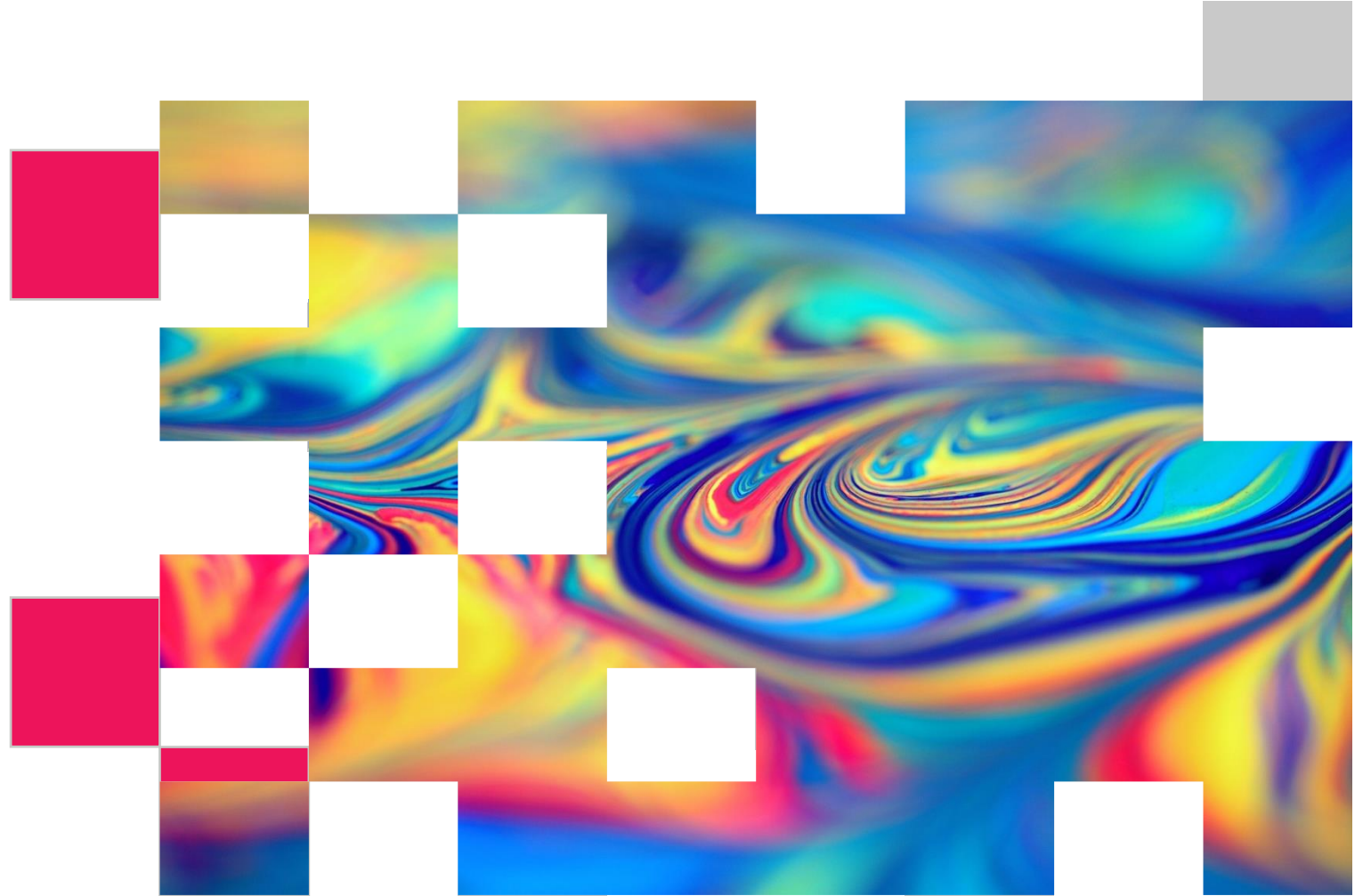


CIAAT Co., Ltd.

Company Profile



01 Introduction

● General Status

Name	Ciaat Co., Ltd
CEO	Kim Hwankee
Date of Establishment	2006. 4. 12
Capital	2,896 million Won (as of 2020)
Number of Employees	107
Field of Business	Dye-diffusion film & paper production company
Headquarter Address	40, Pyeongdongsandan-ro 169beon-gil, Gwangsan-gu, Gwangju, 62419, South Korea
Form of Business	KONEX(Korea New Exchange) listed company
Website	www.ciaat.net
Stockholder Status (as of late 2019)	CEO and affiliate person (28%), Employee ownership (1%), VC and institutes (60%), Others (11%)

-  Digital photo printing equipment and material production company established in April 2006
-  Comprehensive acquisition of tangible and intangible assets of Information Material(thermal film) Business Department of Hansol Chemical Co., Ltd in late 2006
-  The official entry of thermal printing business in 2007
-  The second leading in the world and the first in Korea of ID card & photo dye-diffusion film production base and market competitiveness
-  Aiming to be the top-notch dye-diffusion film printing material company with the establishment of Gwangju factory in 2009.

02 Growth History

Branching out into Japanese game industry

Phase 3. Advancement 2016 ~

- 2016** Japanese Game Companies' new games launched
"Total War: THREE KINGDOMS" launched throughout Japan

Entry into mobile photo printer market
(Ciaat's first mobile photo printer "**PhotoBee**" launched)
- 2017** Awarded 20 Million Dollar Export Tower
(Korea International Trade Association)
- 2018** Mobile printer media ODM supply
("PocketPhoto Snap" launched)
- 2019** New game (WCCF, World Club Champion Football)
launched
- 2020** Selected as "Global Hidden Champion" of the Small and
Medium Business Administration

OEM partnerships achieved base
on improvement in quality

Phase 2. Market Entry 2010~2015

- 2010** Selected as "Patent Star Company"
of KIPA (Korea Invention Promotion Association)
- 2011** Change of the company name (→Ciaat Co., Ltd)
Awarded Presidential Prize of a Man of Merit's
Local Investment
- 2013** Selected as Global Growth Ladder Company of
Korea Trade Insurance Corporation
Entry into Japanese Arcade Game Card Market
- 2015** Selected as "Quality Small and Medium Enterprises" of
Gwangju
Listed on the KONEX (Korea New Exchange)
Awarded 10 Million Export Tower
(Korea International Trade Association)

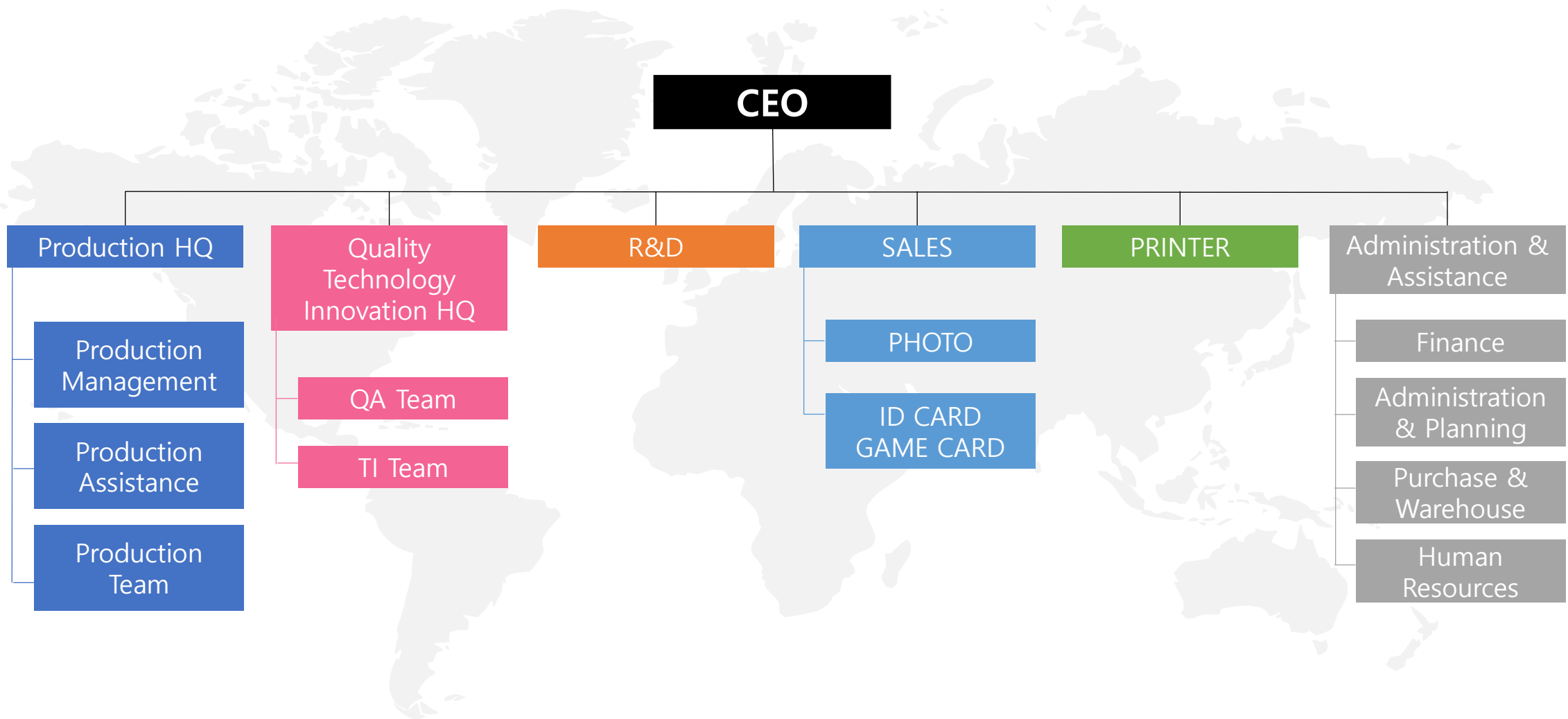
Gwangju factory established, the 2nd leading
company in production capability

Phase 1. Establishment 2006~2009

- 2006** Company foundation
Takeover of Information Material Business
of Hansol Chemical Co., Ltd
- 2007** Official entry of thermal film business
- 2008** Selected as a Promising Export
Small/medium-sized Enterprise
- 2009** Establishment of Gwangju factory
Selected as 'Hidden Champion' of
the Export-Import Bank of Korea
Awarded 5 Million Dollar export-tower
(Korea International Trade Association)



03 Organization & Employees



04 Products



Photo
Printing Material



ID CARD
Printing Material



Gamecard
Printing Material

Dye-diffusion Film & Paper

04 PHOTO

Printing Material

50 partner companies from all over the world

- ✓ Partnership with world-renowned OEM companies

Targeting 2 trillion Won worth printing material business

- ✓ Increasing sales with new printers/projects

Increasing net profit by revolutionizing production cost

- ✓ Stable supply chains, raw material quality improvement through technical support, and our own paper production factory



04 ID CARD Printing Material

40 partner companies in the world

- Partnership with global card printer manufacturers

Successful entry into re-transfer printer business after we built a basis in the direct printer business

- High quality, high price, high profit
- High-end business expected to be growing

Building up a high value-added business with distinct products

- A high-end film (security ink ribbon) currently in development
- Large-sized ID issuance machine, inkjet printer, and niche market integrating printers with films
- Expanding market by cooperating with a new printer manufacturer and a big distribution company



04 GAME CARD Printing Material

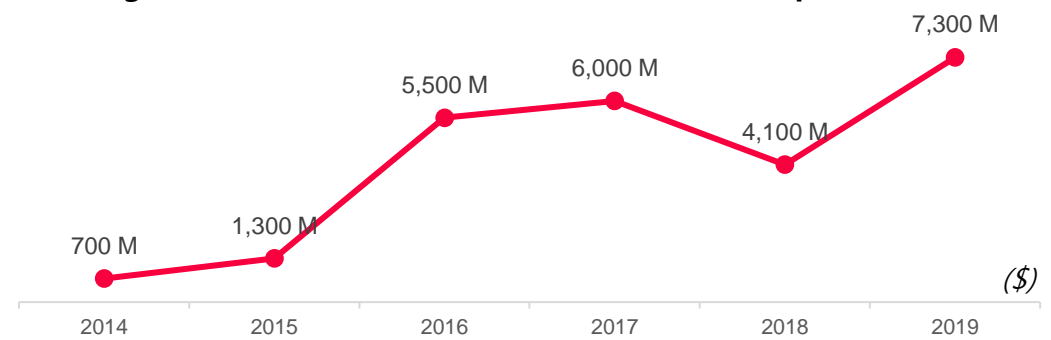


Joint development – CIAAT printing material

Successful market development and extend

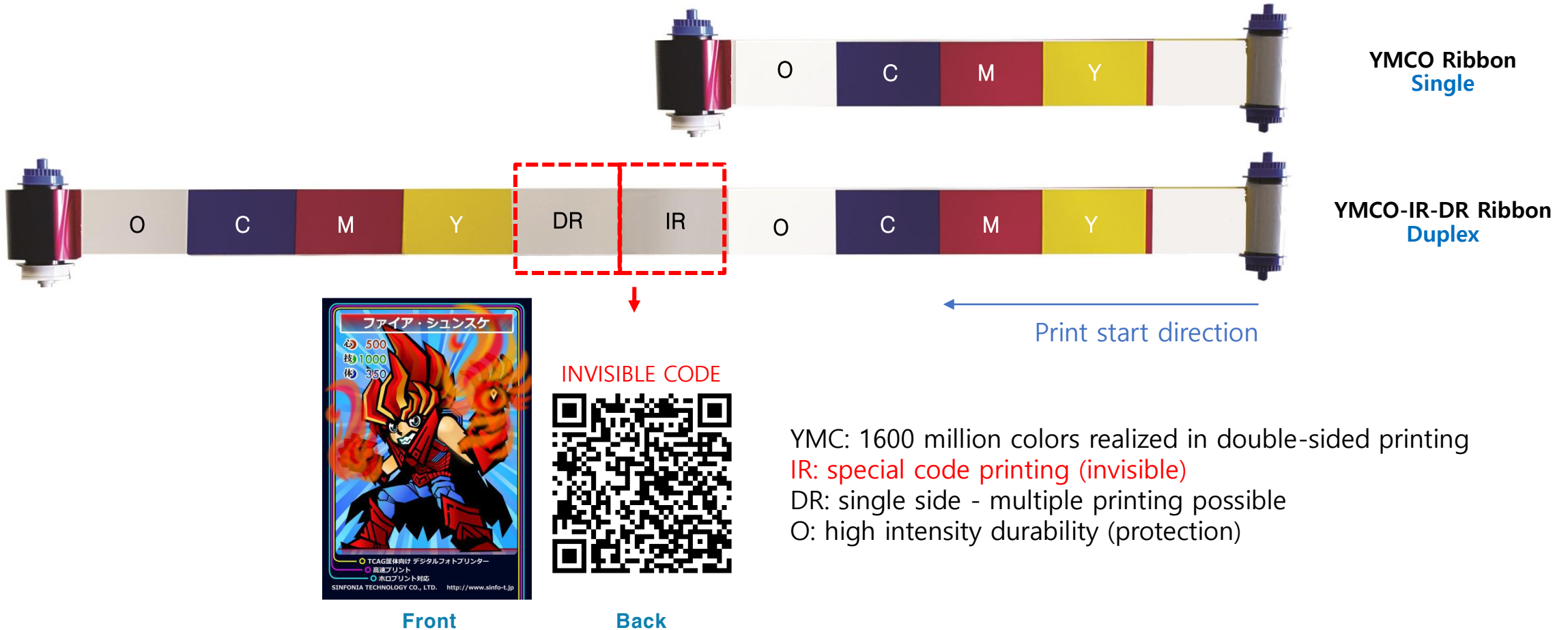


- Japanese Game Companies: new games launched
Total War: THREE KINGDOMS” launched
- Sales enlargement of a single game in 2017
- A decrease due to the delayed launch of the game in 2018
- Recovery and increase in 2019
- Extending to the overseas market like USA and Europe




04 GAME CARD Printing Material

- Designed for double sided printing at once
- Possible to enter a variety of information with security function and special reader by introducing the invisible panel
- Pre-occupation of the market possible for the unique technology (*patent application)



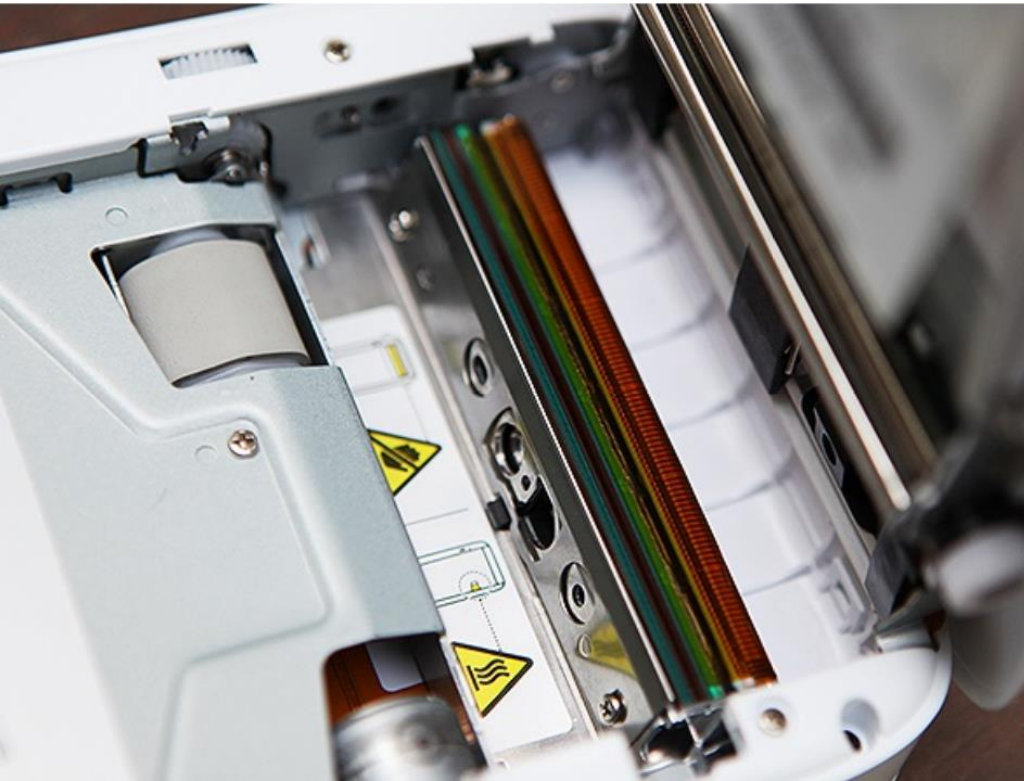
YMC: 1600 million colors realized in double-sided printing
 IR: special code printing (invisible)
 DR: single side - multiple printing possible
 O: high intensity durability (protection)

04 Mobile & Home Photo Printers



PORTABLE PHOTO PRINTER DEVELOPED BY OUR DYE-DIFFUSION TECHNOLOGY

- Quality competitiveness is maximized because we, the media manufacturing company, develop and produce the printer.
- There are only three companies that have printing material technology in the world—Japan, the USA, and Korea.
- Dye-diffusion printing used for ID cards and driver's licenses is applied to the portable printer.
- We can optimize printing quality since we have both the printer development technology and the ink ribbon manufacturing technology.
- Our ink ribbon chosen by 40 countries from America, Europe, and Asia is applied to our portable photo printer.



04 Mobile & Home Photo Printers

Automatic photo coating for a long-term preservation
 2x3, 4x6 sizes printable
 Wireless connection remote printing

PhotoBee X23
 PhotoBee X46

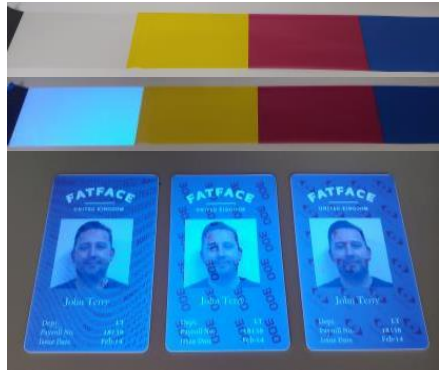
- Based on the production technology of ink ribbon for high-definition photo printing, CIAAT started developing a mobile photo printer technology.
- Successfully commercialized it in 2016, the first mobile photo printer named PhotoBee was launched.
- It realizes 300dpi printing quality and has great portability and fast printing speed at the same time. It is growing steadily in the market.
- In 2021, the better-priced and improved PhotoBee X23(mobile photo printer) and Photobee X46(personal home printer) will be launched.



05 Technology - Core Technology (inked ribbon)

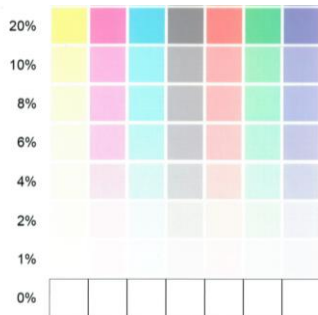
D2T2 : Dye Diffusion Thermal Transfer

Both the resins and the dye failing by heat on a thin base film ($4.5\mu\text{m}$ ~ $5.6\mu\text{m}$) coated; the printing result gotten by transferring dye alone onto paper or PVC card with the heat power of the thermal print head



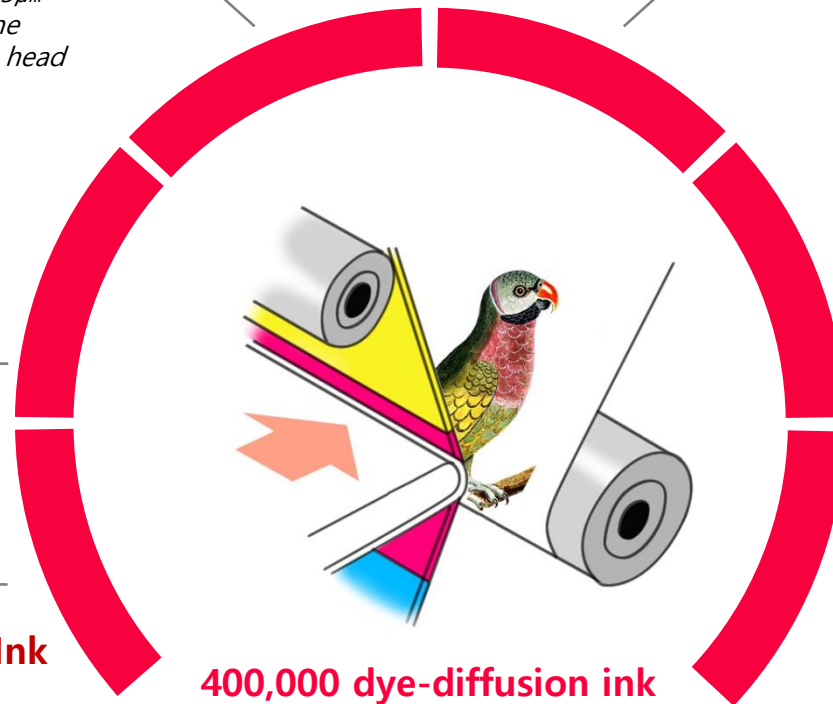
Forgery Prevention

Dye-diffusion
Fluorescent UV ink
Our own security ink



Dye-diffusion Ink

Controlling transferability of dye at low temperatures
Dye combination technology for color realizations

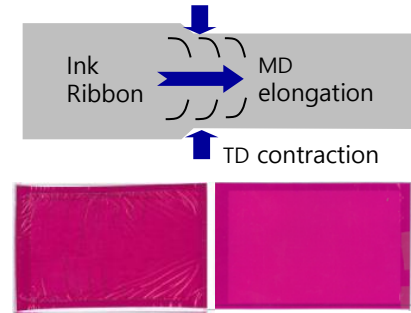


400,000 dye-diffusion ink ribbons printing digital photos and identification cards suppliable for a year

The best quality in the business

Heat-resisting Lubrication Layer Technology

Preventing pellicle films from deformation by heat, controlling the coefficient of friction



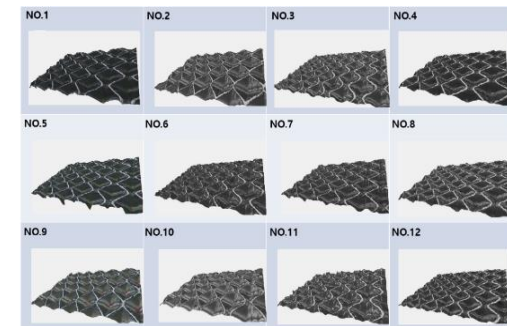
Pellicle Coat Technology

Produce 936 scales color difference within 5



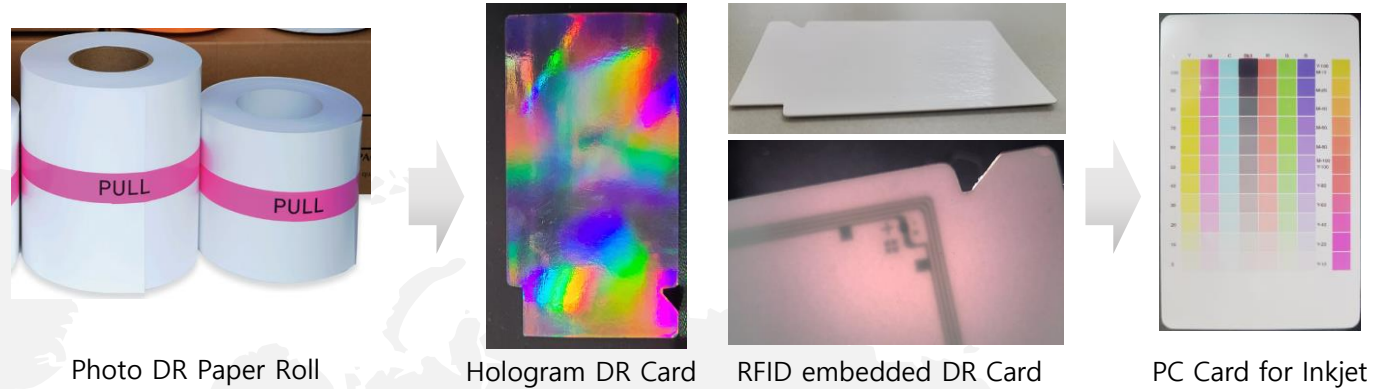
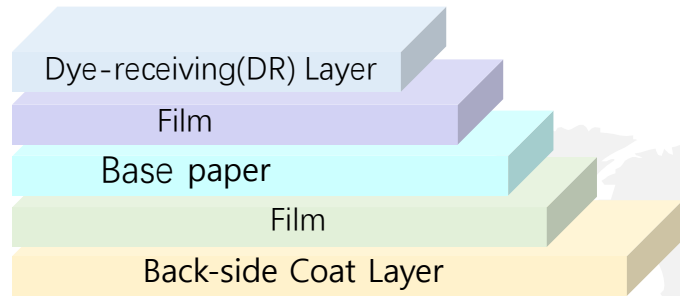
Cell Design Technology

Cylinder optimized to properties of ink



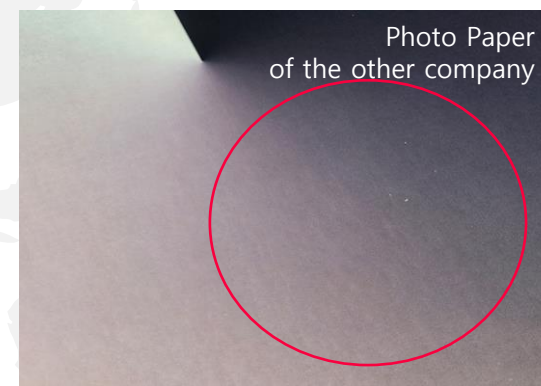
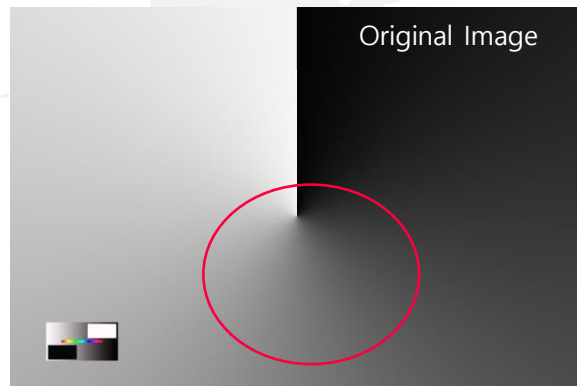
05 Technology - Core Technology (Dye-diffusion Paper & Card)

[Product Basic Structure]



- ✓ **DR layer ink composition technology**
 - Dye transition rate control, photostability
 - Heat-fusion prevention

- ✓ **Material Process Technology**
 - Cohesion process, stiffness control, thermostability, and combination of materials



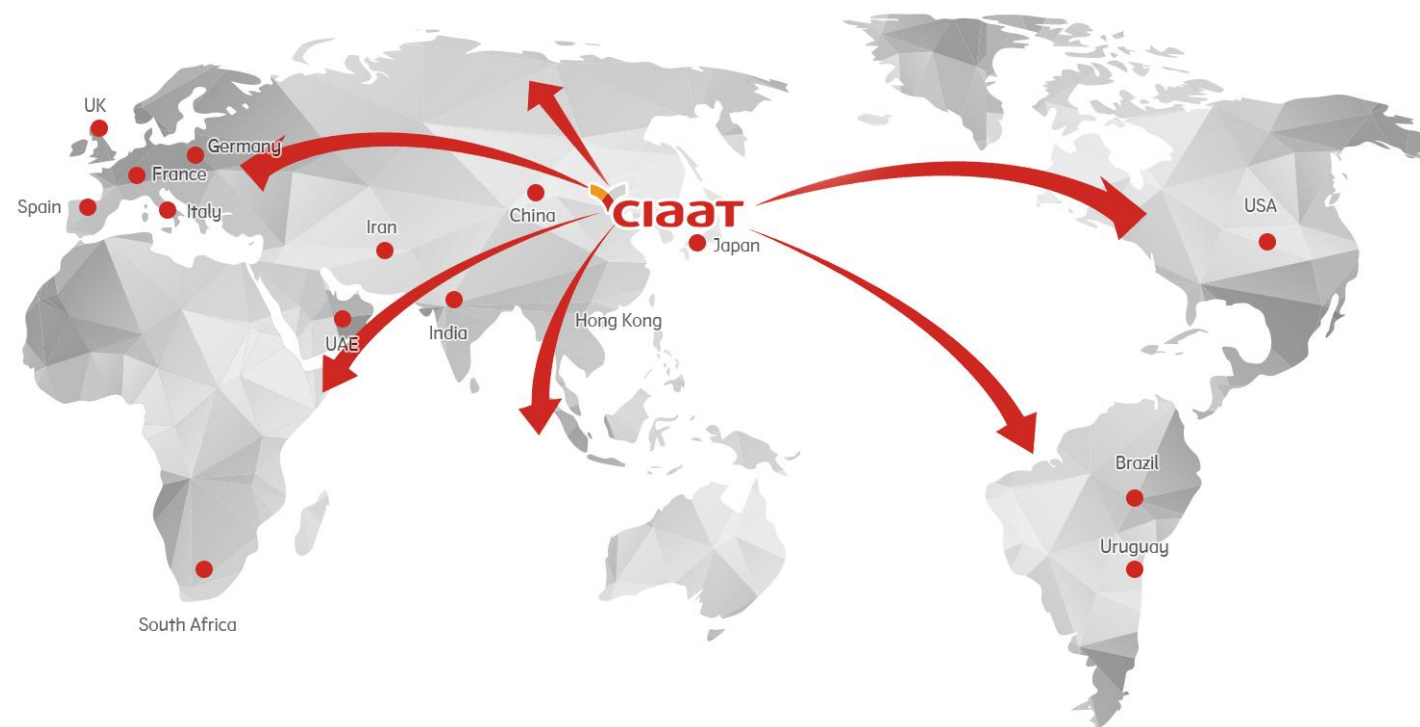
Our high-quality dye diffusion technology

06 Partners

Leading printer manufacturers and large service companies as business partners

90% of the sales driven by exports

Hologram and film for national ID card now being supplied to Korea Minting and Security Printing Corporation



07 Gwangju Factory



Location

40, Pyeongdongsandan-ro 169beon-gil, Gwangsan-gu, Gwangju, 62419, South Korea

Scale

Site 9,917m²
Total Ground Area 6,674m²

Facilities

Building 1: Factory (+Office/R&D)
Building 2: Security
Building 3: Hazardous Materials Store Area
Building 4: Machine(U/T)

Equipment

Coater 10 - 1 unit (Length of sheet : 1,150mm)
Coater 2 and 6 - 1 unit each
Film Slitter(6 units) Paper Slitter (3 units)
Hologram Production Equipment (Embosser, etc.)
Directed Fired Conditioner 3 (Adsorption Tower 3 units)
Directed Air Conditioner 1 unit
(Coater area, liquid making area - F/A supply)
RTO 1 unit
Liquid making equipment (storage tank - 3 units, liquid production tank 23 units)
U/T equipment (boiler, PCW, etc)



See the art through
CIAAAT