WOOL-Lab

from Wool Knowledge to Sustainable Innovation

Wendy Van Leuven
October 20, 2026



WERKPLAATS IMMATERIEEL ERFGOED

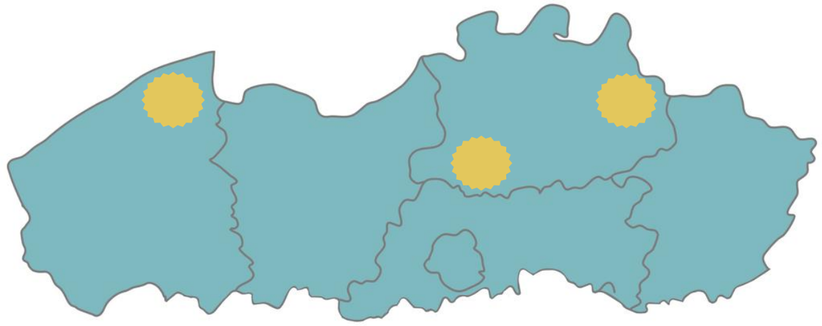
Funded by Flanders innovation & entrepreneurship

STEM in out-of-school activities
S - Science
T - Technology
E - Engineering
M - Mathematics

Partners

The project

- Traditional knowledge and craftsmanship meet innovation, sustainability and STEM.
- Objective
  - Children explore how different grades of wool can be transformed into innovative, sustainable products, reducing waste and creating value.
- Target group
  - Children aged 10–13
- Project duration
  - November 2025 – August 2027
- Pilot phase
  - 3 locations across Flanders
- Dissemination
  - STEM network, education sector, heritage sector



WOOL-Lab

7 workshops

1. **The origins of wool as a raw material**
2. **Understanding wool as a material**
3. **The craft of wool processing**
4. Wool processing techniques in the fab lab
5. Wool in technology and innovation
6. Product development using wool
7. Building, testing and presenting a prototype

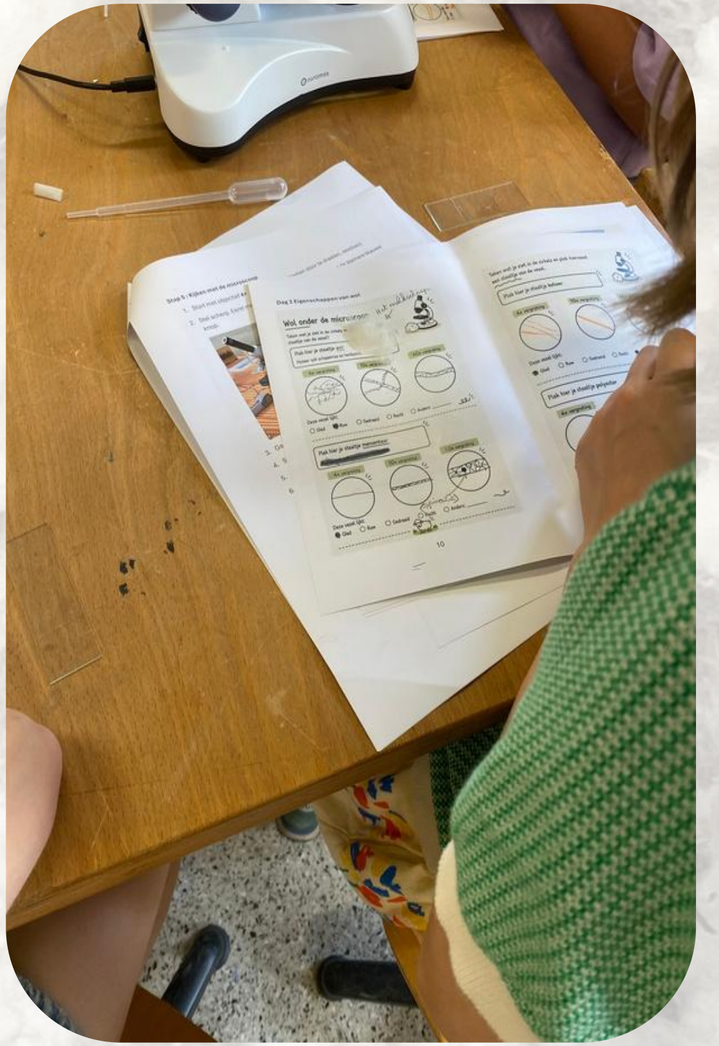
A foundation for innovation

2027

WOOL-Lab

Educational materials and resources

- Facilitator’s guide
- Activity instruction sheets for children
- Children’s discovery booklet
- Boxes with materials for loan



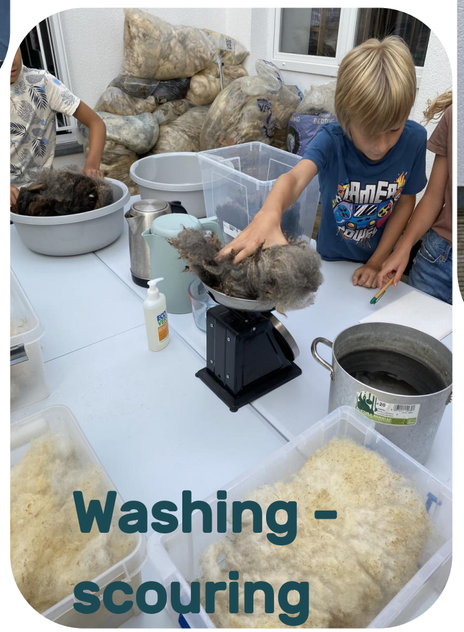
WOOL-Lab

Workshop 1: The origins of wool as a raw material

At a location with sheep + a wool craftsperson









WOOL-Lab

Workshop 1: The origins of wool as a raw material





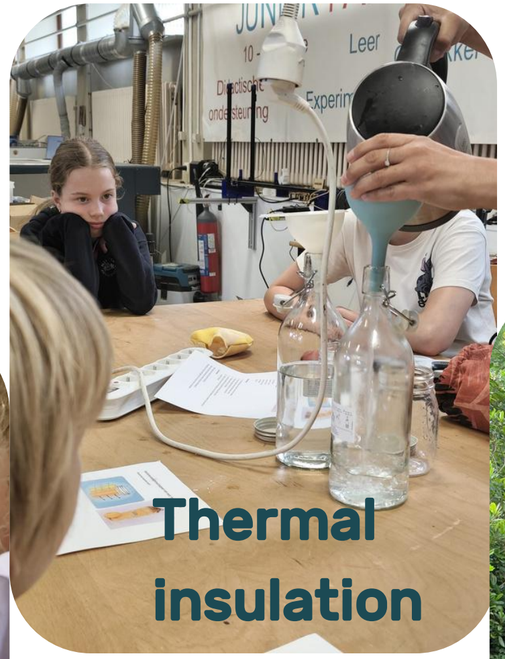
WOOL-
Lab

Workshop 2: Understanding wool as a material

At the fab lab









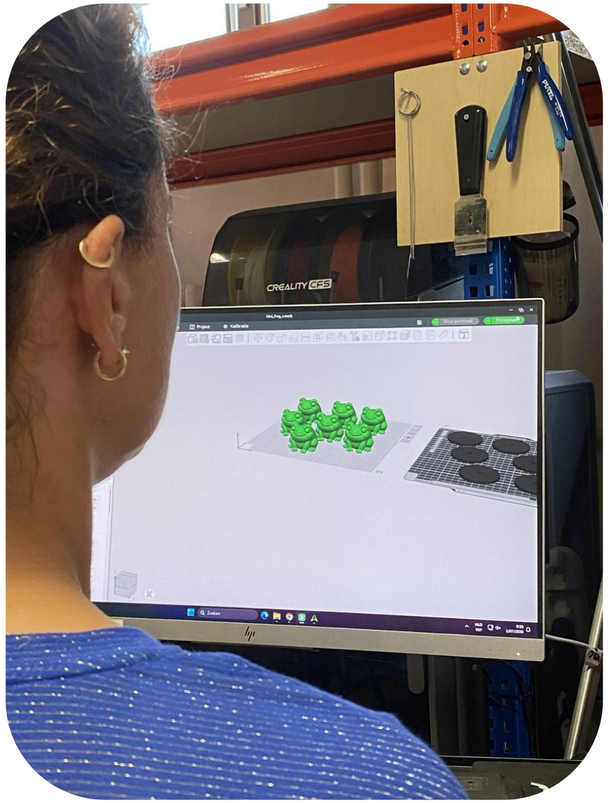
Also:

- **Acoustic insulation**
- **Water-absorbent and water-repellent**

WOOL-Lab

Workshop 2: Understanding wool as a material

3D printing: felting pen and drop spindle







WOOL-Lab

Workshop 3: The craft of wool processing

At the wool workshop



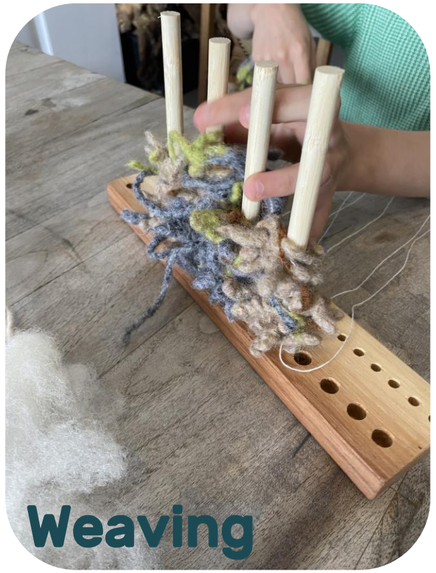


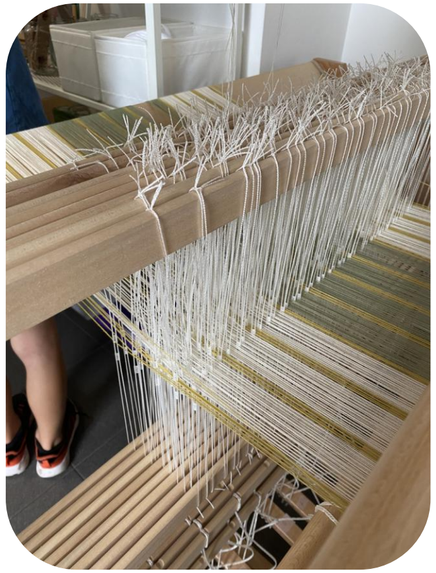
WOOL-Lab

Workshop 3: The craft of wool processing











WOOL-Lab

Reflection

- Tactile, hands-on learning appeals to children and adults.
- New learning environments motivate.
- Learning about and with intangible cultural heritage.
- Making the hidden STEM in traditional crafts visible.
- Craftspeople and scientific/technical profiles strengthen each other.
- Craftspeople drive innovation.

WOOL-Lab



baa baaa baaaaaa

wendy@werkplaatsimmaterieelerfgoed.be