Fashion's methane crisis:

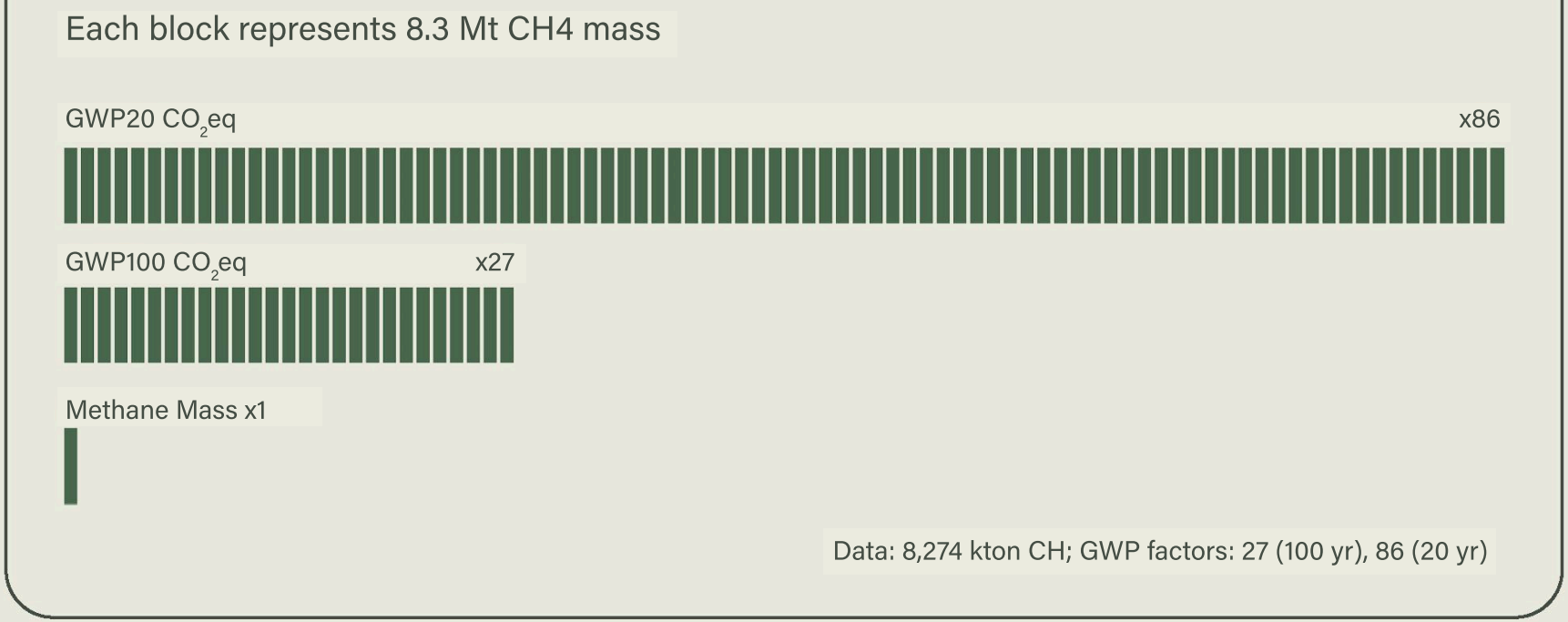
first-ever industry footprint analysis

Collective Fashion Justice

Understanding methane

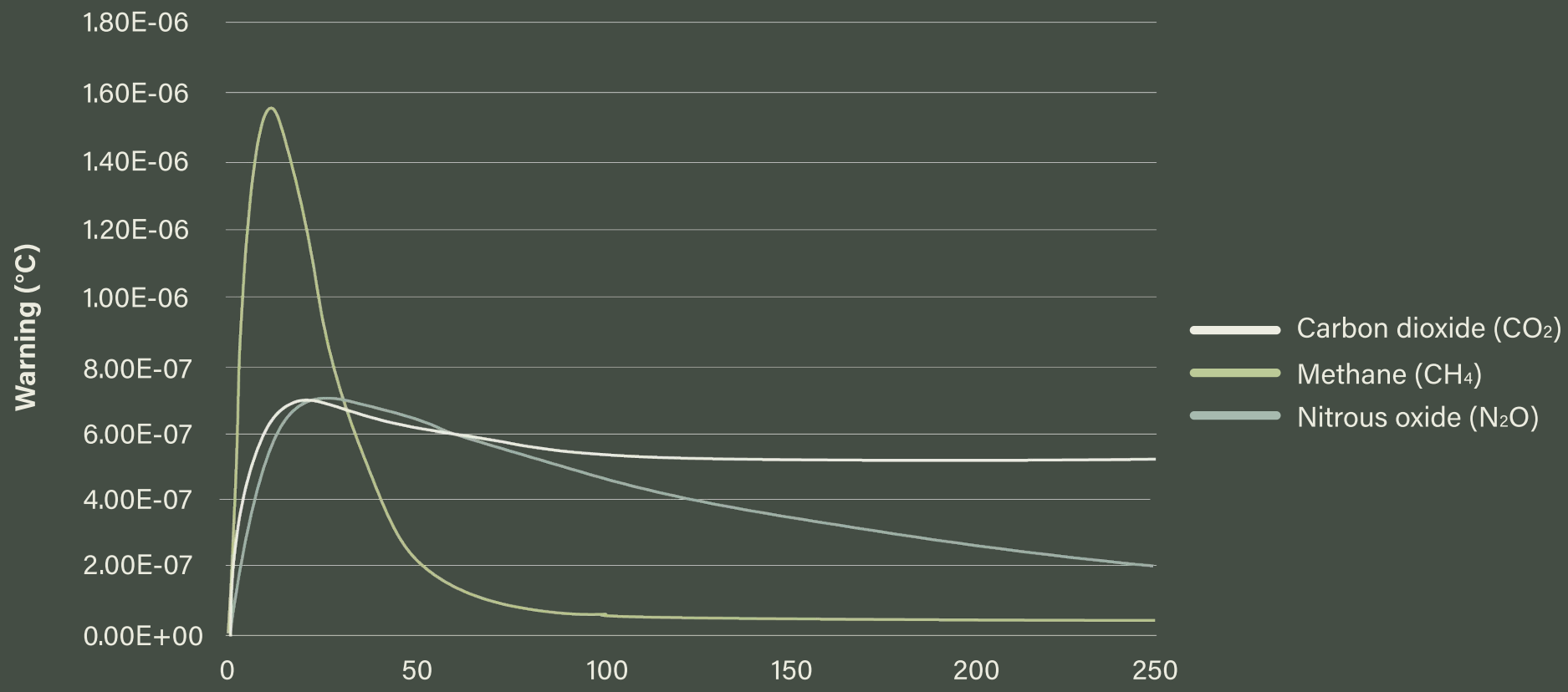
1. ~86x more potent than carbon dioxide over 20 years
2. Shorter atmospheric lifetime than CO_2: ~12 years vs centuries

Methane mass and CO_2 eq impact

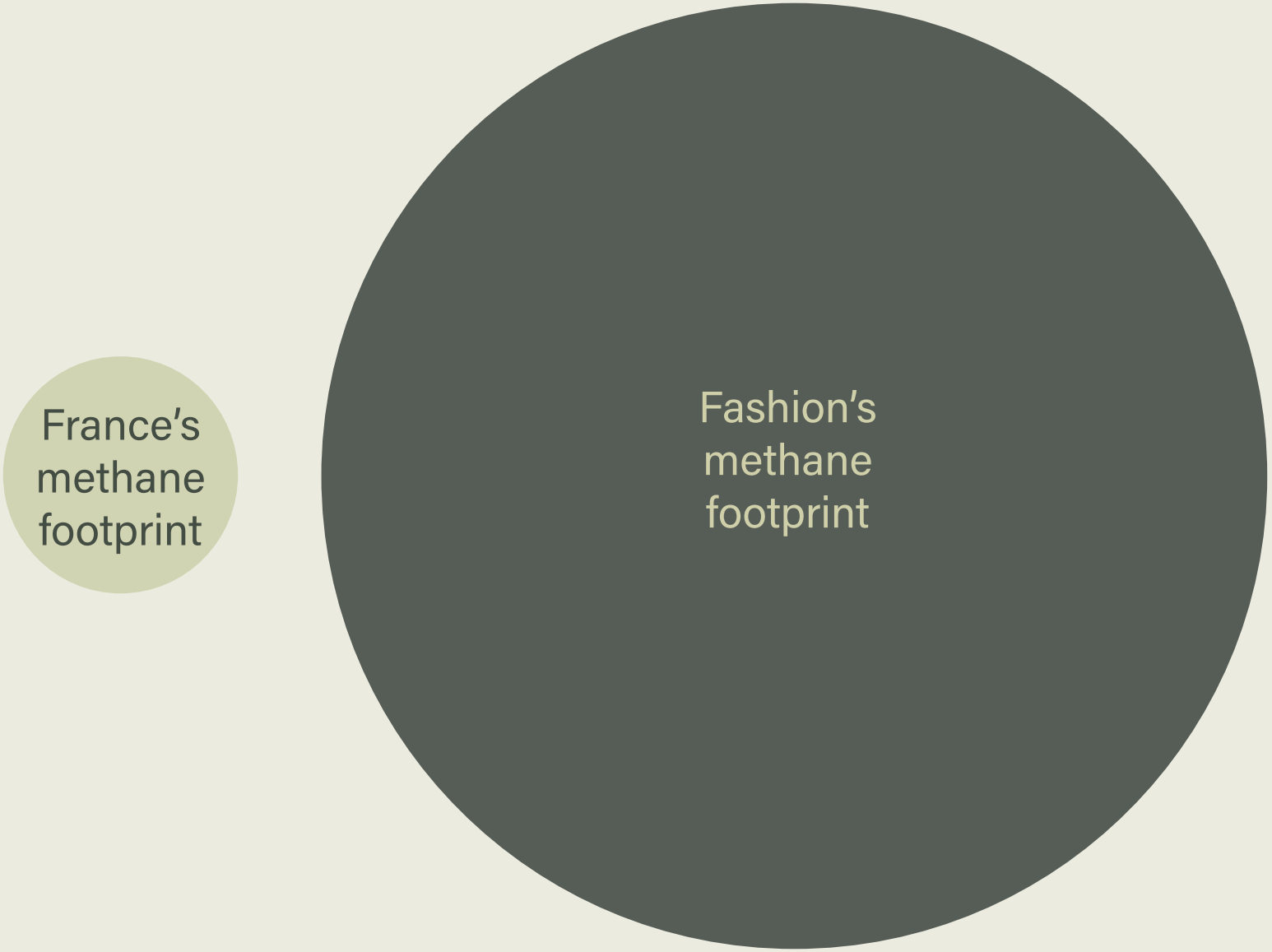


Understanding methane

Methane is more potent but does not last as long, making its mitigation a fast way to reduce global temperatures.

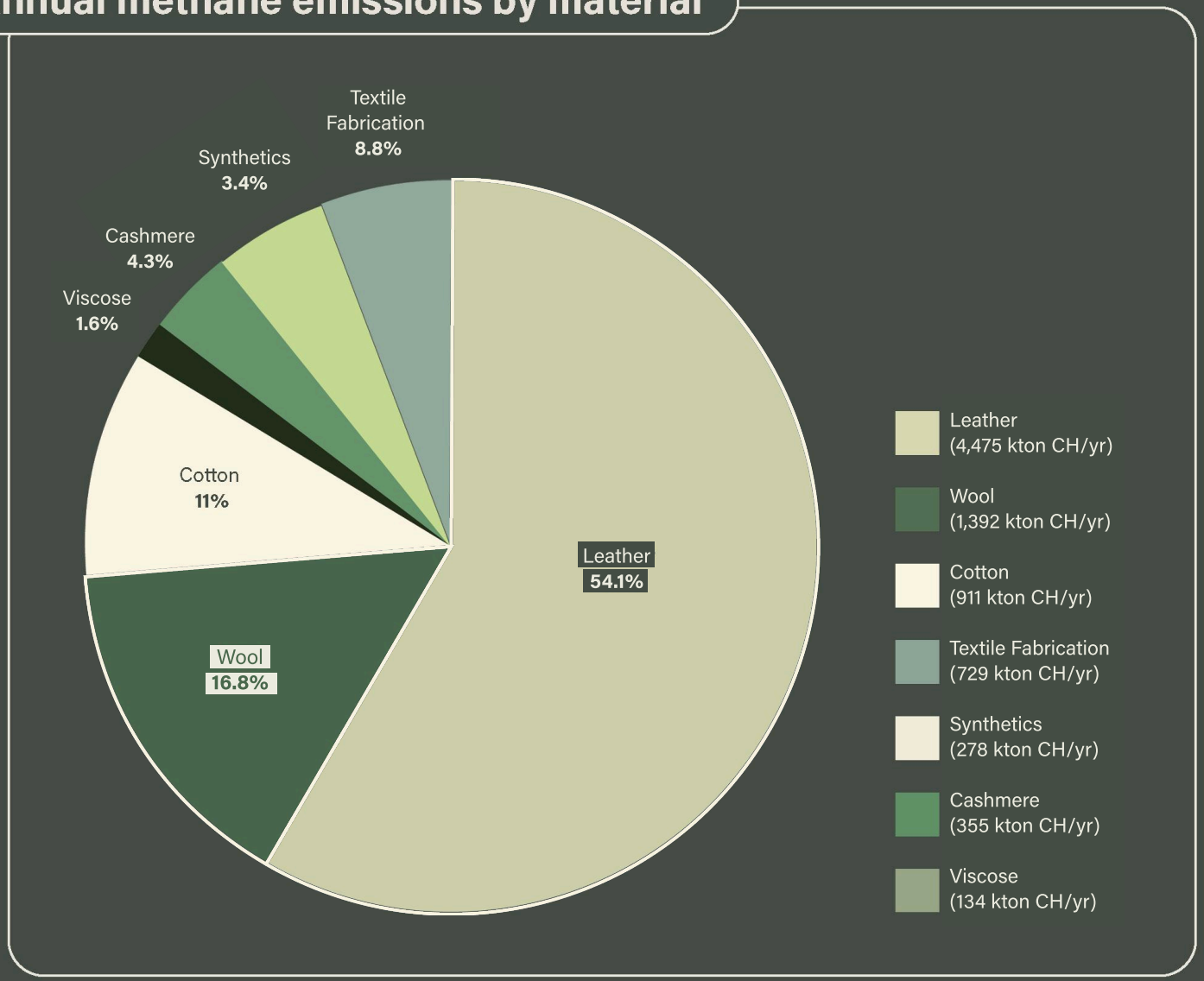


Fashion’s methane crisis



Fashion's methane footprint: our research findings

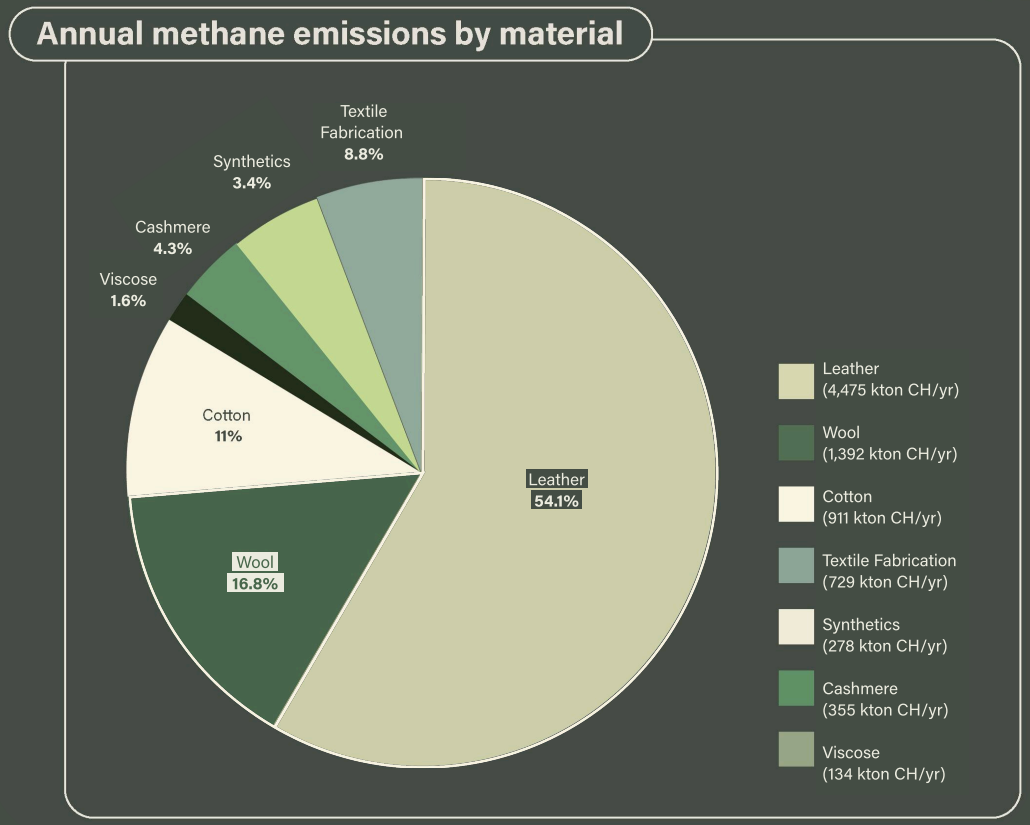
Annual methane emissions by material



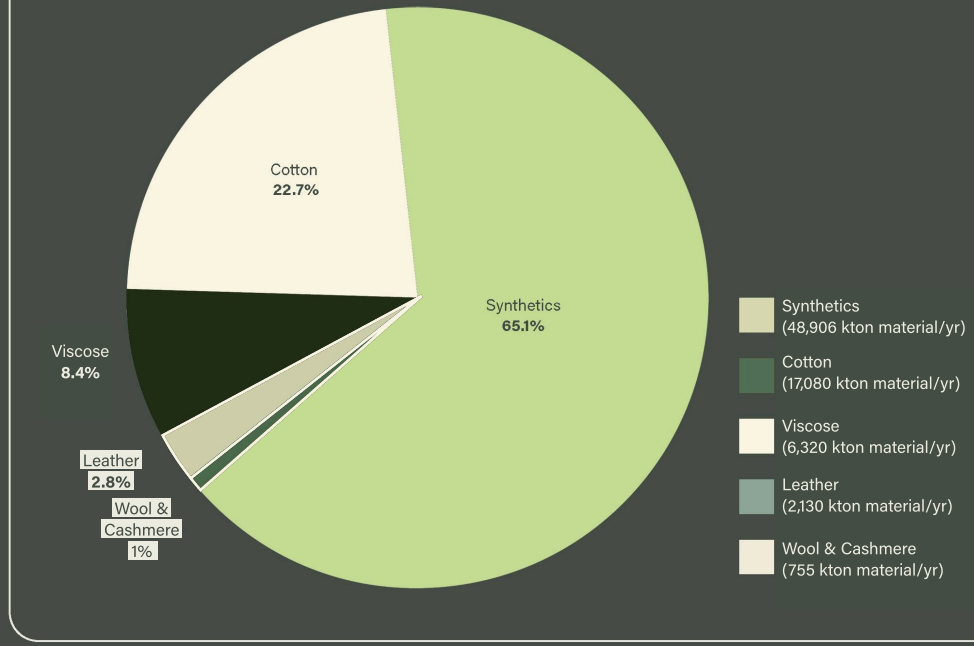
The 71/4 problem:

Materials making up under 4% of fashion production create 71% of methane emissions

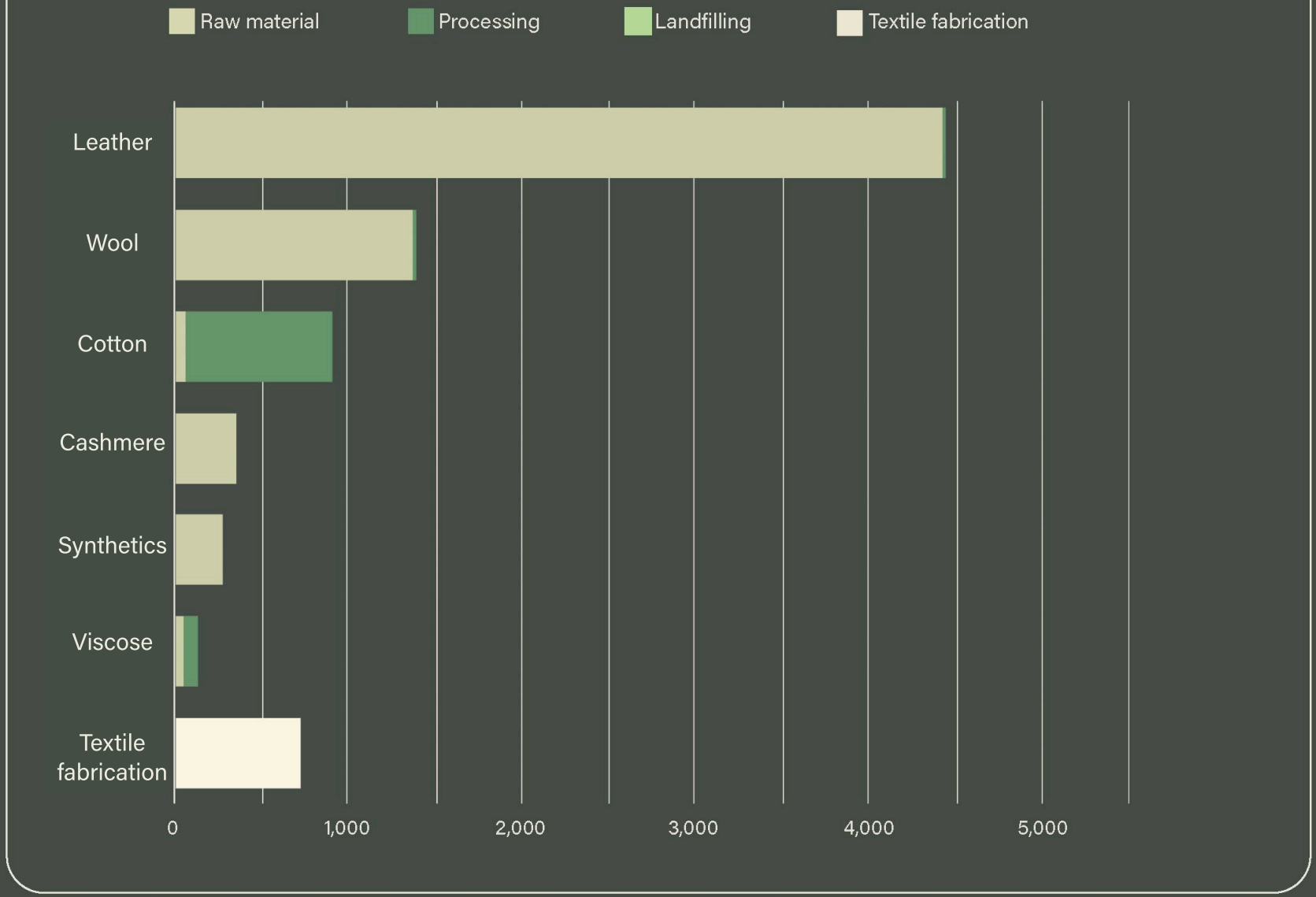
Annual methane emissions by material



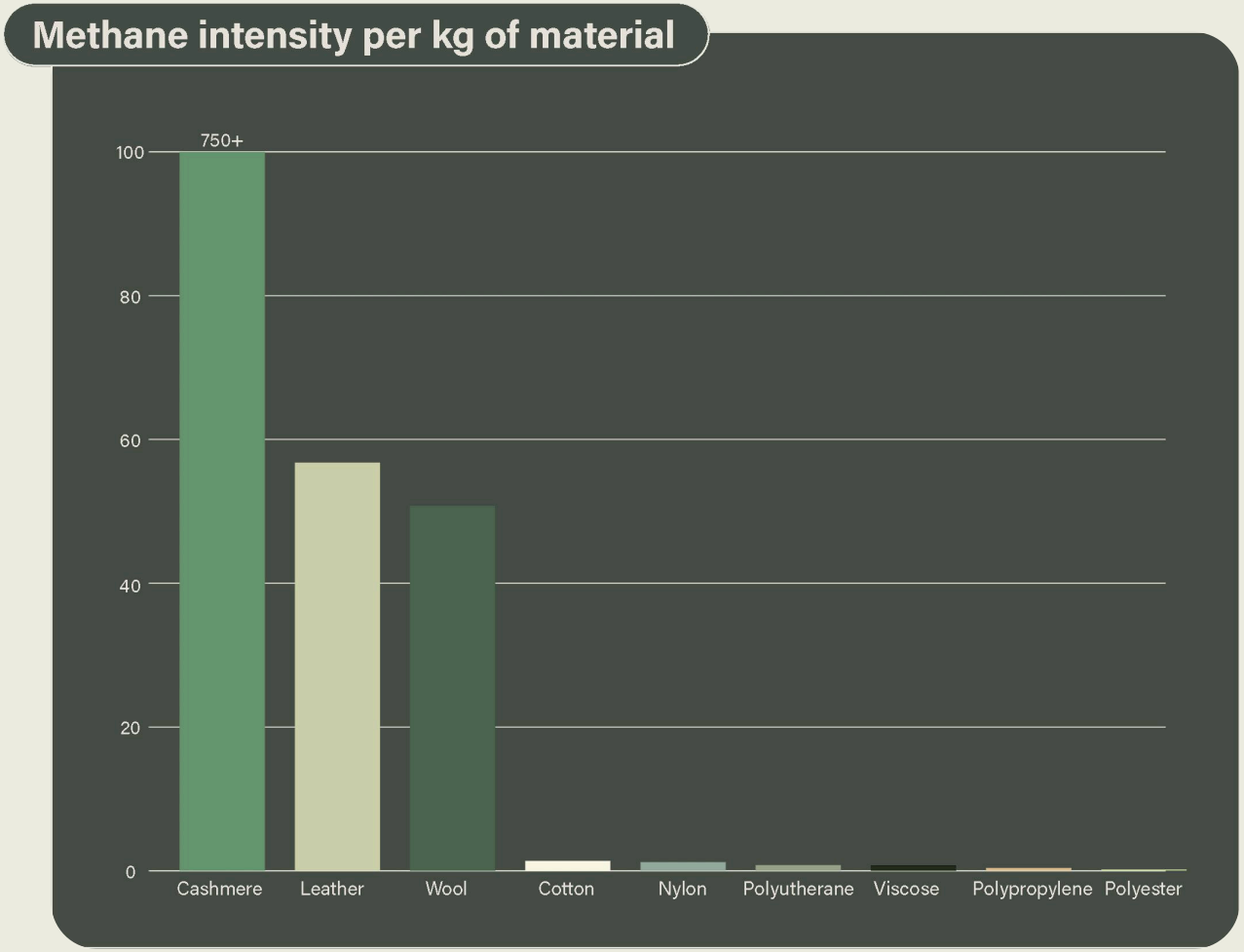
Annual fashion materials production volume



Yearly global methane emissions: fashion materials

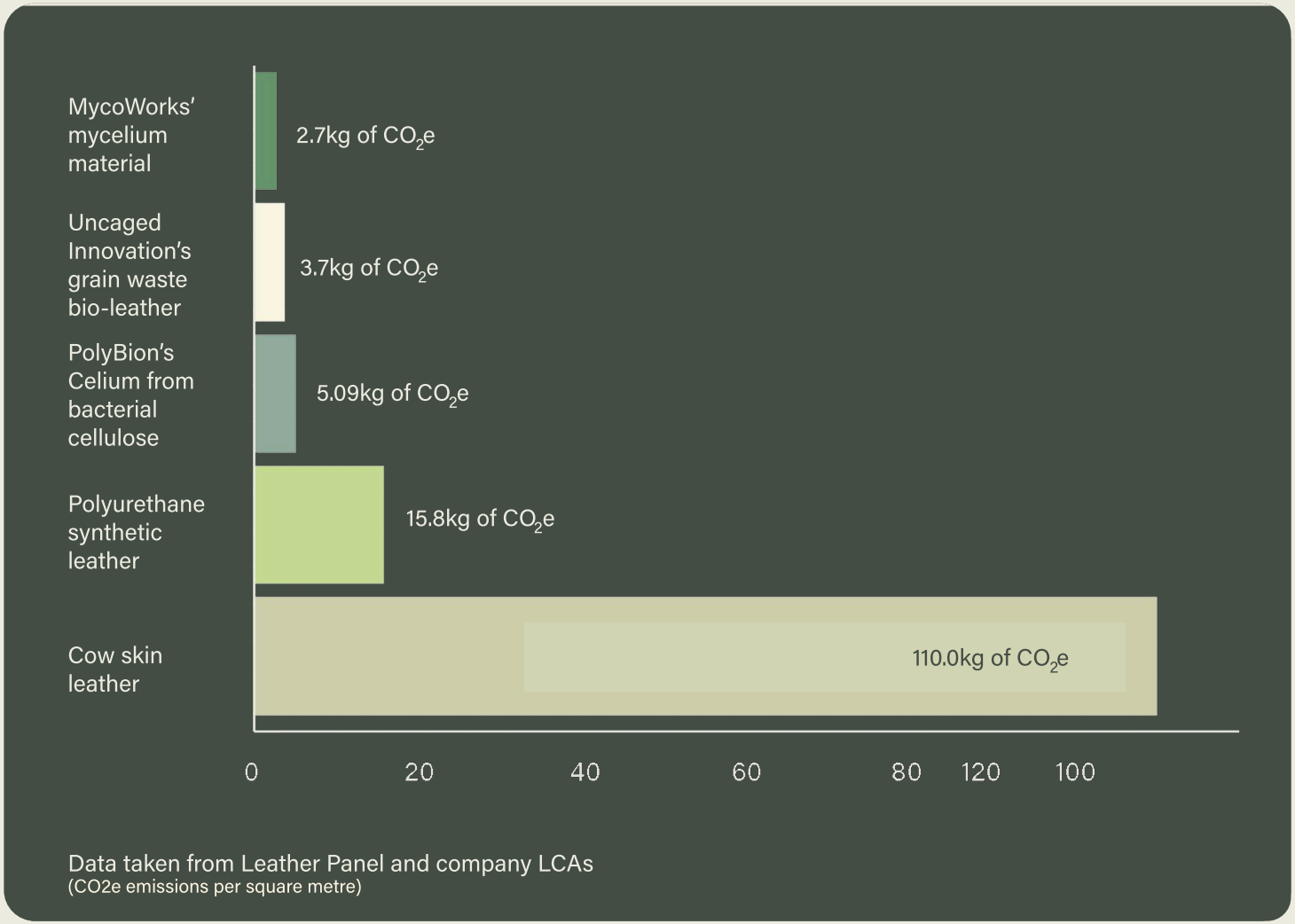


Methane intensity per kilogram material



Beyond incremental solutions

We need rapid, scalable solution to reduce methane 30% by 2030



Data taken from Leather Panel and company LCAs
(CO2e emissions per square metre)

Lowering methane lowers carbon equivalent emissions.

Now or never:

a first methane footprint for the fashion industry

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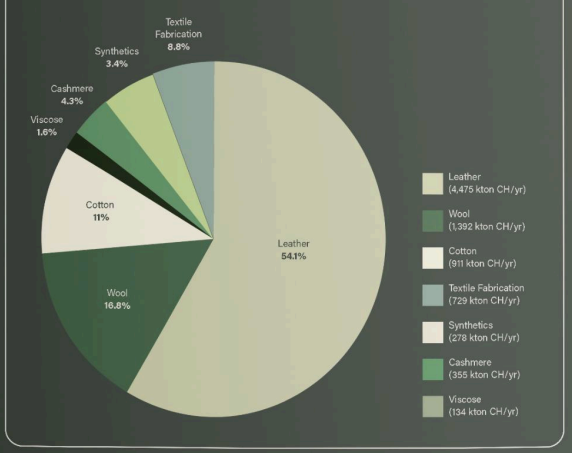
This is the breakdown of where annual methane emissions come from, by material:

Together, animal-derived leather and wool make up 71% of total methane emissions.

Annual methane emissions by material



(Fig. 1. Estimated total methane emissions volume associated with the fashion industry per year (kton CH_4/yr), based on aggregated life cycle inventories of raw material procurement, processing stage, and end-of-life landfilling. Synthetic fibers (polyester, nylon, polypropylene, and polyurethane) are grouped as "Synthetics". "Textile Fabrication" considers the weaving and knitting of materials included in this study. Percentages indicate the relative contribution of each portion to total methane emissions from fashion supply chains.)

Each material's methane emissions were assessed from the beginning of their supply chain through to landfilling, assuming all materials end up in landfill at some point given the fashion industry's total lack of textile recycling facilities (just 1% of textiles are recycled) and very limited engagement in effective circularity initiatives.

For leather and wool, which are profitable co-products of the food industry (and sometimes even primary products) a combination of economic and biophysical emissions allocation were used, making use of data published by the leather industry itself, and peer-reviewed research. That means the emissions tied to leather and wool are a specific, relevant portion of the overall emissions associated with rearing a cow or sheep for production and slaughter.

Just how severe the metl animal-derived leather a clear when you compare to fashion's methane foo contribution by volume o in fashion production ea

Annual fashion materials production v

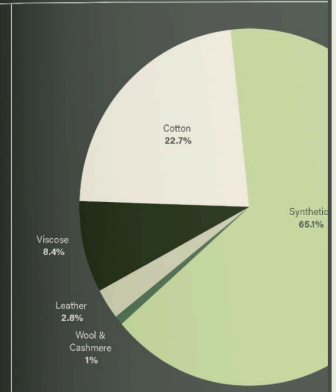


Fig. 2. Estimated distribution of annual production volume of major fashion kilotonnes per year (kton material/yr), representing the approximate scale o based on the Textile Exchange Market Report. Synthetic fibers (polyester, ny "Synthetics". Percentages indicate the proportion of each material relative t

For all materials but cotton and viscose, the vast major associated with raw material production. Cotton is the of its methane footprint associated with processing the

This is not to say less methane-intensive materials are materials have different environmental impacts across synthetic materials have a far reduced methane footpri life issues and are tied to fossil fuel use which must be

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