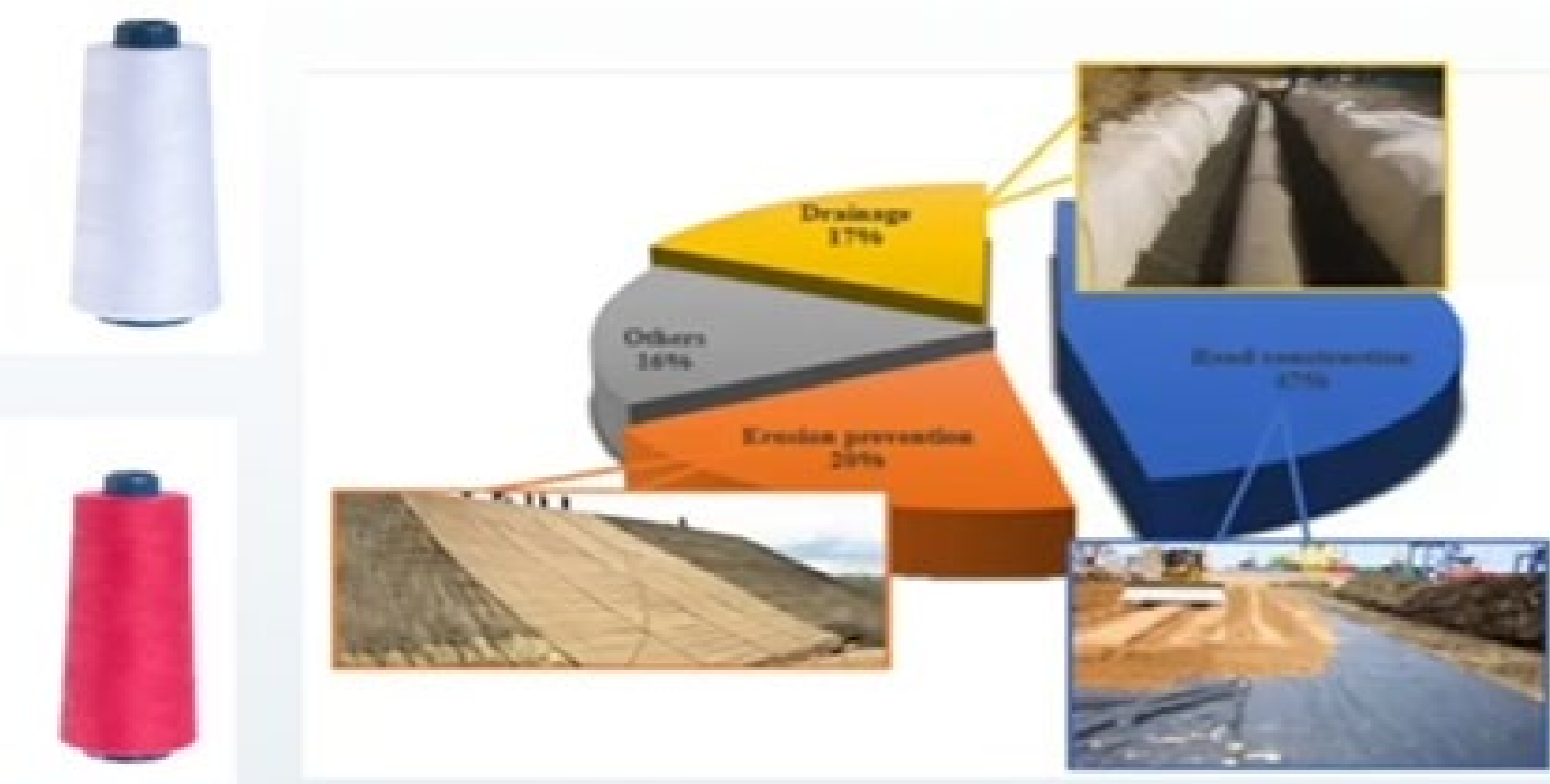


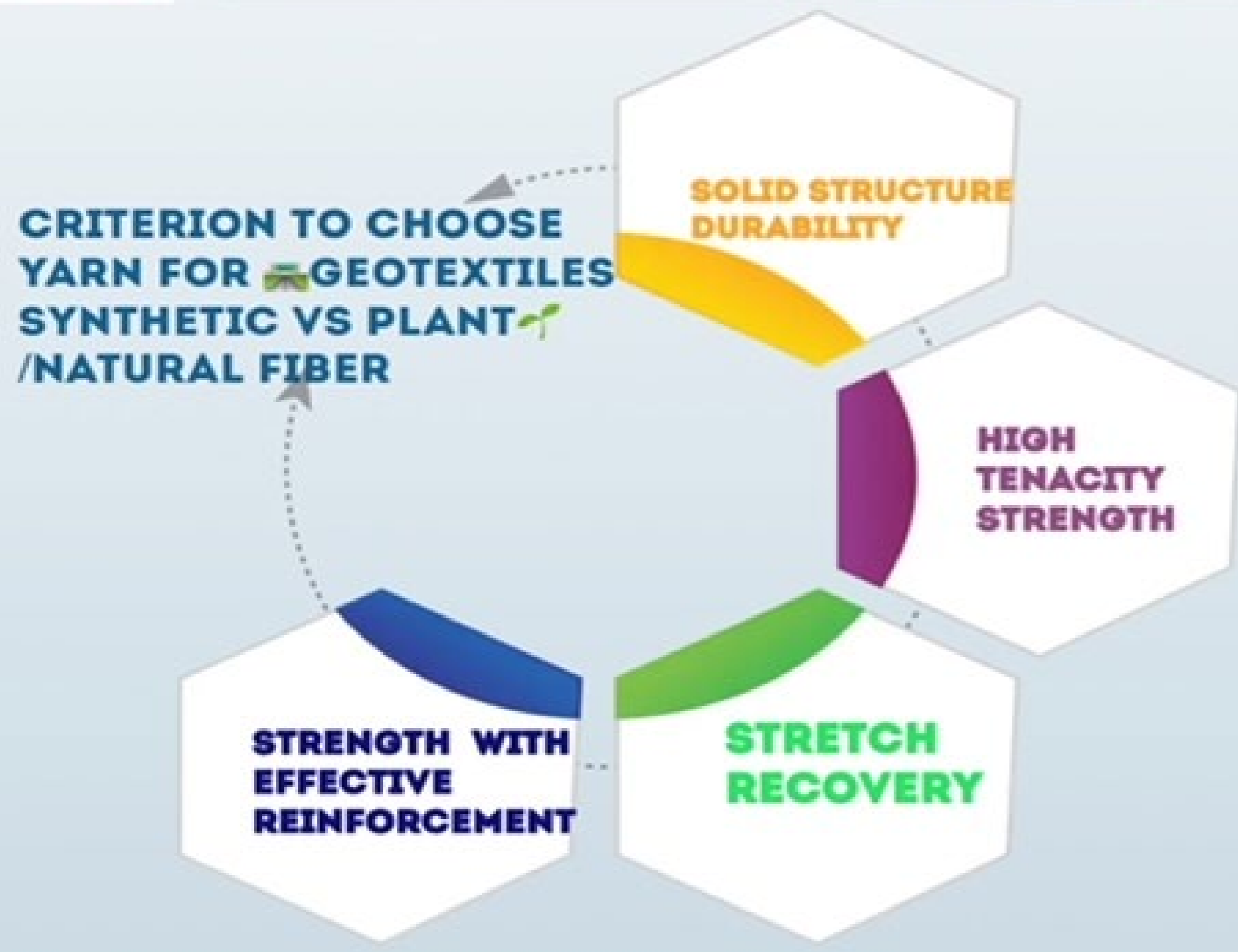


N BATTA- Director
Baumwolle Textiles (Baumbio Group)
India

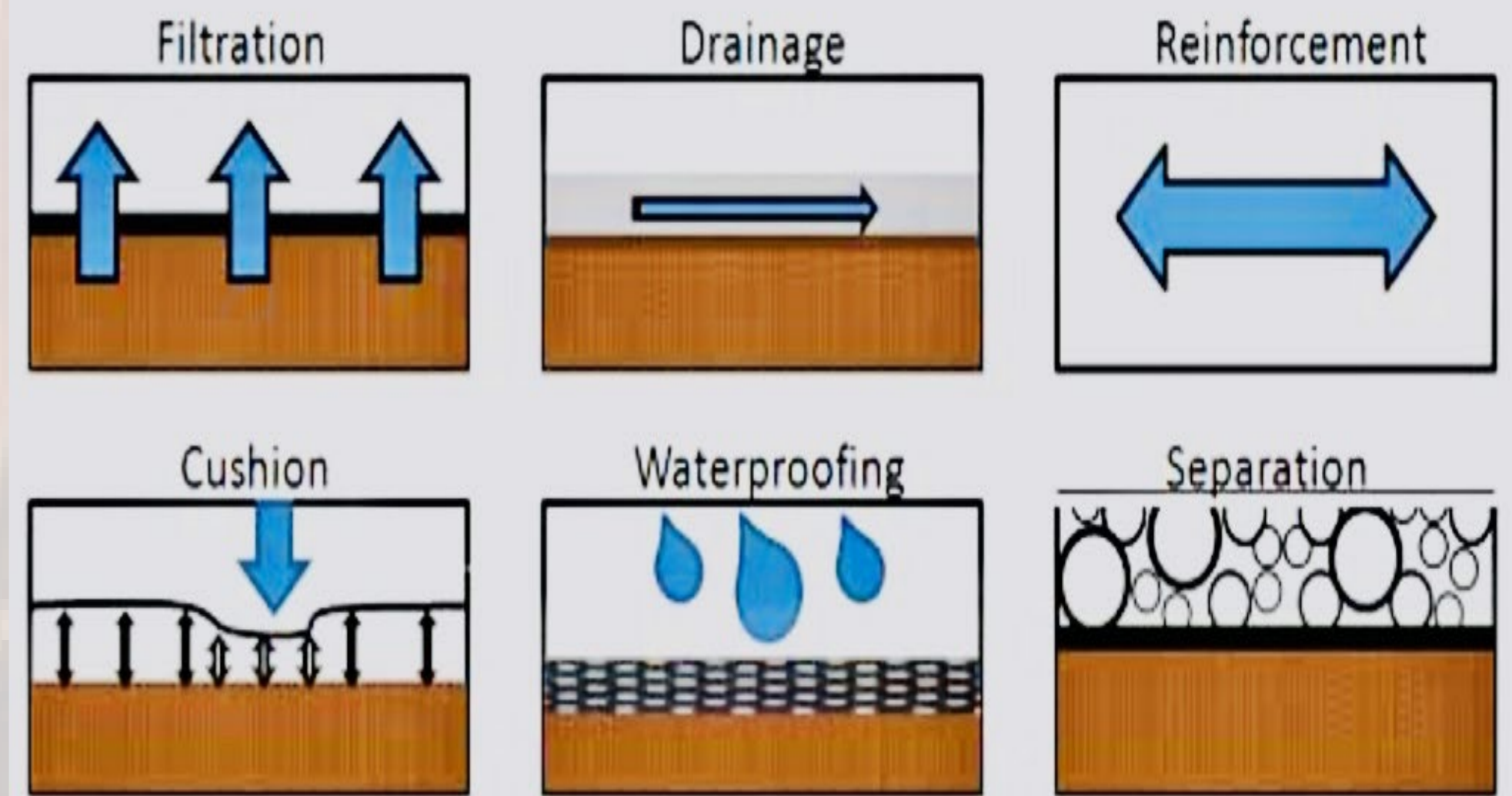


NATURAL GEOTEXTILES :

- ✓ **Sustainability:** Made from materials like jute or coir, natural are biodegradable eco-friendly, avoiding plastic pollution.
- ✓ **Water Absorption:** With water absorption, natural fibers aid vegetation growth, soil improvement, & water management, reducing water runoff, & promoting vegetation growth for enhanced erosion control.



Functions of Geotextiles:



Geotextiles as asphalt inlays

To extend the utilization of roads

Asphalt is used for more than 70 percent of Federal highways and Autobahns. Therefore, it is completely understandable that consideration has – for many years now – been given to finding out how to extend the life of roads.

Viability of Pineapple Leaves as an Alternative Natural Fiber Geotextile

Test Sample	Average (KN/m)	Filtration 58 (KN/m)	Filtration 68 (KN/m)	Filtration 78 (KN/m)
Pineapple leave geotextile	31.886	24.0	30.0	35.0
Abaca geotextile	29	24.0	30.0	35.0

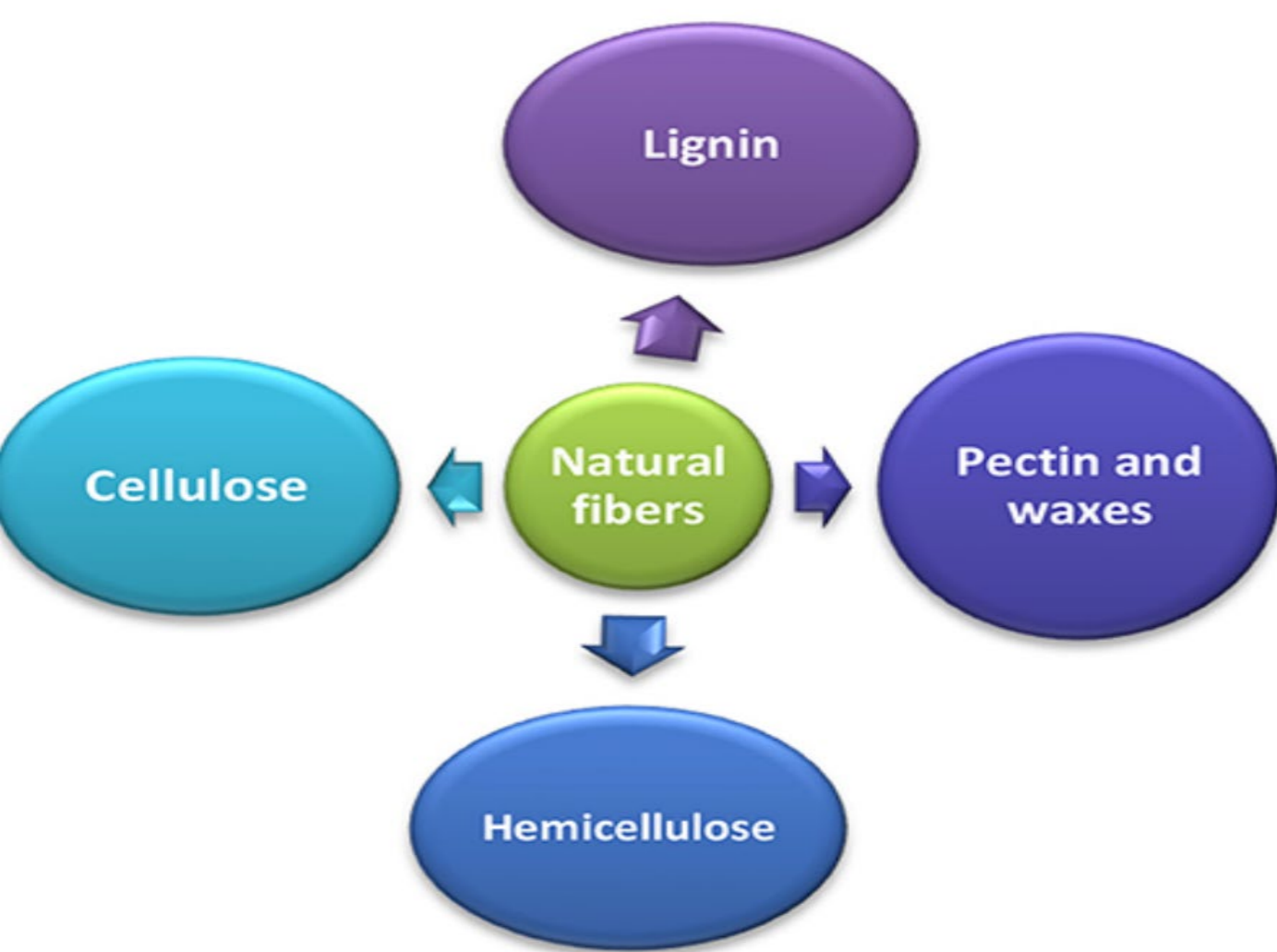


FIGURE 1. Constituents of plant fibers (FASER INSTITUTE, 2014).

Type of fibre	Tenacity N/tex	Extension at break (%)	Initial modulus N/tex	Work of rupture, N/tex	Volume swelling %	Moisture regain % at 65% RH, 20°C	Lignin content %
Jute	0.3–0.9	1–1.8	17–19	0.005	44.3	12–14	12–14
Coir	0.18	41–45	4.22	0.016	–	10	30
Sisal	0.37–4.7	1.9–4.5	25–26	0.0043	39.5	11–14	9.9
Polyester	0.3–0.8	15–55	6–12	0.020–0.092	–	0.4–0.6	Nil
Polypropylene	0.3–0.8	15–35	2–9	0.082	–	< 0.1	Nil