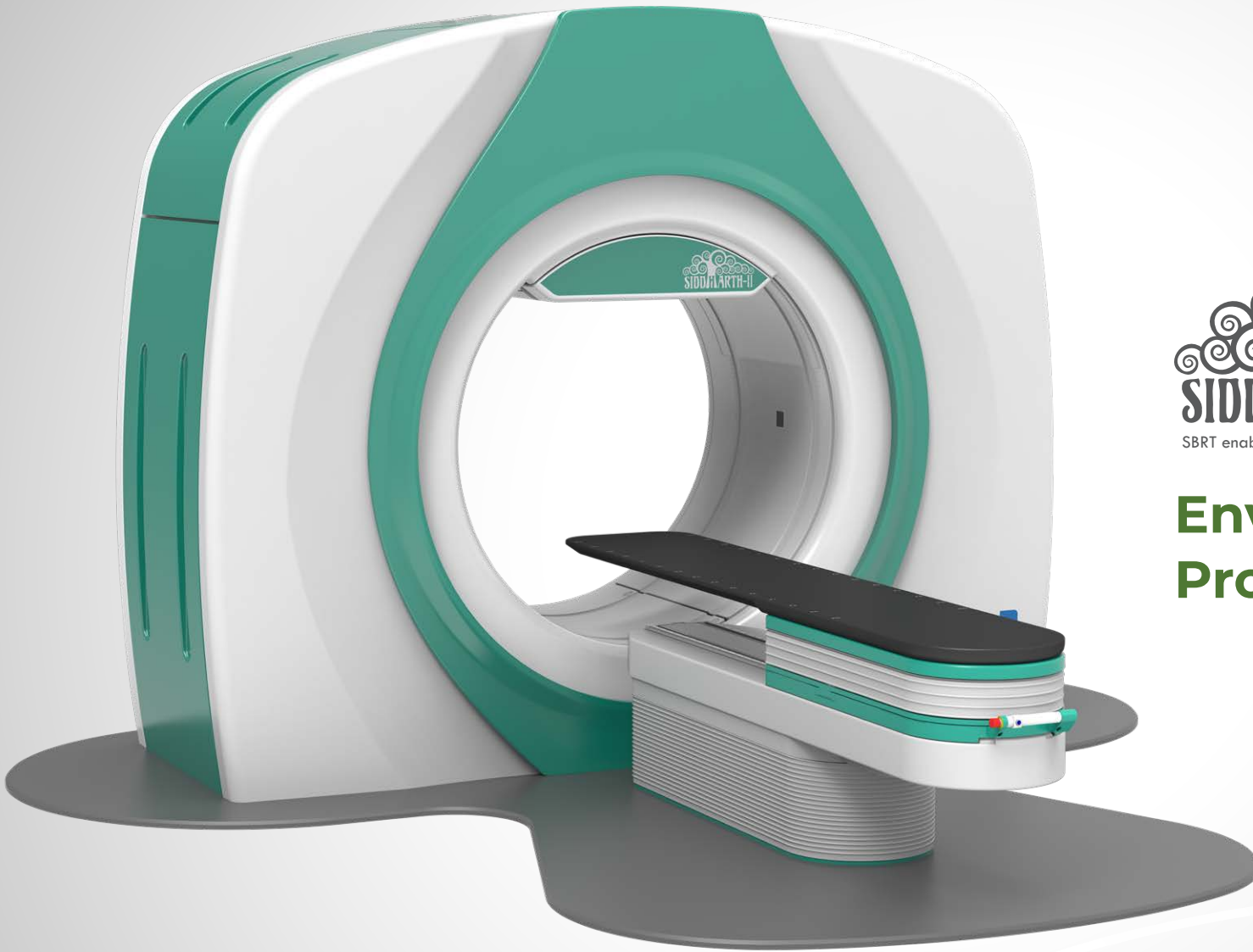




## Environmental Product Declaration



## Ecological Advantages of Siddharth-II

- Intuitive treatment workflow for ease of operations
- Inbuilt beam stopper, reducing the primary shielding requirements and thereby reducing the overall bunker construction material and cost.
- Ergonomic design with extended gantry size features eliminates claustrophobic effect.
- Inbuilt robotic Radiation field analyser which has an automated arm to acquire beam data autonomously for QA
- Average energy consumption per treatment day is nearly equivalent to average energy consumption of a CT equipment\*
- No more lead used for counterweights and shielding
- Built with easy scalability and upgradability
- More than 95% of the materials used can be returned to the flow of recycling

\* CT Equipment average energy consumption is based on COCIR study on CT potential for the aspect of energy efficiency and power consumption over a 24h day



## Environmental Management System

PANACEA MEDICAL TECHNOLOGIES Pvt. Ltd. is committed to minimize by all practical means the overall adverse environmental impact of the product by identifying, qualifying the significant environmental aspects of the product considering the trade-offs between environmental aspects and life cycle stages. We are committed to perform environmentally conscious design within the boundaries set by national, international regulatory and stake holder requirements.

Panacea gives high priority to achieving excellence in a consistent EHS management system. It lays the foundation for the continuous improvement of our performance in these areas, and regular auditing assures our conformance to ISO 14001 and ISO 45001.

## Environmental related standards

- ISO 14001- Environmental Management System
- ISO 14006 - Guidelines for Incorporating Eco-design
- ISO 45001- Occupational Health and Safety Management System
- ISO 14044 - Environmental management — Life cycle assessment
- IEC 60601-1-9 - Environmental Product Design for Medical Electrical Equipment
- IEC 62430 - Environmentally Conscious Design for Electrical and Electronic Products
- IEC 63000 - Assessment of products with respect to the restriction of hazardous substances

## Eco Design of SIDDHARTH II



### Manufacturing

Design, planning material procurement, testing, production



### Distributing

Storage, Transportation, Installation



### Usage

Functional unit, Normal use, Service & Maintenance



### End of life

Decommissioning, Disposal and Recycle

## Lead free – Siddharth-II

Siddharth-II is a zero-lead product. We have abandoned the usage of lead in the product completely for the intended and normal operations of the device.

We made strides to reduce materials in our product which are environmentally harmful and are not easily recyclable. As a first step we eliminated the usage of lead counterweights and even for radiation shielding by substitution with alternatives, where lead is still commonly used in radiation oncology products.

## Eco-design improvements

Panacea is committed to contribute to the challenges for a greener and more sustainable world economy by developing new environmentally conscious technologies and concepts, while at the same time improving the clinical value of radiation Oncology.

Eco-design philosophy at design stage is integrated with the principles of,

- Design for Component/material recovery, reuse and recycle.
- Design for Modularity
- Design for serviceability
- Design for upgradability
- Design with resource optimization
- Design with optimized import dependency and component localization



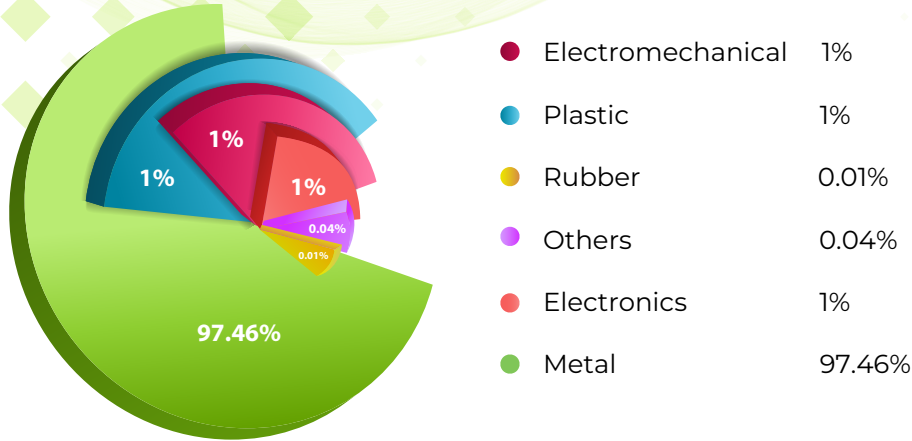
## Material Compliance

Within the materials compliance program at Panacea, restricted substances are systematically identified and monitored across the entire supply chain confirming that the restricted substance content is within the permitted levels.

Siddharth-II conforms with RoHS requirement on the restriction of the use of certain hazardous substances in electrical and electronic equipment in accordance with technical document assessment as laid out by IEC 63000

## Product materials

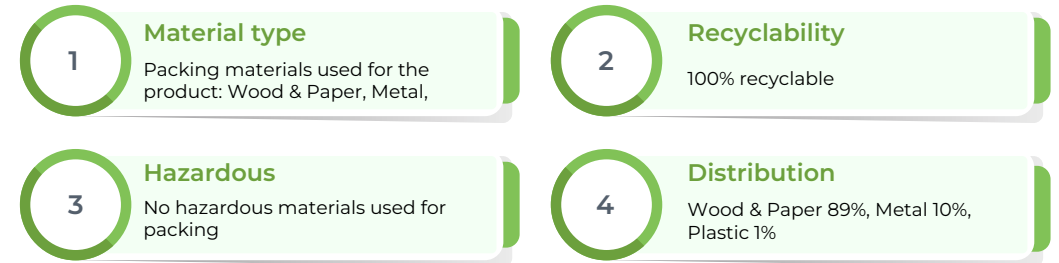
Siddharth-II is mainly composed of metals, and this ensures high degree of recyclability.



## Packaging

It is our goal to minimize our packaging material and reduce the packaging waste by reusing and recycling it.

The values shown on the chart are average values from the different kinds of packaging types of the product. The packaging materials consist of almost entirely of wood and cardboard all of which can be recycled.



## Material & process Optimization at manufacturing

Optimization of materials starts from our Eco-Design principles by adopting into our manufacturing process till the disposal. Our optimized manufacturing process ensures to reduce the resource utilization in various stages of our operations.

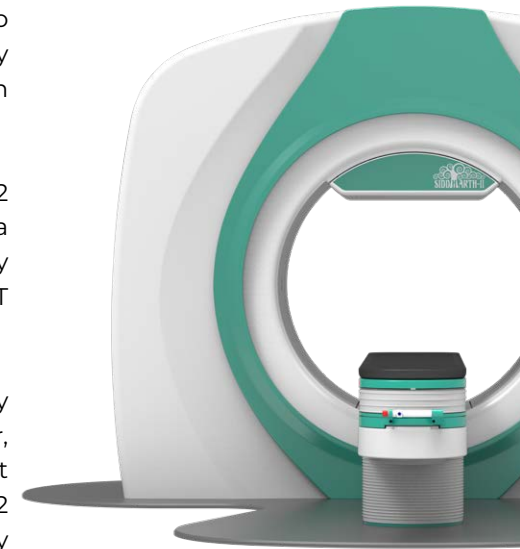


## Energy Consumption

Radiation oncology community has a unique opportunity to use our technological expertise to minimize the environmental impact of oncology care and set the standard for sustainable health care practices.

Energy Efficient Siddharth-II ensures the Co2 emissions arising from direct energy usage of a LINAC which corresponds to an average energy usage by a typical diagnostic imaging CT equipment.

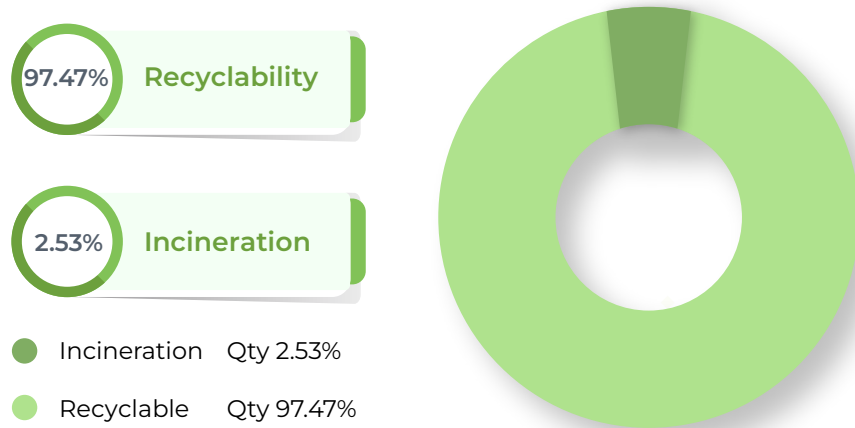
Using the US Environmental Protection Agency (EPA) Greenhouse Gas Equivalencies calculator, the average energy consumption of a treatment day (in kWh) was converted into estimates of Co2 equivalent which correlates to Co2 emission by driving 62.2 miles by a standard vehicle.



Siddharth-II consumes lowest power in the standby mode (non-working hours) which is equivalent to the Co2 emission by driving 1.3 miles by a standard vehicle unlike the fact that in general LINAC machine consumes most energy during Standby condition.

## Recyclability

Siddharth – II has been built with mainly metal part and all other materials selected consciously to recycle/reuse it at the end-of-life disposal.



## E-waste optimization

At the end-of-life disposal of Electrical and Electronic Items Panacea committed to the circular economy and responsible disposal of EEE items at the end of life cycle of the machine through our support on the waste disposal. Our authorization in Extended Producer Responsibility (EPR) for E-Waste by CPCB, sets target for collection and disposal of EEE waste.

Siddharth-II design is optimized to reduce e-waste generation by 28.5% from its pre-launch to full commercial production version.

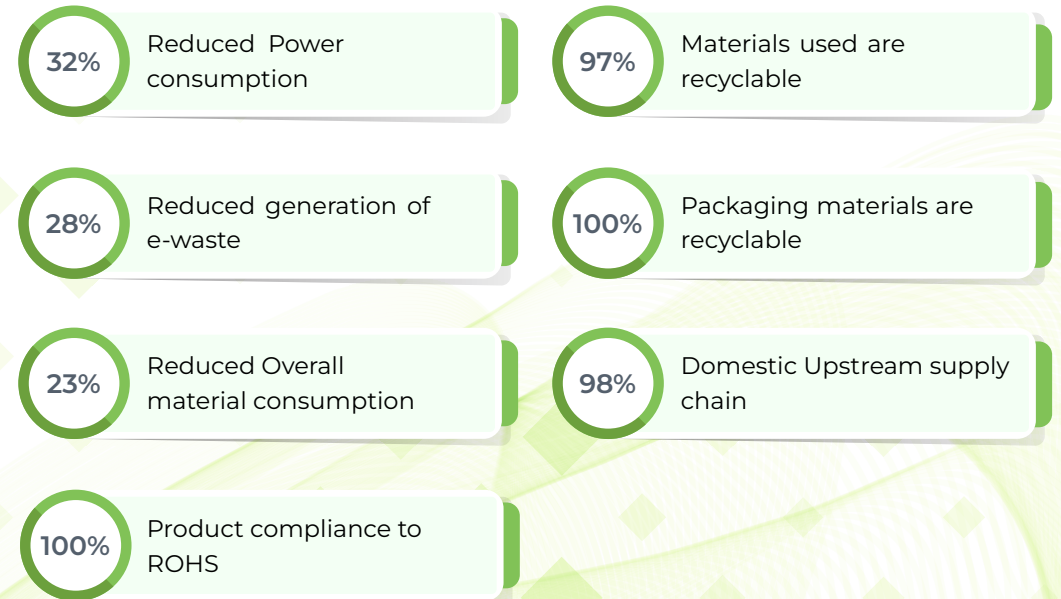
## Supply chain and Its action plans

Our “Sustain Together” – stakeholder engagement principle leads us to develop and empower domestic suppliers which in result reducing the Scope 3(Indirect)- Green House Gas – Carbon emissions.

Siddharth-II product upstream supply chain is mostly spread within domestic of 98% and that includes 33% of MSME's.

## Siddharth-II Impact

A strong focus and commitment to contribute for greener and sustainable product in the last years resulted in a significant ecological impact of the product from prelaunch to full commercial production version as outlined,





**Panacea Medical Technologies Pvt. Ltd.**

✉ [contact@panaceamedical.com](mailto:contact@panaceamedical.com)

🌐 [www.panaceamedical.com](http://www.panaceamedical.com)

Note: Panacea reserves the right to modify the design, packaging, specifications, and options described herein without prior notice.

Please contact our sales representative for the most current information.

Note: Any technical data contained in this document may vary within defined tolerances.

The statements contained herein are based on the actual evaluation of the product. Panacea maintains data on file to support these claims. However, these statements do not suggest or constitute a warranty that all product experience will yield similar results. Results may vary, based on the particular circumstances of individual sites and users.