

Lantal



*Comparison of
leather and textile fabric*

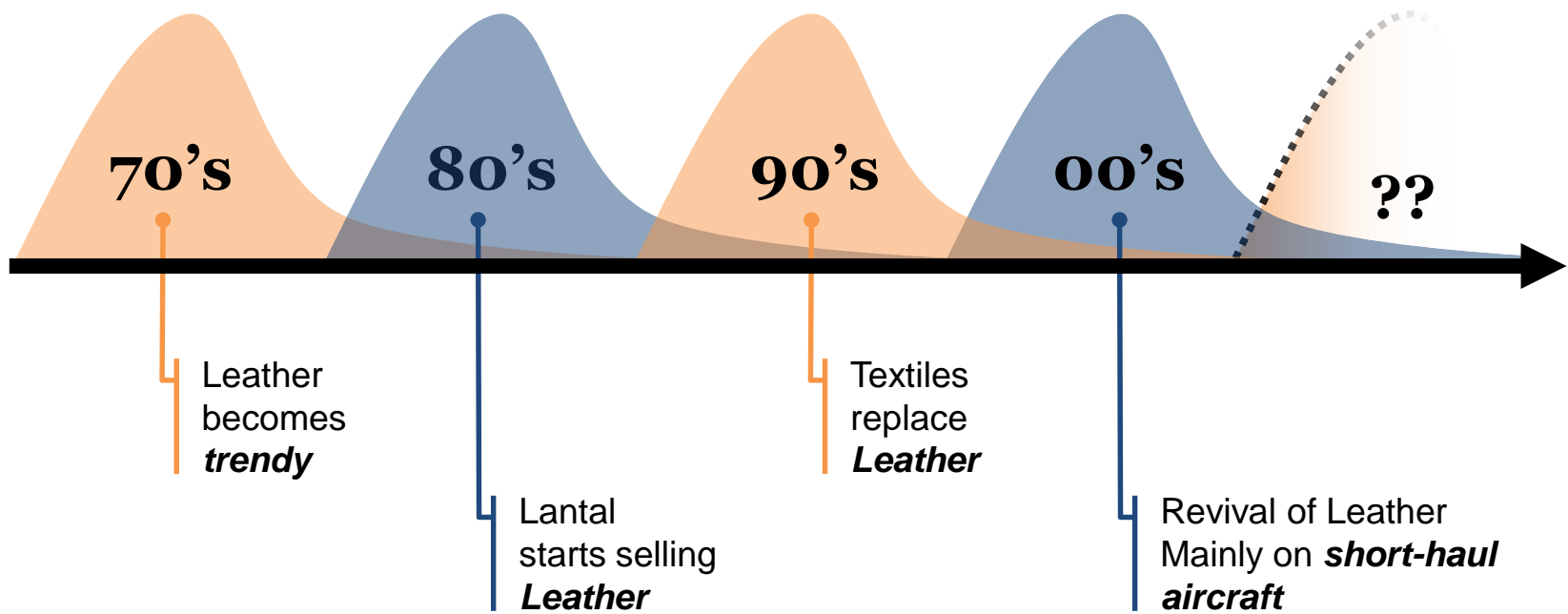
Comparison of leather and fabric



1. Why does Lantal sell leather?

Fabric & Leather trends come and go in waves

Lantal has been a supplier to the aviation industry for more than **60 years**. In those years, various trends appeared and left:



2. Technical data

Both have advantages and disadvantages

Leather



Weight

800 g/m²

Width

Average size per hide 5 m²

Composition

Genuine Leather
(central european cattle hides)

Requirement

3.5 – 4 m² per Y/C seat

Flammability

FAR/CS 25.853 App F Part I.

Smoke & Tox

ABD0031 Rev. G / BMS8-87

Fabric



300 – 500 g/m²

approx. 137 cm

Customizable to your needs
e.g. 90% wool / 10 % polyamide

2 lin.m. per Y/C seat

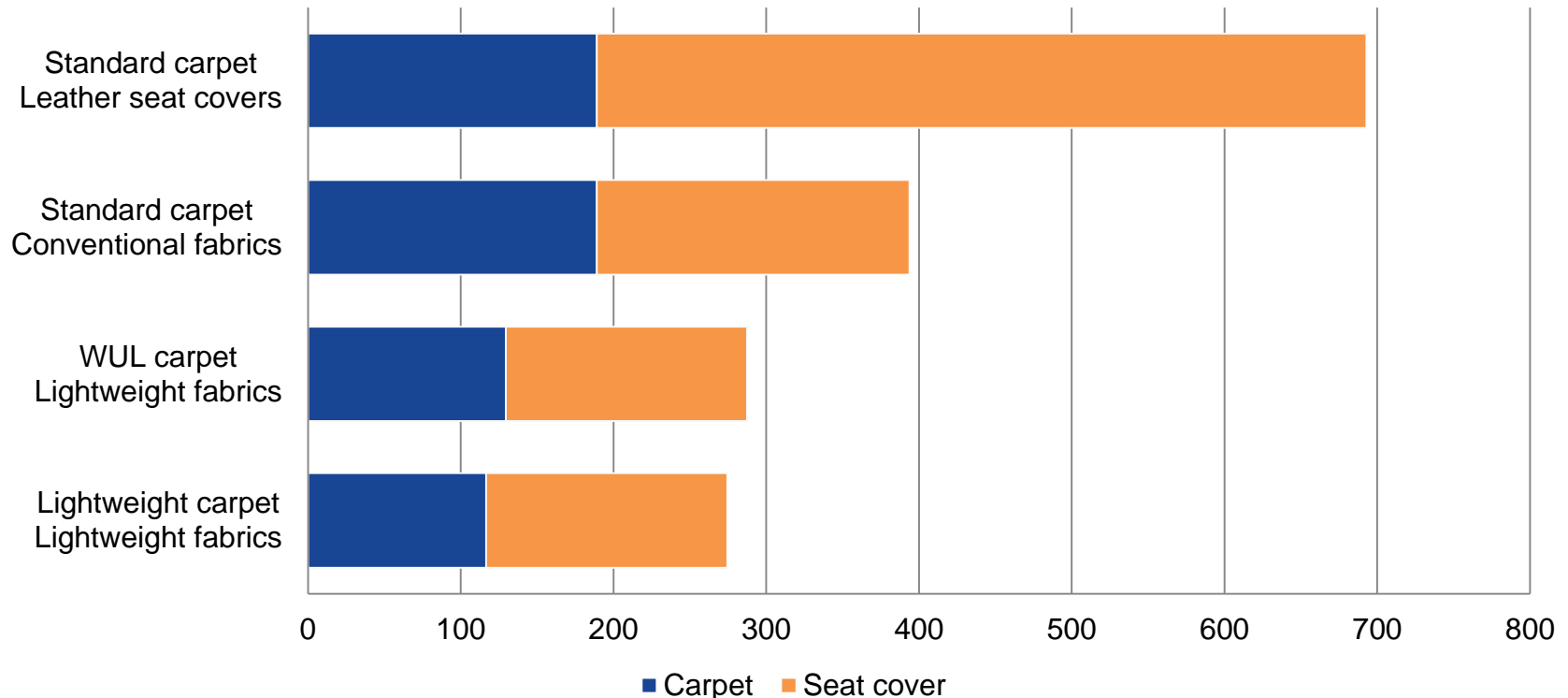
FAR/CS 25.853,

ABD0031

3. Weight comparison

Fabrics significantly weighs less compared to leather

For a single-aisle aircraft with 180 Y/C PAX using 108 m² carpet, the following weight savings in kg can be achieved:



3. Weight comparison

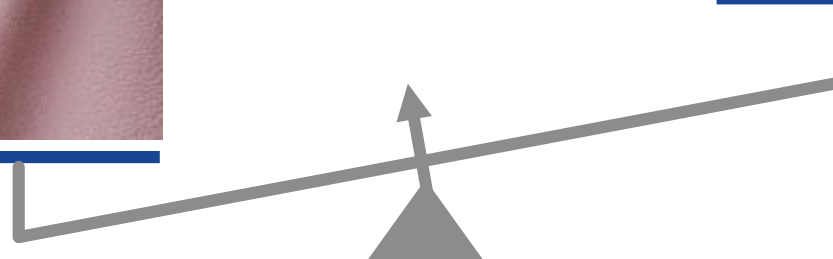
Basis Single Aisle A/C
 180 Y/C seats
 (A320/B737)

- 60% less
- 418 kg less
- 4-5 pax more

**Genuine leather
Standard carpet**



**Lightweight fabric
Lightweight carpet**



4. Design / Class differentiation

Leather



- Various embossings/structures
- Uni/plain colored
- Class differentiation with color only
- Good image (if in good condition)
- Looks more valuable
- Looks clean (even if it's not)

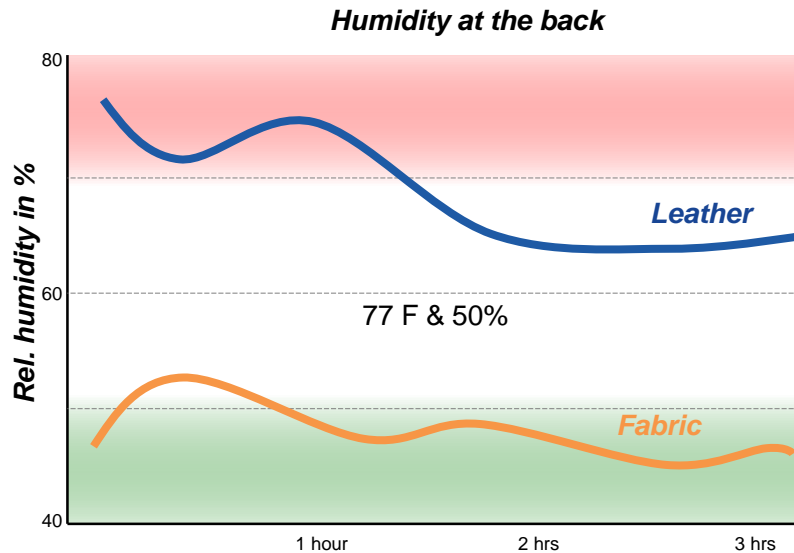
Fabric



- Wide range of possibilities in terms of
 - Customized designs
 - Color variations
 - Qualities/Compositions
 - 3D effects
- Differentiation to competition
- Cozy feel – haptic experience

5. Comfort - Humidity

Data



Key message

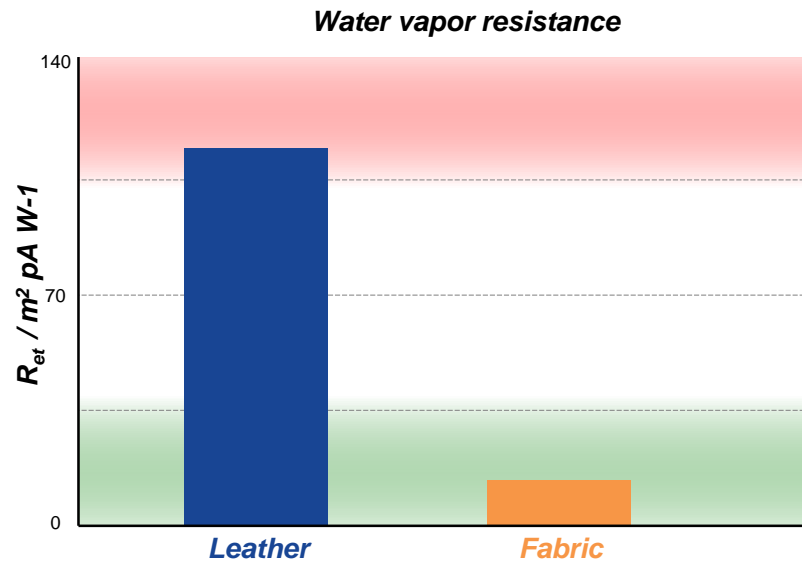
- **Transportation** of humidity at the back
- Fabric can **absorb 25%** humidity of its weight

Source:
Study by Hohenstein Institutes, Department of Fabricing Physiology - Volkmar T. Bartels

Thermal comfort of aero plane seats: Influence of different seat materials

5. Comfort - Humidity

Data



Key message

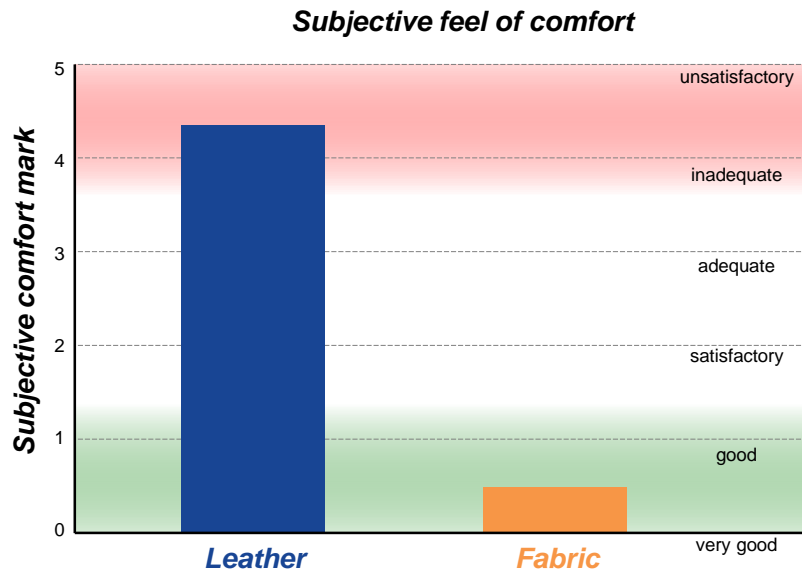
Water vapor resistance R_{et} of covering materials and cushions obtained by means of Skin Model measurements. ***Low values are favorable and indicate a good breathability***

Source:
Study by Hohenstein Institutes, Department of Fabricing Physiology - Volkmar T. Bartels

Thermal comfort of aero plane seats: Influence of different seat materials

5. Comfort - Sliding

Data



Key message

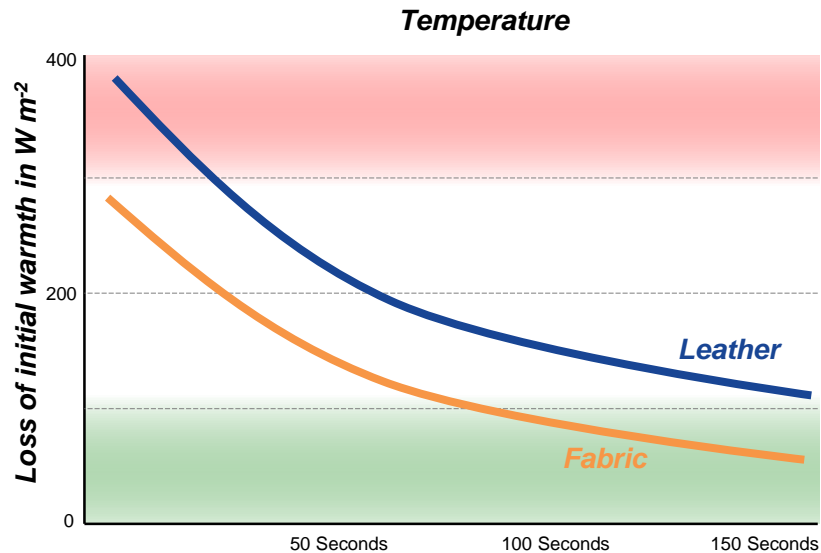
- Subjective feel of comfort
- ***Sliding*** on leather is ***uncomfortable*** (exhausting) for passenger

Source:
Study by Hohenstein Institutes, Department of Fabricing Physiology - Volkmar T. Bartels

Thermal comfort of aero plane seats: Influence of different seat materials

5. Comfort - Temperature

Data



Key message

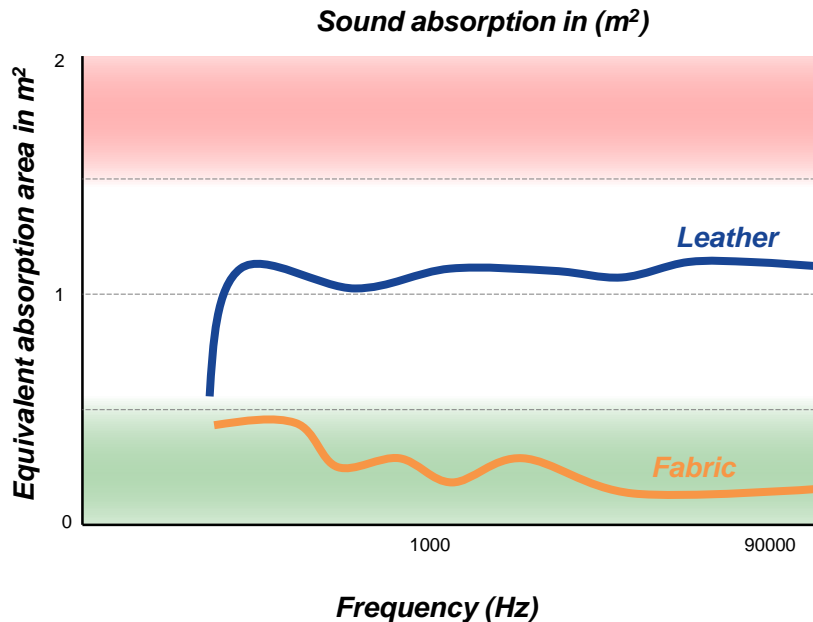
- Loss of initial warmth in W m^2
- **Leather** is *hot* in summer and *cold* in winter

Source:
Study by Hohenstein Institutes, Department of Fabricing Physiology - Volkmar T. Bartels

Thermal comfort of aero plane seats: Influence of different seat materials

5. Comfort - Sound absorbing

Data



Key message

- Absorptive seat cover materials increase the overall absorption and ***help to improve cabin interior sound quality***

5. Comfort summary

Leather



- No transport of humidity (sweating)
- High water vapor resistance
- Sliding/Slipping → uncomfortable (exhausting)
- Feels hot or cold after boarding
- More noise in the cabin

Fabrics



- Transport of humidity
- Low water vapor resistance
→ breathability of seat cover
- No sliding
- Temperature balance
- Sound absorption

6. Durability

Leather



- Average lifetime 6 years
- Original and new covers look different
- Lifetime of light colors is shorter

Fabrics



- Average lifetime 2.5 - 5 years (depending on composition)
- Minimum 20 cleaning cycles

Keep in mind the frequency of a design/CI change

7. Maintenance

Leather



Interim cleaning

- use a mild soap solution
- wipe off the soap water with fresh water
- dry with a soft cloth

Main cleaning

- Deep cleaning using cleaning fluids
- Dry up gently with a clean cloth
- Let dry for at least 30 minutes

Cleaning frequency

Depends on the airlines quality standard
(i.e. weekly interim cleaning)

Fabrics



- Removal of the covers
- Installation of spare covers
- Dry cleaning
- Eventually spot cleaning

Cleaning frequency

Cleaning frequency is depending on the airlines
quality standard (i.e. every 6 months)

8. Long-haul vs. short-haul flight

-
- Although leather has a nice luxurious touch Lantal does not recommend to use leather for long-haul aircraft due to the following disadvantages
 - Comfort → sweating, sliding/slipping, noise
 - Design → monotonous looking cabin
 - Technical data → weight
 - For short-haul and regional aircraft the above disadvantages might be of less importance
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9. Main advantages

Summary

In comparison, the most important advantages of fabric and leather are

Leather



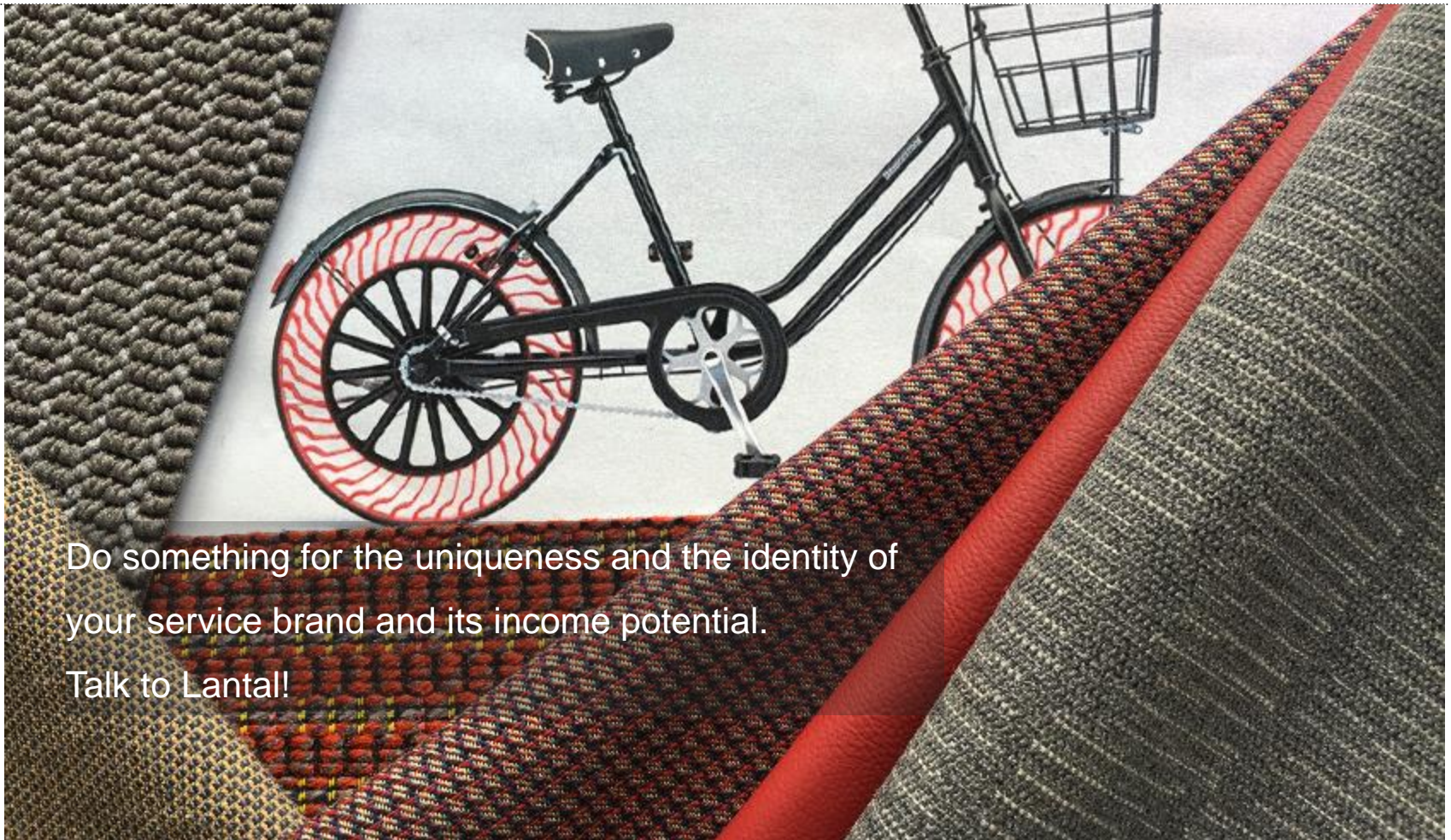
- Image
 - Looks more valuable
- Maintenance-friendly
 - No removal of seat covers is necessary for cleaning
- Lifetime
 - approx. 6 years compared to 2.5-5 years of fabrics

Fabrics



- Humidity transport
 - Comfort for passenger
- Design
 - wide range of design possibilities
- Price
 - approx. half the price of leather
- Weight
 - approx. half the weight of leather

Lantal – The ultimate in well-being for passengers



Do something for the uniqueness and the identity of
your service brand and its income potential.
Talk to Lantal!