



wemake.cc
#makerspace
#fablab

Zoe Romano

Hacking the Fashion System

@zoescop

Fabricademy
2017



wemake.cc
#makerspace
#fablab

WeMake is a makerspace in Milan providing a series of **services and training** to the creative community of the region in the field of digital and traditional manufacturing.

WeMake is a 250sq/mt urban multifunctional fablab providing open and membership based access to digital fabrication tools.

Clearing the difference between prototype and finished object, we foster the development of a **new model of designer-producer** (maker) and small-scale company by facilitating

- the engineering phase,
- the rapid iteration of design solutions,
- the on-demand production of physical/digital artefacts.



TEXTILE

Open Design

Smart textiles

Wearables

ELECTRONIC

Internet of Things

Open Hardware

Arduino

WE
MAKE

FABRICATION

Digital Manufacturing

3D Printing

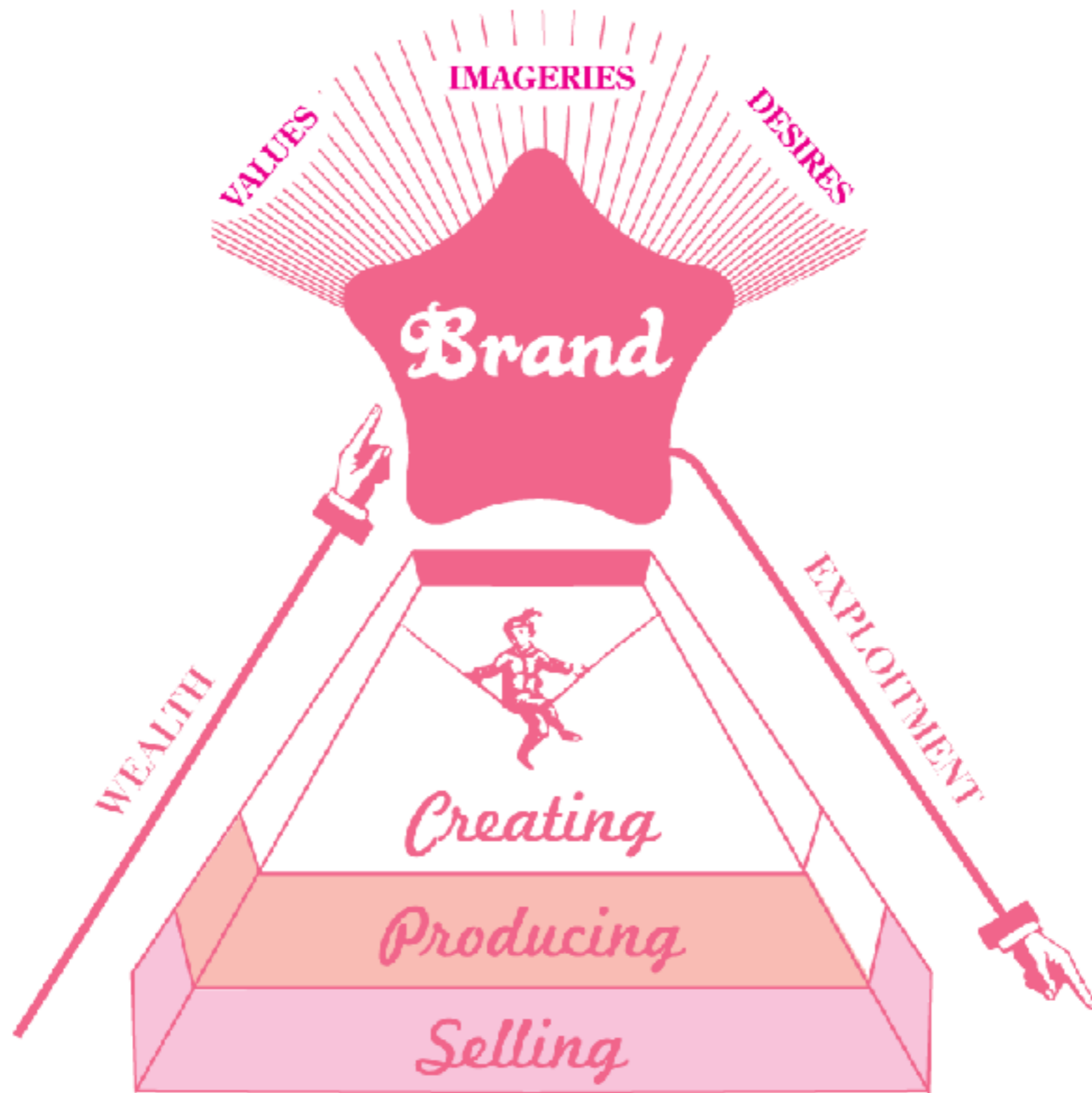
Prototyping

CONTEXT

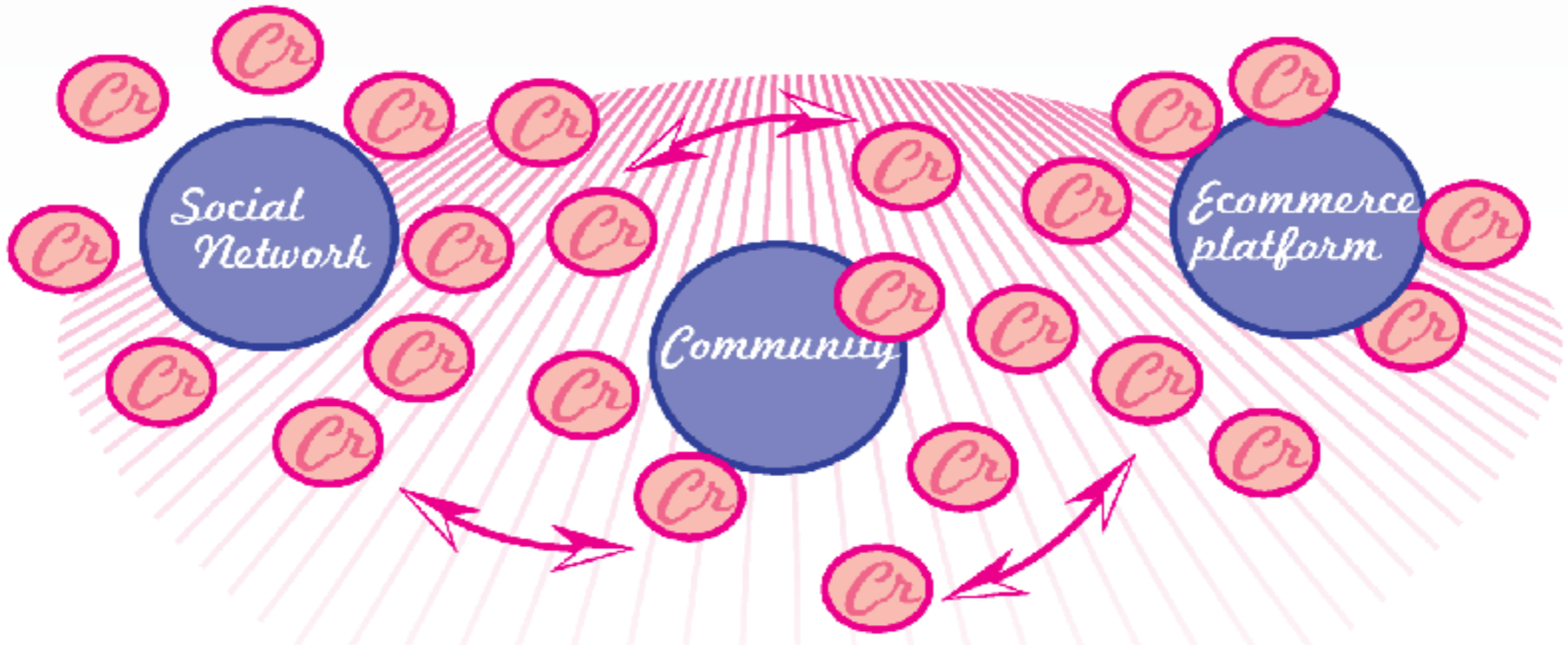


FASHION CONGLOMERATES

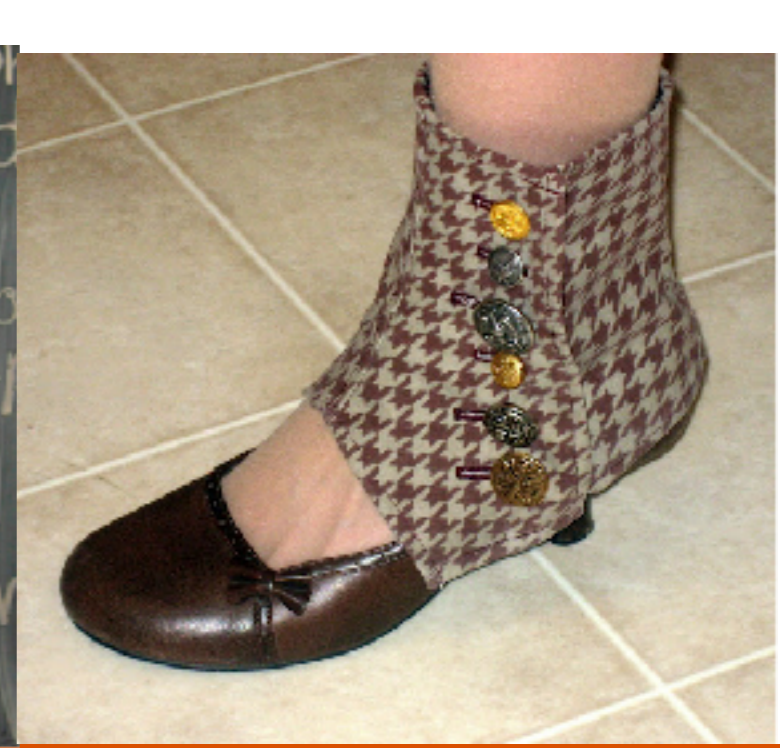




Do it yourself



Cr = Craftivist



From DIY to DIT



WHAT IS CHANGING

**EASIER THAN EVER
DATA>OBJECTS>DATA**

- Modularity
- Flexibility
- Open codes

**OFTEN THAN EVER
BOTTOM UP INNOVATION**

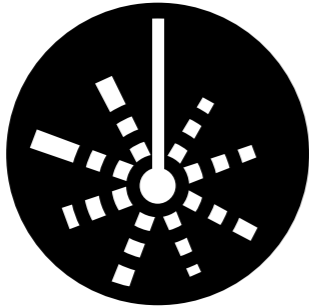
- Interdisciplinarity
- Horizontality
- Self-organization



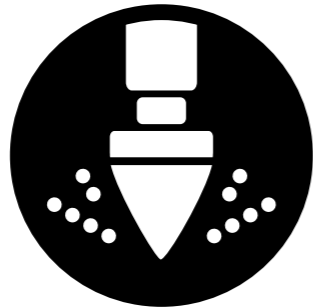
**FABLABS AND MAKERSPACES
A SPACE TO LEARN AND CREATE TOGETHER**

NEW FASHION TOOLS

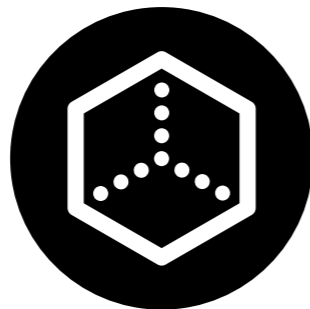
LASERCUT



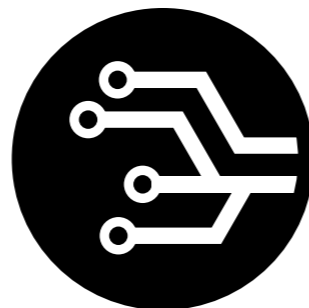
CNC



3D PRINTING



ELECTRONIC



(hacked)

- Sewing machines
- Knitting machines
- Embroidery machines

- Soft Circuits
- Bio Composites
- New materials

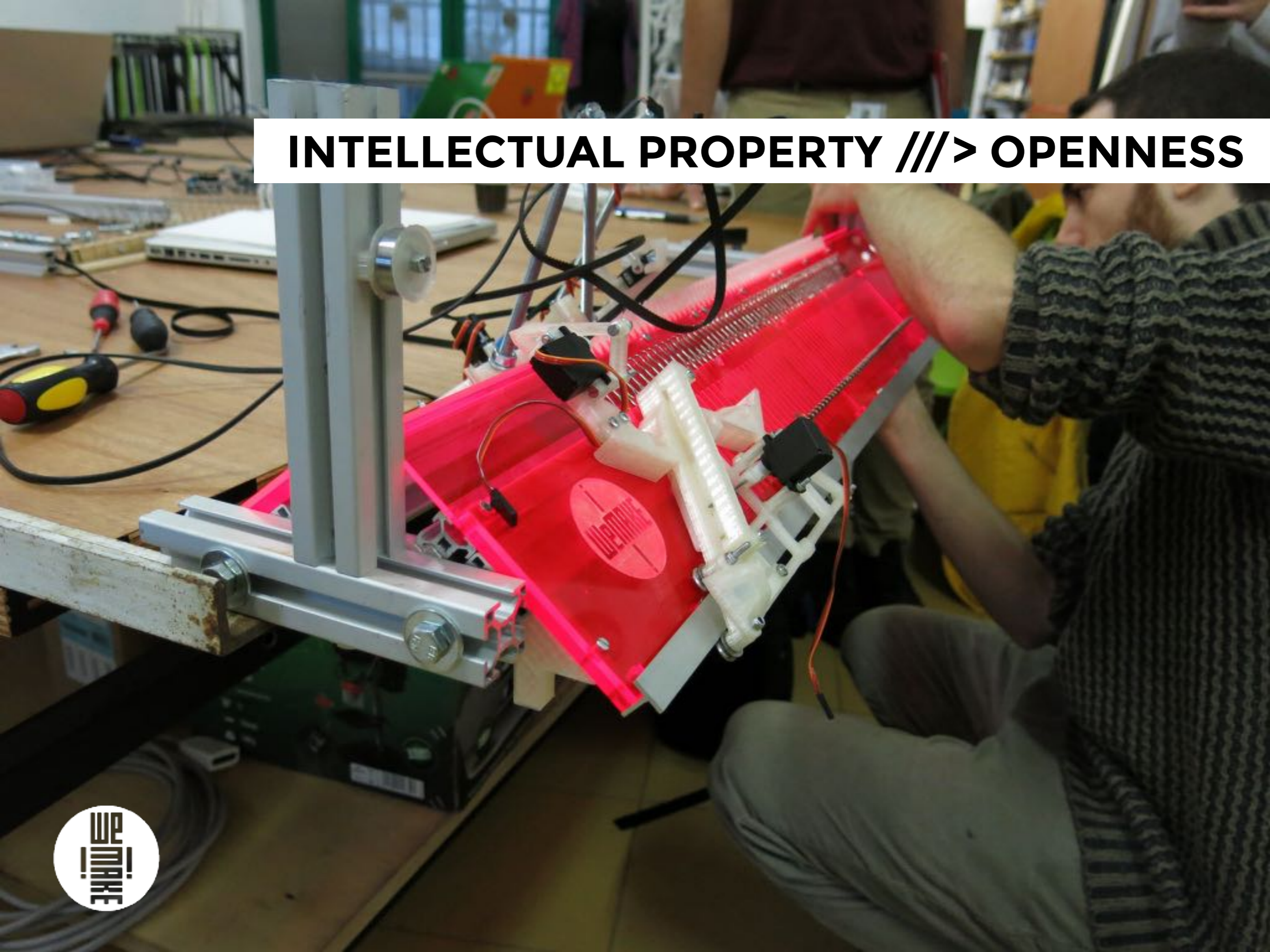
INTELLECTUAL PROPERTY ///> OPENNESS

PRODUCT ///> PLATFORM

FAST ///> SLOW



INTELLECTUAL PROPERTY /// > OPENNESS



TYPES OF OPENNESS

Open source software (OSS) is computer software with its **source code made available** with a **license** in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose

Open source hardware

(OSHW) is hardware whose **design is made publicly** available so that anyone can study, modify, distribute, make, and sell the design or hardware based on that design.

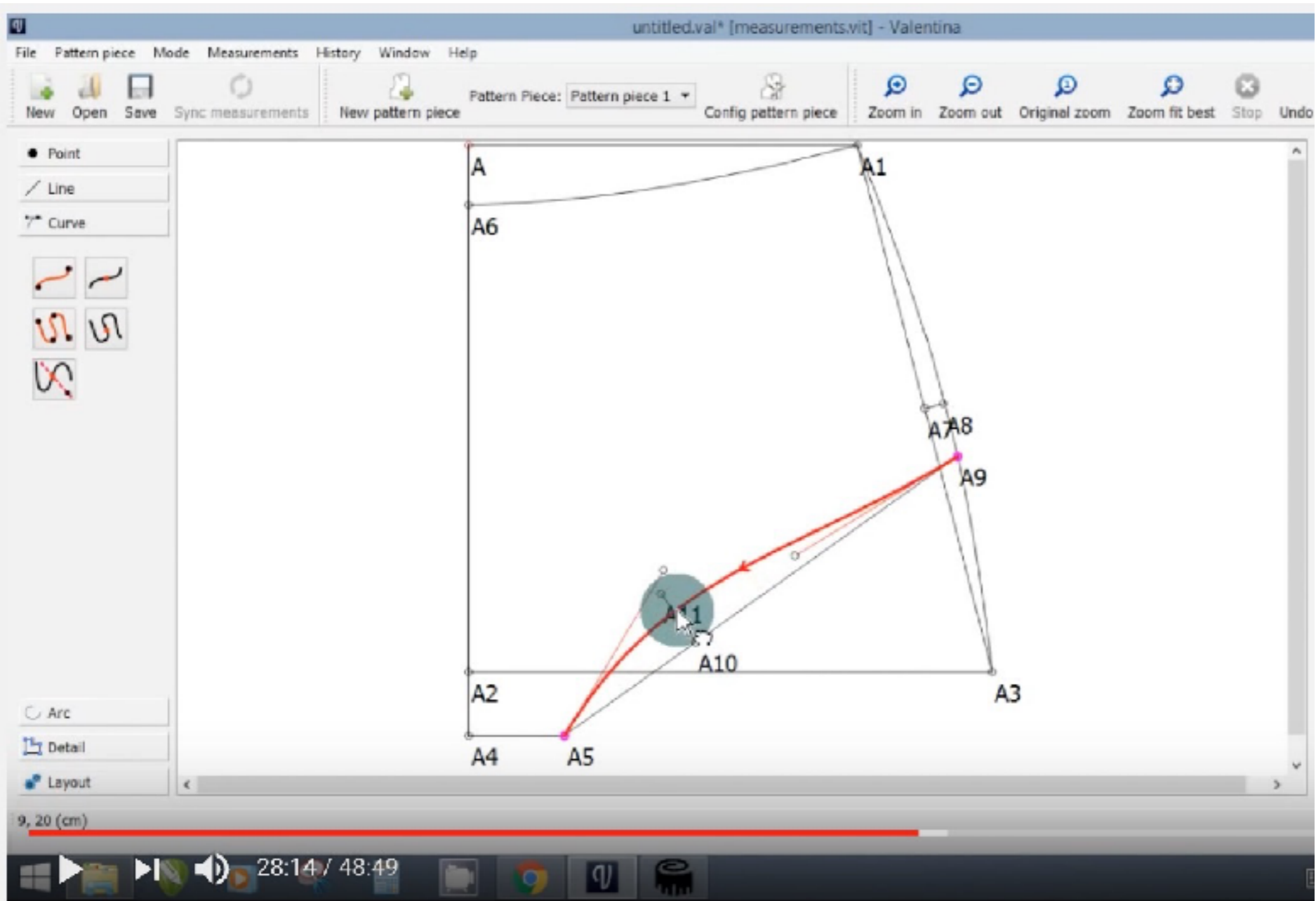
Open design is the development of physical products, machines and systems through use of publicly shared design information.

Open data is data that distributed in a **convenient and modifiable form** which can be freely used, re-used and redistributed by anyone – subject only, at most, to the requirement to attribute and sharealike.

OPEN SOURCE SOFTWARES

VALENTINA

Open source pattern making software



Lack of affordable softwares for pattern making tasks

- Seam allowance
- Truing a dart
- Easy multi-sizing

Opensource.com lists Valentina in 2016's top creative FOSS tools

BLENDER

Cloth Simulation



OKNITME

Creating punch card from 2-color images – by Serpica Naro

oknitme

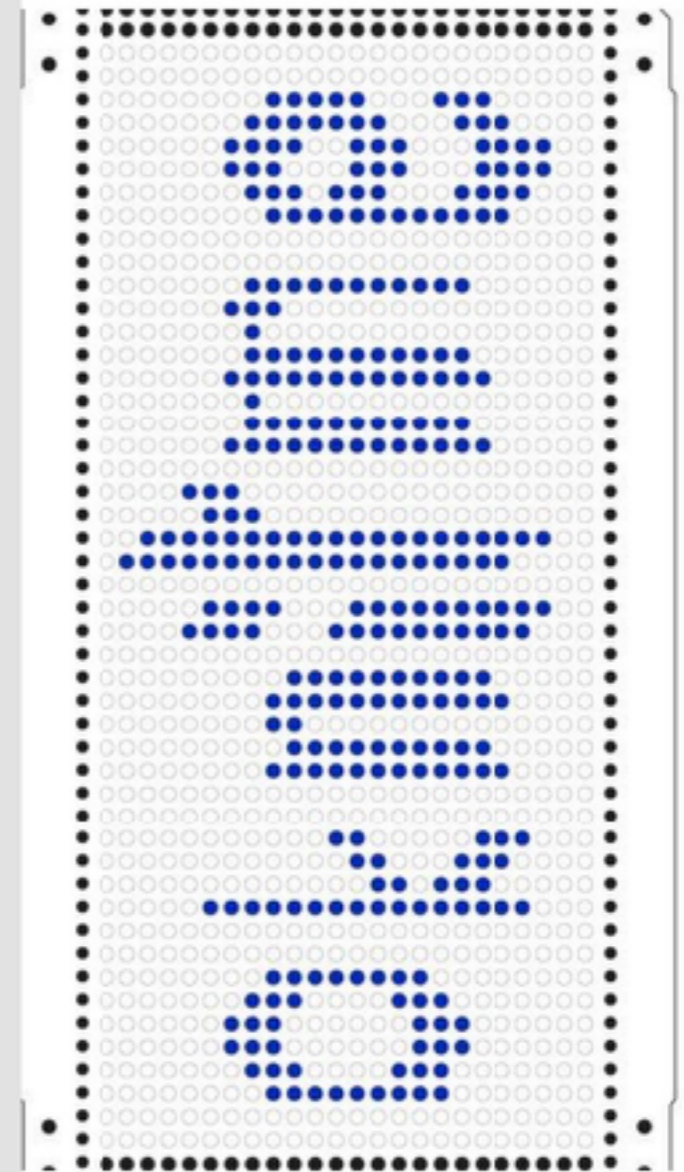
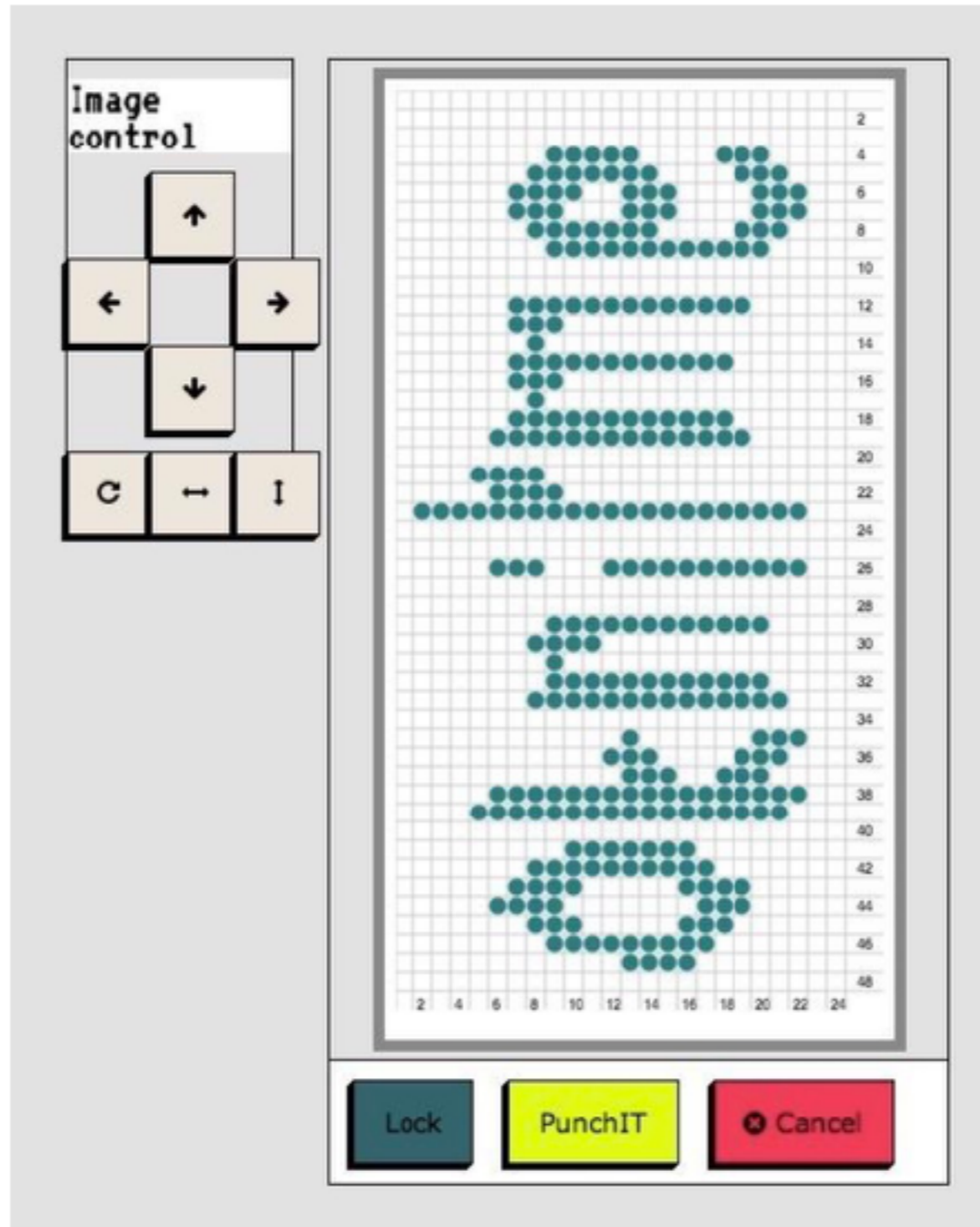
[HOME](#) [GALLERY](#) [THE PROJECT](#) [ABOUT US](#)

CREATE CUSTOM PUNCH CARDS FOR YOUR KNITTING MACHINE!

[BROWSE](#) or DROP 2-COLOR IMAGE HERE

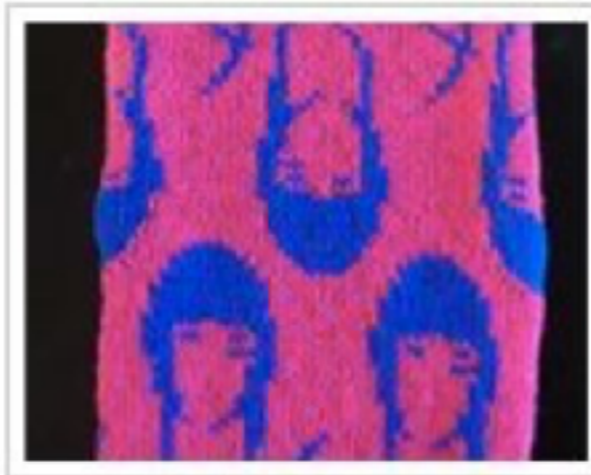
OKNITME

Creating punch card from 2-color images



OKNITME

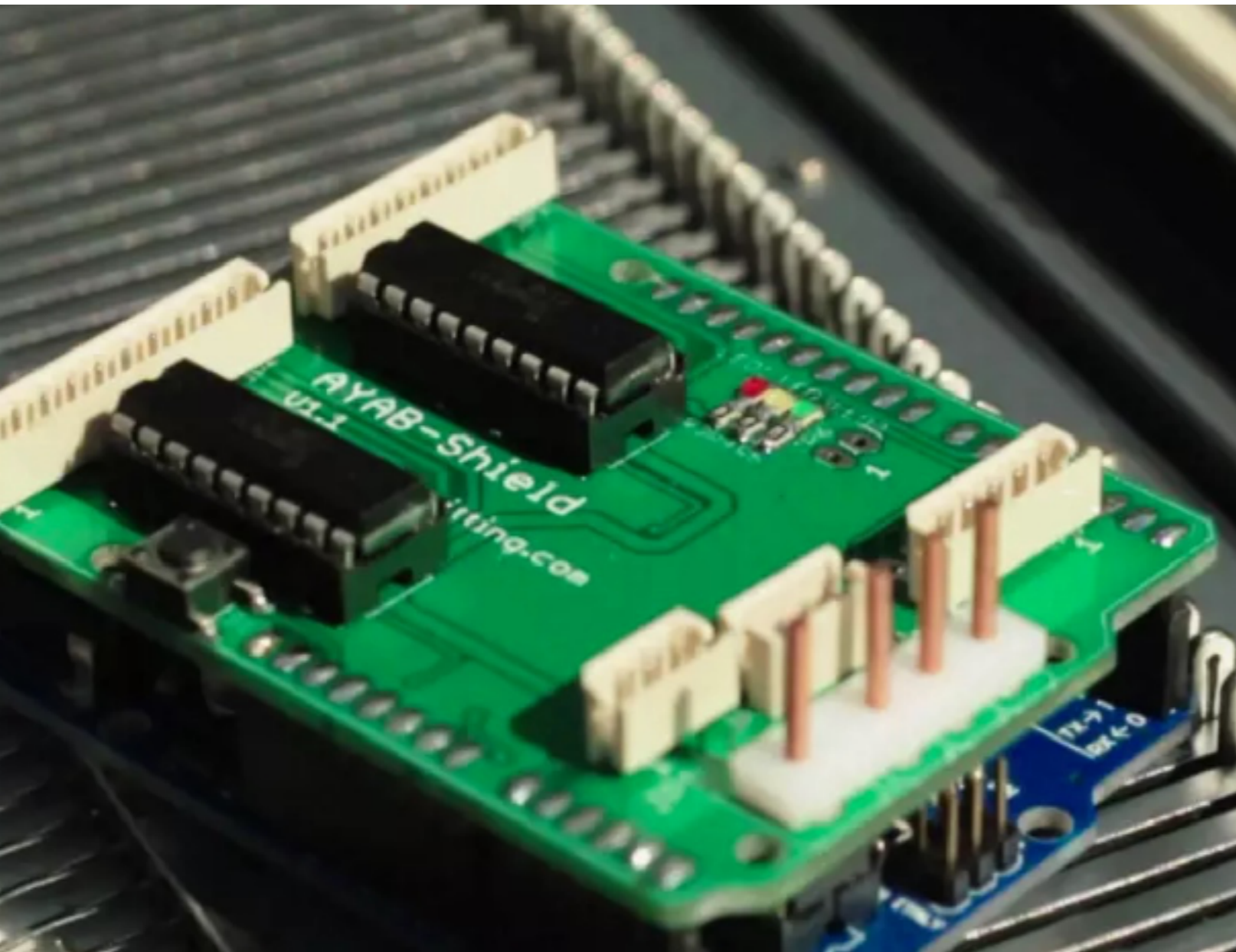
Creating punch card from 2-color images



OPEN SOURCE HARDWARE

AYAB Shield

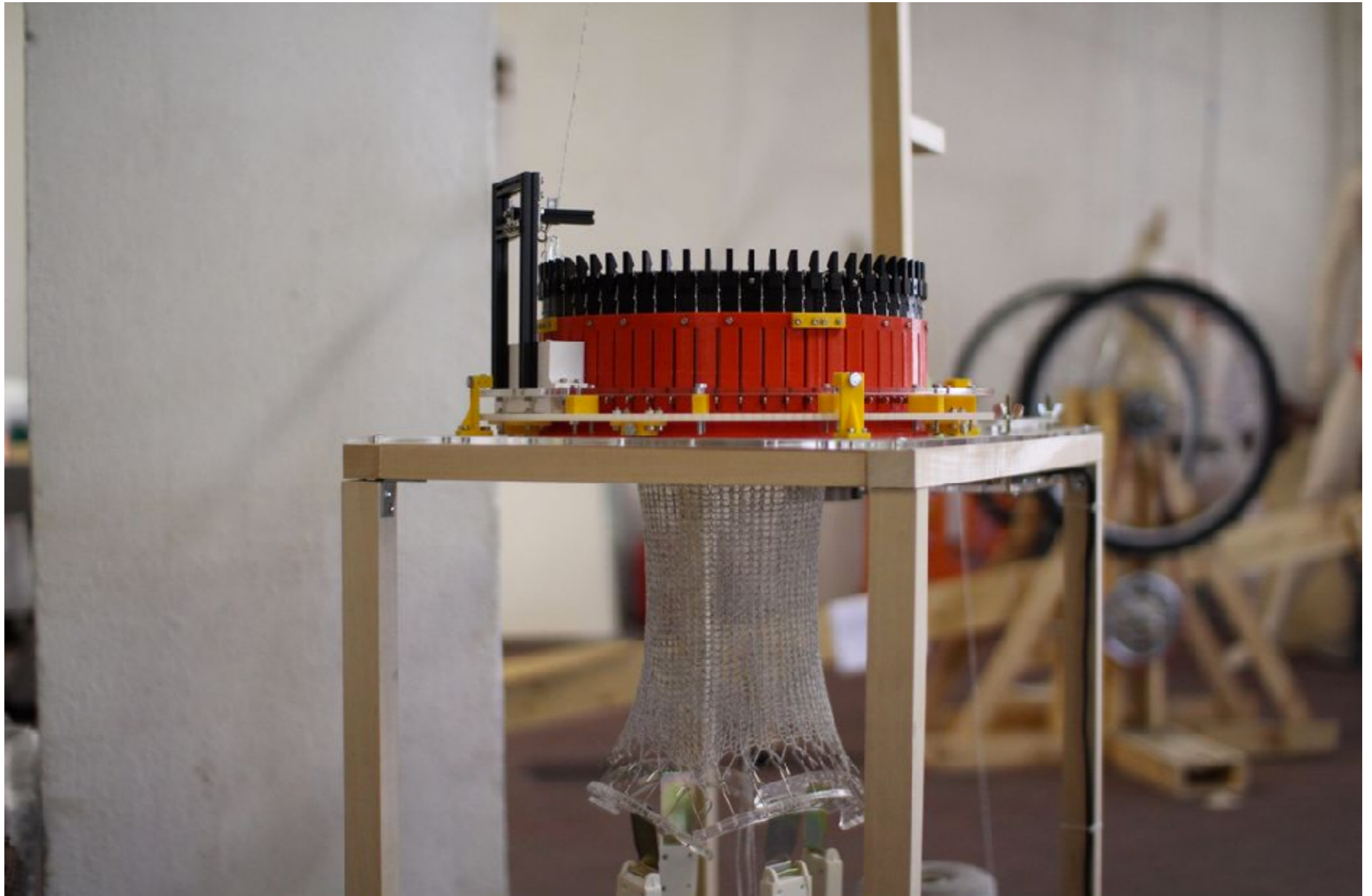
Arduino shield to hack digital knitting machines



Knitted bag by RATATATA – Claudia Scarpa – Made at WeMake

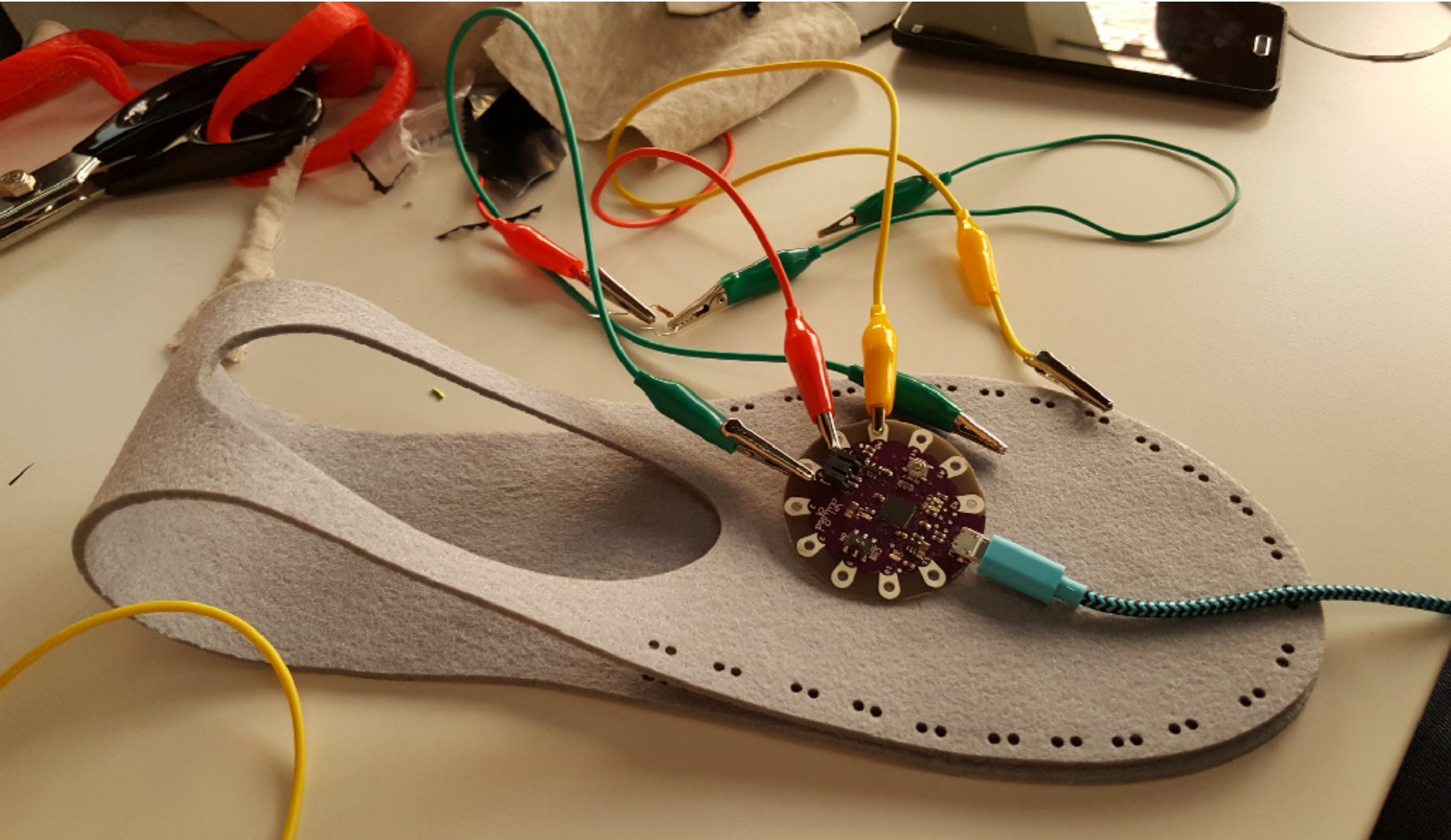
Circular Knitic

Integrating textile manufacturing into the contemporary makers' culture

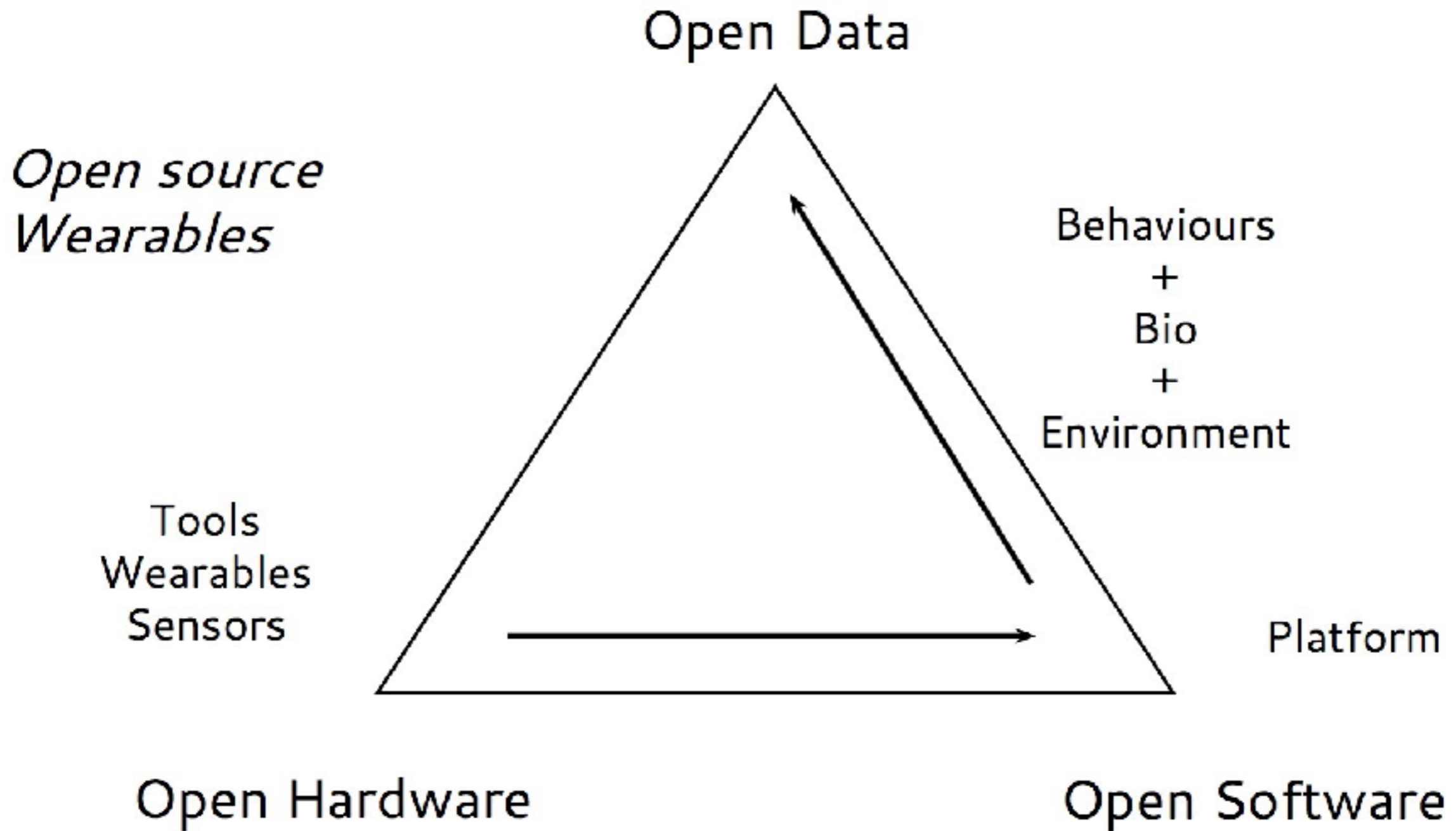


Smart textiles - Open Design for wearables

Empowering people with wearables and soft circuits



INTERDISCIPLINARY APPROACH



OPEN SOURCE BRANDING

SERPICA NARO



In 2005 the first **open source brand** in fashion created from a hoax during Milan fashion week

THE JOURNAL OF DESIGN STRATEGIES

—
Alternative Fashion Systems
—

VOL. 7, NO. 1 | FALL 2014

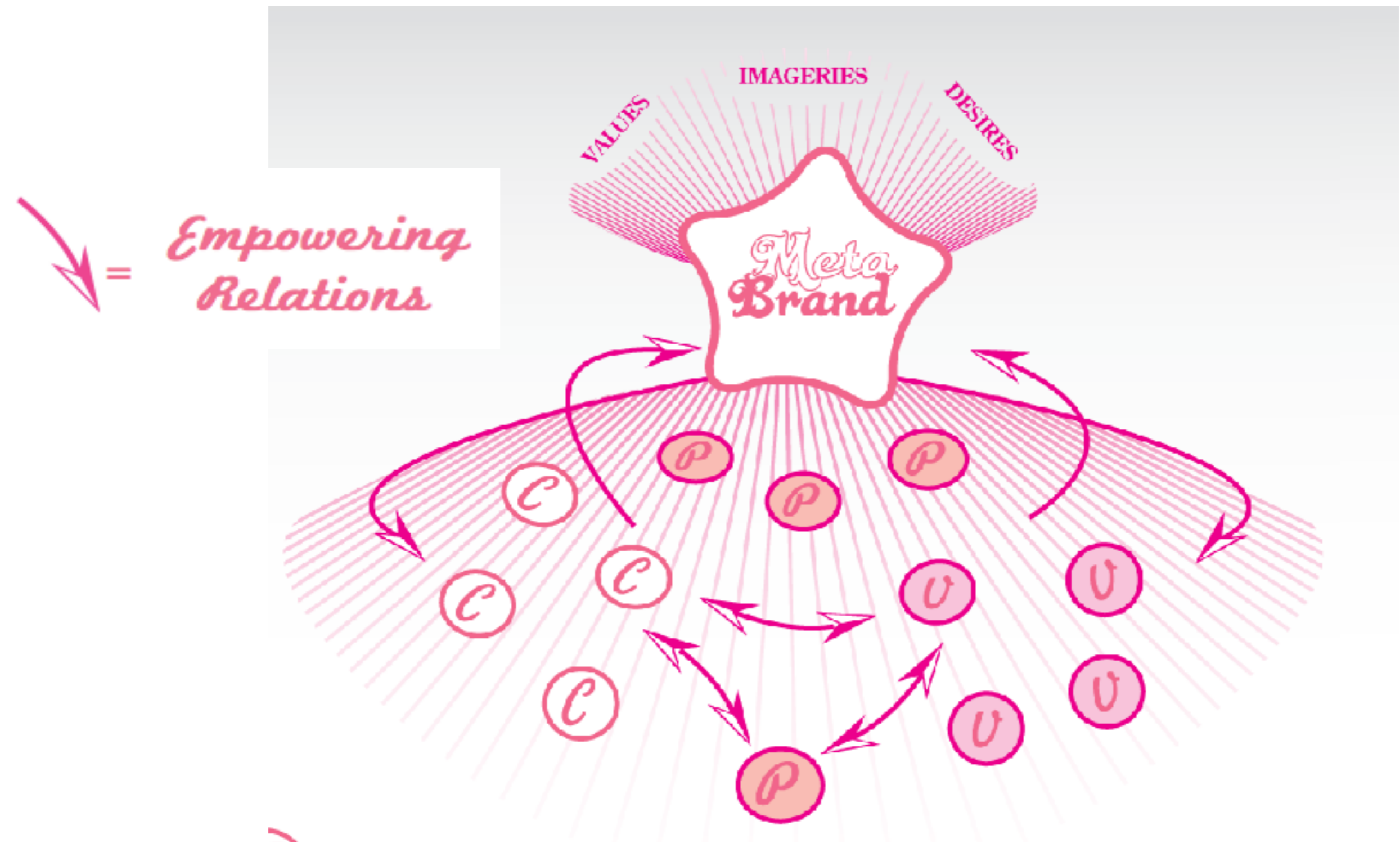
PARSONS THE NEW SCHOOL FOR DESIGN

http://sds.parsons.edu/designdialogues/?post_type=article&p=634



- A collaborative community around fashion production and creation
- A series of **Collaborative collection with an open-source brand**
- Prototypes freely downloadable which members can produce and sell, benefiting from the social innovation created within the community.

OPENWEAR




A brand made o **empower a network of small producers** and promote a different kind of fashion based on collaboration, sharing, short supply chain and else.

PRODUCT / PLATFORM



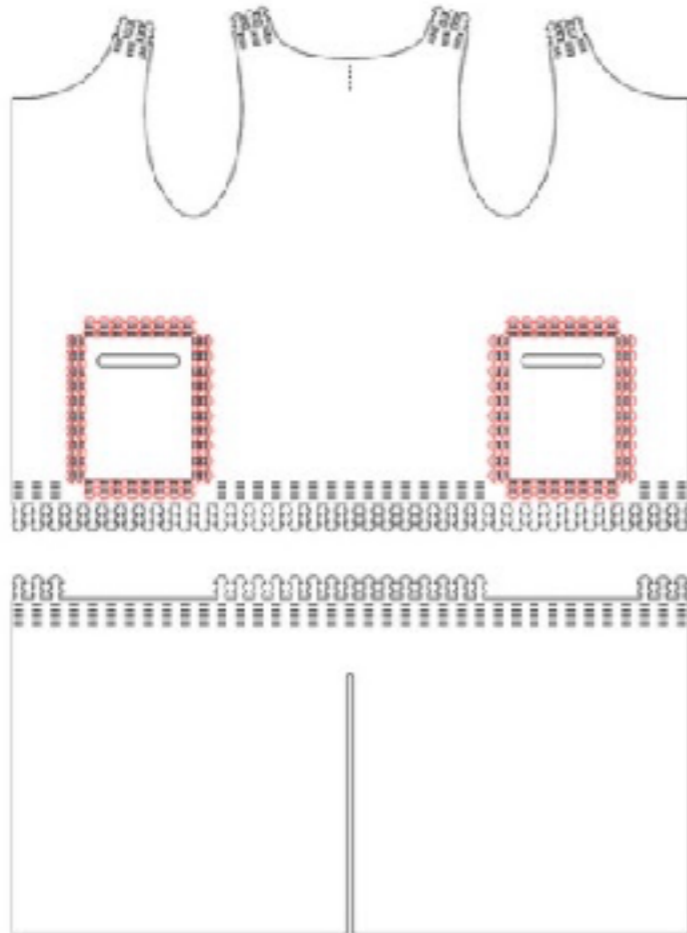
POST-COUTURE



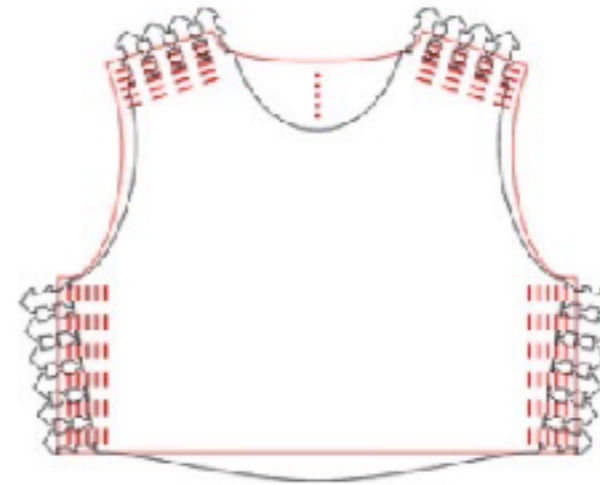
MAKE

SHOP

POST-COUTURE

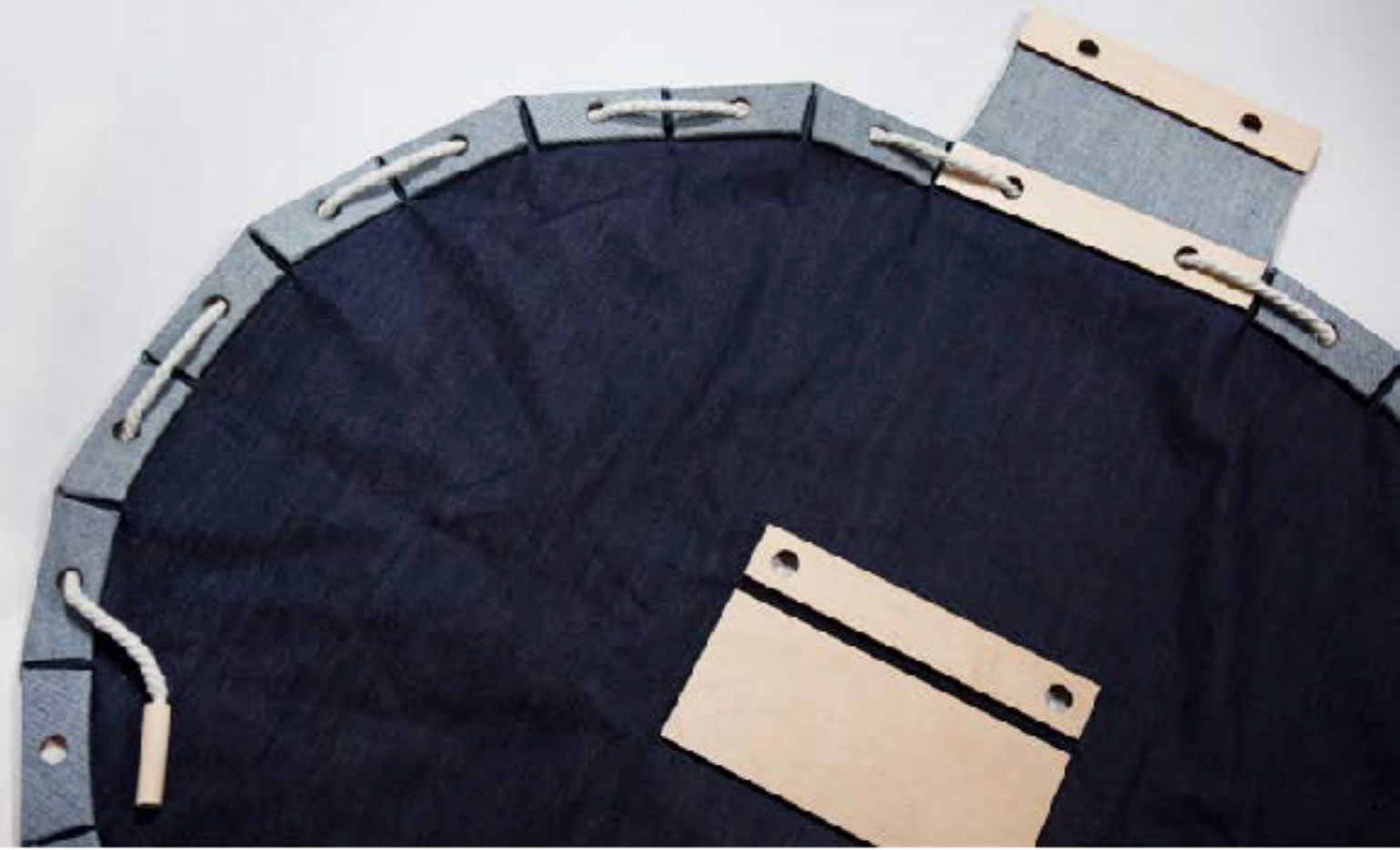


post-couture coat
digital design file
€ 5



post-couture croptop
digital design file
€ 5

TASKA



ANOTHERSHOE



Open source footwear.
Cut by a laser. Assembled by hand.



DIY

Download it Yourself



MIY

Make it Yourself



AIY

Assemble it Yourself



WIY

Wear it Yourself

FROM IDEA TO PRODUCT



Share the code
(non commercial use)

BUILD AN AUDIENCE



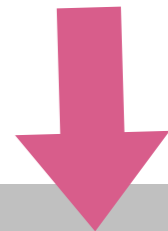
Sell the kit
(involve local
hubs)

REACH EARLY ADOPTERS



Sell out-of-the-
box after a
crowdfunding
campaign

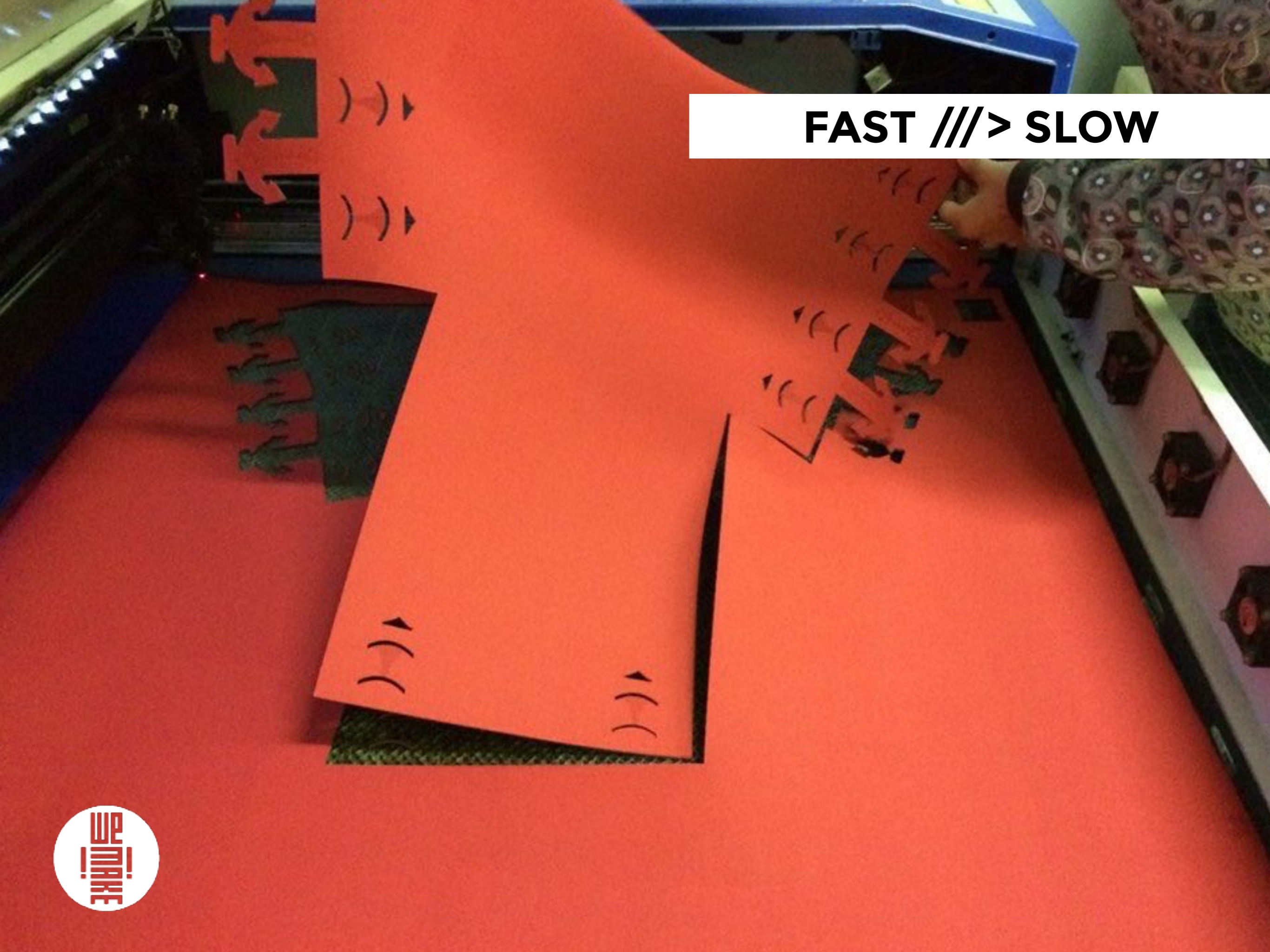
FULLFIL CONSUMERS



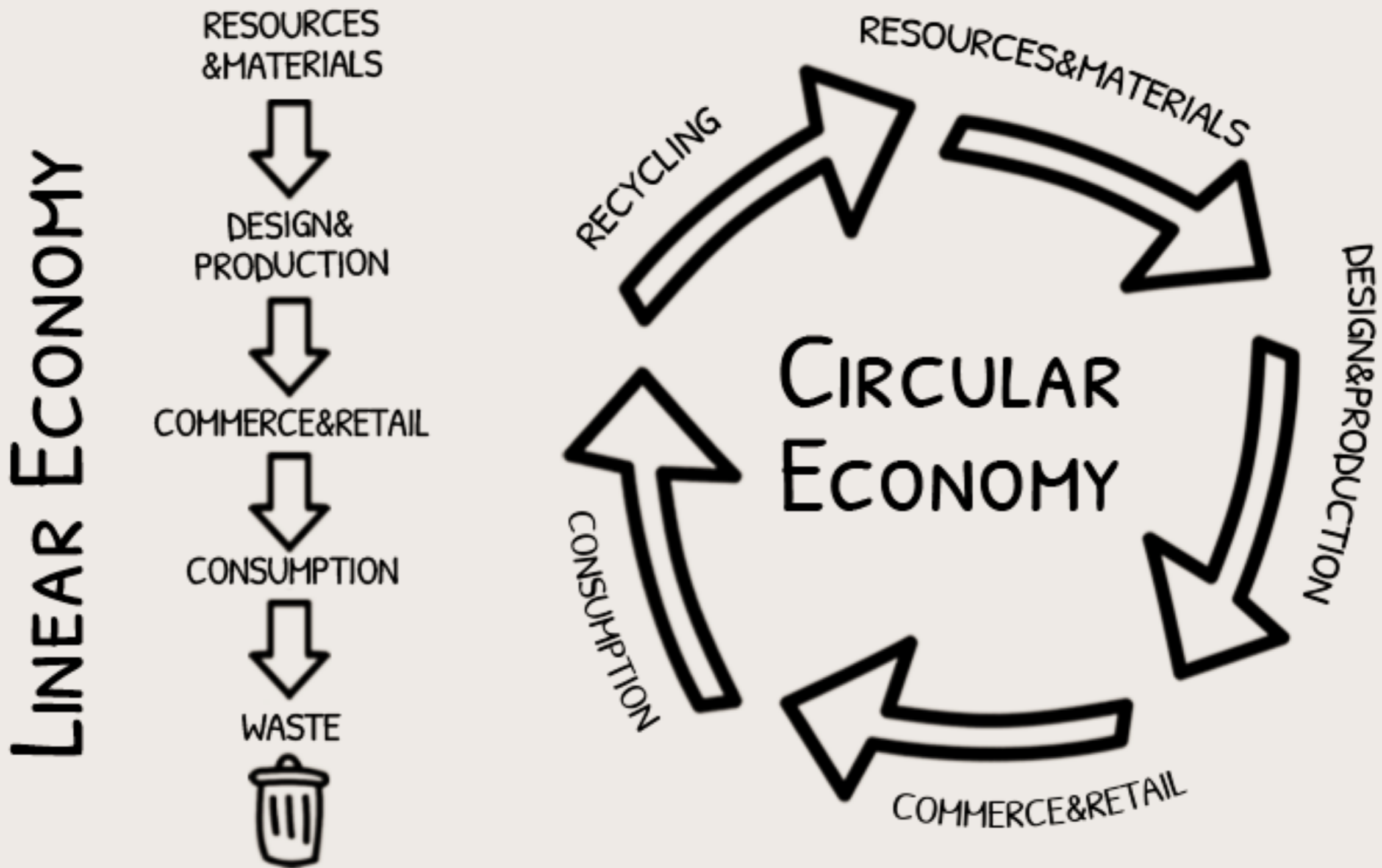
Sell the
collection
edition

CREATE EXCLUSIVITY

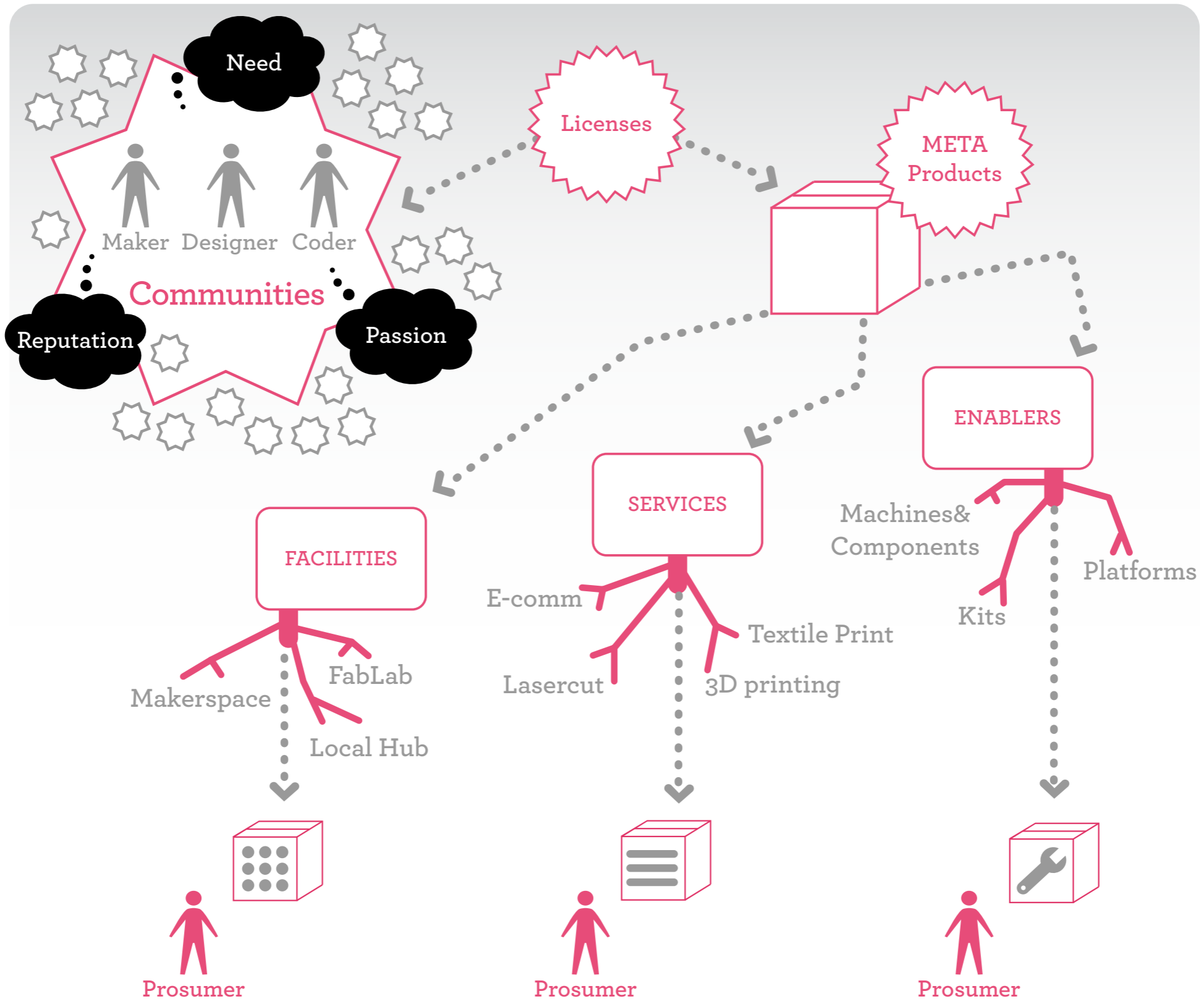
FAST /// > SLOW



CIRCULAR ECONOMY



ECOSYSTEM



EXPERIMENTING ALTERNATIVE FASHION MODELS

“AGILE FASHION”

YESTERDAY

- Product/Closed
- Collection of disposable products
- Series Production
- Shops
- Venture Capital



TOMORROW

- Platform/Open
- Catalogue of a few evolving products
- On-demand Production
- Direct selling (online/offline)
- Crowdfunding

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3D Printing

Prototyping



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GRAZIE!