

October 2018



Bringing you the future
of nanomaterials

www.gnanomat.com

01.01

Energy Storage Systems, the pain.

- Demand of more efficient, reliable and powerful ESS (Energy Storage Systems).
- New **solutions** to make new devices:
 - **Efficiency**
 - **Reliability**
 - **Safety**
- For the new technologies to become fully **transformative**, we need to develop a **new generation** of energy storage devices to power them.
- Current electrode materials have a limited storage capacity/power and it is necessary to develop alternative and competitive materials to **improve the efficiency** of the new devices.



01.02

Gnanomat, the solution.

➤ **Gnanomat:**

- **Development of products with remarkable performance improvement** versus current market standards.
- **Scalable and viable** solutions: Energy Storage in tons scale.
- **Unique and disruptive technology: covered by Intellectual Property rights** and know-how.
- Nanomaterials development **platform: carbon-based materials.**
- **Clean technology** procedures and products: industrial solutions to preserve the environment.

02.01

Why, How, What.

Why

- **Why we do**
- We want Energy Storage devices more efficient, more reliable and more powerful.

How

- **How we do**
- Integrating a new material in the electrode part of Energy Storage devices.

What

- **What we do**
- We design, optimize and manufacture electrode material through our nanomaterial development platform.

02.02

What we do.

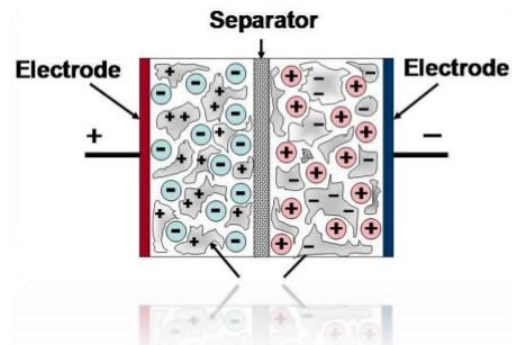
- We **design, optimize** and **manufacture electrode material** through our nanomaterial **development platform**.

Material for electrodes



Development
Product Manufacturing

Electrode (ESS component)



Gnanomat Product

Electrode Preparation

ES device



Electrode assemble in final device
Commercialization

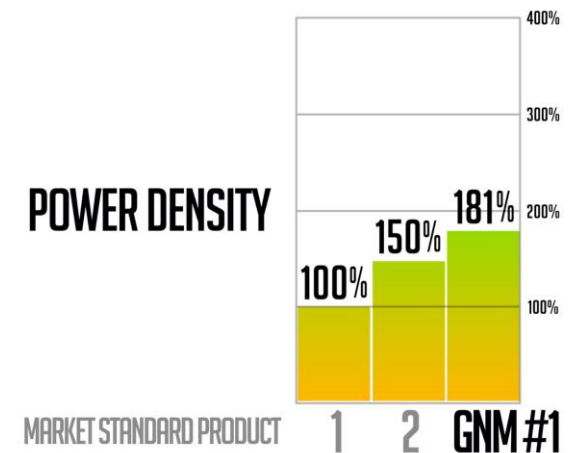
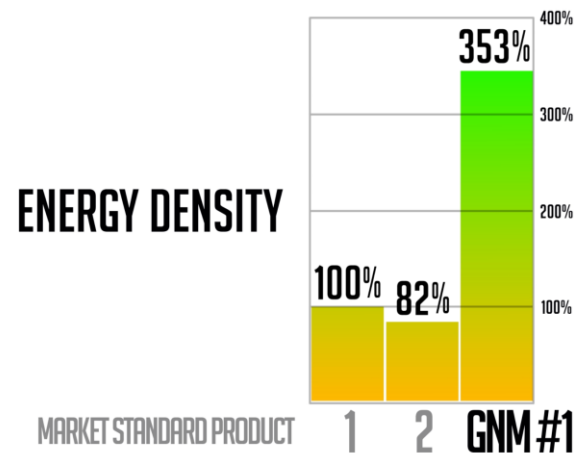
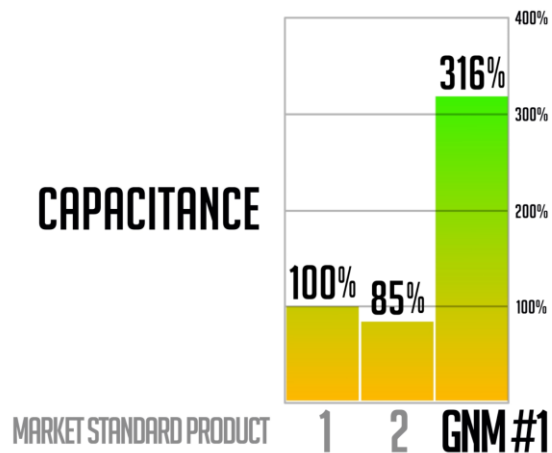
Gnanomat

ESS Manufacturer

03.01

Product performance (I).

- **Gnanomat** hybrid nanomaterials showed extraordinary functional profile.
- **Energy density** and **power density** showed remarkable results versus current market standards.

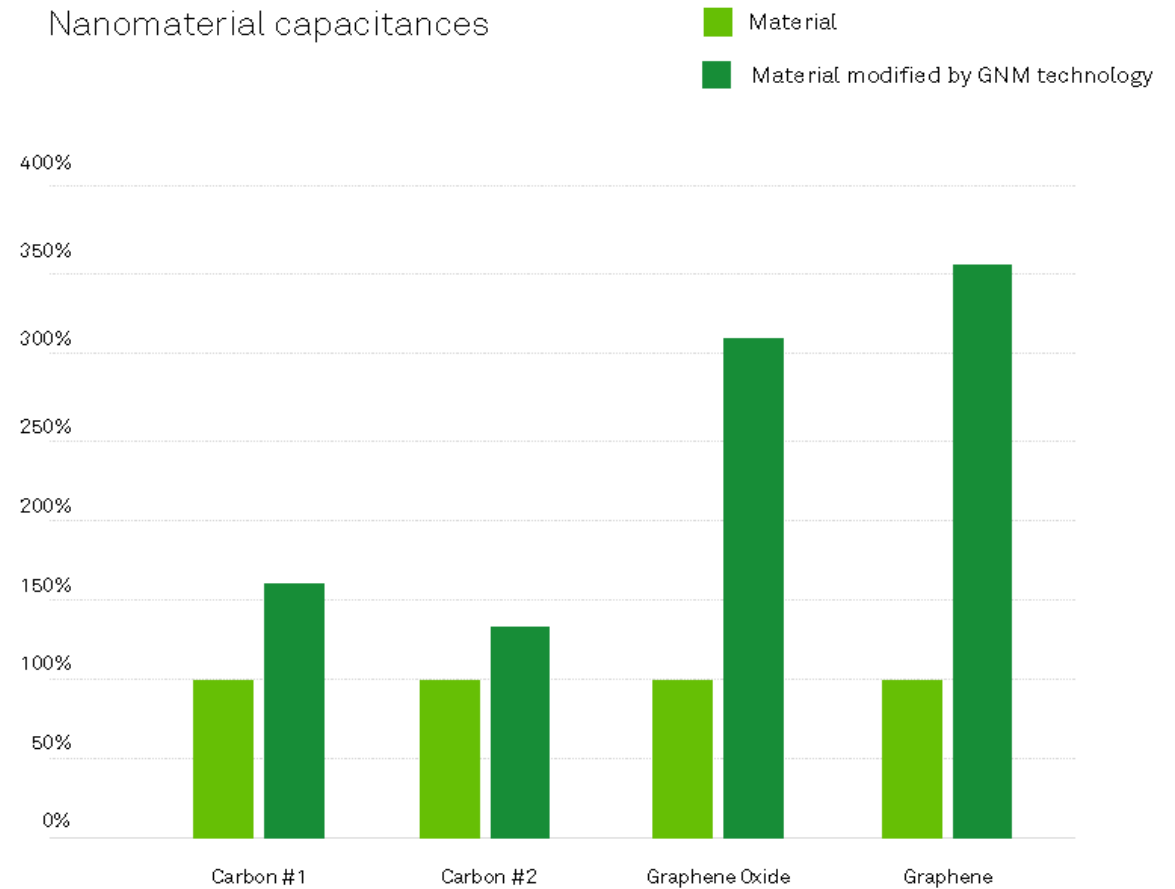


03.02

Product performance (II).

- Gnanomat **patented** technology can be used not only to improve graphene but other **carbon-based materials**.
- **These nanomaterials** are optimized to be implemented in **ESS electrodes**.

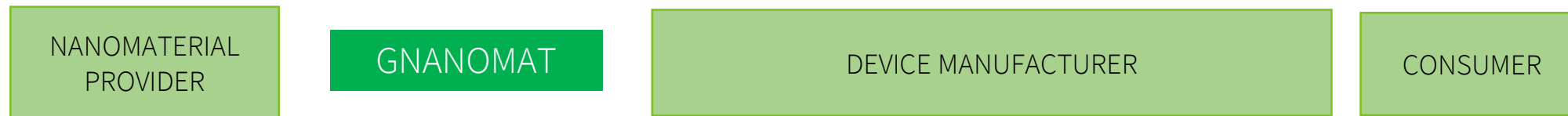
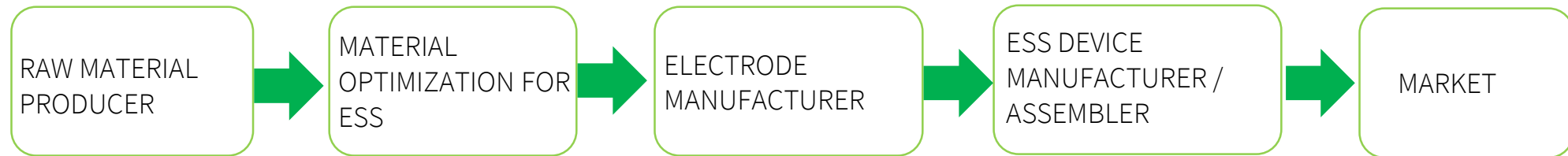
Nanomaterial capacitances



04

Value Chain.

- The value chain for ESS is composed of different links that range from the **production and improvement of raw materials**, to the incorporation of these to the **devices** and their entry into the **market**.



05

Partnering.

- Our **business model** allows us to develop Gnanomat's **own nanomaterials portfolio** and to make **co-developments** to **integrate and customize** nanomaterials in our **customer** devices.
- We collaborate **upstream** with **raw material producers**, and **downstream** with **Energy Storage devices manufacturers**.
- **Industrial** partners: We are interested to make early interactions with our industrial partners to design and optimize products that from the first moment address the customer pains and are fully viable in industrial applications.
- **Strategic** partners: We are willing to strength our value chain with relevant and meaning partners (raw material providers, application manufacturers) through joint-ventures and long term collaborations.



06

Summary.

- **Gnanomat** is the **hinge** company to introduce **graphene-based** nanomaterials to ES devices.
- Your **partner of choice** to bring **nanotechnology** to ESS market.
- Unique and **disruptive technology platform** to design, develop and manufacture advanced nanomaterials as **electrodes** in Energy Storage devices.
- **Scalable** and **clean** procedures: tons scale.



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