



Why It Is Important to Support Ukraine

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It appears that in each generation, a sinister person appears that is a menace to society. Since February 24, 2022, Russia has committed war crimes against the people of Ukraine. Russia's barbaric attacks on neighboring Ukraine threaten a free society across the globe. Unprovoked attacks and crimes against humanity, specifically large-scale attacks targeting civilians, must be stopped. Vladimir Putin's aggression threatens the food supply across Europe and beyond. Food insecurity is national security.

The ongoing conflict in Ukraine has far-reaching consequences, resulting in immense suffering for the citizens of Ukraine and destabilizing the region. However, amidst the turmoil, Ukraine's struggle for victory is not only a matter of territorial integrity but also a fight for democratic values, human rights, and the preservation of international order. This white paper will outline several compelling reasons why Ukraine should emerge triumphant in the war, emphasizing the importance of justice, self-determination, sovereignty, and the promotion of a peaceful and inclusive global community ruled by law.



1. Upholding Territorial Integrity:

Ukraine's fight for victory is rooted in its determination to safeguard its territorial integrity against external aggression. The invasion and annexation of Crimea by Russia in 2014, followed by the ongoing conflict in eastern Ukraine, have violated the principles of sovereignty and territorial integrity enshrined in the United Nations Charter. Ukraine's victory would not only restore its borders but also serve as a deterrent against further acts of aggression, sending a clear message that the international community stands firmly against such violations.

2. Defense of Democratic Values:

Ukraine's struggle is not merely a military confrontation but a battle to defend democratic values, human rights, and the right to self-determination. It is essential to recognize that Ukrainians have the right to shape their own political destiny, free from external interference. A Ukrainian victory would serve as a beacon of hope, inspiring other nations striving for democratic governance and reinforcing the belief that people's aspirations for freedom, justice, and democracy can overcome oppressive regimes.

3. Humanitarian Imperatives:

The war in Ukraine has resulted in a grave humanitarian crisis, with thousands of lives lost and millions displaced from their homes. A Ukrainian victory is crucial to alleviating the suffering of the affected population, providing them with the opportunity to rebuild their lives and communities. It would also enable the delivery of much-needed humanitarian aid to the war-torn regions, facilitating access to healthcare, food, and shelter for those in dire need.

4. Preserving International Order:

The outcome of the conflict in Ukraine is not confined to its borders. It has broader implications for the international order and the principle of maintaining a rules-based system. Ukraine's victory would reaffirm the importance of respecting international law, deterring future acts of aggression, and preserving the stability and security of the international community. It would demonstrate that unilateral actions and the violation of established norms will not go unchallenged, fostering a more secure and predictable world order.

Ukraine's Rightful Victory:

Ukraine's victory must not be seen as a victory over its adversaries but as an opportunity for peace, reconciliation, and unity. A successful resolution of the conflict should include efforts to heal the wounds of war, establish a framework for dialogue, and foster understanding among all parties involved. Ukraine can serve as a model for conflict resolution, emphasizing the importance of diplomacy, negotiation, and compromise in achieving lasting peace. Conclusion: Ukraine's quest for victory in the war is not only justified but essential for the preservation of fundamental principles and values. Upholding its territorial integrity, defending democratic values, addressing humanitarian concerns, preserving international order, and promoting peace and reconciliation are all powerful arguments in support of Ukraine's deserved triumph. As the international community, it is our collective responsibility to stand with Ukraine, support its just cause, and work towards a peaceful resolution that ensures a brighter future for its people and sets a precedent for generations to follow.

Ukraine's Imperative Victory - Reasons for Triumph in the Conflict against Russia

Introduction:

The ongoing conflict between Ukraine and Russia has been a matter of deep concern for the international community. As Ukraine continues to defend its sovereignty and territorial integrity, it is important to explore the reasons why Ukraine should emerge victorious in this war. This essay will shed light on several key factors that underline Ukraine's potential to overcome Russian aggression and secure a brighter future for its citizens.





1. **Right to Self-Determination:** Ukraine's struggle against Russia is fundamentally a fight for self-determination. Ukrainians have the inherent right to determine their own political, economic, and social systems without external interference. The international community must support Ukraine's aspirations for independence and respect its territorial integrity, as enshrined in international law.

2. **Resilient Spirit and National Unity:** Ukrainians have exhibited remarkable resilience and unity in the face of adversity. The conflict has galvanized the nation, fostering a strong sense of national identity and solidarity. This unity has allowed Ukrainians to endure hardships, and it serves as a powerful driving force behind their determination to prevail over Russian aggression.

3. **Strategic Geographical Location:** Ukraine's strategic geographical location makes it a pivotal player in the region. Its position as a bridge between Europe and Asia grants it significant geopolitical importance. By securing its independence, Ukraine can contribute to regional stability and ensure a peaceful coexistence between Eastern and Western powers.

4. **International Support:** Ukraine has garnered substantial international support in its struggle against Russian aggression. Many nations recognize the importance of upholding Ukraine's sovereignty and have provided political, economic, and military assistance. This support not only strengthens Ukraine's position but also sends a clear message to Russia that the international community stands united against its aggressive actions.

5. **Military Capabilities and Determination:** Ukraine has demonstrated its military capabilities and determination to defend its land. Despite facing significant challenges, the Ukrainian Armed Forces have showcased their professionalism, adaptability, and courage. With continued support and investment in defense capabilities, Ukraine can further enhance its military strength and deter further aggression.

6. **Economic Potential and European Integration:** Ukraine possesses substantial economic potential and resources, which, if harnessed effectively, can contribute to its long-term stability and development. The country has embarked on a path towards European integration, aiming to align its economic, legal, and political systems with European standards. A victory over Russia would enable Ukraine to fully realize its European aspirations, foster economic growth, and provide its citizens with a better quality of life.



- 7. Moral High Ground:** Throughout the conflict, Ukraine has maintained a moral high ground, upholding democratic values, human rights, and the rule of law. It has shown a commitment to inclusivity, diversity, and the protection of minority rights. By remaining steadfast in its principles, Ukraine has gained international admiration and further solidified its position as a just and legitimate actor in the conflict.
- 8. Preservation of Sovereignty:** The war with Russia is first and foremost a fight for Ukraine's sovereignty. A victory is essential to safeguard Ukraine's territorial integrity, independence, and the right of its people to determine their own future. Allowing Russia's aggression to go unchallenged would set a dangerous precedent, undermining the principles of international law and encouraging further encroachments on the sovereignty of other nations.
- 9. Regional and Global Stability:** The conflict between Ukraine and Russia has far-reaching implications for regional and global stability. A Ukrainian victory would contribute to the preservation of a stable and secure Eastern Europe, preventing the expansion of Russian influence and aggression into neighboring countries. By standing up to Russia's belligerent actions, Ukraine becomes a bulwark against destabilizing forces and promotes peace and security in the region.
- 10. Deterrence against Aggression:** Ukraine's victory would serve as a powerful deterrent against future acts of aggression by Russia or any other nation. It would demonstrate that the international community stands united in support of nations defending their sovereignty, sending a clear message that aggression will not go unpunished. Such deterrence is essential to prevent the recurrence of similar conflicts and protect the integrity of the global order.

Conclusion: Ukraine's journey towards victory in its war against Russia is not only crucial for its own sovereignty but also for the preservation of international norms and regional stability. The combination of Ukraine's right to self-determination, resilient spirit, strategic location, international support, military capabilities, economic potential, European integration aspirations, and moral high ground positions it as a formidable force against Russian aggression. By triumphing over this adversity, Ukraine has set a precedent for other nations striving to preserve their sovereignty and pave the way for a more secure and peaceful future.



Russia's motivations for seeking land from Ukraine are multifaceted and can be attributed to several factors. The following explanations are based on geopolitical considerations and historical context, but they do not justify or endorse Russia's actions.

1. **Historical and Cultural Ties:** Russia and Ukraine share a complex history intertwined by cultural, linguistic, and historical connections. Ukraine was once part of the Soviet Union and has a significant Russian-speaking population. Some Russians view Ukraine as an integral part of their historical and cultural heritage, leading to a perception that Russia has a right to exert influence and control over Ukrainian territory.

2. **Geopolitical Influence:** Ukraine holds strategic importance for Russia from a geopolitical perspective. Its territory provides access to the Black Sea, enabling Russia to maintain a significant presence in the region and project power in the Mediterranean. Controlling Ukrainian land would enhance Russia's geopolitical leverage and secure its interests in Eastern Europe.

3. **Security Concerns:** Russia has expressed concerns over its security and the protection of ethnic Russians living in Ukraine. The Russian government claims to intervene in Ukraine to safeguard the rights and well-being of Russian-speaking populations, particularly in Crimea and eastern Ukraine. However, these concerns have been met with significant criticism, as the actions taken by Russia have violated Ukraine's sovereignty and international law.

4. **Energy Resources:** Ukraine possesses significant energy resources, including natural gas reserves and transit routes for Russian energy exports to Europe. Russia has historically used its control over energy supplies to exert influence over neighboring countries. By gaining control over Ukrainian territories, Russia could maintain a stronger grip on energy resources and maintain leverage over European energy security.

5. **Geostrategic Balance:** For Russia, maintaining a sphere of influence in Eastern Europe is crucial to maintaining a balance of power within the region. Ukraine's alignment with Western institutions, such as the European Union and NATO, threatens Russia's perceived dominance in its near abroad. By bringing Ukraine into its orbit or preventing its alignment with the West, Russia seeks to preserve its regional influence and counterbalance Western powers.



6. Historical Insecurities: Russia has historically been concerned about encroachment from the West. The expansion of NATO and the European Union into former Soviet territories is seen by Russia as a threat to its own security and influence. Acquiring land from Ukraine can be viewed as a defensive measure aimed at protecting Russia's perceived sphere of influence and preventing further Western encroachment. It is important to emphasize that these factors do not justify Russia's actions or the violation of Ukraine's sovereignty. The international community widely condemns Russia's aggression and calls for a peaceful resolution to the conflict based on respect for Ukraine's territorial integrity and the principles of international law.

Russia's Quest for Natural Resources in Ukraine: Motivations and Implications

Russia's interest in Ukraine extends beyond geopolitical considerations and historical ties. The abundance of natural resources present in Ukraine has also played a significant role in Russia's desire to gain control or influence over Ukrainian territories. This essay delves into the natural resources coveted by Russia in Ukraine, examining their motivations and the potential implications of their pursuit.

1. Energy Resources: One of the primary natural resources that Russia seeks in Ukraine is energy, particularly natural gas reserves. Ukraine possesses vast reserves of natural gas, and it has historically been a crucial transit route for Russian gas exports to Europe. By gaining control over Ukrainian territories, Russia can secure its energy supply lines, maintain a dominant position in the European energy market, and exert influence over European energy security.

2. Agricultural Resources: Ukraine boasts fertile farmlands and is often referred to as the "breadbasket of Europe." Its agricultural sector is a significant contributor to its economy, producing grains, oilseeds, and other agricultural commodities. Russia's interest in Ukrainian agricultural resources stems from the potential to strengthen its own food security and reduce its reliance on food imports. Control over Ukrainian agricultural lands would provide Russia with a reliable source of food production and export potential.

3. Mineral Resources: Ukraine possesses a wide range of mineral resources, including iron ore, coal, manganese, titanium, and other valuable minerals. These resources are crucial for industrial production, including steel, machinery, and chemical manufacturing. Russia's interest in Ukrainian mineral resources lies in securing access to these vital inputs for its own industrial and economic needs.



4. Water Resources: Ukraine is home to several major rivers, including the Dnieper and Dniester, which are essential water sources for both agricultural and industrial purposes. Control over Ukrainian territories would give Russia greater influence over water resources, enabling it to manipulate water flow, irrigation, and hydroelectric power generation. This control could provide Russia with leverage over Ukraine's agricultural productivity and energy infrastructure.

Implications and Concerns:

1. Economic Dependency: If Russia were to gain control over Ukrainian natural resources, it could deepen Ukraine's economic dependency on Russia. This would grant Russia significant leverage over Ukraine's economy and potentially hinder its economic development and diversification efforts.

2. Environmental Concerns: The extraction and exploitation of natural resources comes with significant environmental challenges. If Russia were to gain control over Ukrainian territories with valuable resources, there would be concerns about the environmental impact of resource extraction, potentially leading to ecological degradation and long-term environmental consequences.

3. Geopolitical Leverage: Russia's control over Ukrainian natural resources would enhance its geopolitical leverage in the region. The ability to manipulate energy supplies, agricultural exports, and industrial inputs would give Russia significant influence over Ukraine, neighboring countries, and even European nations dependent on Ukrainian resources.

4. Violation of Ukraine's Sovereignty: Russia's pursuit of Ukrainian natural resources raises serious concerns about the violation of Ukraine's sovereignty and territorial integrity. The quest for resources cannot justify the infringement of international law and the rights of a sovereign nation. Conclusion: While natural resources undoubtedly play a role in Russia's interest in Ukraine, it is crucial to approach this issue with caution and respect for Ukraine's sovereignty. The pursuit of resources should not come at the expense of Ukraine's independence, stability, and economic development.

The international community must prioritize a peaceful resolution to the conflict, upholding Ukraine's territorial integrity, and ensuring the responsible management.



What rare earth minerals does Ukraine possess?

Ukraine possesses several rare earth minerals, which are a group of elements that are vital for various industrial and technological applications. While Ukraine's rare earth mineral reserves are not as extensive as those of other countries such as China or Russia, it still holds significant potential in this regard. Rare earth minerals found in Ukraine include:

1. Zirconium: Ukraine is known to have substantial reserves of zirconium minerals, particularly in the central and eastern regions. Zirconium is a valuable rare earth mineral used in various industries, including nuclear energy, aerospace, and electronics.

2. Titanium: Ukraine is one of the largest producers of titanium minerals globally. The country's titanium reserves are primarily concentrated in the Crimean Peninsula and the Kryvyi Rih region. Titanium is a crucial rare earth mineral utilized in aerospace, defense, and chemical industries.

3. Niobium: Ukraine possesses significant niobium reserves, particularly in the Kryvyi Rih iron ore basin. Niobium is a rare earth metal with exceptional strength and heat resistance properties, making it valuable for applications in steel production, superalloys, and electronics.

4. Rare Earth Elements (REEs): Ukraine also possesses some deposits of rare earth elements, including **lanthanum, cerium, neodymium, and samarium**. These elements are integral components in the manufacturing of magnets, electronic devices, energy-efficient lighting, and renewable energy technologies. It is important to note that the exact extent of Ukraine's rare earth mineral reserves and their commercial viability may vary based on ongoing exploration and development efforts. Furthermore, the conflict in eastern Ukraine has had significant implications for the exploration and extraction of these minerals, impacting the country's ability to fully exploit its rare earth resources.

Ukraine possesses significant oil and gas reserves, although exploration and production activities have faced challenges due to various factors, including geopolitical tensions and limited investment. The key details about Ukraine's oil and gas reserves include:

1. Natural Gas Reserves: Ukraine has substantial natural gas reserves, primarily located in the Dnieper-Donets Basin in the eastern part of the country. According to



estimates, Ukraine's proven natural gas reserves are around 1.1 trillion cubic meters. However, it is important to note that the extraction of these reserves has been affected by the ongoing conflict in eastern Ukraine and limited investment in infrastructure and technological advancements.

2. Shale Gas Potential: Ukraine also has significant potential for shale gas production. The country's largest shale gas reserves are located in the Olesska field in western Ukraine. The U.S. Energy Information Administration (EIA) estimated Ukraine's technically recoverable shale gas resources at 1.2 trillion cubic meters, making it one of the largest shale gas reserves in Europe. However, the development of shale gas resources has been hindered by regulatory challenges and the need for advanced technologies and investment.

3. Oil Reserves: Ukraine's oil reserves are smaller than its natural gas reserves. Most of Ukraine's oil reserves are in the Carpathian region in western Ukraine and the Black Sea Shelf. The country's proven oil reserves are estimated to be around 395 million barrels. However, Ukraine has not been a significant oil producer, and its oil production has declined in recent years.

4. Dependence on Imports: Despite having significant reserves, Ukraine has been dependent on natural gas imports from other countries, mainly Russia. This dependency has been a key concern for Ukraine's energy security and has prompted efforts to diversify its energy sources and reduce reliance on imported gas.

5. Reforms and Potential Investment: Ukraine has undertaken reforms in the energy sector to attract foreign investment and modernize its infrastructure. Efforts have been made to enhance transparency, improve the regulatory framework, and create a more favorable investment climate. These reforms aim to stimulate exploration and production activities and unlock the full potential of Ukraine's oil and gas reserves. It is important to note that the ongoing conflict in eastern Ukraine has significantly impacted the exploration and production of oil and gas reserves in the region. The resolution of the conflict and increased investment in infrastructure and technologies are crucial for Ukraine to fully exploit its oil and gas potential and enhance its energy independence.

The seaports of Ukraine play a significant role in the country's economy and have strategic importance for both international trade and national security. The key points highlighting the importance of Ukrainian seaports include:



1. International Trade: Ukraine's sea ports serve as major gateways for international trade, facilitating the import and export of goods. They handle a significant portion of Ukraine's foreign trade, enabling the country to connect with global markets and participate in international supply chains.

2. Access to the Black Sea: Ukraine's sea ports provide the country with direct access to the Black Sea, which is an important maritime route connecting Europe, Asia, and the Middle East. This location allows Ukrainian ports to serve as vital transshipment hubs for goods moving between these regions.

3. Export of Commodities: Ukrainian sea ports handle large volumes of key commodities, such as grain, iron ore, coal, and oil products. Ukraine is one of the world's leading exporters of grain, and its ports handle substantial grain shipments, contributing to the country's agricultural sector and generating export revenue.

4. Energy Sector: Ukraine has oil and gas reserves in its territorial waters, and its seaports are crucial for the transport and export of energy resources. Odessa and Yuzhnyi ports, for example, play a significant role in the export of Ukrainian oil products and natural gas.

5. Industrial and Manufacturing Support: Sea ports in Ukraine are essential for the transportation of raw materials, equipment, and components needed by various industries and manufacturing sectors. They provide logistical support and supply chain infrastructure, ensuring the efficient delivery of goods to domestic industries and facilitating their export.

6. Regional Connectivity: Ukrainian sea ports contribute to regional connectivity by serving as important transportation links for neighboring countries. They provide transit routes for landlocked countries such as Moldova, Belarus, and parts of Russia, enabling them to access global markets through Ukrainian ports.

7. National Security: The control and security of sea ports are crucial for Ukraine's national security. They are vital for the country's defense capabilities, allowing for the deployment and resupply of naval forces. Additionally, ensuring the security and integrity of ports is important to prevent illegal activities, such as smuggling and trafficking, which can have adverse social and economic consequences.

The seaports of Ukraine are of immense importance for the country's economy, international trade, regional connectivity, and national security. They support various



industries, facilitate the movement of goods, and enable Ukraine to participate in global trade networks.

Ukraine's seaports handle a diverse range of exports, including both raw materials and manufactured goods. The key exports that go through Ukrainian ports include:

1. **Agricultural Products:** Ukraine is known for its agricultural sector, and its seaports handle significant volumes of agricultural exports. This includes grains such as **wheat, corn, barley, and rapeseed, as well as oilseeds, including sunflower seeds and soybeans**. These agricultural products are primarily exported to international markets, contributing to Ukraine's position as one of the world's leading grain exporters.

2. **Iron and Steel Products:** Ukraine has a well-developed metallurgical industry, and its seaports play a crucial role in exporting iron and steel products. These exports include **steel coils, sheets, pipes, and other metal products**. The ports enable the efficient transportation of these goods to global markets, supporting Ukraine's steel industry and generating export revenue.

3. **Energy Resources:** Ukrainian sea ports are important for the export of energy resources. This includes oil products, such as **diesel fuel, gasoline, and liquefied petroleum gas (LPG)**. Additionally, natural gas produced in Ukraine is transported through pipelines to terminals at the ports for export to other countries.

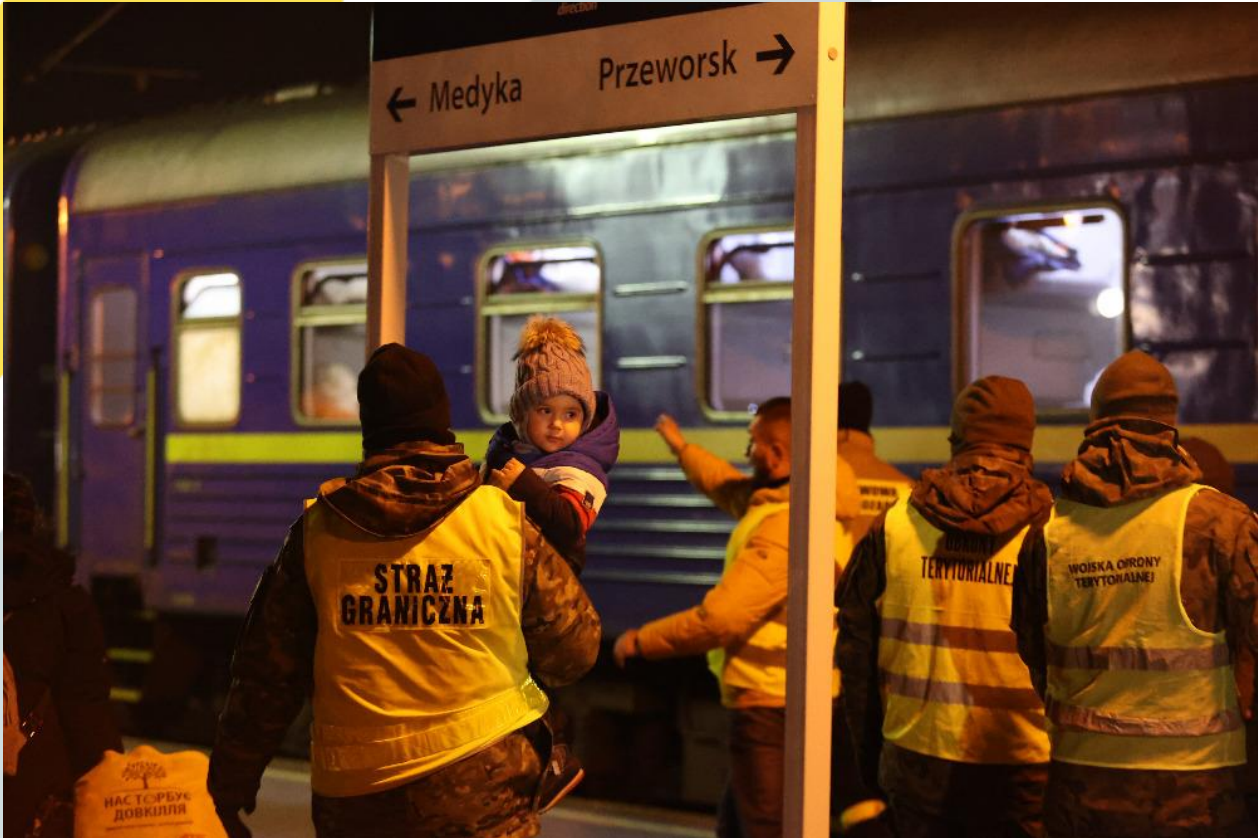
4. **Chemical Products:** Ukraine has a significant chemical industry, and its seaports handle the export of various chemical products. This includes fertilizers (such as **urea and ammonium nitrate**), **polymers, plastics, and other chemical compounds**. These exports contribute to Ukraine's chemical sector and its presence in global markets.

5. **Coal:** Ukraine has substantial coal reserves, and its seaports facilitate the export of coal to international markets. While the country has been diversifying its energy sources, coal exports remain significant, particularly for thermal coal used in energy production.

6. **Timber and Wood Products:** Ukrainian sea ports handle the export of timber and wood products, including sawn timber, plywood, and wood pellets. Ukraine has vast forest resources, and these exports contribute to the country's forestry sector and its presence in the global timber market.

7. **Agricultural and Food Products:** In addition to grains, Ukraine's sea ports facilitate the export of other agricultural and food products. This includes vegetable oils (such

as sunflower oil), sugar, meat and poultry products, dairy products, and processed foods. Ukrainian food exports are recognized worldwide for their quality and contribute to the country's agri-food industry. It's important to note that the specific export mix can vary over time, depending on market conditions, global demand, and domestic production levels. The above list highlights some of the major export categories that go through Ukrainian sea ports, but it is not exhaustive.



Ukraine holds strategic importance for Europe due to several factors. The reasons why Ukraine is important to Europe include:

1. **Geographical Location:** Ukraine is the largest country in Europe by land area and serves as a gateway between Europe and Asia. Its location provides a crucial link and transit route for energy resources, trade, and transportation between Eastern Europe and the rest of the continent.
2. **Energy Transit:** Ukraine plays a crucial role in the transit of natural gas and oil from Russia and other neighboring countries to European markets. Major pipelines, such as the Druzhba pipeline and the Ukrainian transit system, pass through Ukraine. The stability and reliability of Ukraine as an energy transit country impact the energy security of Europe.



3. **Trade and Economic Relations:** Ukraine has a large population and a diverse economy, making it an important trading partner for many European countries. Ukraine's exports, particularly in the agricultural and industrial sectors, contribute to European supply chains and economic integration.

4. **European Integration:** Ukraine has expressed aspirations for closer integration with the European Union (EU). The Association Agreement between Ukraine and the EU, which includes a Deep and Comprehensive Free Trade Area, signifies the importance of Ukraine as a partner in European integration efforts. Ukraine's progress in implementing reforms and aligning with European standards can contribute to stability and prosperity in the region.

5. **Security and Stability:** Stability and security in Ukraine are vital for Europe's overall security architecture. Ukraine's ongoing conflict with Russia and the illegal annexation of Crimea have implications for regional security dynamics. The resolution of the conflict and the restoration of Ukraine's territorial integrity are important for maintaining stability and peace in the broader European context.

6. **Democratic Values and Human Rights:** Ukraine's pursuit of democratic reforms, rule of law, and respect for human rights aligns with European values. A stable and democratic Ukraine can serve as an example and inspiration to other countries in the region, promoting democracy and good governance.

7. **Cultural and Historical Ties:** Ukraine has a rich cultural heritage and historical connections with many European countries. These ties, along with shared cultural values, contribute to the sense of European identity and the cultural diversity of the continent. It's important to note that the importance of Ukraine to Europe can vary depending on different perspectives and interests. Nonetheless, these factors underline Ukraine's significance in the context of European geopolitics, security, economy, and integration efforts.

Ukraine has several areas where it demonstrates leadership and expertise on a global scale.

The areas where Ukraine has made notable contributions or leads the world:

1. **Agriculture and Food Production:** Ukraine is known as the "breadbasket of Europe" due to its significant agricultural potential. The country is a leading producer and exporter of various agricultural commodities, including grains (such as wheat, corn, and barley), oilseeds (particularly sunflower seeds), and vegetable oils (such as



sunflower oil). Ukraine's agricultural sector benefits from its fertile soil, favorable climate, and extensive farming practices. 70% of Ukraine is farmland.

2. Aerospace and Aviation: Ukraine has a strong aerospace industry and has made significant contributions in the field of aviation. The country has a long history of producing aircraft, including Antonov airplanes—the Antonov An-225 Mriya is the largest cargo aircraft in the world. Ukraine also manufactures engines, satellites, and space systems. The country's expertise in aerospace engineering, research, and development is recognized globally. During the battle of the Antonov Airport in 2022 Russian Invasion, the only Antonov An-225 Mriya was destroyed.

3. IT and Software Development: Ukraine has emerged as a leading destination for IT outsourcing and software development services. Ukrainian IT companies are known for their technical expertise, skilled workforce, and competitive pricing. The country has a vibrant tech startup ecosystem and is recognized for its software engineering capabilities, particularly in areas such as web development, mobile applications, artificial intelligence, and cybersecurity.

4. Heavy Machinery and Engineering: Ukraine has a strong industrial base, and its heavy machinery and engineering sectors are notable contributors to the global market. Ukrainian companies are involved in the production of machinery and equipment for various industries, including mining, metallurgy, energy, and agriculture. Their products range from mining equipment and turbines to heavy-duty machinery and industrial automation systems. Ukraine developed the flash butt welding process which is the primary way railroad rail is fused together around the world to eliminate the clackety-clack of the conventional bolted railroad joints.

5. Science and Education: Ukraine has a rich scientific and educational heritage. The country boasts a strong scientific community and has made significant contributions to fields such as mathematics, physics, chemistry, and space research. Ukrainian scientists and researchers have been recognized globally for their work and have made noteworthy discoveries and advancements in various scientific disciplines.

6. Olympic Sports: Ukraine has achieved success in international sports competitions, particularly in Olympic disciplines. The country has a strong tradition in sports such as gymnastics, wrestling, boxing, athletics, weightlifting, and biathlon. Ukrainian athletes have won numerous medals at the Olympic Games and other major sporting events, showcasing the country's sporting prowess and dedication to athletic excellence. These are just a few examples of areas where Ukraine demonstrates leadership or



notable achievements on a global scale. Ukraine's contributions in these fields highlight its expertise, potential, and impact in various sectors.

Ukraine has a second Army. The term "second army" is in reference to the Ukrainian Railway. It might be an informal expression or metaphor used to emphasize the importance and significance of the railway system in Ukraine. The Ukrainian Railway, also known as Ukrzaliznytsia (UZ), is significant to Ukraine for several reasons:

1. **Strategic Importance:** The railway system plays a crucial role in the infrastructure and transportation network of any country. It facilitates the movement of goods, resources, and people across the country, connecting various regions and supporting economic activities. In this context, referring to the Ukrainian Railway as the "second army" could signify its strategic importance and the critical role it plays in supporting the functioning and development of the nation.

2. **Mobilization and Logistics:** Historically, railways have played a significant role in military operations, particularly in times of war or conflict. They are essential for troop movements, supply distribution, and logistical support. By comparing the Ukrainian Railway to the "second army," it highlights its potential capacity to support national defense and contribute to the logistical needs of the military if necessary.

3. **Economic Strength:** A well-developed and efficient railway system can have a positive impact on a country's economy. It enables the transportation of goods, promotes trade, and supports industrial sectors that rely on efficient logistics. Referring to the Ukrainian Railway as the "second army" could reflect the economic significance of the railway system, underscoring its role in driving economic growth and development. It's important to note that without a specific context or source for the term "second army" in relation to the Ukrainian Railway, its exact meaning and usage





can vary. The expression may simply be a metaphorical way of emphasizing the importance and impact of the railway system in Ukraine, rather than an official or universally recognized designation.

4. Transportation Network: The Ukrainian Railway forms the backbone of the country's transportation network, connecting various regions and cities across Ukraine. It provides passenger and freight transportation services, facilitating the movement of people, goods, and resources throughout the country. The railway network covers a vast territory and plays a crucial role in Ukraine's domestic mobility and accessibility.

5. International Trade: Ukraine's railway system is crucial for its international trade activities. It serves as a major transportation link between Europe, Asia, and other neighboring countries. The railway infrastructure facilitates the movement of goods to and from Ukraine's seaports, allowing for the import and export of commodities. Efficient rail connections are essential for maintaining Ukraine's trade relationships, supply chains, and integration into global markets.

6. Energy Transit: Ukraine is an important transit country for natural gas and oil pipelines, and the Ukrainian Railway plays a role in transporting energy resources. It connects pipelines and terminals, enabling the movement of oil and gas products within the country and to neighboring countries. The railway system supports Ukraine's energy infrastructure and contributes to its energy transit capabilities.

7. Regional Connectivity: The Ukrainian Railway provides crucial transportation connections to neighboring countries, fostering regional connectivity. It enables passenger and freight movements between Ukraine and countries such as Russia, Belarus, Poland, Slovakia, Hungary, and Romania. These connections facilitate cultural



exchanges, trade, tourism, and diplomatic relations, strengthening Ukraine's ties with its neighbors.

8. **Social Mobility:** The Ukrainian Railway plays a vital role in providing affordable and accessible transportation options for the population. It allows people to travel for work, education, healthcare, and leisure purposes. The railway system helps connect rural areas with urban centers, contributing to social cohesion and improving the quality of life for Ukrainians across the country. Overall, the Ukrainian Railway is essential to Ukraine's domestic and international connectivity, economic development, trade, energy infrastructure, regional integration, and social mobility. Its efficient operation and continuous improvement are crucial for supporting Ukraine's overall growth and prosperity.

The term "Iron Family" is not a commonly recognized term. It is however universally used within the railway industry to describe those involved across the railroad industry whether, directly or indirectly. It describes those working directly for the railroad, those in support of the railroad as a railway educator, railway contractor, railway supplier, or any number of support companies within the railway industry. For over 200 years locomotives have been referred to as the "Iron Horse". The periodic table of elements, where element 26 is iron (Fe) was used years ago to describe the composition of railroad rail. Today railroad rail is made of high carbon steel with additional special alloys for specific purposes. Ukraine has a significant metallurgical sector, and its steel industry is one of the largest in Europe. The country has a rich history of iron and steel production, and the sector contributes to Ukraine's economy and export revenue. Major steel-producing companies in Ukraine include Metinvest, ArcelorMittal Kryvyi Rih, and Dnipro Metallurgical Plant.



Ukraine is known for its rich agricultural resources, and it is a leading producer of several commodities. Some of the key commodities that Ukraine is known for include:

1. **Grain:** Ukraine is **one of the world's largest producers and exporters of grain**, particularly **wheat and corn**. The country benefits from its fertile soil and favorable climate for grain cultivation. **Farmland covers 70% of Ukraine.**
2. **Sunflower Oil:** Ukraine is a major global producer of sunflower oil, which is extracted from sunflower seeds. The country's favorable climate and vast farmland make it an ideal location for sunflower cultivation.



3. **Steel:** Ukraine has a well-developed steel industry and is known for its production of steel and iron ore. The country has abundant iron ore reserves and a strong metallurgical sector.

4. **Vegetable oils:** Apart from sunflower oil, Ukraine also produces a significant amount of other vegetable oils, including soybean oil and rapeseed oil. These oils are used in various food products and industrial applications.

5. **Eggs:** Ukraine is one of the largest producers of eggs in Europe. The country has a well-established poultry industry, and eggs are a significant agricultural commodity.

6. **Sugar:** Ukraine is a major producer of sugar, derived from sugar beets. The country's favorable climate and agricultural resources support a thriving sugar industry.

7. **Dairy products:** Ukraine has a significant dairy industry and produces a variety of dairy products, including milk, cheese, and butter. It's important to note that commodity production can vary from year to year based on factors such as weather conditions, market demand, and government policies.

Ukraine is a major exporter of agricultural products and supplies food to various countries around the world. Some of the countries that rely on Ukraine as a significant source of food include:

1. **European Union (EU) countries:** Ukraine's agricultural products, particularly grains, vegetable oils, and sunflower products, are in high demand in many EU member states. Countries such as the Netherlands, Spain, Germany, and Italy are among the main importers of Ukrainian agricultural goods.

2. **Turkey:** Ukraine is a significant supplier of agricultural products to Turkey. Wheat, corn, sunflower oil, and poultry are among the key food items exported from Ukraine to Turkey.

3. **China:** China is an important market for Ukrainian agricultural exports, particularly grains and oilseeds. Ukraine is one of the major suppliers of corn and sunflower oil to China.



4. **Egypt:** Ukraine is a major supplier of wheat to Egypt, which is one of the world's largest importers of the commodity. Ukraine's proximity to Egypt, along with its competitive pricing and quality, makes it a preferred source of wheat for the country.

5. **Southeast Asian countries:** Ukraine exports agricultural products to various countries in Southeast Asia, including Malaysia, Indonesia, Vietnam, and the Philippines. These countries import commodities such as grains, vegetable oils, and poultry from Ukraine.

6. **North African countries:** Apart from Egypt, other North African countries, such as Algeria, Tunisia, and Morocco, import agricultural products from Ukraine. Wheat, corn, and sunflower oil are among the key commodities exported to these countries.

7. **Middle Eastern countries:** Ukraine supplies food products to several countries in the Middle East, including Saudi Arabia, Iraq, the United Arab Emirates, and Jordan. Grains, sunflower oil, and poultry are among the main food items exported to these markets. It's worth noting that the specific countries where Ukraine supplies food can vary over time due to changes in market demand, trade agreements, and geopolitical factors.

Ukraine is a significant exporter of fertilizers on the world market, and it utilizes various transportation modes, including rail, trucks, and ports, to facilitate its fertilizer exports. Rail: Ukraine has an extensive rail network that plays a crucial role in transporting fertilizers from production facilities to domestic distribution centers and export terminals. Rail transportation is commonly used for moving large volumes of fertilizers across the country and for export to neighboring countries. Truck: Trucks are also used for the transportation of fertilizers within Ukraine and for short-distance exports to neighboring countries. They provide flexibility in reaching smaller distribution centers or areas not served by rail. Ports: Ukraine has several major ports on the Black Sea,

including Odessa, Yuzhny, and Chornomorsk, which serve as important export hubs for fertilizers. These ports have modern facilities and handle large volumes of fertilizers for shipment to global destinations. Fertilizers are transported to the ports by rail or trucks and loaded onto ships for international trade. The transportation infrastructure in Ukraine, including railways, road networks, and port facilities, supports the efficient movement of fertilizers to domestic and international markets. The country's advantageous location on the Black Sea coast enables convenient access to global markets, making it a significant player in the fertilizer export industry.

The situation between Russia and Ukraine is complex and dynamic, and it is influenced by various factors, including political, military, and diplomatic considerations. It is worth

noting that tensions between Russia and Ukraine have existed for several years, particularly since Russia's annexation of Crimea in 2014 and the ongoing conflict in eastern Ukraine. The conflict has resulted in significant human suffering and geopolitical implications. The outcome of any war or conflict depends on multiple factors, including the military capabilities and strategies of the involved parties, the level of international support, political dynamics, and the ability to reach a negotiated settlement. These factors can change over time, making it challenging to predict the outcome of a war accurately. It is important to focus on efforts to promote peace, diplomatic negotiations, and international cooperation to resolve conflicts and minimize human suffering.

Hospital Trains





Hospital Trains first appeared ironically in the 1850's during the Crimean War. Fast forward 172 years to 2022 and Hospital Trains were crucial in assisting the wounded Ukrainian Soldiers since 2022. Hospital trains also appeared in WW1 and WW2. The strong-willed Ukrainian railroad workers across the country are often referred to as the second army. What makes Ukraine different across the 13,500 miles of track is the 267,333 members of the Ukrainian Railways (UZ) who continued to operate, and were responsible for evacuating, and rescuing millions of people across the county to cities along the European border. The Ukrainian Railway workers did it day after day and night after night to transport those in need to safety. As workers returned, they kept the trains running on time and continue to do so today.







Ukrainian Railways (UZ)



Ukrainian Railways (UZ) is a state-owned, joint stock company administering railway infrastructure and rail transport in Ukraine. Ukrainian Railways is the world's sixth largest rail passenger transporter and world's seventh largest freight transporter. Since the start of the conflict on 24 February 2022, over 6,000km (3,728 Miles) of railway tracks have been damaged and become non-operational in Ukraine and 359 objects of railway infrastructure have been damaged. They have a workforce of 267,333, of which more than 300 have sadly lost their lives, 19 of them while on duty. More than 650 have been injured.

The Ukrainian Railways' contribution to the war effort should not be underestimated. Since the beginning of the conflict, they have:

- Transported over 4 million people to safety – 1 million of these being children – and an estimated 120,000 pets.
- Radically reprofiled and adapted their operational and infrastructure timelines to ensure minimal disruption to services.
- Within 8 days established a hospital train to transport the injured, sick and medical professionals.
- Rebuilt the bridge at Irpin, a strategic suburb west of Kyiv, in 29 days – a task which would normally take months.
- Enabled over 200 delegations of world leaders and diplomats to travel into Ukraine as well as transporting President Zelensky.
- Initiated the Children's Railway initiative to engage children in the railway so that their association isn't just one of evacuation and war, but to demonstrate the potential of rail for adventure and fun. They have an ambition to become the most child friendly railway in the world.
- Have been critical in the movement of military personnel and materials as well as civilian freight traffic such as grain exports.



A true demonstration of UZ's resilience is the fact that since the war began in late February 2022, their services haven't stopped for more than a couple of hours at a time.

ABOUT THE GLOBAL UKRAINE RAIL TASK FORCE

The primary aim of the Global Ukraine Rail Task Force is to provide a roundtable to analyze the impact of Russia's aggressive invasion on Ukraine's rail sector and to seek solutions. The twin goals are to address the humanitarian crisis enveloping the rail sector as well as rebuilding the rail infrastructure to replace war damage and meet the long-term needs of a democratic Ukraine linked to the European Union.

THE TASKFORCE'S FOUR OBJECTIVES

The Task Force will work with political stakeholders and reach out to experts in the international rail community to implement our core objectives, providing cross-functional expertise. The Task Force will vet obstacles and attempt to identify practical solutions through our members as well as governmental and industry allies.

Our Four Objectives are:

1. **Address the humanitarian crisis.** This starts with a commitment to i) support railway employees and their families who are suffering from the invasion; ii) to rescue and place Ukrainian refugees through the mobilization of special chartered trains that take people out and bring supplies back in.
2. **Rebuild the Rail Sector Infrastructure.** In the short term the destroyed track, bridges and electricity sub-stations must be replaced.
3. **Address Passenger Rail Capacity.** Increase of commuter and passenger rail capacity, on both domestic and international routes, as the best way to move people in the coming years. Reduction of dependency on air and highways for personal travel will underly a plan to expand commuter and intercity passenger rail growth both in the short term and long term.
4. **Maximize Freight Capacity.** A primary focus will be on continuing quick rehabilitation of infrastructure (Task Force Objective 2) as well as technologies and improvements necessary to expand the throughput of all goods. This includes grain, oil, metals, and ore supplies towards the EU for maximum replacement of current Russian exports; and fuel also in the reverse direction where Ukraine is in need.

Below: The Taskforce meets with the Ukrainian Railway Union. The Global Taskforce presents a check to the Management Team of the Ukrainian Railway.



TASK FORCE Members:

- **Honorable Congresswoman Marcy Kaptur, Honorary Chair** - Co-Chair of Ukrainian Congressional Caucus in the US House of Representatives
- **Jolene Molitoris, Chair** - former US Federal Railroad Administrator
- **Nick Brooks, Co-Chair** - Secretary General of Alliance of Rail New Entrants in Europe (ALLRAIL)
- **Ray Chambers, Vice Chair** - President of US Association of Innovative Passenger Rail Operations (AIPRO)
- **Yuriy Maslikov** - CEO of the privately owned Ukrainian freight rail operator Ost-West Logistik Netzwerk GmbH (OWLN)
- **Lord Tony Berkeley** - member of the UK House of Lords and former President of the European Rail Freight Association (ERFA)
- **Jon Michael McGrath** - Owner of McGrath Rail, Tulsa, Oklahoma, USA
- **Peter Gibbons** - Chief Security Officer at UK rail infrastructure manager Network Rail
- **Tim Hollaway** - Former Polish rail freight operator - Recording Secretary
- **Katharina Dekeyser (ALLRAIL)** – Alternate to Mr Brooks
- **Mason Baxter (AIPRO)** – Alternate to Mr Chambers
- **Jon Michael McGrath II** – Alternate to Mr McGrath

About the Author



A fifth-generation railroader, Jon M. McGrath started working for his father at the age of 14 on a track crew. Eventually moving up to equipment operator, track foreman, superintendent, vice president and president. Jon M. McGrath is currently Chairman & CEO of McGrath Rail a firm founded by his Second Great Grandfather in 1865 to build western expansion track for the Chicago, Burlington & Quincy Railroad (CB&Q), the mother road of what today is known as the Burlington Northern Santa Fe Railway Company (BNSF). Since joining the family firm in 1973, McGrath has provided management and consultation on numerous projects across the United States. The McGrath firm designs, constructs, inspects, and maintains railroads for short line, military, mass transit, industrial railroad, and amusement park customers. McGrath has been involved in the construction of several Intra-City and Inner-City Mass Transit Systems across the United States including San Diego, Long Beach, Los Angeles, Sacramento, San Jose, San Francisco, Portland, Dallas, Galveston, Oklahoma City, Baltimore and Washington, DC. A native Tulsan, McGrath



was educated at Bishop Kelley High School, Crowder College, The University of Oklahoma, and Tuck Business School at Dartmouth College.

McGrath was on the Leadership Team for the 4-to-fix the County (Tulsa) in 2005 to fund needed repairs at Expo Square, Bridges, Roads, Flood Mitigation and Tulsa County Parks. He is the former Chairperson of the National Railroad Construction & Maintenance Association based in Washington, DC. He sat on their Board of Directors for 26 years and is a member of their Railroad Hall of Fame. McGrath formerly served on the Tulsa Industrial Authority for 18 years and the Board of Directors at the MidwayUSA Foundation. Jon M McGrath also served as Vice Chairman of the Tulsa Port Authority, Board of Directors, the most inland navigable river port in the United States. McGrath currently serves as Chairman of the Google AERO Games, a STEM competition for high school youth teams across Eastern Oklahoma based at Rogers State University in Claremore, Oklahoma and is an elected member of the Board of Directors of the Association for Innovative Passengers Rail Operators (AIPRO) based in Washington, DC. In 2021, McGrath received the Commanders Commendation for Outstanding Public Service from the US Army Corp of Engineers. Jon M. McGrath is a voting citizen of the Cherokee Tribe and Nation. In February 2022, McGrath was elected to the Global Ukraine Rail Task Force. McGrath is a Private Pilot and enjoys travel.

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