

**Ricoh Apparel
Manufacturer's
Partnership
by Universal
Platform**



**RICOH's Digital Micro Factory:
Sustainable Innovation in the Apparel Industry**

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1. 理光喷墨技术发展愿景

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提供 安全 安心

的 衣食住 环境 共同实现高品质社会。

Provide safe and secure printing

**for food, clothing, and housing
aiming to realize an enriched society.**



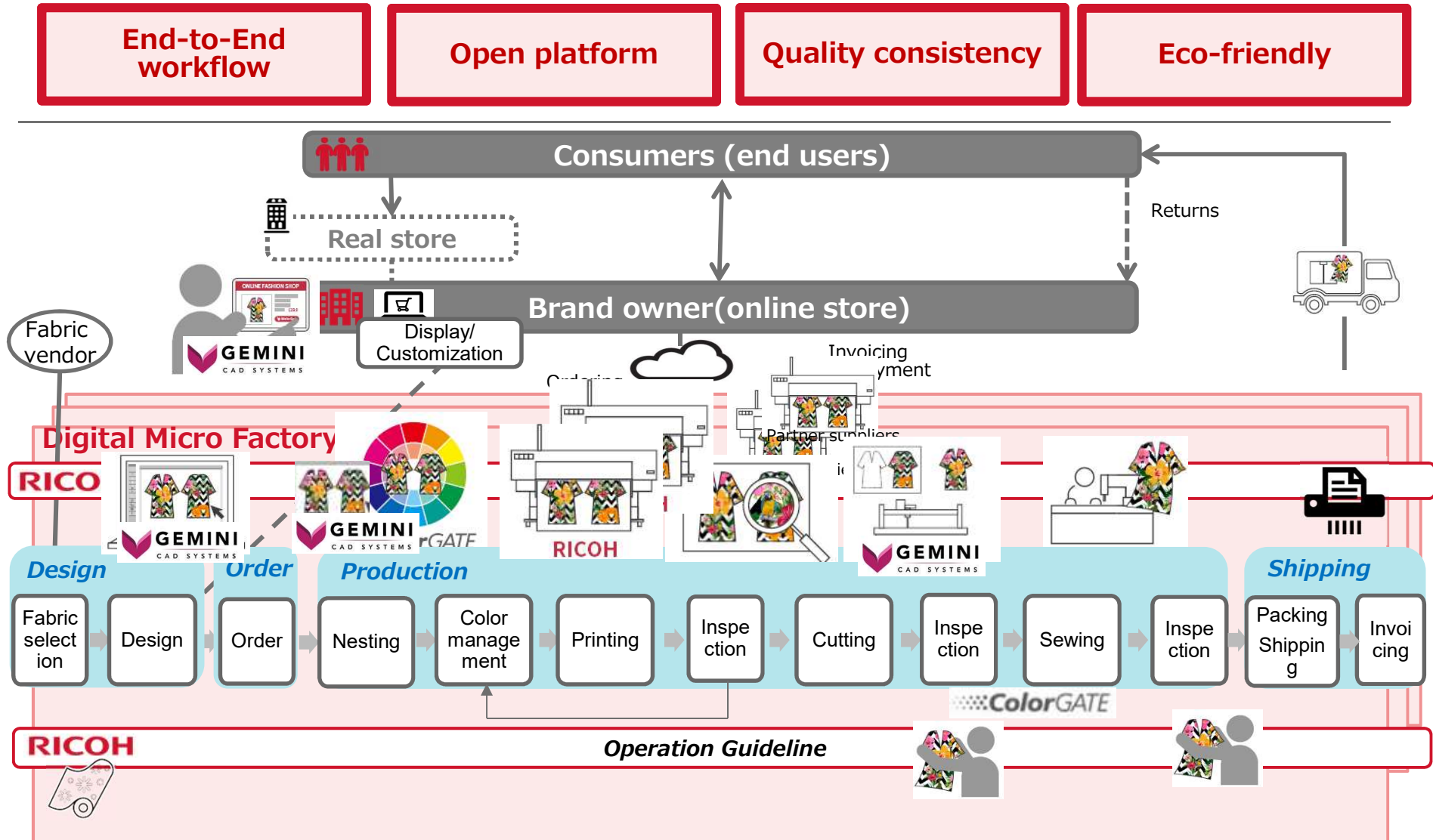
理光致力于通过喷墨技术去帮助解决社会问题

**Ricoh's inkjet technology will contribute
in resolving social issues**

2. RICOH Apparel Manufacturer's Partnership by Universal Platform

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RAMP-UP : Provide smart Textile factory with partnership program



**End-to-End
workflow**

- ✓ Operate from order to shipping
- ✓ Transform marketing and merchandizing

Open platform

- ✓ Build consortium with partners
- ✓ Connect with any hardware through ColorGATE RIP/Gemini CAD system

Quality consistency

- ✓ Manage color consistency in any condition
- ✓ Provide inspection method with color measurement and process standard

Eco-friendly

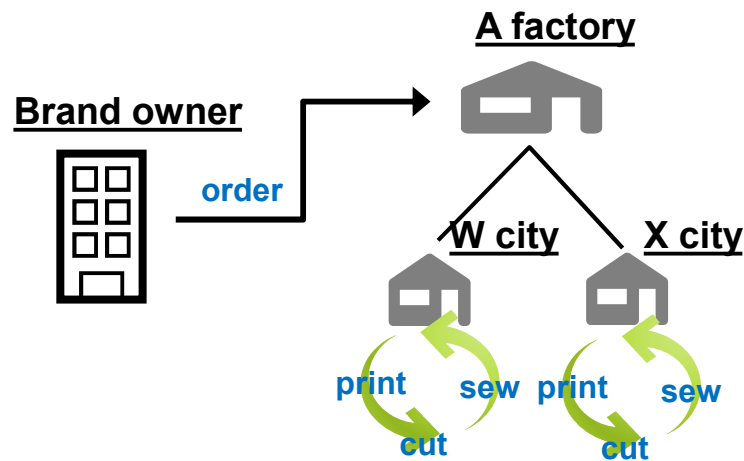
- ✓ Reduce water with water based pigment ink
- ✓ Recommend eco-friendly fabric

4

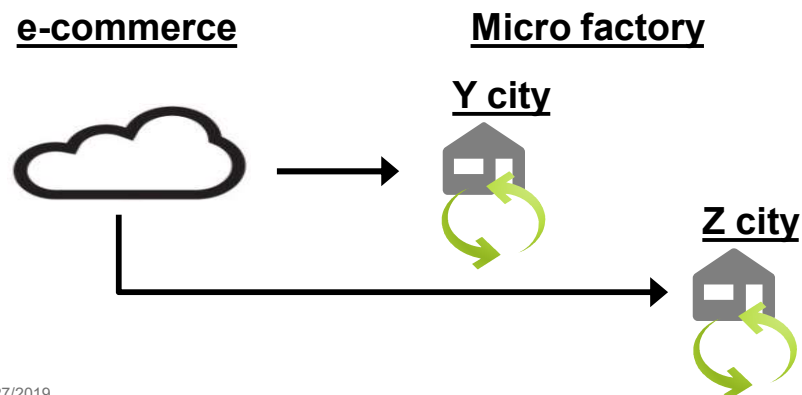
RAMP-UP promotes two kinds eco-systems

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A) Small · Mid size apparel factory



B) E-commerce



Keywords:

- Open network
- Cross factories production control, monitoring
- Color management between different factories and machines

Brand owner: On-time production tracking

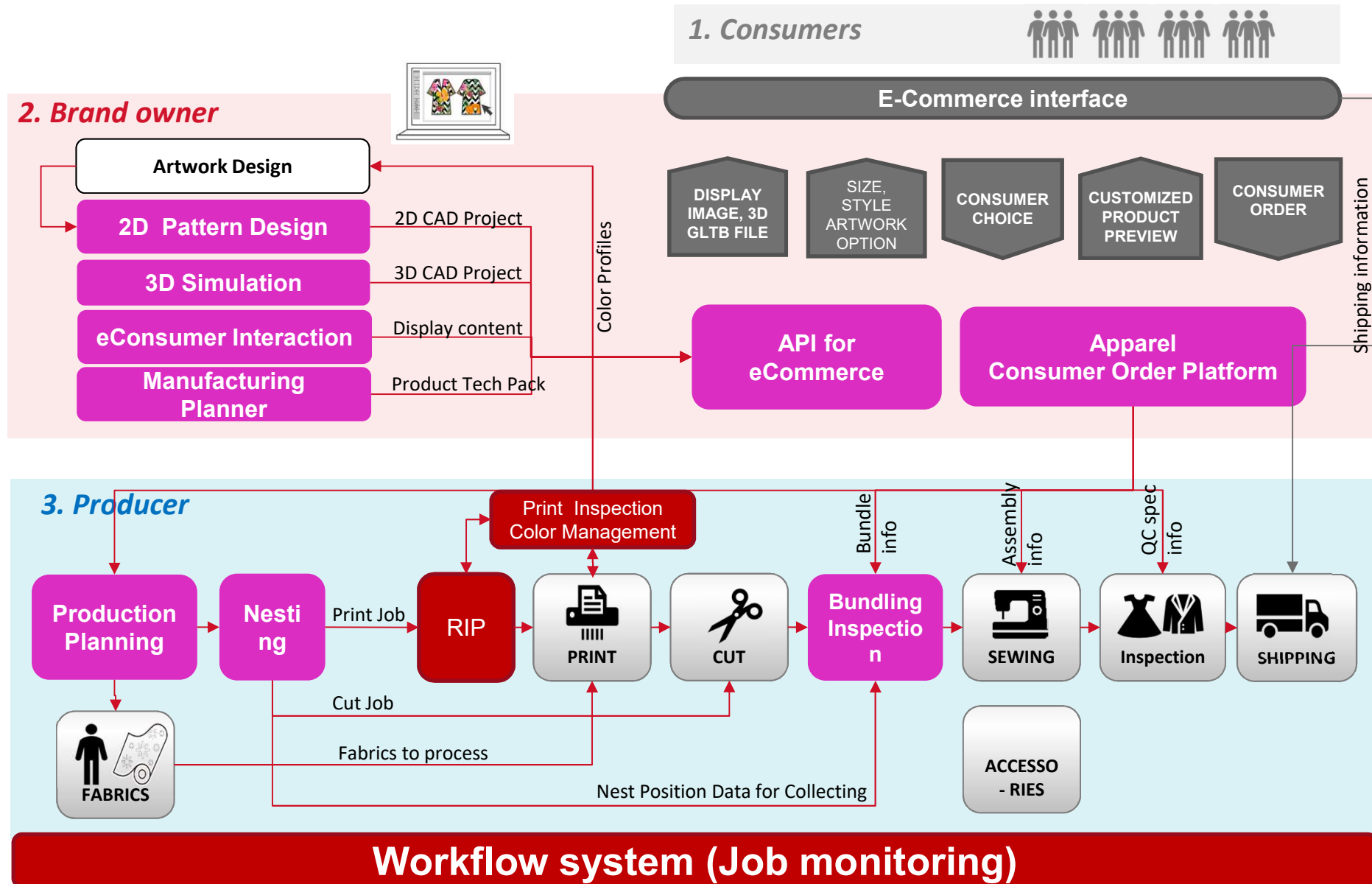
A Factory: Production control/monitor (W and X city)

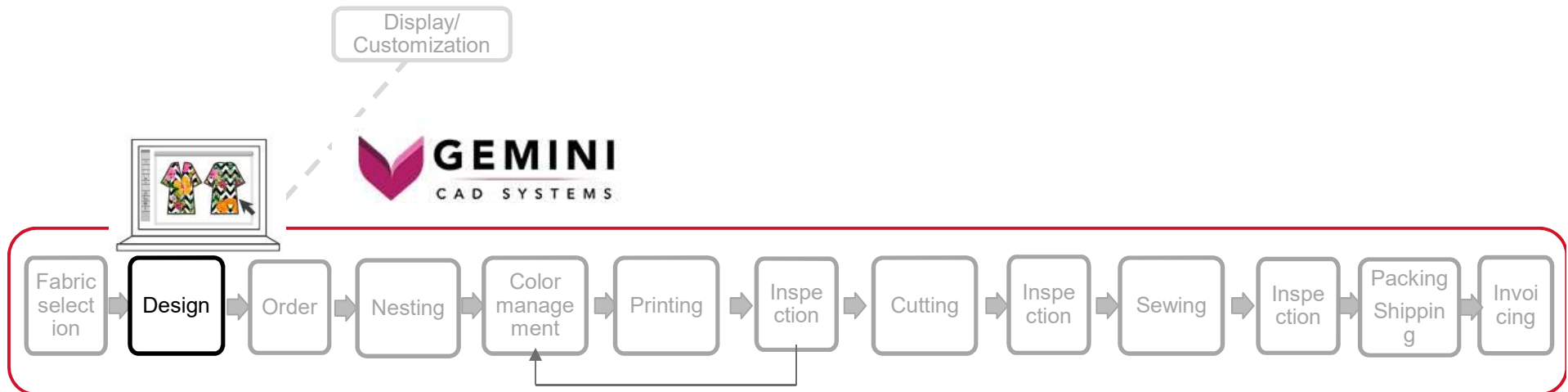
- Process customization
- Color management
- Color inspection

Keywords:

- Build to order (BTO)
- Decentralization = Manufacture near by order

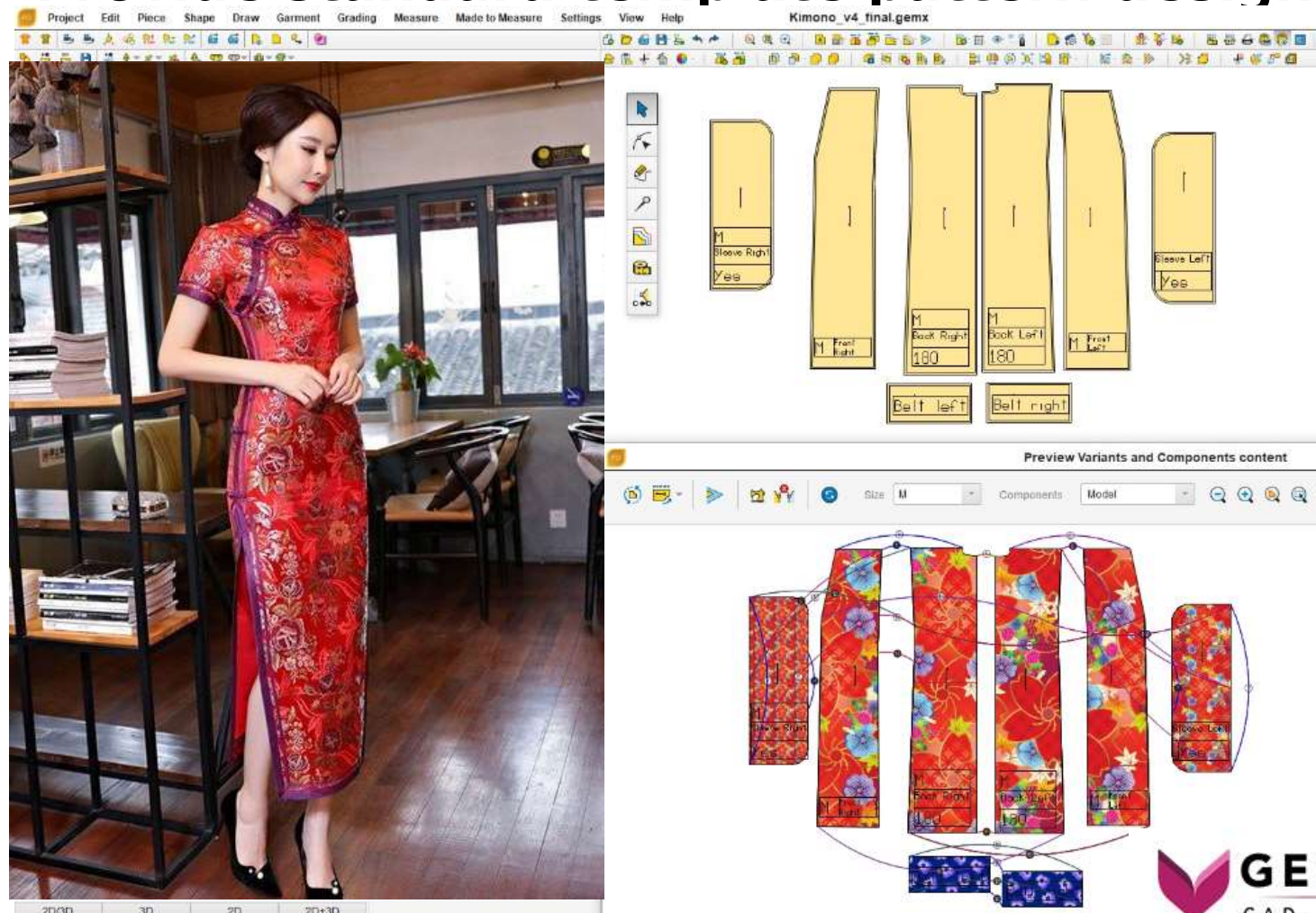
Micro factory : begin with small investment





- ✓ **3D simulation**
- ✓ **Template design**

- Create new design easily with 3D simulation
- Provide standard template pattern design

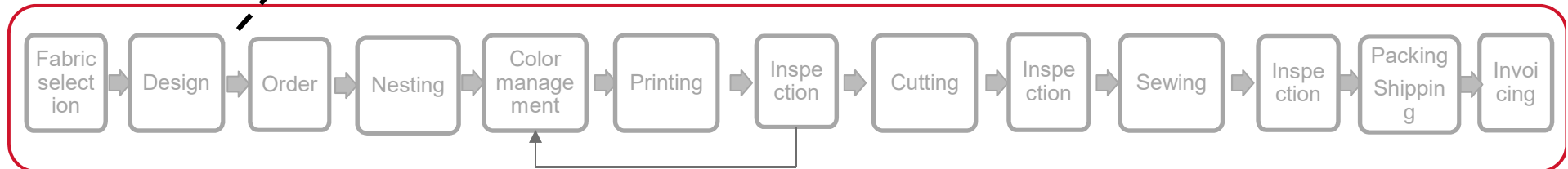


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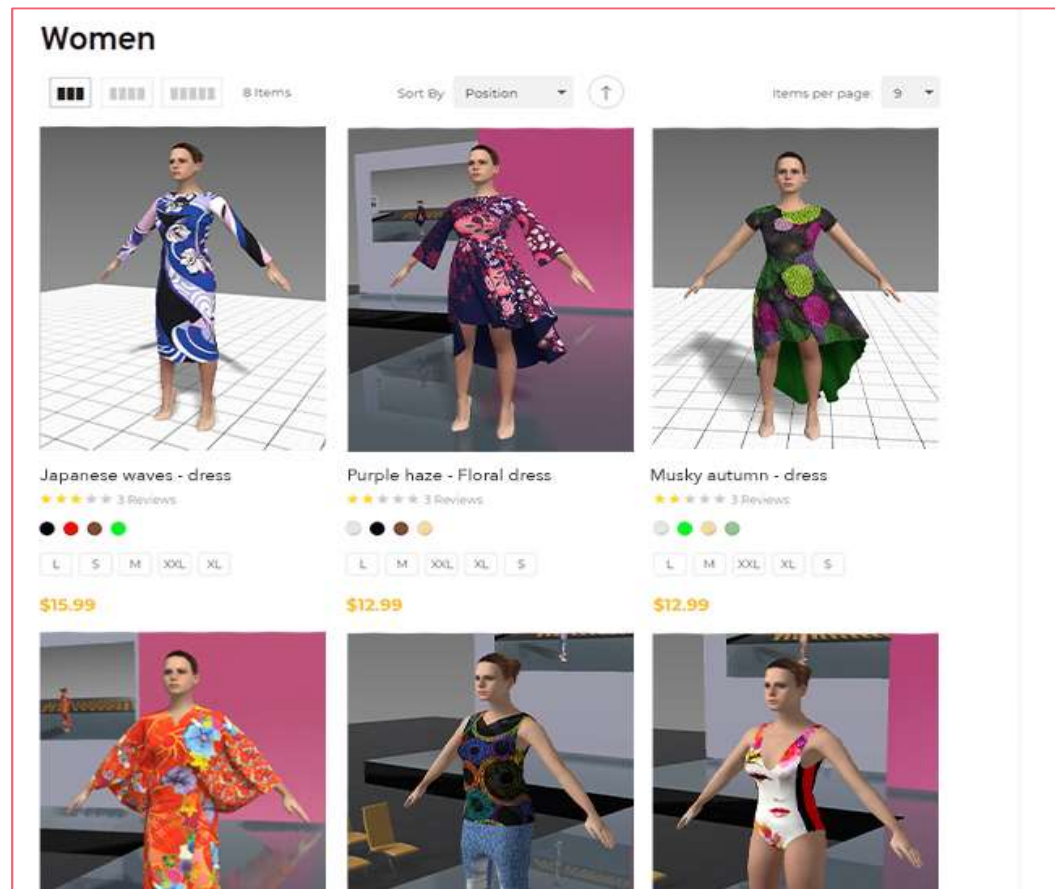


Display/
Customization

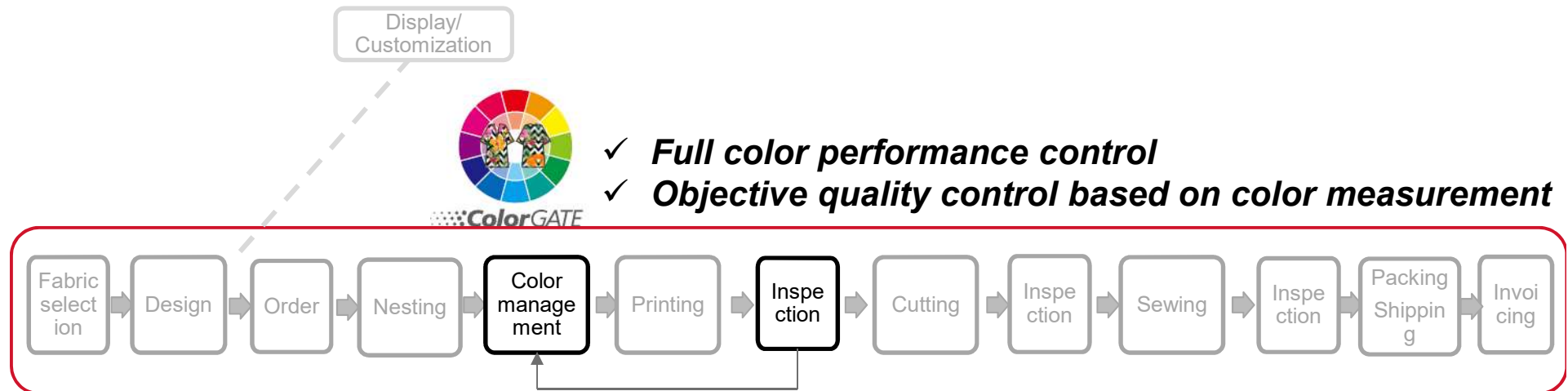
- ✓ *Plug into e-commerce shop*
- ✓ *Clothing sizing*
- ✓ *Design layout on E-commerce order browser*



- ✓ Size & layout customization with style selector
- ✓ Virtual fitting
- ➡ Lower customer's barrier for online-shopping



10 Color management & Quality control **RICOH** imagine. change.



11 Best-in-class Color Management

∴ Full color performance control

- ∴ Color consistency with wide variety of fabric
- ∴ Print control for ink and fabric functionality
- ∴ Color consistency between print-to-print / printer-to-printer / factory-to-factory



12 Quality control

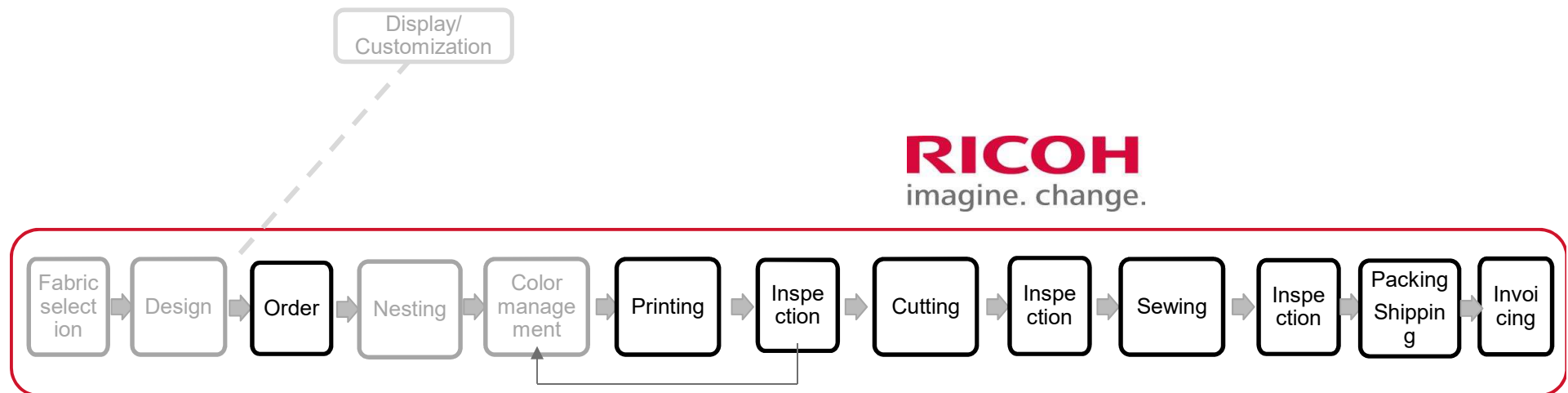
- Objective quality control based on color measurement
- An easy-to-perform procedure with status indicator

Workflow system (Job monitoring)



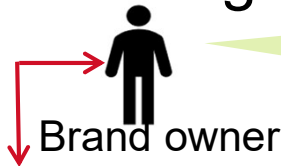
13 Order/Job management

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✓ ***Job tracking info to brand owners and factories***

- Job tracking info to brand owners and multiple factories



- Easy to track current progress
- Productivity improvement

Print Job Tracking Panel

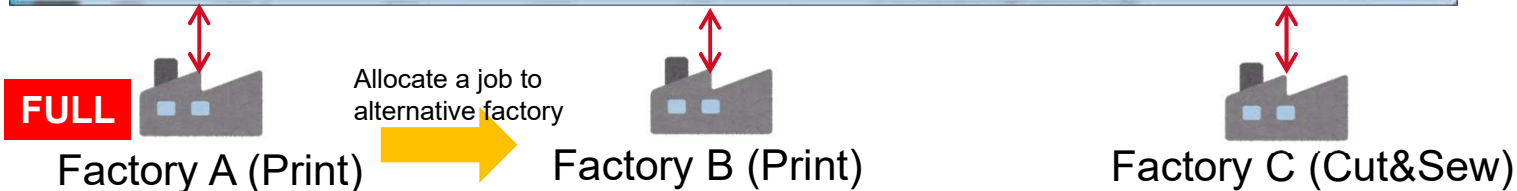
Apply Filter: Job Status: [v] Apply Sort by Job Start Date: Ascending Export results

Sr. No.	Job Info	Stage(s)
16	Ticket ID : Order 42 Order ID : Order 4 Article Type : T-Shirt Print ID : Order 42Front:1 No. Of Copies : 2 (1,1) Job Start Time: 2019/05/22 8:45:19	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:50 Print ISHIDA-PC 2019/05/22 9:46:06 Done ISHIDA-PC 2019/05/22 12:14:38
17	Ticket ID : Order 43 Order ID : Order 4 Article Type : Default Print ID : Order 43; No. Of Copies : 1 (1) Job Start Time: 2019/05/22 8:45:19	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:50 Print ISHIDA-PC 2019/05/22 9:46:06 Done ISHIDA-PC 2019/05/22 11:12:40
18	Ticket ID : Order 51 Order ID : Order 5 Article Type : Hoodies Print ID : Order 51Front:1 No. Of Copies : 1 (1) Job Start Time: 2019/05/22 8:45:19	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:50 Print ISHIDA-PC 2019/05/22 9:46:06 Done ISHIDA-PC
19	Ticket ID : Order 61 Order ID : Order 6 Article Type : Hoodies Print ID : Order 61Front:1 No. Of Copies : 1 (1) Job Start Time: 2019/05/22 8:45:20	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:50 Print ISHIDA-PC Done ISHIDA-PC
20	Ticket ID : Order 62 Order ID : Order 6 Article Type : Hoodies Print ID : Order 62Front:1 No. Of Copies : 1 (1)	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:53 Print ISHIDA-PC Done ISHIDA-PC

NOTE: Double click on any processed job for detail status.
 Total Jobs: 24 1 of 2 jobs per page: 25 Close

Display:

- Real-time job progress information
- Which job is in process
- Which factory/line has a Job.



- Easy to arrange priority / factory
- Maximize productivity of machine / facility

Let's build partnership and make it innovative!

Player	Role of partnership	Benefit
★ E-commerce shop / Brand owner	Put order to platform	Change merchandizing/supply chain Eco-friendly branding
Fabric vendor	Provide sustainable fabric	Shift to high-value sustainable products
★ Designer (template pattern)	Provide template design Provide original design	Sell template design to producer Sell original design brand
★ Producer (DMF)	Produce cloths (Print, Cutting, Sawing and Inspection)	Expand high-value apparel job (Variable design, Low cost, Short run and Quick delivery, etc.)
★ Printer vendor	Connect with ColorGATE RIP	Acquire new customer/Gain supply business
Cutting machine supplier	Connect with Gemini CAD	Acquire new customer
Software supplier	Provide specific additional SW	Synergy with other SW

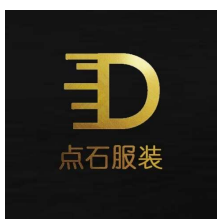
16 Milestone

- ✓ We announce the business concept & the consortium members as of today. We will start the proof of concept stage from 2020 1Q.
- ✓ A real commercial base business will start from 2020 3Q.

項目	2019 4Q	2020 1Q	2Q	3Q
Concept announcement	◆ 11/26			
Consortium member entry	◆			
β I test (workflow + Ricoh printer)		●		
β II test (workflow + 3 rd party machines)			●	
Commercial base business				◆



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谢谢

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