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## Global Supply Chain could be heading for new turbulence

Mature IC suppliers are still struggling with allocation issues due to shortage of wafer production capacity, and the outlook for 2022 remains unchanged since most investments in new wafer production lines focus on newest IC technology to benefit mass consumer products and emerging AI applications. So, it will still take time until there is enough production capacity to satisfy the hungry mature node IC technology market.

However, another threat has raised with the Russian invasion of Ukraine on Feb. 24<sup>th</sup> that imposes a big human tragedy, and our thoughts are with the many families whose lives are in great danger and have been disrupted suddenly by a war that it is difficult to grasp and find any human excuse for. We pray for them!

Other consequences of this war are the sanctions against Russia. Many people may not be aware that quite a big portion of important raw materials like palladium and neon gas is coming from Russia and Ukraine, or from mines owned and controlled by Russian influence.

According to foreign news media, the US sources 35% of its palladium from Russia, while Ukraine is responsible for nearly 70% of the world's neon gas capacity. Palladium is a key component for sensors and memory module manufacturing, while neon gas is a necessary resource for semiconductor lithography processes. Additional raw material gases that could be affected are argon, krypton and xenon.



Currently we don't have an overview, and it will probably take several months to collect and process all the information. So hopefully the war will be over soon. However, consequences of invading another country unprovoked could lead to long-term sanctions, and many downstream suppliers and factories may be unprepared for long-term disruptions to their supply chains. Therefore, EDT will keep monitoring the situation closely and do whatever we can to maintain a stable supply of goods to our customers best we can under the challenging circumstances.

### Sources:

<https://info.fusionww.com/blog/russia-invades-ukraine-how-war-could-impact-the-global-supply-chain>

<https://www.bloomberg.com/news/articles/2022-02-23/micron-ceo-says-working-around-supply-of-gases-from-ukraine>

