

# WhatTheyTh!nk

Technology Outlook

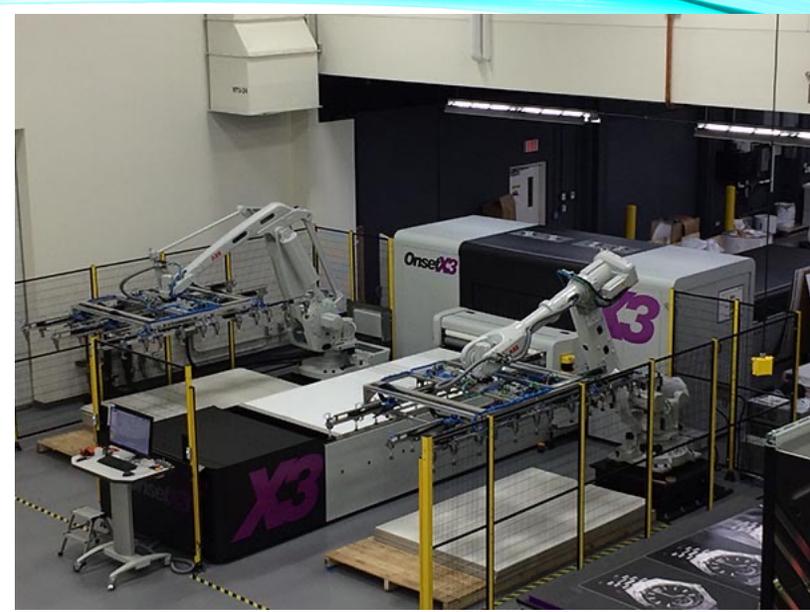
LunchNLearn Webinar Series

Wide Format, Signage, and Apparel

Richard Romano, Managing Editor, WhatTheyThink

Cary Sherburne, Senior Editor, WhatTheyThink

May 17, 2022



# Get the most out of this webinar...

- SEND US YOUR QUESTIONS DURING THE WEBINAR
  - There will be a Q&A at the end
  - Q&A box is at the bottom of your screen
    - Please use Q&A box rather than Chat box
- Downloadable archive—slides and audio—will be uploaded later today

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# Today's Presenters



**Richard Romano**  
**Wide Format & Signage**



**Cary Sherburne**  
**Textiles & Apparel**

# Wide- Format & Signage



# Wide Format & Signage: What Kind of Day Has it Been?

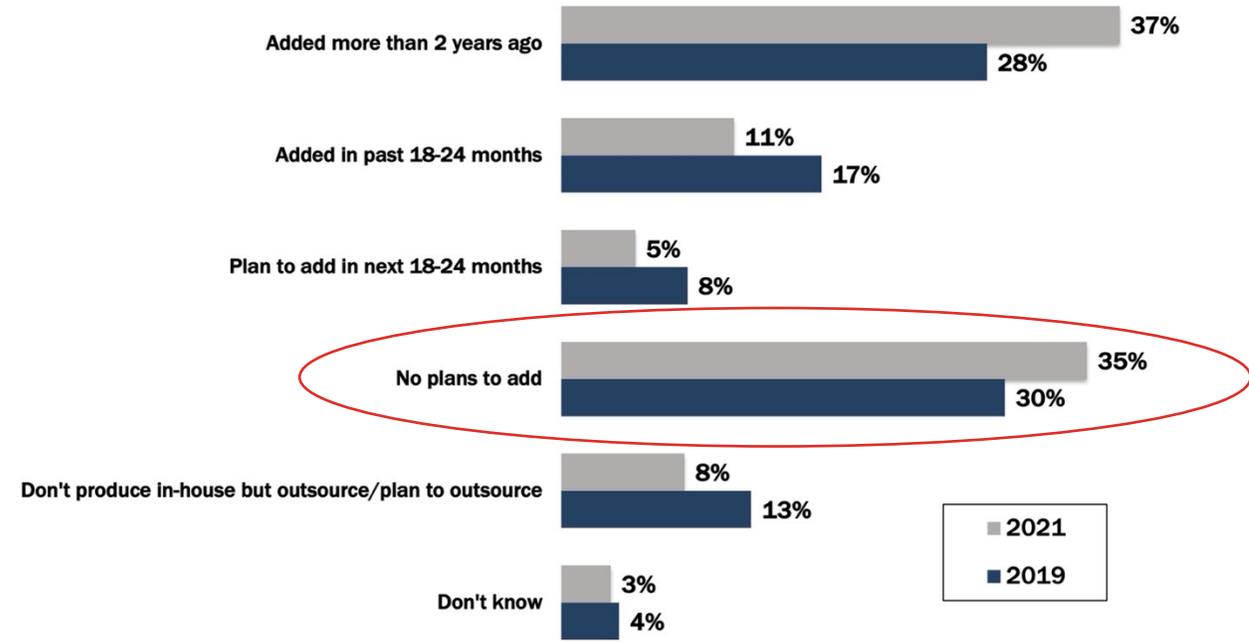
- 2020: Wide format was a saving grace during the pandemic
  - The infamous “pivot” to safety signage, et al.
  - Shutdown of key verticals (events, travel)
- 2021: We’re ba-a-a-ck!
  - Rebuilding business during recovery
  - Occasional variant-related bumps
- 2022: Expanding capabilities and addressing new/old challenges
  - Flatbed printer acquisition growing; expands range of projects
  - True automation is finally coming to wide format; staff shortages are hastening it

# Wide Format & Signage: Some Notable News

- Agfa's acquisition of Inca Digital
  - Largely due to Inca's developments of single-pass printing for packaging, *the* high-growth sector of the industry
    - Kind of where wide format was a decade ago
- Sign shops remain focused on “traditional” constructed signage
  - Channel letters, monument signs, complex construction/installation projects, etc.—stuff that is far more than printing on something
    - Some convergence on the franchise side—Allegra/Image360 cobranded centers, e.g.
- Commercial print migration to wide format is over
  - ~30% of the industry are “never wides”

# The “Never Wides”

Have you added, or do you plan to add, wide-format printing capabilities (like signs, displays, banners)? 2019, 2021



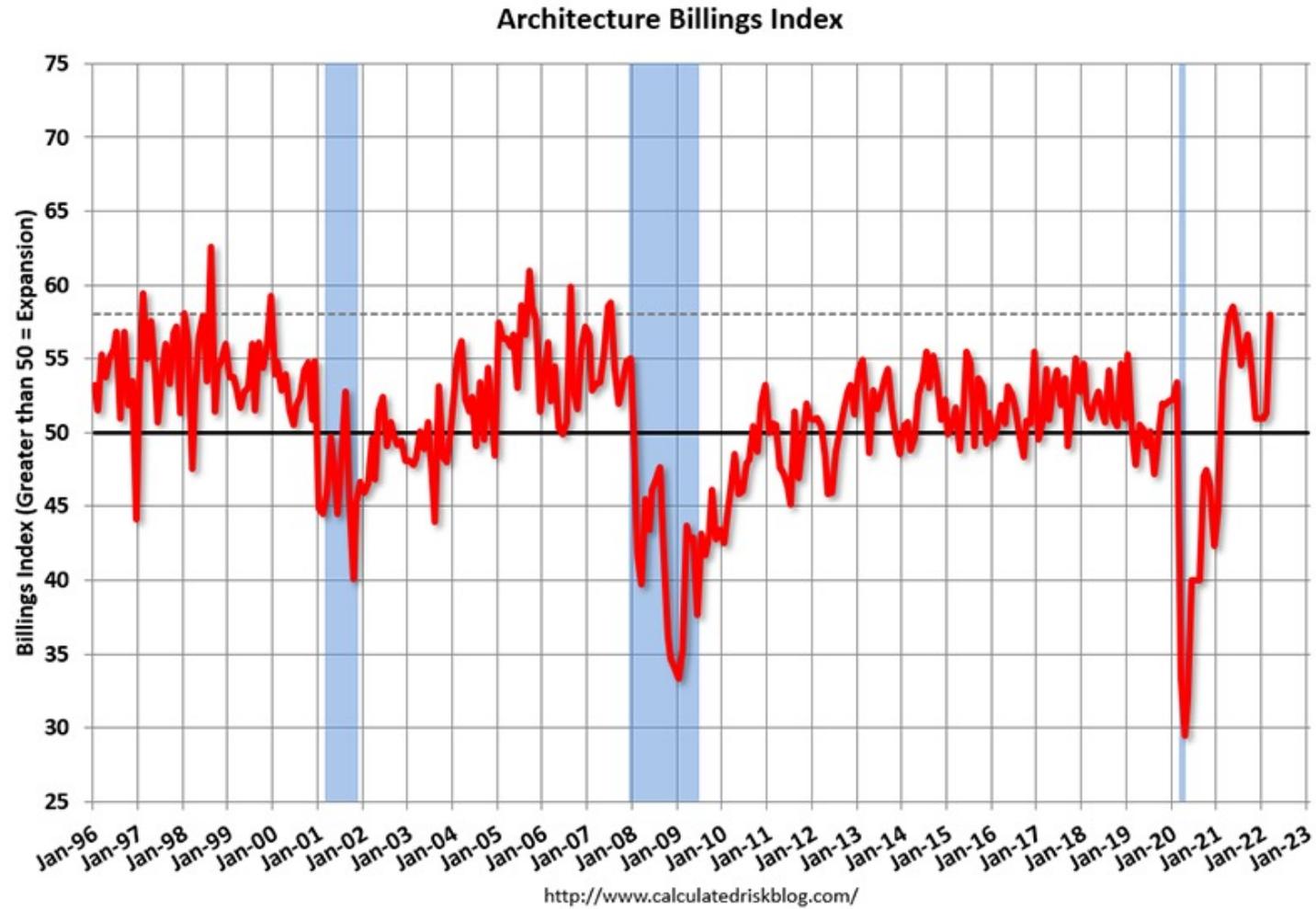
# Wide Format & Signage: Some Notable News

- Major signage case had been pending before the U.S. Supreme Court
  - *Austin v. Reagan* could have tossed out traditional regulatory distinction between on-premises signs and billboards as being location-based, not content-based
    - If so, “sign apocalypse”
    - Apocalypse averted: April 21 SCOTUS maintained that regulatory distinction
    - BUT: remanded the case back to the 5th Circuit, so we’re not out of the woods yet

# Wide Format & Signage: Some Notable News

- American Institute of Architects (AIA) March Architecture Billings Index (ABI) soared from 51.3 to 58.0
  - Tracks the demand for architectural design services (i.e., billings) for commercial and industrial buildings
  - ABI leads commercial real estate investment by about 9–12 months
  - Looks to be a pick-up in commercial and industrial real estate development as we head through 2022

# Historical ABI



Source: AIA via Calculated Risk

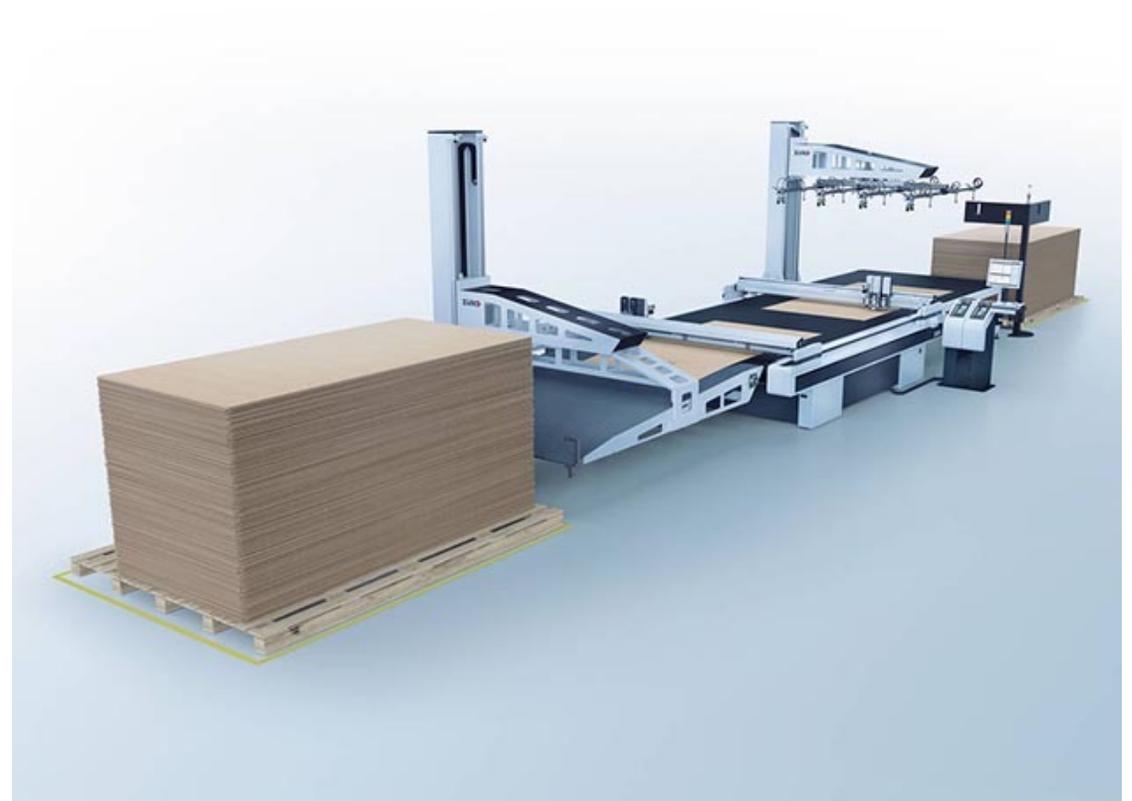
# Wide Format & Signage: Some Notable News

- Census Bureau released its National Population Statistics: 2020–2021
  - Includes top age cohorts for 2020 and 2021, and projections for 2030
  - Last year, 6 of the top 7 age cohorts were under 40
  - By 2030, top 10 cohorts will be the youngest 10 cohorts
    - After the 2010 Census, younger Boomers dominated population distribution
    - As of the 2020 Census, it's the Millennials and Gen Z
  - “Youthening” of the population means prime working age population is increasing
  - Also suggests increased demand for things like housing, durable goods, cars, etc.
    - In a nutshell, this bodes well for the economy in general
  - On the other hand, US birth rates have declined 20% since Great Recession

# Arms of Love



*Inca OnsetX3*



*Zünd BHS150 loading/unloading system*

# Wide Format & Signage: Some Notable News

- 3D printing
  - But not the way we think
  - That is, not additive manufacturing but layering of UV ink using flatbed printer
  - Add texture, dimensionality, or Braille lettering for ADA-compliant signage



*Image Courtesy Alliance Franchise Brands*

# Wide Format & Signage: Some Notable News

- Sustainability
  - Not just materials but overall business practices
  - Interest in end-of-life issues
    - Sustainably discarding/recycling old signage/display graphics
    - Vycom Recycling Program
      - <https://www.vycomplastics.com/sustainability/>

# Wide Format & Signage: 2022 Outlook

- “Supply chain” problems will persist
  - Materials/consumables still difficult to obtain
- Two sides of employment issue: production staff shortages, but more entrepreneurial sign business owners
  - The latter especially true for franchises
- Experiential graphics headed for a rebound as offices continue to reopen, good time for a rebrand/refresh
- Construction due to pick up in 2H2022—opportunities for major new signage projects

# New Product Introductions

- New wide-format products largely evolutionary
  - Speed, quality, automation improvements
  - Fleshing out product portfolios
  - Expanding range of applications

# New Products—Printers

- **Agfa Avinci CX3200**
  - 3.1m dye-sublimation roll-to-roll printer
  - Print either via transfer paper or direct to fabric
  - Production speed of up to 270 sq. m/hr.
  - Designed for soft signage
- **EFI Pro 30h**
  - 126-in. hybrid flatbed/roll-to-roll UV LED printer
  - Prints up to 2,477 sq. ft./hr.
  - Targeted to businesses that see high-volume production of display graphics as a growth opportunity



# New Products—Printers

- **LogoJet FSR90 Edible Ink printer**
  - Full-color personalization with food-grade inks on edible items
  - 24 x 36-in. printable area and 6-in. product height
- **Mimaki had a busy year**
  - New CG-AR Series of cutters/plotters for entry-level users
    - CG-60AR (606mm-wide cuttable area) and CG-130AR (1,370mm-wide cuttable area).
  - TS330-1600 sublimation transfer inkjet printer
    - flagship model of new 330 Series
      - Introduces “Mimaki Weaving Dot Technology (MWDT)”
  - New 330 Series roll-to-roll solvent printers
    - JV330-130/-160 and CJV330-130/-160
      - JV330-130/-160 and CJV330-130/-160 print up to 21.0m<sup>2</sup>/hr. in standard mode with 4 colors (CMYK), and 13.2m<sup>2</sup>/hr. with 8 colors (CMYKLC LmLkOr)



# New Products—Printers

- Mutoh also has been busy
  - 54-in. XpertJet 1341SR Pro solvent printer
    - Features Mutoh's new AccuFine printheads
    - 1341SR Pro is up to 42% faster than its predecessor
  - 64-in. ValueJet 1628MH hybrid flatbed/roll-to-roll printer
    - Print up to eight colors, including CMYKx2 and CMYKWhWh (yes, that is white ink)
    - Mutoh VerteLith RIP software is bundled with FlexiDESIGNER MUTOH Edition 21, ideal for signage and banners
  - XpertJet 1642WR Pro dye-sublimation printer
    - mid-level unit targeted for home décor, soft signage, sports apparel, and fashion applications



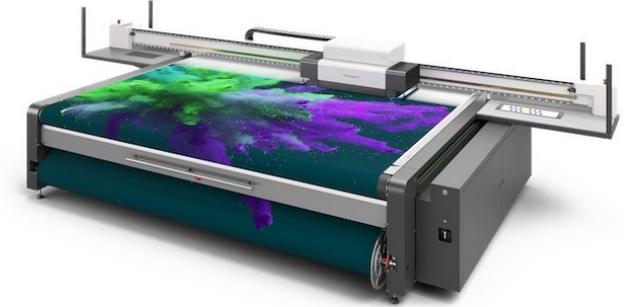
# New Products—Printers

- Ricoh launched two new units
  - RICOH Pro TF6251 UV LED flatbed
    - Print on items up to 4.3-in. thick
    - Comes with two ink configurations
    - Adds a new rollfed option
  - 64-in. RICOH Pro L5160e latex rollfed printer
    - Can be configured to print CMYK, CMYK+White (yep, white), or CMYK + Orange & Green
- Roland's third-generation TrueVis VG3 and SG3 Series
  - 64-in. VG3-640 and the 54-in. VG3-540
    - Offers six ink configurations, including 8-color (CMYK+Lc+Lm+Or+Gr) option
    - 54-in. SG3-540 and 30-in. SG3-300 entry-level versions
  - VersaUV LEC2 S-Series flatbed ups the thickness to 7.87 in.



# New Products—Printers

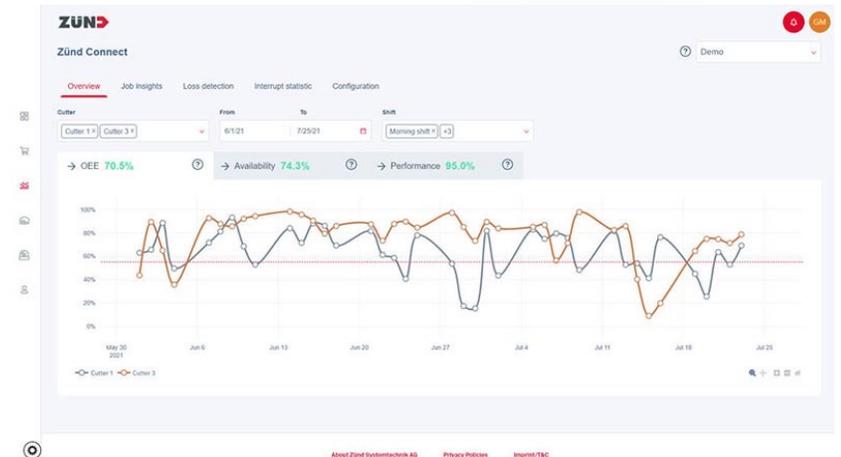
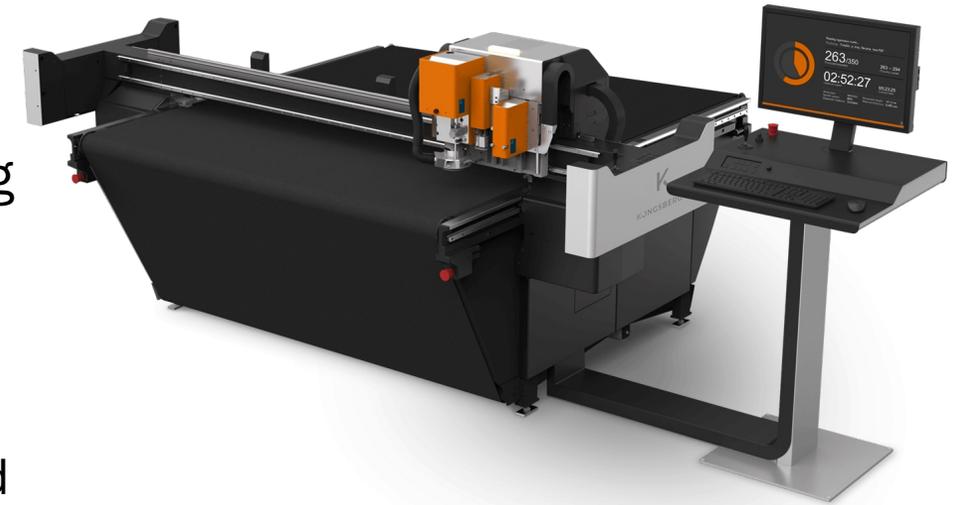
- **swissQprint Flatbed Generation 4**
  - Improved printhead to improve quality of the Impala and Nyala models
  - Entry-level Oryx model nearly 40% faster than its predecessor
- **Vanguard Digital Printing Systems**
  - Acquired by Durst in October 2020
  - Launched next-generation UV flatbed printers at ISA Sign Expo this month
    - 4 x 6-ft. VR6D-HS LED flatbed
      - Prints CMYK on materials up to 4-in. thick.
    - 2.5m CMYK+W VKH900-HS hybrid



# New Products—Finishing

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- **Kongsberg C20**
  - Smallest (1.6m x 1.4m) high-speed production cutting table on the market
  - Last year, Kongsberg acquired MultiCam, Inc.
- **Zünd Connect**
  - Software solution that compiles production data from Zünd cutting systems
    - Offers KPIs—cutter capacity, availability, and overall equipment effectiveness
    - Identify areas in the digital cutting workflow with the potential for optimization



# New Products—Software

- **EFI Fiery Prep-It** true-shape nesting and cut-preparation software
  - Connects to any DFE
  - Includes full integration with EFI Fiery proServer and Fiery XF DFEs
  - Can reduce nesting time by up to 90% over manual nesting
- **Onyx Graphics**
  - Next major ONYX software release
    - New drag-and-drop user experience and easy-to-use tools for everyday automation
    - Will be available for all ONYX's solutions, including ONYX Thrive and ONYX RIP products
    - Builds on ONYX 21.1 that introduced Swatch Books 2.0 and PDF tile maps
  - New annual prepaid option for ONYX Go Subscription RIP software
    - No-contract monthly subscription, Onyx offers one-, three-, and five-year prepaid options available through Authorized ONYX Resellers.
- **SAi FlexiDESIGN** now available to Mac users

# New Products—Consumables

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- **Avery Dennison Dusted Crystal**
  - Decorative, frosted, architectural window film
  - Available in matte and luster finish
  - Offers privacy while providing a translucent light effect for interior environments
- **Drytac Polar Choice White monomeric PVC films** now available globally
  - Originally limited to UK and EU
  - Compatible with latex, UV, and eco-solvent inks
  - Suitable for flat signage and general advertising applications, including windows, POP displays, stickers, and decals



# New Products—Consumables

- **Fisher Textiles** artificial turf
  - Available in three weights and pile heights
  - Applications include event and retail space flooring, backdrop walls, and recreational zones for putting greens, cornhole games, children and pet play areas, and more
- **FloorSignage DriveOn Graphics**
  - Print media designed to be applied to surfaces that support both vehicle and pedestrian traffic
  - Reflective substrate can be applied directly to streets, parking lots, and driveways
  - Supports full-color graphics that can stand up to the rigors of vehicular and pedestrian traffic



# New Products—Consumables

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- **Mactac IMAGin Simply Sustainable**
  - PVC-free polyester (PET) and polypropylene (PP) films
  - Meet current regulatory standards of the U.S. Consumer Product Safety and Improvement Act (CPSIA)
  - Primarily designed for window or glass surfaces
    - Versatile for other applications as well

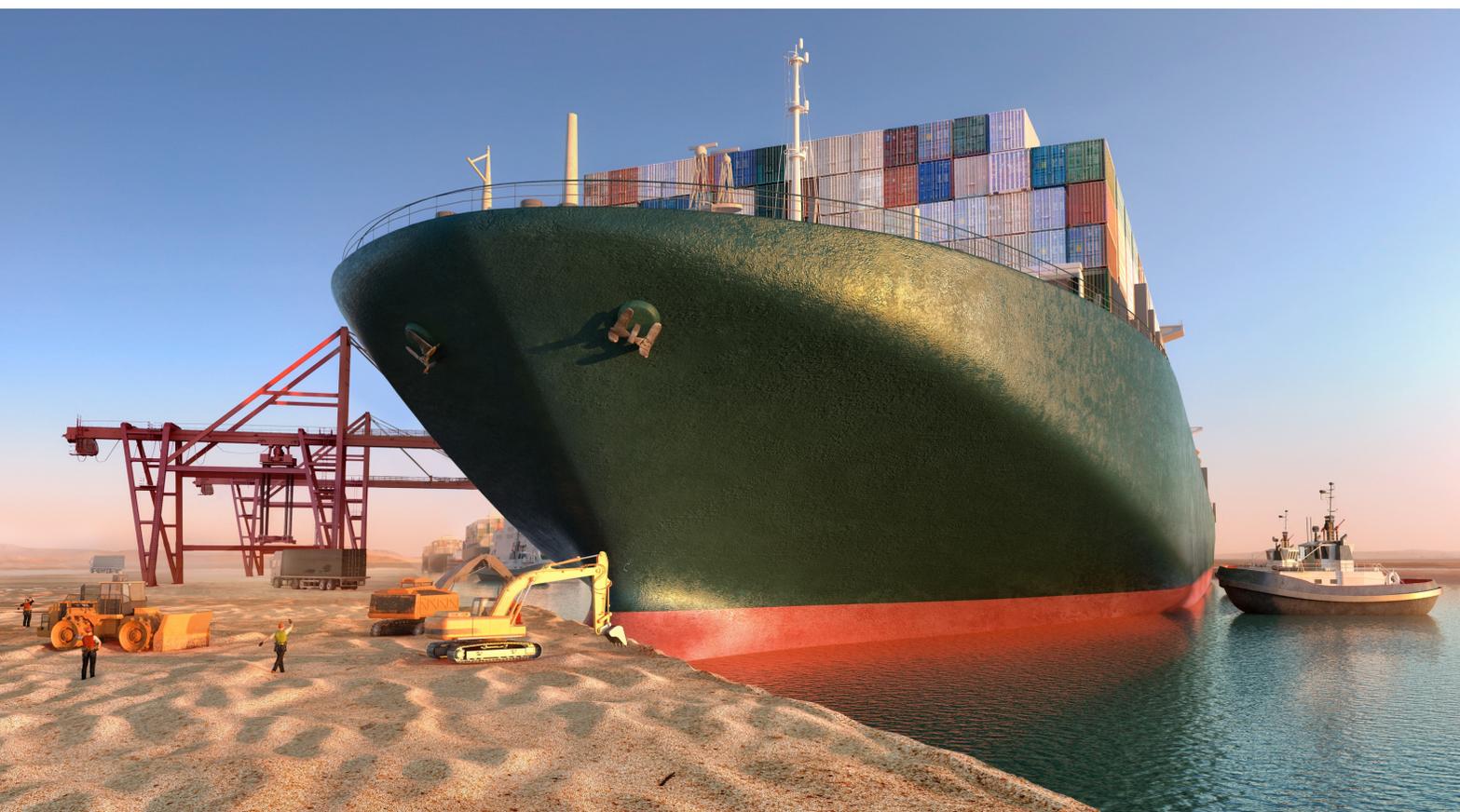


For Print Service Providers, Zünd's state-of-the-art cutting systems can accommodate a complete palette of specialized tooling for processing all commonly used materials, rigid and flexible, in thicknesses up to 2 in. (4 in. with extended beam) and various widths up to a maximum of 10 ft. At any given time, Zünd single or dual-beam cutters can operate three different tools per beam, e.g. cutting, creasing, and perforating; other tool options include high-performance routing systems with automatic tool changers, motor-driven rotary and oscillating tools, laser-cutting for cut & seal fabric applications, and more.



A variety of digital workflow solutions, including Zünd Cut Center along with PrimeCenter and other software modules, ensure simple, efficient operation and reliable, non-stop productivity with maximum material yield and minimal waste. Because of the modularity of Zünd systems and their resulting adaptability and longevity, it is hardly surprising that Zünd is always...**Your first choice in digital cutting.**

**ZÜND**  
swiss cutting systems



# Textiles & Apparel

Accelerating Change



# Textile Trends: Some New, Some Ongoing

- Supply Chain Issues
  - Urgency of pandemic era promises to restructure supply chains has died down as backlogs decline
  - Reshoring occurring but not at scale
  - Sustainability focus flagging. Fossil Fashion: License to Greenwash?
    - Certification schemes abound but accountability often remains elusive
- And yet ...
  - There is some activity ... attempts to bring manufacturing closer to the point of need, developing and using sustainability materials, reducing waste, continued evolution of digital textile printing





# A Focus on Labor

- Lack of skilled labor, especially in sewing, is a significant barrier to reshoring
- Several initiatives helping, but we need more!
  - Fashion Revolution: working to raise awareness of and find solutions for treatment – or mistreatment – of factory workers
  - Detroit-based Industrial Sewing and Innovation Center (ISAIC) trains people on traditional skills as well as skills that are required for advanced competitive manufacturing and includes a full-scale manufacturing facility.
  - BMC.fashion focuses on seam types; typical worker trained to competency on one seam type in one day.
  - Shimmy.io: virtual training for both sewists and sewing machine technicians
- New digital facilities offer better work/life balance, comfortable working conditions



# Responsible Sourcing Network

- Sustainability starts at the beginning
  - Yarns Ethically and Sustainably Sourced: initiative designed to improve sustainability and fair labor practices in cotton fields and yarn factories
  - Attempting to unite brands is pursuing these goals
- Continued development of new, more sustainable fibers
  - Using recycled feedstocks
  - Processing sustainable materials into new forms (9FIBER/hemp)
  - HeiQ AeonIQ: 100% cellulosic filament yarn targeted for full production by 2025
  - Creating stronger, longer lasting and multifunctional yarns (Kyorene)
  - Identifiable yarns for more efficient recycling (TENCEL with REFIBRA)



# Manufacturing On Demand

- BMC.fashion in Phoenix: Designed for fewer physical touches, utilizing robots instead of conveyors
- Raspberry Creek Fabrics: patented process for automating the repeat process to speed production; remote management allowing for scaling
- Catalyst Fabric Solutions: On demand production of home décor and promo items (dye sub) for 2-3 day delivery



# But, But, But ...

- Not all is well on the on-demand front
- New today: VF Corporation is selling its NC on-demand manufacturing facility!
  - The company's tagline is Lifestyles. Not Labels. Ironic.
  - Capacity: 1.3 – 1.6 million linear meters per year
  - 14 fully trained personnel and a connected supply chain for the connected consumer
  - EFI Reggiani COLORS with direct disperse inks; SPG Prints Javelin with reactive inks
  - Brands include Vans, North Face, Timberland, Dickies, Icebreaker, Jansport and more
- Positioned for sale to direct-to-consumer brands that can quickly respond to changing consumer demands in an efficient and sustainable way.
- But why? Will other brands abandon on-demand models? Will they abandon or contract out on demand for their many brands that are positioned as sustainable?

# Robots and Cobots

- Amazon leading the way
- BMC.fashion: Robots visit parts department before delivering components to sewists
- Cobots: Collaborative robots made to work together with people, learn faster than regular robots and are easier to program
- Automation, including robots/cobots, is key to rebuilding the U.S. textiles and apparel manufacturing industry



# Plethora of Printers

- Announced today: Epson Monna Lisa direct-to-fabric printer comes to America
  - Ink options: pigment, reactive, acid or disperse
- Three new printers from EFI Reggiani
  - BLAZE (entry level); HYPER (20 linear meters/min); TERRA Gold (focus on sustainability)
- Ricoh Direct to Film: Enhancement to existing DTG printers, a digital innovation ideal for sportswear, no pretreatment required
- Kornit MAX Poly: DTG for sportswear/teamwear
- Coloreel on demand dyeing of thread gaining steam worldwide, revolutionizing embroidery
- Mimaki/Mutoh: Dye Sub advances



## Making History: Shroud of Turin

- Authentic replicas printed using EFI Reggiani pigment-based digital inks on TERRA Gold digital textile printer
- Only 100 replicas authorized; printed on linen (flax) grown from ancient seed
- 1 GB file size required to maintain finest details
- On display through July 31 at the Museum of the Bible in Washington, D.C.



# Fashion's Move to a Circular Economy

- Fast Fashion (Fossil Fashion) becoming “persona non grata” fast!
- Increase in demand and solutions for upcycling, recycling, rental
  - 7.8 million Poshmark active buyers, up 16% YOY.
  - ThredUP 1.7 million active buyer; projects FY22 revenues of \$300M+
  - DePOP acquired by Etsy in 2021 for \$1.6 billion; 4 million active buyers; 2 million active sellers
  - Rent the Runway, FashionPass, Nuuly, and more
- What's in your closet?



# Q&A

Send us your  
questions!

questions  
are a burden to others  
answers  
a prison for oneself

# Upcoming Webinars

- Technology Outlook Finishes!
  - Thursday, May 15—Finishing w/Trish Witkowski
- Top 100 Small Printers
  - Wednesday, June 22 w/Richard Romano and this year's winner (TBD)

*All times at 1 pm ET*

- For more information and to register visit [whattheythink.com/webinars](http://whattheythink.com/webinars)

# WhatTheyTh!nk

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Thanks for joining us!