

**Head of A320 Family Paintshop
Hamburg**

Ralph MAURER

**Airbus
Innovation Days**

Direct Printing Technology



Traditional decoration methods for complex designs



Traditional decoration methods for complex designs

Adhesive Film



Application of adhesive film and overcoating with clearcoat

Advantages

All freedoms of design

Disadvantages

High material costs

Durability at high erosion areas

Airbrush



Build up design layer-by-layer with multiple working and drying steps

Advantages

Individual design with one paint system

Disadvantages

High lead time

Repeatability of design

Dot / Hexagon Stencil Process



Build up design layer-by-layer with multiple working and drying steps

Advantages

Reproducibility of color gradations

Disadvantages

High recurrent costs (development & stencil production)

Limited appearance and complexity

Traditional decoration methods for complex designs

New Technology vs traditional methods

Traditional methods become insufficient with airlines desire for artistic designs

Development of a new technology to create complex livery paintings automatically and increase flexibility



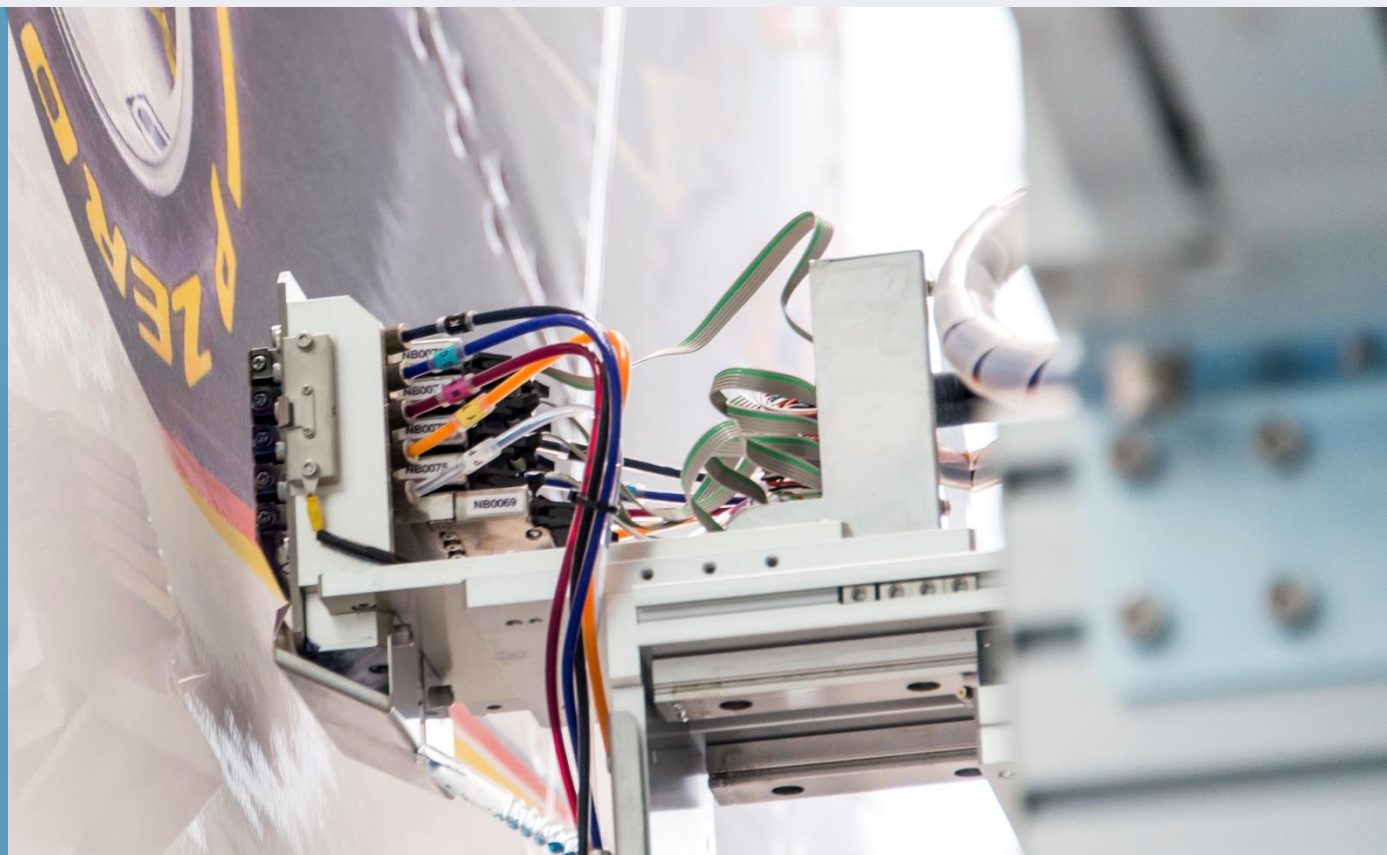
Direct Printing Technology

Printer head is similar to an inkjet-printer

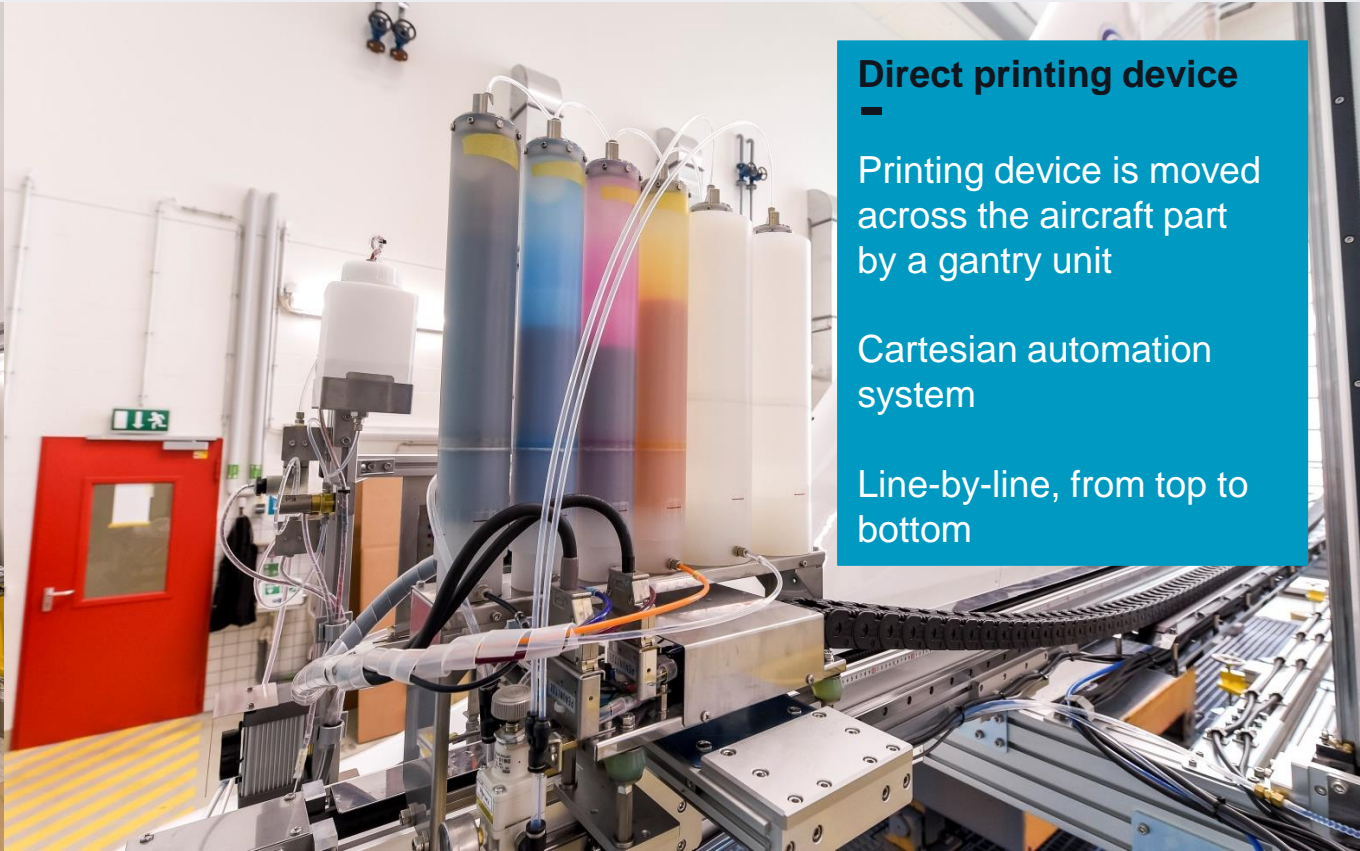
CMYK color with optional white primer

Solvent ink instead of paint

3D-surface printing technology



Direct Printing Device



Direct printing device

Printing device is moved across the aircraft part by a gantry unit

Cartesian automation system

Line-by-line, from top to bottom

Launch Customer – Thomas Cook Airlines

Launch customer

Delivery to Thomas Cook Airlines in March 2016

1st industrial application on vertical tail plane



Launch Customer – Thomas Cook Airlines



1st

Industrial application

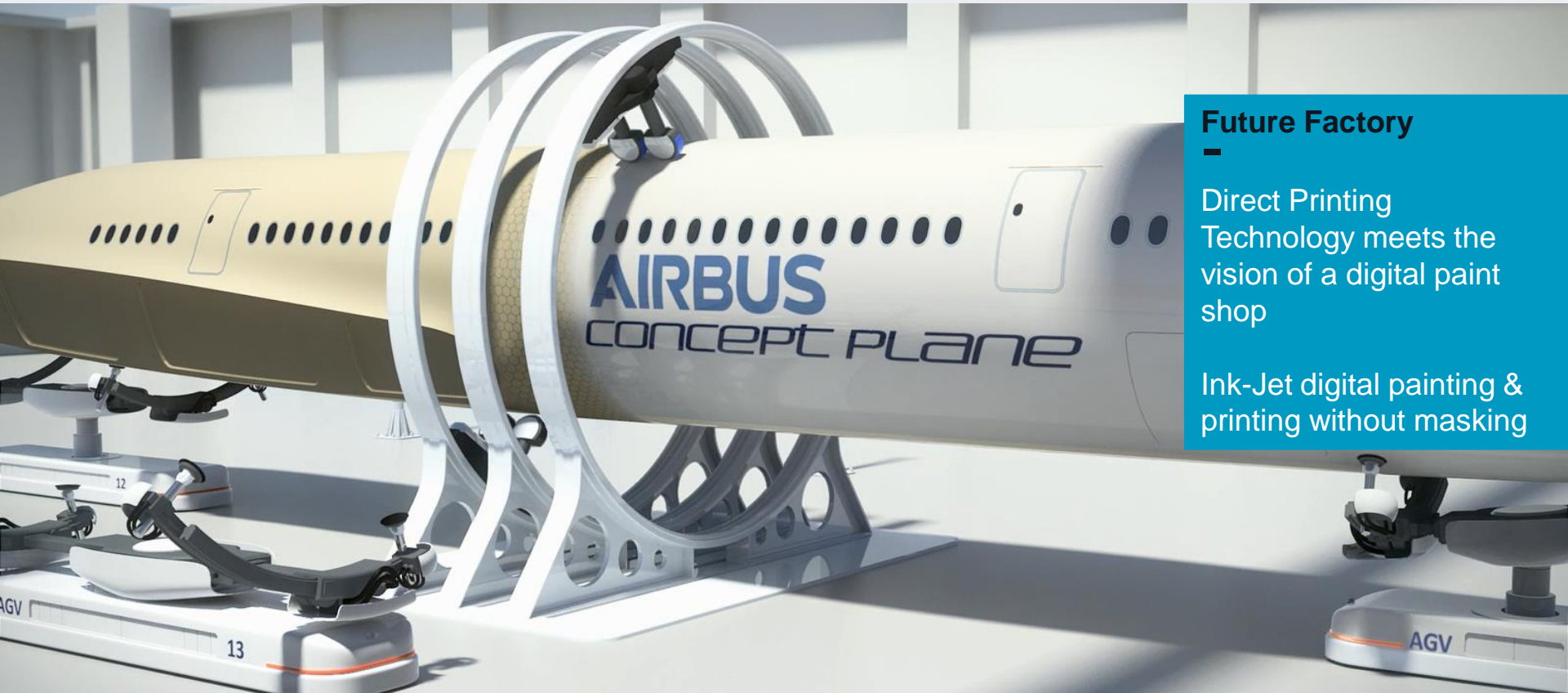
3 kg

Weight saving

500 ml

Ink consumption

One step to Future Factory



Future Factory

Direct Printing Technology meets the vision of a digital paint shop

Ink-Jet digital painting & printing without masking

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