

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

RICOH
imagine. change.

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

**Tetsuya Morita
Industrial Printing
Business Group
November 26th 2019**

1. 理光喷墨技术发展愿景

RICOH
imagine. change.

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.



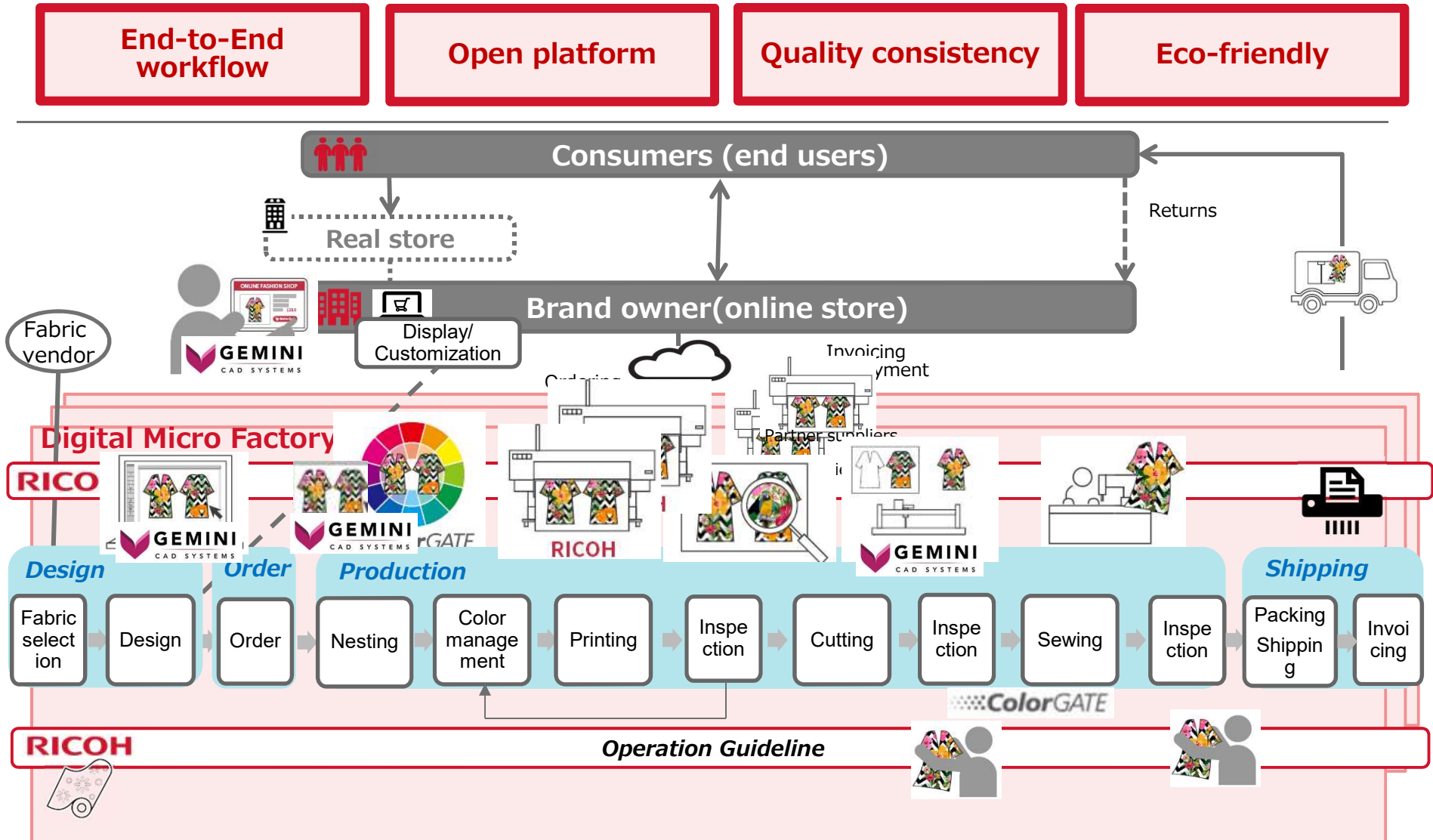
理光致力于通过喷墨技术去帮助解决社会问题

Ricoh's inkjet technology will contribute
in resolving social issues

2. RICOH Apparel Manufacturer's Partnership by Universal Platform



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

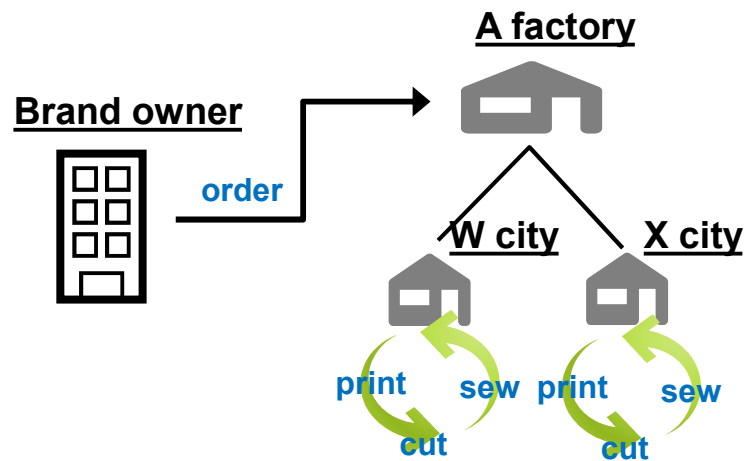
- ✓ Reduce water with water based pigment ink
- ✓ Recommend eco-friendly fabric

4

RAMP-UP promotes two kinds eco-systems

RICOH
imagine. change.

A) Small · Mid size apparel factory



Keywords:

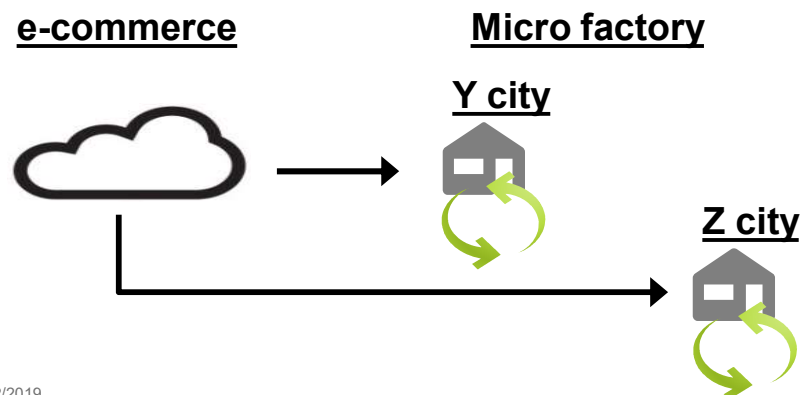
- Open network
- Cross factories production control, monitoring
- Color management between different factories and machines

Brand owner: On-time production tracking

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

- Process customization
- Color management
- Color inspection

B) E-commerce

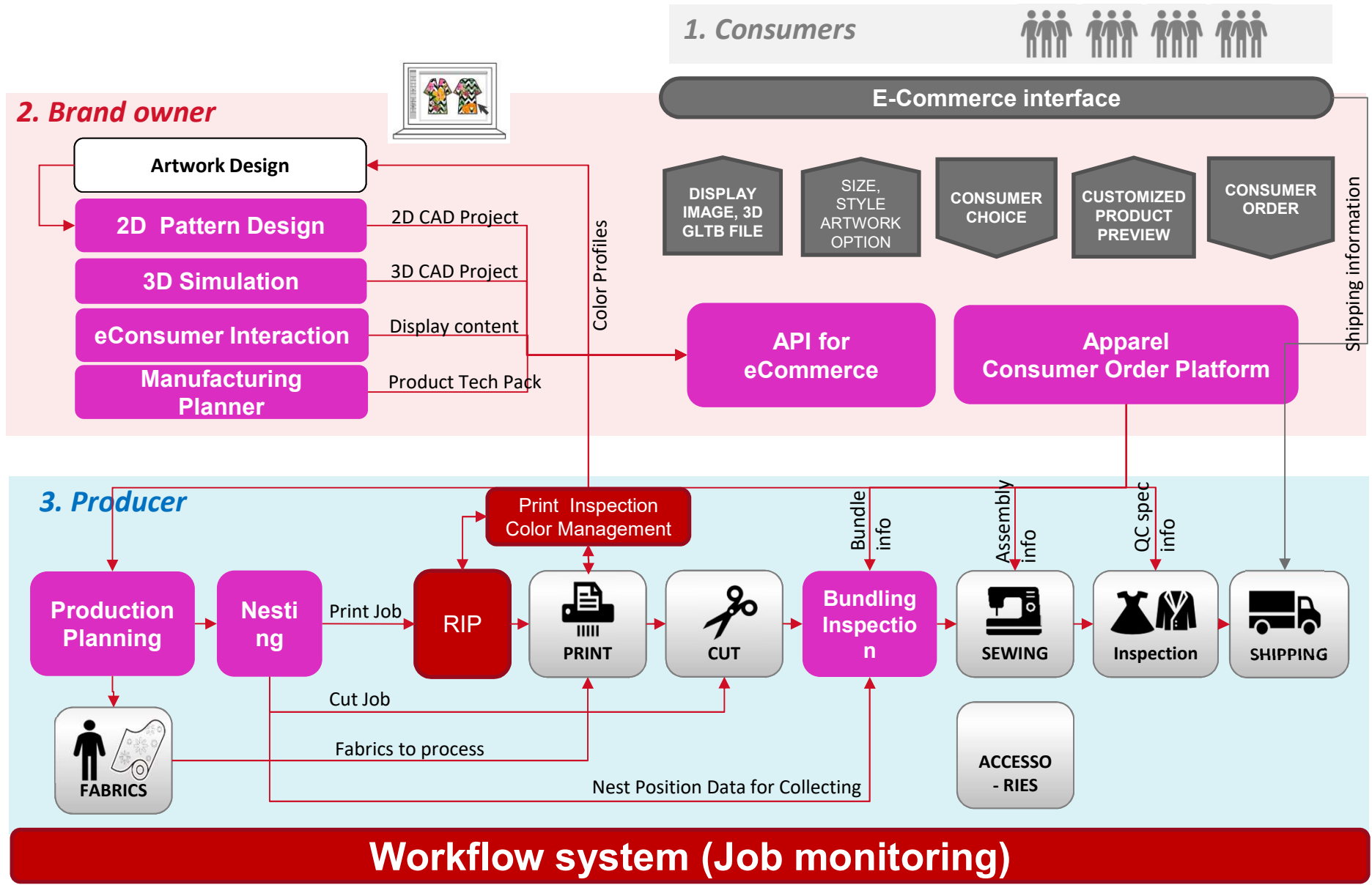


Keywords:

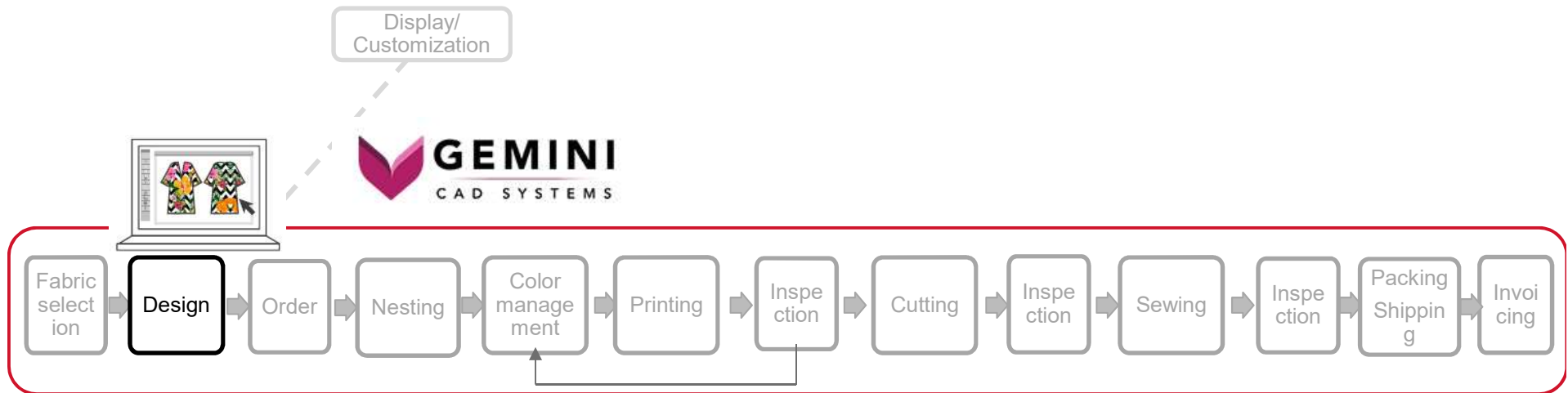
- Build to order (BTO)
- Decentralization = Manufacture near by order

Micro factory : begin with small investment

5 Workflow Overview



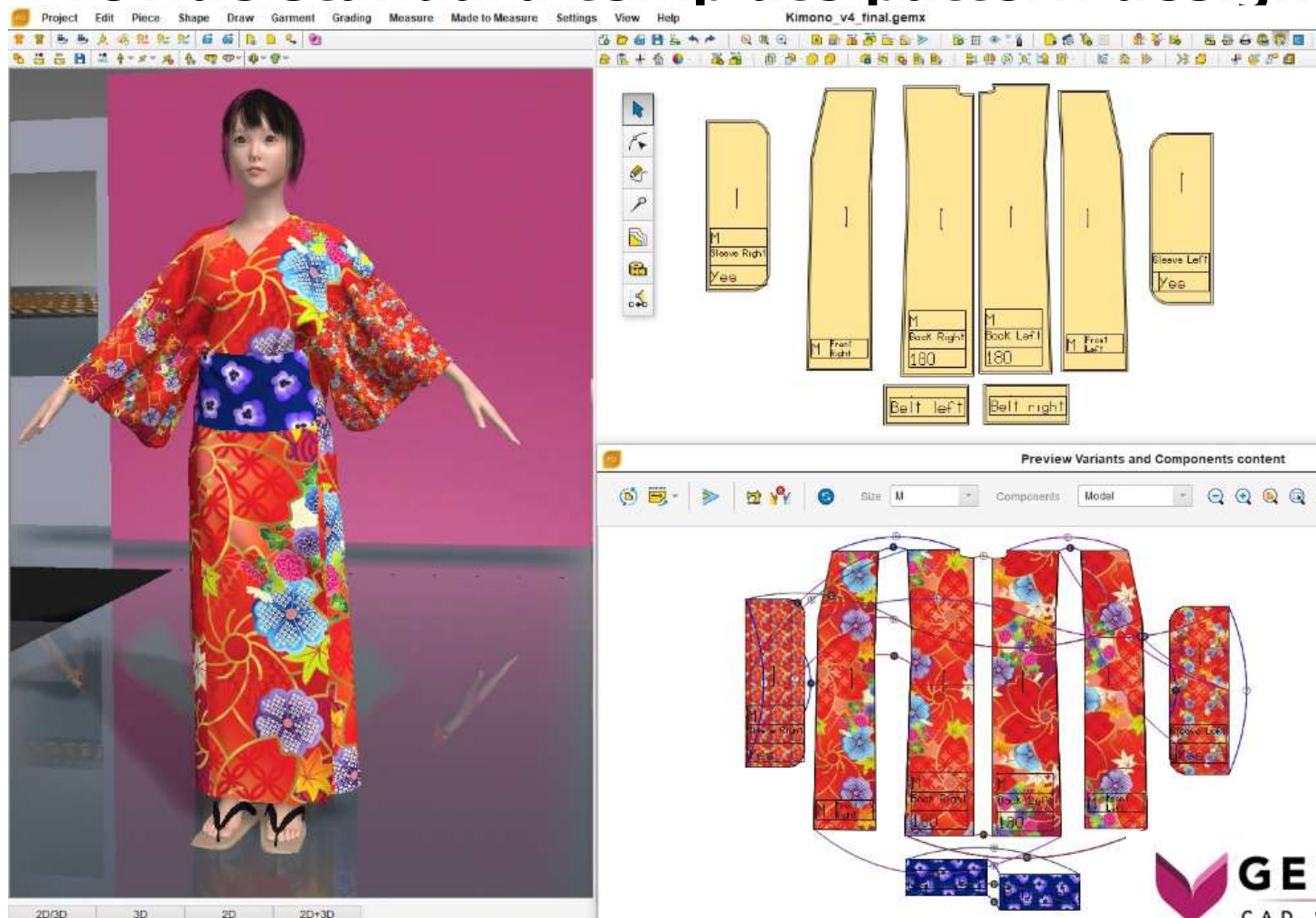
6 Design



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

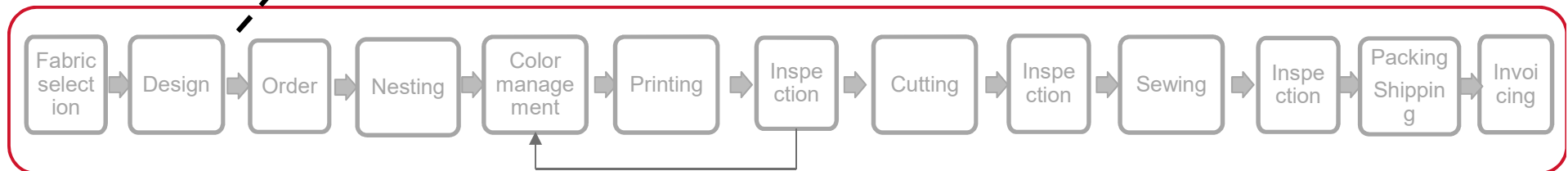
7 Design

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





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



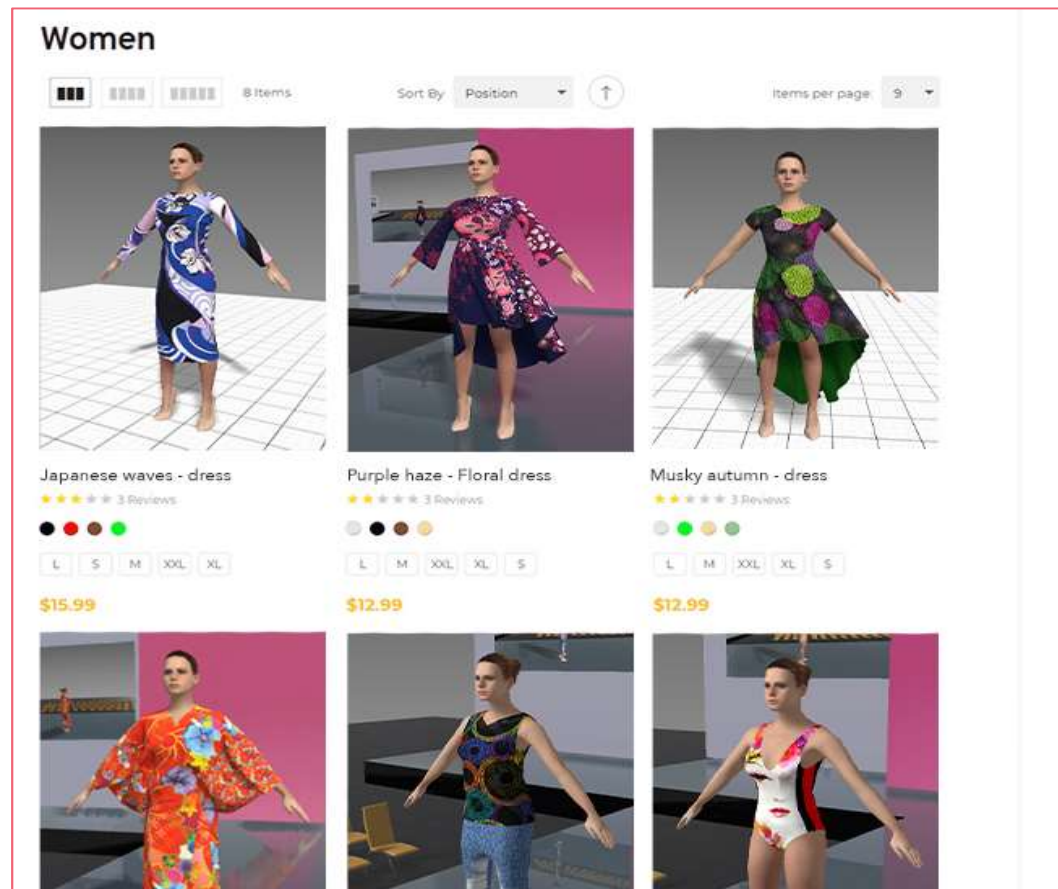
9

Support on-line shopping

3Dモデル
イメージに変更し
ページ全体を
差し替え。

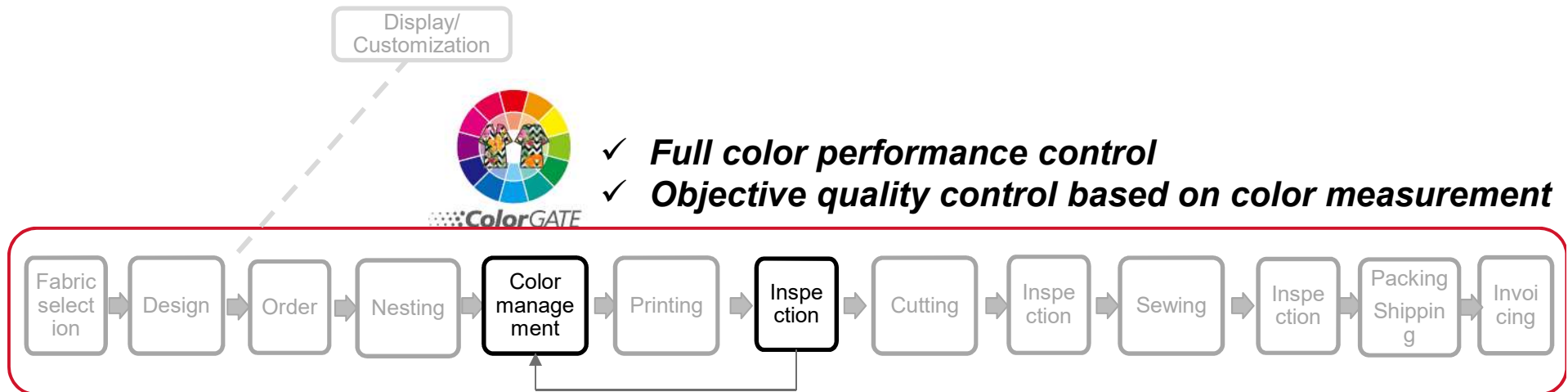
RICOH
imagine. change.

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



GEMINI
CAD SYSTEMS

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



Create profile



Adjustment



Measurement

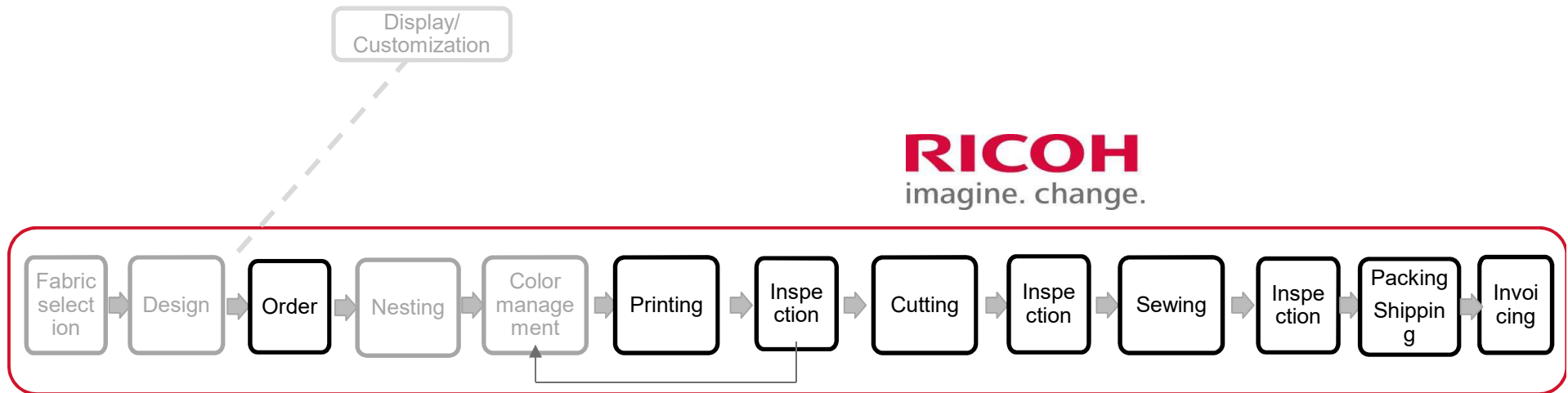
12 Quality control

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

Workflow system (Job monitoring)



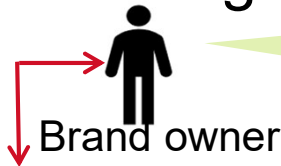
13 Order/Job management



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

14 Order/Job management

- Job tracking info to brand owners and multiple factories



- Easy to track current progress
- Productivity improvement

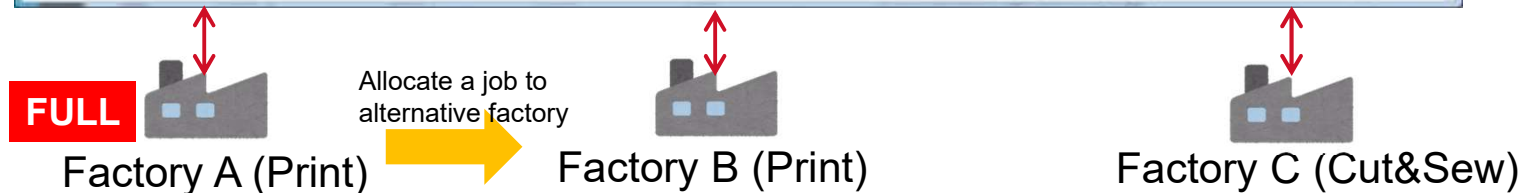
Print Job Tracking Panel

Apply Filter Job Status: [dropdown] Refresh 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 : TShirt Print ID : Order 42Front... No. Of Copies : 2 (1,2) 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 12:34:38
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... 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... 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... No. Of Copies : 1 (1)	MaterialAllocation ISHIDA-PC 2019/05/22 9:44:51 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

- 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	Shit 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				◆



杭州1949設計公社
 (Hangzhou 1949
 Design Commune)



杭州点石服装 有限公司
 (Hangzhou Dianshi
 Clothing Co., Ltd.)



RICOH
 imagine. change.

brother
 at your side



杭州班佐服飾 有限公司
 (Hangzhou Ban Zuo
 Clothing Co., Ltd.)



南通盛和實業有限公司
 NANTONG SHENGHE
 (INDUSTRY CO.,LTD.)

谢谢

Contact us (English) https://webform.ricoh.com/form/pub/e00127/dmf_support

联系我们 (中文) www.ricoh.com.cn/ShanghaiTEX_DMF_ContactForm

