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TURNING WASTE INTO ASSETS THROUGH TRACEABILITY

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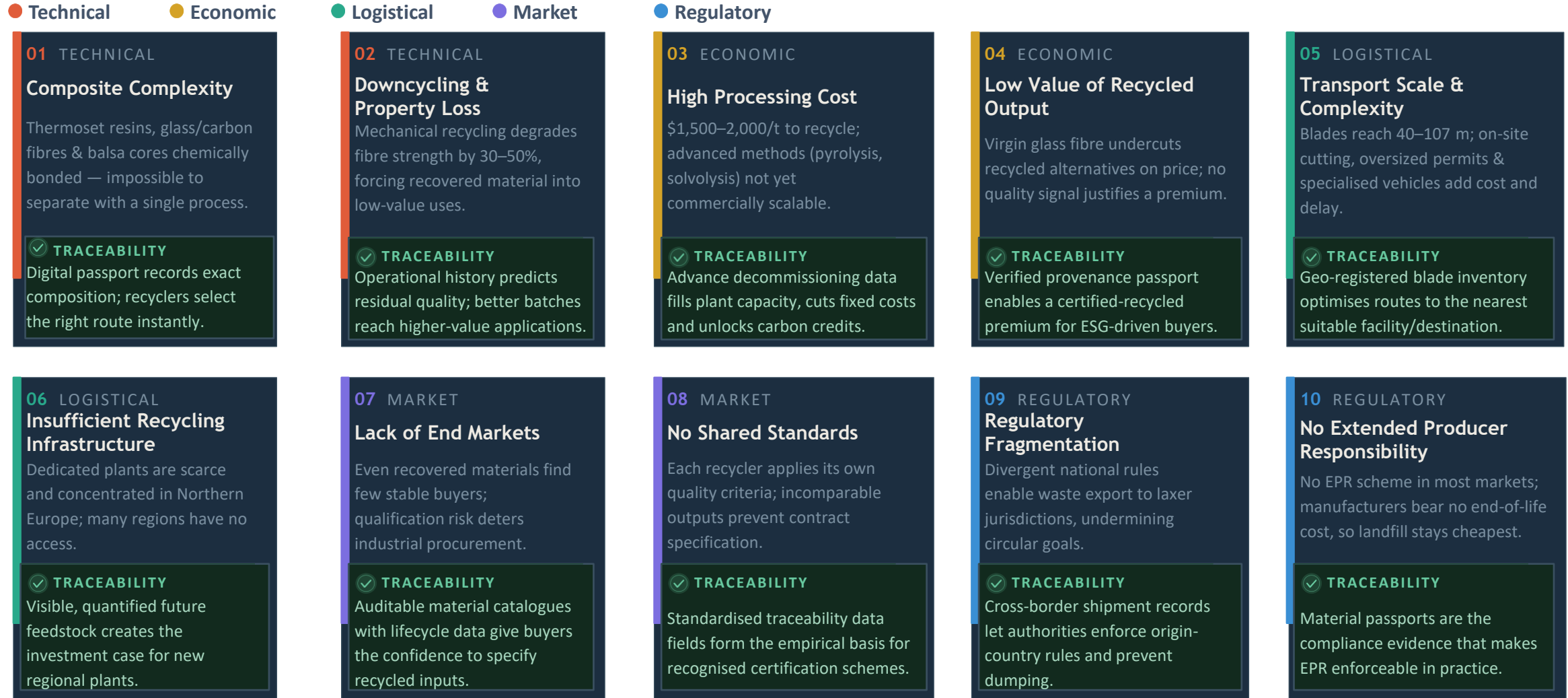
Second stakeholder workshop

13 May, 2026, Online



Photo by Nicholas Doherty on Unsplash

The barriers to WB material recovery



What is Traceability?

The ability to track and document every stage of a material's life — from raw source to final destination — preserving key data at each step.



Traceability turns
waste into
identifiable,
valuable resources.

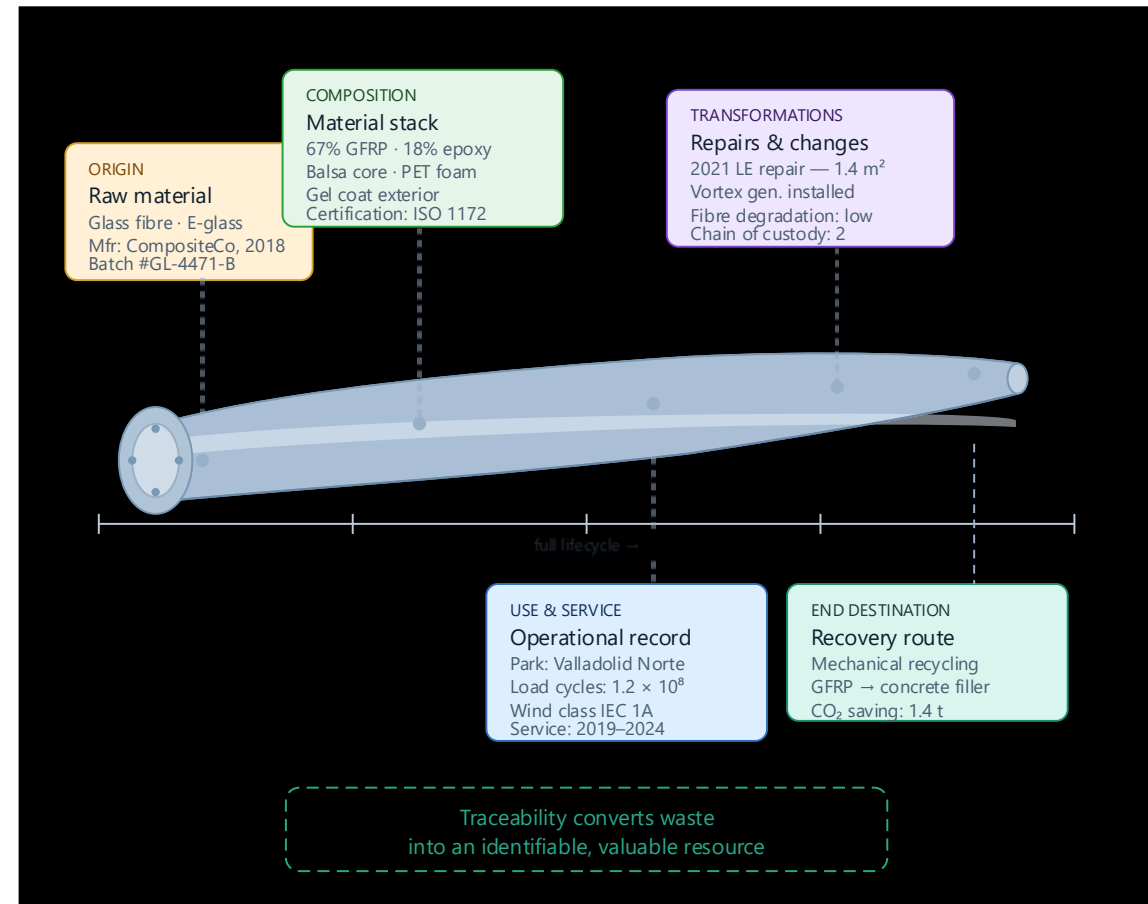
The REFRESH traceability platform

INCLUDES:

- Traceability of blades from the wind farm to the products in which recycled materials are used.
- Transactions and ownership.
- Processing options
- Location and tracking.
- Aggregation of environmental data.

BENEFITS:

- Enhanced quality control
- Better decision-making
- Improved efficiency
- Increased confidence and secondary materials acceptance
- Regulatory compliance



The REFRESH traceability platform

TECHNOLOGY:

- Blockchain network
- Off-chain storage
- Integrity verifier
- Web application
 - Responsive
 - Allowing multi-asset selection and processing
 - Efficient data entry through dropdown lists, error control, and automated calculations.

DATA:

- Blades manufacturer and model
- Composition
- Weight
- LCA data
 - GWP (eq. CO2 kg)
 - Resource use, fossils (MJ)
 - Resource use, mineral and metals (Sb eq. kg)
- Info on previous assets, processes and owners
- Others related files (pictures, data sheets, certificates...)

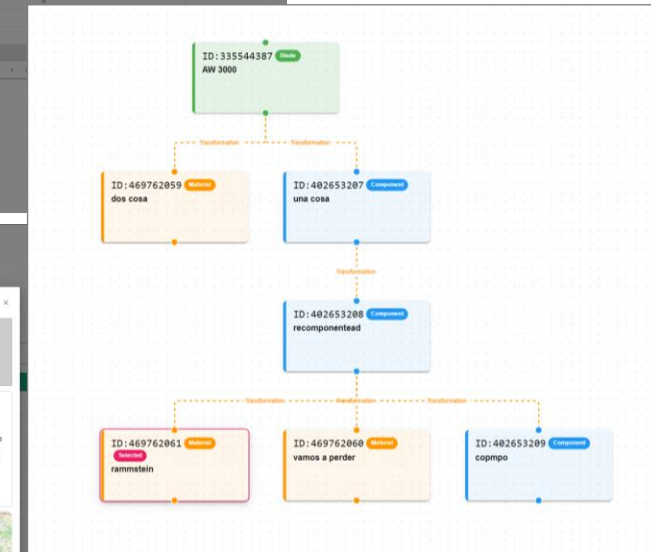
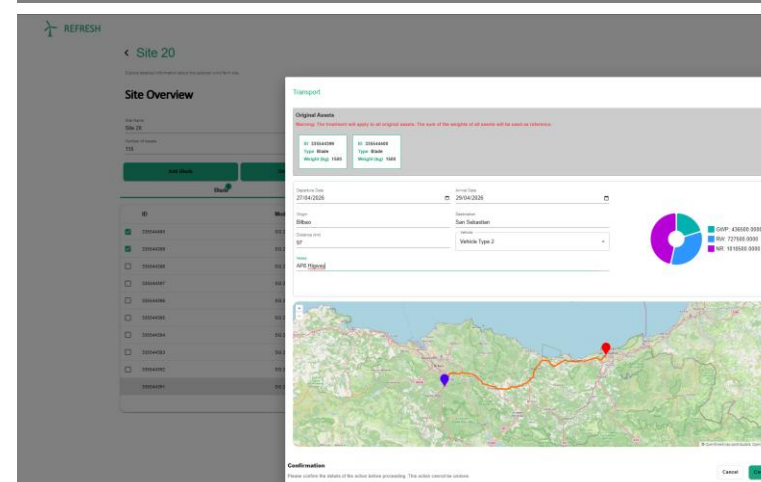
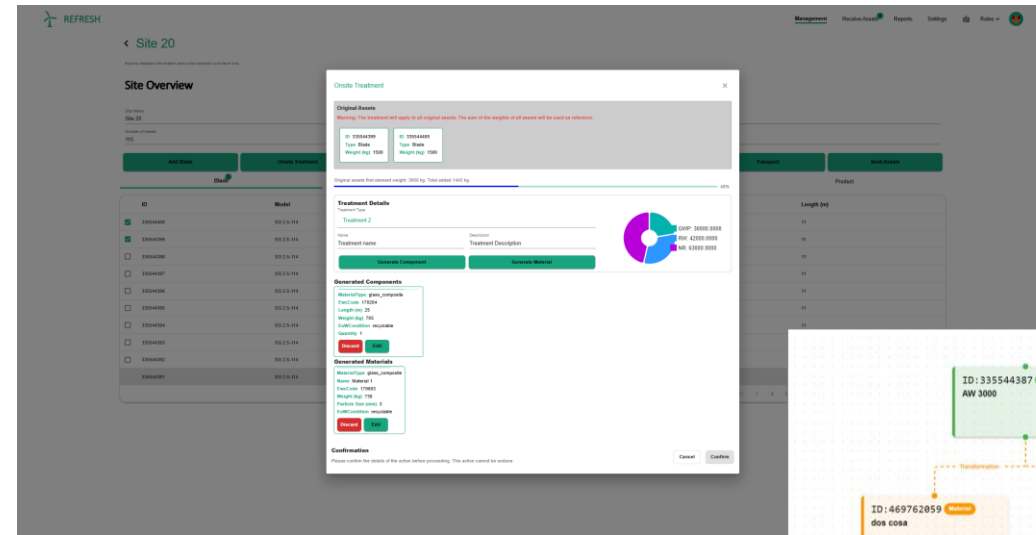
The screenshot shows the 'Management' page of the REFRESH platform. At the top, there's a search bar labeled 'Search by site name or location'. Below it, there are two tabs: 'List View' and 'Map View', with 'Map View' being the active one. The map displays Europe with several red location pins. Below the map, there's a data entry form for 'Site 20'. The form includes fields for 'Location' (with a dropdown showing '115'), 'Installation Date' (set to '20/1/2020'), and 'Description for location 20'. A green button labeled 'Add New Site' is visible in the top right corner.

The screenshot shows the 'Site 20' page of the REFRESH platform. It displays a detailed data entry form for a specific site. The form includes fields for 'Site Name' (set to 'Site 20'), 'Location' (set to '115'), 'Description for location' (set to '115'), 'Installation Date' (set to '2020-01-19T23:00:00.C'), and 'Operator Name' (set to 'Operator 5'). Below these fields, there are several buttons for 'Add Blade', 'Onsite Treatment', 'Mechanical Treatment', 'Material Treatment', 'Conditioning', 'Transport', and 'Send Assets'. At the bottom, there's a section for 'Blade' information, including a dropdown for 'SG 2.5-114' and a green button labeled 'ID: 335544400'. The form also includes fields for 'Manufacturer Name' (set to 'Siemens-Gamesa'), 'Weight (kg)' (set to '1500'), and 'Length (m)' (set to '11').

The REFRESH traceability platform

What is next?

- Validation at lab scale (TRL 6)
- Update of internal databases for LCA
- Further development
- Replication for other sectors
- Exploitation opportunity assessment





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Thank you for your attention!

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