

Data as a Material?

Physical Native

Hfg Karlsruhe, 26 May 2021



```
solemaker.js
```

```
function redraw() {
  var voronoiCells = voronoiCellsGroup.selectAll(".voronoi-cell")
    .data(voronoi_polygons(voronoi_points))
    .enter()
    .append("path")
    .attr("class","voronoi-cell")
    .call(redrawPolygon);
  voronoiCells.call(redrawPolygon);
  voronoiCells.exit().remove();
  voronoiCellsGroup.selectAll(".voronoi-cell")
    .call(redrawPolygon);

  /**
   * Convert the outline points and voronoi seeds to sole fields
   */
  // Check if outline_points is round
  if(outline_points.length > 2) {
    var sole_polys = generate_cells_without_outline_inset(outline_points, voronoi_points, voronoi, sole_design);
    sole_cells = sole_polys;
    voronoi_cells = generate_cells_without_outline_inset(outline_points, voronoi_points, voronoi, sole_design);
    // var sliced_cells = slice_polygons(sole_polys);

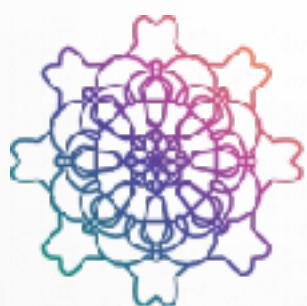
    var sole_poly_selection = soleCellsGroup.selectAll(".sole-cell")
      .data(sole_polys, function(d) { return d; });
    sole_poly_selection
      .enter()
      .append("path")
      .attr("class","sole-cell")
      .attr("d", function(d) { return d ? "M" + d.join("L") + "Z" : null; });

    sole_poly_selection.attr("d", function(d) { return d ? "M" + d.join("L") + "Z" : null; });
    sole_poly_selection.exit().remove();
  }

  var outline_circle = pointControlsGroup.selectAll(".outline-circle")
    .data(outline_points);
}
```

Line 1, Column 1 Tab Size: 4 JavaScript

ArcInTexETN
Marie Skłodowska-Curie actions European Training Network (ETN)



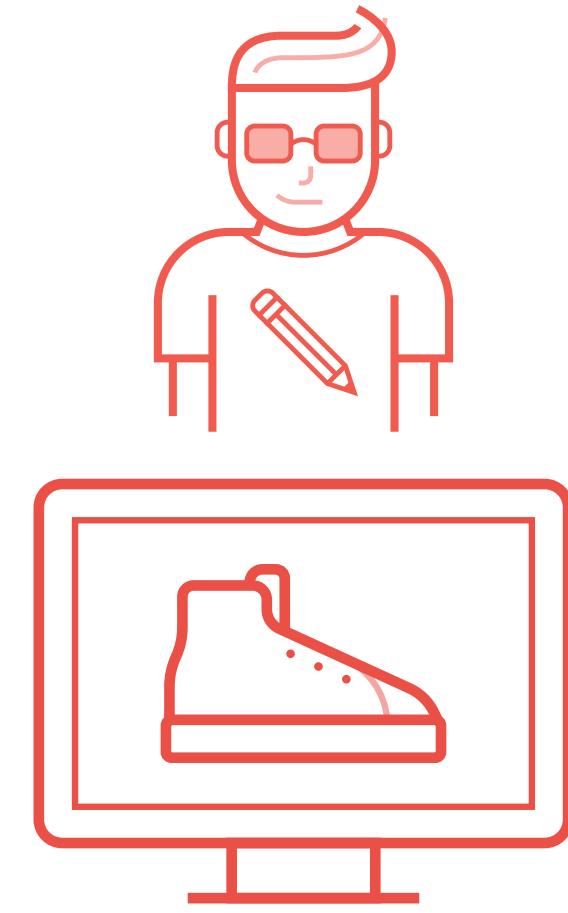
**WEAR
sustain**



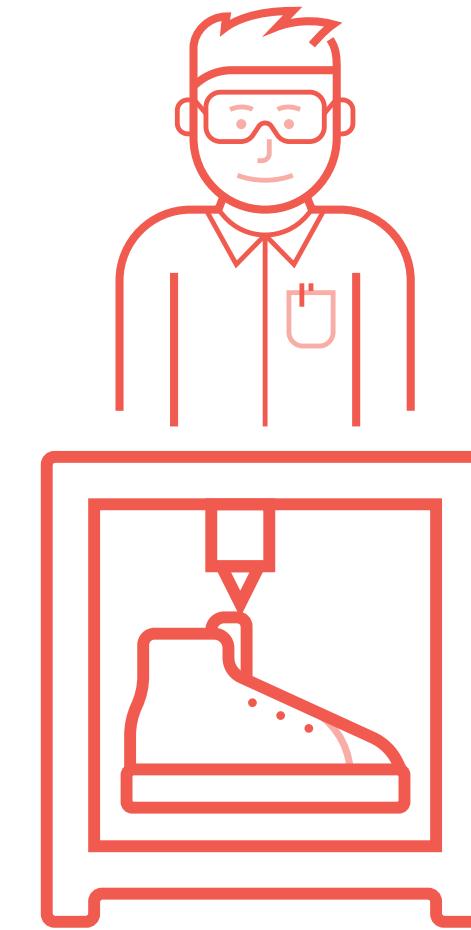
Solemaker



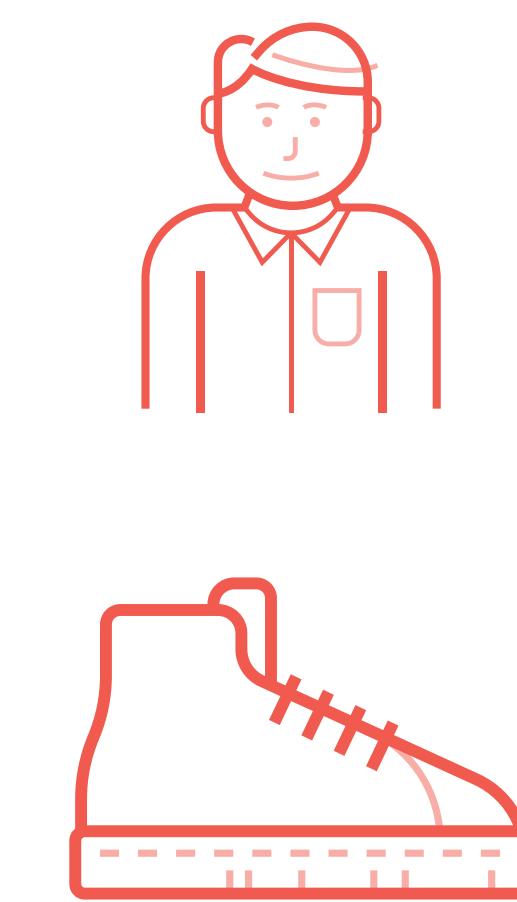
Marketing



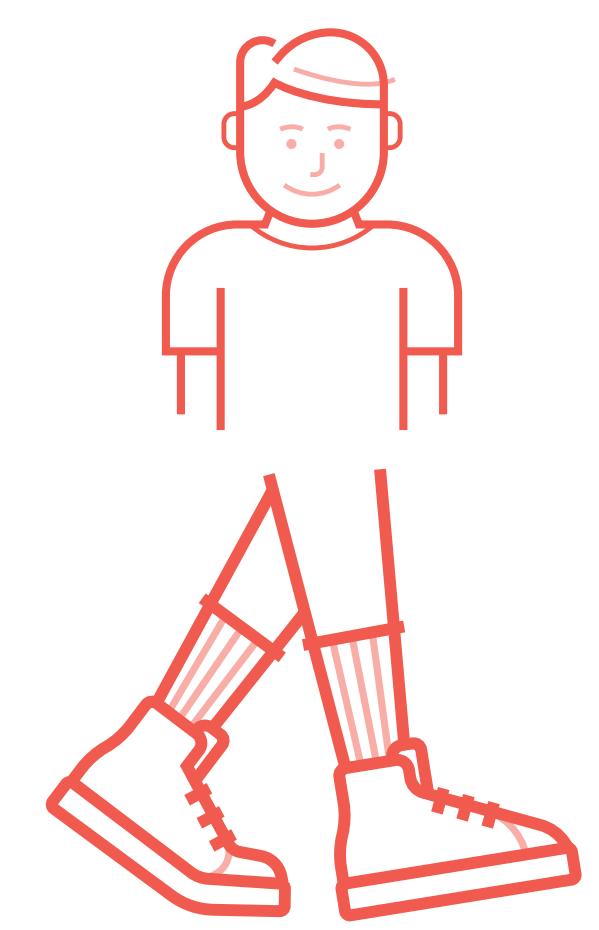
Design



Manufacture



Sales



Wear

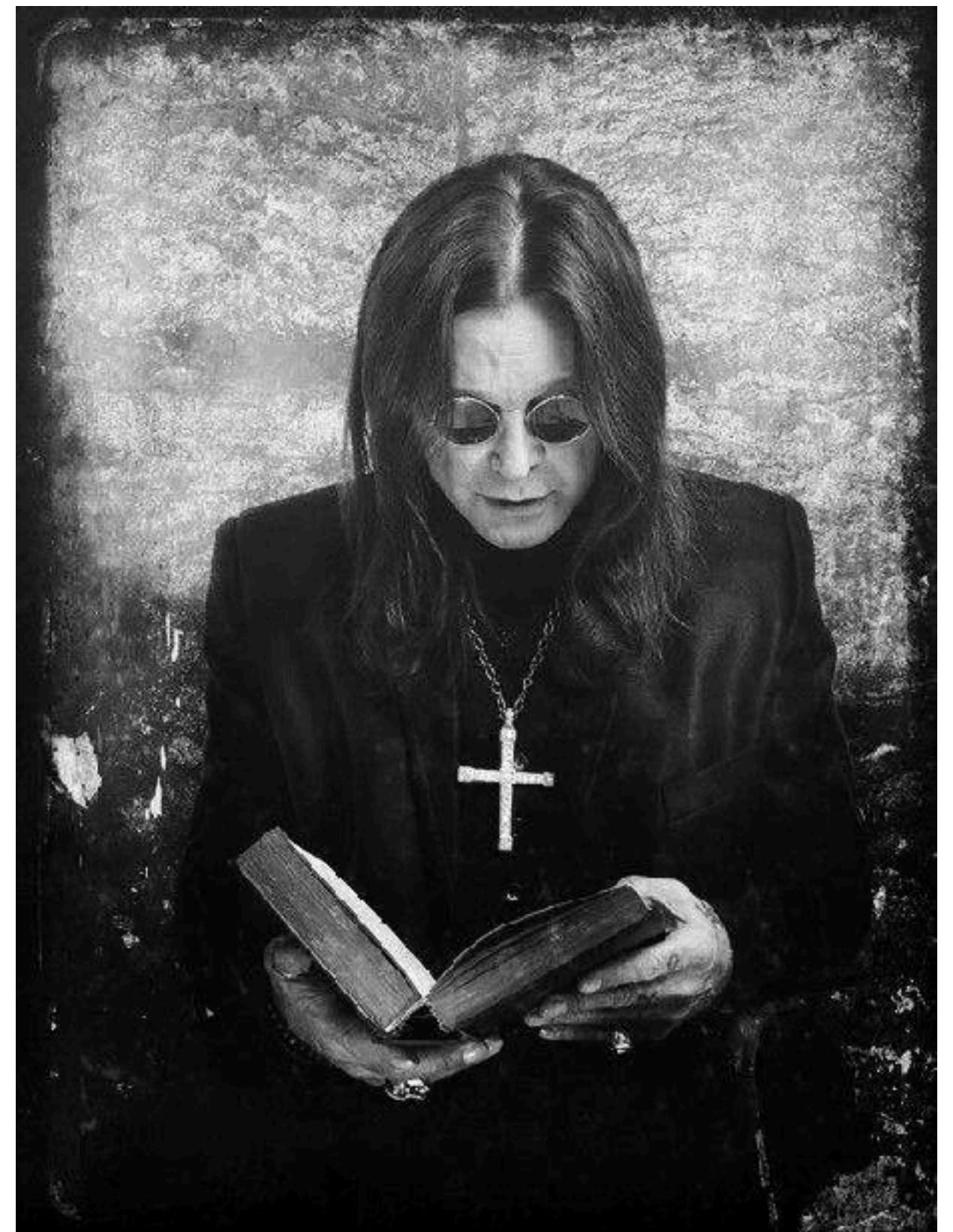
How does Design change
if we use Data as a Material?

Demographics

- 70+ Year Old Caucasian Male
- Divorced and Remarried
- Lives in London
- Independently Wealthy
- Enjoys
 - Dogs
 - Fine Wine
 - Tailored Clothing
 - Thinking he is a Prince

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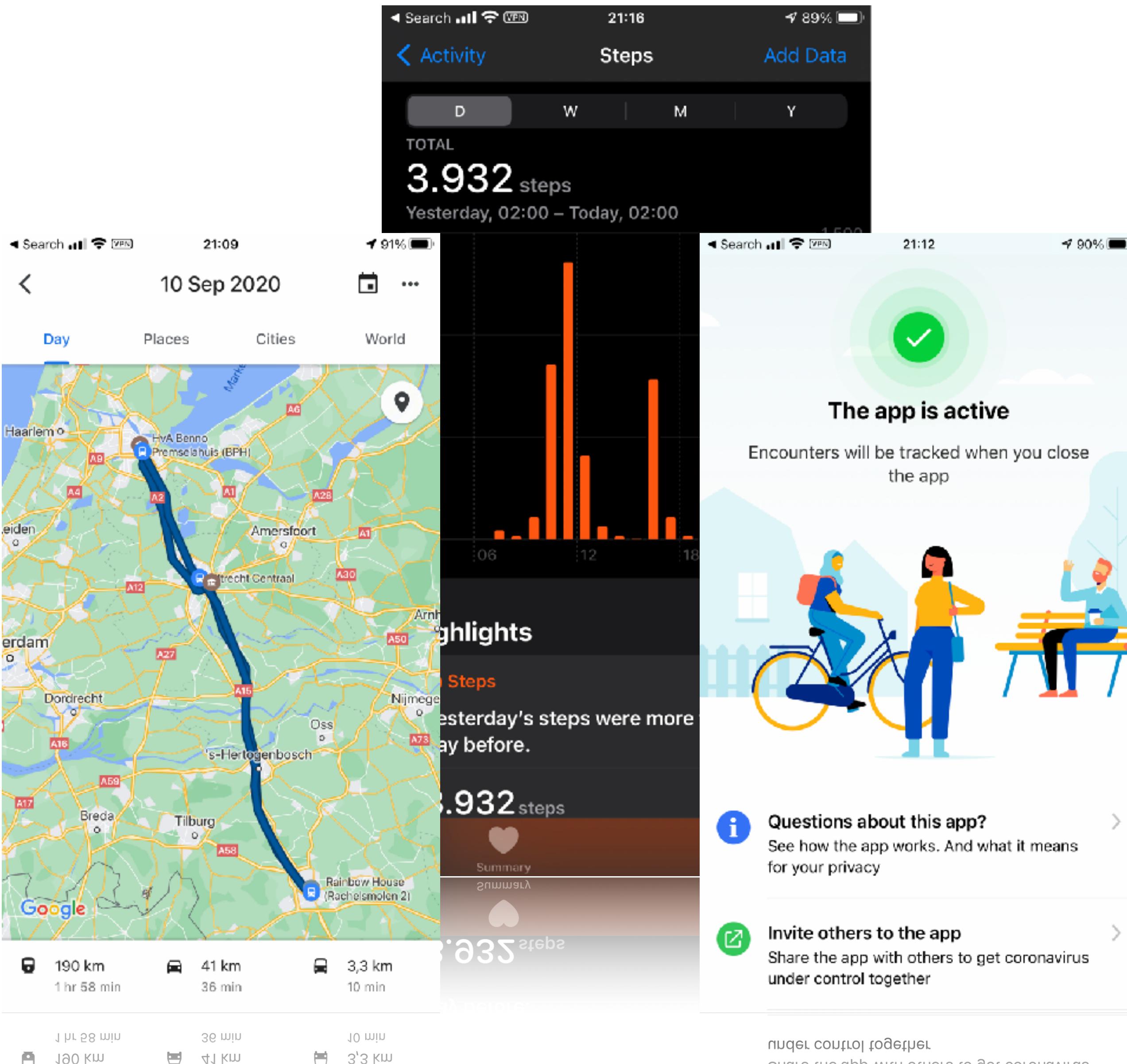


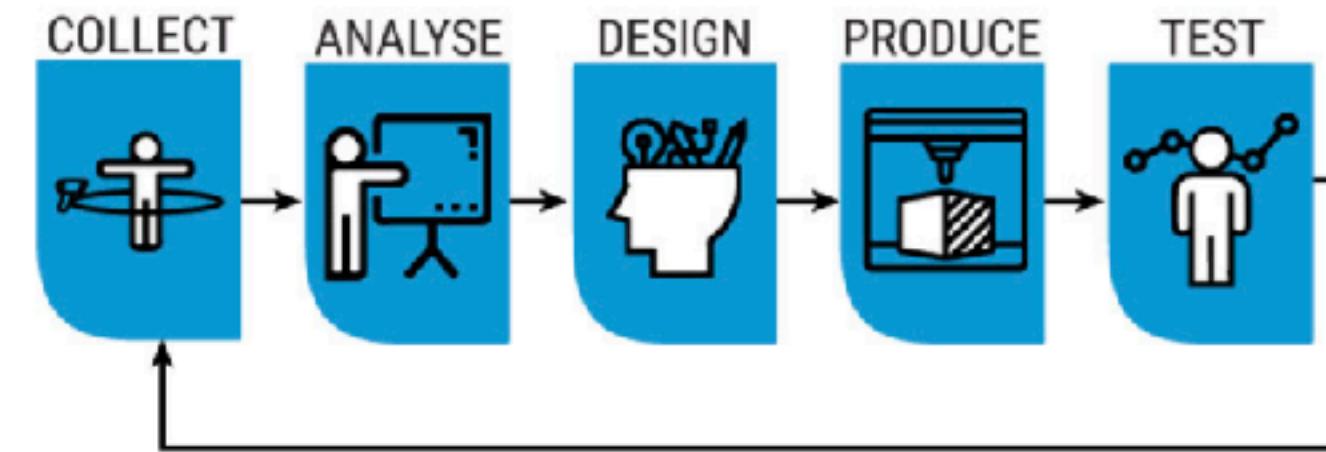
ULTRA-PERSONALIZED

- 1. A PRODUCT OR PROCESS MADE WITH DATA**
- 2. A PRODUCT OR PROCESS THAT MAKES MORE DATA FOR MORE PERSONALIZATION**

-AHSMANN 2016

We already “wear” data.



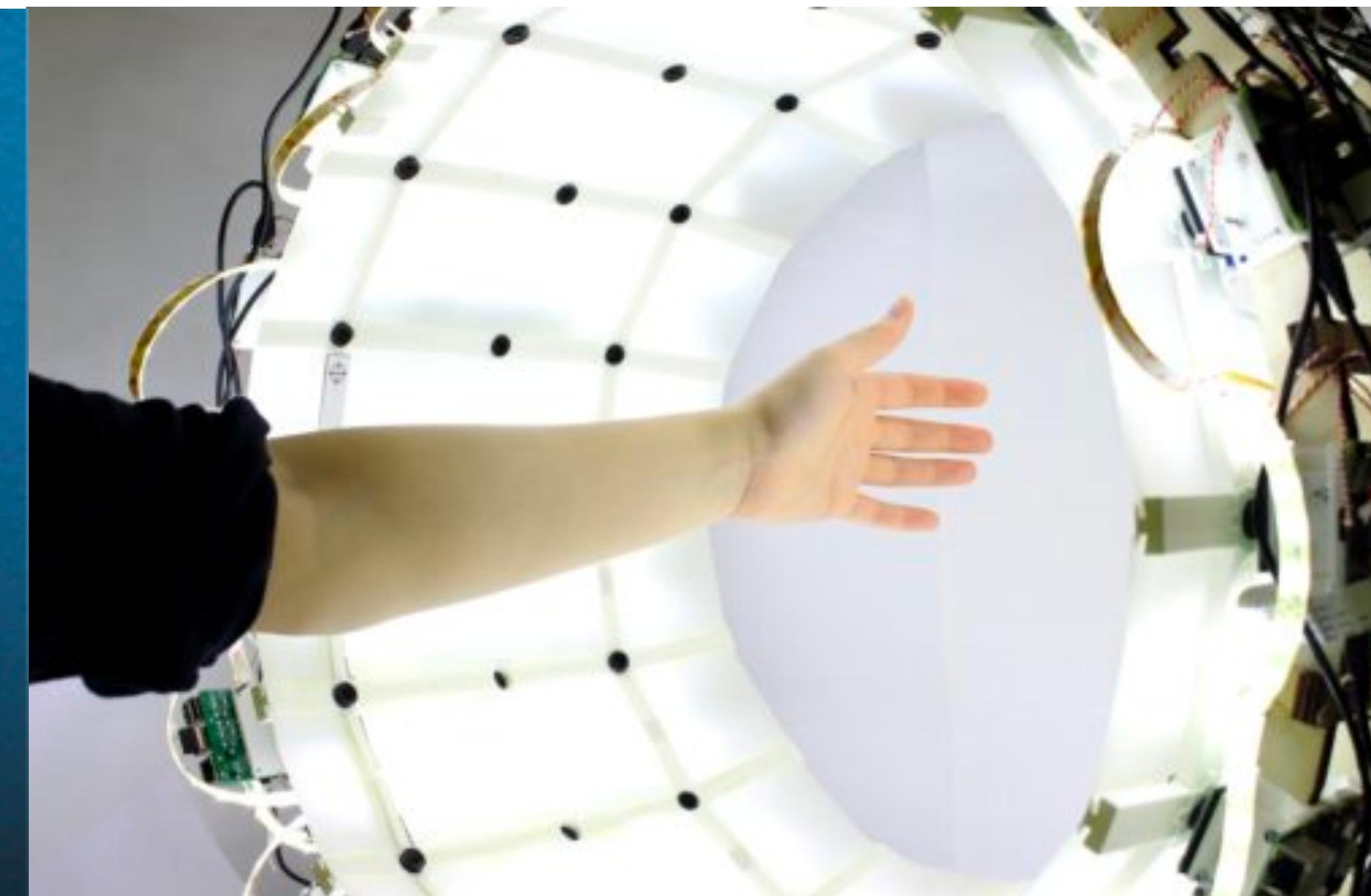


Services of the UPPS Fieldlab

UPPS is a radically different design approach that can offer enormous added value but also presents significant challenges. Designing UPPS has consequences in every step of the design process. The design process of a UPPS can be divided into five phases.

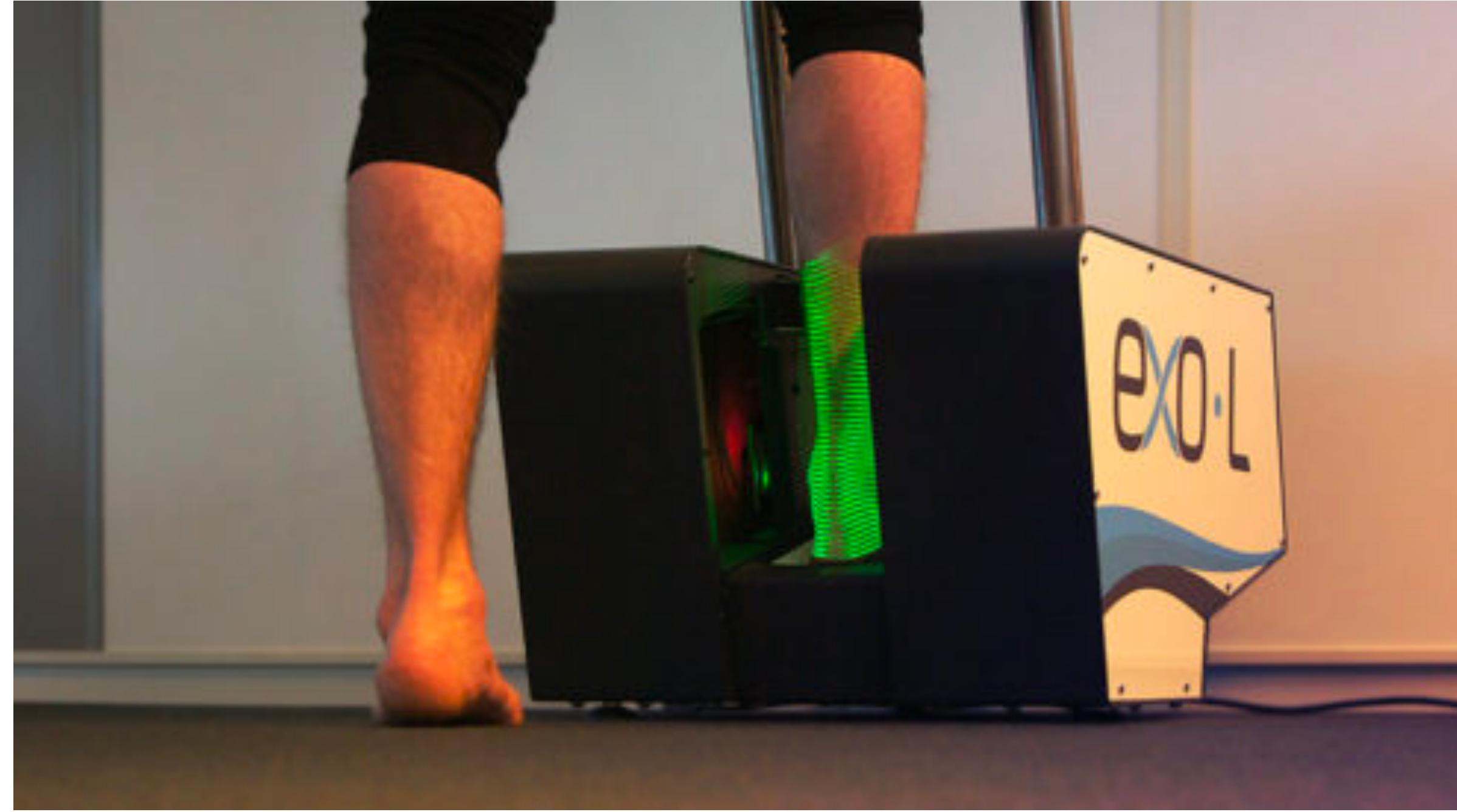
Fieldlab UPPS can help you implement these steps.

<http://www.upps.nl/en/services-en/>





<http://www.upps.nl/nl/2020/04/28/strikks/>



<http://www.upps.nl/nl/exo-l/>



Sizing

ex. David Wildman



ABC



Fit



Anastasia



Georgia



Racila



Anastasia is a very trendy **slim fit** with vertical and bust darts. The backside has some darts too.

Georgia is a classic **relaxed fit** with only bust darts. The backside is without darts.

Racila is a sophisticated **slim fit** with both vertical and bust darts. The backside has some darts too.



<http://www.upps.nl/nl/bivolino/>

One test. A lifetime of change.

The power is in your hands to live a longer, healthier and happier life.
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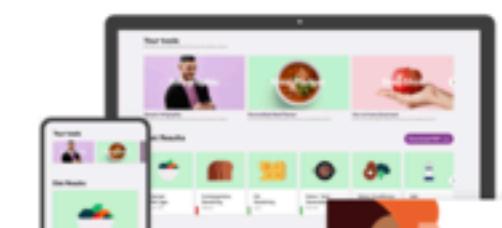
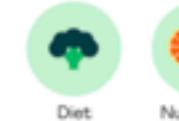
Rated 4.4/5 from over 2500 reviews!



Over 75,000 sold

Diet Fit

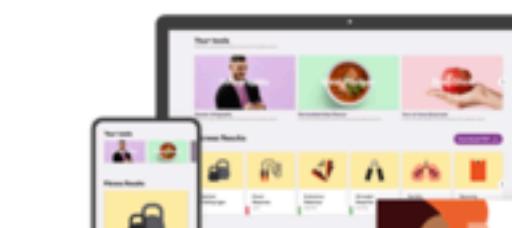
"I want a new approach to my diet and nutrition"



Most Popular

Home ~~Health~~ Fit

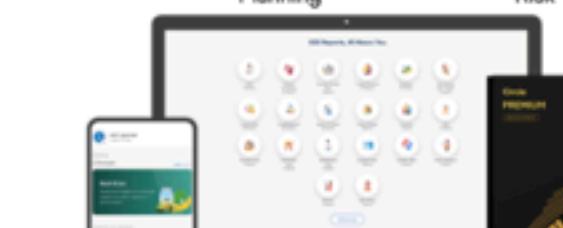
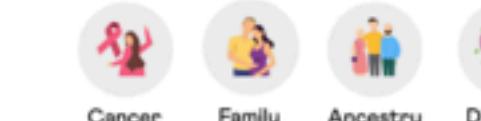
"I want a fitness, nutrition & wellbeing makeover"



Most Comprehensive

Circle Premium

"I want the world's most comprehensive DNA test"



FOODOO

foodoo

✉ f 📸 in 🐦

Personalised Recipe Inspiration.

Sign Up Here



We suggest the perfect recipes based on your tastes, skill level, and dietary preferences.

Sign Up Here

ZALON BY ZALANDO

2 / 6 ESSENTIALS

Selecteer de kledingstukken die je leuk vindt en geef je stylist zo een indruk van je gewenste kledingstijl.

Wat vind je het leukst?

Bovenkleding die je leuk vindt



T-shirts



Poloshirts



Longsleeves



Casual over-hemden



Zakelijke over-hemden

Truien & vesten die je leuk vindt



Vesten



Pullovers



Sweaters



Capuchon-vesten



Hoodies



CLO input



Render output



Features

- Images to replace product photography
- Full body and detail shot posing studio
- Posed stills, 360 turntables and animations
- Studio and editorial formats
- Mix and match apparel and backgrounds
- Cross-brand combinations
- Versatility of high quality avatars
- Online commerce and social media ready
- Presets for bulk content generation

[Join our beta program](#)

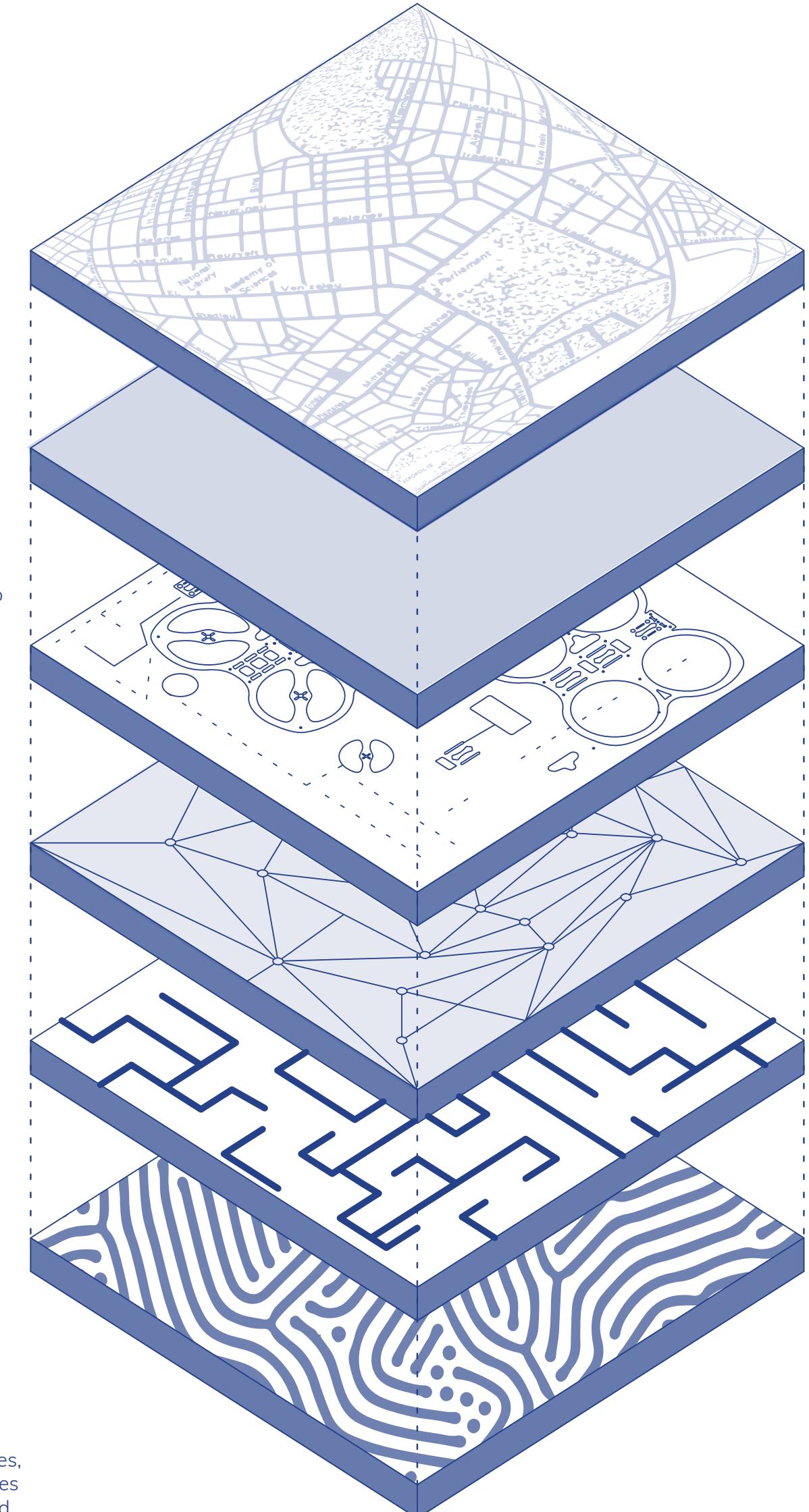
Full Stack - Marleen Stikker

The screenshot shows the Hogeschool van Amsterdam website. At the top, there's a navigation bar with links for EDUCATION, WORKING AND STUDYING, COMPANIES AND INSTITUTIONS, RESEARCH, and ABOUT THE AUAS. Below this is a secondary navigation bar with WHO WE ARE, ORGANIZATION, NEWS AND AGENDA (which is highlighted), WORKING AT THE AUAS, LOCATIONS, and CONTACT. A large image of a laptop and smartphone displaying the website's mobile version is prominently featured. The main content area is titled "APPOINTMENT PROFESSOR OF PRACTICE MARLEEN STIKKER". It includes a "Lectoral speech" section, a date/time table, and a photo of Marleen Stikker. A bio at the bottom describes her as an internet pioneer and founder of Waag.

<https://www.hva.nl/content/evenementen/oraties/2021/01/marleen-stikker.html>

FULL STACK

The Fab City Global Initiative is envisioning and constructing possible urban futures by working at multiple and interconnected scales.



Cities Network

Shared metrics to evaluate progress towards self-sufficiency in cities. Policy-making, regulation, and planning for regenerative urbanization.

Platform Ecosystem for local needs

Project repositories for urban transformation. Distributed and decentralized repositories and value exchange mechanisms for global collaboration. Fab Chain, the blockchain project to enable distributed design and manufacturing.

Shared Strategies Adapted to local needs

Global programs for urban transformation related to local production and processing of food, energy, water, information, or other production systems. Implementation and deployment strategies by the Fab City Collective. Fab City Prototypes.

Distributed Incubation for urban innovation

Engage the power of a distributed network of knowledge to envision, design and create open source technology for urban regeneration. "Grow with Fab" program as a distributed accelerator within the Fab Lab network.

New forms of learning

New skills to learn how to learn, learning by doing principles, lifelong learning basis. The Academy of Almost Anything (Fab Academy, Bio Academy, Fabricademy), STEAM education and professional training.

Distributed infrastructure for innovation in digital fabrication

People, communities, spaces (Fab Labs, Makerspaces, Hackerspaces), machines, tools. Thousands of spaces and communities already in place in every major and middle city in the world.

Kate Raworth - The Donut model

Hogeschool van Amsterdam MijnHvA Alumni English UITGEBREID DOOR Gc

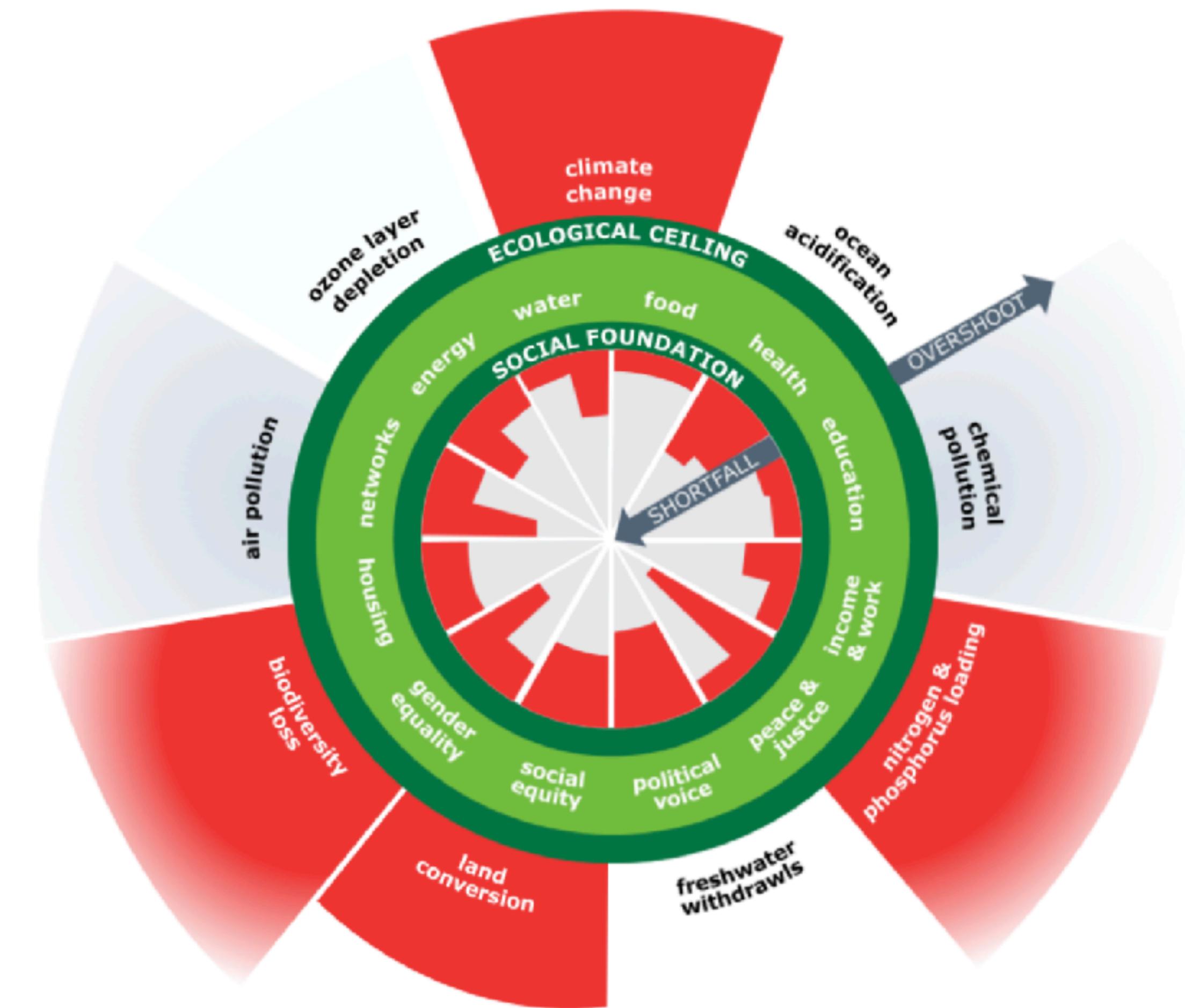
EDUCATION WORKING AND STUDYING COMPANIES AND INSTITUTIONS RESEARCH ABOUT THE AUAS

WHO WE ARE ORGANIZATION NEWS AND AGENDA WORKING AT THE AUAS LOCATIONS CONTACT

A screenshot of the Hogeschool van Amsterdam website. At the top, there is a navigation bar with links for EDUCATION, WORKING AND STUDYING, COMPANIES AND INSTITUTIONS, RESEARCH, and ABOUT THE AUAS. Below this is a secondary navigation bar with WHO WE ARE, ORGANIZATION, NEWS AND AGENDA, WORKING AT THE AUAS, LOCATIONS, and CONTACT. The main content area features a large image of a laptop and a smartphone displaying the website. Below the image, there is a breadcrumb menu: HOME > ABOUT THE AUAS > NEWS AND AGENDA. A link to 'List' is also present. The main headline reads 'AUAS APPOINTS KATE RAWORTH AS PROFESSOR OF PRACTICE'. The date is listed as 29 Aug 2019 4:00 PM | Communications department. The text of the article states: 'Today Huib de Jong, President of the Executive Board of the Amsterdam University of Applied Sciences (AUAS), announced that Kate Raworth has been appointed Professor of Practice with effect from January 2020. Raworth has been nominated for this appointment by the Faculty of Business and Economics.' Below the text is a black and white portrait of Kate Raworth.

Raworth is a global opinion leader on the discussion about sustainability and the importance of connecting ecological challenges with inclusivity. She outlined the framework for this in her book 'Donut Economics'. From January 2020, Raworth will be responsible for substantive leadership on a project to concretize the Sustainable Development Goals in Amsterdam together with the AUAS.

The Doughnut of social and planetary boundaries (2017)

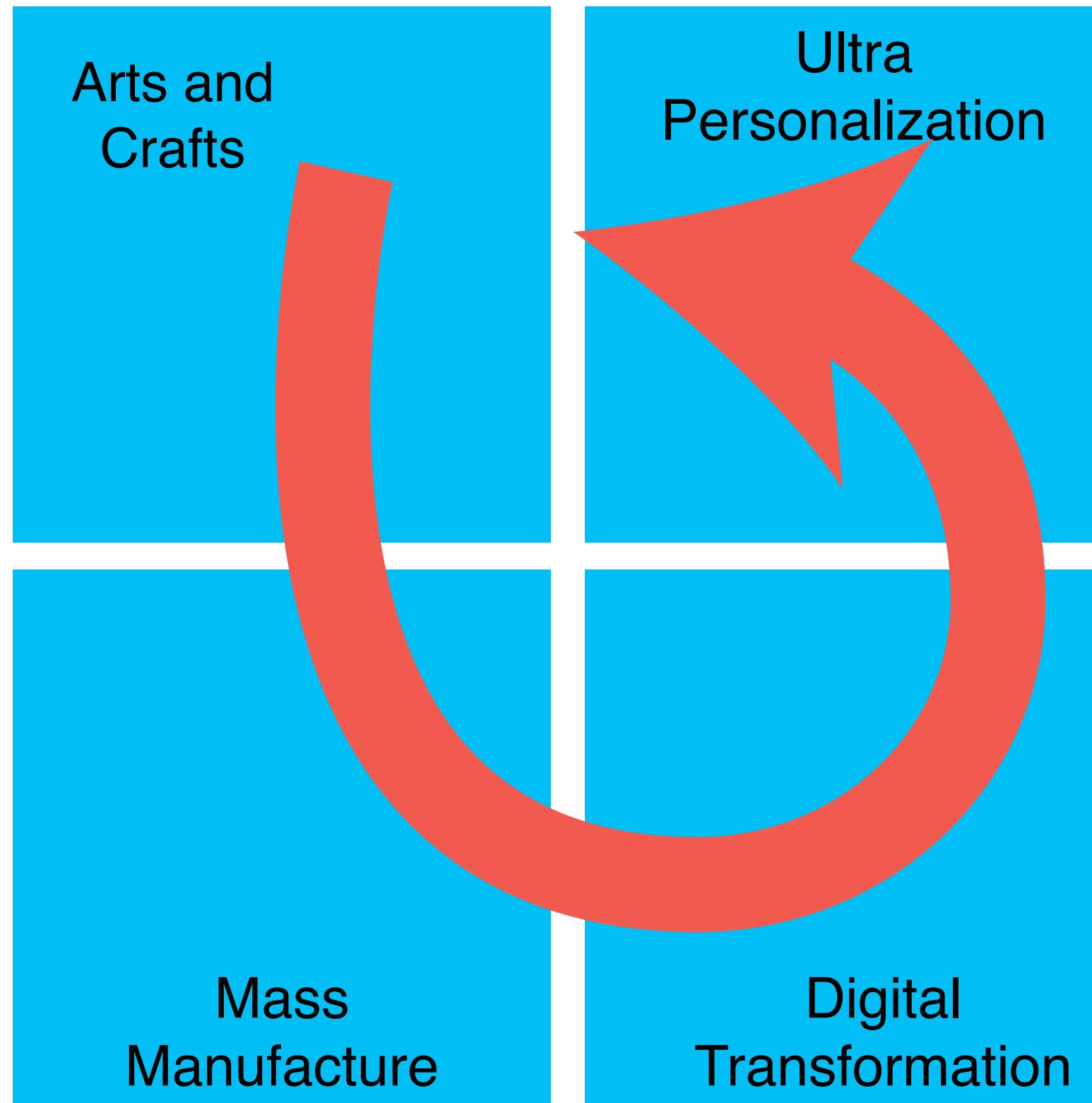


<https://www.kateraworth.com/doughnut/#>

Ubietous
(Personalized,
Contextualized)

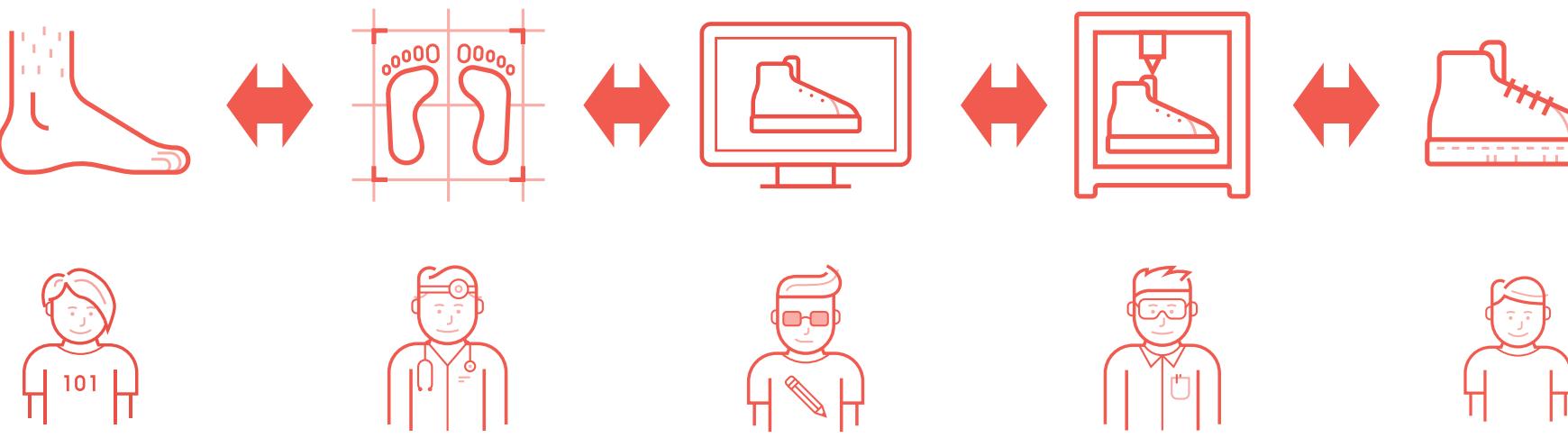
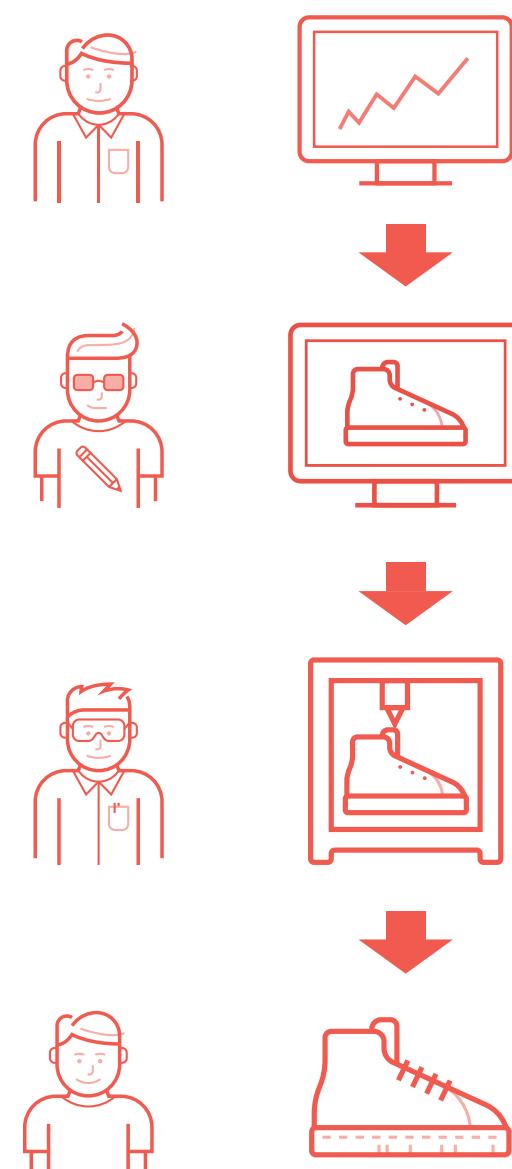
Analog

Digital



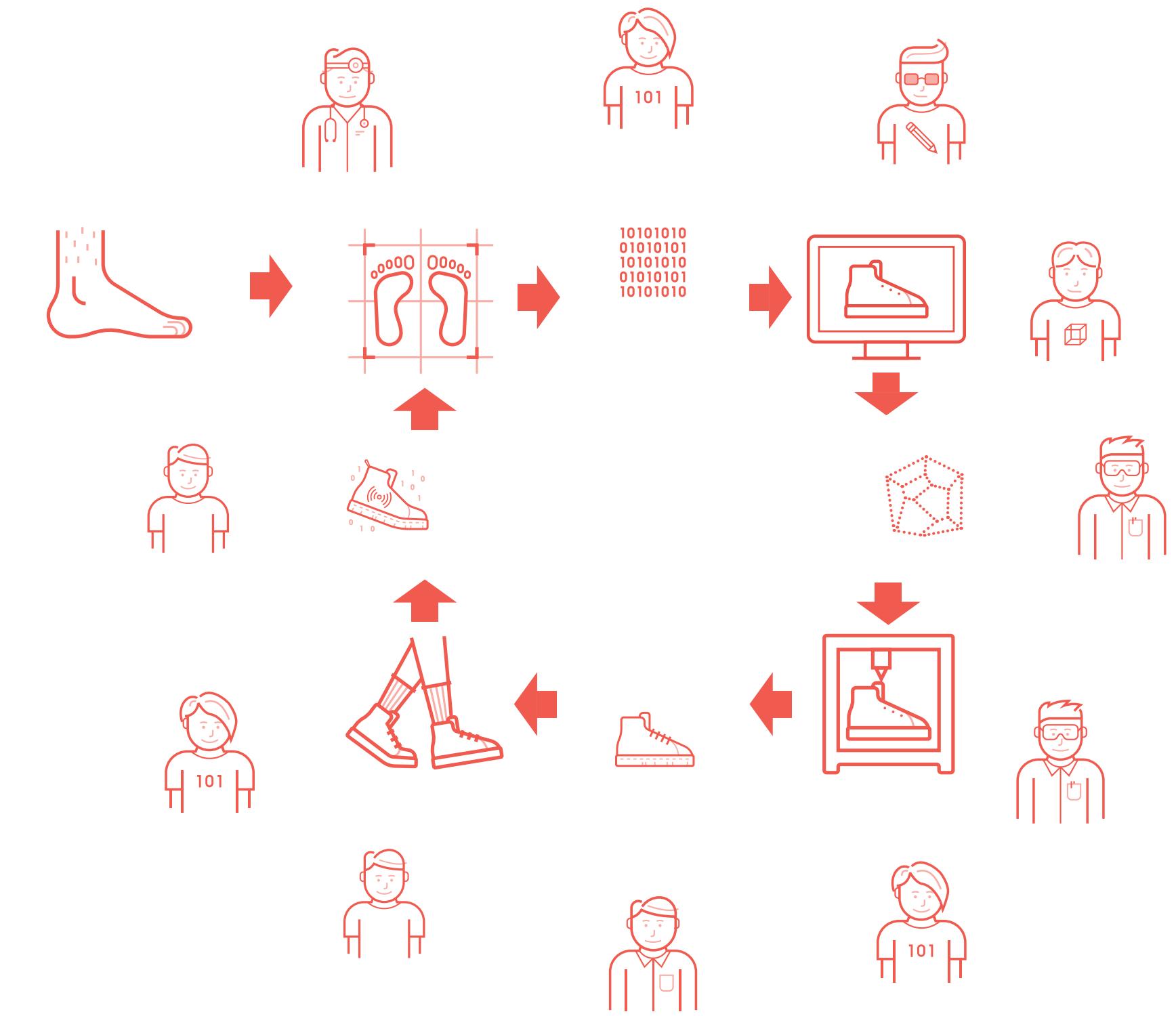
Ubiquitous
(Mass Manufactured)

Current Production Models



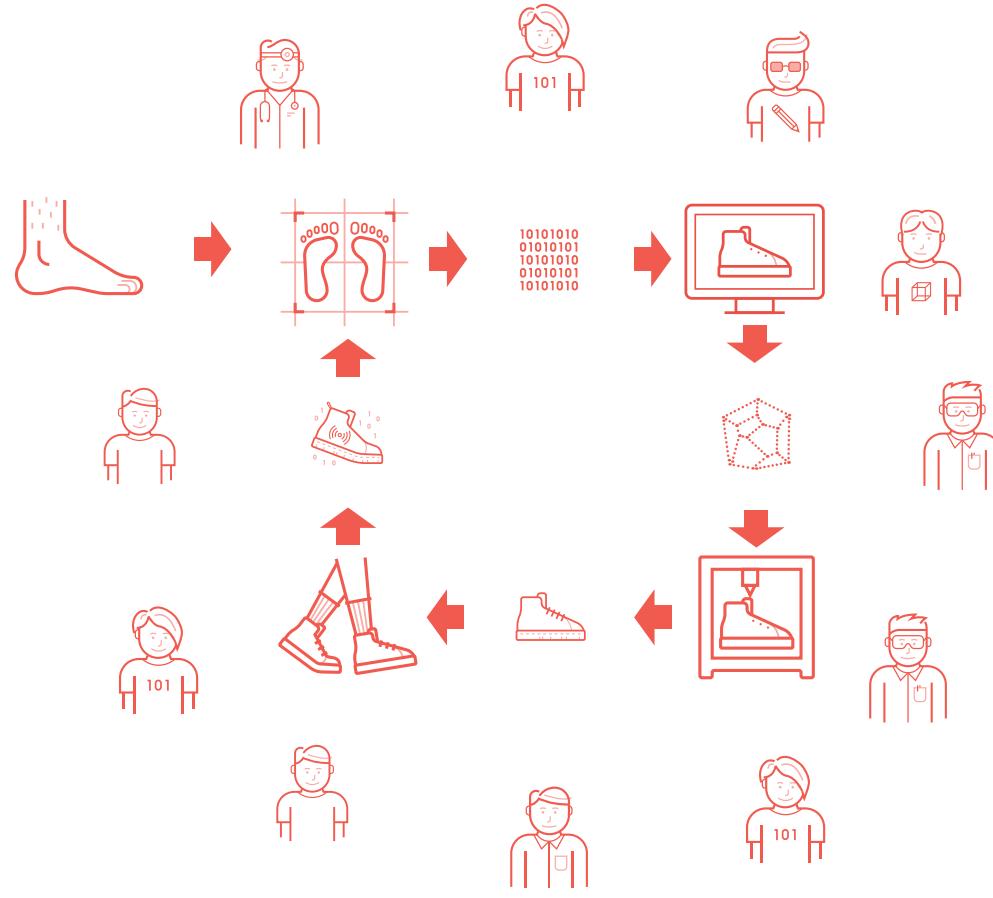
Vertical

Horizontal

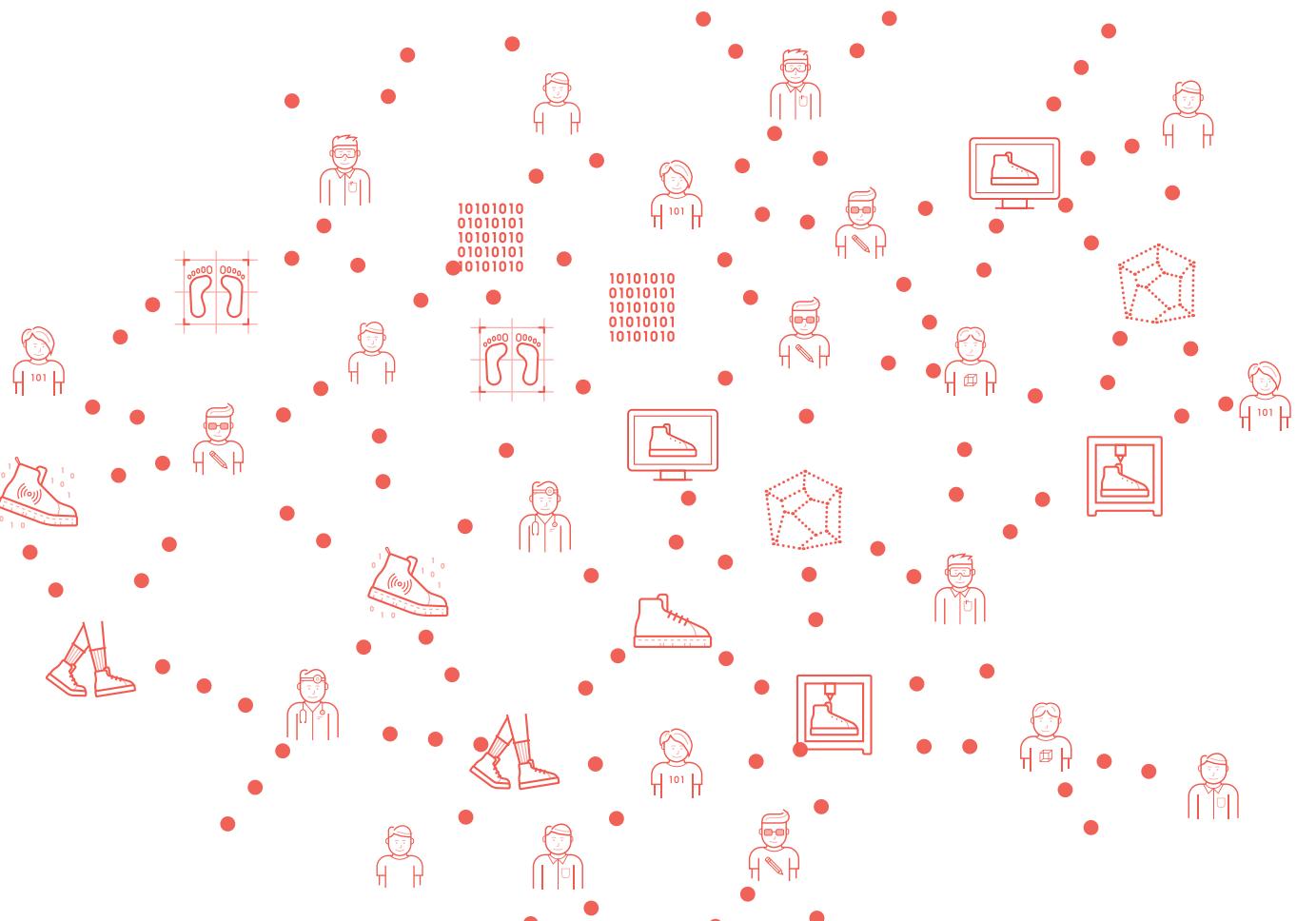


Circular

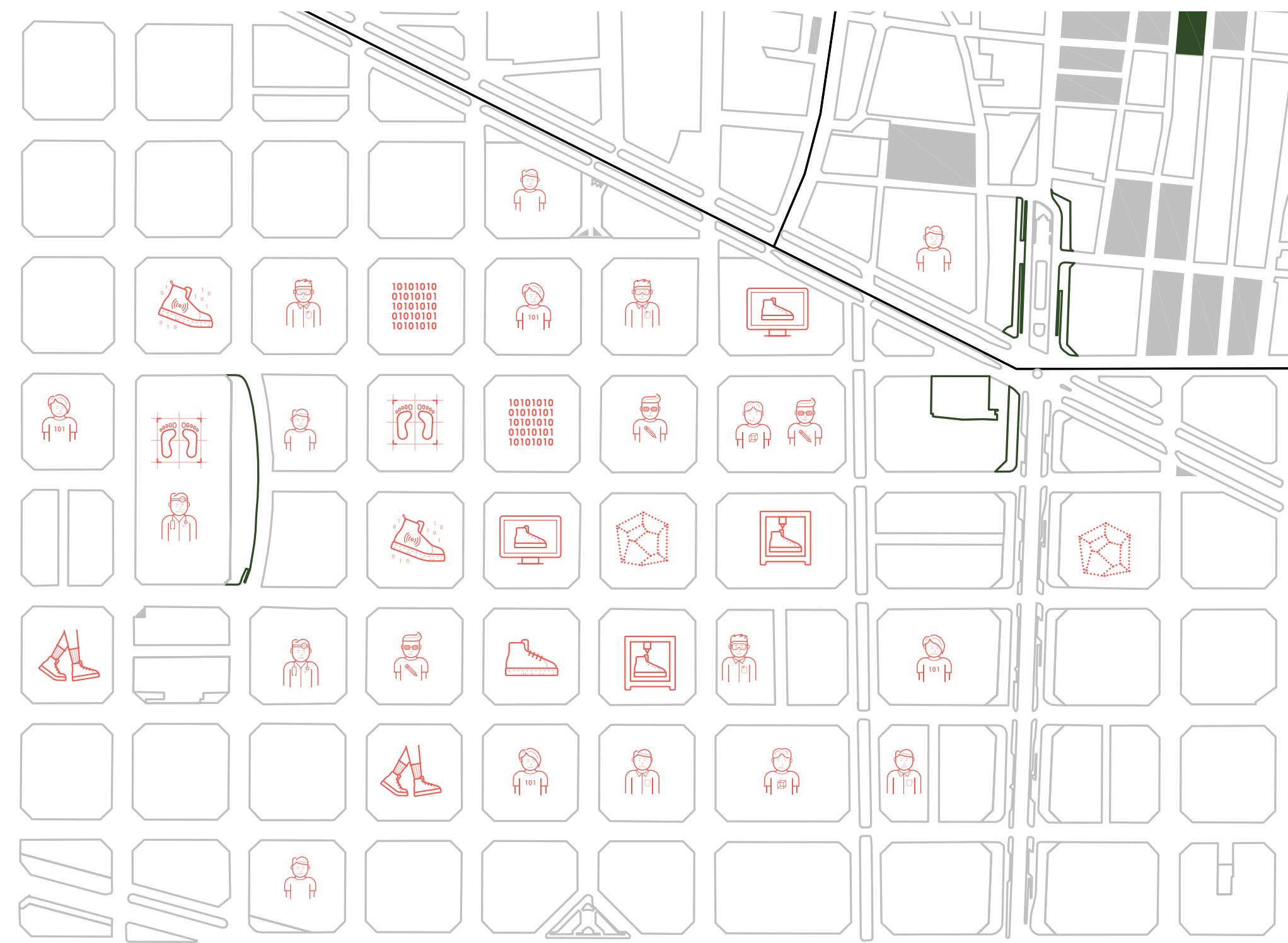
Possible Future Production Models



Circular

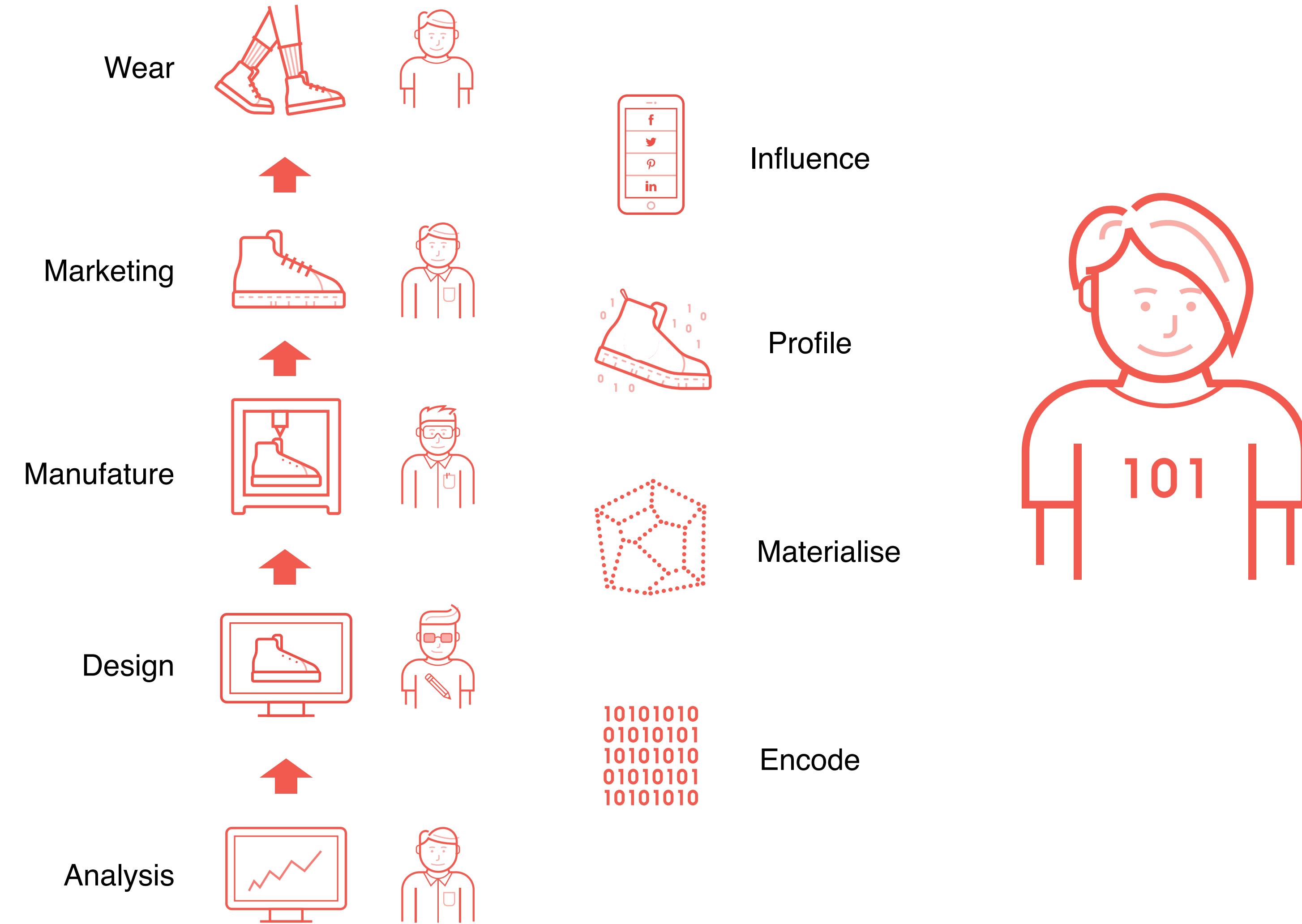


Distributed

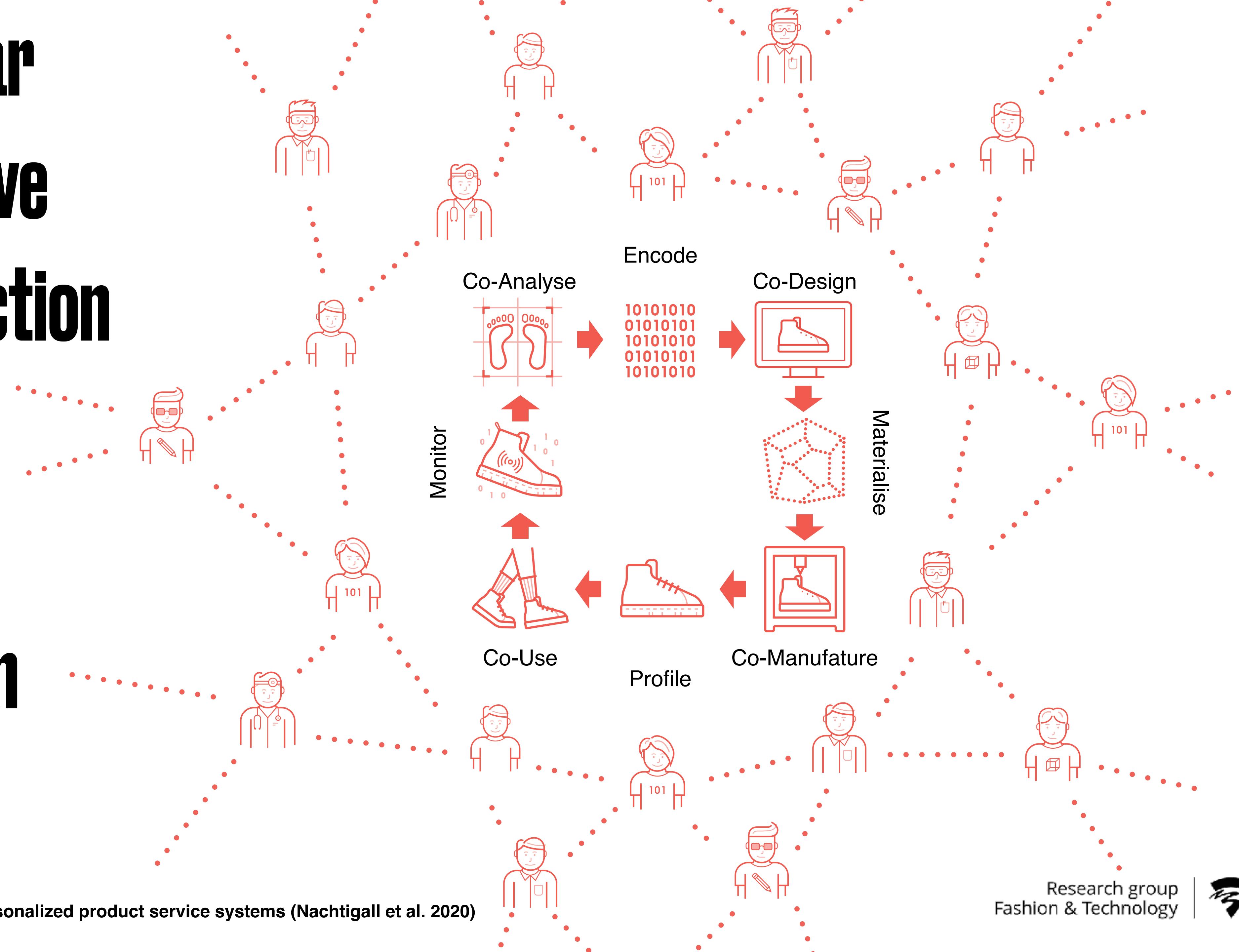


Localized

Ultra Personalized Product Service Systems Designers

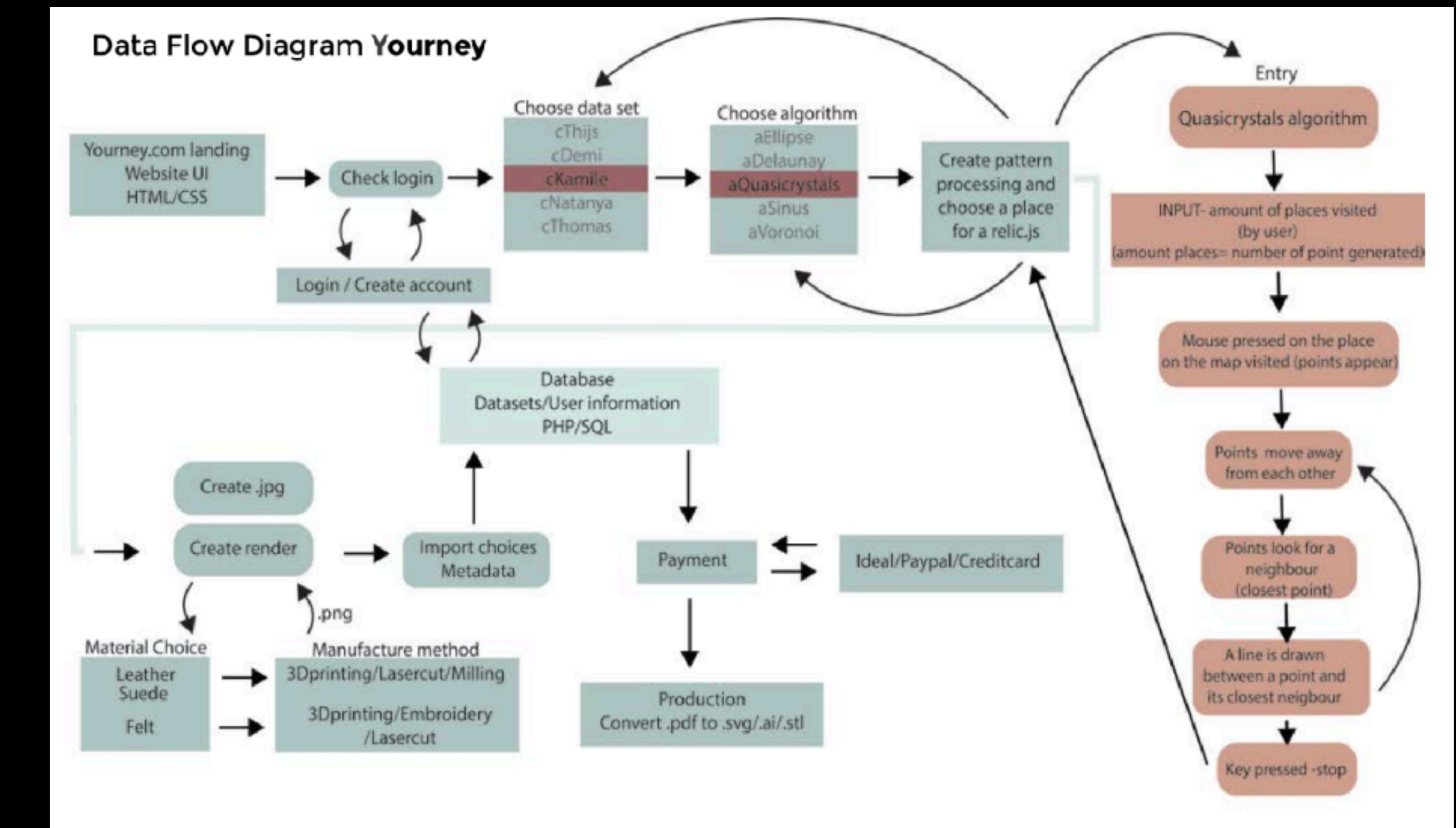
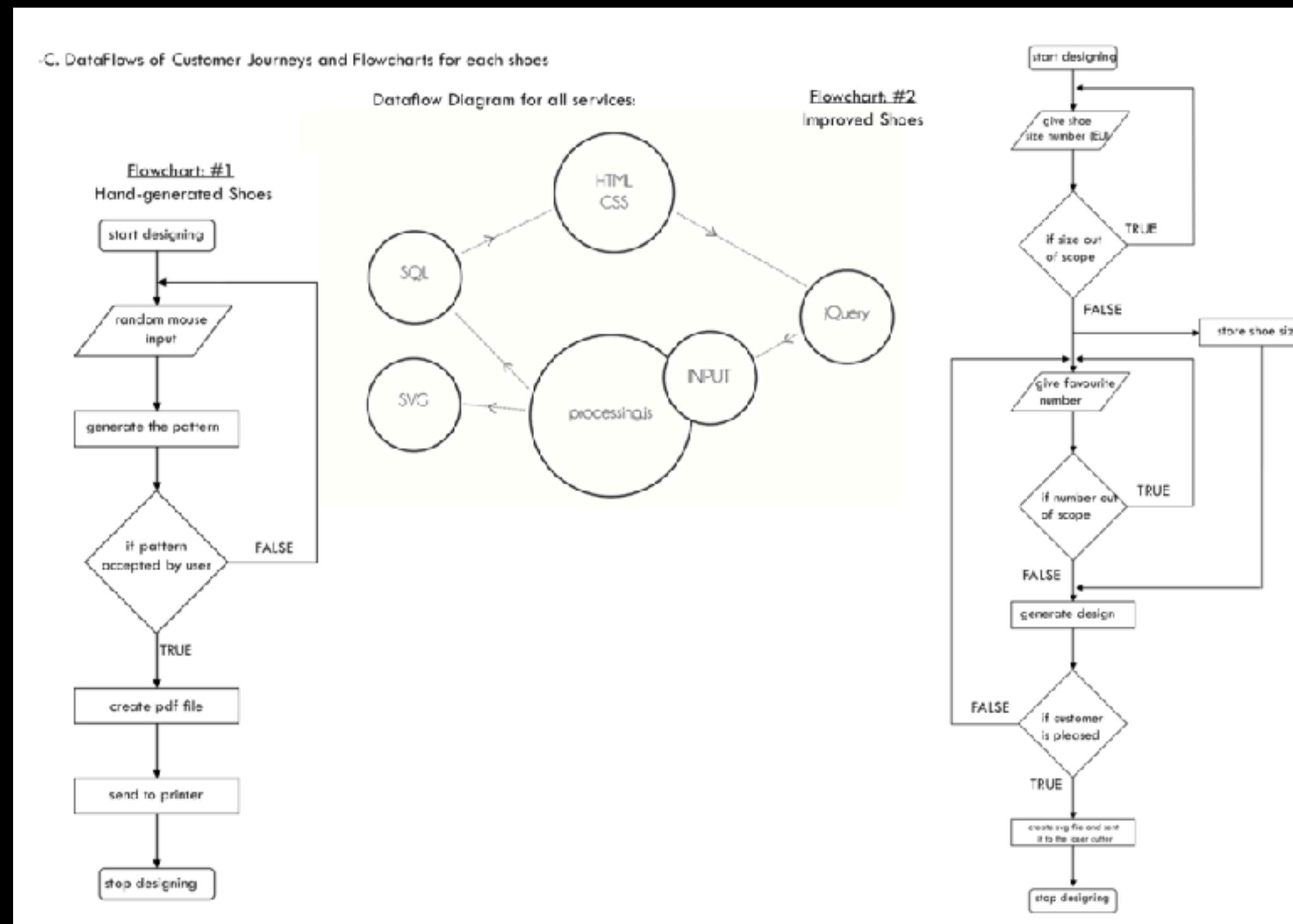


Circular Iterative Production Model of Fashion

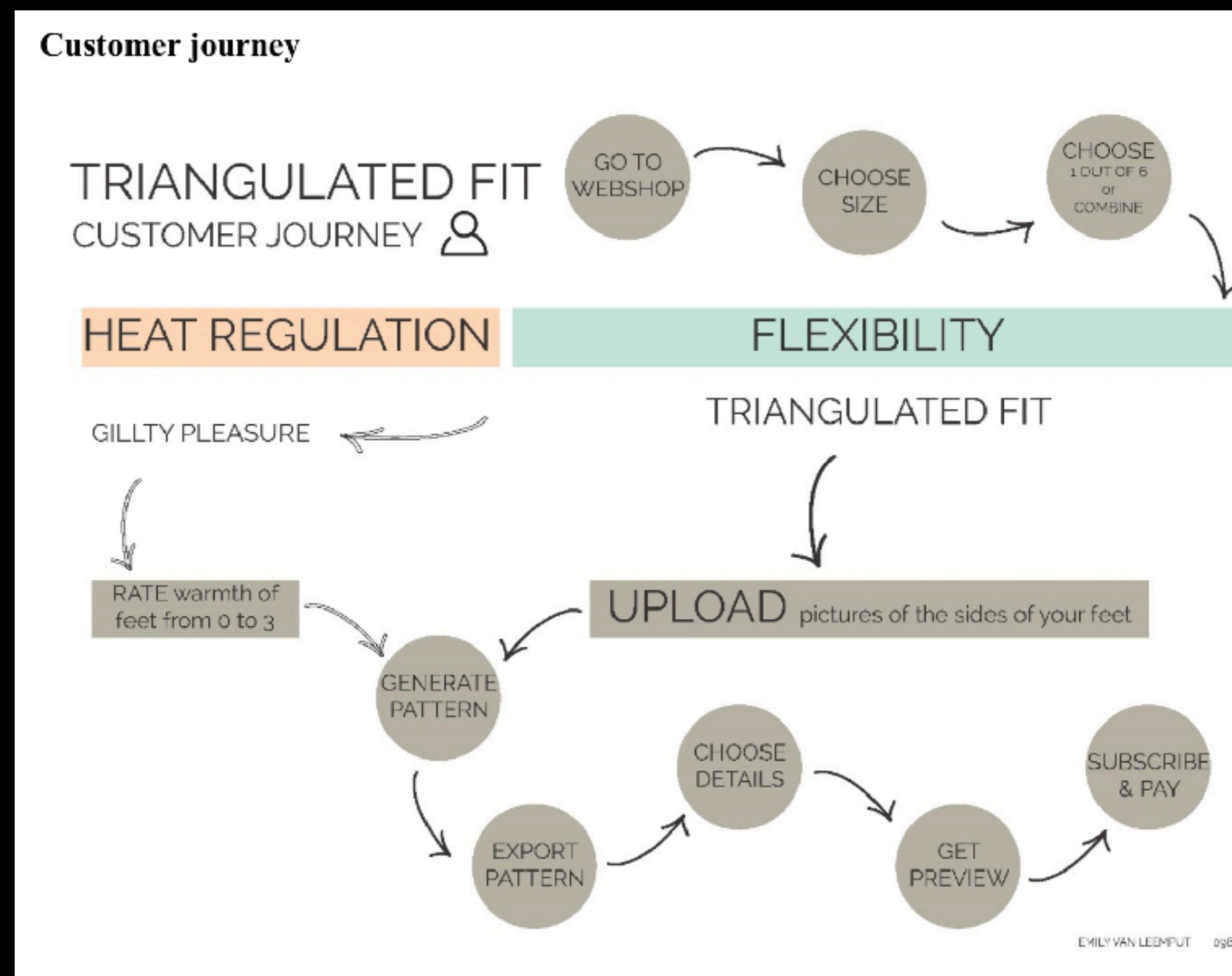


Designing ultra-personalized product service systems (Nachtigall et al. 2020)

Data Flow



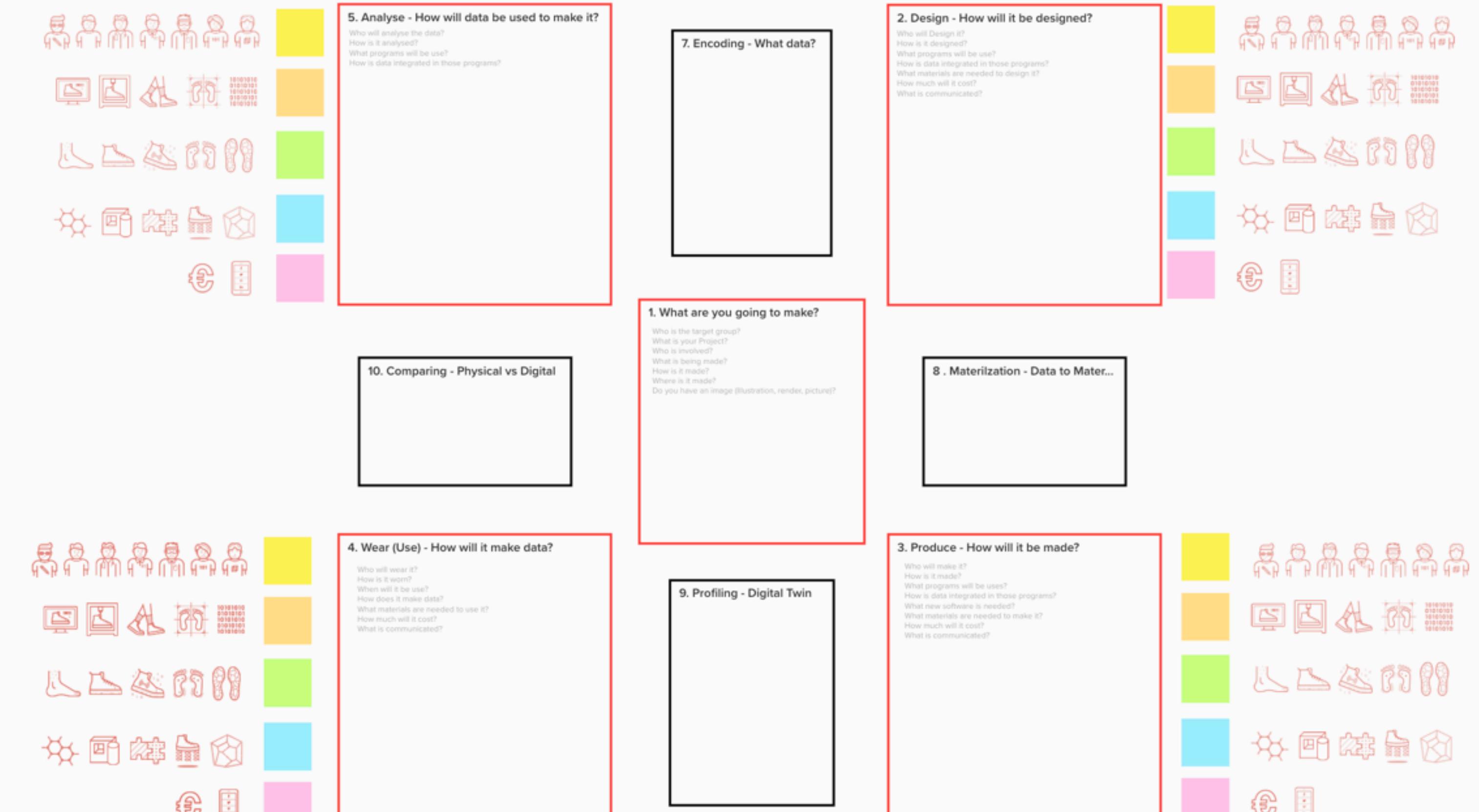
Stakeholder Journey's



UPPSS Canvas

Project Title
Names

6. Go back through the Circle and ask if everything still works.
11. Go back through the Circle and ask if everything still works.



Ultra-Personalized Product Service System

Troy Nachtigall, Oscar Tomico, Stephan Wensveen