XXXV ISPIM Innovation Conference

Photo: Marilyn Piirsalu. Golden.

MultiWeave–
inspired by 3D printing

Pallas University of Applied Sciences
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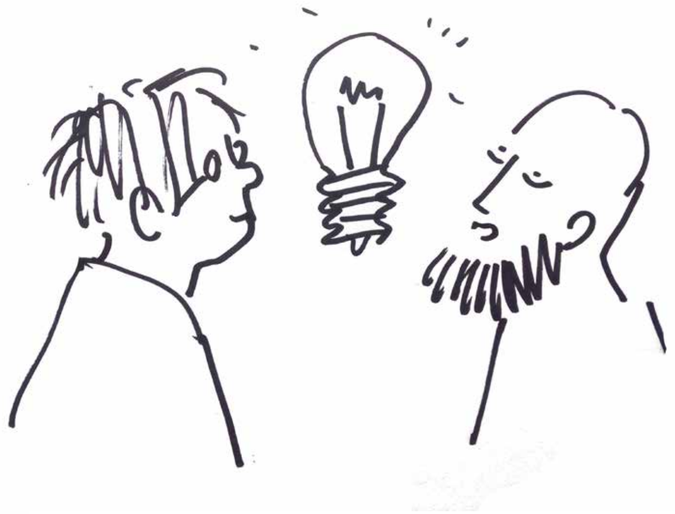
MINDSET

Problem …. IDEA …. Talk and share … MAKE IT!

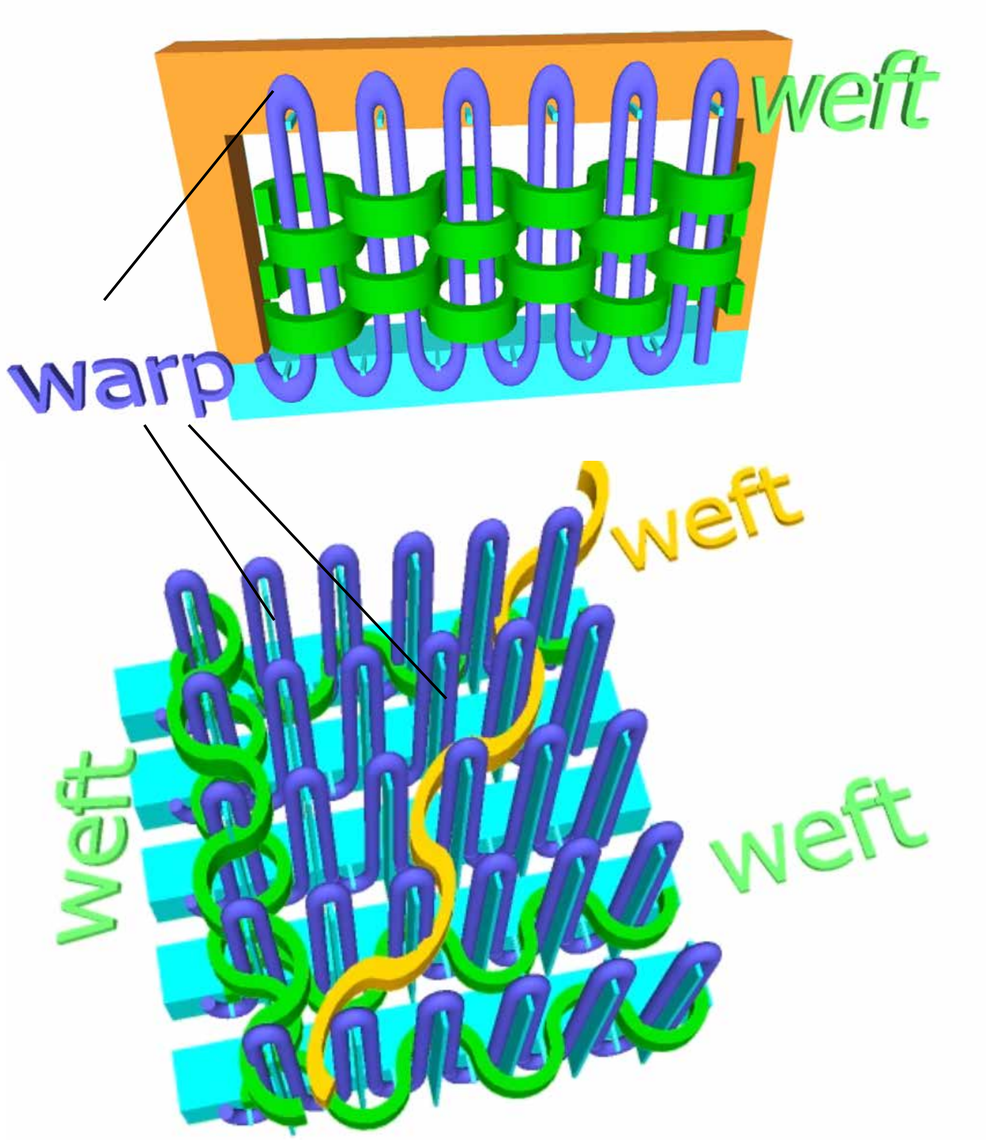
Think and draw

We can try it like this



IDEA

Traditional weaving



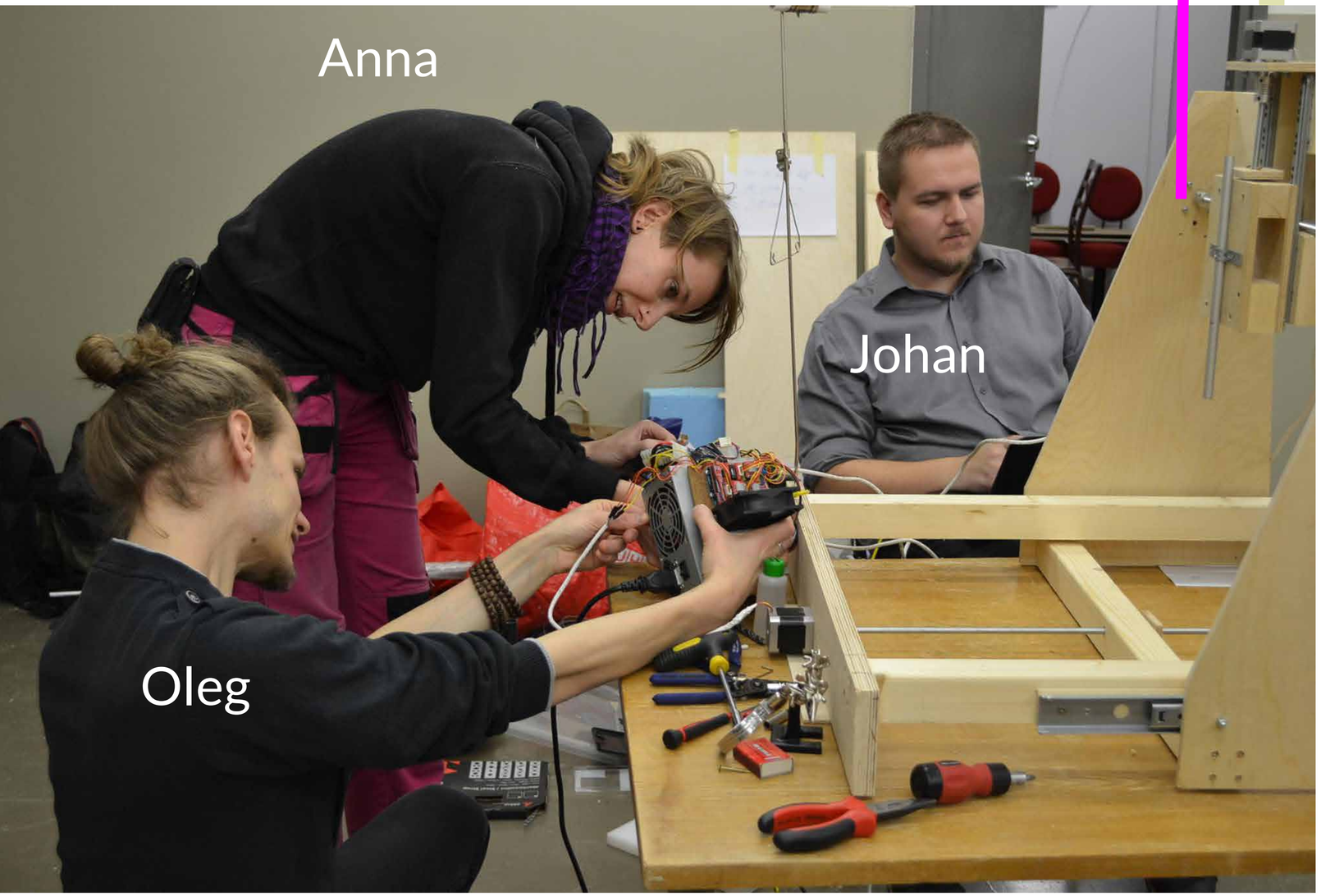
Multiweaving

Combining ancient with modern

Weaving + 3D printing = MultiWeaving

Method of creating material that consists of warp and weft, where weft yarn placement follows the logic of additive manufacturing.

https://doi.org/10.21428/108765d1.ea9ce1dc



2016. Skeemipesa Hackathon. Oleg Kalinkin, Anna Jõgi (team leader),
Johan Pajupuu and Kadi Pajupuu built the first working prototype of MultiWeave.

Hackathons

Interdisciplinary teams

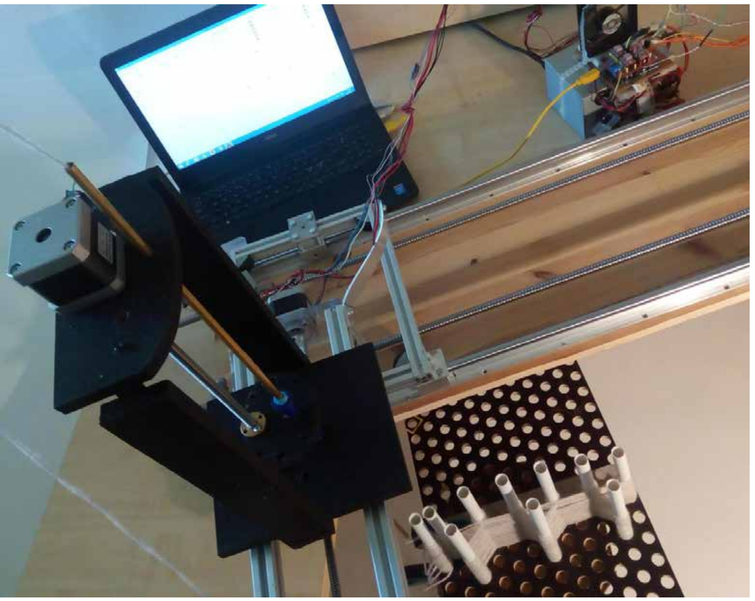
Restrictions:
time, space, resources

Competition

Working prototype

PRIZES.....SUPPORT

Hackathons.....University.....Students



2017. Garage 48. Hardware and Arts. Liisu Miller, Urmas Mägi, Taavo Lukats, Anna Jõgi, Kadi Pajupuu built the second version of MultiWeave (SpiderWeave).

Anett Niine and Liisi Tamm (Pallas UAS). Fashion collection inspired by MultiWeave.

WHEN MONEY ENDS ask questions

How it is made.....Who gets inspired..... Where to

BY THE MACHINE

Challenge to find technical solutions
Production speed
Expensive

BY HAND

Easy to learn
Tools cheap to make
Variations of 3D structure
International cooperation

ENGINEER
INVENTOR
ARTIST
DESIGNER
TEACHER

...

Geotextiles
Military
Constructions
Acoustics

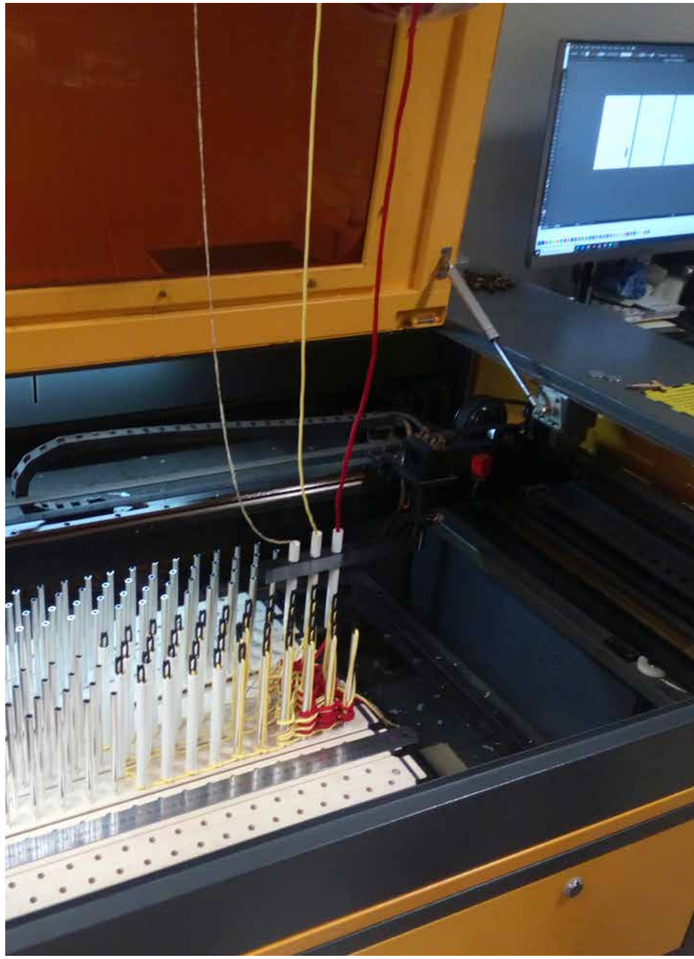
Art
Fashion
Interior design
Education

THEY GOT INSPIRED

MultiWeave is the
R&D project of Pallas UAS

Anett Niine (2022)

Textile students of Pallas UAS.
Elis Privoi (2023)



Idea by Rasmus Eist
Laser cutter can be used as
weft guider

THEY GOT INSPIRED

Marilyn Piirsalu. Endless (2022)

Photo: Markus Elblaus

Svea Tisell. Beckmans College of Design, Sweden (2024)