



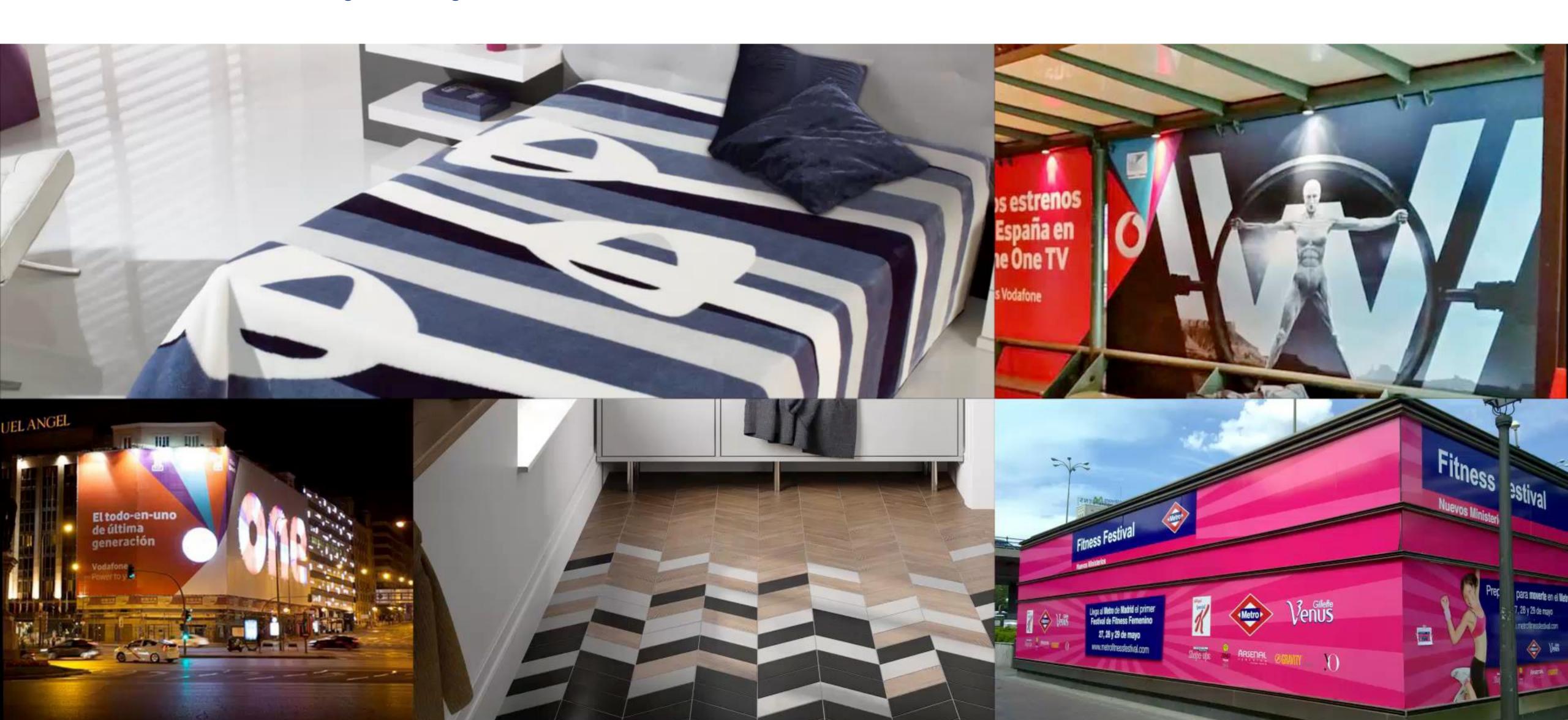
Industrial inkjet technology for building materials:

An opportunity for business transformation

Fernando Tomás Product Director Packaging & BM

# About EFI

Our mission: The image of things



# EFI Industrial Inkjet Focus

Leading transformation in industrial segments, +5000 installed base

#### Display Graphics

- \$80B output value
- 8B sq. meter output
- ~45% Digital



#### **UV** Ink

- #1 Digital UV Ink Manufacturer
- 5 years of double digit UV ink volume growth
- (1) Value of printed output
- (2) Based on sq. meters produced of analog vs. digital.

SOURCE: I.T. Strategies, InfoTrends, IDC, EFI business intelligence.

#### Corrugated

- \$130B output value
- 232B sq. meter output
- <1% Digital



#### UV LED Ink

- - - Special effects

#### Ceramic Tile & BM

- \$84B output value
- 12B sq. meter output
- ~63% Digital



#### Mineral Inks

- Ceramic/Mineral ink colors

#### Textile

- \$150B output value
- 45B sq. meter printed textile
- ~ 6% Digital

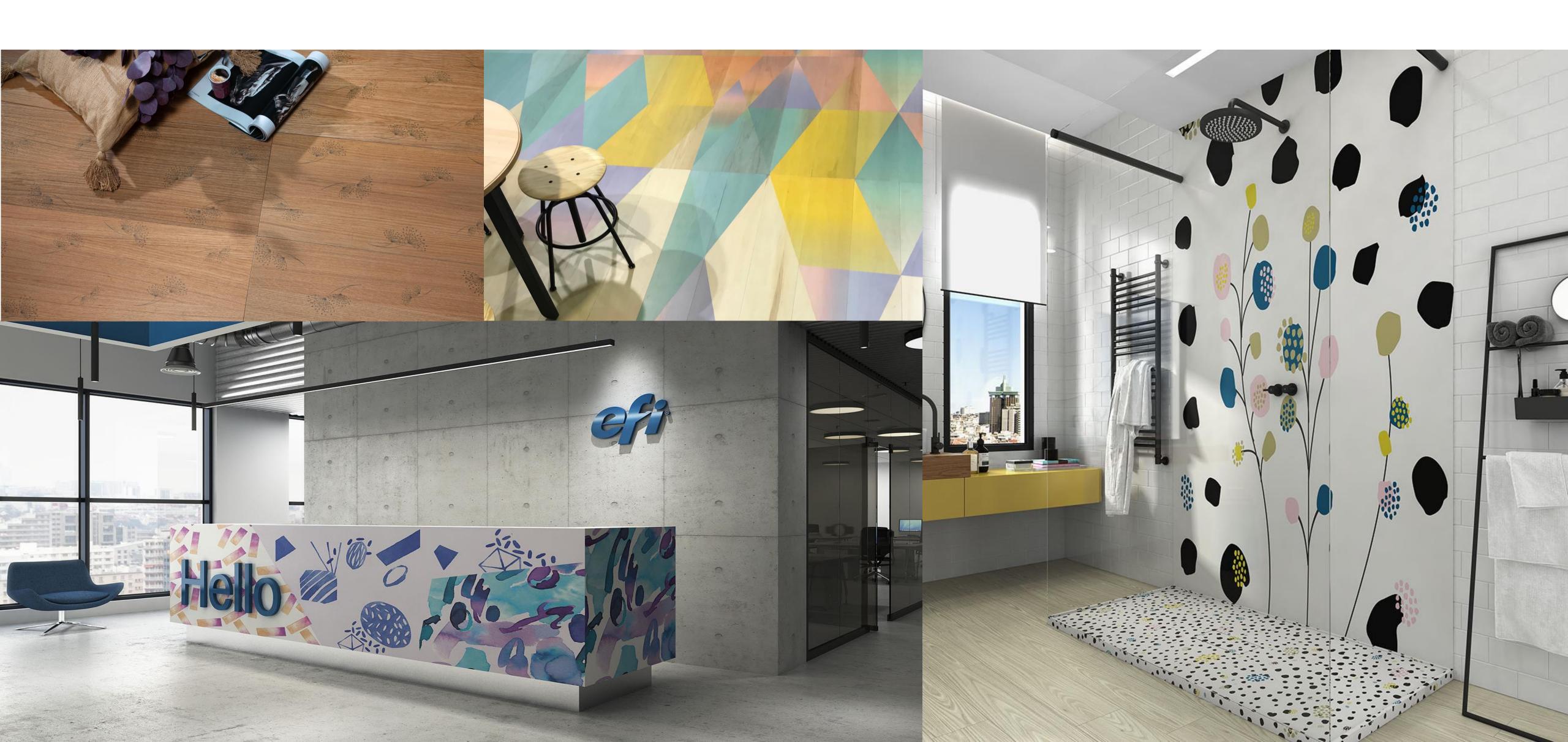


#### Textile Ink

- Water-based inks
- 4 different ink types

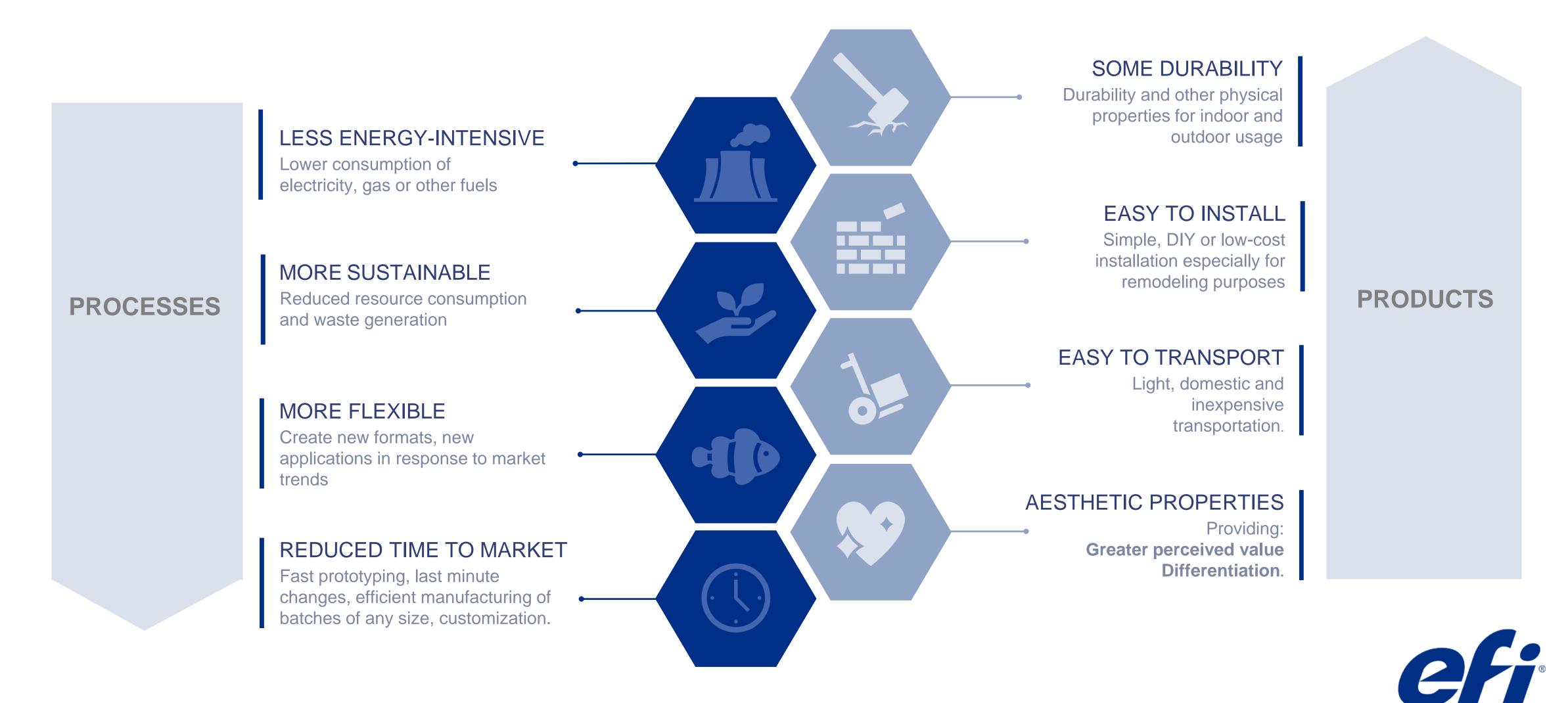


# Construction market & Covid



# Building Materials decoration

**Drivers** 



# Industrial inkjet decoration

An efficient, streamlined process





DESIGN FILE IS CREATED



FILE IS PROCESSED BY COLOR SOFTWARE



FILE IS READY TO BE PRINTED

## Industrial solution

Harsh environment
Ready to work 24/7
Easy to operate and maintain



# Industrial inkjet decoration

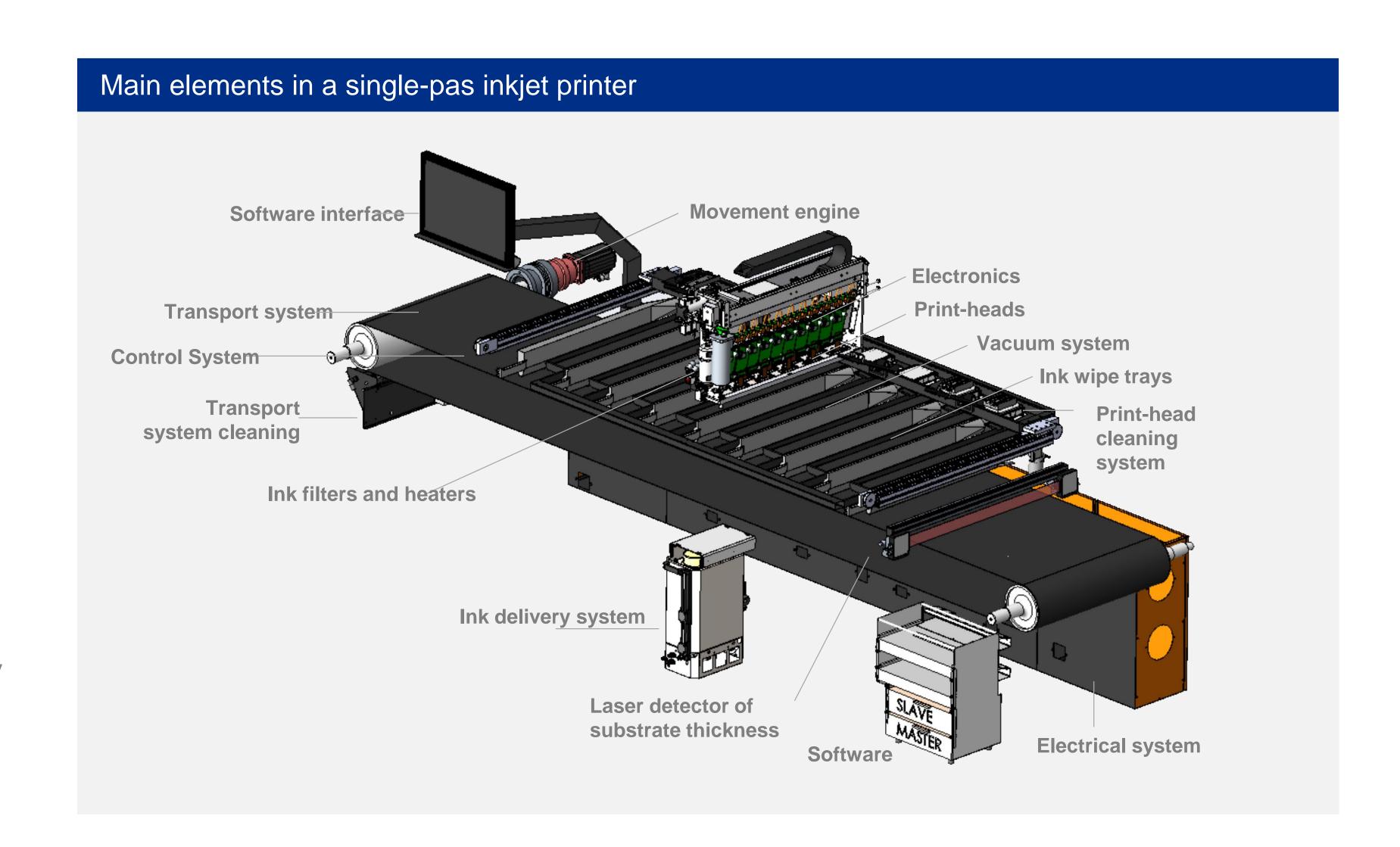
How does it work?

Non-contact Printing up to the edges No tooling required No inks mixing stocks Print on rough substrates

# Industrial single-pass inkjet: printers

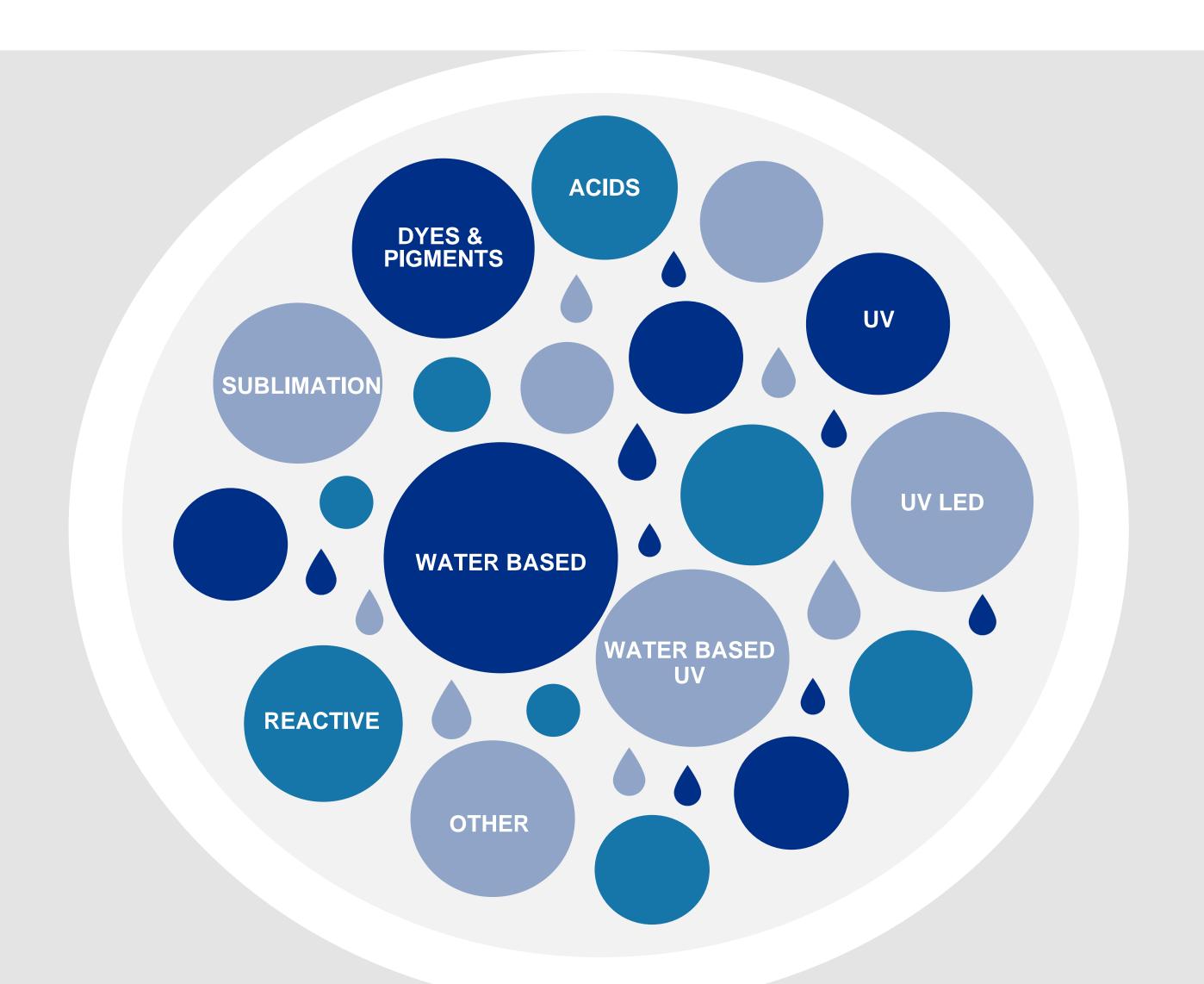
Much more than printheads

- Appropriate transport system
- An ink set (incl. special effects)
   delivers a wide color gamut
   including brand colors.
- No tooling is needed.
- Intuitive interface with userfriendly applications
- Flexible: upgradable, double line printing, etc.
- Robust.
- Fluid technology that fits the substrate and posterior protection layers.
- The right print head technology for each application/industry



# Industrial single-pass inkjet: inks

Our bet for building materials are mineral inks



# Industrial single-pass inkjet: inks

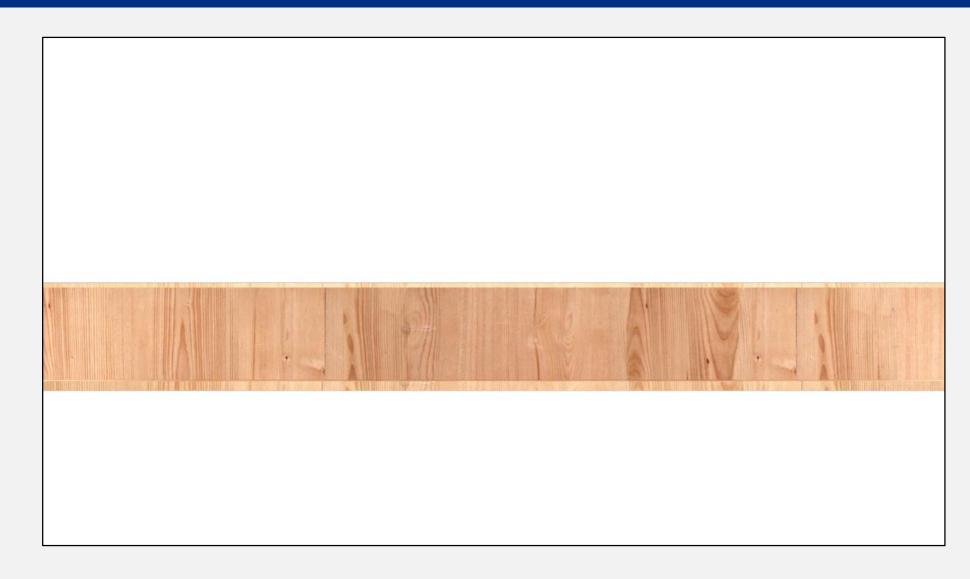
Our bet for building materials are mineral inks

# Mineral Inks



Ink penetrates the substrate
Needs drying (post print)
Lightfastness: Outdoor and indoor usage
Limited color
Primer can be applied
Coating or protecting

## **UV LED Inks**



Needs curing (in the printer)
Ink polymerizes
Indoor applications
Great Gamut
Primer can be applied
Coating and UV protecting

# Industrial single-pass inkjet: software

Software workflows for a digital process

# Dedicated color management software for building materials

- Produces the most accurate and consistent color quality
- Lowers your ink consumption
- Provides consistent color in different production conditions
- Shortens R&D times with lightweight prototype

#### **Advancing in Industry 4.0**:

- Productivity reports
- Machine learning
- Cloud services
- Communicate with Escada systems in plant

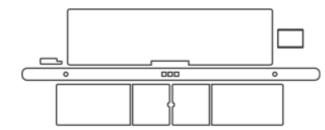
The flexibility you need to decorate ceramic tiles in any manufacturing condition



# EFI Ecosystem for inkjet decoration

A wholistic approach

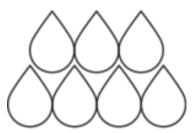
#### Hardware



Industrial single-pass inkjet printers.

Ancillaries and/or complete finishing lines.

#### Fluids



Inks.

Primers, coatings and other needed for a finished product.

#### Software



Dedicated color management software.

Industry 4.0: machine learning, remote monitoring, and connection with SCADA systems.

### Services



Field and professional services to:

Start fast

Run smart

Grow and scale



# Industrial inkjet decoration of Building Materials

The opportunity



**Streamlined Manufacturing Process** 



Developing new Business Models



Reduced
Time To Market



Mindful Sustainability



# Thank you!

