HORIZON EUROPE PROGRAMME

TOPIC HORIZON-CL4-2022-RESILIENCE-01-24

GA No. 101091572

Graphene, MXene and ionic liquid-based sustainable supercapacitor



GREENCAP - Deliverable report

D6.1 – Communication toolbox





Deliverable No.	GREENCAP D6.1	
Related WP	WP6	
Deliverable Title	Communication toolbox	
Deliverable Date	2023-03-31	
Deliverable Type	DEC	
Dissemination level	Public (PU)	
Author(s)	Pjotr Derksen (UNR)	2023-02-28
Checked by	Alessandra Lucini Paioni (UNR)	2023-03-16
Reviewed by (if applicable)	Sebastiano Bellani (BED)	2023-03-29
Approved by	Francesco Bonaccorso (BED) - Project coordinator	2023-03-30
Status	FINAL	2023-03-30

Document History

Version	Date	Editing done by	Remarks
V1.0	2023-03-16	UNR	
V2.0	2023-03-29	BED	



Summary

The Horizon Europe GREENCAP project aims to unlock the full potential of supercapacitors (SCs) as electrochemical energy storage systems, supporting the transition towards the climate-neutrality set by the EU's international commitments under the Paris Agreement, while ensuring the targets of EU's Action Plan on Critical Raw Materials (CRMs). By exploiting layered 2D materials, including graphene and MXenes as electrode materials, and ionic liquids (ILs) as high-voltage electrolyte, GREENCAP will develop a CRM-free SC technology exhibiting a battery-like energy density (>20 Wh/kg, >16 Wh/L), together with the distinctive superior power densities and high cycle life of traditional electrochemical double layer capacitors.

This deliverable D6.1, describes GREENCAP corporate identity, which consists of the following items:

- A project logo and colour scheme;
- Templates for documents, reports, and PowerPoint to be used by the consortium;
- A project flyer/leaflet and banner created specifically for the project;
- Electronic newsletters, which will be released on a 6-monthly basis;
- The project website;
- Other communication products to generate the GREENCAP identity (e.g., LinkedIn).

The templates are created to support project presentations, deliverables, meeting documents, and reporting requirements. For GREENCAP, a website and a LinkedIn page have been set up. The LinkedIn page is used to attract a broad audience and to share important and interesting information *via* posts, whereas the website will act as a main channel to showcase GREENCAP actual results and act as a contact point for third parties who are interested in the progress and outcomes of the project.

The deliverable also explains the importance of a unique corporate identity for the project and what the items of the identity will be used for. All items addressed in this deliverable will be accompanied by visuals of each of the developed items.



Contents

1	Intr	oduction	5
2	Pro	ject Identity	6
	2.1	Project Logo	6
	2.2	Project Flyer	7
	2.2.	1 GREENCAP Banner	9
3	Pro	ject Templates	
	3.1	Document Templates	
	3.2	Newsletter Template	12
	3.3	PowerPoint templates	13
	3.4	Reports	14
4	Pro	ject Website & Social Media	15
	4.1	Website structure and homepage	15
	4.2	Website sections	17
	4.3	GREENCAP LinkedIn Account	19
5	Dev	viations from Annex 1	20
6		nowledgement	
Ü	7 ten	inowica general	21
Li	st of	Figures	
		1 – GREENCAP Logo	6
		.2 – GREENCAP Icon	
Fig	gure 2.	.3 – GREENCAP Colour scheme	7
Fig	gure 2.	4 – GREENCAP flyer: outside	8
Fig	gure 2.	.5 - GREENCAP flyer: inside	8
Fig	gure 2.	.6 - GREENCAP Banner	9
Fig	gure 3.	1b -GREENCAP Minutes template	10
Fig	gure 3.	.2 - GREENCAP Deliverable template	11
Fig	gure 3.	.3 - News (left) and result (right) item template	12
Fig	gure 3.	.4 - GREENCAP Newsletter template	13
Fig	gure 3.	.5 - GREENCAP WP presentation template	13
Fig	gure 3.	.6 - Internal report template	14
Fig	gure 4.	.1 - GREENCAP Website Homepage	16
_		.2 - Website partners section (top) and example of partner description (bottom)	
		.3 - EU funding acknowledgement	
		.4 - GREENCAP LinkedIn Page	



1 Introduction

This deliverable is the first deliverable for Work Package 6 – Communication, Dissemination, and Exploitation. The overall aim of WP6 is to make certain that the achieved results and the impact of the research done during the GREENCAP project will be promoted to the widest possible group of potential users. To make sure it will be maximized to the fullest, the following objectives have been identified for WP6:

- To set-up and maintain adequate dissemination and external communication activities;
- To prepare a set of dissemination materials, which will include presentations, a final brochure and a flyer;
- The promotion of the utilisation of the project results inside and outside the consortium, with use of an exploitation plan;
- To set-up proper channels for knowledge protection;
- To set-up and follow-up on adequate exploitation activities;
- To focus on business development and case studies;
- To establish a sounding board for the GREENCAP project.

This deliverable focusses on the necessary tools and materials to inform a broad stakeholder base. The establishment of a corporate identity, such as a project website and dissemination materials, and the planning of dissemination activities created for the identified target groups are vital. The dissemination activities include:

- Promotion tools, to be generated throughout the project;
- Online communications (project website and LinkedIn);
- Project animation/video;
- Networking with professionals and presentations at conferences/events;
- Press releases and articles in specialised magazines and scientific journals;
- Outcome of multiple dissemination tools (as described in this deliverable).

Dissemination of the project is an important process as it promotes and raises awareness of the project from its start till the project ends. Other projects who might be interested in the topic and in the project itself as well as a broad stakeholder base (such as professional organisations, industries, research peers, and policymakers) will be able to find the project through the dissemination process.

Additionally, the following target groups will be monitored for dissemination purposes: nanomaterials manufacturers, automakers, supercapacitors manufacturers, energy industry, automotive and transportation industry, electronic companies, policy makers, research community, the media, and the general public.

This deliverable document for task 6.1 describes the creation of the GREENCAP logo (with colour scheme), various presentation/document templates, the creation of the project flyer, and the website, which have been created for the GREENCAP corporate identity. The corporate identity is important for consistent and recognisable communication and dissemination by the consortium of the project. It will also generate a unique image for the project. The project identity and dissemination tools were developed by Uniresearch (UNR), with contributions from all partners.



2 Project Identity

For the project GREENCAP, a graphical project identity has been developed with visual elements to represent the project. The graphical identity includes a project logo, an icon designed for the project, fonts, colours and templates for text documents as well as presentations (the templates are described in chapter 3).

2.1 Project Logo

An exclusive logo (Figure 2.1) and icon (Figure 2.2) for the GREENCAP project has been created in several formats and different resolutions, so it can be used for the dissemination tools (website, templates, flyers, etc.). As the logo has been designed with specific colours, a colour scheme has been established for UNR to create templates and other dissemination tools coherent with the logo as seen in Figure 2.3.



Figure 2.1 – GREENCAP Logo



Figure 2.2 – GREENCAP Icon









Figure 2.3 – GREENCAP Colour scheme

2.2 Project Flyer

A project flyer has been created for the GREENCAP project in March 2023. The flyer will be an important dissemination tool as it will create awareness of the project and will be used for workshops and events related to the project. The online flyer document as well as printable copies are available for the consortium partners on the website and the online sharing platform Mett (the platform is explained in chapter 4.2). The colours and graphics on the flyer match the logo to remain consistent with the project identity. The document itself contains important and easily understandable information regarding GREENCAP; the outside of the flyer (Figure 2.4) displays the partners, facts and figures, contact details of the project coordinator and management as well as the logo and link to the project website. The inside of the flyer (Figure 2.5) displays the project key message and the impact of the project's goal, accompanied with a banner image designed for the project (explained in chapter 2.2.1).





Figure 2.4 – GREENCAP flyer: outside

Key message

GREENCAP will design, develop, and prototype in industrial lines high-performance and sustainable layered two-dimensional (2D) materials and ionic liquids-based cylindrical supercapacitors with their own management system that 1) exhibit a battery-like energy density (i.e., >20 Wh/kg, >16 Wh/L), 2) retain the distinctive superior power densities (>1000 W/kg, >500 W/L) and high cycle life (>1000000 charge/discharge cycles) of traditional SCs, i.e., electrochemical double layer capacitors, 3) eliminate the use of CRMs, aiming at reaching TRL 6.

2D electrode materials



GREENCAP Approach

GREENCAP will establish an entire manufacturing chain, considering

- scalability and sustainability of novel CRM-free 2D electrode materials and ionic liquid (IL)-based electrolytes, produced at industrial scale by means of CRM-free materials, while guaranteeing reproducible characteristics.
- synergic coupling between layered 2D materials and IL-based electrolytes, whose interaction results in electrochemical charge storage mechanisms leading to high electrode performances in terms of capacitance/capacity and charge/discharge cycling stability.
- scalability and sustainability of electrode fabrication and SC assembly, feasible in industrial SC manufacturing lines.

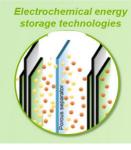




Figure 2.5 - GREENCAP flyer: inside



2.2.1 GREENCAP Banner

A banner image has been designed for the GREENCAP project. The banner displays the progress and overall goal of the project in a visual way as seen in Figure 2.6.

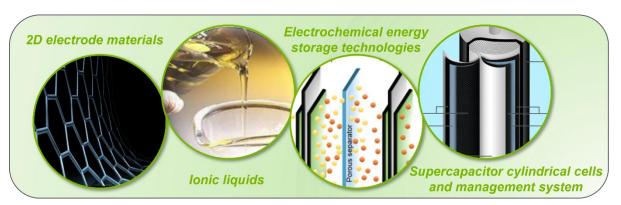


Figure 2.6 - GREENCAP Banner



3 Project Templates

To remain consistent with the layout of documents with the correct use of GREENCAP's project identity, a set of templates has been developed. The templates are important for the project management and to partners as it supports them in the activities required for the project.

3.1 Document Templates

Document templates have been created for a variety of activities during the project:

- Template Agenda for meetings: Figure 3-1a displays the created template of the agenda.
- **Template Minutes for meetings:** Figure 3-1b displays the created template of the minutes.

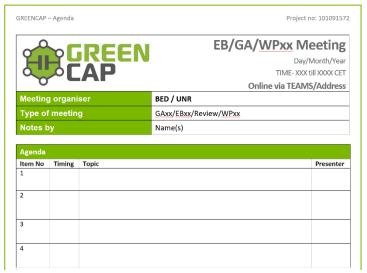


Figure 3.1a - GREENCAP Agenda template

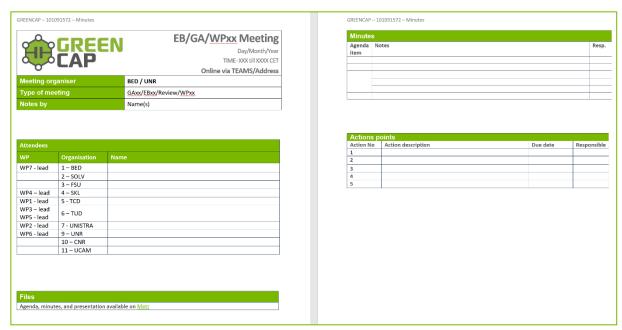


Figure 3.1b -GREENCAP Minutes template



• Deliverable and Milestone templates: have been designed and made available to the partners to use for the project deliverables (see Figure 3.2). All necessary parts of the reports, such as front/title page, executive publishable summary (when the document is confidential), general part of the work performed, conclusions, risk registry, and acknowledgement have been included in order for the partners to write about specific deliverables. Additionally, a template for the achieved milestones has been created. It is a straightforward document to report what has been achieved, how it has been achieved, when, and by whom.



Figure 3.2 - GREENCAP Deliverable template

• News item templates for results and events: have been created for dissemination purposes. Partners are requested to use these templates to write an item on (intermediate) results that have been achieved for the project and to write an item on an event that has been attended by a project partner to represent the project (Figure 3.3).





Figure 3.3 - News (left) and result (right) item template

3.2 Newsletter Template

In GREENCAP, every 6 months, an electronic newsletter will be published for the general public. The newsletter will be sent to the consortium and the newsletter subscribers. The newsletter will contain an update about the project's progress from the coordinator, results that have been achieved during the last 6 months, events that have been attended by the project partners, and other important information about GREENCAP and/or related items. The content of each newsletter will be: 1) non-confidential, 2) accompanied by visuals, 3) will include a sentence to acknowledge the EU funding as explained in chapter 4.1.7, and 4) the GREENCAP logo. The template for newsletter is displayed in Figure 3.4





Figure 3.4 - GREENCAP Newsletter template

3.3 PowerPoint templates

Different presentation templates have been designed in order to create presentations for meetings and conferences. A template has been created for the WP presentation updates to be used for the GREENCAP General Assemblies and for the monthly project Executive Board meeting (EB) as seen in

Figure 3.5





Figure 3.5 - GREENCAP WP presentation template



3.4 Reports

To monitor the financial and technical activities of partners during the project, an internal interim report procedure has been defined. With intervals of 6 months, partners will be requested to provide an update on the performed activities and effort consumed (both in terms of PM and budget). To monitor the financial activities, the project makes use of the monitoring system <u>EU-FIN</u>. To monitor the technical activities, templates have been prepared by UNR for partners to report their technical activities and other important activities. The template for the internal interim report is displayed in Figure 3.6 below. Additionally, a template for the Periodic Reporting (technical part) will be set-up by UNR and distributed among the consortium with instructions 2 weeks prior to the first periodic reporting (M18).

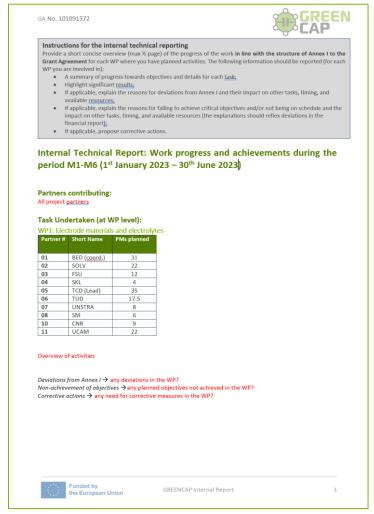


Figure 3.6 - Internal report template



4 Project Website & Social Media

In M4 of the project, the GREENCAP public website will be launched under the domain: www.greencap-project.eu. The website has been designed by partner UNR with input from the project partners. It will act as a platform to showcase GREENCAP's results and as a contact point for third parties who are interested in the progress and outcomes of the project. All information displayed on the project website is and will be updated and maintained on a regular basis. Additionally, an internal document sharing platform (Mett) is used among the GREENCAP consortium to exchange documents in a restricted and safe (online) environment (further explained in chapter 4.2).

4.1 Website structure and homepage

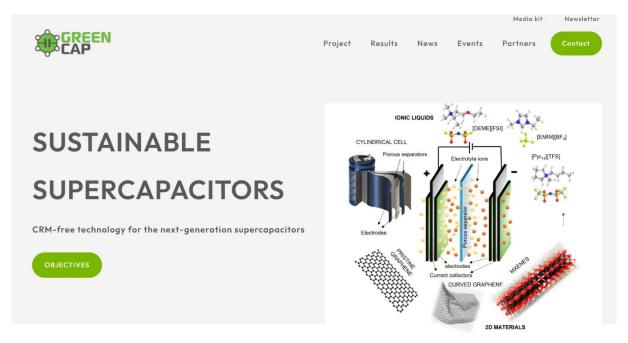
The public website structure includes information about GREENCAP and its objectives, planned actions from the Work Packages and impact. The website is designed to be very user-friendly, and the layout needs to be straightforward and easy to navigate to allow visitors to easily find information about the project. To achieve this, the website is designed as a scrollable webpage, with six main tabs: Project, Results, News, Events, Partners. And Contact.

The homepage layout and topic sections will allow visitors to go through the main aspects of the project by scrolling down through the page. The main aspects on the homepage are:

- 1. The GREENCAP short title and main project picture.
- 2. A short project introduction where the EU and GREENCAP consortium are mentioned, with links to the project's objectives, stricture, concept and facts & Figures.
- 3. A link to a featured article.
- 4. GREENCAP News.
- 5. Facts and Figures of the project.
- 6. GREENCAP Partners with links to the partners' specific page
- 7. Media kit
- 8. Links to a contact form to get in touch with the project coordinator and management.
- 9. EU acknowledgment and disclaimer

The website has an attractive format supported by a considerable number of hyperlinks. On the left side of the page, direct links to newsletter and project LinkedIn account are available allowing visitors to easily share the website content on these platforms. Figure 4.1 displays a screenshot of the first sections of website homepage.





<u>GRAPHENE</u>, MX<u>ENE</u> AND IO<u>N</u>IC LIQUID-BASED SUSTAINABLE SUPERCAPACITOR

The EU project GREENCAP will develop a CRM-free technology to produce high-performance and sustainable supercapacitors, which exploit layered 2D materials, including graphene and MXenes as electrode materials, and ionic liquids as high-voltage electrolyte.

GREENCAP joins a multi-disciplinary consortium with 5 Universities, 1 R&D Institute, 5 companies, located in 7 European countries including Italy, Germany, France, Ireland, United Kingdom, Estonia, and the Netherlands, to unlock the full potential of supercapacitors (SCs) as electrochemical energy storage systems.



Figure 4.1 - GREENCAP Website Homepage



4.2 Website sections

The main section "Project" gives an overview of the GREENCAP concept, goal, results, and general information. Details are provided in each subsection:

- About GREENCAP
- Objectives
- Concept
- Approach
- Structure
- Results
- Facts & Figures
- Publications

In the "Results' section, an interactive timeline with project updates is shown. Results are ordered by month of achievement.

Under the **section "News"**, items related to the project, or its partners will be added on a regular basis. Examples of News items include press releases, participations in workshops, conferences and other meetings, updates on intermediate results, and any other initiatives related to the project from the consortium partners.

Section "Events" will be regularly updated with upcoming (online) conferences, seminars, symposia, workshops, GREENCAP General Assemblies, and any other interesting events which are directly or indirectly related to the project and which project partners will attend. Events which have already taken place in which partners have participated will also be listed on the Event page.

The "Partners" section provides information on each of the partners of the GREENCAP project. The section provides a list of the partners, the geographical location of the partners is shown in a map, and the partner logos are displayed. An overview of the content and style of the Partner page is given in Figure 4.2. Visitors can click on a logo and bring up a short description of the organisation, an explanation of their role in the project, and a link to their company website (Figure 4.2).

The EU funding acknowledgment is found at the bottom of every page and section of the website as seen in Figure 4.3. The acknowledgement consists of the European Union Flag and the text "Funded by the European Union".

Additionally, a disclaimer/copyright page has been included on the website, which indicates that the provider of the GREENCAP website (UNR) is not responsible for the accuracy or content of information contained in these sites.





Figure 4.2 - Website partners section (top) and example of partner description (bottom)

BEDIMENSIONAL S.P.A.

ORGANISATION INTRODUCTION

BeDimensional S.p.A. (BED) is a privately held company which was born in 2016 from the Technological Transfer program of the Italian Institute of Technology (IIT), inspired by the initiative of leading worldwide researchers in the field of graphene and two-dimensional (2D) materials. The core of our technology is pillared around a patented methodology (wet-jet milling exfoliation) for the production high-quality 2D materials, in both liquid dispersions and powders form. Our R&D and Production teams are composed of 22 people with different multidisciplinary skills. Our researchers are specialists in chemistry, physics, material science and engineering, accredited by prominent academic institutions all over the world, having several years of professional experience in private and public R&D environments. We formulate functional inks and paints for smart coatings containing 2D materials with tunable electrical, thermal and barrier performances set by design. Our ambition is to bring our technologies into industrially relevant, inexpensive, reliable printing/coating processes and create a new portfolio of environmentally friendly inks and paints to yield a new level of smartness to products for energy storage and conversion applications. Today a pilot industrial line with a productivity of 0.2 tons/year is operative and in its fully operational industrial line at 1.5 tons/year by the end of 2023.

WHY THIS PROJECT?

BeDimensional is currently working on the development of supercapacitors using advanced electrode formulation based on highpurity few-layer graphene. By controlling the nanotribological



\rightarrow VISIT OUR WEBSITE

"GREENCAP will help us to identify cutting-edge energy storage solutions that will overcome the boundaries of today's technology, powering the energy transition for a sustainable future.

© 2023 GREENCAP

The information and views set out on this website do not necessarily reflect the official opinion of the European Commission. Neither the European Union institutions and bodies nor any person acting on their behalf, may be held responsible for the use of the information contained therein.



Figure 4.3 - EU funding acknowledgement



4.3 GREENCAP LinkedIn Account

The GREENCAP LinkedIn page (Figure 4.4) can be reached by clicking on the LinkedIn logo on the website homepage. On the LinkedIn page, the visitor can reach the website homepage. The project coordinator (BED) and management team (UNR) have set-up this page and will be updating it on a regular basis with items related to the project and the consortium partners.

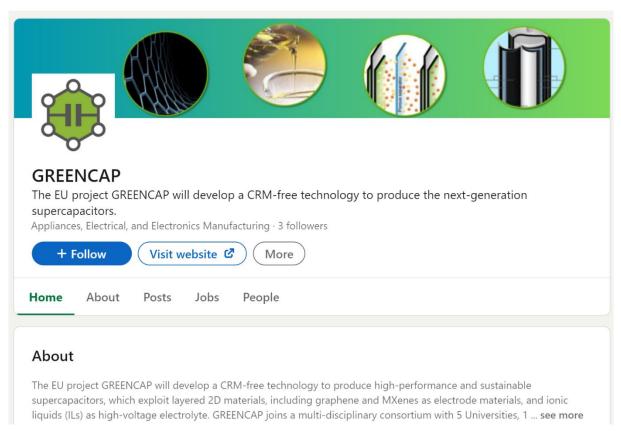


Figure 4.4 - GREENCAP LinkedIn Page



5 Deviations from Annex 1

There are no deviations from the description of this deliverable as given in Annex I of the Grant Agreement.



6 Acknowledgement

The author(s) would like to thank the partners in the project for their valuable comments on previous drafts and for performing the review.

Project partners:

#	Partner	Partner Full Name	
	short name		
1	BED	BEDIMENSIONAL SPA	
2	SOLV	SOLVIONIC	
3	FSU	FRIEDRICH-SCHILLER-UNIVERSITAT JENA	
4	SKL	SKELETON TECHNOLOGIES OU	
5	TCD	THE PROVOST, FELLOWS, FOUNDATION SCHOLARS & THE OTHER MEMBERS OF BOARD, OF THE COLLEGE OF THE HOLY & UNDIVIDED TRINITY OF QUEEN ELIZABETH NEAR DUBLIN	
6	TUD	TECHNISCHE UNIVERSITAET DRESDEN	
7	UNISTRA	UNIVERSITE DE STRASBOURG	
8	SM	SKELETON MATERIALS GMBH	
9	UNR	UNIRESEARCH BV	
10	CNR	CONSIGLIO NAZIONALE DELLE RICERCHE	
11	UCAM	THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF CAMBRIDGE	

Disclaimer/ Acknowledgment



Copyright ©, all rights reserved. This document or any part thereof may not be made public or disclosed, copied or otherwise reproduced or used in any form or by any means, without prior permission in writing from the GREENCAP Consortium. Neither the GREENCAP Consortium nor any of its members, their officers, employees or agents shall be liable or responsible, in negligence or otherwise, for any loss, damage or

expense whatever sustained by any person as a result of the use, in any manner or form, of any knowledge, information or data contained in this document, or due to any inaccuracy, omission or error therein contained.

All Intellectual Property Rights, know-how and information provided by and/or arising from this document, such as designs, documentation, as well as preparatory material in that regard, is and shall remain the exclusive property of the GREENCAP Consortium and any of its members or its licensors. Nothing contained in this document shall give, or shall be construed as giving, any right, title, ownership, interest, license or any other right in or to any IP, know-how and information.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101091572. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.