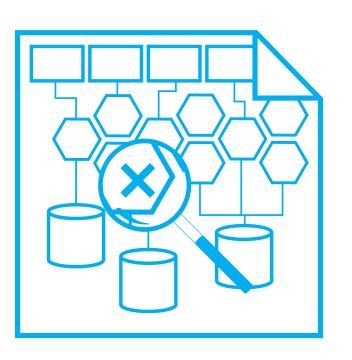
Media Tech Intelligence Briefing: Scarcity & Resilience April 2022



The origin of scarcity

The origin of scarcity was the impact of the pandemic, which drove increasing demand for some resources (components, talent, energy, etc.) while disrupting their supply. This scarcity has been recently exacerbated by the conflict in Ukraine, which has further strained global supply chains and pushed up inflation. This is a risk to all businesses, including media tech suppliers. EVS CEO Serge Van Herck described this well in the company's H2 2021 earnings call, which was held on the same day Russia invaded Ukraine: "In 2021, one of the main risks that we had was linked to the scarcity of electronic components... It has lengthened somewhat our delivery periods for our customers. But all in all, we were able to continue delivering our products. That remains a concern for this fiscal year 2022... Another risk is of course linked to inflation, which, of course, will have an impact on salaries for colleagues wherever they are in the world. But we also see an impact on prices of components... We are not fully clear how that inflation will evolve over the next weeks and months and especially with the facts that we've seen today of Russia invading Ukraine, and that's giving additional unclarity about the future." Resilience is likely to be the major upshot of scarcity for businesses. Resilience entails initiatives aimed at minimizing the impact of scarcity. This Briefing aims to analyze the trends driving scarcity for media and tech businesses, their impact as well as the initiatives that have been taken to minimize their effects.

Forces driving scarcity

The Pandemic

The pandemic has caused an increase in the demand for some resources, while disrupting their supply

The Great Resignation

COVID-19 has led more people to leave their jobs to dedicate more time to leisure or pursue more fulfilling professional paths

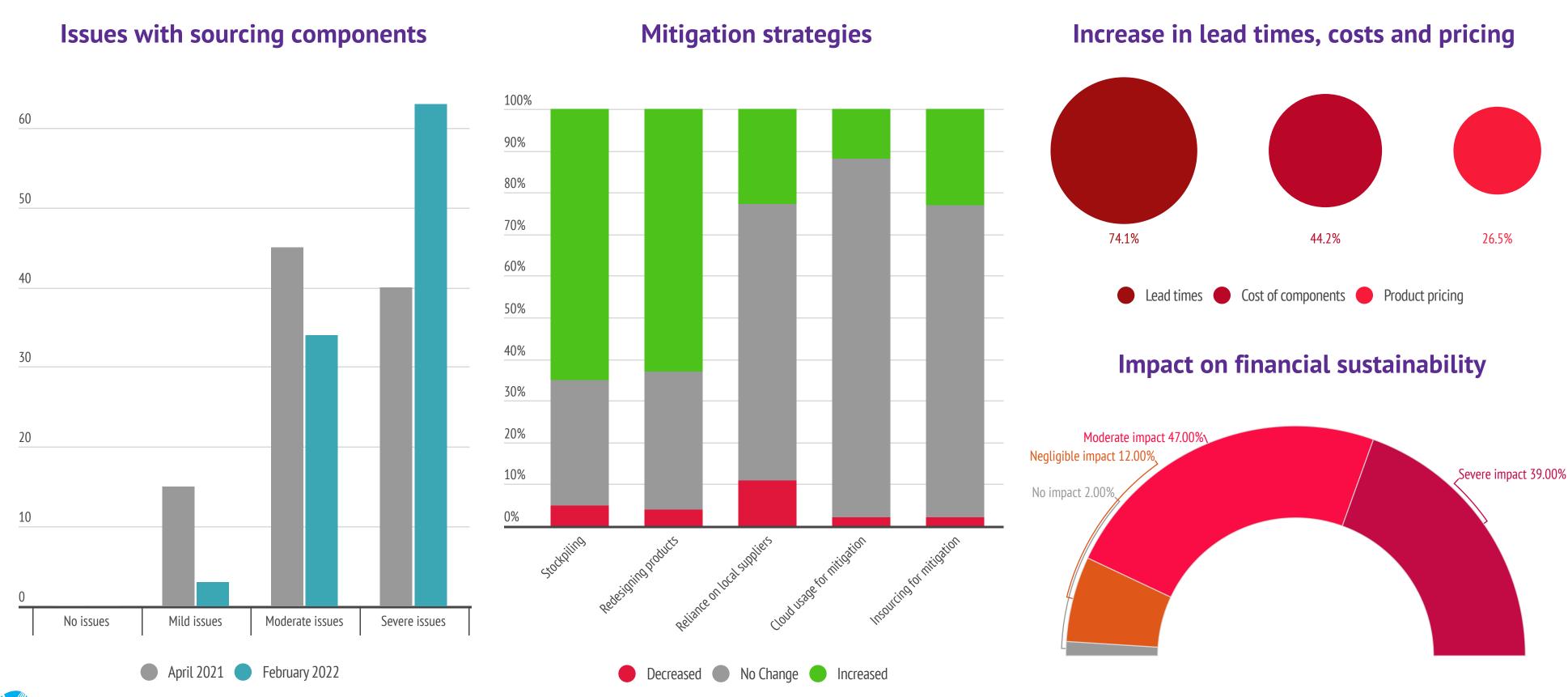
Conflict

The invasion of Ukraine by Russia has exacerbated supply chain disruptions and inflation

The impact of supply chain disruption

IABM reassessed the impact of the shortage of hardware components on the media tech industry in February 2022, reporting that this had worsened. According to the poll, the percentage of media tech businesses saying that they were having moderate or severe issues with sourcing hardware components was 97%, up from 85% in April 2021. Worryingly though, most of that is fully imputable to the percentage of businesses saying that they were having severe issues, which increased from 40% to 63%. In the new iteration, we also measured the impact of this disruption on media tech businesses' lead times, costs, and pricing. On average, lead times in the industry have increased by 74.1%, costs by 44.2%, and pricing by 26.5%; a huge impact highlighting that media tech businesses haven't fully passed on the costs of supply chain disruption on their customers. Most media businesses said that they have relied on stockpiling (65%) or redesigning products (63%) to mitigate supply chain bottlenecks - more on this later. Most worryingly, 86% of media tech businesses we surveyed reported that current supply chain bottlenecks will have a moderate or severe impact on their financial sustainability if they persist for another 12 months. The dashboard on the next slide visualizes these figures. The impact of this disruption, which was measured before Russia's invasion of Ukraine, has likely been exacerbated by the conflict, as mentioned earlier.

The impact of supply chain disruption

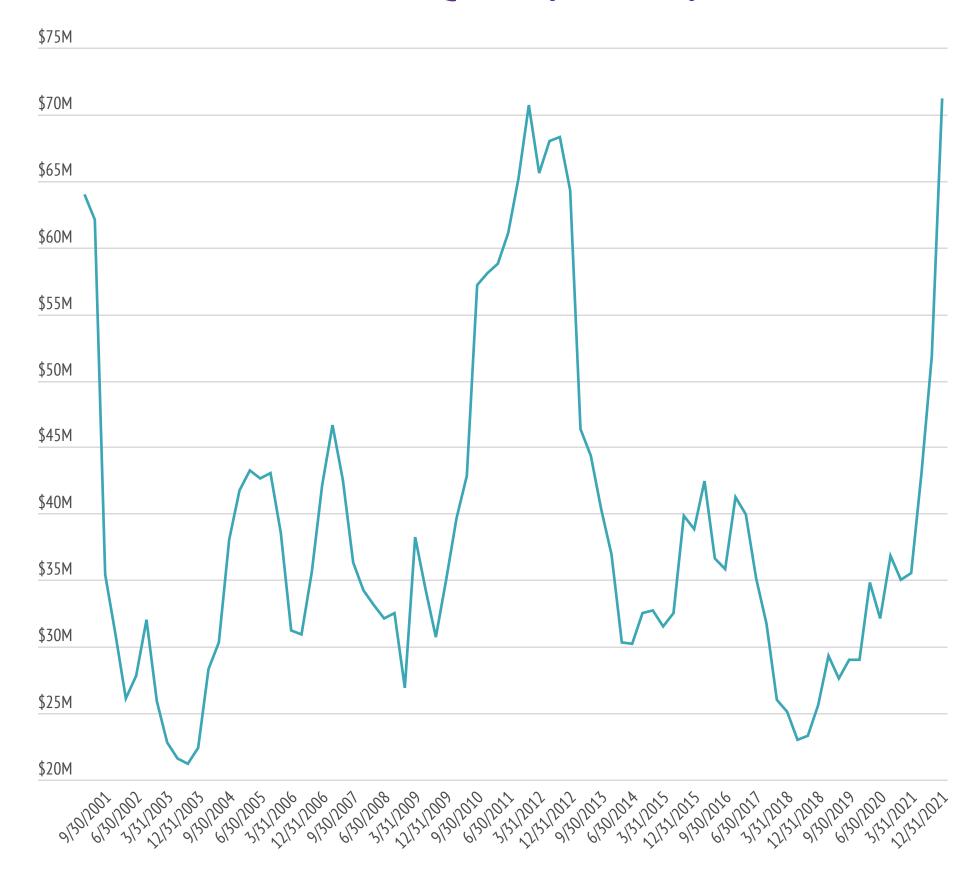


Sources: IABM

The impact of supply chain disruption

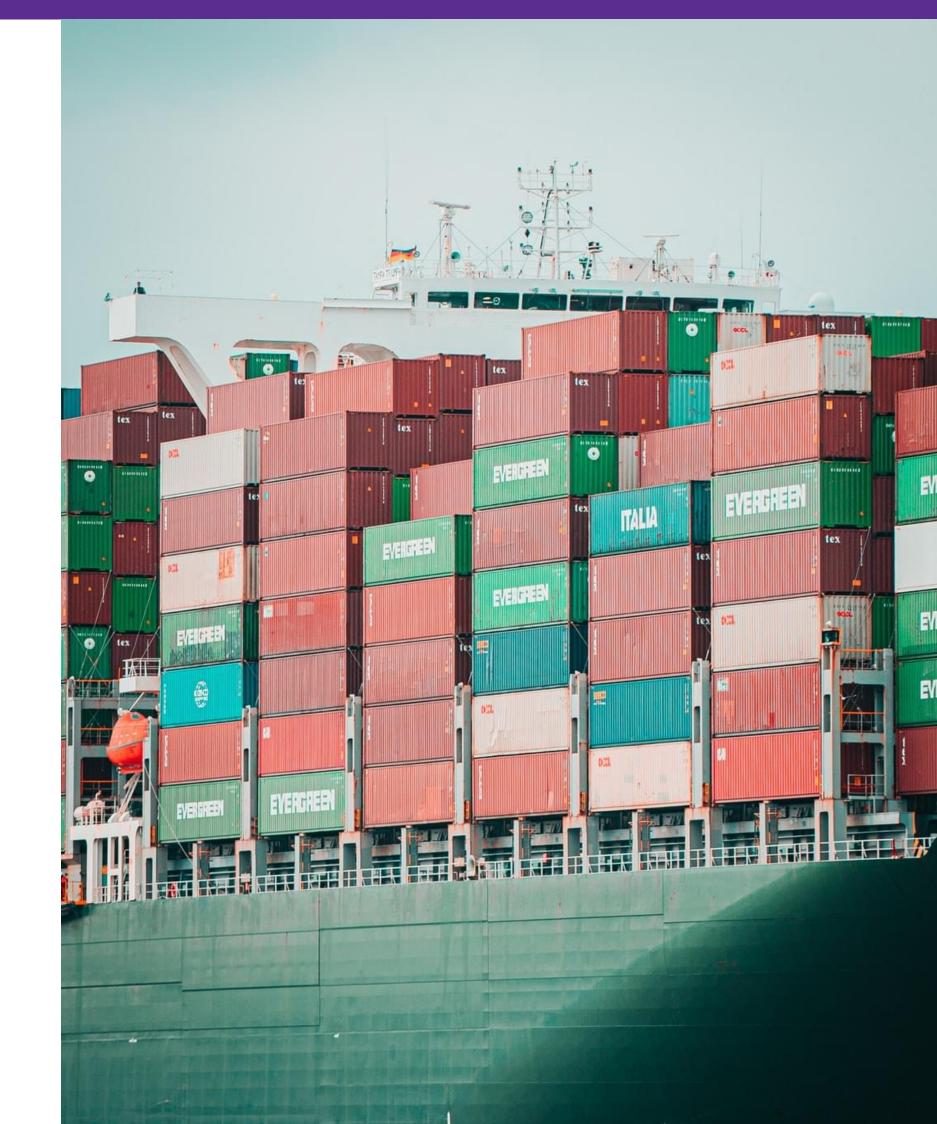
Supply chain disruption has deeply affected media tech businesses. Harmonic posted its Q4 2021 results on 31 January 2022. Harmonic CFO Sanjay Kalra said that: "Extraordinary supply chain costs related to the pandemic continued to depress margins in 2021 relative to the prior year, with a sequential decline primarily reflecting high supply chain costs in Q4." Gross margin in the video segment was down by 3.1% to 58.8%. He also said: "Where possible, we continue to stock up on the inventory at higher-than-normal levels in anticipation of continuing supply chain challenges." Inventory grew to \$71.2m, up by 37% from Q3 2021 – the last time the value of inventory was so high was in 2011, and technology supplies had been hit by a tsunami in Japan.

Harmonic, Quarterly Inventory



The impact of supply chain disruption

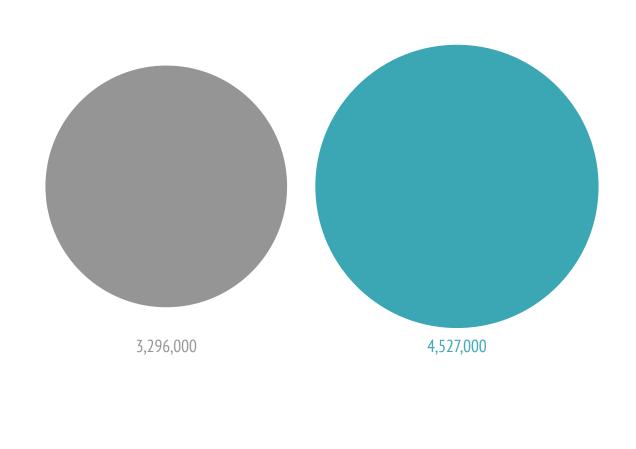
Evertz's CFO Douglas Moore also talked about supply chain constraints during the company's Q2 2022 earnings call in December 2021: "I would say it is exceedingly challenging, so it is getting more difficult as time passes on. Regarding procurement lead times and, in some cases, component costs, we have stockpiled quite a bit. If you look at our inventory, our raw materials are up quite substantially as we mitigate those risks associated with the challenges presented before us." These statements are consistent with a deterioration in supply chain disruption and with stockpiling being one of the primary strategies to mitigate that. Other public media tech businesses such as Atomos and Vitec highilighted issues and mitigation initiatives during their earnings calls.



The impact of the great resignation

The recent phenomenon known as the "great resignation" is leading a significant number of people to quit their jobs in favor of more purposeful work or no work at all. The Reddit "antiwork" forum (r/antiwork) has boomed as millions of Americans left their jobs in 2021 - data from the US Bureau of Labor Statistics suggests that a staggering 4.5m left their jobs in November 2021. This is reducing the supply of labor, driving up costs for employers. While this has been an issue for most industries, including those with a high percentage of low-skilled work, it is safe to argue that its impact has been greater in those sectors such as media tech that rely on high-skilled labor. High-skilled labor is more in-demand as the value of talent and intellectual property increases, particularly if technology moves to software and converges, with convergence making technical skills applicable to different industries. There have been signs of this trend in the media technology industry, as reported below.

Job Quits in the US, Nov. 2020 & 2021



Nov-20 Nov-21

The impact of the great resignation

fuboTV acquired Molotov at the end of 2021. Commenting on the acquisition during the company's Q3 2021 earnings call, CEO David Gandler said: "As it relates to Molotov, I think there are 2 very important reasons why we did this deal. One is, as you know, there's some significant headwinds here in the US with respect to the labor situation. It's very difficult to hire engineers. Molotov has a very, very strong team of 100 plus, which if you think about it, our businesses are very similar in many respects." Gandler said that the other reason motivating the acquisition was international expansion, though he argued that taking over ready-to-use streaming technology talent was a more important driver. fuboTV paid about \$190m for Molotov. Even if 50% of that price was attributable to the talent it acquired through the deal, this would translate into almost \$1m spent per engineer that is almost 10 times more the median compensation of a software engineer in the US according to LinkedIn Salary. That underscores the importance of technology talent in the media technology industry and its scarcity as of late. There are other examples of this, including Aferian, the owner of media tech businesses such as Amino and 24/i, who said in its 2021 annual report in February 2022 that a rise in engineering spending was mainly driven by "an increased workforce and salary inflation, the latter being driven by competitive labor market conditions in which the Group operates."

The impact of conflict

We already mentioned that conflict is likely to have exacerbated supply chain disruptions. We can expand on this by arguing that it might also influence business mitigation strategies. From both a geopolitical and economic perspective, the world is increasingly moving away from the paradigms of globalization seen since the 90s and towards a setting characterized by two spheres of influence reminiscent of Cold War times. This is already driving some companies to rework their supply chains, insourcing production of key raw materials and/or localizing sourcing to minimize risk. Intel, for instance, is creating a new major chip foundry in Ohio, in contrast with the delocalization of chip manufacturing seen in the past - see this IABM Briefing for more details on this. The current situation is also exacerbating salary inflation by eroding the purchasing power of workers through the price increases in necessities ranging from food to energy. This will further stress bottom lines. When it comes to the energy crisis caused by the conflict in Ukraine, will this have an impact on cloud computing and/or other digital segments in the industry? It was interesting to find out that, in 2021, big technology companies were among the largest buyers of renewable energy. While the linked article imputes this to sustainability motives, in hindsight, this could be also a move to become more resilient to energy shocks like the one we are living through.

The importance of resilience

While it is not possible for businesses to control macro trends such as supply chain disruption and inflation, it is indeed possible to design strategies that make them more resilient to these shocks. As mentioned earlier, localizing supply chains might be part of this effort, though this might take some time to implement. When it comes to labor, it will be down to effective human resource management to attract and retain staff (e.g., flexible working arrangements, etc.), as well as, inevitably, pay increases. Although these measures might cushion the impact of scarcity, the impact on bottom lines might be inevitable and become even more pronounced in 2022 due to the contribution of conflict.

