



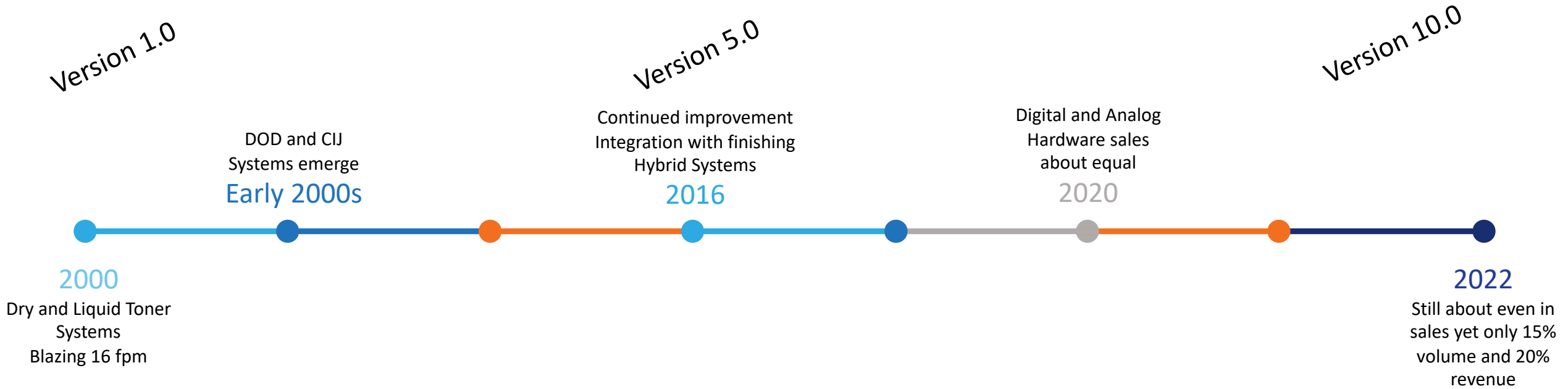
# Digital Packaging Summit - 2022

## Folding Carton Deep Dive

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# Digital Labels Timeline



## Value Proposition:

- Offers operational flexibility and better utilization of production assets
- Increase in plant profitability

# Digital Corrugated Timeline

Version 1.0

Scitex (Belcom), Inca,  
Vutek and Canon  
expand multi-pass  
technology

Early 2000s

Version 2.0

Barberan is first to market with a successful single  
pass installation at drupa 16

2016

Version 4.0

About 100 Single Pass and  
18 PageWide systems  
installed

2022

2000

Belcom introduces  
the Multi-Pass  
technology

2016-2020

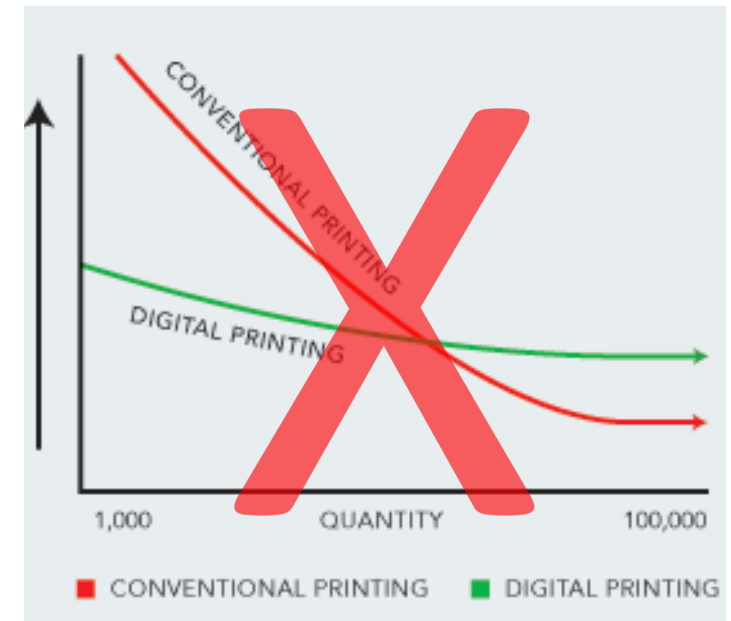
- EFI, Scitex, Domino, Xeikon, Hanway all enter with single pass
  - HP enters with PageWide for Corrugated
- OEMs stopped selling multi-pass to converters if they had a single pass option available.

## Value Proposition:

- Offers operational flexibility and better utilization of production assets
- Increase in plant profitability

# Karstedt Partners Research shows

- ◆ 40% of orders are now ½ truckload or more
- ◆ After 12 months begin moving troubling jobs to digital regardless of quantity or number of colors
  - ◆ Relieves pressure on other plant assets
- ◆ 4%-5% uplift in plant profits
- ◆ It is not about print anymore!



# Digital Folding Carton Timeline

Version 1.0

Version 2.0

Version 3.0

HP and Landa  
introductions at  
drupe 12  
2012

Growth in Fits and Starts  
More Niche Players mostly through Commercial and  
Trade printers  
2012 to 2018

<2012

2018-2023

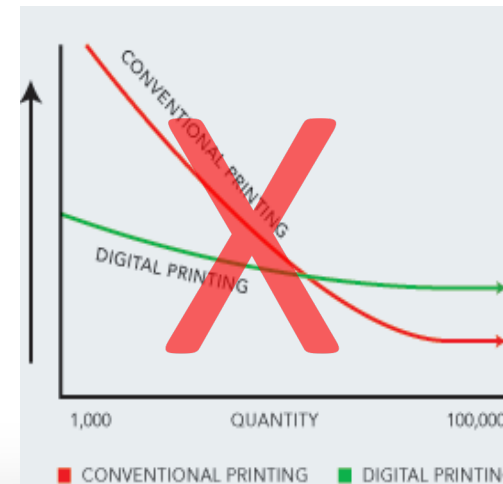
Toner Solutions,  
niche applications

Yet to be seen

Yet to be established

Value Proposition:

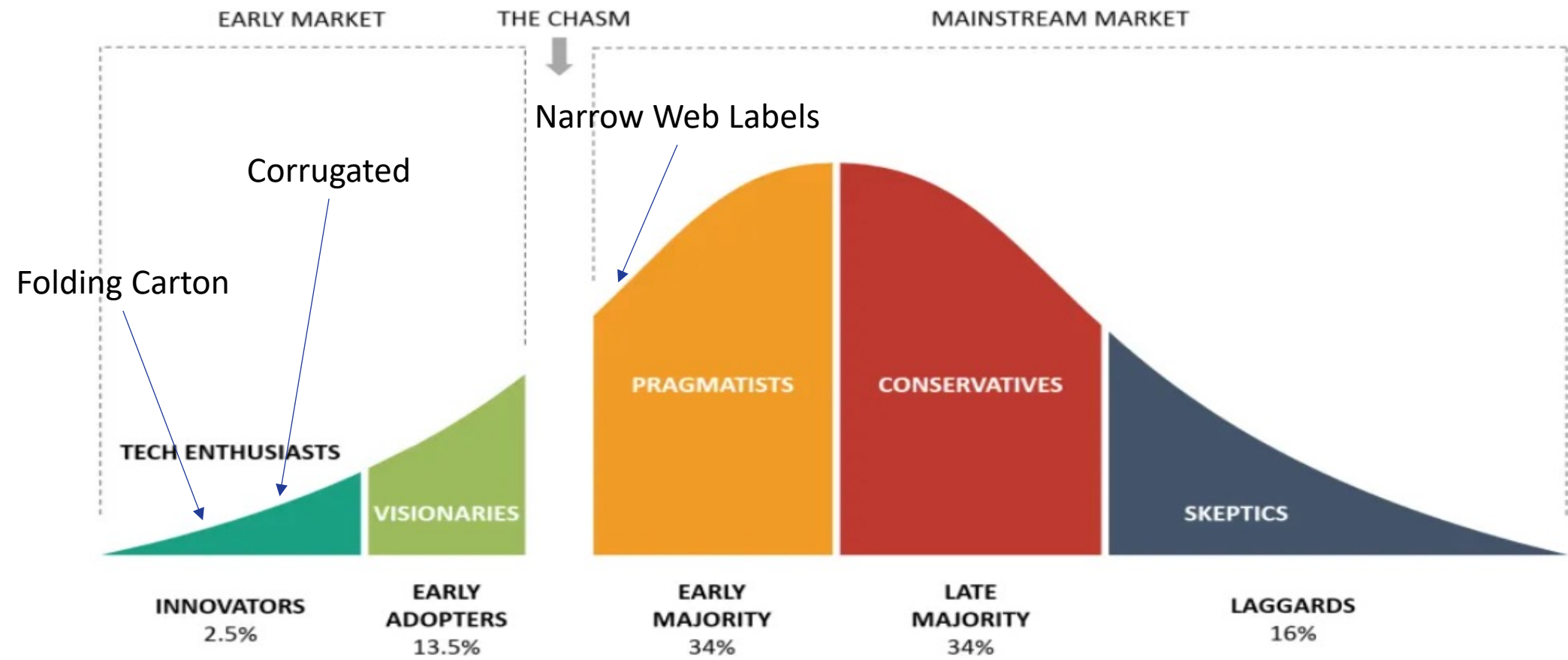
- Offers operational flexibility and better utilization of production assets
- Increase in plant profitability



- Landa – Real Folding Carton Converters
- HP Continues – introduces 35000
- Niche Players Continue
- Koenig & Bauer RotoJet in Beta
- Agfa Speed Set Introduced – Beta?
- 2-3 others in the works...
- Developments with Laser Diecutting and Embellishment
- 2005 to Today – **Significant** R&D spend in Folding Carton Sector



# Where does your company fit?



Dr. Goeffrey Moore

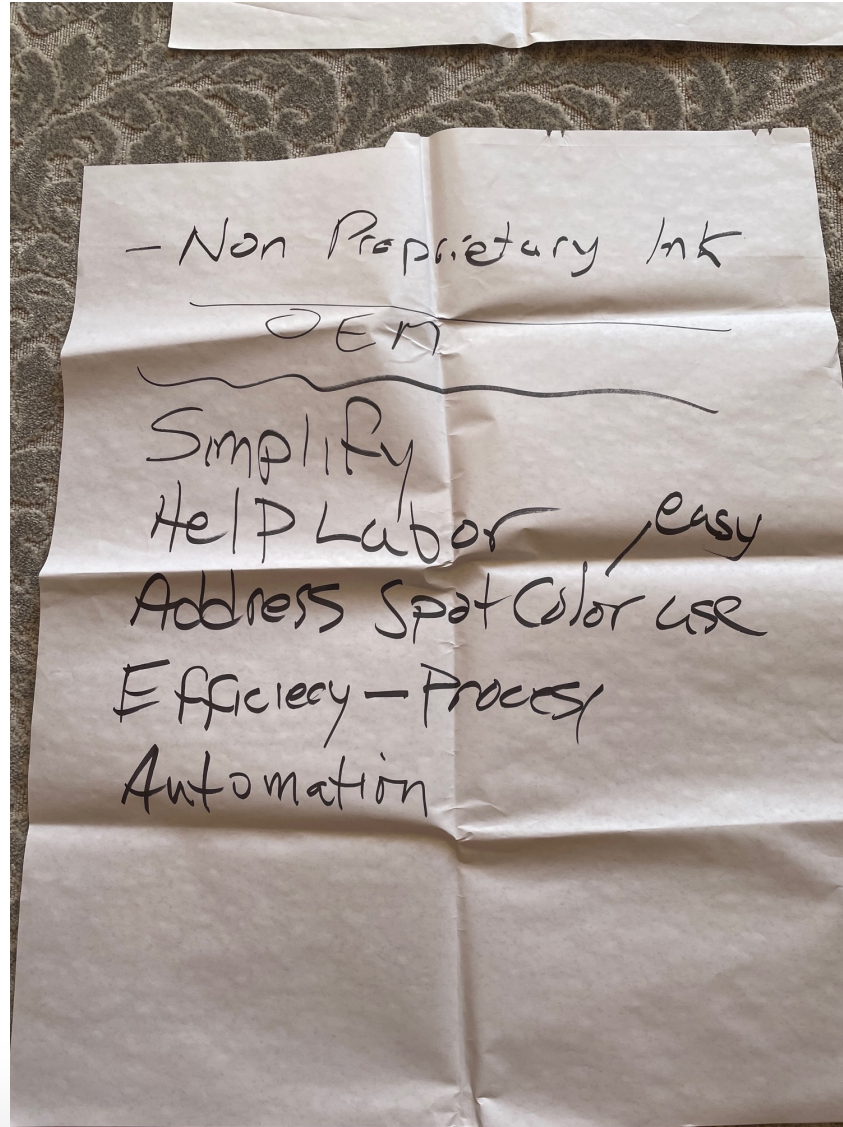
# Workshop: What should the digital solution for folding cartons look like in 5 years

- Digital Pre-coat/Colour
- Higher caliper
- Inline embellishment at print speed
- Inline print/diecut
- Integration for SW
  - ERP
  - MES
- All ECG - 85% ↑ uptime

- DPS 2027
- Digital Ink = Flexo
  - Digital Coating
  - Digital White - FIRST DOWN
  - Folder/Gluer
  - ~~10~~ 15-20K SPH
  - BI
  - STRIPPING/Blanking DIGITAL



# Workshop: What should the digital solution for folding cartons look like in 5 years





# Results from the workshop

1. For digital printing for packaging to become mainstream a global footprint is needed that includes digital for all printing types with equal reach
  1. Labels (is there), Corrugated is next but still a long way from fully implemented, Folding Cartons and Flexible Packaging are still in their infancy.
2. Users are looking for more integration of digital to their analog environments
  1. Integrated with finishing and embellishments (but not necessarily connected to)
    1. This includes a desire for a 40" format
  2. Integrated with MIS and overall plant operations
3. Users are looking for the TCO to come down
  1. Includes more productivity (10,000 sph +)
  2. Ink costs (they say parity with analog inks but understand that is just a targeted wish)
4. Key takeaway is that by better integration and automation they are looking at digital to help the industry move towards the goal of Factory 4.0