



CELL-INTEGRATED SENSING FUNCTIONALITIES FOR SMART BATTERY SYSTEMS  
WITH IMPROVED PERFORMANCE AND SAFETY

**GA 957273**

## D6.1 – SENSIBAT PROJECT IDENTITY

**LC-BAT-13-2020 - Sensing functionalities for smart battery cell chemistries**



|                            |                                                 |                            |
|----------------------------|-------------------------------------------------|----------------------------|
| <b>Deliverable No.</b>     | D6.1                                            |                            |
| <b>Related WP</b>          | WP6                                             |                            |
| <b>Deliverable Title</b>   | SENSIBAT Project Identity                       |                            |
| <b>Deliverable Date</b>    | 20-NOV-2020                                     |                            |
| <b>Deliverable Type</b>    | OTHER                                           |                            |
| <b>Dissemination level</b> | Public (PU)                                     |                            |
| <b>Written By</b>          | Eva Bøgelund (UNR)<br>Maaïke van der Kamp (UNR) | 05-NOV-2020<br>06-NOV-2020 |
| <b>Checked by</b>          | Silvia Bodoardo (POL)                           | 10-NOV-2020                |
| <b>Reviewed by</b>         | Jon Crego (IKE)                                 | 17-NOV-2020                |
| <b>Approved by</b>         | Jon Crego (IKE)                                 | 17-NOV-2020                |
| <b>Status</b>              | FINAL                                           | 19-NOV-2020                |

## 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 SENSIBAT Consortium. Neither the SENSIBAT 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 SENSIBAT 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 2020 research and innovation programme under grant agreement No 957273. The information and views set out in this publication does 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 which may be made of the information contained therein.



## Summary

Effective dissemination and communication are important to ensure adoption of the SENSIBAT technologies during and after the project. This deliverable describes the SENSIBAT project identity which contains a logo, leaflet, power point presentation for public presentations, and templates to support deliverable reporting, project presentations, and project meetings. Usage of standard templates ensure that there is consistency and conciseness in the way work is presented through the project duration. The audio-visual material in the form of a promotional video will be made when the battery module with level 1 sensors is ready (month 30).



# Table of Contents

---

|   |                                     |    |
|---|-------------------------------------|----|
| 1 | Introduction .....                  | 5  |
| 2 | SENSIBAT Logo.....                  | 6  |
| 3 | Templates .....                     | 7  |
| 4 | SENSIBAT Project Presentation ..... | 10 |
| 5 | Project Leaflet .....               | 12 |
| 6 | Risks .....                         | 14 |
|   | Acknowledgement.....                | 15 |

## ***Table of Figures***

|            |                                                                  |    |
|------------|------------------------------------------------------------------|----|
| Figure 2-1 | SENSIBAT logo with colour information .....                      | 6  |
| Figure 2-2 | SENSIBAT icon.....                                               | 6  |
| Figure 3-1 | SENSIBAT Deliverable Report (front and title pages).....         | 7  |
| Figure 3-2 | SENSIBAT Presentation Template EB-meetings (example slides)..... | 8  |
| Figure 3-3 | SENSIBAT GA/EB Meeting Agenda & Minutes Template.....            | 8  |
| Figure 3-4 | SENSIBAT Letter Template.....                                    | 9  |
| Figure 4-1 | SENSIBAT Project Presentation.....                               | 11 |



# 1 Introduction

---

The overall aim of WP6 - Dissemination, communication, and preparative exploitation activities - is to maximise the impact of the results and knowledge generated within SENSIBAT considering economic, commercial, environmental, educational, scientific, and societal aspects. This is based on four pillars:

- To define the communication strategy to reach out society.
- To design the dissemination strategy to transfer the knowledge and maximise the impacts.
- To define the exploitation strategy of the knowledge generated to guaranty effective use of the results.
- To liaise with other battery projects.

Dissemination is the public disclosure of the results of the project in any medium. It is a process of promotion and awareness-raising right from the beginning of a project. It makes results known to various stakeholder groups (like research peers, industry and other commercial actors, professional organisations, policymakers) in a targeted way, to enable them to use the results in their own work. To ensure maximum impact of the project activities and results, it is of paramount importance to have a well-defined dissemination and communication strategy and a consistent way of presenting project results.

This document (Deliverable 6.1) describes the creation of the SENSIBAT project identity and the use of the identity in dissemination tools. It concerns the definition of a graphical project identity composed of visual elements that represent the project. It includes a logo, colours, templates for presentations and text documents. The graphical identity is important for consistent and recognizable communication and dissemination; and together with the guidelines and templates will save time and effort for the members of the consortium. This document also describes the creation of the SENSIBAT flyer as part of SENSIBATs project branding. The audio-visual material in the form of a promotional video has not been made yet. This video will be made at the facility of Flanders Make when the battery module with level 1 sensors is ready (month 30).

The project identity was developed by Uniresearch (UNR) with contributions from all project partners.



## 2 SENSIBAT Logo

An exclusive logo and icon for the SENSIBAT project have been created. During the project, the logo and icon will be used on all the dissemination tools.

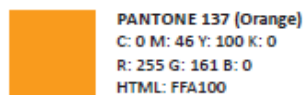
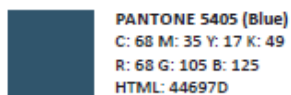


Figure 2-1 SENSIBAT logo with colour information

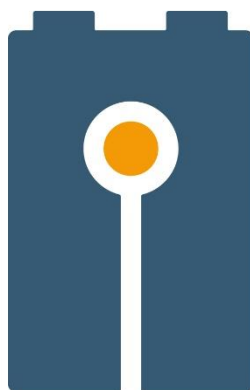


Figure 2-2 SENSIBAT icon



### 3 Templates

To support the management of the project and to accommodate and support the partners in their activities a set of templates has been developed that enable the correct use of SENSIBAT’s project identity:

- Template for deliverables: is used by the partners to report on the project deliverables. It contains all the necessary parts of the deliverable reports; front/title page, summary, description of work performed, conclusions, risk registry, and acknowledgements (Figure 3-1).
- Template for GA/EB meetings: including progress of each Work Package, planned activities next 3 (EB)/ 6 (GA) months, risk discussion, Gantt chart update, status of milestones and deliverables (Figure 3-2).
- Template for GA/EB meeting agenda and minutes; is used to create the meeting agenda and minutes (Figure 3-3).
- Template Letter; is used for letters related to the project/project results (Figure 3-4).

A template for internal technical reporting (for the internal monitoring procedure/system carried out within SENSIBAT each 6 months) will also be developed.

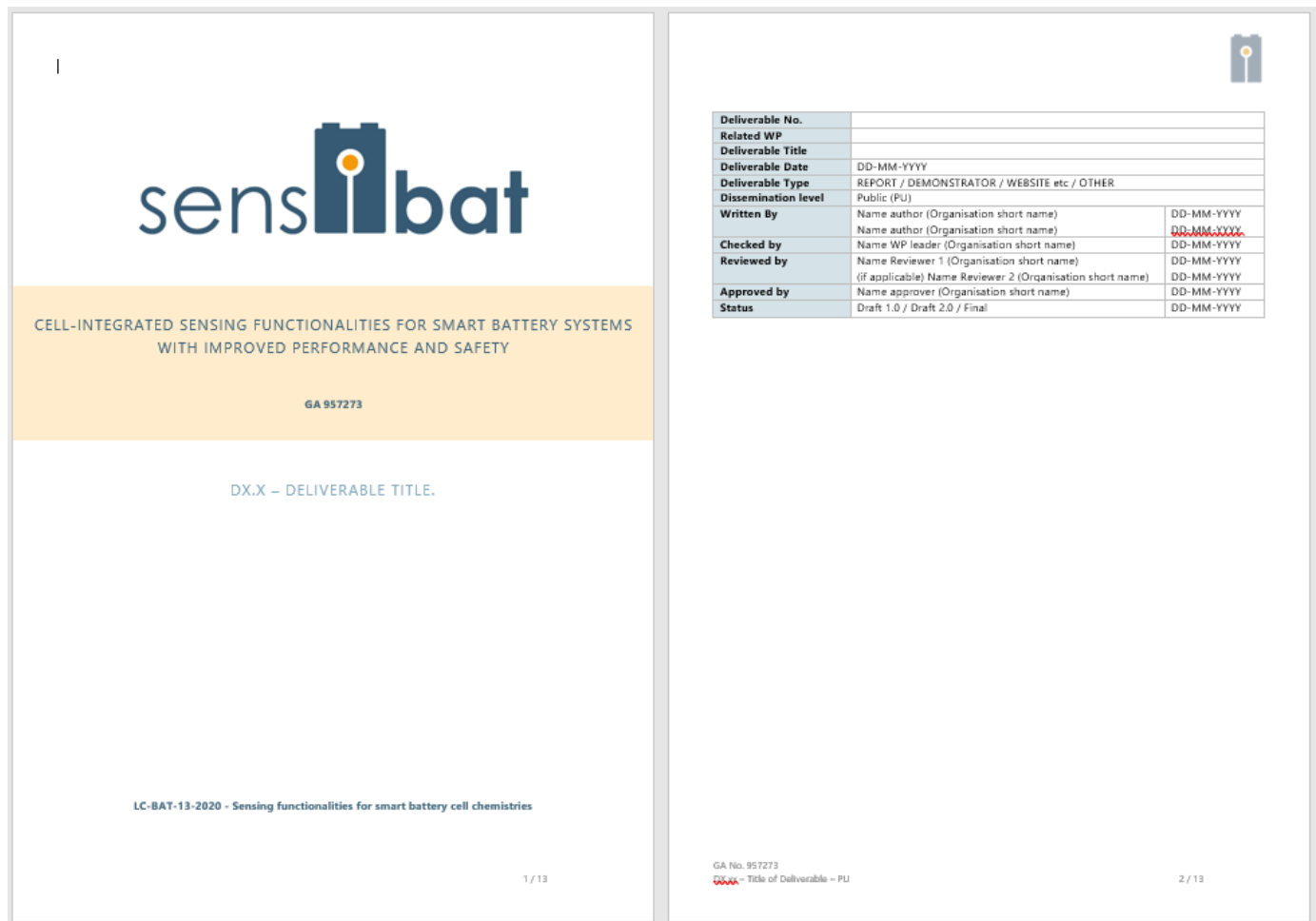


Figure 3-1 SENSIBAT Deliverable Report (front and title pages)



CONFIDENTIAL



**Executive Board Meeting - <number>**

<meeting date>

SENSIBAT | GA #957273 | EB -<number> meeting 06/11/2020 1

**WP1 Specifications, requirements and testing plan**

- Overview status of WP: Tasks running, upcoming deliverables and milestones, interaction other WPs
- Progress last 3 months per task
- Work scheduled next 3 months
- Delays/ changes / deviations (incl. mitigation actions)

SENSIBAT | GA #957273 | EB -<number> meeting 06/11/2020 2

**WP7 Coordination and management**

- Overview status of WP: Tasks running, upcoming deliverables and milestones, interaction other WPs
- Progress last 3 months per task
- Work scheduled next 3 months
- Risk table discussion
- Gantt chart update
- Status of milestones and deliverables

SENSIBAT | GA #957273 | EB -<number> meeting 06/11/2020 3

**Disclaimer**

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 SENSIBAT Consortium. All the material included in this document is based on: 1) data/information gathered from various sources, 2) certain assumptions and 3) forward-looking information and statements that are subject to risks and uncertainties. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors and the actual results may differ substantially from the presented information. Further, there can be no assurances that results will prove accurate and, therefore, readers are advised to rely on their own evaluation of such uncertainties. Readers are encouraged to carry out their own due diligence and gather any information to be considered necessary for making an informed decision. Neither the SENSIBAT 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 SENSIBAT 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 2020 research and innovation programme under grant agreement No 957273. The information and views set out in this publication does 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 which may be made of the information contained therein.

 This project has received funding from the European Commission under grant agreement No. 957273

SENSIBAT | GA #957273 | EB -<number> meeting 06/11/2020 4

Figure 3-2 SENSIBAT Presentation Template EB-meetings (example slides)

SENSIBAT | AGENDA & MEETING MINUTES CONFIDENTIAL



| Meeting           | GA/EB |
|-------------------|-------|
| Date              |       |
| Time              |       |
| Location          |       |
| Meeting organiser |       |
| Type of meeting   |       |
| Note taker        |       |

**AGENDA**

| Agenda DATE | Item | Start-end time | Topic | Chair |
|-------------|------|----------------|-------|-------|
|             |      |                |       |       |
|             |      |                |       |       |
|             |      |                |       |       |
|             |      |                |       |       |

GA No. 957273 | Agenda/Meeting Minutes 1/2

SENSIBAT | AGENDA & MEETING MINUTES CONFIDENTIAL

**ATTENDEES**

| Attendees   | Name | E-mail |
|-------------|------|--------|
| Partner No. |      |        |
|             |      |        |
|             |      |        |
|             |      |        |

**MEETING MINUTES**

| Agenda Item | Notes |
|-------------|-------|
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |

GA No. 957273 | Agenda/Meeting Minutes 2/2

Figure 3-3 SENSIBAT GA/EB Meeting Agenda & Minutes Template





Maaike van der Kamp - van Roosmalen

Job Title  
Street Address  
City, ST ZIP code  
Telephone  
Email

**sensibat**

Recipient Name  
Street Address  
City, ST ZIP Code  
Telephone  
Email

**Subject:**  
**Date & place:**

**Dear Recipient Name,**

To get started right away, just tap any placeholder text (such as this) and start typing to replace it with your own.

Want to insert a picture from your files or add a shape, text box, or table? You got it! On the Insert tab of the ribbon, just select the option you need.

View and edit this document in Word on your computer, tablet, or phone. You can seamlessly save the document to the cloud from Word on your Windows, Mac, Android, or iOS device.

Sincerely,

Maaike van der Kamp - van Roosmalen

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957273.



Figure 3-4 SENSIBAT Letter Template



# 4 SENSIBAT Project Presentation

A presentation describing the SENSIBAT project, objectives, and target results has been created (Figure 4-1). The presentation is available on Mett for partners to use when presenting results related the project.

## sensibat

Cell-integrated sensing functionalities for smart battery systems with improved performances and safety

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 1

### Facts & Figures

- Call H2020-LC-BAT13-2020
- Coordinator Ikerlan S. COOP
- Duration 36 months
- Start date 1 Sep 2020
- Budget/funding 3.3 M€

**Consortium**  
12 partners from 7 countries including key partners from whole value chain

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 2

### Current challenges

- Use of Li-ion battery cells (LIB) comes with safety risk
- Limited range, power and relatively long charging times
- Limited re-use of electric vehicle batteries
- Degradation-mechanisms of LIB not yet fully understood
- Accurate monitoring and control of the battery operation is challenging

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 3

### SENSIBAT objective

Develop sensing technology that measures in real time the internal battery cell:

- Temperature
- Pressure (gas evolution, mechanical strain)
- Conductivity (ionic and electronic)
- Impedance of different cell parts (e.g. anode, cathode, electrolyte)

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 4

## sensibat

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 5

### SENSIBAT targeted impact

- ✓ Higher safety level and early safety warnings
- ✓ Improved thermal management and battery operation
- ✓ Extended range by optimal capacity use
- ✓ Improved fast charging
- ✓ Improved battery maintenance
- ✓ Increased lifetime as a result of better battery management and control
- ✓ Higher economic value of battery pack for 2nd life usage
- ✓ Selective reuse and recycling

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 6

### For more information

- Visit our website for news, latest results and events: [www.sensibat-project.eu](http://www.sensibat-project.eu)
- Subscribe to our newsletter: [www.sensibat-project.eu](http://www.sensibat-project.eu)
- Visit the Battery 2030+ website: [www.battery2030.eu](http://www.battery2030.eu)
- Subscribe to the Battery 2030+ newsletters: [www.battery2030.eu/engage/newsletters/](http://www.battery2030.eu/engage/newsletters/)

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 7

### Thank you!

**SENSIBAT Partners**

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 8



**Disclaimer**

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 SENSIBAT Consortium. All the material included in this document is based on: 1) data/information gathered from various sources, 2) certain assumptions and 3) forward-looking information and statements that are subject to risks and uncertainties. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors and the actual results may differ substantially from the presented information. Further, there can be no assurance that results will prove accurate and, therefore, readers are advised to rely on their own evaluation of such uncertainties. Readers are encouraged to carry out their own due diligence and gather any information to be considered necessary for making an informed decision. Neither the SENSIBAT 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 whatsoever 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 SENSIBAT 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 2020 research and innovation programme under grant agreement No 957273. The information and views set out in this publication does 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 which may be made of the information contained therein.

 This project has received funding from the European Commission under grant agreement No. 957273

SENSIBAT | This project has received funding from the European Commission under grant agreement no. 957273 17/11/2020 9

Figure 4-1 SENSIBAT Project Presentation



# 5 Project Leaflet

To create awareness about the SENSIBAT project, a flyer has been created which can be shared both online and as physical copies. The flyer contains information regarding the SENSIBAT project; partners, contact details, facts & figures, objectives, and targeted uimpact. The style of flyer (colours and graphics) matches the logo to ensure that the flyer is consistent with other SENSIBAT dissemination tools. The SENSIBAT flyer is presented in Figure 5-1.

### FACTS AND FIGURES

**SENSIBAT** is a research and innovation project aimed at developing a sensing technology for Li-ion batteries that measures in real-time the internal battery cell temperature, pressure, conductivity and impedance of different cell parts.

**SENSIBAT** is a 3 year EU-funded project launched in September 2020 and is part of the Horizon 2020 Research and Innovation Programme and the Battery 2030+ Initiative.

**Start date:** 1 September 2020  
**Duration:** 36 Months  
**EC Funding:** 3.3 M€

12 partners from 7 European countries

### CONTACT

**Coordinator**  
Ikerlan S. Coop  
Jon Crego  
jcrego@ikerlan.es

**Project Manager**  
Uniresearch BV  
Maaïke van der Kamp  
m.vanderkamp@uniresearch.com



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No.957273

### PROJECT PARTNERS



**IKERLAN**  
www.ikerlan.com  
Spain



**BEDIMENSIONAL**  
www.bedimensional.com  
Italy



**POLITECNICO DI TORINO**  
www.polito.it  
Italy



**FRAUNHOFER INSTITUTE FOR INTEGRATED SYSTEMS AND DEVICE TECHNOLOGY**  
www.fraunhofer.de  
Germany



**FLANDERS MAKE**  
www.flandersmake.be  
Belgium



**TECHNISCHE UNIVERSITEIT EINDHOVEN**  
www.tue.nl  
The Netherlands



**NXP SEMICONDUCTORS NETHERLANDS**  
NXP SEMICONDUCTORS FRANCE  
www.nxp.com  
The Netherlands & France



**AVESTA BATTERY & ENERGY ENGINEERING**  
www.abeegroup.com  
Belgium



**VARTA MICRO INNOVATION**  
www.vartamicroinnovation.com  
Austria



**AUSTRIAN INSTITUTE OF TECHNOLOGY**  
www.ait.ac.at  
Austria



**UNIRESEARCH**  
www.uniresearch.com  
The Netherlands



**CELL-INTEGRATED SENSING  
FUNCTIONALITIES FOR SMART  
BATTERY SYSTEMS WITH IMPROVED  
PERFORMANCE AND SAFETY**




www.sensibat-project.eu

GA No. 957273

D6.1 – SENSIBAT Project Identity – PU

12 / 15



### AMBITIONS

- Development of in cell, faster and more extensive sensing technologies for lithium ion batteries.
- Development of more accurate state functions and battery management systems increasing overall safety.
- Cost effective manufacturing of a 24V battery module equipped with a new slave and master BMS using integrated sensors.

### TARGETED IMPACT

- Higher safety level & early safety warnings
- Improved battery operation & thermal management
- Extended range by optimal capacity use
- Improved fast charging
- Improved battery maintenance
- Increased lifetime as a result of better battery management & control
- Higher economic value of battery pack for 2<sup>nd</sup> life usage
- Selective re-use and recycling

### BATTERY 2030+

SENSIBAT is part of the BATTERY 2030+ initiative which is a large-scale research initiative of seven projects and a total budget of 40.5 million euros.

BATTERY 2030+ initiates the first phase of inventing the sustainable batteries of the future. The projects will contribute to the implementation of ultrahigh performance, reliable, safe, sustainable and affordable batteries.

### OBJECTIVES

[www.battery2030.eu](http://www.battery2030.eu)

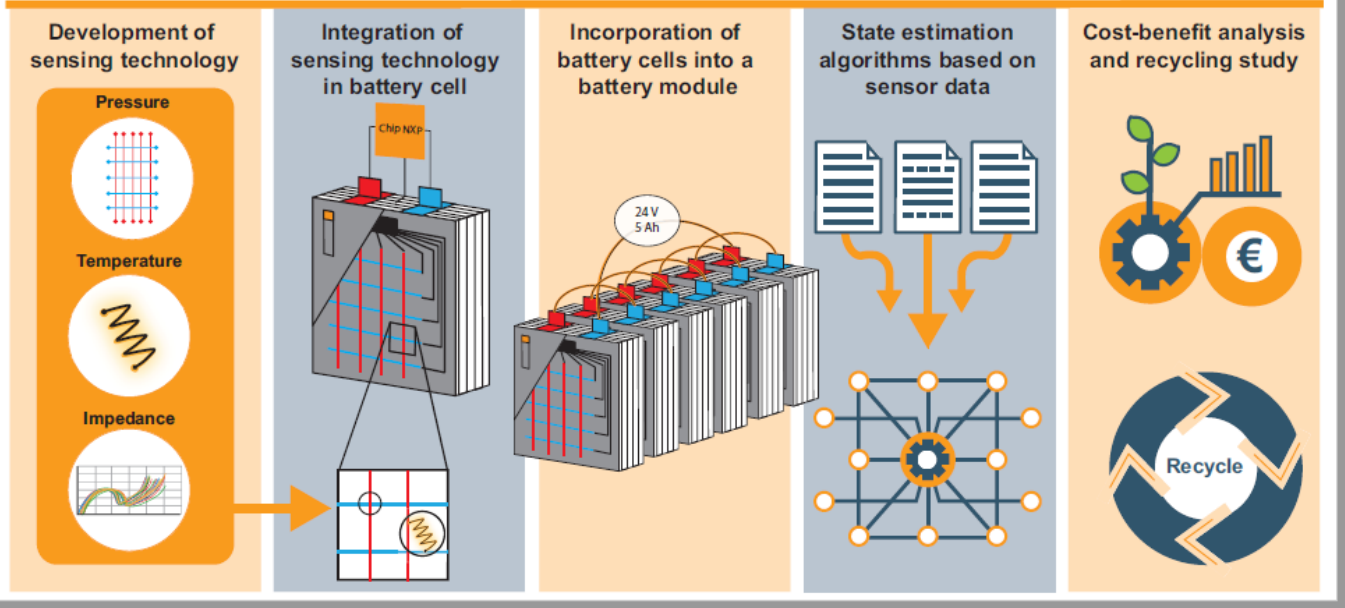


Figure 5-1 SENSIBAT flyer



## 6 Risks

---

No risks related to D6.1 have been identified.



# 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

| #  | PARTICIPANT SHORT NAME | PARTNER ORGANISATION NAME                                             | COUNTRY         |
|----|------------------------|-----------------------------------------------------------------------|-----------------|
| 1  | IKE                    | IKERLAN S. COOP.                                                      | Spain           |
| 2  | BDM                    | BEDIMENSIONAL SPA                                                     | Italy           |
| 3  | POL                    | POLITECNICO DI TORINO                                                 | Italy           |
| 4  | FHG                    | FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. | Germany         |
| 5  | FM                     | FLANDERS MAKE VZW                                                     | Belgium         |
| 6  | TUE                    | TECHNISCHE UNIVERSITEIT EINDHOVEN                                     | The Netherlands |
| 7  | NXP NL                 | NXP SEMICONDUCTORS NETHERLANDS BV                                     | The Netherlands |
| 8  | NXP FR                 | NXP SEMICONDUCTORS FRANCE SAS                                         | France          |
| 9  | ABEE                   | AVESTA BATTERY & ENERGY ENGINEERING                                   | Belgium         |
| 10 | VAR                    | VARTA MICRO INNOVATION GMBH                                           | Germany         |
| 11 | AIT                    | AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH                             | Austria         |
| 12 | UNR                    | UNIRESEARCH BV                                                        | The Netherlands |



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 957273

This publication reflects only the author's view and the Innovation and Networks Executive Agency (INEA) is not responsible for any use that may be made of the information it contains.