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Ref,	doi (if provided)	Name	Purpose of the data collection/generation. Relation to the objectives of the project.	Data format	Data size (if known)	Repository	Access. level	Rationale for accessibility restriction	Owner	Lead partner	Involved partners	WP	Info to WP
D_1.1		Use cases, KPIs, cell and module requirements	This deliverable is a report containing a description of the use cases, the KPIs and an overview of the requirements at cell and module level.	.pdf	25 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	FHG, ABEE, AIT, FM, IKE, VAR, NXP, TuE	FHG	ABEE, AIT, FM, IKE, VAR, NXP, TuE	WP1	WP2, WP3, WP4, WP5
D_1.2		Testing plan for cells and module	This deliverable specifies the initial testing plan containing procedures for testing baseline cells, cells with integrated sensors and the module.	.pdf	39 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	AIT, ABEE, FHG, FM, IKE, VAR, NXP, TuE	AIT	ABEE, FHG, FM, IKE, VAR, NXP, TuE	WP1	WP5
D_2.1		Report on selection of inks and pastes	This document reports the data acquired for the formulation of inks and pastes. This set of data is necessary to realize the printed electrodes.	.pdf	25 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	BDM, POL	BDM	POL	WP2	-
D_2.2		Report on development of printed electrodes on cell components	This document reports the data acquired for the printed electrodes on cell components.	.pdf	19 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	BDM, POL	BDM	POL	WP2	-
D_2.3		Report on development of electrical connections	This document reports the data acquired for the realization of the electrical connections.	.pdf	16 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	BDM, POL	BDM	POL	WP2	WP3
D_2.4		Report on level 2 sensor characterization	This report summarizes the measurement results of the level 2 sensors.	.pdf	32 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	POL, BDM	POL	BDM	WP2	WP3, WP4, WP5
D_2.5		Report on characterization of pouch cell with integrated level 2 sensor	This report summarizes the measurement results of the pouch cells + level 2 sensors.	.pdf	22 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	POL, BDM	POL	BDM	WP2	WP3, WP4, WP5
P_2.1	10.1039/D1RA06643A	3D printed silicon-few layer graphene anode for advanced Li-ion batteries	The printing of three-dimensional (3D) porous electrodes for Li-ion batteries is considered a key driver for the design and realization of advanced energy storage systems. While different 3D printing techniques offer great potential to design and develop 3D architectures, several factors need to be addressed to print 3D electrodes	.pdf		https://zenodo.org/record/6401752#.Ykaa6-pByMo	Level 5		BDM	BDM	-	WP2	-
P_2.2	https://doi.org/10.1021/acsnano.1c06662	Topochemical Transformation of Two-Dimensional VSe2 into Metallic Nonlayered VO2 for Water Splitting Reactions in Acidic and Alkaline Media	We have reported the synthesis of room temperature (RT)-stable metallic rutile vanadium dioxide (VO2 (R)) nanosheets by topochemically transforming liquid-phase exfoliated nanosheets of 1T vanadium diselenide (ex-VSe2)	.pdf		https://zenodo.org/record/6405566#.YkbJe-pByMo	Level 5		BDM	BDM	-	WP2	-
P_2.3	https://doi.org/10.1039/D1CS00106J	Solution-processed two-dimensional materials for next-generation photovoltaics	Graphene and related two-dimensional (2D) materials (GRMs), including nonlayered 2D materials and 2D perovskites, as well as their hybrid systems, are emerging as promising candidates to drive innovation in PV technologies	.pdf		https://arxiv.org/abs/2110.09088	Level 5		BDM	BDM	-	WP2	-
P_2.4	https://doi.org/10.1021/acs.chemmater.1c00763	Graphene-Based Electrodes in a Vanadium Redox Flow Battery Produced by Rapid Low-Pressure Combined Gas Plasma Treatments	Low-pressure combined gas plasma treatment in an inductively coupled radio frequency reactor to produce highly catalytic electrodes for vanadium redox flow batteries (VRFBs).	.pdf		https://arxiv.org/abs/2110.10062	Level 5		BDM	BDM	-	WP2	-
P_2.5	https://doi.org/10.1039/D1NR07872K	Sulfonated NbS2-based proton-exchange membranes for vanadium redox flow batteries	novel proton-exchange membranes (PEMs) based on sulfonated poly(ether ether ketone) (SPEEK) and two-dimensional (2D) sulfonated niobium disulphide (S-NbS2) nanoflakes are synthesized by a solution-casting method and used in vanadium redox flow batteries (VRFBs).	.pdf		https://pubs.rsc.org/en/content/articlepdf/2022/nr/d1nr07872k	Level 5		BDM	BDM	-	WP2	-
P_2.6	https://doi.org/10.1002/nano.202100364	Transition metal dichalcogenides as catalysts for the hydrogen evolution reaction: The emblematic case of "inert" ZrSe2 as catalyst for electrolyzers	We have reported the bulk synthesis, the exfoliation in 2D form, as well as the physical and chemical treatment of 1T-ZrSe2 crystals to be used as ECs for HER in both acidic (0.5 M H2SO4) and alkaline (1 M KOH) media.	.pdf		https://onlinelibrary.wiley.com/doi/epdf/10.1002/nano.202100364	Level 5		BDM	BDM	-	WP2	-
P_2.7	https://doi.org/10.3390/electrochem3030032	Carbon-α-Fe2O3 Composite Active Material for High-Capacity Electrodes with High Mass Loading and Flat Current Collector for Quasi-Symmetric Supercapacitors	synthesis of an active material for supercapacitors (SCs), namely α-Fe2O3/carbon composite (C-Fe2O3) made of elongated nanoparticles linearly connected into a worm-like morphology, by means of electrospinning followed by a calcination/carbonization process.	.pdf		https://www.mdpi.com/2673-3293/3/3/32	Level 5		BDM	BDM	-	WP2	-
P_2.8	https://doi.org/10.1063/5.0106932	High-energy density aqueous supercapacitors: The role of electrolyte pH and KI redox additive	Extended characterization of aqueous SCs, screening acidic, neutral and alkaline electrolytes, as well as the addition of KI as a prototypical redox additive, and performing both two- and three-electrode configuration measurements.	.pdf		https://watermark.silverchair.com/101102_1_online.pdf?token=AQECAHi208BE49Ooan9kkhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAAp8wggKbBgkqhkiG9w0BBwagggKMMIICiAIBADCCAoEGCSqGSIb3DQEHATAeBglghkgBZQMEAS4wEQQMs4iit1K6n8LrKeMAAgEQgIICUodx7pkOjlc1isioz7-sbWoKrvxaArN0pS4dGe1-2cTLxIIow_gJ26qUlyIlw7WSP8ecH-GCh9FQO1VxAjXXD1K9bq8FrhcilJ9sEODKly7DHCkYbcxImUn5wKifh-CGrO4rZEja5vrPizzN2TlyPvN4y-zSLlQTcWRwzrVPfScgLBGY1CgTPTatWzW7YSJ9okKj-	Level 5		BDM	BDM	-	WP2	-
P_2.9	https://doi.org/10.1021/acsnano.2c05640	Functionalized Metallic 2D Transition Metal Dichalcogenide-Based Solid-State Electrolyte for Flexible All-Solid-State Supercapacitors	Innovative composite solid-state electrolyte prepared by incorporating metallic two-dimensional group-5 transition metal dichalcogenides, namely, liquid-phase exfoliated functionalized niobium disulfide (f-NbS2) nanoflakes, into a sulfonated poly(ether ether ketone) (SPEEK) polymeric matrix.	.pdf		https://pubs.acs.org/doi/pdf/10.1021/acsnano.2c05640	Level 5		BDM	BDM	-	WP2	-

P_2.10	https://doi.org/10.1016/j.electacta.2023.142696	Graphene vs. carbon black supports for Pt nanoparticles: Towards next-generation cathodes for advanced alkaline electrolyzers	Investigated Pt-based nanostructured cathodes for high-performance alkaline electrolyzers (AELs), showing the beneficial effect of graphene over traditional carbon black as nanocatalysts support	.pdf		https://www.sciencedirect.com/science/article/pii/S0013468623008745	Level 5		BDM	BDM	-	WP2	-
D_3.1		Report on adaptation of level 1 sensors for incorporation into battery cells	This document describes the level1 sensor and allows to adapt level 1 sensors to battery cells	.pdf	27 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	FHG	FHG	-	WP3	WP4, WP5
D_3.2		Report on prototyping baseline pouch battery cells	This report summerizes the development and measurement results of the baseline battery cells	.pdf	25 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	AIT, ABEE, VAR	ABEE	AIT, VAR	WP3	WP4, WP5
D_3.3		Report on prototyping 1Ah cells with integrated level 1 sensors	This report summerizes the development process and measurement results of the battery cells + level 1 sensors	.pdf	21 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	ABEE, FHG, VAR	ABEE	AIT, ABEE, FHG, VAR	WP3	WP4, WP5
D_3.4		Report on prototyping 5Ah cells with integrated level 1 sensors	This report explains the escale-up from 1Ah to 5Ah and the measurement results of the battery cells (5Ah) + level 1 sensors	.pdf	19 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	AIT, ABEE, FHG, VAR	AIT	ABEE, FHG, VAR	WP3	WP4, WP5
D_3.5		Report prototyping 1 Ah cells with integrated Level 2 sensors	This report summerizes the measurement results of the battery cells + level 2 sensors	.pdf	24 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	ABEE, VAR, BDM	VAR	ABEE, BDM	WP3	WP4, WP5
P_3.1	10.1109/SENSORS52175.2022.9967234	Ultrathin and flexible sensors for pressure and temperature monitoring inside battery cells	Accurate in situ monitoring of crucial parameters like temperature and pressure lead to a better understanding of processes that occur in a battery through its lifetime and therefore accelerate the development of new technologies in the battery market.	.pdf		https://ieeexplore.ieee.org/document/9967234	Level 5		FHG, VAR	FHG	VAR	WP3	-
DEM_3.2		Prototyping of 20x 1Ah baseline pouch battery cells and 20x 5Ah baseline pouch battery cells	The fabricated cells served as a baseline/reference cells to compare with the cells integrated with Level 1 (1 Ah and 5 Ah cells) and Level 2 sensors (1 Ah cells).	Cells	-	-	Level 3	(in line with the proposal)	AIT, ABEE, VAR	ABEE	AIT, VAR	WP3	WP4, WP5
DEM_3.3		Prototyping of 30x 1Ah baseline pouch battery cells with integrated level 1 sensors	The fabricated cells served as a first step in the development of Level 1 - 5 Ah cells to be used in the module and validation.	Cells	-	-	Level 3	(in line with the proposal)	ABEE, FHG, VAR	ABEE	AIT, ABEE, FHG, VAR	WP3	WP4, WP5
DEM_3.4		Prototyping of 20x 5Ah baseline pouch battery cells with integrated level 1 sensors	The fabricated cells served as development of L1 SoX algorithms, the module and validation.	Cells	-	-	Level 3	(in line with the proposal)	AIT, ABEE, FHG, VAR	AIT	ABEE, FHG, VAR	WP3	WP4, WP5
DEM_3.5		Prototyping of 30x 1Ah baseline pouch battery cells with integrated level 2 sensors	The fabricated cells served as development of 21 SoX algorithms and validation.	Cells	-	-	Level 3	(in line with the proposal)	ABEE, VAR, BDM	VAR	ABEE, BDM	WP3	WP4, WP5
D_4.1		BMS-slave demonstrator supporting the read out of cell-integrated level-1 sensors	This report describes the readout electronics for the level 1 sensors and the interface with the multi-cell monitoring chips of NXP. It answers the question if the auxiliary input ports of the NXP chips can be used to read out the level 1 sensors or if separate discrete electronics are needed to implement the required functions. In the latter case, it gives the specifications for these electronics for future integration on the chips.	.pdf	17 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	FHG, NXP-FR	FHG	FM, IKE, NXP-FR	WP4	WP5
D_4.2		BMS-master software environment implemented on a rapid prototyping platform	This report describes the digital data communication between the BMS slave and master units. It focuses on how the necessary data from the level 1 sensors and multi-cell monitoring chips is made availabe to develop all the state estimation algorithms and the needed protections.	.pdf	17 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	IKE	IKE	NXP-FR, FHG	WP4	WP5
D_4.3		BMS-slave—equipped battery module based on series connected six L1-5Ah cells	This report provides details on the mechanical, thermal and electrical design aspects of the battery module and junction box.	.pdf	31 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	FM, IKE, FHG	FM	IKE, FHG	WP4	WP5
D_4.4		Advanced module-level SOC, SOH, SOE, SOP and SOS estimators based on level 1 sensors: report + software.	This is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal L1 sensors.	.pdf + Matlab	66 pages	https://sensibat-project.eu/sensibat_results/ Github available on request (via taranjitsingh.singh@flandersmake.be)	Level 5	(in line with the proposal)	IKE, FM, TUE, NXP-NL	IKE	FM, TUE, NXP-NL	WP4	WP5
D_4.5		Advanced module-level SOC, SOH, SOE, SOP and SOS estimators based on level 2 sensors: report + software.	This is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal L2 sensors.	.pdf	27 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	FM, BDM, IKE, TUE, NXP-NL	FM	BDM, IKE, TUE, NXP-NL	WP4	WP5
P_4.4_1	10.23919/ACC50511.2021.9482634	Towards State-of-Charge Estimation for Battery Packs: Reducing Computational Complexity by Optimising Model Sampling Time and Update Frequency of the Extended Kalman Filter	This paper aims to reduce the computational complexity of single-cell SOC estimation, which already achieves satisfactory performance, such that it can be more easily scaled to large arrays of cells inside battery packs. This is done by experimenting with a range of sampling times for the models used in an Extended Kalman Filter (EKF) and by adjusting the update frequency of this estimator.	.pdf		https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9482634	Level 1		TUE, NXP	TUE	NXP-NL	WP4	-
P_4.4_2	https://doi.org/10.23919/ACC53348.2022.9867694	Combined Cell-Level Estimation of State-of-Charge and Temperature in Battery Packs	Accurately estimating the State-of-Charge (SoC) and temperature of lithium-ion cells inside a battery pack is critical for safe and reliable operation. This paper extends battery state estimation from single-cell SoC estimation towards a combined SoC and temperature estimation for a multi-cell pack	.pdf		https://doi.org/10.23919/ACC53348.2022.9867694	Level 5		TUE, NXP	TUE	NXP-NL	WP4	-
P_4.4_3	ISBN 978-90-386-5571-0	Battery Electric Vehicle Range Extension by Empirical Battery Modelling, State Estimation and Active Cell Balancing	Battery Electric Vehicle Range Extension by Empirical Battery Modelling, State Estimation and Active Cell Balancing	.pdf		https://research.tue.nl/en/publications/battery-electric-vehicle-range-extension-by-empirical-battery-mod	Level 5		TUE	TUE		WP4	-
P_4.4_4	https://doi.org/10.1016/j.est.2022.105910	Comparison of battery electromotive-force measurement and modelling approaches	Compares electromotive-force measurement and modelling approaches. Extensive review of the available methods. All methods are compared for two different cell chemistries. Pareto analysis of accuracy versus required measurement time.	.pdf		https://reader.elsevier.com/reader/sd/pii/S2352152X22018989?token=DA2B50AAD5DB4D24FAD205C1273B094CE00172B5D03CF0EF10D60EA0C62CB762C310E38F08365192DA289273D97EBD83&originRegion=eu-west-1&originCreation=20221108124859	Level 5		TUE, NXP	TUE	NXP-NL	WP4	-
P_4.4_5	https://doi.org/10.1016/j.est.2023.107185	Rapid empirical battery electromotive-force and overpotential modelling using input–output linear parameter-varying methods	Develops local and global linear parameter-varying modelling approaches. Proposes an iterative scheme to rapidly identify a complete empirical battery model. Model includes both electromotive-force and overpotential dynamics. Total required measurement time is reduced by a factor 7 to 35.	.pdf		https://www.sciencedirect.com/science/article/pii/S2352152X23005820	Level 5		TUE, NXP	TUE	NXP-NL	WP4	-

DEM_4.1_1		BMS-slave supporting the read out of cell-integrated pressure and temperature sensors (level 1)	The slave unit is a essential part of the battery management system (BMS) that will be developed for the demonstrator battery module based on level 1 sensors.	Hardware + Software	-	-	Level 3	(in line with the proposal)	FHG, IKE, NXP-FR	FHG	IKE, NXP-FR	WP4	-
DEM_4.1_2		Read out of cell-integrated pressure and temperature sensors (level 1)	The design can read-out a cell-integrated 5x7 resistive temperature sensor matrix and a 5x7 capacitive pressure sensor matrix (SENSIBAT Level-1 sensors)	Hardware	-	-	Level 3	(in line with the proposal)	FHG, IKE, NXP-FR	FHG	IKE, NXP-FR	WP4	-
DEM_4.2		BMS-master software and hardware for 6 series L1-5Ah cells module	The master unit is a essential part of the battery management system (BMS) that will be developed for the demonstrator battery module based on level 1 sensors. This demostrator focuses on the developed software and hardware for the battery management: to allow optimal use of the energy and power capabilities of the battery and ensure safe and reliable operation. Rapid prototiping BMS concepts are used, and advanced state estimation algorithms will be implemented.	Hardware + Software	-	-	Level 3	(in line with the proposal)	FHG, IKE, NXP-FR	FHG	IKE, NXP-FR	WP4	-
DEM_4.3		Demonstrator battery module based on the series connection of at least six 5Ah pouch cells with level 1 sensors and equipped with BMS-slave board, and the junction box	This corresponds to sub-objective 3 of the project. This module serves to test and validate the level 1 sensors and their read-out electronics, advanced module-level state estimation algorithms and BMS operating strategy under realistic operating conditions.	Hardware	-	-	Level 3	(in line with the proposal)	FHG, IKE, NXP-FR	FHG	IKE, NXP-FR	WP4	-
M_4.4_1		Baseline model: Equivalent Circuit battery model with Kalman Filter.	This model is developed as baseline model to assess the improvements achieved with Level-1 and Level-2 based models.	Matlab	168Mb (zipped)	None	Level 5	(in line with the proposal)	TUE	TUE	FM, NXP-NL	WP4	WP5
M_4.4_2		L1 SoX algorithms	Developed robust and advanced state estimation functions based on data from L1 sensor. Several state (SOC/SOH/SOE/SOP) estimation algorithms are improved, better forecasting algorithms and novel safety concepts (SOS) are created,	Phyton		https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, TUE, FM	IKE	FM, TUEE	WP4	WP5
D_5.1		Test report on cell and module performance and safety.	This report allows analysing in a human-readable way the results obtained from Task 5.1 (e.g. the data from ED_5.1_1 to ED_5.1_35).	.pdf	45 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	AIT, ABEE, FM, FHG, IKE, VAR, NXP-FR, NXP-NL, TuE	AIT	ABEE, FM, FHG, IKE, VAR, FHG, NXP-NL, TuE	WP5	WP1
D_5.2		Cost benefit assessment.	This is directly related to sub-objective 5 of the project: to analyse the cost-benefits of the sensing technologies and the applicability into cell manufacturing practices.	.pdf	19 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	ABEE, IKE, AIT, FM, FHG, BDM	ABEE	IKE, AIT, FM, FHG, BDM	WP5	-
D_5.3		Recycling assessment and integrated validation	This is directly related to sub-objective 5 of the project: to analyse the cost-benefits of the sensing technologies and the applicability into cell manufacturing practices.	.pdf	21 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	VAR, ABEE, AIT, FM, POL, TuE, NXP-NL	VAR	ABEE, AIT, FM, POL, TuE, NXP-NL	WP5	-
ED_5.1_1		1Ah baseline cells - Data from performance tests.	This data contains information about cell capacity, energy, quasi-OCV curve, DC resistance and power at different SOC levels, volumetric and gravimetric power and energy densities, all of them in charge and discharge. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, ABEE, AIT, TuE	IKE, ABEE, AIT, TuE	-	WP5	WP4
ED_5.1_2		1Ah baseline cells - Data from EIS tests.	This data contains information about cell real and imaginary impedance, for different SOC values and frequencies. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT	AIT	-	WP5	WP4
ED_5.1_3		1Ah baseline cells - Data from calendar life tests.	This data contains information about performance evolution of the cells due to calendar ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4

ED_5.1_4		1Ah baseline cells - Data from cycle life tests.	This data contains information about performance evolution of the cells due to cycle ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_5		1Ah baseline cells - Data from safety tests.	This data contains information about the safety tests, including e.g.: a video during the test, documented pictures of the cells before and after the test, picture of the test set up, as well as more data specific to each safety test. Additionally, if applicable, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.xls .mp4	10GB	availiable at VAR	Level 1	(in line with the proposal)	VMI	VMI	-	WP5	WP4
ED_5.1_6		1Ah baseline cells - Data from post-mortem tests.	This data contains information about cell voltage, SOC, weight and dimensions before disassembly, total mass of of each component (cathode, anode, separator, packaging, tabs, etc.), pictures of each electrode, sensor area and adjacent cathode, anode and separator layers, as well as compositional analysis (XRD/XRF) of the cathode and anode adjacent to the sensing structure compared to non-adjacent ones. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_7		5Ah baseline cells - Data from performance tests.	This data contains information about cell capacity, energy, quasi-OCV curve, DC resistance and power at different SOC levels, volumetric and gravimetric power and energy densities, all of them in charge and discharge. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, ABEE, AIT, TuE	IKE, ABEE, AIT, TuE	-	WP5	WP4
ED_5.1_8		5Ah baseline cells - Data from EIS tests.	This data contains information about cell real and imaginary impedance, for different SOC values and frequencies. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT	AIT	-	WP5	WP4

ED_5.1_9		5Ah baseline cells - Data from calendar life tests.	This data contains information about performance evolution of the cells due to calendar ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_10		5Ah baseline cells - Data from cycle life tests.	This data contains information about performance evolution of the cells due to cycle ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	< 500MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE	IKE	-	WP5	WP4
ED_5.1_11		5Ah baseline cells - Data from safety tests.	This data contains information about the safety tests, including e.g.: a video during the test, documented pictures of the cells before and after the test, picture of the test set up, as well as more data specific to each safety test. Additionally, if applicable, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	safety tests were only perfomred on 1Ah cells	-	availiable at VAR	Level 2	safety tests were only perfomred on 1Ah cells	VAR	VMI	-	WP5	WP4
ED_5.1_12		5Ah baseline cells - Data from post-mortem tests.	This data contains information about cell voltage, SOC, weight and dimensions before disassembly, total mass of of each component (cathode, anode, separator, packaging, tabs, etc.), pictures of each electrode, sensor area and adjacent cathode, anode and separator layers, as well as compositional analysis (XRD/XRF) of the cathode and anode adjacent to the sensing structure compared to non-adjacent ones. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.jpg	< 100 MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT	AIT	-	WP5	WP4
ED_5.1_13		1Ah cells with Level-1 sensors - Data from performance tests.	This data contains information about cell capacity, energy, quasi-OCV curve, DC resistance and power at different SOC levels, volumetric and gravimetric power and energy densities, all of them in charge and discharge. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, ABEE, AIT, TuE	IKE, ABEE, AIT, TuE	-	WP5	WP4

ED_5.1_14		1Ah cells with Level-1 sensors - Data from EIS tests.	This data contains information about cell real and imaginary impedance, for different SOC values and frequencies. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT, TuE	AIT, TuE	-	WP5	WP4
ED_5.1_15		1Ah cells with Level-1 sensors - Data from calendar life tests.	This data contains information about performance evolution of the cells due to calendar ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_16		1Ah cells with Level-1 sensors - Data from cycle life tests.	This data contains information about performance evolution of the cells due to cycle ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_17		1Ah cells with Level-1 sensors - Data from safety tests.	This data contains information about the safety tests, including e.g.: a video during the test, documented pictures of the cells before and after the test, picture of the test set up, as well as more data specific to each safety test. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.xls .mp4	10GB	availiable at VAR	Level 1	(in line with the proposal)	VAR	VAR	IKE	WP5	WP4
ED_5.1_18		1Ah cells with Level-1 sensors - Data from post-mortem tests.	This data contains information about cell voltage, SOC, weight and dimensions before disassembly, total mass of of each component (cathode, anode, separator, packaging, tabs, etc.), pictures of each electrode, sensor area and adjacent cathode, anode and separator layers, as well as compositional analysis (XRD/XRF) of the cathode and anode adjacent to the sensing structure compared to non-adjacent ones. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_19		5Ah cells with Level-1 sensors - Data from performance tests.	This data contains information about cell capacity, energy, quasi-OCV curve, DC resistance and power at different SOC levels, volumetric and gravimetric power and energy densities, all of them in charge and discharge. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	<1 GB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, ABEE, AIT	IKE, ABEE, AIT	-	WP5	WP4

ED_5.1_20		5Ah cells with Level-1 sensors - Data from EIS tests.	This data contains information about cell real and imaginary impedance, for different SOC values and frequencies. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT	AIT	-	WP5	WP4
ED_5.1_21		5Ah cells with Level-1 sensors - Data from calendar life tests.	This data contains information about performance evolution of the cells due to calendar ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	<1 GB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	cell testing conducted with external sensor	ABEE	ABEE	-	WP5	WP4
ED_5.1_22		5Ah cells with Level-1 sensors - Data from cycle life tests.	This data contains information about performance evolution of the cells due to cycle ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv	<1 GB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	cell testing conducted with external sensor	IKE	IKE	-	WP5	WP4
ED_5.1_23		5Ah cells with Level-1 sensors - Data from tests for modelling and algorithm development.	This data contains information about specific tests carried out for the development of models and algorithms. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, data from baseline cells will be used to develop baseline models (see M_4.4_1), for comparison purposes.	.csv / .xlsx	<1 GB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	cell testing conducted with external sensor	FM, TuE	FM, TuE	-	WP5	WP4
ED_5.1_23		5Ah cells with Level-1 sensors - Data from safety tests.	This data contains information about the safety tests, including e.g.: a video during the test, documented pictures of the cells before and after the test, picture of the test set up, as well as more data specific to each safety test. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	safety tests were only perfomred on 1Ah cells	-	availiable at VAR	Level 1	safety tests were only perfomred on 1Ah cells	VAR	VAR	IKE	WP5	WP4
ED_5.1_24		5Ah cells with Level-1 sensors - Data from post-mortem tests.	This data contains information about cell voltage, SOC, weight and dimensions before disassembly, total mass of of each component (cathode, anode, separator, packaging, tabs, etc.), pictures of each electrode, sensor area and adjacent cathode, anode and separator layers, as well as compositional analysis (XRD/XRF) of the cathode and anode adjacent to the sensing structure compared to non-adjacent ones. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.jpg, .pdf	< 100 MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT	AIT	-	WP5	WP4

ED_5.1_25		1Ah cells with Level-2 sensors - Data from performance tests.	This data contains information about cell capacity, energy, quasi-OCV curve, DC resistance and power at different SOC levels, volumetric and gravimetric power and energy densities, all of them in charge and discharge. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-2 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	IKE, ABEE, AIT	IKE, ABEE, AIT	-	WP5	WP4
ED_5.1_26		1Ah cells with Level-2 sensors - Data from EIS tests.	This data contains information about cell real and imaginary impedance, for different SOC values and frequencies. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	AIT, TuE	AIT, TuE	-	WP5	WP4
ED_5.1_27		1Ah cells with Level-2 sensors - Data from calendar life tests.	This data contains information about performance evolution of the cells due to calendar ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-2 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_28		1Ah cells with Level-2 sensors - Data from cycle life tests.	This data contains information about performance evolution of the cells due to cycle ageing, from the performance tests carried out periodically. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-1 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	-	availiable at ABEE	Level 1	(in line with the proposal)	ABEE	ABEE	-	WP5	WP4
ED_5.1_29		1Ah cells with Level-2 sensors - Data from safety tests.	This data contains information about the safety tests, including e.g.: a video during the test, documented pictures of the cells before and after the test, picture of the test set up, as well as more data specific to each safety test. Additionally, the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, ect.) shall be provided, as well as Level-2 sensors logging. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.xls .mp4	10GB	availiable at VAR	Level 1	(in line with the proposal)	VAR	VAR	IKE	WP5	WP4
ED_5.1_30		1Ah cells with Level-2 sensors - Data from post-mortem tests.	This data contains information about cell voltage, SOC, weight and dimensions before disassembly, total mass of of each component (cathode, anode, separator, packaging, tabs, etc.), pictures of each electrode, sensor area and adjacent cathode, anode and separator layers, as well as compositional analysis (XRD/XRF) of the cathode and anode adjacent to the sensing structure compared to non-adjacent ones. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors.	.csv	-	-	-	Cells were used for additional long-term testing for data generation for SoX development and algorythm validation!	AIT	AIT	-	WP5	WP4

ED_5.1_31		1Ah cells with Level-2 sensors - Data from driving cycle tests.	This data contains information about the recorded timeseries produced by the battery cyclers (such as temperature, current, voltage, as well as Level-2 sensors logging, ect.) during the WLTP driving cycles applied at cell-level. For more detailed information on collected data, see deliverable D1.2. Such data is directly related to sub-objective 4 of the project: to develop robust and advanced state estimation functions based on the data from the internal sensors. In fact, such data will be used to determine the performance gains by the implementation of the integrated sensors.	.csv	< 10MB	https://ikerlan.sharepoint.com/sites/SENSIBAT/Documentos	Level 2	(in line with the proposal)	FM	FM	-	WP5	WP4
D_6.1		SENSIBAT project identity	This is related with the objective of exploiting the results achieved in the project.	.pdf	15 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	UNR	All	WP6	All
D_6.2		Project website	This is related with the objective of exploiting the results achieved in the project.	.pdf	13 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	UNR	All	WP6	All
D_6.3		Dissemination and Exploitation Plan.	This is related with the objective of exploiting the results achieved in the project.	.pdf	25 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	POL, VAR	All	WP6	All
D_6.4		AB Workshop	This is a summary of the first Advisory Board meeting which was held for the SENSIBAT project. The document shows the main results and recommendations given by the AB-members during the workshop	.pdf	56 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	POL, UNR	All	WP6	All
D_6.5		II AB Workshop	This is a summary of the second and final Advisory Board meeting which was held for the SENSIBAT project. The document shows the main results and recommendations given by the AB-members during the workshop	.pdf	15 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	POL, UNR	All	WP6	All
P_6.1		SENSIBAT Zeroing course - Ageing processes and Battery State Estimation	The Zeroing course took place on the 7th and 8th of March 2022 and provided the basics on Li-ion batteries, including: · Ageing processes · Battery states (e.g. SOC, SOP), their modelling and implementing these models in the BMS · Measuring battery states with sensors.			https://sensibat-project.eu/sensibat-zeroing-course/	Level 5		POL, VAR	POL	All	WP6	All
D_7.1		Project Handbook.	This document describes all the procedures of the project, contains a detailed GANTT vhart and work brekdown structure including a schedule per task with responsible partners, use of ressources, deliverables and dependencies to other tasks.	.pdf	24 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	UNR, IKE	UNR	All	WP7	All
D_7.2		Initial Quality Assurance and Risk Management Plan.	The objective of this document is to serve as the basis to ensure high quality in all developments of the project, from demonstrator to deliverables. The document also establishes the necessary means to identify the potential risks, estimate the impact and the probability of them and then	.pdf	20 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	IKE	All	WP7	All
D_7.3		Initial Data Management Plan.	This document specifies which data will be generated in the project, and provides guidelines to handle research dataduring and after the end of the project. This initial document will be periodically updated to derive the final plan D7.5.	.pdf	26 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	IKE	All	WP7	All
D_7.4		Final Quality Assurance and Risk Management Plan.	The objective of this document is to serve as the basis to ensure high quality in all developments of the project, from demonstrator to deliverables. The document also establishes the necessary means to identify the potential risks, estimate the impact and the probability of them and then define the corresponding response.	.pdf	15 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	IKE	All	WP7	All
D_7.5		Final Data Management Plan.	This document specifies which data will be generated in the project, and provides guidelines to handle research dataduring and after the end of the project.	.pdf	23 pages	https://sensibat-project.eu/sensibat_results/	Level 5	(in line with the proposal)	All	IKE	All	WP7	All