ancona (Italy).

4.2 Dissemination in AAL-related events and to general audience

This section collects information about the dissemination activities towards general audience, i.e. non scientific or technical communities, but mostly the potential customers of the future service/products.

- **Dissemination to primary end-users:** the vINCI project was among the projects selected to be pitched in the framework of the 10th Italian Forum on Ambient Assisted Living (ForITAAL) 2019, held in Ancona, Italy, from 19 to 21 June 2019, during the interactive session titled *Forum*

vINCI
Clinically validated **I**ntegrated Support for Assistive **C**are and Lifestyle
Improvement: the Human Link
connect collate care
vINCI Consortium
Presenter: Annachiara Strazza, Ph.D. - Università Politecnica delle Marche, Ancona, Italy

Abstract
This poster introduces vINCI, an AAL-focused project to develop a conceptual technical platform which integrates consumer technologies with Assisted Living solutions and services for older adults. vINCI shall enable multiple wearable devices work together to dynamically capture life events leading to the decrease in the perceived health-related quality of life, as typically assessed with old age. Underpinned by medical evidence, the vINCI ecosystem will allow older adults not only to self-evaluate their physical activity level, but also to proactively change their behaviour and eventually improve their lifestyle.

Introduction
Inefficient healthcare systems for older adults typically leverage uncorrelated personal information to enable proactive and preventive approaches to disease care, eventually, lower well-being for older adults. While coupled with personal device technologies and medical validation, these systems can receive into personalised assisted living solutions and have positive, measurable impact on different dimensions of an individual health and Quality of Life (QoL).
vINCI encompasses a technical platform where multiple wearable device (WTD) capture the various facets of life events in older adults. Such events can be used to measure the decrease of the perceived QoL, as associated with old age. vINCI middleware anonymously integrate pre-tagged device instructions to monitor a subject's conditions and eventually build personalised behaviour models to evaluate the QoL parameters against a set of potential negative conditions.

Aims
• **remote Aim 1:** Deploy, integrate and enhance existing and standardized IoT technologies with privacy aware cloud services, for personalised monitoring and support for QoL of older adults.
• **remote Aim 2:** Extract and model domain specific knowledge using data analysis for smart follow-up of at-risk aged.
• **near Aim 3:** Enhance and sustain active aging of older adults preventive and rehabilitative technologies approaches for long-term support.

Materials and Methods (Architecture)
The diagram illustrates the vINCI Network architecture. It shows a central vINCI Network cloud connected to various devices and services. On the left, there are icons for 'Personalized Health', 'Personalized Care', 'Personalized Living', and 'Personalized Support'. On the right, there are icons for 'Personalized Health', 'Personalized Care', 'Personalized Living', and 'Personalized Support'. The network is connected to 'Personal Data' and 'Personalized Services'. Below the network, there are icons for 'Personalized Health', 'Personalized Care', 'Personalized Living', and 'Personalized Support'. The network is also connected to 'Personalized Health', 'Personalized Care', 'Personalized Living', and 'Personalized Support'.

Results
First, the vINCI architecture allows participating hardware devices (e.g., watches, smart shoes) to be securely first registered with a unique ID. All data sent by the sensors is then realized using the MQTT protocol by a device gateway which in turn forwards all data to a cloud platform.
Because vINCI provides multiple services/use, for every end-user we have defined a list of sensors that the vINCI platform needs to manage, when, and when associated data returns. Every sensor can indeed be used by multiple services.
The main goal of the vINCI platform is to ensure high availability, scalability and also further development. To meet these requirements, vINCI's model is implemented using a microservices based architecture, such that every microservice can be independently developed from others.
Microservices are usually faster and less expensive to develop than regular monolithic services, as each component has its own database, depending on service needs. Ultimately, the vINCI microservices based architecture ensure high availability and scalability.

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AAL PROGRAMME
Active Ageing Europe Programme
Aging Well in the Digital World

vINCI Consortium
• National Institute for Research and Development in Informatics-IRID
• Marche Polytechnic University-IT
• University of Niassa Research Foundation-CY
• National Institute of Telecommunications-PL
• Connected Medical Devices-RO
• Ancona SR-IT
• Optima Medical Srl-IT
• National Institute of Gerontology and Geriatrics "Anna Ascani"-RO
• Confindustria Digital Services-SI

Website:
<https://vinci.ici.ro>

vINCI
Coordinator: Ciprian DOGHI, ICI Romania
ciprian.doghi@pub.ro

Figure 4.4: Project vINCI Poster Presentation @ForITAAL2019, Ancona (Italy)

Italiano AAL- I ricercatori ed i progettisti incontrano gli utenti (in Italian, meaning: Researchers and designers meet users). The jury was composed by elderly people over the age of 70 who voted



Figure 4.5: vINCI pitching session at ForITAAL 2019 (Dr. Annachiara Strazza from MPU).

the project's pitch based on the following features, on a scale from 1 to 10: clarity of exposure, usefulness of what has been presented, ease of use, stigma sensation using the product, interest in using it, availability to buy it. The project reached a final score of 47/60, with greatest score on

usefulness of the technology proposed, and interest in using it. However, the audience also raised concerns about possible stigma.

- vINCI poster presentation at the European AAL Forum 2019, Aarhus (Denmark), from 23 to 25 September, 2019, delivered by Angelica Poli from MPU.

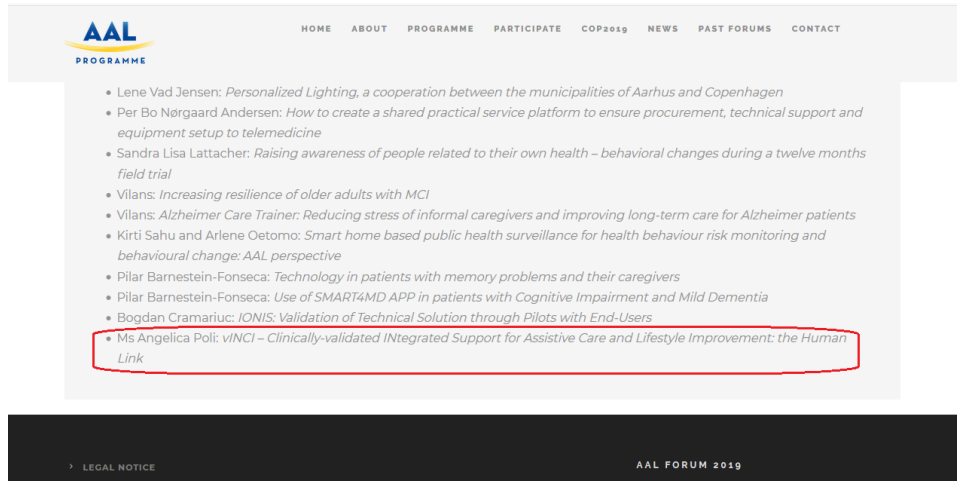


Figure 4.6: Project vINCI Poster Presentation in AAL Forum 2019 Programme.



Figure 4.7: Project vINCI Poster Presentation @AAL Forum 2019, Aarhus (Denmark)

- Participation at the 11th National Congress of Geriatrics and Gerontology with International Participation *The intrinsic capacity of the elderly and active longevity (Capacitatea intrinsecă a vârstnicului și longevitatea activă)*, organized by Ana Aslan National Institute of Gerontology and Geriatrics at Bucharest, Romania, in the period 17 – 20 October 2019, at the *vINCI Project Round Table* – chairpersons: Rozeta Drăghici, Ciprian Dobre, Lidia Băjenaru - with the scientific communication: Dobre, C., Băjenaru, L. (2019). *Integrated Internet of Things (IoT) for e-health services*. National Institute for Research and Development in Informatics - ICI Bucharest.
- The “vINCI- the human link” flyer elaborated in order to be presented by ICI Bucharest at different conferences, workshops and other scientific events:



Figure 4.8: vINCI flyer.

4.3 Industry-related dissemination

Up to this point, there have been a few industry-related dissemination items, mainly pertaining to the single industrial partners of the vINCI consortium, and aimed at anticipating the expected outcomes of the project. As long as the hardware and software development of the vINCI platform and services is carried out, it is expected to increase the industry-related dissemination efforts to better promote the resulting products and services.

4.4 Preparation for integration with external services

To increase the vINCI system’s impact, NIT employees joined the activities of the EBSI - the European Blockchain Services Infrastructure initiative. This initiative, established by the European Commission and the European Blockchain Partnership, aims to develop and deliver EU-wide public services using blockchain technology. NIT participated in two EBSI meetings, where software modules, specifications and planned EBSI platform services were discussed. In this way, a blockchain-based platform for access rights management, which is designed and developed within the vINCI project, will be considered as compatible with the EBSI specification. As a result, the vINCI system will be able to use future services made available under EBSI, such as identity framework.

List of Figures

4.1	IEEE CSCS22 - 22nd International Conference on Control Systems and Computer Science	9
4.2	The 18th International Conference on Informatics in Economy (IE 2019)	10
4.3	vINCI presentation at Romania Alzheimer National Conference 2019.	12
4.4	Project vINCI Poster Presentation @ForITAAL2019, Ancona (Italy)	14
4.5	vINCI pitching session at ForITAAL 2019 (Dr. Annachiara Strazza from MPU).	14
4.6	Project vINCI Poster Presentation in AAL Forum 2019 Programme.	15
4.7	Project vINCI Poster Presentation @AAL Forum 2019, Aarhus (Denmark)	15
4.8	vINCI flyer.	16