Multi-Client Study

Summary

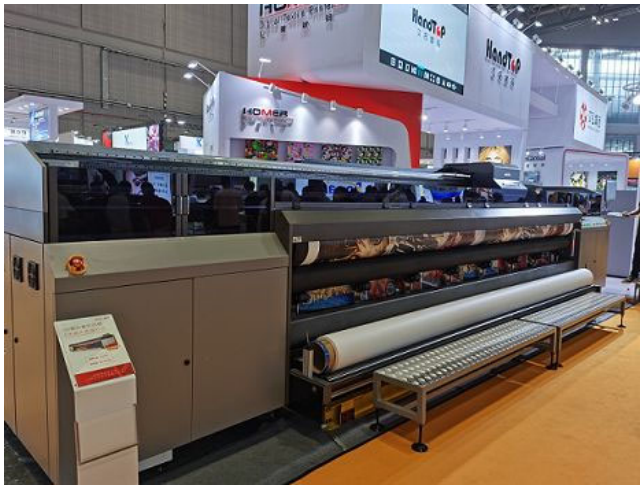
Market Report

[2020 version of Inkjet Printing Market Forecast]

"The Latest Trend of the Industrial Inkjet Printing: Market is Hoped to Grow in the Post-COVID-19 Era"

= *A comprehensive analysis of the commercial and industrial inkjet market (hardware, ink, and printheads)* **=**

Screen's Truepress PAC830F water-based IJ machine for flexible packaging market



China's Hanglory Group expands investment into various sectors

EFI Reggiani's BOLT single-pass textile printing machine

February 2021
Data Supply Inc.

<Overview>

I. Theme

[2020 version of Inkjet Printing Market Forecast]

"The Latest Trend of the Industrial Inkjet Printing: Market is Hoped to Grow in the Post-COVID-19 Era"

=A comprehensive analysis of the commercial and industrial inkjet market (hardware, ink, and printheads)=

II. Abstract

The global outbreak of COVID-19 has brought about **dramatic changes in many areas where until then things were taken for granted**. Close contact between people, the foundation of social activities, has largely been limited, while extensive and global economic activities and multilateral supply chains developed in the name of globalization have become dysfunctional.

The year 2020 when the coronavirus raged is also affecting the industrial inkjet market in so many ways: **The world's largest printing equipment exhibition "drupa2020" has been postponed from June to next April, while major makers such as HP, Heidelberg, SCREEN, Fujifilm, and Konica Minolta have already announced their absence from the trade show**. drupe is not alone; other major exhibitions such as interpac for the packaging industry, and FESPA for the wide-format inkjet printing have also been put off across the board. The impact of lost business opportunities by the cancellations is already immeasurable.

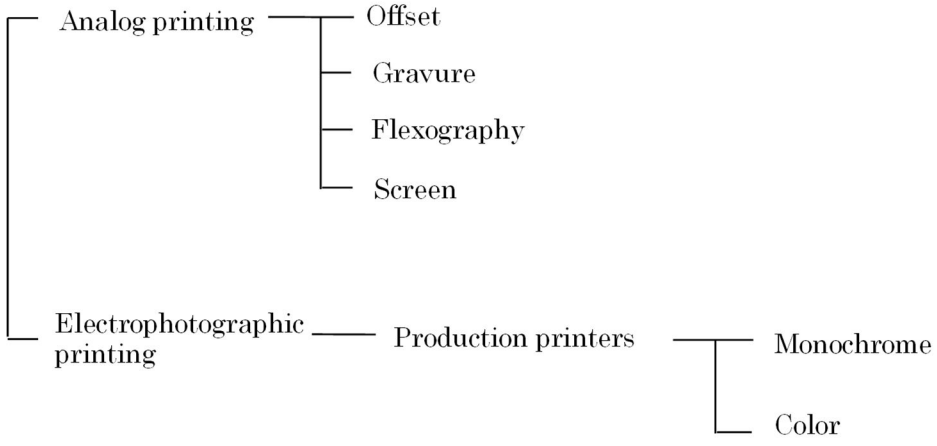
However, looking at times beyond COVID-19, **the industrial inkjet technology will remain a promising field where demand is expected to grow**. After the pandemic, newly-born societal values will likely signal a shift away from mass production and mass consumption. They will be replaced by increasingly growing digital printing needs based on **systems and solutions deigned to print the right amount**. In addition, considering the disrupted supply chain by COVID-19, China, now operating as the world's factory, **may partly be replaced by product consumption areas**. If this is the case, the inkjet technology advocating digitization will secure a better position. In the meantime, awareness to the "environment" will also be a more important factor than before as the inkjet technology is expected to be a drive to **accelerate a shift to eco-friendly manufacturing with eco-friendly materials**.

By sector, **textiles, packaging, labels, publishing, and commercial printing sectors** are all lagging as to digitalization, which means there are expectations for future dramatic growth if an innovative breakthrough is achieved in these sectors that offer a system (and solution) to perfectly fit the market needs.

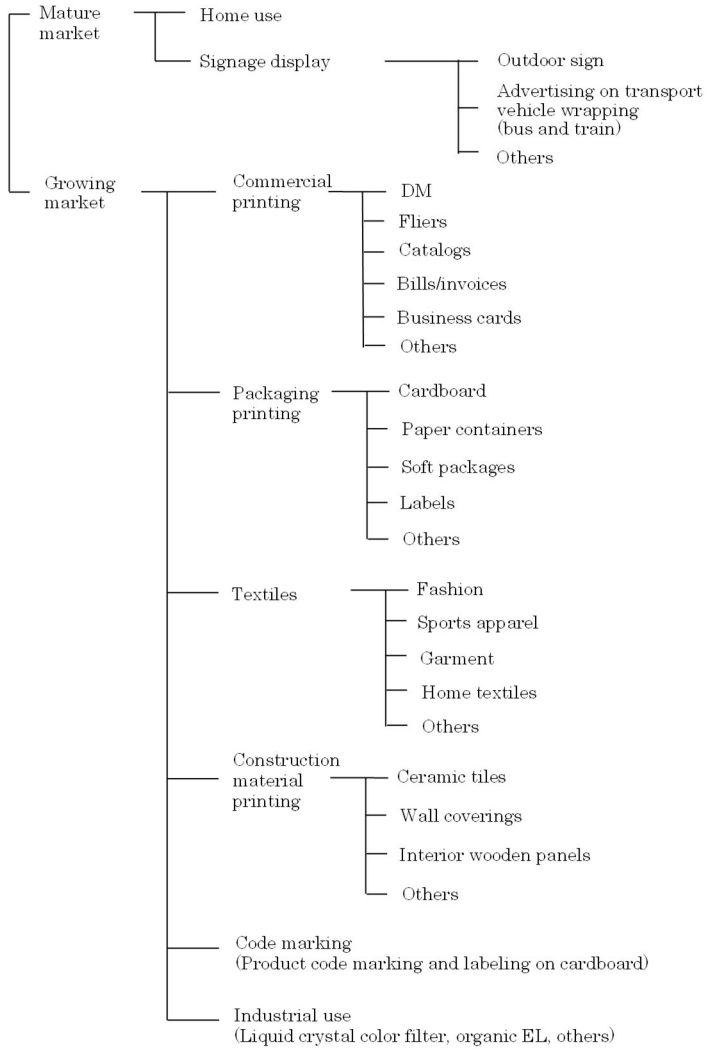
The "2020 version of Inkjet Printing Market Forecast" is the fourth publication in its series. Since the last report published in March 2019, Data Supply Inc. has visited to cover worldwide major exhibitions such as ITMA2019 (Spain), Labelexpo Europe 2019 (Belgium), and APPPEXPO2020 (China) to develop its expertise. **We are going to collect and analyze as much information as possible on the latest trends in 2020**. We truly hope our report will be resourceful to many readers out there engaged in the inkjet and the related businesses.

III. Items and Makers

1-1. Rival Markets



1-2. Inkjet-related Items



2. Makers
   1) Hardware makers 2) Printhead makers 3) Ink makers
   4) Dye and pigment makers 5) Others (post-processing equipment makers and parts makers)

IV. Research Period and Methodology

1. Research period
   The research period is set from 2017 to 2023 and target regions are Japan, North America, Europe, China, and other regions.

2. Methodology
   1) On-site and in-person interviews with target makers
   2) Analysis and review of open literatures, materials, statistics, and other sources
   3) Analysis of Data Supply's own proprietary database

V. Format and Report Preparation Period

1. Research form: Multi-client study
2. Research period: January to November of 2020
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4. Report format: A4 size (PDF format)
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<<Table of Contents>>

A. Comprehensive Analysis

1. Overall trend of shipment value of industrial/commercial inkjet printing (2017-2023) ····· 1
1) Overall (hardware machines, inks, others) 2) Shipment value by application field (2017-2023)
2. Digital applications versus analog applications in the printing market ····· 3
1) Comparison of production technology 2) Digital and inkjet ratio in each market
3. Market share of sales of industrial/commercial inkjet business by inkjet maker (2019) ····· 5
4. Shipment trend of hardware machine market (2017-2023) ····· 6
1) Shipment volume 2) Shipment value
5. Shipment trend of inks ····· 8
5-1. Shipment trend by market (2017-2023) 1) Shipment volume 2) Shipment value
5-2. Shipment trend by type of inks (2017-2023) 1) Shipment volume 2) Shipment value
5-3. Market share of shipment volume of inks by brand (2019) ····· 12
5-4. Trend of ink technology by market ····· 13
1) Markets and applications of inks and the illustration of the underlying technology
2) Key ink technology 3) Detail of ink technology by market
5-5. Main materials of inks ····· 19
1) Colorant (dye/pigment) 2) Resin 3) Organic solvent 4) Dispersant
5) Surfactant (surface conditioning agent) 6) UV monomer 7) Photopolymerization initiator
8) Polymerization inhibitor (stabilizer) 9) Anti-bacterial and anti-fungal agent for water-based ink
5-6. Trend of ink price by market ····· 24
6. Shipment trend of printheads (2017-2023) ····· 25
1) Shipment value 2) Trend of printhead applications by market
7. Major M&A in the industrial inkjet market ····· 27

B. Individual Inkjet Market

B-1. Graphics and technical market ····· 31
1. Overall shipment value (hardware machines and inks from 2017 to 2023) ····· 31
2. Market overview (digital ratio and inkjet ratio) ····· 32
1) Graphics market ····· 32
2) Technical market ····· 32
3. Market share of sales of graphics and technical business by inkjet maker (2019) ····· 33
4. Shipment trend by application of hardware machines ····· 34
(graphics/technical from 2017 to 2023) 1) Shipment volume 2) Shipment value
3) Market share of shipment volume by maker (2019)
(1) Overall (2) Graphics market (3) Technical market
5. Shipment trend by type of inks ····· 37
(water-based dye/water-based pigment from 2017 to 2023)
1) Shipment volume 2) Shipment value 3) Shipment shares of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ····· 42
7. Summary of major makers ····· 42
1) Japanese makers: Epson / Canon / Ricoh / Mutoh Industries
2) European and US makers: HP 3) Chinese makers
8. List of major machines of each company (5 companies) ····· 44

B-2. Signage market ····· 46
1. Overall shipment value (hardware machines and inks from 2017 to 2023) ····· 46
2. Market overview (digital ratio and inkjet ratio) ····· 47
3. Market share of sales of signage business by inkjet maker (2019) ····· 48
4. Shipment trend of hardware machines by type of inks ····· 49
(solvent/UV/latex from 2017-2023)
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
(1) Overall (2) High-end market (3) Low-end to medium-range

5. Shipment trend by type of inks ……52
(solvent/eco-solvent/UV/latex from 2017 to 2023)
1) Shipment volume 2) Shipment value 3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ……59
7. Summary of major makers ……59
1) Japanese makers: Mimaki Engineering / Roland DG / Canon (formerly Océ) / Epson / Mutoh Industries / Ricoh / Screen (Inca) / Fujifilm
2) European and US makers: HP / EFI / Agfa-Gevaert / Durst
3) Chinese makers: Beijing JHF Technology/ Fei Yeung Union / Gongzheng Group / Guangzhou Xucheng Electronic Technology (XULI) / Human Digital Technology (Shanghai) / Nanjing Fortune-lit Digital Technology Industry / Shanghai ALLWIN Digital Technology / Shanghai Teckwin Technology Development / Shanghai Wit-Color Digital Science & Technology / Shenzhen HANDTOP Tech / Shenzhen Runtianzhi Digital Equipment (FLORA) / Sky Air-ship Digital Printing Equipments / Zhengzhou New Century Digital Print Technology
8. List of major machines of each company (111 companies) ……63

B-3. Textile market ……93
1. Overall shipment value (hardware machines and inks from 2017 to 2023) ……93
2. Market overview (digital ratio and inkjet ratio) ……94
3. Market share of sales of textile business by inkjet maker (2019) ……95
4. Shipment trend by type of hardware machines (DTF/sublimation transfer/DTG from 2017-2023) ……96
4-1. Overall ……96
1) Shipment volume 2) Shipment value ……97
4-2. Shipment trend of digital textile printers (DTF and sublimation transfer) by speed segment ……98
1) Shipment volume 2) Shipment value 3) Market share by maker (2019)
(1) Market share of shipment volume of large digital textile printers (DTF/sublimation transfer)
(2) Market share of shipment volume of small sublimation transfer printers
4-3. Shipment trend of DTG ……102
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
① DTG (for mass production) ② DTG (desktop)
5. Shipment trend of inks by type (2017-2023) ……105
5-1. Shipment trend by type of hardware machines ……105
1) Shipment volume 2) Shipment value
5-2. Shipment trend by type of inks (reactive/dispersion/acid/sublimation transfer/pigment) ……107
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
① Ink for large digital textile printers (DTF/sublimation transfer) ② Sublimation transfer ink
4) Trend of ink technology ……111
5) Trend of ink price ……113
6. Trend of printhead applications ……113
7. Summary of major makers ……114
7-1. Major DTF printer makers ……114
1) Japanese makers: Konica Minolta / Epson (Robustelli) / Mimaki Engineering (La Meccanica) / Toshin Kogyo / Seiren
2) European and US makers: MS Printing Solutions (Dover Group) / Reggiani(EFI) / Aleph / Durst
3) Chinese makes: Atexco / HOMER / Hopetech / Others
7-2. Major sublimation transfer printer makers ……116
1) Japanese makers: Epson / Mimaki Engineering / Others
2) Chinese makers: Human Digital Technology (Shanghai) / Shanghai ALLWIN Digital Technology
7-3. Major DTG printer makers ……117
1) Japanese makers: Epson / Brother Industries / Ricoh (AnaJet) / Others
2) European and US makers: Kornit Digital / Others
3) Chinese makers: CNTOP / Nocai
8. List of major machines of each company (48 companies) ……119
8-1. DTF/sublimation transfer (31 companies) 8-2. DTG (17 companies)

B-4. Transaction market ……128
1. Overall shipment value (hardware machines and inks from 2017-2023) ……128
2. Market overview (digital ratio and inkjet ratio) ……129
3. Market share of sales of transaction business by inkjet maker (2019) ……130
4. Shipment trend of hardware machines by size (2017-2023) ……131
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
(1) Continuous-feed machine (2) Sheet-feed machine
5. Shipment trend by type of inks(water-based pigment/water-based dye from 2017 to 2023) ……134
1) Shipment volume 2) Shipment value 3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ……137
7. Summary of major makers ……138
1) Japanese makers: Canon (formerly Océ) / Ricoh / Screen / Miyakoshi / Fuji Xerox / Brother (Domino)
2) European and US makers: HP / Kodak / Xerox / BlueCrest
8. List of major machines of each company (10 companies) ……139

B-5. Commercial printing market ……141
1. Overall shipment value (hardware machines and inks from 2017 to 2023) ……141
2. Market overview (digital ratio and inkjet ratio) ……142
3. Market share of sales of commercial printing business by inkjet maker (2019) ……143
4. Shipment trend by type of hardware machines ……144
(continuous-feed machines/sheet-feed machines from 2017-2023)
1) Shipment volume by size 2) Shipment value by size 3) Market share of shipment volume by maker (2019) (1) Continuous-feed machine (2) Sheet-feed machine
5. Shipment trend by type of inks(water-based pigment/UV from 2017-2023) ……147
1) Shipment volume 2) Shipment value 3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ……151
7. Summary of major makers ……151
1) Japanese makers: Canon (formerly Océ) / Fujifilm / Konica Minolta / Screen / Ricoh / Others
2) European and US makers: HP / Kodak / Landa
8. List of major machines of each company (11 companies) ……153

B-6. Labels and packaging market ……155
1. Overall shipment value (hardware machines and inks from 2017-2023) ……155
2. Market overview (digital ratio and inkjet ratio) ……156
1) Label market 2) Packaging market
3. Market share of sales of labels and packaging business by inkjet maker (2019) ……158
1) Overall 2) Label printing market 3) Packaging printing market (1) Corrugated cardboards
(2) Folding cartons (3) Flexible packaging
4. Shipment trend of hardware machines by application
(labels/corrugated cardboards/folding cartons/flexible packaging from 2017 to 2023) ……159
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
(1) Label market (2) Packaging market (2)-1. Corrugated cardboards (2)-2. Folding cartons
(2)-3. Flexible packaging
5. Shipment trend by application and type of inks ……163
1) Shipment trend by application
(labels/corrugated cardboards/folding cartons/flexible packaging from 2017 to 2023) ……163
(1) Shipment volume (2) Shipment value
2) Shipment trend by type of inks (water-based pigment/UV from 2017-2023) ……165
(1) Shipment volume (2) Shipment value
3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology (1) Label printing (2) Corrugated/folding carton printing
(3) Flexible packaging printing
5) Trend of ink price

6. Trend of printhead applications ……171
Label printing/corrugated cardboard printing/flexible packaging printing
7. Summary of major makers ……172
7-1. Major label printing system makers ……172
1) Japanese makers: Epson / Brother (Domino) / Screen / Iwatsu / Canon (formerly Océ)
2) European and US makers: Durst / Xeikon (Jetrion) / Others
7-2. Major packaging printing machine makers ……173
7-2-1. Corrugated cardboards ……173
1) Japanese makers
2) European and US makers: HP / Barberan / EFI / Durst / Others
3) Chinese makers: Hanglory Group / Wonderjet
7-2-2. Folding cartons ……174
1) Japanese makers: Konica Minolta
2) European and US makers: Heidelberger / Landa
7-2-3. Flexible packaging ……174
1) Japanese makers: Fujifilm / Miyakoshi / Screen / Think Laboratory / Tritek
2) European and US makers: Landa / UTECO
8. List of major machines of each company (53 companies) ……176
1) Labels (35 companies) 2) Packaging (18 companies) 2)-1. Corrugated cardboards/folding cartons (11 companies) 2)-2. Flexible packaging (7 companies)

B-7. Marking and coding market ……183
1. Overall shipment value (hardware machines and inks from 2017-2023) ……183
2. Market overview (digital ratio and inkjet ratio) ……184
3. Market share of sales of marking and coding business by inkjet maker (2019) ……185
4. Shipment trend by type of hardware machines (CIJ/DOD from 2017 to 2023) ……186
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
5. Shipment trend by type of inks (water-based/solvent/UV from 2017 to 2023) ……189
1) Shipment volume 2) Shipment value 3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ……193
7. Summary of major makers ……194
1) Japanese makers: Brother (Domino) / Hitachi Industrial Equipment Systems / Kishu Giken / Keyence
2) European and US makers: Danaher (Videojet) / Dover (Markem-Imaje) /Others
8. List of major machines of each company (6 companies) ……195

B-8. Ceramic tiles and building material market ……198
1. Overall shipment value (hardware machines and inks from 2017 to 2023) ……198
2. Market overview (digital ratio and inkjet ratio) ……199
1) Ceramic tile printing 2) Building material printing
3. Market share of sales of ceramic tiles and building material business by inkjet maker (2019) ……201
4. Shipment trend by application of hardware machines (ceramic tiles/building materials from 2017 to 2023) ……202
1) Shipment volume 2) Shipment value 3) Market share of shipment volume by maker (2019)
5. Shipment trend by type of inks(oil-based/water-based from 2017-2023) ……205
1) Shipment volume 2) Shipment value 3) Market share of shipment volume of inks by maker (2019)
4) Trend of ink technology 5) Trend of ink price
6. Trend of printhead applications ……208
7. Summary of major makers ……209
1) Japanese makers: Ricoh
2) European and US makers: Sacmi / Durst / KERAjet / EFI Cretaprint / System Ceramics / SITI-B&T / Tecno Ferrari
3) Chinese makers: Foshan Meijia Ceramic Equipment / Hope Ceramic Machinery Equipment / Keda Clean Energy / Shanghai Teckwin Technology Development / Shenzhen Runtianzhi Digital Equipment (FLORA)
8. List of major machines of each company (16 companies) ……211
8-1. Ceramics/Tiles 8-2. Building materials

B-9. Other markets ……215
1. 3D printer (3D signage) market 2. Electronics market 3. Anti-counterfeiting market 4. Food market

C. Inkjet Printhead Market ……219
1. Changes in shipment value by printhead method (2017-2023) ……219
2. Changes in shipment value by maker (2017-2023) ……220
1) Piezo head 2) Thermal head
3. Breakdowns of total shipment value by market (2019) ……222
1) Piezo head 2) Thermal head
4. Maker's share by market (2019) ……224
1) Signage market 2) Textile market 3) Transaction market 4) Commercial printing market
5) Labels and packaging market 6) Marking and coding market
7) Ceramic tiles and building material market 8) Others
5. Summary of each maker ……228
[1] FUJIFILM Dimatix [2] Kyocera [3] Ricoh [4] Seiko Epson [5] Konica Minolta [6] SII Printek
[7] Xaar [8] Toshiba TEC [9] HP [10] Funai Electric [11] Other makers: Brother Industries / Xerox / Suzhou Real Fast Print Technology / AMSKY Technology / Beijing Aotemeter Electric Technology
6. List of products by industrial inkjet printhead maker (12 companies) ……239

D. Related Market (home and office inkjet printer market)
1. Shipment trend of hardware machines (2017-2023) ……243
1) Shipment volume 2) Shipment value
2. Shipment trend of inks ……245

E. Individual Makers
E-1. Business summary of 16 major makers ……247
[1] HP 2] Seiko Epson [3] Canon [4] Danaher [5] Dover [6] Fujifilm [7] EFI [8] Brother Industries [9] Mimaki Engineering [10] Ricoh [11] Agfa-Gevaert [12] Durst [13] Roland DG [14] Konica Minolta [15] Screen [16] Kornit

E-2. Corporate profile of each company ……301
E-2-1. Japanese makers ……301
[1] Iwatsu [2] SII Printek [3] OKI Data [4] Kao [5] Kishu Giken Kogyo [6] Canon [7] Kyocera [8] Konica Minolta [9] Komori Corporation [10] Sakata INX [11] CTC Japan [12] Shima Seiki [13] Think Laboratory [14] SCREEN Graphic Solutions [15] Seiko Epson [16] Seiren [17] DIC [18] Duplo [19] Toshiba TEC [20] Toshin Kogyo [21] Tokyo Kikai Seisakusho [22] Toyo Ink [23] Tritek [24] Panasonic [25] Hitachi Industrial Equipment Systems [26] Fujifilm [27] Mimaki Engineering [28] Miyakoshi [29] Mutoh Industries [30] Ricoh [31] Roland DG
E-2-2. Overseas makers (in alphabetical order) ……317
① North America (17 companies):
[1] BlueCrest (USA) [2] Buskro (Cananda) [3] Colordyne Technologies (USA) [4] Danaher (USA) [5] Dover (UK) [6] Eastman Kodak (USA) [7] EFI (USA) [8] FUJIFILM Dimatix (USA) [9] HP (USA) [10] Huntsman (USA) [11] Mark Andy (USA) [12] Sensient (USA) [13] SUN Automation (USA) [14] Trojan (USA) [15] Videojet Technologies (USA) [16] VIPColor (USA) [17] Xerox (USA)
② Europe (39 companies):
[1] Aeoon (Austria) [2] Agfa-Gevaert N.V. (Belgium) [3] Aleph (Italy) [4] Arioli (Italy) [5] Axzyra (UK) [6] Azonprinter (Croatia) [7] Barberan (Spain) [8] BHS (Germany) [9] Bobst (Switzerland) [10] Domino (UK) [11] Durst (Italy) [12] Engico (Italy) [13] FUJIFILM Speciality Ink Systems (UK) [14] Gallus (Switzerland) [15] Heidelberger (Germany) [16] Hollanders Printing Systems (Netherlands) [17] Inca (UK) [18] KBA/kammann (Germany) [19] KERAjet (Spain) [20] Koenig & Bauer (Germany) [21] Kornit Digital (Israel) [22] La Meccanica (Italy) [23] Landa (Israel) [24] Macarbox (Spain) [25] Markem-Imaje AG (Switzerland) [26] Matan Digital Printers (Israel) [27] Mouvent (Switzerland) [28] mPrint (Germany) [29] MS Printing Solutions (Italy) [30] MTEX (Portugal) [31] NoeCha (Italy) [32] Reggiani (EFI) (Italy) [33] Robustelli (Italy) [34] SPGPrints (Netherlands) [35] SwissQprint (Switzerland) [36] Uteco (Italy) [37] Velox (Israel) [38] Xaar (UK) [39] Zimmer (Austria)
③ China (17 companies):

[1] ALLWIN (China) [2] Atexco (China) [3] Fei Yeung Union (China) [4] FLORA (China) [5] Fortune-lit (China) [6] Gongzheng Group (China) [7] Hanglory (China) [8] Hope Ceramics (China) [9] JHF (China) [10] Human Digital (China) [11] Nuocai (China) [12] SKYJET (China) [13] Teckwin (China) [14] Wit-Color (China) [15] Wonderjet (China) [16] XSJ (China) [17] XULI (China)

④ Other regions (9 companies):

[1] Biporin (Indonesia) [2] COLORJET (India) [3] DGI (South Korea) [4] Dilli (South Korea) [5] DyStar (Singapore) [6] ERAjet (Hong Kong) [7] Inktec (South Korea) [8] KISCO (South Korea) [9] Jetbest (Taiwan)

E-3. List of industrial inkjet-related makers ……345

E-3-1. Overall E-3-2. Ink/dispersions makers (list of their target fields)

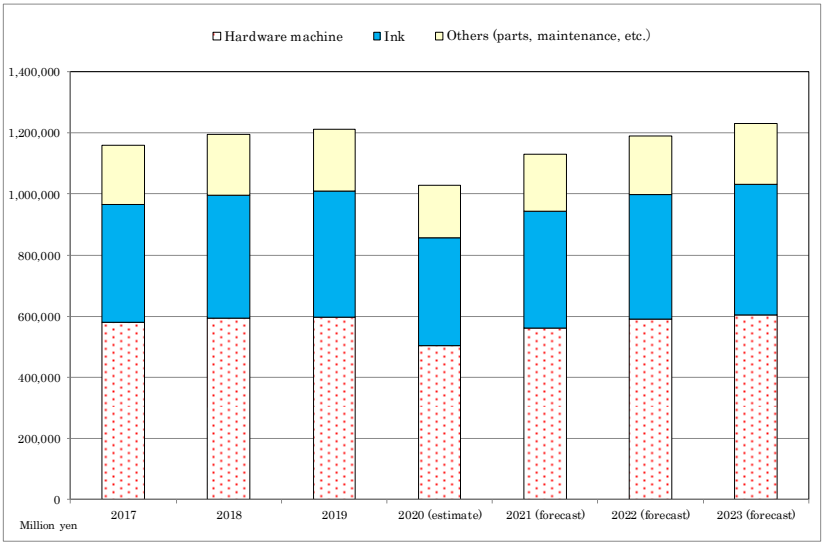
Extract from <Comprehensive Analysis>

*Tables are filled with numbers and comments in the real report.

A. Comprehensive Analysis

1. Overall trend of shipment value of industrial inkjet machines (2017-2023)

1) Overall (hardware machines, inks, others)

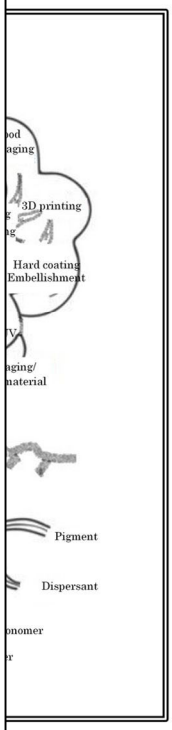


Million yen

	2017	%	2018	%	2019	%	2020 (estimate)	%	2021 (forecast)	%	2022 (forecast)	%	2023 (forecast)	%
Hardware machine														
%														
Ink														
%														
Others (parts, maintenance, etc.)														
%														
Total														
%														

. . . . . .

nderlying technology



l then its applications
nd digital printing. The applications keep expanding to include non-paper media, such as outdoor signboards (vinyl chloride), textiles (fabrics), flooring (ceramic tiles, wood, concrete), and packaging (film, corrugated package).

The key material that helps inkjet technology to expand its applications is various types of ink. As shown in the illustration above, inks are broadly classified into water-based and oil-based inks, of which the highly volatile oil-based inks are further classified as solvents and the less volatile inks as oil-based inks. There are also phase-change inks (to be discussed later), which have different properties from water-based and oil-based inks. They include a UV ink.

The base technology that supports the quality of these inks is a variety of ink materials used to make inks through expertise-packed dispersion and filtration technologies.

In the following pages, the basic ink technologies will be outlined.

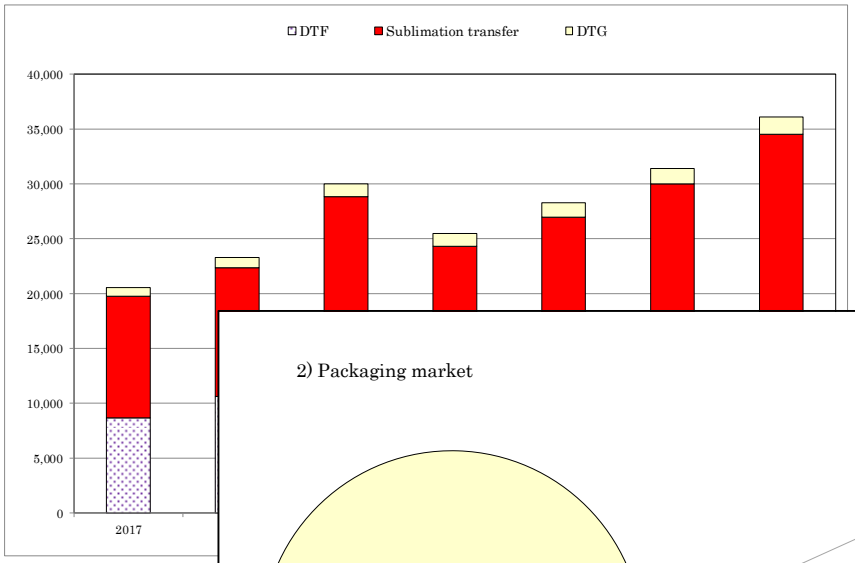
Extract from <Inkjet Market>

*Tables are filled with numbers and comments in the real report.

5. Shipment trend of inks by type (2017-2023)

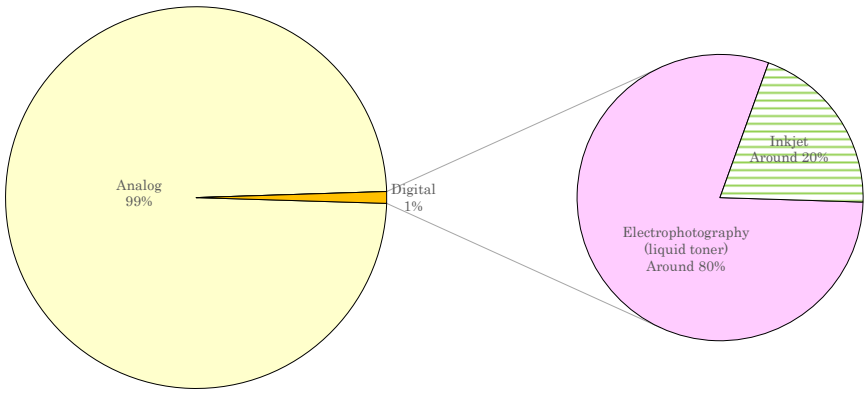
5-1. Shipment trend by type of hardware machines

1) Shipment volume



	2017	
		%
DTF		
%		
Sublimation transfer		
%		
DTG		
%		
Total		
%		

2) Packaging market



The digital ratio in the packaging printing market is only about 1% of the total printing demand. As for the digital technology, inkjet has been introduced in the corrugated paper printing segment, while HP Indigo's liquid toner is prevalent mainly among major businesses in the flexible packaging printing segment.

As for the corrugated paper printing segment, corrugated paper for display called Shelf Ready Packaging (SRP) is becoming popular mainly in Europe and the U.S., and UV inkjet machines for SRP are increasing. There is also a shift to introducing water-based inkjet printing for corrugated paper of regular packaging to meet the need for a quick turnaround.

In the flexible packaging segment, there is an increasing need for small-volume production in a short turnaround for food and other applications. Inkjet makers will first aim to replace liquid toner machines leading the market.

Extract from <Inkjet Printhead Market>

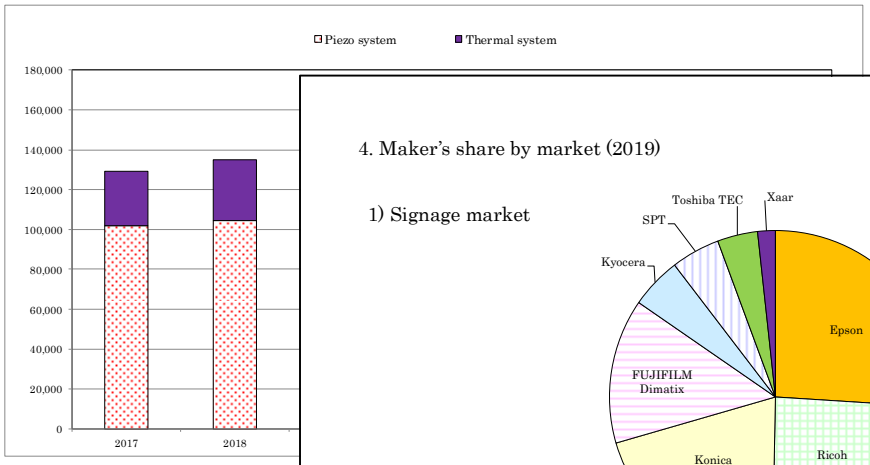
*Tables are filled with numbers and comments in the real report.

C. Inkjet Printhead Market

1. Changes in shipment value by printhead method (2017-2023)

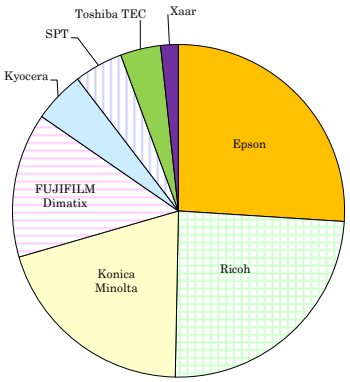
Million yen

	2017	%	2018	%	2019	%	2020 (estimate)	%	2021 (forecast)	%	2022 (forecast)	%	2023 (forecast)	%
Piezo system														
%														
Thermal system														
%														
Total														
%														



4. Maker's share by market (2019)

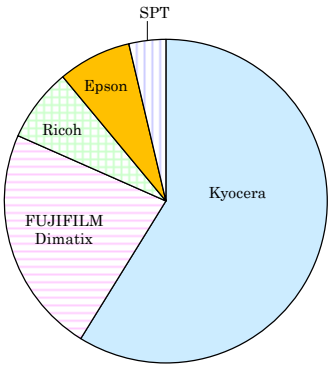
1) Signage market



Total: 46.1 billion yen (2019)

Epson, Ricoh, and Konica Minolta are the top three makers in the signage market. Epson is shifting its strategy to strengthening external sales, which may help increase its share further.

2) Textile market



Total: 13.6 billion yen (2019)

In the textile market, Kyocera is by far the top maker with a share of nearly 60% of the total. Ricoh and Epson also aim to expand their sales in this market.

Extract from <Individual Data of Industrial Inkjet Makers>

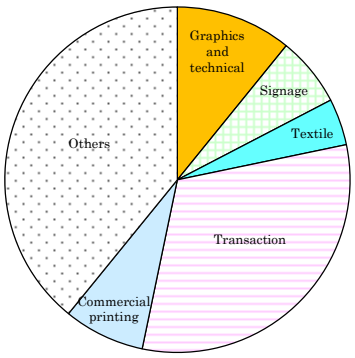
*Tables are filled with numbers and comments in the real report.

[10] Ricoh

1. Sales of industrial inkjet products by segment (2019)

Unit: 100 million yen

Application	Sales
Graphics and technical	
Signage	
Textile	
Transaction	
Commercial printing	
Labels and packaging	
Marking and coding	
Ceramic tiles and building material	
Others	
Total	



Ricoh's inkjet business in the industrial and commercial printing segment earned 46 billion yen in 2019. The business centers on former IBM's transaction business Ricoh acquired and others (mainly external sales of printheads). The company expands investment in the signage, textile, and commercial printing, too.

2. Shipment trend of hardware machines and inks (2019)

Market	Hardware machines (unit)	Inks (ton)
Graphics and technical		
Signage		
Textile		
Transaction		
Commercial printing		
Labels and packaging		
Marking and coding		
Ceramic tiles and building material		
Total		

Ricoh's total shipment volume of hardware machines and ink was 5,880 units and 2,000 tons respectively, mainly from the transaction segment.

									URL
									www.affordink.com/
									www.afford-inks.com/
									www.agfa.com
									www.alphachem.net
									www.alphainkjet.com/
									www.antonine-inks.co.uk/
									www.aomya.com/
									www.a-2-i.com/
								2017.	www.inks.averydennison.com/en/home.html
								ersions.	www.basf.com
									www.kincolor.dpes.com.cn/
									www.belgiumglass.com/index.php
								2018.	www.inks.com.cn/index.asp
BDR Boya Kimya San. Tic. A.S.	Turkey				○			Acquired by EFI in 2019.	www.inkbdr.com/
Binzhou Gaily Electronic Technology	China	○						Production capacity: 5,000 tons a year	www.gailyink.com
Biporin	Indonesia				○				www.biporin.com/
Bordeaux Digital Printink	Israel	○	○	○	○				www.c-m-y-k.com/
Cabot	USA	○							www.cabotcorp.com/
Canon	Japan	○							www.canon.jp/
Celludye	China	○							www.celludye.com/
ChenBang	China		○					Production capacity: 3,000 tons a year	www.chenbangink.com/
Chespa	Poland		○	○					www.chespa.eu/
Clariant	Switzerland	○							www.clariant.com/en/Corporate
CMS ink	France						○	Mainly for coding.	www.cmsink.com/
Colorfulink Technology	Taiwan		○					Production capacity: NA	www.refillcolor.com/
Colorobbia	Spain					○			www.colorobbia.es/?lang=en