



## 2025 Videowalls & Digital Signage Report



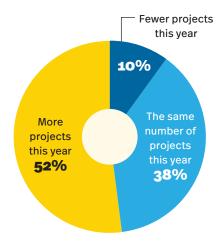
#### 'Signs' of the Times

DVLED powers opportunity in the videowall and digital signage markets, although integrators would be wise to pivot to services, including possibly content, while keeping an eye on tariffs. **By Dan Ferrisi** 

Commercial Integrator's Videowall/Digital Signage Deep Dive is a perennial offering because we recognize that these categories tend to exhibit healthy growth, dynamic applications and robust technological innovation. If you walked the show floor at ISE 2025 earlier this year, you saw the throngs of attendees encircling certain booths, gawking at the massive videowalls on display. It's the same wonderment that inspires folks to pay \$100 or more to watch a Darren Aronofsky film at The Sphere in Las Vegas. Think of it this way: If integrators are, indeed, no longer mere resellers and installers but, rather, storytellers and memory-makers, then it's videowalls and digital signs that are the integrator's canvas.

(Cover) There's every reason to believe that digital signage and videowalls are set to shake up the advertising world, with companies using them as canvases to connect with customers and highlight their products. This Videowall/Digital Signage Deep Dive report will examine this solution area's relative market strength versus others, while also considering how integrators can widen their aperture and embrace a services-driven approach. Plus, we'll evaluate the pluses and minuses of different

#### **Expected videowall/digital signage integration project number trend?**



Our CI focus group offered a relatively bullish forecast, with more than half saying they expect to deliver more videowall and/or digital signage projects in 2025 as compared to 2024.

display technologies for videowall and digital signage installations, respectively.

To inform our analysis, we've gathered a group of seasoned experts in large-format displays: Chad Jasinski, owner, Rogue Installations; Bryan Meszaros, CEO and founder, OpenEye Global; Dalton Parker, director of sales and marketing, TVS Pro; Mike Sullivan-Trainor, senior industry analyst, AVIXA; and Charlie Yerkes, design consultant, CTI.

#### **A Growing Market?**

Diving into exclusive AVIXA market research, Sullivan-Trainor paints a nuanced but generally optimistic picture of digital signage's growth prospects. He points to new capabilities coming online and an expanding universe of use cases, as well as

### Christie: Award-Winning LED Videowall Solutions

The Christie lineup of LED tiles provides unmatched choice and versatility when it comes to specifying highperformance videowalls for digital signage applications, corporate lobbies, meeting rooms, and retail spaces. Christie Core Series III LED videowalls deliver the performance and reliability you expect with even better value, including lower power consumption. With a lightweight design, the Core Series III is easier to handle and install with our ADA-compliant direct-mount system. Our award-winning MicroTiles LED is a premium option that offers limitless design freedom — create your videowall in virtually any shape and size with our proprietary Quickmount system. Our newest 0.75mm and 1.00mm models offer superior visual performance, making them ideal for up-close and highly detailed viewing environments.

#### **The LED Advantage**

Let's examine a few advantages of LED videowalls and why they could be a great choice for your next installation:

**Ambient light:** It's not just their high brightness but their high contrast ratios that make LED videowalls well-suited for ambient light. LED videowalls deliver outstanding perceived levels of black that result in a high-contrast image, even in elevated levels of indoor ambient light.

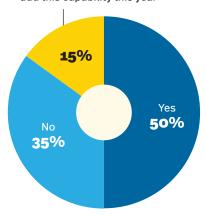
**Longer life:** LED videowalls can operate for up to 100,000 hours before they reach half-brightness, which is when they're typically replaced.

**Seamless image:** Tiles in an LED display wall are designed to touch each other without increasing the distance between the pixels from one tile to the next.

To design your next videowall project, visit *ChristieDigital.com*.

## Firm offers managed services to support videowall/digital signage deployments?

Not currently, but we plan to add this capability this year



A bare majority in our CI focus group said that they offer managed services, such as 24/7 remote monitoring and remote content management, as part of their videowall and digital signage deployments.

favorable pricing due to lower technology component costs, and says the solution area would seem poised for record growth. However, Sullivan-Trainor notes that buyer and supplier economic challenges, learning curves and industry adaptations strongly influence the pace of adoption.

"That pace was reflected in AVIXA's 2024 Industry Outlook and Trends Analysis (IOTA) five-year forecast, which reported an expansive digital signage market, already at \$41.4 billion worldwide," Sullivan-Trainor explains. "However, the pace of growth slowed from 6% in 2023 to 5.1% in 2024 due to a combination of macroeconomic and industry-specific factors." Notably, though, the market is expected to resume

## Autora DSM: Digital Signage Content Management

Autora DSM is your smart and simple solution for managing digital signage content across all your screens, making it easier than ever to keep your displays fresh and engaging.

- » Audience Engagement
- » Operational Efficiency
- » Customer Loyalty
- » Revenue Growth
- » Brand Awareness

#### **The Power of Autora DSM**

Autora DSM is your intelligent solution for effortlessly managing digital signage content across a diverse range of screens. Our cost-effective, user-friendly platform offers seamless plug-and-play functionality, perfectly suited for both indoor and outdoor signage requirements. Effective content control is pivotal in digital signage, making the choice of the right Digital Signage Management (DSM) platform paramount.

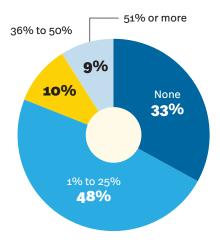
Autora DSM streamlines the entire process of content creation, organization, scheduling, and updates. Created by users for users (with some very smart programmers), Autora DSM is a world-class platform that provides you with the tools to accomplish everything on your agenda. From inception to playback on media players, Autora DSM simplifies content organization and customization through a unified platform.

### **Exceptional Digital Signage Content Management System**

Whether you are new to digital signage or a seasoned pro, Autora DSM delivers exceptional service you can rely on. We are dedicated to your success, enabling you to focus on business growth and superior customer service. Join forces with us and embrace the confidence that comes from our unwavering commitment to elevating your brand.

Learn more at **AutoraDSM.com**.

## Percentage of digital signage projects involving content creation/content management?



Although a plurality of CI focus group participants indicated that at least some of their projects involve content creation or content management, a third of members said they are not involved in this at all.

a higher pace of growth this year (6.8%), swelling to \$44.2 billion as technology evolves and use cases expand.

According to Yerkes, advertising use cases may lie at the center of that growth. "Digital signage is set to shake up the advertising world in the next five years," he declares. "Companies are using it more and more to connect with customers and highlight their products, and it's working out great for them. While interactive displays and AR might make things even better, digital signage is still the top choice."

Yerkes emphasizes that digital signage is capable of quickly grabbing attention, an

## Absen: Sustainability Meets Performance: The Rise of Eco-Friendly LED Displays

As sustainability becomes a priority in commercial AV, LED manufacturers are developing energy-efficient solutions that balance high performance with environmental responsibility. One key advancement is low-power consumption technology, reducing operational costs while maintaining brightness and clarity.

Many next-generation direct-view LED (DVLED) solutions now incorporate RoHS-compliant materials, eliminating hazardous substances like lead and mercury. Additionally, advances in heat dissipation reduce the need for excessive cooling, cutting energy use in temperature-sensitive environments such as control rooms and corporate spaces.

Another sustainability factor is product lifespan. High-quality LED displays are designed for long-term use, often exceeding 100,000 hours of operation, minimizing e-waste by reducing frequent replacements. Some manufacturers also offer recyclable components, further supporting green initiatives.

For integrators and end-users, certifications such as Energy Star or LEED compliance are increasingly influencing purchasing decisions. Understanding these factors not only helps businesses reduce their carbon footprint but also aligns projects with government or corporate sustainability mandates.

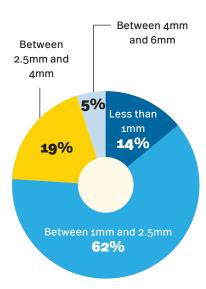
By integrating eco-conscious LED technology, the pro AV industry can contribute to a more sustainable future while delivering high-impact visual experiences.

Absen is committed to sustainability, offering energyefficient LED solutions that don't compromise performance. Learn more about how our technology supports your green initiatives.

USAbsen.com

indispensable benefit in a society whose media saturation naturally shortens attention spans. Parker runs with that point, saying, "As a consumer, we have become so desensitized by content that is displayed everywhere [that] we crave differentiation. When we discover it, we are drawn to it, we want to experience it [and] we want to be a part of it." He believes that finding innovative ways to make the viewer, in fact, part of the content can be a goldmine for integrators and their clients. "Having a solution that can determine your age, gender, ethnicity or what city, state [or] country you're in, and generating content that tailors to that demographic or geographic region, will have a much higher success rate because the

#### Most requested pixel pitch for DVLED videowalls?



Our focus group of CI readers indicated that the sweet spot for DVLED deployments today is 1mm to 2.5mm pixel pitch, blending pixel density with relative affordability.

## Datapath: Get the Best from High Video Volume Management

In multi-source applications, volumes of video data is ever increasing — both in terms of sources and resolution — meaning that technology has to be effective in handling these ever-increasing data packets.

The strain these volumes can put on bandwidth use, latency and content sharing capabilities can be considerable if technology is not utilized correctly. Whether it is being used at a university campus, a large sportsbook or mission-critical control room, content is now expected to be generated and viewed in full-fidelity 4K, and correct solutions are essential when planning these environments.

Multi-award-winning manufacturer Datapath has over 40 years of experience and expertise in managing and controlling video data, and, with a comprehensive suite of software and hardware solutions, they now boast a portfolio capable of meeting the needs of any video management project, regardless of scale.

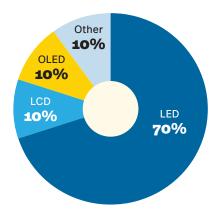
From controlling multiple video content on sports bars' displays to driving control room videowalls in large, busy government buildings, there are not many, if any, markets where Datapath is not utilized.

They know very well from decades of experience that video technology does not stand still. And, with its large R&D team, the company is constantly improving and developing technology to meet the requirements of its customers.

Its Aetria solution, for example, is now available in its 11th version, with functionalities and capabilities added at every development stage. In coming weeks, we speak to highly experienced product manager Matthew Tibbitt to discover what benefits the latest Datapath developments bring to end users, IT managers and system integrators alike. Watch this space!

Datapath.co.uk

#### Display technology most frequently used when integrating videowalls?



For our CI focus group participants, there's no contest: They said that DVLED is the predominant technology they utilize when integrating largeformat videowalls.

solution provides a unique experience in the moment," Parker adds.

Meszaros joins the chorus saying that digital signage is poised to outperform, and he points to three indicators he has his eye on: 1) more digital signage suppliers attending trade shows, 2) integrators taking an increased interest in digital signage services and 3) more design agencies seeking to integrate digital signage into the environments they curate. "I see more environments that are turning toward it — more saturation of digital — especially in the U.S.," Meszaros describes.

#### **Pivoting to Services**

Although Jasinski concurs with his colleagues about videowalls and digital signage growing, he paints the opportunity

#### Peerless-AV: Durable, High-Quality Mounting is Critical

When it comes to DVLED videowalls, it's essential to address one of the most critical, yet often overlooked, elements: the mounting system. While the advanced technology behind DVLED screens offers exceptional resolution, brightness and viewing angles, the true potential of these systems can only be realized when they are securely and precisely installed.

A durable, high-quality mounting system is a critical piece of the installation that ensures the longevity, safety and optimal performance of the videowall. A proper mounting solution must provide precise alignment, even weight distribution and easy access for ongoing maintenance and adjustments. Without a reliable mounting system, the structural integrity of the delicate displays could be compromised over time, leading to misalignment and potentially serious damage.

One reason why DVLED videowalls are loved across various industries is the ability to achieve more complex configurations while maintaining a seamless visual experience. More complex configurations require a mounting system that can be easily adjusted and scaled. As installation spaces evolve, businesses may need to resize or reconfigure their displays, which requires flexibility in the mounting infrastructure. A solid, well-engineered mounting system enables adaptability while ensuring the videowall remains perfectly aligned and functioning at an optimal level.

When you invest in a cutting-edge DVLED videowall, it is crucial to consider and prioritize the mounting systems that will support it. With the perfect mounting system, businesses can maximize the impact of these dynamic, eye-catching displays, while also ensuring safety and security to make their installation last.

Peerless-AV.com

in slightly narrower terms. "I think it's going to be way stronger than conventional AV because of the RMR attached to it," he states. "The entry point is, 'I'm going to sell you the hardware.' But the long-term stretch is, 'I have you on the subscriptions for all these things.' I want to manage that." Speaking with equal parts candor and clarity, Jasinski implores his integrator colleagues to "...be the guy who's in there building the rack, doing everything and locking up every black box with a subscription."

AVIXA's industry-specific data backs up that vision. Sullivan-Trainor, citing IOTA research, says, "Managed services for digital signage is a growing opportunity, driving \$1 billion of revenue in 2024, with a 13% CAGR through 2029." He continues, "Digital signage is the second-highest revenue taker for pro AV managed services and maintenance, as the industry moves closer to platform-based implementations."

The opportunity to lock in recurring revenue is unambiguous, but digital signage services also simply serve to tighten integrator-client bonds. "Clients expect high uptime, proactive maintenance and remote troubleshooting capabilities," Parker explains. "By providing a comprehensive solution that includes both hardware and ongoing services, integrators can position themselves as indispensable partners, reducing competitive threats." Meszaros amplifies the point, saying that managed services, especially those related

#### SNA Displays: LED Kiosks – A Superior Solution

It's no secret LED display technology has long been favored over LCDs for many video signage applications, especially in areas with high ambient light. Increasingly, it's a preferred alternative for wayfinding and kiosks, too. We've noticed a dramatic increase in interest for outdoor LED kiosks, and superior brightness is only part of the reason. Other benefits make LED the ideal solution for close-proximity messaging in high-traffic environments.

**Image Quality:** DVLED has drastically improved in recent years, such that the pixel density of LED screens rivals LCDs; crystal-clear imagery with up-close viewing is easily attainable. This allows for the use of fine text and symbols in addition to dynamic video, a critical need for wayfinding and directory-assistance kiosks.

**Size:** While LED is versatile enough to retrofit standard-sized LCD applications, it's definitely a superior solution when size matters. SNA Displays recently installed oversized kiosks outside Amalie Arena, home of the Tampa Bay Lighting, as well as Boeing Center at Tech Port, a live entertainment venue in San Antonio. Both are hot and high-sunlight environments that require high brightness and ruggedness, and both are high-traffic pedestrian areas that called for big, wow-factor designs.

**Weatherproofing:** A major challenge with permanent outdoor kiosks is weatherproofing. Minor cracking or warping of an enclosure's seal presents a major risk to LCD applications. LED displays offer much greater protection of system electronics. For example, we retrofitted old LCD kiosks with new LED at the entrance of Kennedy Space Center Visitor Complex in Cape Canaveral. Not only do the new LED kiosks provide a brighter, clearer message center, they're reliable enough to withstand hurricanes.

**Lifetime:** LED tech far outlives that of LCD. While startup costs of LCDs are lower, the lifetime of an LED display system can span several LCD investments, particularly ones exposed to the elements like with outdoor kiosks.

SNAdisplays.com

to analytics and ROI, offer integrators an opportunity to function as an extension of the client's marketing and IT teams. "We are helping them continue to support this initiative that they have invested in," he describes. "We are there to help their marketing team take best advantage of this, so it shows the performance...shows the return on what their expectations are."

Yerkes agrees but focuses his analysis on continuous operation. That's especially crucial because downtime often leads to missed opportunities and lost revenue.

Thus, he underlines that monitoring should be 24/7 to ensure quick problem resolution—ideally, before the client knows an issue arose. "And proactive maintenance, such as regular hardware checks, extends equipment lifespan and prevents breakdowns," he adds. This highlights that integrators' role with digital signage systems should be continuous—not only when faults occur.

#### **Considering Content**

Remote monitoring, firmware/software updates, analytics and maintenance are one thing, but what about content? Should integrators dive headlong into creating content for their clients' videowall and digital signage deployments? Meszaros, whose OpenEye Global experience design agency knows this world well, makes a compelling case on the "pro" side. "Don't underestimate the opportunity to present creative solutions to your client," he urges. "Because there's a revenue stream to be had, and it's a

### BrightSign: XC5 Delivers the Future of Visual Excellence

Versatile and scalable, BrightSign XC5 is the ideal solution for video walls and high-end digital signage deployments across industries such as retail, hospitality, education, and corporate settings. It is the ultimate PC alternative, transforming DVLEDs, video walls, and immersive content into captivating experiences. The XC5 digital media player boasts breathtaking 8K video, high-speed 3D motion graphics, and multiple HDMI outputs, all with enhanced security measures for stable and secure performance in both public and commercial environments.

Businesses benefit from simplified video walls and multi-screen deployments with single-player content distribution, delivering scalable growth without the need for hardware upgrades. It gives you and your customers control over content, enabling the delivery of a unified message across several displays. The XC5 allows for easy integration into existing networks and third-party devices, so businesses can meet customers where they are by making video walls interactive and immersive. The opportunities to engage audiences are endless.

As part of the BrightSign platform, the XC5 also comes equipped with intuitive content management tools for easy remote management and monitoring of digital signage networks. It integrates with hundreds of global CMS solutions. All with BrightSignOS, BrightSign's renowned operating system purpose built for digital signage, so businesses can seamlessly connect to cloud services and partner solutions. Discover more about the most advanced, capable, and trusted digital media players and operating system at *BrightSign.biz/brightsign-players/series-5/xc5/*.

revenue stream that, if presented properly, will surpass the amount of money the client spends with you on that initial development or deployment of a solution."

Meszaros points to a slew of vertical markets — from corporate to retail, and from transportation to casinos — to illustrate the breadth of opportunity for content-savvy integrators. "You just constantly need a lot of creative to stay engaged with the audience who's interacting with the screens," he states. But Meszaros hastens to add that not all content has to be dazzlingly artistic, as if Moment Factory created it. "Not every piece of content has to be award winning," he stresses. "It has to be functional; it has to serve a purpose; and it has to show that there's value in the reason why that screen is in that place."

Jasinski recognizes that not every integrator has or wishes to cultivate a core competency in creating content for largeformat displays — whether it's dazzling immersion or informational messaging. However, that choice doesn't let those integrators off the hook altogether. "You need to at least have a partner in that world," he argues, attesting that his integration firm, Rogue Installations, allies with specialists in content management and content delivery. "If you can't figure out the content delivery side yet, partner with somebody who knows it well enough," Jasinski advises. "They can even white label something for you."

## Sharp FE Series 3 Direct-View LEDs: Efficiency Meets Impactful Imaging

Sharp's FE Series 3 of direct-view LEDs enhances the performance of digital displays by offering improved power efficiency through advanced LED diodes. This innovation reduces overall energy consumption, resulting in a lower total cost of ownership over the lifespan of the display. At the same time, the FE Series 3 maintains the high-quality, impactful imaging that Sharp and NEC DVLED products are known for.

With reduced power consumption comes another key benefit: less heat generation. This not only improves the display's operational efficiency but also contributes to lower HVAC costs, making it a more sustainable solution for long-term use.

The FE Series 3 is designed to be easily integrated into existing installations. It is built on the same chassis as its predecessor and uses the same installation methods and frame, making upgrades seamless and straightforward.

Whether for signage, conference rooms, or auditoriums, the full line of Sharp and NEC direct-view LEDs offers a modular display solution that delivers high contrast and attention-grabbing visuals. With these upgrades, the FE Series 3 is ideal for a range of environments where impactful imagery and efficiency are key.

Learn more about the FE Series 3 here: SharpNECdisplays.us/products/displays/led-fe019i3



Creative use of multiple displays can reinforce and elevate an organization's branding, adding luster and dazzle. Yaamava' Resort & Casino offers a perfect example of this, with coupled displays yielding eye-catching results.

One reason content is so important is that even the highest-end DVLED videowall or signage display yields no value in the absence of strategic, engaging creative. As Parker bluntly puts it, "Technology without strategy is just an expensive decoration." Continuing, he says, "Offering content creation, scheduling and management as part of a comprehensive solution provides a key differentiator that many integrators do not offer." This invites a straightforward question for you, the integrators reading this report: Is your firm positioned to develop and execute a well-planned content strategy for your clients?

If the answer is no — and you don't have a go-to partner, either — think about how you're going to compete in verticals like retail, in which creative content is crucial to driving sales. Yerkes, after all, points out that his firm, CTI, which was our *Commercial Integrator* 2024 Integrator of the Year, is leaning into turnkey options for clients. "By offering comprehensive videowall solutions that encompass content services, we position ourselves as the best partner for clients," he declares.

#### Videowalls: Which Technology Rules Them All?

When we ask our experts to assess display technologies and their relative market share for videowall applications specifically, everyone unsurprisingly highlights not only DVLED's aggressive growth trajectory but also its enviable performance. Sullivan-Trainor

notes that LED technology is more energy-efficient than LCD and can produce very high resolutions at regular HD or higher. As regards cost, he says, "LCD videowalls will be increasingly replaced by LED videowalls in the fine-pixel-pitch product category due to the decreasing price difference between these two technologies." Sullivan-Trainor adds that the LED cell unit business model is expected to lower prices further.

Arguably, no market illustrates DVLED's emerging market dominance better than corporate and enterprise. "It seems like the DVLED wall has become the new 'flex' in the conference room," Jasinski opines. "Where it used to be a \$500,000 solid oak table, it's now a 163-inch fine-pitch DVLED videowall at the end of the table." Sullivan-Trainor agrees, saying, "Conferencing and collaboration continue to move away from video projection and toward LED displays and videowalls due to their superior brightness and versatility in various lighting conditions."

Echoing everything stated so far, Parker declares that DVLED's takeover of the videowall market is due to its "...seamless scalability, remarkable lifespan and not being subject to environmental restrictions, such as ambient light conditions, glare/reflection or limited viewing angles." And Yerkes joins the chorus, saying, "If you're looking to light up a big, bright area, LED is your go-to because it's tough and super bright." He adds, "Right now, the big trends are all about higher resolution, energy efficiency and fresh [visual] designs."

Yerkes identifies tiled LCD solutions as a budget-friendly option with high resolution but adds that "...those bezels can sometimes mess with the visuals." That limitation notwithstanding, tiled LCD will retain a place in the videowall market, Parker says, because the technology can offer standard video resolutions for lower- cost applications. Meszaros expands on this, saying that themed- entertainment and museum environments frequently look for low-cost, inexpensive solutions — even when DVLED would be the relevant technology, on the merits, for the application. "Progressing forward," he says, "we've been trying to get clients to really gravitate more toward DVLED."

#### Digital Signage: A Different Calculation?

Videowalls are, of course, large-format installations whose dimensions are measured in tens or hundreds of feet; by contrast, digital signage can be, in some cases, much smaller format. As examples, consider informational signage in a house of worship or digital menu boards at a QSR. Curious about that distinction, *Cl* inquires with our experts about which display technologies are strongest across the digital signage sector.



Even as DVLED continues to aggressively gain market share in the videowall market, tiled LCD is going no place, providing impressive images while also offering budget-conscious pricing.

LED shows growth here, as well, with Sullivan-Trainor citing AVIXA forecasts indicating that LED displays will increase from 13% share of the digital signage solution market in 2024 to 16% in 2029. He attributes the share increase to superior brightness and versatility. Meanwhile, he articulates a bear case as regards projection, saying, "Video projection technologies are facing a continuous decline, highlighting a shift from projection technology toward DVLED and flatpanel displays within the digital signage solution [area]."

Jasinski says that menu board applications are still heavily weighted toward LCD due to their quick-swap flexibility, facilitating quick and affordable deployments. He adds that, although OLED is not a major player right now, it boasts considerable potential. "I see it growing more in that corporate lobby space," Jasinski predicts, "especially the curvable OLEDs and art installations and more dynamic things." Yerkes likewise touts OLEDs' capacity to "...give you amazing color accuracy and contrast, perfect for high-end stuff." However, he notes, they can be expensive and won't last as long in bright areas. QLEDs,

meanwhile, boost color and brightness, Yerkes says, "...making them a hit for places that need to be extra bright." In sum, if top-notch image quality is your client's principal consideration, then OLED and QLED are excellent choices.

Ultimately, though, most of our experts again return to the virtues of LED not only for videowalls specifically but also for digital signage broadly. "LED is the way to go," Meszaros declares. "[In] functionality and design, it's clean and easy to implement. There's a wide array of solutions, and providers out there that can really provide limitless opportunities."

Parker, a leadership team member with Utah-based integration specialist TVS Pro, stands relatively alone among our experts in highlighting multi-projection blending for custom and immersive digital signage applications. These solutions, he says, "...provide seamless, scalable canvases for dynamic content." Moreover, according to Parker, "The only notable limitation of projection is its dependence on controlled ambient lighting conditions."

#### **Does Resolution Really Matter?**

In light of our experts' shared view that DVLED is on track for aggressive growth in market share, CI inquires about the practicality of, need for and real-world prevalence of ultra-tight DVLED pixel pitches. How much of this, CI asks, is eye candy at trade shows and how much is actually installed "out in the wild?"

According to Jasinski, sub-1mm pixel pitches are still pretty rare in the field. "We're seeing less of the 2.5mm and more of the 1.5mm and 1.2mm as pricing comes down and people want to get high resolutions," he explains. "The sub-1mm stuff is really reserved for production." Other use cases for ultra-tight, sub-1mm DVLED might include education applications requiring hundreds of people to be seen onscreen simultaneously or corporate lobby applications featuring dazzling digital artwork. Outside of boutique applications like those, however, the tightest pixel pitches are still often cost prohibitive. As Jasinski puts it, "Most companies are saying the juice isn't worth the squeeze on this yet."

Meszaros says it's commonplace for OpenEye Global to encounter challenges getting clients to invest in pixel pitches below 2mm. "Sub-1mm is a dream," he declares. "Sub-2mm, I think, is kind of a reality." Meszaros underpins this reasoning by explaining that, as pixel pitches get tighter, some clients struggle to truly understand what they're gaining in quality for the premium price. "It's easier to have the conversation about going from 3mm down into the 2mm [range] than it is to get them to commit to something

below that," he attests. Plus, if integrators do spec in ultra-tight pixel pitches, it creates the imperative to display content that makes use of all those pixels. That, however, often introduces unbudgeted cost on the creative side.

Yerkes articulates more of a bull case for ultra-tight pixel pitches, particularly for spaces like control rooms, boardrooms and high-end retail. "It's all about creating immersive experiences that grab attention," he enthuses. Nevertheless, even as Yerkes affirms that the market for sub-1mm DVLED is growing, he concedes that it's still a bit niche. "These are mainly used in luxury retail, broadcast studios and high-profile corporate spots where people are up close and personal with the display," he remarks. But as costs come down and technology continues to advance, Yerkes expects more widespread, more numerous deployments.

Meanwhile, Parker seeks to center the discussion on experience. "When considering pixel pitch and resolution for DVLED videowalls, it is essential to shift the conversation from technical specifications to client expectations," he states. After all, most clients aren't AV professionals. That means it's incumbent upon integrators to first define key factors (e.g., display size, viewing distance, content strategy, source quality) before delving into technical details. "Ultimately," Parker says, "clients rely on integrators to present options that align with their vision while maintaining feasibility." For TVS Pro and its clients, this usually means pixel pitches in the 1.2mm to 2.5mm range.

#### **Economic Backdrop and Endemic Industry Factors**

CI explores not only the technical factors that shape the solution areas we cover but also the economic and market conditions that influence client investment. Accordingly, we give each interviewee a chance to reflect on factors fueling and perhaps inhibiting videowall and digital signage growth.

Sullivan-Trainor lays out an equivocal picture of market conditions over the last 12 months, saying, "Direct-view LED and LCD videowalls continue to replace projectors. But LCDs themselves were hit by a significant price reduction due to increased competition and slower demand. Growth in LEDs was not enough to offset the revenue challenges." He notes that a price rebound is expected this year as manufacturers cut back on production volume.

Meanwhile, the downside of digital signage's spread across diverse industry use cases, Sullivan-Trainor says, is that the solution's adoption is also governed by the fortunes of each industry and, in aggregate, aligns well with macroeconomic trends. "When the

economy is booming, so are most industries and pro AV solutions like digital signage along with them," he explains. "When economic slowdowns occur, the solutions take a hit, as well." That means, as we look to the months ahead, it might be wise to brace for political and economic headwinds. These include a trade war triggered by tariffs and continued price volatility.

A number of our experts mention tariffs, pointing to them as a source of considerable uncertainty — and not just in equity markets. Jasinski says the scary thing about tariffs is if you've quoted on a job but now have to return to the customer and break the news that things are actually going to cost 15% more (as distributors and suppliers pass along tariff-related costs they incur). Meszaros senses the anxiety, as well, saying, "There's a little bit of uncertainty in terms of will tariffs have an impact on the cost of product." The potential ripple effect, of course, could extend to project budgets and overall spending. "I think projects might be a little bit smaller than originally anticipated," he adds, "just because of, potentially, hardware costs that are rising."

#### **Staff Shortages and Training**

There's much hand-wringing in the integration industry about not having enough trained, qualified talent. That situation is on our experts' minds as they dive further into factors influencing the future of videowalls and digital signage. "There's a labor crunch slowing down projects and adding to costs," Yerkes acknowledges. However, he adds, "On the bright side, spending on training could boost staff loyalty and skills." Parker agrees, bemoaning the labor shortages that continue to challenge integration firms but arguing that they end up increasing the value that expert service providers bring.

That's an opportunity that Jasinski and his firm, Rogue Installations, aggressively seeks to seize on. "People have not taught their people how to properly install DVLED," he declares, "[even though] it's going to become the norm." He believes it's essential for integrators to begin upskilling their staffers on deploying and maintaining DVLED — and for them to do so now. "There's only so many companies like mine that can go out and knock these things out," Jasinski says. In a moment of genuine candor, he adds, "I even have a hard time keeping guys trained up on new technology. I can't imagine if you're just coming into this cold."

The knowledge gap has inspired Jasinski to toy with the idea of rolling out his own Rogue Installations DVLED certification course. "We'll come out to you, [or] you come out to us, and we'll set you up," he suggests.

#### **Final Thoughts**

Drawing on AVIXA's trove of market research and analyzing prevailing industry trends, Sullivan-Trainor concludes this examination of videowalls and digital signage with a reasoned suggestion: Break away from mass-market, one-size-fits-most approaches to market offering. Instead, he believes, opportunity for outsized growth in videowalls and digital signage lies in tailoring.

"Catering solutions to innovative use cases, adapted to certain industries or regions, will open new pockets of revenue," Sullivan-Trainor states. "The transformation required will encompass a new partnership among industry players, where manufacturers work more closely with integrators and consultants to deliver catered solutions."

Tailoring of this sort aligns nicely, of course, with Parker's emphasis on experience-driven (as opposed to technology-centered) solutions. "Ultimately," he avers, "the success of digital signage and videowall deployments hinges on the user experience." After all, clients aren't looking simply for technology; rather, they're looking for simple, reliable, engaging solutions. "By prioritizing these factors," Parker concludes, "integrators can deliver meaningful, results-driven deployments that maximize long-term value for their clients."

And selling value is, like a man for all seasons, timeless.

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