

Smart2Go

H2020-ICT-02-2018 Flexible and Wearable Electronics

Smart2Go

Smart and Flexible Energy Supply Platform for Wearable Electronics

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= Deliverable D8.1 = Project website

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CI	Classified, information as referred to in Commission Decision 2001/844/EC	



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V0.1	29/04/2019	Final review
V0.2	30/04/2019	Updated after rejection from EC

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Project Manager	Elena Turco (AMI)	24/04/2019
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Executive Summary

Smart2Go website <u>http://smart2go-project.eu/</u> has been set up in order to increase public awareness of Smart2Go project. Provisional webpage with basic information on the project (i.e. project facts, the publishable abstract, list of partners and contacts) has been operational since January 2019. The whole contents of the webpage is public and complete project information is on-line since 30th April 2019. The Smart2Go website will be actively maintained and updated during the whole course of the project.

The website structure and contents are reported in Chapter 2. General project information, a scheme summarizing the project concept, sessions dedicated to News and events related to the project, "Contact us" forms, Project facts, links to other relevant websites (including Cordis, IEC TC 119 Printed Electronics website, OA-E Organic and Printed Electronics Association website and other EU funded projects in this field) and downloadable dissemination materials like project logo and fact sheet are placed in the Home page.

The website structure is composed by 6 pages and 4 subpages with the aim to target different audience. "Homepage" and "Project team" are for broad public. "Results" including subpages "Glossary", "Public Deliverables", "Scientific publications" and "State of the art overview" are providing information to scientific community, stakeholders and end users. "Impact" page is for broad public and media. The "News and Events" section ensures high the project visibility and returning visitors and "Contact/FAQ" allows broad public to interact with the project consortium. At the bottom right of the website the acknowledgment of EU funding is placed: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825143, project Smart2Go.

The strategy for the maintenance of the project website is described in Chapter 3.

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1. Introduction

Deliverable 8.1 "Project webpage" is part of the task 8.1 Dissemination and communication activities. The objective of this task is to assure that the results of the project will be disseminated to the European research and industrial community. The target audiences will include all important stakeholders in the field of "flexible and wearable electronics" and their potential applications and will assure an on-going communication between general public, scientific community, technicians, experts, media, policy makers, industries, end-users, etc. on one side and partners of the project on the other. One particular aim of the project website is to keep potential interested parties (future users) informed about the Smart2Go energy supply platform by providing general and detailed technical information on the project progress and simplified interface description for integration of the platform.

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In the part 2.2.2 of the Smart2Go DoA it is also reported that: A user friendly website with easy navigation will be set up by the end of month 4. The website will be actively maintained during the lifespan of the project. It will give different audiences access to project's facts and figures, a summary page on progress and achievements and also to downloadable publishable Deliverables, presentations, leaflets and .pdf files of journal publications as well as to press releases and other media outputs. General information about the state-of-the-art of the project's related fields (Flexible and wearable electronics) could be found there as well. It will be globally linked to other relevant websites including other EU funded projects in the domain and EC websites.

The website will be fully operational with public contents (already approved by the coordinator and all partners during the kick-off meeting) on 30th April 2019. First functionalities were presented to project partners during the PSC teleconference on 16th April 2019.

2. Smart2Go website structure

The website has been created in Open Source software called WordPress. WordPress started as a blogging system, but has evolved to be used as full content management system, that is completely customizable and can be used for almost anything within the field of web design. It allows fast and reliable customization and user-friendly back-office environment which is a key for the website updates and file uploads.

The content of individual pages is divided in 5 parts (frames): heading with project's logo, search tool and navigation menu with titles of the pages and subpages (visible as soon as moving the mouse on the page title), the central area divided into 3 parts with on the left side the main contents and two columns on the right side (one for News and events and the other with contact form), on the bottom 4 frames are dedicated respectively to Project facts, Links, Downloads and the acknowledgment of EU funding with EU flag. The heading's and bottom page's visualisation remains constant on all pages.

The main navigation menu is placed at the top of the central area and includes the following sections (with their respective subsections): Home, Project team, Results (sub-pages: Glossary, Public Deliverables and Scientific publications), Impact, News and Events (sub-page: State of the art overview) and Contact/FAQ. Scientific publications that present Smart2Go results will be openly accessible both through the Smart2Go website (link to the downloadable pdf file) and at the website of the OPEN ACCESS publisher.

2.1. Home page

A short project overview is in the central area; the use of a simple language and the picture with animation, summarizing the Smart2Go concept, make those contents targeted to a broad public. News related to the project (i.e. meetings, press releases, relevant contents and publications, etc.) will be visible on the right side as well as the Events where users can interact with project partners (participation to events, conferences, exhibition, etc.). On the right side the users can send emails to the Project Coordinator or Project Manager just clicking on the corresponding box or sending a message using the text box below

The Smart2Go homepage provides some basic information on the project in the bottom frame "Project facts" (i.e. Start date, Duration, EU funding, Type of Action and Grant Agreement number).

In the "Links" frame the following links are available:

- Cordis website (<u>https://cordis.europa.eu/project/rcn/219473/factsheet/en</u>) official information about Smart2Go results
- IEC TC119 Printed Electronics (<u>https://www.iec.ch/dyn/www/f?p=103:7:0::::FSP_ORG_ID:8679</u>) standardisation body relevant for flexible electronics
- OE-A (Organic and Printed Electronics Association) (<u>https://oe-a.org/web/oe-a/</u>) the OE-A gathers flexible and organic electronics industry from material suppliers to end users
- Lyteus project (<u>https://lyteus.eu/</u>) Open Access Pilot Line for Flexible OLED Lighting linked to Smart2Go through using Lyteus OLED in the Safety Garment Demonstrator
- SINTEC project (<u>http://www.sintec-project.eu/</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur
- WEARPLEX project (<u>https://cordis.europa.eu/project/rcn/220257/factsheet/en</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur
- BEWELL project (<u>https://h2020bewell.eu/project/</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur
- A-patch project (<u>https://cordis.europa.eu/project/rcn/220355/factsheet/en</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur
- SocketSense project (<u>https://cordis.europa.eu/project/rcn/219913/factsheet/en</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur
- WEAFING project (<u>https://www.weafing.eu/</u>) project funded under ICT-02-2018 (same topic of Smart2Go), clustering activities can occur

In the "downloads" area partners and visitors will find the dissemination materials used to present and promote the project outside the Consortium those contents were already approved by all the partners.



2.2. Project team

In the Project team webpage all the 11 Smart2Go partners are presented with their corresponding organization full name, short name, country and website. This page contains all the partners' logos and interactive links to their institutional websites. The aim of this page is to provide high visibility to the project partners, in particular for the participating SMEs and industrial partners, also highlighting their high level cross-disciplinary competencies. The list of the EAB members with their institutions is also reported in the Project team webpage.

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ject t		hers and companies) involved in flexible electronics and energ		aina and storage :	as well	as 2 partnors w	ith yon/
enging pr	oduct use scenarios, validating the platform	as suitable for multiple needs.	Jy scaver	ging and storage, a	as wei	as 2 partners w	th very
1	Fraunhofer	Fraunhofer Institute for Electron Beam and Plasma Techr	nology	Short name: FEP		Country: DE	Websit
2	VTT	VTT Technical Research Centre of Finland Ltd		Short name: VTT		Country: FI	Websit
3	JOANNEUM RESEARCH MATERIALS	JOANNEUM RESEARCH Forschungsgesellschaft mbH		Short name: JOR		Country: AT	Websit
4	Southampton	University of Southampton		Short name: UOS		Country: UK	Websit
5	C Tampere University	Tampere University of Technology – TTY-Säätiö		Short name: TUT		Country: FI	Websit
6		ARMOR		Short name: ARM		Country: FR	Webs
7		VARTA Microinnovation		Short name: VMI		Country: AT	Webs
8	Атоміс	ATOMIC		Short name: ATO		Country: AT	Webs
9	HILY MARKEN WORK Wear	Helly Hansen Workwear		Short name: HH		Country: NO	Webs
10	TReliC	Trelic		Short name: TRE		Country: FI	Webs
11	AMIRES	AMIRES s.r.o.		Short name: AMI		Country: CZ	Webs

The Smart2Go External Advisory Board (EAB) is setup with the aim to receive support in the following aspects: 1) Exploring new applications and interaction with the end-users; 2) Interaction with industrial integrators and manufacturers; 3) Standardization and pre-normative activities and 4) Networking, clustering and interaction with SMEs associations. The Smart2Go EAB members are:

- 1. Dr. Alan Hodgson, Chair of IEC TC 119 (Printed Electronics), responsible for standardization of terminology, materials, processes, equipment, products and health/safety/environment in the field of printed electronics
- 2. Prof. Dr. Ulrich Moosheimer, Professor for Printing Technologies at Munich University of Applied Sciences, providing advises regarding Design of new Flexible Electronics and as jury panel of the Smart2Go Design Contest on new applications
- 3. Mr. Pekka Makkonen, CEO at Flexbright Ltd, providing flexible hybrid LED-lighting foils with high technical performance. The company has a roll-to-roll hybrid integration process line at Oulu, Finland site. Potential Smart2Go integrator and industrial manufacturer of the Smart2Go platform.
- 4. Dr. Klaus Hecker, Managing Director of the Organic and Printed Electronics Association (OE-A), supporting the project in networking and interaction with SMEs and industries.
- 5. Dr. Nico Meyer, R&D Manager at Coatema Coating Machinery, providing support from machine perspective on the process (R2R coating) to ensure that Smart2Go processes are scalable to pilot and later industrial scale.
- 6. Mr. Andrea Nardi, fashion coordinator at the European Design Institute (Florence office), representing Design Network and as jury panel of the Smart2Go Design Contest on new applications

2.3. Results

The publishable project achievements will be made available in the "Results" webpage, targeted to Scientific Community, technicians, experts, designers, end users, potential customers/investors and other stakeholders. Visual contents will help to explain the scientific achievements. The page will be updated as soon as relevant publishable results, not infringing the IPR of partners, will be obtained during the whole project duration. At the moment, the "Results" page contains the project objectives and the expected features of the Smart2Go demonstrators.

In the subpage, a Glossary with Smart2Go abbreviations and acronyms is reported providing to the end users some tools to interact with the project. In the subpages, Public deliverables will be uploaded the peer reviewed publications and articles that will be made available in Open Access. The Scientific Publications webpage is considered one of the Open Access repository for the project publications.



This aim will be achieved by the combination of a powerful, thin and scalable battery with appropriate energy harvesting technologies. Each unit will be capable for a storage capacity up to 110 mWh (10 cm² area). All the performances will be retained after bending. The project will also develop ultrathin and lightweight films that will provide protection against environmental and mechanical impacts, handling and radiation. A roll-to-roll manufacturing process for the integration of all the components into the Smart2Go energy supply platform will ensure suitable production capacity with low manufacturing costs.

The performance of the Smart2Go energy supply platform will be demonstrated in two application cases: (1) sport equipment integrating Smart2Go platform and pressure sensitive array and (2) safety garment integrating Smart2Go platform and lighting technologies (OLEDs). They represent a challenge for the demonstration of the Smart2Go platform reliability in extreme environment (i.e. cold temperature, snow, rain, etc.) and a proof of the technical feasibility of the Smart2Go solutions.

Smart2Go project has a duration of 36 months, please, stay updated about the upcoming project results!



2.4. Impact

The Smart2Go "Impact" webpage provides to the visitor an overview of the context of the project (flexible and wearable electronics) and the Smart2Go innovation level and added value. The target audience of such page include both broad public and media and has the aim to create awareness about the project objectives and impact.

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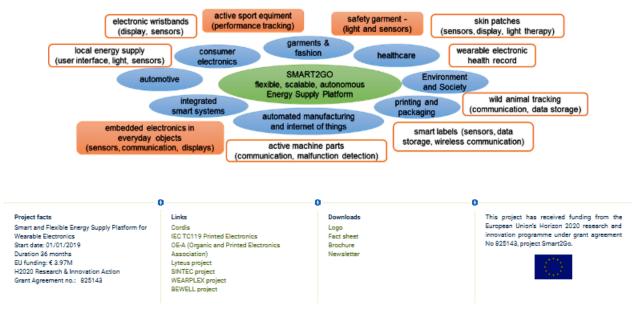
F40

Impact

The widespread introduction of wearable devices is expected to be one of the major trends in the next one or two decades. First applications have already entered the market, like e.g. the smartwatch from Apple or various types of fitness trackers. Wearables will generate completely new opportunities for sensing (e.g. vital parameter monitoring), mobile data storage wireless communication and internet of things. Apart from legal topics, like e.g. data security, there are also technological bottlenecks. Today, design and appearance are significantly limited by given geometries of state-of-the-art components. Therefore, making devices thinner, safer, flexible and easy to integrate are major goals of current research and development activities. Presently various obstacles still hinder the expected rapid development. The energy supply to wearable devices is probably the most serious challenge among these technological bottlenecks.

Smart2Go addresses this technical challenge. The special feature of Smart2Go is the standardization of the interfaces within the platform. This will enable manufacturers to easily adapt it to various different application. Smart2Go project will integrate several technologies (energy harvesting, energy storage, and energy management) in one modular platform, where the different components (OPV, TE cells, supercapacitors) and functionalities, (piezo sensors, lighting technologies) can be easily replaced to serve many different applications in the area of flexible and wearable electronics

The Smart2Go energy supply platform will have an impact to a wide range of industries and product use cases. Further industrial exploitation potential will be identified through linking additional applications via the Smart2Go design contest and support from the external advisory board members



2.5. News and Events

The webpage "News and Events" contains details of dissemination activities, press releases, publications and events as well as announcements of Smart2Go meetings, design contest and other initiatives able to promote the project at wide level. The 1st project News is reported.

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Ready, set, go! Smart2Go project left the starting blocks!

April 23, 2019

The Smart2Go project, officially started on 1st January 2019, organized its first meeting on 14-15 January 2019 in Dresden (Germany) at the Fraunhofer FEP Institute. Smar

t2Go is a project funded by the European Union's Horizon 2020 research and innovation programme aiming at the development of an autonomous energy-supply platform. Based on the results of the project it will be possible to use a wearable without caring about recharging over its entire lifetime. More information about the project can be found at www.smart2go-project.eu (full version available in April 2019).

During the meeting, 9 EU innovation performers (researchers and companies) involved in flexible electronics and energy scavenging and storage and 2 industries with very challenging product use cases discussed the work plan for the development of materials and components to be integrated in the energy storage and harvesting system.

The participants had also the opportunity to visit the laboratories of the Fraunhofer Institute for Organic Electronics. The institute offers a broad range of research, development and pilot manufacturing opportunities, especially for the treatment, structuring and finishing of surfaces as well as for OLED microdisplays, organic and inorganic sensors, optical filters and flexible OLED lighting.

External experts in the field of standards for printed electronics, design and development of flexible electronics based products and R2R coating, printing and laminating manufacturing processes also participated to the Smart2Go meeting. The Smart2Go External Advisory Board (EAB) is set up with the aim to receive support in the following aspects: 1) Exploring new applications and interaction with the end-users; 2) Interaction with industrial integrators and manufacturers; 3) Standardization and pre-normative activities and 4) Networking, clustering and interaction with SMEs associations.



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Project Meeting January 15, 2019 | Dresden

Edit This

Project facts Smart and Flexible Energy Supply Platform for Wearable Electronics Start date: 01/01/2019 Duration 36 months EU funding: € 3.97M H2020 Research & Innovation Action Grant Agreement no.: 825143 Links Cordis IEC TC119 Printed Electronics OE-A (Organic and Printed Electronics Association) Lyteus project SINTEC project WEARPLEX project BEVIEL (croint Downloads Logo Fact sheet Brochure Newsletter

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825143, project Smart2Go.



In the sub-section "State of the art overview" (now under construction) scientific articles, links, publications, patents and commercial products related to the Smart2Go topics will be collected with the aim to offer to the visitors of the website an overview of existing technologies and solutions, as a base of a preliminary benchmarking of the Smart2Go results.

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The pages "News and Events" and "State of the art overview" will be continuously updated till the end of the project with inputs from partners and from the External Advisory Board members (including from OE-A Organic and Printed Electronics Association).

2.6. Contact / Frequent Asked Questions

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The Smart2Go webpage Contact / Frequent Asked Questions provides to the end users some tools to interact with the project: asking for some clarifications about the contents and establishing contacts for further networking and clustering activities related to Smart2Go topics. The questions and visitors information (treated following the GDPR principles) will be collected by the Project Manager and forwarded to the most suitable expert in the project, depending on the nature of the request and topic. The visitors will provide basic information about their profile to receive ad hoc explanations and targeted answers. The collected FAQ could be used as a base for interacting with potential customers.

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Contact perso Name Organisation Email If you would lik	Dr. 1 Frau	rdinator: Matthias Fahland Jnhofer Institute for thias.fahland@fep.t imart2Go, ask a que	fraunhofer.de		nnology A tu	v roject Manager: ilena Turco iMIRES s.r.o. urco@amires.eu v:
Name					Your profile	*
Surname Your company Email Website Your message	/ institution name				 Industry (i Designer Association 	s & regulation bodies
Privacy staten	nent					
Please read ou	r privacy statement					
I understand	I					
Submit						

3. Maintenance of the Smart2Go website

Website of the Smart2Go project will be actively maintained and updated on a regular basis during the project life span. In particular, the News and Events, Downloads area, "Results" and corresponding subpages "Deliverables" and "Publications", and "State of the art overview" will be continuously updated with inputs from partners. Before publication, any content will be approved by the Consortium to avoid any IPR infringement.

Beyond the periodic updates and publication of results two other activities need to run in parallel. Firstly, constant security checking and control is needed to protect all sensitive data uploaded onto the server of the Czech provider Active24 (http://www.active24.cz). This will be assured by generation of secure login details and by continuous adaptation of WP plugins and add-ons in order to avoid any sensitive data leakage. Special attention will be given to random search engines crawlers, which download any accessible documents and retain them for long periods in their cache system (even erased documents). This activity will last for the project duration and beyond. Secondly, further optimisation of the website will ensure its positioning among first search results for relevant keywords.

4. Conclusions

Smart2Go website <u>http://smart2go-project.eu/</u> has been set up following the requirements defined in the Task 8.1 Dissemination and communication activities and section 2.2.2 of the DoA. The website has the aim to increase public awareness of Smart2Go project. The target audiences will include all important stakeholders in the field of "flexible and wearable electronics": i.e. general public, scientific community, technicians, experts, media, policy makers, industries, end-users, etc.

Basic information on the project and its impact can be found on the website as well as public deliverables, publications and results. Visitors of the web page can easily ask consortium questions using the Contact form. Some basic information about the Smart2Go partners and EAB members can be found as well.

The website structure is composed by 6 pages and 4 subpages: "Homepage", "Project team, "Results" with subpages "Glossary", "Public Deliverables" and "Scientific publications", "Impact", "News and Events" with subpage "State of the art overview" and "Contact/FAQ". The whole content of the webpage is public.

Provisional webpage with basic information on the project (i.e. project facts, the publishable abstract, list of partners and contacts) has been operational since January 2019. The whole contents of the webpage is public and complete project information is on-line since 30th April 2019. The Smart2Go website will be actively maintained and updated during the whole course of the project.

5. Degree of progress

The development of the project's website is to 100% fulfilled. The maintenance and update of the website will be carried out during the whole course of the project.

6. Dissemination level

The Deliverable D8.1 "Project website" is public and therefore it will be available to download on the project's website and on demand.