

Medical Grade Material Definition Mini-Conference & Fair

Breakout Session – Day #2 Sustainability Focus E R I C A August 24th, 2023 MEDICAL MATERIALS

Hosted by JNJ In Collaboration with Vendor Partners

Johnson SURGICAL TECHNOLOGIES

R&D Materials Johnson Johnson MEDTECH Spec Engineering



Day#2 Sustainability Breakout Session

Background:

There is a high global demand for sustainable solutions for Medtech, improved manufacturing processes, close loop technologies adaptation, efficient refineries as well as end of life material management. Therefore, by popular demand emphasis was given to sustainability on day 2 of the conference. This involved presentations from various vendors, panel discussions by JNJ teams as panelist and break out sections with focus on the topics listed in Table 1. Outputs from these working sessions were capture in this report for future use in development a holistic road map for forthcoming engagements.

Table 1. Sustainability Breakout Topics for Group Discussion

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Group #1: Draft a general mission and vision statement as a group tailored to MedTech

According to this team, there are some key elements that required deliberation before a mission statement can be developed. These key elements included but not limited to the following:

- i. How to advance patient health safety No impact to the environment.
- ii. The need to reduce device & packaging waste.
- iii. How to reduce single-use consumables in hospital/clinical settings.
- iv. Use environmentally friendly material/processes/facilities for future benefits.
- v. Reduce hospital use/digital/remote application of devices.

Based on all the above ideas, the mission statement the team came up with following: "Advancing the health, safety and care of patients while creating a position globally with minimum impact on the environment for future generation".

Group #2: Strategy to ensure suppliers are practicing emission-conscious manufacturing.



- i. The question on the table for this group was "what is the current measurement system/process?"
 - a. What are the current standards to be followed?
 - b. How to promote accuracy determination to minimize guesswork and estimations
 - c. Available resources today?
 - d. Current data collection and data management process
 - e. Control and policing techniques and strategy
- ii. Goals, timing & targets
- iii. Process choices & certification approach
- iv. Obligating data collection as mandatory requirements
- v. Material choices vs. material performance when materials selection is restricted

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- a. Varies by material type.
- b. Adaptation of use of responsible sourcing feedstock
- c. Deforestation and its impact on the environment
- d. Food vs. fuel consideration
- e. Certification/internal initiatives
- f. Biogenic carbons and carbon mass balance
- g. ASTM 6866 bio-feedstock vs. other sources.
- h. Energy Use focus.
 - Most significant driver
 - Fuel use
 - Supplier-by-supplier variation
 - Use of public reporting/accountability
 - Availability of data
 - Updates to progress and revision tracking.
 - Creation of realistic scope may be critical as a starting point
- i. Suggested Process
 - Green feedstocks management
 - 1) Non-petroleum



- 2) Carbon capture
- How to compare?
 - 1) Overall footprint
 - 2) Impact on their uses (food vs. fuel)
- Recycled Content
 - 1) What are regulations?
 - 2) Porous properties

Group #3 Challenges to recycle/reuse materials in packaging & devices.

- i. Mixed waste sorting is new but progressing instituting recyclate
- ii. Unknown composite management approach
- iii. Biohazard infections on human /environment etc. to be studied.
- iv. Collection/institution engagements
- v. Training characterization
- vi. Absent of global system and acceptance criteria
 - a. Introduction of characterization
 - b. Introduction of collection/sort processes and methods

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c. Introduction of transportation/logistics



Event in Photos



Environmental Sustainability



Panel Discussion on MedTech Sustainability



Sustainability in Packaging



Supplier Sustainability Presentation



Mass Balance Approach to Sustainability



Sustainability Breakout Session

