# New Industrial Order

## Laboratory for fashion on demand

New Industrial Order, laboratory for fashion on demand, is an initiative for creative and visionary designers, engineers and entrepreneurs who collaborate to create a circular system for order-made fashion.

With today's technologies we can reduce overproduction and waste. We can enable people to buy less but better clothes and organize an efficient and responsible closed loop supply chain.



N.I.O. envisions ultrapersonalized clothes produced on demand of unique customers. Our mission:

- to design and test the circular *on demand* supply chain
- to create clothing designs that function well in this supply chain
- to support designers and brands in the transition from bulk to on demand.

### N.I.O. research lab

In collaboration with universities, innovative companies and creative labs we explore every part of the on-demand supply chain from consumer behavior to end-of-garment-life and reuse. We focus on 3D knitting: one of the most promising technologies for the future of sustainable fashion.



Current activities:

- virtual fashion design
- knitcode programming
- the use of sustainable materials
- repair and re-use of garments
- sizing technology
- digital tailoring and virtual fitting

### **3D** printed knitwear

3D knitting machines are capable of making entire clothes, without cutting, without sewing. Garments are knitted from long, uncut threads as 3-dimensional seamless constructions, creating less than 1% waste. At the end of its lifecycle, 3D knitwear can be unravelled and the yarn can be re-used.



From the finest spidersilk to chunky regenerated wool, almost any material can be knitted in 3D. Knitted textures can range from light and flexible to thick and rigid. Thanks to recent innovations knitting is starting to replace garments that were traditionally woven.

#### N.I.O. modular white label collection

Designers everywhere are starting to discover the possibilities of 3D knitwear. However, 3D knitwear development is complicated, time-consuming and expensive. Access to 3D knitting machines for experimentation is limited. To solve this problem, N.I.O. is setting up a database of 3D knit data (Knitcode).



The foundation of the database is formed by a modular white label collection composed of building blocks of Knitcode. Designers and brands can use these building to create their own signature styles. Additionally, N.I.O. provides a Knitcode development service for the creation of new styles.

#### Knitcloud

To provide the technological and organizational infrastructure for fashion on demand, N.I.O. is developing Knitcloud. A network of knit labs and production points, combined with an integrated production management service. Through Knitcloud, brands can order their knitwear from 1 piece quantity, within 1 week, throughout the year.



Knitcloud's mission is to create an efficient, fast and local on-demand knitwear supply chain, where stock is no longer a necessity and where re-use of material is the norm.

For more info visit www.newindustrial-order.com/knitcloud

#### **Contact us**

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